



Needle & Cartridge Guide

Number 33



Pfanstiehl



Display Card

Popular Needles — Specially Priced

STEREOTIP NEEDLES — ALL WITH .7 MIL SYNTHETIC SAPPHIRE TIP TO PLAY EITHER STEREO OR MONAURAL LP RECORDS

FULLY
GUARANTEED,
BUT NO
EXCHANGE
PRIVILEGE ON
CARDED
NEEDLES



Card No.

Picture

C-164-SS77
C-272-SS77
C-352-S7
C-700-S7
C-702-S7
C-863-SS77



Several popular needles available on individual cards. See Accessory Catalog.



Conventional Needles

For all setscrew and thumbscrew cartridges



SS Steel Needles,
Box of 50 envelopes,
25 needles per envelope.

Sugg.
Sell
.75

SS/BOX 50

BAS-S Conventional set-screw need
and PK/25 SS-S needles available
on individual Blisterpack cards.

SEE ACCESSORY CATALOG.



Please Note!

PLEASE BE CERTAIN YOU PUT YOUR NAME AND ADDRESS ON MAIL ORDERS!

We receive two or three orders EVERY WEEK with no identification on them. There must be scores of PFANSTIEHL Dealers who think we don't care about orders, but believe us, WE DO CARE, and we go to great lengths to see that every order is properly handled.

We used to be able to check the postmark, the handwriting, etc., and often run down the name and address — or even write to all the dealers in the town asking if they had sent in the order — but this is no longer possible. The Post Office now uses "U.S. Postal Service" postmarks instead of identifying the city. We cannot identify an order so postmarked.

IT'S FRUSTRATING — TO US, AND TO THE DEALER WHO NEVER GETS HIS MERCHANDISE!

PLEASE — BE SURE YOUR NAME AND ADDRESS ARE ON THE ORDER, and send us TWO COPIES of the order so we can serve you faster.



Pfanstiehl CHEMICAL CORPORATION
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- Section III** — PHONOGRAPH PICKUP CARTRIDGES, by ADC, Audio Technica, Empire, Pfanstiehl, Pickering, Shure & Stanton
- Section IV** — NEEDLE IDENTITY BY SET MAKERS CARTRIDGE NUMBER, including private label magnetics.
- Section V** — NEEDLE CROSS REFERENCE LISTINGS, to other brands and to set makers NEEDLE NUMBERS.
- Section VI** — CARTRIDGE CROSS REFERENCE LISTINGS.
- Section VII** — PHONOGRAPH MODEL LISTINGS BY MAKE AND MODEL. Showing Needle and Cartridge adapter used in sets made AFTER 1974. See Catalogs P-1963 & P-6474 for earlier models.

SYSTEMATIC NEEDLE NUMBERING

A block of numbers is set aside for each CARTRIDGE BRAND. Only one number is applied to each KIND of needle. Differences in tip material and radius are described in the uniform SUFFIXES. Thus we can add new numbers, yet keep all needles for a given cartridge brand in numerical sequence.

HERE ARE THE STARTING NUMBERS FOR EACH BLOCK

100—ADC	530—Goldring	790—Japanese
110—Acos	535—Jensen	800—Sonotone
135—Amer. Micro	538—Ortofon	814—Japanese
150—Astatic	550—Lesla	820—Stanton
200—Audio Technica	556—Magnavox	840—Telefunken
230—Audio Empire	560—Perp—Ebner	850—Teppaz
260—B & O	580—Philco	853—Tetrad
270—BSR	585—Philips	860—Varco (Vaco)
290—CBS Columbia	600—Pickering	880—Webster Elec.
300—Dual	610—Japanese	896—Zenith (Needles)
325—Elac	640—RCA	900—Japanese
350—Electro-Voice	660—Japanese	910—Astatic Plug-In
460—Euphonics	700—Ronette	940—EV Plug-In
490—Garrard	703—Japanese	980—Sonotone Plug-In
500—Gen. Elec.	726—Seeburg	990—Zenith Plug-In
525—Grado	750—Shure	4000—Generic Stylus

EXPLANATION OF UNIFORM SUFFIXES:

- D = Genuine DIAMOND
- S = Synthetic SAPPHIRE
- 1 = .001 or 1 mil tip for 16, 33 & 45 rpm MONAURAL
- 2 = .002 or 2 mil compromise tip for all MONAURAL
- 25 = .0025 or 2.5 mil tip for Transcription & 78 rpm
- 3 = .003 or 3 mil tip for 78 rpm
- 5 = .0005 or .5 mil tip for Stereo 33 & 45 rpm
- 6 = .0006 or .6 mil tip for Stereo 33 & 45 rpm
- 7 = .0007 or .7 mil tip for Stereo & Mono 33 & 45 rpm
- E = ELLIPTICAL tip for stereo or mono 33 & 45 rpm
Dimensions of ellipse (ex. .3 & .7) may appear under extra information column for magnetic cartridge needles.
- "M" means needle is made for MANUAL professional type turntable — has highest internal compliance.
- "T" means needle is for single play automatic.
- "C" means needle is for Record Changers — slightly firmer to activate record changer mechanism.
- "Q" means specially shaped tip for Discrete 4 Channel.
- G, L, V, X & Z indicate minor differences in tracking force and compliance.

The SUFFIX tells whether the needle has one tip or two; what the tips are made of; and the tip RADIUS, which determines the record speeds it will play.

Example: 164-DS73 is for an Astatic Cartridge; has a .7 mil DIAMOND for Stereo-LP; and a 3 mil SAPPHIRE for 78. The same needle with two Stereo Diamond tips would be 164-DD77.

Letter PREFIX on Tetrad Needle Numbers:

A PREFIX Letter, to indicate length of needle lever arm, has been used in our new Tetrad needle numbers. See full explanation on Tetrad page.

YOU CAN BE A NEEDLE EXPERT

Phonographs in service use over 350 basic needle types, and this catalog offers more than 1200 variations of tip size and material to play the different record speeds. BUT — about 50 types will account for 75 to 80% of total needle sales. Make yourself familiar with the popular types, and learn how to use this informative catalog, and you'll soon be a "NEEDLE EXPERT".

TO FIND A REPLACEMENT NEEDLE:

BEST WAY is to have customer bring in the old needle so you can compare it with the pictures to pick out the right replacement, then double check by comparing with the actual needle.

NEXT BEST way is to use the CARTRIDGE NUMBER and Brand, using Section II.

If customer brings in another brand needle package or number, use Section V.

If he knows the set make and model, use Section VII.

Even when he does not know the model number, use of the pictures, cartridge brand, etc. can usually result in correct selection.

If there is any doubt, SELL HIM THE NEEDLE THAT MOST CLOSELY fits his description, but TELL HIM TO REMOVE THE OLD NEEDLE FROM THE PHONO, AND COMPARE IT WITH THE NEW ONE BEFORE HE OPENS THE PACKAGE. If it is not right, he can bring in the old needle for identification, and exchange the needle purchased for the right one IF THE PACKAGE IS NOT OPENED.

STARS INDICATE SALES RATE ★★★★★

We've inserted Stars (*) near needle pictures in Section II. ★★★★★ = EXCEPTIONALLY GOOD mover; ★★★★★ = Excellent; ★★★ = Good; ** = Fair; * = Occasional; No stars = slow (special order). You decide whether to carry Diamond or Sapphire or both.

REMINDE YOUR CUSTOMERS TO

- Replace an Osmium needle after 40 hours of play.
- Replace a Sapphire needle after 80 hours of play.
- Replace a Stereo Diamond after 400 to 600 hours of play.

REMINDE YOURSELF TO

Get acquainted with this helpful book. It will enable you to make extra profitable needle sales. With just a little effort, you'll know a lot more about needles than your customers, and to them, YOU'LL BE A NEEDLE EXPERT.

YOU CAN BE A CARTRIDGE EXPERT, TOO!

Study the tips on selling cartridges in Section III, PHONO CARTRIDGES.

SECTION I
NEEDLE
PICTURES

SECTION II
NEEDLE BY
CARTRIDGE

SECTION III
CARTRIDGE
LISTING

SECTION IV
SET-MAKER'S
CARTRIDGE


























































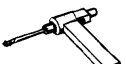












SECTION V
NEEDLE
CROSS-REF

SECTION VI
CARTRIDGE
CROSS-REF

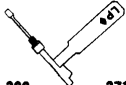




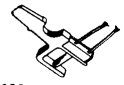
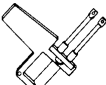
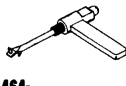
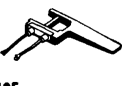



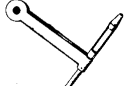



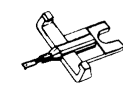


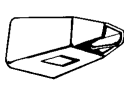

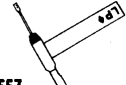




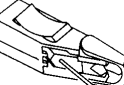
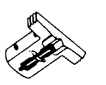








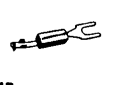
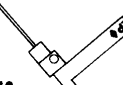
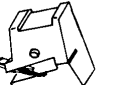
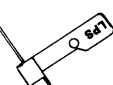

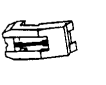
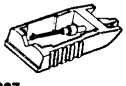

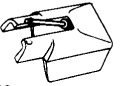

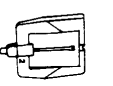





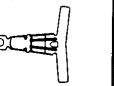

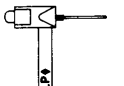
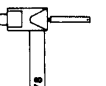
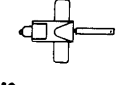
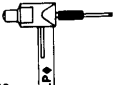
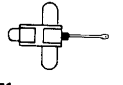
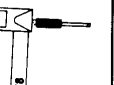
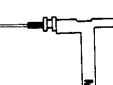
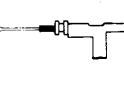
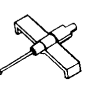







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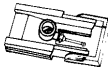

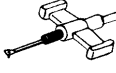

































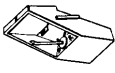

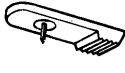
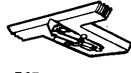
















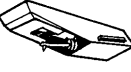




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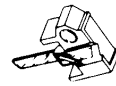
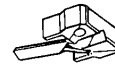
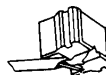





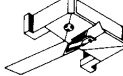





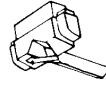
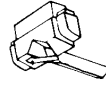


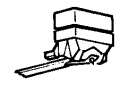
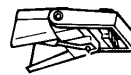

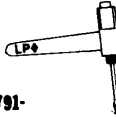
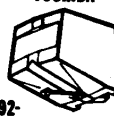
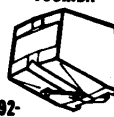
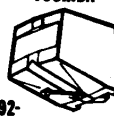
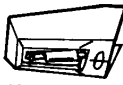
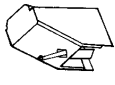
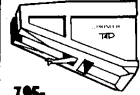
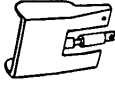

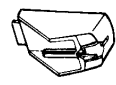
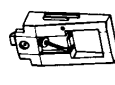
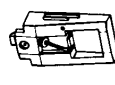
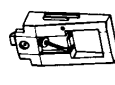







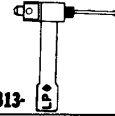
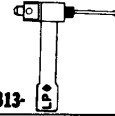


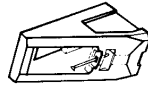
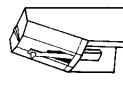
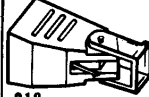












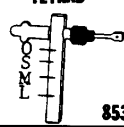
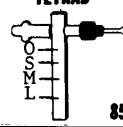
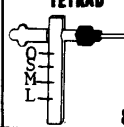
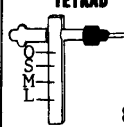



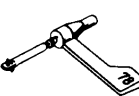



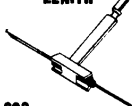
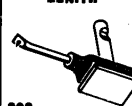




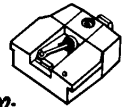
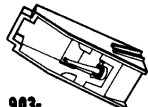
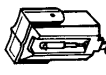

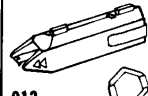



VISUAL COMPARISON CHART

SECTION I
NEEDLE
PICTURES

HITACHI  669-	SONY, ETC.  670-	PANASONIC  672-	JVC-NIVICO  673-	PANASONIC  674-	SONY  675-	KENWOOD-TRIO  676-
MGA-MITSUBISHI  677-	PANASONIC  678-	ALL BRANDS  679-	BROTHER, SANYO  680-	PANASONIC  681-	SONY, SHARP  683-	SONY  684-
BROTHER, SANYO  685-	SANYO  686-	TOSHIBA  687-	PIONEER  688-	HITACHI, SHARP  695-	KENWOOD-TRIO  696-	ALL BRANDS  697-
SANSUI  698-	SANSUI  699-	ROLETTE  700-	ROLETTE  702-	PIONEER  703-	PANASONIC  704-	TOSHIBA  705-
PANASONIC  706-	ACUTEX  707-	SANYO  708-	SONY  709-	SONY, ETC.  710-	SONY, ETC.  711-	SANYO, ETC.  712-
SANYO, FISHER  713-	SANYO, FISHER  714-	FISHER  715-	KENWOOD-TRIO  716-	PIONEER  717-	PANASONIC  718-	JVC, SEARS, ETC.  719-
SONY  720-	JVC, ETC.  721-	TOSHIBA, ETC.  722-	JVC  723-	SHARP  724-	SEEBURG  4726-	SEEBURG  727-
SEEBURG  728-	KENWOOD-TRIO  730-	SANYO, FISHER  731-	SANSUI  732-	PIONEER  733-	TOSHIBA  734-	TOSHIBA  735-
SANYO, FISHER  736-	PIONEER  737-	SANSUI  738-	JVC-NIVICO  739-	SANYO, FISHER  740-	SCOTT  741-	AIWA  742-
AIWA  743-	SANSUI  744-	SANYO, FISHER  745-	SANYO, FISHER  746-	SONY  747-	PIONEER  748-	WURLITZER-NSM  4749-

VISUAL COMPARISON CHART

SECTION I











SHURE  754-	SHURE  757-	SHURE  759-	SHURE  760-	SHURE  761-	SHURE  762-	SHURE  763-	SHURE  764-	SHURE  766-
SHURE  767-	SHURE  768-	SHURE  769-	SHURE  770-	SHURE  771-	SHURE  772-	SHURE  771, 772, 775-DLT	SHURE  773-	SHURE  774-
SHURE  773-	SHURE  774-	SHURE  776-	SHURE  777-	SHURE  778-	SINGER  791-	TOSHIBA  792-	SHURE  779-	SHURE  779-
ALL BRANDS  793-	SANYO, FISHER  794-	PIONEER  795-	ALL BRANDS  796-	KENWOOD  797-	PANASONIC  798-	SHARP  799-	SHURE  799-	SHURE  799-
SONOTONE  800-	SONOTONE  802-	SONOTONE  804-	SONOTONE  808-	SONOTONE  809-	SONOTONE  811-	SONOTONE  812-	SONOTONE  813-	SONOTONE  813-
AKAI  814-	MARANTZ  815-	PIONEER  816-	SANYO, FISHER  817-	PIONEER  818-	SANSUI  819-	STANTON  820-	SHURE  821-	SHURE  821-
STANTON  821-	STANTON  822- 823- 824- 825-	STANTON  826-		TELEFUNKEN  841-	TENOREL  848-	THOMSON  849-	SHURE  821-	SHURE  821-
USE VISUAL COMPARISON Method on ALL TETRAD NEEDLES, both three-piece and All-Plastic. See Section II.		TETRAD  853-	TETRAD  854-	TETRAD  855-	TETRAD  856-	VARCO  862-	SHURE  821-	SHURE  821-
VARCO  863-	VARCO  864-	ZENITH  896-	ZENITH  897-	ZENITH  898-	ZENITH  899-	SCOTT  900-	SHURE  821-	SHURE  821-
SANYO, FISHER  901-	SANSUI  902-	KENWOOD-TRIO  903-	AUE  904-	ASTATIC  911-	ASTATIC  912-	ALL BRANDS  BAS	SHURE  821-	SHURE  821-

NEEDLE IDENTITY BY CARTRIDGE NUMBER

SECTION II
NEEDLE BY
CARTRIDGE #

CARTRIDGE MAKER & NUMBER		ILLUSTRATION	OUR NO.	SUGG. PRICE	CODE	MANUFACTURER'S NEEDLE NUMBER
ADC-AUDIO DYNAMICS						
Numbers 105 through 116 are manufactured by Audio Dynamics Corp.						
Point 4; 660, 770,	809		100-D7	15.00	*	R-4, R-4HE, R6E, 770
ADC-27	(½ to 1½ gr.)	Beige-Gold	105-DE	36.95	*	R-27 (.0007 X .0003)
ADC-26	(½ to 1½ gr.)	White-Gold	106-DE	36.95	*	R-26 (.0007 X .0003)
ADC-25	(½ to 1½ gr.)	Red,Blue,White	107-DE	34.50	*	R-251, 252, 253 (.7X .3 mil)
10E Mark IV	(.7 gr.)	Black-Gold	107-DEX	46.95	*	R-15E (.0007 X .0003)
Super XLM/II;ZLM	(3/4 to 1½)	Black	108-DQ	79.95	*	RZ1, RSZ Shibata
XLM/MkIII	(3/4 to 1½)	Black	108-DEX	66.95	*	RSX Nude .7X.3 Elliptical
XLM, XLM/MkII	(3/4 to 1½)	Black	108-DET	57.95	*	RXL, RZD .7X.3 Elliptical
K6E, K7E, K8E	2 to 3	Dark Blue	110-DET	23.95	*	RK6E,7E,8E Elliptical
QLM36/II, III;Q36;	3/4 to 1½	Dark Gray	111-DEM	47.95	*	RQ36;RQIM36;RSQ36; Ellipt.
Digital, IV;XT-IV						RXT-IV;RS-IV
QLM34/III;K5E;P32	1½ to 3	Dark Gray	111-DET	39.95	*	RSQ34;RK-5E;RP32; Ellipt.
Digital, XT-II, III						RS-II;RKM-I;RVL
QLM32/III,33/III;	2 to 4	Dark Gray	111-DEC	28.95	*	RSQ32,33;RQIM30 Ellipt.
QLM30/II;Q30						
QLM30/II;K8;P30	3 to 5	Dark Gray	111-D7C	25.95	*	RSQ30,31;RK8;RP30 Conical
FOR MANY OF THE STYLI LISTED HERE, THERE IS A LOWER-COST ALTERNATIVE. SEE THE generic styli LISTING ON PAGE 14.						
LMA-1 for ACCUTRAC Turntable		Black	112-DEX	59.95	*	RLMA-1 .7 X .3 Elliptical
LMA-3 for ACCUTRAC +6 Turntable		Black	112-DEG	39.95	*	RLMA-3 .7 X .3 Elliptical
XT,DIGITAL Ser. I	1.7 to 2.7	Dark Gray	113-D7C	29.95	*	R-XTI, RS I .7 mil Conical
IF YOU CANNOT FIND THE NUMBER YOU ARE LOOKING FOR, TRY SECTION IV. IT MAY BE A 'PRIVATE LABEL' TYPE.						
PSX-40	1½ grams	Black	116-DEZ	75.00	*	RPSX-40 Nude .2X.7 Ellipt.
PSX25, 30	1½ grams	White	116-DEX	59.95	*	RPSX-30 .3X.7 Elliptical
PSX-10,20	1½ grams	Blue	116-D7M	25.95	*	RPSX-10,20
Q-3, Q-4;LT-31	1 to 2½ grams	Blue, Red	117-D6	19.95	*	RQ3,RQ4 .6 mil Conical
IT-32 linear TT	1 to 2½ grams	Red,Blk,Gray	119-D7	19.95	*	RMI-1, RIM-1 .7 mil
SX-5,5E	1 to 2½ grams	Black	120-D7	19.95	*	RSX5,5E .7 mil
L-3, L-4	2 to 4 grams	Blue, Red	121-D7	19.95	*	RL-3,4 .7 mil
ACOS						
Our Numbers 110 to 113, 115 to 117 Series Needles available. Not listed due to inactivity.						
73-1, -1A, -1B, -1C			114-DS77	10.95	A	73-1
GP-73; GPS-73			114-SS73	3.50	C	
M-6,6E	1½ -3 gr.	White,Red	118-D7	24.95	*	M-6,6E .7 Mil Conical
ACUTEX						
Early Production: M306,M307,M310, M312,M315,M320	1 to 3 gms	White,Gray, Yellow,Red, Blue,Black	707-DE	24.95	*	Early versions of: 306,307E,310/11, 312/111,315/111, 320/111
AIWA						
AF-5100	1 to 3	Red *	721-D7	19.95	*	AN-1A,AN-35,AN-501C
	2 to 4	Red *****	710-D7	19.95	*	AN-5 .7 mil Conical
	1 to 3	Green	706-D7	19.95	*	AN-6 .7 mil Conical
	1 to 3	Yellow *****	209-D6T	19.95	*	AN-7 .6 mil Conical
	1 to 2½	Black *****	119-D7	19.95	*	AN-F10 .7 mil Conical
	1 to 3	Orange	667-D7	19.95	*	AN-87-43 .7 mil Conical
	2 to 4	Gray *****	211-D6C	19.95	*	AN-11 .7 mil Conical
	1 to 3	Gray *****	736-D7	19.95	*	AN-10,20 .7 mil Conical
	1 to 3	Dark Blue	742-D7	19.95	*	AN-30 .7 mil Conical
	1 to 3	White	708-D7	19.95	*	AN-36 .7 mil Conical
	2 to 3	Black	214-D6	24.95	*	AN-50 .6 mil Conical
	1 to 3	White	733-D7	19.95	*	AN-60 .7 mil Conical
	1 to 2	Black	743-D7	27.95	*	AN-70
	1 to 3	Black *****	697-D7	12.95	*	AN-71
	1 to 2	Black	745-D7	27.95	*	AN-110

NEEDLE IDENTITY BY CARTRIDGE NUMBER

CARTRIDGE MAKER & NUMBER	TRACKING FORCE	ORIGINAL STYLUS COLOR	ILLUSTRATION	OUR NO.	SUGG. PRICE	CODE	MANUFACTURER'S NEEDLE NUMBER
AKAI							
	1 to 3	Yel, White	****	629-D7	19.95	*	APN-2,5 .7 mil Conical
	1 to 2	Brown	****	629-DQ	33.00	*	APN-4 Shibata
PC-3, PC-7	1½ grams	Gray	****	212-DE	24.95	*	RS-3, 7
	1 to 3	Black	****	732-D7	19.95	*	RS-3J
LMB-5,12; SMB-5	1½ to 2	Black	*	541-DEG	30.00	*	Stylus 5,12; RS-5,41
PC-10	1 to 3	Black		814-D7	19.95	*	RS-10
PC-33,35	1½ grams	Black	****	213-D6C	19.95	*	RS-33,35
	1 to 3	Black	*	705-D7	19.95	*	RS-65
PC-77	1 to 2	Black	***	743-D7	27.95	*	RS-77
PC-82	1½ to 2½	Green	****	211-D6T	19.95	*	RS-82
PC-83,85	2 to 4	Yel,Blk	****	710-D7	19.95	*	RS-83,85
PC-84	1 to 3	Red		733-D7	19.95	*	RS-84
PC-90,95	2 to 3	Yel,Green	****	209-D6T	19.95	*	RS-90,95
PC-100,120	1 to 3	Black		707-DE	24.95	*	RS-100,120
PC-150	1 to 2	Black	***	201-DEX	45.00	*	RS-150
PC-180	1 to 2	Black		202-DQX	75.00	*	RS-180
AMERICAN MICROPHONE							
				135			
				136			
				137			
							Our Number 135, 136 and 137 Series Needles are available. Not listed due to inactivity.
ASTATIC							
				150			
				151			
				152			
				153			
				155			
				154			
				156			
							MONAURAL Needles of the 150, 151, 152, 153, 154, 155, 156 Series are available. Not listed due to inactivity.
64, 118, 120, 124, 310, 312, 314, 316, 318, 322, 340, 350, 414, 416, 420, 422, 424, 426, 434, 436, 438, 448, 452, 454, 456, 468, 470, 601, 604, 609, 631, 633, 635, 637, 639, 643, 659, 661			****	700-D1	9.95	A	N8-1D
STEREO 70, 74, 76, 78, 80, 86, 310-7, 320, 322, 324, 350, 444, 448, 472, 474, 603, w/suffixes T, TB, TS			****	700-S1	2.50	B	N8-1S
				700-S2	2.50	B	N8-2S
				700-S3	2.50	B	N8-3S
				700-D7	9.95	A	N8-7D, N7-7D
				700-S7	2.50	B	N8-7S, N7-7S
17, 17D, 17DA, 135D, 217D GE EA97X135				159-DS77	10.95	A	N41SD, N42SD
15, 15D, 45D				159-SS77	3.50	C	N41, N42
				159-D7	9.95	A	N43-7D, N44-7D
				159-S7	2.50	B	N43-7S, N44-7S
445, 445D, 447				161-DS77	10.95	A	N52-SD, N53-SD
				161-SS73	3.50	C	N52, N53
455, 457, 463				162-DS77	10.95	A	N54-SD, N55-SD
				162-SS13	3.50	C	N54, N55
153, 155, 157, 235C, 257, 341, 343, 345, 461, 465, 479, 481, 499				163-DS77	10.95	A	N56-SD, N-58SD
				163-SS73	3.50	C	N56, N-58
131, 133, 134, 136, 137, 138, 139, 140, 142, 146, 148, 157, 192, 219, 233, 237, 253, 459, 483, 485, 486, 496, 497, 610, 612, 614, 616, 667; GE C-300.		STEREO AND MONAURAL	***	164-DS77	10.95	A	Replaces different colored
			****	164-DD77	19.95	X	N-50, 51, 60, 62, 63, 68,
				164-SS77	3.50	C	70, 72
167, 169, 181, 183, 187, 281, 359, 393, 399, 607, 617, 619, 627; VM 37635A				165-DS77	10.95	A	N64-SD N66-SD
				165-SS73	3.50	C	Med.arm Short
146-1, 146-7, 148-7, 346, 348, 602; RCA 123489, P-147		Monaural and Stereo	***	166-D7	9.95	A	N76-7D, N76-1D RCA
			***	166-S7	2.50	B	N76-7S, N76-1S 123490
379, 381, 383, 615, 621, 623, 625				167-DS77	10.95	A	N79-SD, N85SD
				167-SS73	3.50	C	N79
361, 363, 365, 367, 369, 371, 373, 375, 377, 385, 387, 389, 391, 395, 397, 605, 629				168-DS73	10.95	A	N81-SD
				168-SS73	3.50	C	N81
271, 273, 275, 277, 349, 351, 357 Sears 33-456, 57-8884				169-DS77	10.95	A	N73-SD, N74-SD (Short arm)
				169-SS73	3.50	C	N73 (SS77), N74 (SS73)
Some 163D, 165D, 323D, 353D, 355D, 613D 665D; Magnavox 560355-1, -2				170-DS77	10.95	A	N83-SD, N84-SD (Long arm)
				170-SS73	3.50	C	N84
				170-SS77	3.50	C	N83
215D Wurlitzer 133352				171-DS77	10.95	A	N14-SD
				171-DD77	19.95	X	N14-D
				171-SS77	3.50	C	N14
207D				172-DS77	10.95	A	N17-SD
				172-SS77	3.50	C	N17
223D, 231D				173-DS77	10.95	A	N19-SD
				173-SS77	3.50	C	N19
201, 205, 209, 211, 645, 647, 649, 653, 655, 657, 659, 671, 673, 675, 679, 687, 691, 693, 697, 699				174-DS77	10.95	A	N89, N93 (Like Pict.)
				174-SS77	3.50	C	N92, N99 (T-Shape, 1 tip)
213D, 677D, 695D				175-DS77	10.95	A	N91-SD
				175-SS77	3.50	C	N91, N90 (77)
163D, 177D, 197D, 669D. Replaces Single Tip or Dual tip Magnavox in 560337, 338, 345, 346, etc.			****	557-DS77	10.95	A	N2-SD
			***	557-SS77	3.50	C	N2

SECTION II
NEEDLE BY
CARTRIDGE

For PLUG-IN Astatic Cartridges using CONVENTIONAL (Setscrew) Needles: B-1, 2, 3, 4; L-10, 12, 18, 22, 24, 25, 26, 27, 29. CARTRIDGES, 32, 40, 41, 46, 50, 71, 72, 73, 74, 75, 76, 78, 80, 92; M-22, 23, 23; New nos. 2, 4, 6, 12, 16, 16L3, 18, 20. SEE 900- Series mds.

NEEDLE IDENTITY BY CARTRIDGE NUMBER

CARTRIDGE MAKER & NUMBER		ILLUSTRATION	OUR NO.	SUGG. PRICE	CODE	MANUFACTURER'S NEEDLE NUMBER
AUDIO EMPIRE						
80EE, 808, 808E		2 to 4 gr. 1 1/2 to 3	Black Black	230-D7 230-DE	19.95 22.95	* S808-7RD S908-END
888P, 888E, 999E, 999P 888SE, 888TE, 888VE, 999VE		1 to 2 3/4 to 1 1/2	Grn, Pink, Brn, Blue	232-DE 232-SDE	24.95 39.95	* S888E-ERD, 7RD; S-888P-6RD S888SE, PE, TE, VE; S999VE
90EE/X		1 1/2 to 4	Orange	233-DE	22.95	* S90EE/X-RD
909/X, 909E/X		1 to 4	Red	234-DE	27.95	* S909E/X-ERD, S909/X-7RD
999/X 999E/X		1 1/2 to 3 3/4 to 2	Brn, Yel Green	235-D7 235-DE	27.95 29.95	* S999/X-RD S999E/X-ERD
999SE/X, 999PE/X, 999TE/X 999VE/X		1/2 to 1 1/2 1/2 to 1 1/2	Blue Purple	235-SDE 235-VDE	39.95 54.95	* S999-PE, SF, TF/X-ERD S999VE/X-ERD
1000ZE/X		1/10 gr.	Black	236-ZDE	69.95	* S1000ZE/X-ERD
2000Z		3/4 to 1 1/2	Gold	237-DEZ	75.00	* S-2000Z .2X.7 Nude
2000E/II, III		3/4 to 1 1/2	Clear*	237-DET	42.50	* S-2000E/2, 3 .2X.7 Elliptic
2000E/I		3/4 to 1 1/2	Green*	237-DEC	29.95	* S-2000E/I .2X.7 Elliptic
2000E		1 to 2	Red*	237-DEM	24.95	* S-2000E .3X.7 Elliptic
2000		1 to 2	Smoke*	237-D7C	16.95	* S-2000 .7 mil Conical
4000D/III (CD4)		1/2 to 1 1/2	White	238-DEQ	99.50	* S-4000D/III .2 mil Biradial
4000D/I, II (CD4)		3/4 to 2	Black	238-DQ	59.95	* S-4000D/I, II .2 mil Biradial
440D (CD4)		3/4 to 1 1/2	Blue	239-DQ	39.95	* S-440D Quad
2000X; 700T Private Label		3/4 to 1 1/2	Met. Red	239-DEX	54.95	* S917E; S2000X .2X.7 Ell.
2000T; Private Label		3/4 to 1 1/2	Met. Bl, Sil	239-DET	44.95	* S-2000T; S-915E
66-LE/X, PE/X, QE/X, 1000ZE, etc.		1/2 to 1 1/2 3/4 to 1 1/2	Purple White	239-PDE	34.95	* S-66-LE/X, PE/X, QE-X S-910E, 912E .2X.7 Ellipt.
66E/X, HME/X, 906E/X, 999ME/X & others		3/4 to 3	Black	239-DEC	19.95	* S-66E/X, S906E, S999H .3X.7 Other private label numbers
66/X, 906, 909, ETC.		3/4 to 3	Red	239-D7C	14.95	* S-66/X-7rd, S906, S909.
EDR.9		3/4 to 1 1/2	Black	240-DEDR	119.50	* S-5000 Biradial
100S		2 1/2 to 5	Yellow*	241-D7	20.00	* S100S .7 Mil Conical
200E, 280LT		1 1/2 to 3	Blue*	241-DE	30.00	* S200E, 380LT .3X.7 Ellipt.
300ME, 380LT		1 to 2 1/2	Smoke*	241-DME	35.00	* S300ME, 380LT "
400CT, 480LT		3/4 to 2	Red*	241-DTC	50.00	* S400CT, 480LT .2X.7 Ellipt.
500ID		3/4 to 1 1/2	Purple*	241-DID	62.50	* S500ID .2X.7 Elliptical
580LT, 800UFR		3/4 to 1 1/2	Gold	241-DFR	75.00	* S800UFR
600LAC		1 to 2	Black	241-DLAC	99.00	* S600LAC paralignar
900GT, 980LT		3/4 to 1 1/2	Black	241-DEX	80.00	* S900GT .2X.7 Elliptical
1000GT, 1080LT		3/4 to 1 1/2	Black	241-DEZ	100.00	* S1000GT Paralignar

FOR MANY OF THE STYLUS LISTED HERE, THERE IS A LOWER-COST ALTERNATIVE. SEE the generic stylus LISTING ON PAGE 14.

Private Label Cartridges	See Section IV	2 to 4 3/4 to 2 3/4 to 1 1/2 1 to 2	Pink* Lt. Grn* Orange* Ivory	242-DE 242-DET 242-DEX 242-DLAC	30.00 50.00 62.50 87.50	* S22E .3 X .7 Ellipt. * S44E .2 X .7 Ellipt. * S55E .2 X .7 Ellipt. * S75LAC
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IF YOU CANNOT FIND THE NUMBER YOU ARE LOOKING FOR, TRY SECTION IV. IT MAY BE A 'PRIVATE LABEL' TYPE.

150C	1 1/2 to 2 1/2	Black	243-D6	20.00	* SCL1 .6 Mil Conical
250E, 350DE	1 1/2 to 2 1/2	Black	243-DE	30.00	* SE1, S3D .3X.7 Ellipt.
MC +20 Moving Coil Cart.	1 1/2 to 2 1/2	Gold	244-DE	90.00	* SMC-20 .3X.7 Elliptical
185XLT, 190LT P-Mount	1 to 1 1/2	Clear *	245-D6	20.00	* S111 .6 mil Conical
290LT, 390LT P Mount	1 to 1 1/2	Blue *	245-DE	30.00	* S333 .3X.7 Elliptical
105LT, 205LT	1 to 1 1/2	Blk, white	740-D7	19.95	* S105, 205 .7 mil Conical
1951T	1 to 1 1/2	Yellow*	246-D6	19.95	* S195 .6 mil Conical
2951T, 3951T	1 to 1 1/2	Blue, Clr*	246-DE	29.95	* S295, 395 .3 X .7 Ellipt.
4851T, 1085LT	1 to 1 1/2	Red*, Blk	246-DEX	49.95	* S485, 1085 .2 X .7 Ellipt.
140C, 245E	1 to 3	Blue, Yel	247-D6	19.95	* S40, 45E .6 mil Conical
**0, -P, -PE	2 to 4	Green	252-D7	19.95	* S880 ser. .7 mil conical
** , 108, 108P	2 to 4	Bl., White	251-D7	19.95	* S88, S108-7RD .7 mil conical

Numbers 233 thru 239 have been made both with and without flip-down stylus guard. FOLLOW EMPIRE NEEDLE NUMBERS IN RIGHT HAND COLUMN to be sure of exact replacement. Variations in size and shape may occur in same No. series.
* IN ORIGINAL STYLUS COLOR Column indicates translucent plastic

AUDIO TECHNICA		Numbers 200 thru 215 are products of Audio Technica.				
AT10; VM8-7D	2 1/2 to 4 gr.	Red	200-D7C	25.00	* AT510 .7 mil Conical	
AT11	2 to 3	Yellow	200-D7T	30.00	* AT511 .7 mil Conical	
AT11E	2 to 3	Green	200-DEC	35.00	* AT511E .4X.7 Elliptical	
AT12E	1 1/2 to 2	Blue	200-DET	40.00	* AT512 .4X.7 Elliptical	
AT12XE; AT-96E	1 to 1 3/4	Caramel	201-DEX	45.00	* ATN12XE .3X.7 Elliptical	
AT12S; AT12Sa	1 to 2	White	201-DOX	60.00	* AT512S; ATN12S Shibata	
AT13E	1 to 2	Orange	201-DEM	50.00	* AT513 .2X.7 Elliptical	
AT14S; VM-35FD	1 1/2 to 2	Burgundy	201-DQ	75.00	* AT514 Shibata	
AT13a	1 to 2	Orange	202-DEM	50.00	* ATN13 .2X.7 Elliptical	
AT14Sa	1 to 2	Burgundy	202-DOX	75.00	* ATN14 Shibata	
AT15XE	3/4-1 3/4	Black	203-DEX	85.00	* ATN15XE .2X.7 Elliptical	
AT15S; AT15S; AT15Sa	3/4-1 3/4	Black	203-DEQ	100.00	* ATN15S; ATN15 Shibata +	
AT20S; AT20S1; AT20S1a	3/4-1 3/4	Black	203-DOX	125.00	* ATN20S; ATN20 Shibata +	

AUDIO TECHNICA CONTINUED NEXT PAGE

SECTION II
NEEDLE BY
CARTRIDGE

NEEDLE IDENTITY BY CARTRIDGE NUMBER

CARTRIDGE MAKER & NUMBER	TRACKING FORCE	ORIGINAL STYLUS COLOR	ILLUSTRATION	OUR NO.	SUGG. PRICE	CODE	MANUFACTURER'S NEEDLE NUMBER
AUDIO TECHNICA CONTINUED							
FOR MANY OF THE STYLI LISTED HERE, THERE IS A LOWER-COST ALTERNATIVE. SEE <u>the generic styli</u> LISTING ON PAGE 14.							
ATP-1 Professional Series	3 to 5	Red/White		204-D6C	25.00	*	ATP-N1 .6 mil Conical
ATU-2 " " "	3 to 5	Blue/Wh		204-DEC	35.00	*	ATP-N2 .4X.7 Elliptical
ATP-3 " " "	2 to 3	Bronze/Wh		204-DET	50.00	*	ATP-N3 .3X.7 Elliptical
ATX1 " " " Series	1½ to 2½	Red/Gray		205-D6C	25.00	*	ATXN1 .6 mil Conical
ATX3E " " "	1 to 2	Blue/Gray		205-DEC	35.00	*	ATXN3 .4X.7 Elliptical
ATX5E " " "	1 to 1 3/4	Bronze/Gr		205-DET	45.00	*	ATXN5 .3X.7 Elliptical
AT-70 Private label	2 to 3	Red		206-D6C	15.95	*	ATN70B .6 mil Conical
AT-71 " " "	1½ to 2½	Yellow		206-D6T	17.95	*	ATN71B .6 mil Conical
AT-71E " " "	1½ to 2½	Green		206-DET	22.95	*	ATN71EB .4X.7 Elliptical
AT-72E " " "	1 to 2	Blue		206-DEM	27.95	*	ATN72EB .4X.7 Elliptical
AT105	1½ to 2½	Yellow		207-D7	30.00	*	ATN105 .7 mil Conical
AT110E	1 to 2	Blue		207-DE	35.00	*	ATN110E, 420E
IF YOU CANNOT FIND THE NUMBER YOU ARE LOOKING FOR, TRY SECTION IV. IT MAY BE A 'PRIVATE LABEL' TYPE.							
AT103 "Mister Disc" Phono	2½ to 3½	Red		208-D6	30.00	*	ATN-103 .6 mil Conical
AT120E	1 to 1.8	Caramel		208-DE	45.00	*	ATN120E .4 X .7 Ellipt.
AT125LC	1 to 1.8	Cream		208-DEL	60.00	*	ATN125LC Linear Contact
AT130E	.8 to 1.8	Red		208-DEM	50.00	*	ATN130E .2 X .7 Ellipt.
AT140LC	.8 to 1.8	Violet		208-DEV	75.00	*	ATN140LC Linear Contact
AT155LC	.8 to 1.8	Black	208-DEX	100.00	*	ATN155LC Linear Contact	
AT3710, 3711	2 to 3	Yel, Red	****	209-D6T	19.95	*	ATN3710, 3711 .6 mil Con.
AT-51, 51E, 52, 52E, 53, 53E	1 to 2	Black	****	210-DE	24.95	*	ATN-51, 51E, 52, 52E, 53, 53E
AT3600, 3601, 3650, 3651, 91 AT3600L, 3650L	1½ to 2½ 2½ to 3½	Red, Yel Gray	***** *****	211-D6T 211-D6C	19.95 19.95	*	ATN3600, 3601, 3650, 3651, 91 ATN3600L, 3650L
AT102P	1½ to 2½	Gray	****	212-D6C	19.95	*	ATN-102P .6 mil Conical
AT102EP	1 to 2	Green	****	212-DE	24.95	*	ATN-102EP, 422EP Ellipt.
AT112EP	1 to 2	Blue	****	212-DEC	35.00	*	ATN-112EP, 432EP Ellipt.
AT122LP	1 to 1.8	Ivory	**	212-DEL	60.00	*	ATN-122LP Linear Contact
AT122EP	1 to 1.8	Caramel	****	212-DET	45.00	*	ATN-122EP .3X.7 Ellipt.
AT132EP	.8 to 1.8	Orange	****	212-DEM	50.00	*	ATN-132EP .2X.7 Ellipt.
AT152LP, MLP	.8 to 1.8	Blk, Brn	****	212-DLX	100.00	*	ATN-152LP Linear Contact
AT3472P, EP, 3482P, 101P OEM P-Mount	1½ grams	Gray, Wht Blk, Blue	*****	213-D6C	19.95	*	ATN3472P, 3482P, 101P
AT-3830, 3831	1½ to 2½	Black	***	214-D6	24.95	*	ATN-3830, 3831 .6 mil
AT201EP, 201P	1 to 1½	Ivory	**	215-DE	24.95	*	ATN201EP, 201P
AT216EP, 211EP	1 to 1½	Brown	****	215-DET	45.00	*	ATN216EP, 211EP
AT2311P, 221EP	1 to 1½	Blue	****	215-DEL	60.00	*	ATN2311P, 221EP
AT-4, 55	2 to 3	Red, Black White, Grn	***	670-D7	19.95	*	AT4-7D, 55-7D .6 mil
AT-3-51	1 to 2	Black	***	743-D7	27.95	*	ATN3-51
AT-6E	2 to 4	Gray, Wh	****	621-DE	24.95	*	AT-6E1 .4X.7 Elliptical
AT-6-5D; AT-6-7D	2 to 4	Gray, Wh	****	621-D7	19.95	*	AT-6 .7 mil Conical
AT-21; AT-21X; AT-66	1 to 2½	Gray, Grn	****	635-D7	19.95	*	AT-21 .7 mil Conical
AT750	1½ to 2½	Gray, Red Org, Blk	****	714-D7	19.95	*	ATN-750 .7 mil Conical
AT771	1 to 3	Yellow	****	709-D7	19.95	*	ATN-771 .7 mil Conical
AT892	1 to 3	Black	****	731-D7	19.95	*	ATN-892 .7 mil Conical
AT936	1 to 3	Wht, Blk Org, Red	****	668-D7	19.95	*	ATN936 .7 mil Conical
AT952	1 to 3	Blk, Ornge	**	712-D7	19.95	*	ATN952 .7 mil Conical
AT3400, 3410, 3450, 93	2 to 4	White, Red Gray, Yel	*****	710-D7	19.95	*	ATN3400, 3401, 3410, 3450, 3451
AT3660, 3663	2 to 3	Yellow	*	900-D7	19.95	*	ATN-3660VI .6 mil Conical
AUE							
CP-30S, CP-33; Sears, Dejay, Concert Hall, Emerson, Tele- tone, Penney's, Iloyds, others	2 to 5	Orange, White	***** *****	711-D7 711-S7	12.95 4.50	*	.7 mil Conical .7 mil Conical
	2 to 5	Orng, Red	NEW	904-D7	12.95	*	
AZDEN PIEZO U.S.							
GM-1E	1½ to 2½	Gold	****	244-DE	90.00	*	
YM-10C	1½ to 2½	Violet	****	243-D6	20.00	*	AN-10C
YM-10E, 10VE	1½ to 2½	Blk, Prple	****	243-DE	30.00	*	AN-10E, 10VE
YM-P50C	1 to 1½	Clear	*	245-D6	20.00	*	AN-P50C
YM-P20E, 50E, 50VI	1 to 1½	Blue, Red	****	245-DE	30.00	*	AN-P20E, P50E, P50VI

SECTION II
NEEDLE BY
CARTRIDGE *




































NEEDLE IDENTITY BY CARTRIDGE NUMBER

SECTION II
NEEDLE BY
CARTRIDGE

CARTRIDGE MAKER & NUMBER		ILLUSTRATION	OUR NO.	SUGG. PRICE	CODE	MANUFACTURER'S NEEDLE NUMBER
B & O (BANG & OLUFSEN) 260 and 261 types available. Not listed due to inactivity.						
Stereodyne III; SP-1,2,3,6,7,8,9; PE9000/2			263-D7	19.95	*	SRD-7, Dual DN-301
SP-12			264-DE	27.95	*	SP-12 .4 X .7 Elliot.
BSR TC8H, M, S, SH P-119, 120, 121			270-D7 270-S7	9.95 2.50	A B	TC8G, R, RS TC8G, R, RS
TC-12, Westinghouse 671V004H08			271-D7 271-S7	9.95 2.50	A B	TC-12 TC-12
SC5H, SX1H, SX2H, SX1M, SX5M, X1H, X1HE, X2H, X3H, X4H, X5H, X1M, X3M, X5M, etc. One Piece, PLASTIC NEEDLE			272-DS77 272-SS77 272-DD77	10.95 3.50 19.95	A C X	ST-9, ST-12, ST-23 (Single Tip) ST-8, ST-11 ST-10
C-1, SC5M. Replaces 272 if RUBBER COUPLED DESIGN IS WANTED. MANY Japanese cartridges.			273-DS77 273-SS77	10.95 3.50	A C	ST-3, 4, 5, 6, ST-22 ST-14, 15, 19 Single Tip
FC7M, SC4H, SC10H, SC12H Also Replaces Single Tip --			274-DS77 274-SS77	10.95 3.50	A C	ST-16, 17, 18, also Single Tip ST-20, ST-21
BROTHER						
BR-26	TRACKING FORCE	ORIGINAL STYLE COLOR		719-D7	9.95	*
120-1 120-200		Black ***** Gold ***** Nickel ***** Nickel *****	 	617-D7 700-D1 700-S3	9.95 9.95 2.50	A A B
Y-640, 642-A, G, L; ST-20	2 to 4	White		685-D7	12.95	*
BR-42 (Onkyo)	1½ to 3	White		680-D7	19.95	*
BR-51X	1½ to 3	Green		673-DQ	33.00	*
C E C						
MC-12	1 to 3	Cream *****		629-D7	19.95	*
C-2	2 to 4	White		636-D7	19.95	*
MC-5, A, L, S	2 to 4	Yellow, Red		680-D7	19.95	*
MC-6	2 to 4	White		621-D7	19.95	*
MC-7	2 to 4	Gray, Blk.		635-D7	19.95	*
MC-8	2 to 4	Rose-Gray		624-D7	19.95	*
MG-I, MG-II	1 to 3	Red *		721-D7	19.95	*
VC-10	1 to 3	Gray *****		697-D7	12.95	*
MG-41; PC-1	1 to 3	Black *****		714-D7	19.95	*
	1.3 grams	White *****		213-D6C	19.95	*
	1 to 1½	Clear		246-DE	29.95	*
COLUMBIA 55, CD, SC-1, 2 SC-7, -S, -D						
			290-D7 290-S7	9.95 3.50	A C	SC-1D SC-1
CORAL						
MC-7	2 to 4	Gray-Blk		635-D7	19.95	*
CP-30D; CH-7000D	2 to 4	White		636-D7	19.95	*
DENON - JAPAN COLUMBIA						
PU1058C, JC-14, C590M		Gold-Blue ***		617-D7	9.95	A
CMS450, JC-16, PS1557; PU1557, 1623, 1665, 1700, SRP-1100, JN78P		Nickel		690-D7	12.95	*
PU-1340, 1344, 1678, SMC250, JM-210 (red), DSC726P	2 to 4	White Gray	 	621-D7 621-DE	19.95 24.95	*
PU-1430; PV-1556	2 to 4	White-Gray		635-D7	19.95	*
PU-1270, 1280; SPC-310-B, C, D		Yellow ***		813-DS77	10.95	A
PU-1299, 1300		Black		790-DS73	10.95	A
PU-1357, 1490, 1663 (lever may vary)		Black		791-DS77	10.95	A
JM-13 GM-12	1 to 2 1 to 3 1½ to 3	Gray Yel Green *****	 	629-DQ 629-D7 629-DE	33.00 19.95 24.95	*
3D-31M		White-Grn		689-D7	12.95	*
GM-20; JM-11	2 to 4	Red *		670-D7	19.95	*
JM-18	1½ to 2½	Yellow *****		697-D7	12.95	*
JC-24	4 to 6	Black *****		719-D7	9.95	*
	1 to 3	Yellow *		721-D7	19.95	*

DENON CONTINUED NEXT PAGE

NEEDLE IDENTITY BY CARTRIDGE NUMBER

CARTRIDGE MAKER & NUMBER		ILLUSTRATION	OUR NO.	SUGG. PRICE	CODE	MANUFACTURER'S NEEDLE NUMBER
DENON CONTINUED						
	TRACKING FORCE	ORIGINAL STYLUS COLOR				
	1½ to 2½	Orange		243-D6	20.00	* DSN-55
	1 to 3	Red, Blue	***** 	736-D7	19.95	* DSN-57, 66
	2 to 3	Black	*** 	214-D6	24.95	* DSN-63
	1 to 3	Blue	***** 	740-D7	19.95	* DSN-67
	1 to 3	Red	**** 	119-D7	19.95	* DSN-68
	2 to 5	Red	***** 	793-D7	12.95	* SJN-68
	1 to 3	Orange	**** 	732-D7	19.95	* DSN-69
	2 to 4	Gray	***** 	211-D6C	19.95	* DSN-72; JM-78K
DUAL UNITED AUDIO				300 and 301 types available. Not listed due to inactivity.		
CDS-3/23, 320/23, 320/36, 420/4, 420/43, 420/45, 620/4, 620/43, 620/45 EV 253, 255				302-D7 302-S7 302-S3	9.95 2.50 2.50	A DN-23, DN-43 B DN-4, DN-26 C DN-45
DMS-900, DMS-900/91				303-D7	19.95	* DN-95, DN-96
CDS-630/5, CDS-630/54				304-DS77 304-SS73	10.95 3.50	A DN-5, DN-52 C DN-54
CDS-640/6, 642/6, 650/6, 651/6, 700, 750 (DUAL SP-1, DN-301 uses B & O 263-D7)				305-DS77 305-SS77	10.95 4.00	A DN-6 D DN-65
	1 to 3	Black	**** 	119-D7	19.95	* DN-105
SP-1		Red		263-D7	19.95	* DN-301, 302. .7 mil
CDS-200	1 to 3 1 to 3	Red (orig) Cream	**** 	629-D7 629-DE	19.95 24.95	DN-201 - LOOKS DIFFERENT, but our 629 will fit.
ULM, TKS65E ULM, TKS50E, 52E, 55E ULM, TKS66E ULM, TKS60E	1.2 to 1.7 1.3 to 2 1.2 to 1.7 1 to 1.3	Black Black Black Black	*** 	542-DEG 542-DEV 542-DEX 542-DEZ	36.00 42.00 45.00 79.00	* DN165E .3X.7 Elliptical * DN150E, 152E, 155E .3X.7 * DN166E .3X.7 Elliptical * DN160E .3X.7 Elliptical
DMS-235, DMS-239	2 to 3	White	***** 	211-D6C	19.95	* DN235, 239 .6 mil Conical
	3 to 5	Blue		759-D7C	19.95	* DN-305
	1½ to 3	Gray, Red, Yellow		760-DEJ	31.95	* DN-320, 321, 323, 325, 365
	3/4 to 1½ 3/4 to 1½	Gray, Red, Yellow	***** 	761-DED	41.95	* DN-330, 340 * DN-345
	1 to 1½	Blk, Red	*** 	540-DEL	70.00	* DN-350, 353, 363
	3/4 to 1½	Black		764-DMR	79.95	* DN-352
	1½ to 3 3/4 to 1½	Gray, Yel Black		767-DE 767-DHE	39.95 57.95	* DN-360, 362 * DN-370
MMP-450	1½ grams	Black	***** 	213-D6C	19.95	* DN-450
EDISON - Antique		T Shaped stylus for AMBEROLA Cylinder		324-D3	20.00	* Use with "long-play" type Edison Cylinders only.
ELAC Miratwin MST-2A, MST-2D MST-1S, 1D, 1DN, 1SN				325-D1 325-S1 325-S3	9.95 3.50 3.50	A DM-2 C SM-2 C SN-2
KST-100, Perpetuum-Ebner PE-180				326-DS73 326-SS73	10.95 3.50	A DNM-100, PE-180 C SNM-100, PE-180
KST-102, PE-184 Diamond, and .7 mil tip on SS73, FORWARD				327-DS77 327-SS73	10.95 3.50	A DNM-102, PE-184 C SNM-102, PE-184
KST-104, PE-182 Diamond, and .7 mil tip on SS73 AT BACK				328-DS77 328-SS73	10.95 3.50	A DNM-104, PE-182 C SNM-104, PE-182
KST-103-S, -D, PE-183 Single Tip Needle				329-D7 329-S7	9.95 3.50	A DM-103 C SM-103, SM-105
KST-106, PE-186 Also replaces single tip, T-shape SM-107				330-DS77 330-SS73	10.95 3.50	A DNM-106, PE-186 C SNM-106, SM-107
STS-200, 210, 220, 300, 310, 322 (4-6gm T.F.)				331-D7	19.95	* DM-210, PE-8000
KST-8, 9, 11, 21				561-DS77	10.95	A SM-11
STS-244, 344, 444. Sears 8827				332-D7	19.95	* D-244-17, Sears 8827

SECTION II
NEEDLE BY
CARTRIDGE

SECTION II

NEEDLE IDENTITY BY CARTRIDGE NUMBER

CARTRIDGE MAKER & NUMBER	ILLUSTRATION	OUR NO.	SUGG. PRICE	CODE	MANUFACTURER'S NEEDLE NUMBER		
ELECTRO-VOICE (EVG)							
21D, M, MD, MS; 22D; 26, D, DV, MDST, MST, V; 27, 27D; 127, 128, 129 Series Pfanstiehl P-138		352-D7 352-S7 352-S3	9.95 2.50 2.50	A B B	D1-1, 2604D S1-1, 2604 S3-3, 2605		
37, 37D, 38, 38D, 47, 47D, 72, 72D, Jensen 2T Made in U.S.A. between 1967 and Mid 1969		370-DS77 370-SS13	10.95 3.50	A C	2626DS 2626		
37, 38; Sonotone 2T (Uses same needle) Imported, starting Mid 1969		800-DS77 800-SS73	10.95 3.50	A C	3201DS, Sonotone 2T-SD 3201, 2T		
47, 72, Sonotone 3T (Uses same needle) Imported, starting Mid 1969		802-DS77 802-SS13	10.95 3.50	A C	3206DS, Sonotone 3T-SD 3206, 3T		
117, 131, 131D, 148, 148D, 154, 154D, 159, 159D, Jensen 259, 260		358-DS77 358-SS77	10.95 3.50	A C	2626DS 2626		
132, 163, Magnavox 560305, 560307		359-DS77 359-SS77	10.95 3.50	A C	2619DS, Magn. 560306-2 2619		
147D, Webcor 21P-732-2, 749-1; 21X732-1, 2 Webcor Needle No. 21S630-8		363-D7 363-S7	9.95 2.50	A B	2621D 2621, 21S630-8		
141, 149, 150, 157, 158, 169, 186, 242, 256, 257, 258, 278, 279, 280; Magn. 560310, 311, 315, 340, 367-1 78 RPM side of Cart. 75		365-DS77 365-SS77	10.95 3.50	A C	2620DS, 2622DS 560311, 312, 340		
194, Motorola 56C63211A01-1 Sears, VM 31961-A		366-S3	2.50	B	3489		
Early 168, 198, 199, 275, 282, 284, 5166 368 and 557 Needles are essentially identical		367-DS77 367-SS73	10.95 3.50	A C	2623DS 2623		
Above numbers, plus 5095, 5097, 5098, 5149 Ast.669, Magn. 560337, 345, 346, 347, 350, 355; Ast.163, 195, 197		368-DS77 368-SS77	10.95 3.50	A C	2624DS 2624		
Magn. 560347, 347; EV 5097D, 5098D; Ast. 197D		557-DS77 557-SS77	10.95 3.50	A C	2644DS, Ast. N2SD, 560344 2644, Astatic N2		
5000, 5001, 5002, 5005, 5075, 5081, 5085, 5086, 5088 5168, 5169, 5170, 5558, 5562, 5583, 5606, Magnavox 560348, 353, 360, 365, 378 Sears 8892, 8893		558-D7	9.95	A	2647D, 560366; N410-7D		
181, 182, 5010, 5011, 5012, 5014, 5015, 5016, 5017, 5018, 5019, 5027, 5036, 5063, 5092, 5559, 5560, 5561		369-DS77 369-SS77	10.95 3.50	A C	2625, 37, 38, 40, 43, CFD, CFS, CHD, GLD, FKS, FLS, HCD, HFD, JFD, JFS, JKD, JKS, MBD, MBS, MFD, MFS.		
NEW EV 10, 16, 17, 18, 43, 44, 48, 49, 50, 134, 298; Jensen 13; 21 thru 28		371-DS77 371-SS77	10.95 3.50	A C	2630, 32, 45; GBD, CBS, CCD CCS, JBD, JBS, JCD, JCS, JLD, JLS, LBD, LCD, HKD, HKS		
5004, 5006, 5007, 5044, 5045, 5050, 5061, 5075, 5076, 5083, 5084, 5085		372-S1 372-S2	2.50 2.50	B B	2627 2628, 2629		
5026, 5027, 5051, 5053, 5056, 5057, 5058, 5063, 5082, 5085, 5086, 5199, 5563, 5582		373-DS77 373-SS77	10.95 3.50	A C	2633, 39, 41; BKD, KFD, KLD KLF, KLS		
5093D, 5094D		374-DS77 374-SS77	10.95 3.50	A C	2634, 35, 36, 42, 48; CJD, CKD, CKS, HLD, HLS, KBD, KCD, KKD		
5064, 78, 96, 99; 5336, 5543, 5544, 5808, Magn. 560348, 560353		375-DS77 375-SS77	10.95 3.50	A C	2646DS, KMD 2646 CMD		
5600D, 5601D (#), Sony VX-23P		376-D7	9.95	A	2640D; Magn. 560352, 56 (Single tip 369)		
6000D, 6009D, 6010D, 86564, 86454, Landmark 100; V100, V100B, Magnavox 560356		613-D7	12.95	*	2649D, 2650D, ND-127P		
6012D, Magn. 560369-1		629-D7 612-D7	14.95 19.95	*	2600D, 2669D 2671D, 560371-1,-2		
EMPIRE - SEE AUDIO EMPIRE							
EUPHONICS							
53, 54, 55, 56	E1, E2, E3, E4. M1 Series		460-D7 460-S7 460-S3	9.95 2.50 2.50	A B B	181 180 183	
U1, U2, U4, U5 Series Astatic 710, 711, 712			461-D7 461-S7 461-S3	9.95 2.50 2.50	A B B	216 214 215	
U8, U9, U10, U11 Series Astatic 713, 714, 715, 716, 718, 719, 721, 722, 724, 725, 726, 740			462-DS77 462-SS77 462-DD77	10.95 3.50 19.95	A C X	254, 256 253, 255	
U12, U13 Series, Admiral 409C65 Astatic 727, 728, 729, 730			463-DS77 463-SS77 463-DD77	10.95 3.50 19.95	A C X	372 371	
U14, U15, U16, U17, U18, U19 Series, "Miniconic" Astatic 732, 735, 737, 738, 739, 741			464-DS77 464-SS77 464-DD77	10.95 3.50 19.95	A C X	510 Also replaces 509 Single Tip, 513 T-Shaped 601	
U8RB, U9RB, U10RB, U11RB For Westinghouse, with needle brush			465-DS77 465-SS73	10.95 3.50	A C	375 374	
EXCELL							
ES-70; ES-70S ES-70E, F ES-70EX, EX4	TRACKING FORCE 1 to 2½ ¾ to 2 ¾ to 2	ORIGINAL STYLES COLOR Blue Red, Yellow Gray, Red		614-D7 614-DE 614-DQ	19.95 24.95 33.00	* * *	S-70, S70-SR S-70ER, S-70FR S-70EX, S-70X4, Shibata
ES-70EX/II	1½ to 2½	Brown		707-DE	24.95	*	S-70-EX/II

SECTION II
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CARTRIDGE #

Available, but not listed, due to inactivity.

NEEDLE IDENTITY BY CARTRIDGE NUMBER

CARTRIDGE MAKER & NUMBER	ILLUSTRATION	OUR NO.	SUCC. PRICE	CODE	MANUFACTURER'S NEEDLE NUMBER
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FISHER - SEE SANYO

GARRARD					
Available, but Not listed, due to inactivity.					
GDS-2, GSS-1, KS-40A, KS-41-A, B, C		494-DS77	10.95	A	AD
		494-SS77	3.50	C	AS
	1 to 2	210-DE	24.95	*	GS-22,22E
	2 to 3	209-D6T	19.95	*	GA-150

GARRARD CHANGER NUMBERS are not a reliable guide to needle selection. Changer may be equipped with any one of a large variety of cartridges. EXCEPTIONS: See Sect. VII for Garrard "Modules" sold with cartridge as standard equipment.

GENERAL ELECTRIC

RPX-040, 41, 42, 46, 61, 63; 9D		500-D1	9.95	A	RPJ-004
		500-S1	3.50	C	RPJ-005
		500-D25	9.95	A	RPJ-002
		500-S25	3.50	C	RPJ-001, 006
RPX-040A, 41A, 47, 50A, 51, 52, 53, 61A, 63A, 145, 146, 147; C13S; 12D; UFX-11		501-D7	9.95	A	RPJ-01D
		501-D1	9.95	A	RPJ-01D
		501-S1	3.50	C	RPJ-01S
		501-D25	9.95	A	RPJ-02D, 03D
		501-S25	3.50	C	RPJ-02S, 03S
502 Assembly discontinued. Order T-Holder and needles separately, T-HOLDER FOR ABOVE		502 Holder	1.00		
VR-II Series 4G-040, 41, 50, 52, 53, 61, 63		503-D7	9.95	A	4G-01D
		503-D1	9.95	A	4G-01S
		503-S1	3.50	C	4G-02D, 03D
		503-D25	9.95	A	4G-02S, 03S
		503-S25	3.50	C	
T-Holder for above cartridges		503 Holder	1.00		
CL-5, GC-5, GC-7		504-D7	9.95	A	ST-7D, ST-5D
		504-S7	3.50	C	ST-7S
VR-225, VR-227		505-D7	9.95	A	VR-221
		505-S7	3.50	C	VR-222
C-100; RS-3824. (Long Lever Arm) EA97X248, EA97X250		506-DS77	10.95	A	RS-3825, TA-2
		506-DD77	19.95	X	
		506-SS73	3.50	C	RS-4154, 4413
		506-SS77	3.50	C	
C-100A, C-200, C-400, C-450. RS-4694, 6295, 6769; EA80X152, EA80X208 EA97X479, 497, 569, 570 (507 has shorter arm)		507-DS77	10.95	A	RS-4634, TA-1
		507-DD77	19.95	X	
		507-SS73	3.50	C	EA97X216, EA97X561
		507-SS77	3.50	C	
C-50, C-500, C-600; EA80X165, 209 RS 6527, RS 6770		509-DS77	10.95	A	EA80X166
		509-DD77	19.95	X	
		509-SS77	3.50	C	RS6528
C-650, EA80X234, EA1013 (510 has longer leverarm, larger rubber coupler)		510-DS77	10.95	A	EA-1014, 2055, 2060, 2903
		510-SS77	3.50	C	EA80X-235, 324, 405, 481
C-660, EA80X2223		511-D7	9.95	A	EA-2224
		511-S7	2.50	B	EA80X-432
C-300; EA-1003, 1008, 1009, 1101, 1836 15355, 57, 58; RS6518; EA80X214, 361		164-DS77	10.95	A	EA1010; RS6519
		164-SS77	3.50	C	EA80X-215, 273

SEE SECTIONS IV & V for needles to fit other brand cartridges used by GE.

the generic stylus

Now you can offer a line of magnetic replacement styli that will give your customers quality sound at a money saving price! We've named our line **the generic stylus** because to many consumers the word "generic" means saving dollars without sacrificing quality.

ORIGINAL MFR. CARTRIDGE NUMBER	TRACKING FORCE	ORIGINAL COLOR			OUR NO.	SUCC. PRICE	CODE	ORIGINAL MFR. STYLUS NUMBER
ADC K6E, K7E, K8E, QLM32, QLM33	2½ grams	Blue, Gray	***		4110-DET	16.95	*	RK6E, RK7E, RK8E, RSQ32, RSQ33 .3 X.7 Elliptical
ADC R8, QLM30	3 grams	Blue, Gray	****		4111-D7C	13.95	*	RK8, RSQ30 .7 mil Conical
AUDIO TECHNICA AT13E	1 to 3	Red/Blk			612-D7	19.95	*	Conical Repl. for AT-13
AUDIO TECHNICA AT13E	1 to 2	Orange			612-DE	27.95	*	AT-13
AUDIO TECHNICA AT14S	1 to 2	Burgundy			612-DQ	33.00	*	AT-14
AUDIO TECHNICA AT10,11	1 to 3	Red, Yel, Cream	****		629-D7	19.95	*	AT-10,11
AUDIO TECHNICA AT11E,12	1 to 2	Grn, Blue			629-DE	24.95	*	AT-11E,12
AUDIO TECHNICA AT12S,12XE	1 to 2	Blk, White			629-DQ	33.00	*	AT-12S, AT-12S
AUDIO TECHNICA AT13Ea,15XE	1 to 3	Blk, Orng			679-D7	19.95	*	Conical Replacement
AUDIO TECHNICA AT13Ea,15XE	1 to 2	Blk, Orng			679-DE	27.95	*	AT-13,15XE
AUDIO TECHNICA AT14Sa, AT15SS, AT20SI	1 to 2	Red, Blk			679-DQ	33.00	*	AT-14,15,20
AUDIO TECHNICA AT70,71	1½ to 3	Red, Yel, White	****		697-D7	12.95	*	AT-70,71
AUDIO TECHNICA AT3600, 3600L, 3601, 3650, 3651	1½ to 3½	Gray, Red, Yellow	*****		4211-D6	15.95	*	ATN-3600, 3600C, 3600L
A - T AT3472P, 3482P	1½ grams	Gray, Whl, Blk, Blue	*****		4213-D6	15.95	*	ATN-3472P, 3472EP, 3482P

the generic stylus CONTINUED NEXT PAGE

SECTION II
NEEDLE BY
CARTRIDGE



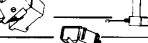
























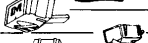

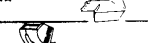



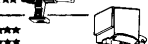







SECTION II

NEEDLE IDENTITY BY CARTRIDGE NUMBER

CARTRIDGE MAKER & NUMBER		ILLUSTRATION	OUR NO.	SUGG. PRICE	CODE	MANUFACTURER'S NEEDLE NUMBER	
the generic stylus CONTINUED							
EMPIRE 2000E Series	TRACKING FORCE 1½ grams	ORIGINAL STYLUS COLOR Clear, Red Blue, Grn		4237-DEC	19.50	*	S-2000E, 2000E/1, 2000E/11, 2000E/111 .3 X .7 Ellipt.
EMPIRE 2000, 66/X, & Private Label	2 grams	Smoke, Red		4237-D7C	13.95	*	S-2000, 66/X-7rd, 906, 909 .7 mil Conical
EMPIRE Private Label- See Sections IV & VI	1½ grams	Blk, White Purple		4239-PDE	18.95	*	S-906E, 910E, 912E .3X.7 Elliptical
EMPIRE 2000T, 2000Z and Private Label	¾ to 1½	Met. Red, Met. Sil.		4239-DET	29.95	*	S-2000T, Z .3 X .7 Ell. Has small brass tube
EMPIRE 100S	2½ to 5	Tr. Yel.		4241-D7	15.95	*	S-100S .7 mil Conical
EMPIRE 200F, 280LT, 300ME, 380LT & Private Label	1 to 3	Tr. Blue Smoke		4241-DME	19.95	*	S-200F, 280LT, 300ME, 380LT .3 X .7 Elliptical S22E
EMPIRE 400TC, 480LT, 500TD, 580LT, 800UFR, 900GT, 980LT & Private Label	¾ to 2	Tr. Purple Tr. Red Gld, Blk		4241-DEX	24.95	*	S-400TC, 480LT, 500TD, 800UFR, 900GT & Private Label S44E, S55E .2 X .7 Elliptical
EMPIRE 150C, 250E	1½ to 2½	Black		4243-D6	15.95	*	SC1, SE1 .6 mil Conical
EMPIRE 190LT, 290LT, 390LT	1 to 1½	Clr, Blue		4245-D6	15.95	*	S111, 333 .6 mil Conical
ORTOPON F, FF & MF-15 Ser- ies, both Mark I & II; Un- iversal Replacement	.8 to 2.5	White		4540-D7U	19.95	*	.7 mil Conical stylus for F, FF, N, NF- originals
ORTOPON F, FF & MF-15 Ser- ies, both Mark I & II; Un- iversal Replacement	.8 to 2.5	White		4540-DEU	24.95	*	.3X.7 Elliptical stylus for F, FF, N, NF- originals
ORTOPON/CONCORDE IM-10, 15, 20, 20H, 30, 30H	1.5 grams	Black		4541-DE	22.95	*	.3X.7 Elliptical stylus for STY-10, 15, 20, 30
PICKERING V15/ATE2, V15AM2, P/ATE, NP/ATE	3 grams	Gray		4604-DEC	14.95	*	DATE-2, DAM-2, PDE .3 X .7 Elliptical
PICKERING V15/AC2, V15/AT2, P/AC, P/AT, NP/AC, NP/AT	4 grams	Gray		4604-D7C	12.95	*	DAC2, DAT2, PDO7C .7 mil Conical
PICKERING V15/ACE3, V15/ATE3, V15/AM3	2½ grams	Gray		4605-DET	18.95	*	DACE3, DATE3, DAM3 .3 X .7 mil Elliptical
PICKERING V15AC3, V15AT3	4 grams	Gray		4605-D7C	13.95	*	DAC3, DAT3 .7 Conical
PICKERING XV15/100, /150	4 grams	Black		4606-D7C	14.95	*	D100, D150 .7 Conical
PICKERING Micro IV/AC, /AT	4 grams	Ivory		4607-D7C	14.95	*	IV AC, IV AT .7 Conical
SEEBURG V-200	4 grams	Blue		4726-D7/PR	14.95	*	246797; 2 per package
SEEBURG 370 Series	3 grams	Blue, Gray		4727-D7/PR	24.95	*	252710, 249731 2/package
SEEBURG Showcase Series	2½ grams	Yellow, Violet		4728-D7/PR	19.95	*	253719, 253772 2/package
SHURE/WURLITZER M17 for NSM Brand Jukeboxes	3 to 5	lt. Blue		4749-D7	19.95	*	N17CM .7 mil Conical
SHURE M44, M98-A	3 grams	White, Blue, Gray		4759-D7	13.95	*	N44-7, N44-C, N44-G .7 mil Conical
SHURE M44E, M55E, M80	2 grams	Brn, Yel		4759-DE	17.95	*	N-44E, 55E .3X.7 Ellipt.
SHURE M71, M74, M75, M81 Series	3 grams	Blue, Gray Beige		4760-D6	12.95	*	N74C, N75C, N75-6, N75-B .6 mil Conical
SHURE M71, M72, M75, M81 Series	2 grams	Green, Brn, Blk		4760-DE	16.95	*	N72E, N75E, N75ED .3X.7 Elliptical
SHURE M91, M92 Series	1½ grams	Blk, Yel		4761-DE	24.95	*	N91E, ED .3X.7 Elliptical
SHURE M93E	2 grams	Lt. Grn		4762-DE	19.95	*	N93E .3X.7 Elliptical
SHURE V-15 Type II	1½ grams	Black		4763-DE	29.95	*	VN-15E .3X.7 Elliptical
SHURE V-15 Type III	1½ grams	Black		4764-DE	32.95	*	VN-35E .3X.7 Elliptical
SHURE M95 Series	1½ grams	Green, Yellow		4767-DE	24.95	*	N95-EJ, N95-ED .3X.7 Elliptical
SHURE V-15 Type IV	1 gram	Black		4772-DHE	49.95	*	VN-45HE Hyperbolic Tip
STANTON 500E, 500EE	3½ grams	Black		4820-DE	18.95	*	D5100E, D5100EE .3 X .7
the generic stylus replacement needles listed above are not to be construed as having been manufactured by the Cartridge Makers for which they are listed. They are offered as an alternative to the original styli listed elsewhere herein.							
GRADO BC & BT Series Ceramic			525-D7	11.95	*	BCR/S, BTR/S	
NOTE: Other Grado styli previously offered have been discontinued due to uncertainty of availability.							
GOLDRING	530		LESA	552		AVAILABLE - INACTIVE	

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HITACHI							
HRD-100, 101	4 to 6	White	***** 	274-DS77	10.95	A	DS-5T
HC-1101, 1202; XTS-100, 120, 140		Gold-Blue Nickel	*** 	617-D7 700-D1	10.95 10.95	A	DS-LP1, ST2 HN-LP, SP1, ST2
MFS-170, 171; DPK-11	2 to 4	White		621-D7	19.95	*	DS-ST-3, HN-SP2
DPK-50, 310; DPQ2200; KS-2200, 2450, 2460		Yellow	*** 	813-DS77	10.95	A	DS-4T
IFS-240	2 to 4	White		694-D7	19.95	*	DS-ST5 .7 mil Conical
CFS-280		Nickel		692-D7	12.95	*	DS-ST9, HN-ST20 .7 mil
JC-16, SRP-1100		Nickel		680-D7	12.95	*	HN-ST-19 .7 mil Conical
VFS-250, 260	1 to 3 1 to 2	Cream Blue	***** 	629-D7 629-DE	19.95 24.95	*	DS-ST26 .7 mil Conical DS-ST104 .2 X .7 Ellip.
VFS-261	1 to 2	Caramel	*** 	201-DEX	45.00	*	DS-ST-26E
C-EX; MT-22	2 to 4	Green, Red		695-D7	19.95	*	DS-ST22, ST40; F-22
M7-11F	1½ to 3	Yellow		673-DQ	33.00	*	F-11 Shibata
DMC-2200	2 to 4	Blue		669-D7	19.95	*	DS-ST-102 .7 mil Conical
MT-30	1½ to 2½	Yellow	***** 	697-D7	12.95	*	DS-ST30
MT-103	1½ to 2½	Black		707-DE	24.95	*	DS-ST-103
MT-35, 36	2 to 4 2 to 5	Red White	***** 	710-D7 711-D7	19.95 12.95	*	DS-ST-35, 36
	1 to 3	White	* 	670-D7	19.95	*	DS-ST20
	2½ to 3½	Gray, Red	***** 	211-D6C	19.95	*	DS-ST7
RT-8500		Orange					
MT-12, 14, 18 (Elliptical)	1.3 grams	Gray, Grn	***** 	213-D6C	19.95	*	DS-ST-12, 14, 18
MT-13	1.3 grams	Gray	***** 	212-D6C	19.95	*	DS-ST13 .6 mil Conical
MT-33	1.3 grams	Blue	*** 	212-DEC	35.00	*	DS-ST33 .4 X .7 Ellipt.
MT-16	2 to 3	Black	*** 	214-D6	24.95	*	DS-ST16 .6 mil Conical
MT-17	2½ to 3½	Red		208-D6	30.00	*	DS-ST17 .6 mil Conical
	1 to 3	Red		734-D7	19.95	*	DS-ST32 .7 mil Conical
	3 to 5	Black	***** 	719-D7	9.95	*	SJN-45
I. M. S. - SEE NAGATRON							
JVC - JAPAN VICTOR							
PU-3012, VPF-96		White White		619-DS77 619-SS77	10.95 3.50	A C	DTS-1 STS-1
MD1004	2 to 4	White		621-D7	19.95	*	DT-16, DT-21 .7 mil Conical
CS-1006, 1007, HF		Black White		622-DS77 622-SS77	10.95 3.50	A C	DTS-2 ST-17
EG73011, SCC3, 05232, 31276, 75310		Gold-Blue	*** 	617-D7	9.95	A	DT-7, ETC.
MD-1008; CS-1020, 1021		Nickel		692-D7	12.95	*	DT-20, ST-20
4MD20X (Quad)		Gray		612-DQ	38.00	*	4DT-20X, 35X; MD20X Shibata
CS-1023DM		Black		630-D7	12.95	*	DT-23
HMD-1010, 1011HB; CS1027D	2 to 4	Red		638-D7	19.95	*	DT-25, 25H .7 mil Conical
MD-1012	2 to 4	White		694-D7	19.95	*	DT-27 .7 mil Conical
MD-1011H, 1013	2 to 4	Red, Grn.		637-D7	19.95	*	DT-29 .7 mil Conical
MD-1014	2 to 4 1½ to 3	Cream Green	***** 	629-D7 629-DE	19.95 24.95	*	DT-31, 35
MD-1016B; IM-15E, 15S MD-1016Z; 4MP10X	2 to 4 1½ to 3	Olive-Blk Yellow		673-D7 673-DQ	19.95 33.00	*	DT-33-G, H, S. .7 Conical 4DT-10X, x-5X Shibata
MD-1032	1 to 3	Red	* 	721-D7	19.95	*	DT-36 .7 mil Conical
Linear Track T.T. MD-1034		Blue		723-D7	27.95	*	DT-37
MD-1038	2 to 4	Yellow	***** 	710-D7	19.95	*	DT-38 .7 mil Conical
	1 to 3	Dk. Blue		739-D7	19.95	*	DT-41 .7 mil Conical
MD-1045	1.3 grams	Blue, Brn	***** 	213-D6C	19.95	*	DT-45, DT-45E, DT-57
ST-51; PU-1033	4 to 6	Black	***** 	719-D7	9.95	*	DT-51
MD-1055Z, 1055E	1½ to 2½ 3 to 4	Blue, Yel Red	***** 	211-D6T 211-D6C	19.95 19.95	*	DT-55, DT-55/II, 58 DT-55W
	2 to 3	Black		214-D6	24.95	*	DT-56

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JENSEN R, R2C, R3C, RS, RX X2J, X3J, EV 262D				535-DS73 535-SS73	10.95 3.50	A C	J-73XSD J-73X
KENWOOD-TRIO							
DM-11; V-11	1 to 2	White, Yel	****	697-D7	12.95	*	N-11, N-48
T-14-23	2 to 4	Gray		665-D7	19.95	*	N-23 .7 mil Conical
V-09	3 to 5 2 to 4	White White		621-D7 621-DE	19.95 24.95	*	N6-AT .7 mil Conical .2X.7 Filip.
V-32, V-33	1 to 3	Cream	****	629-D7	19.95	*	N-32, N-33, N-41
V-40, V-42	1 to 3 1 to 2	Green Blk, Blue		629-DE 629-DQ	24.95 33.00	*	.2X.7 Ellip. Shibata
V-30, 34, 36; T14-25, 30	2 to 4	White, Blue, Blk.		633-D7	19.95	*	N-25, 30, 34, 36 .7 Conical
V-35	2 to 4	Brwn, Ornge		696-D7	19.95	*	N-35
V-38	2 to 3	Purple	*	670-D7	19.95	*	N-38
V-39; Mk II	1 1/2 to 3	Orng, Blk		676-D7	19.95	*	N-39, 39/II
V-39 Mark III	1 to 3	Black		730-D7	19.95	*	N-39/III
V-43, -44	1 to 3	Tan, Blue		667-D7	19.95	*	N-43, 44
V-45	1 to 2	Black		707-DE	24.95	*	N-45
V-47	2 grams	Blue		716-D7	19.95	*	N-47
V-49	1 1/2 to 2 1/2	Orange	**	712-D7	19.95	*	N-49
V-50	1 1/2 to 2 1/2	Black		797-D7	19.95	*	N-50
V-51	1 to 3	Dk. Red	*****	740-D7	19.95	*	N-51/III
V-52	2 to 4	Blue	*****	710-D7	19.95	*	N-52
	1.5 grams	Black	***	743-D7	27.95	*	N-56, 56B
V-61, 66	1 to 3	Blue, Red	*****	732-D7	19.95	*	N-61, 66
V-63	1 1/2 grams	Blue	*****	213-D6C	19.95	*	N-63
V-64	1 to 3	Black	*	799-D7	27.95	*	N-64, 64C
V-65	1 to 3	Green	*****	119-D7	19.95	*	N-65
V-67	1 to 3	Blue	*****	819-D7	19.95	*	N-67
V-68	1 to 3	Blue	*****	794-D7	19.95	*	N-68
V-69	1 to 3	Red	*****	901-D7	19.95	*	N-69
V-70	1 to 2	Gry/Ivry	**	215-DE	24.95	*	N-70
V-71 (Photocell Cart.)	1 to 2	Black	NEW	903-D7	27.95	*	N-71
MAGNAVOX 560151, 560153 "Tilt" Cartridge							
560337, 338, 345, 346, 347, 350, 355, Astatic 163D, 165D, 197D, 669; EV 168, 198, 199, 275, 282, 284, 5095, 5097, 5098, 5149, 5166, 5543, 5544; Sears		*****		556-DS77 556-SS13	10.95 3.50	A C	560138, 560153 560157, 560167
560346, 560347, Astatic 197D; EV 5064D, 5078D, 5099D, 5543D, 5544D, 5808D		***		557-DS77 557-SS77	10.95 3.50	A C	560344, Ast. N2-SD; EV2644
560348, 560353, 560360, 560365		***		558-D7	9.95	A	560336, EV 2647D Single Tip 557
560348, 560353; EV 5064, 5078, 5096, 5336, 5543, 5544, 5808				369-DS77	10.95	A	560355-2
560369-1; Audio Technica; EV 6012D, 560398				376-D7	9.95	A	560352, 560356; EV 2640D Single Tip 369
560356-1, 7044250634		****		612-D7	19.95	*	560371-2; EV 2671D
560397-1; JVC 4MD35X; AT-12S		TRACKING FORCE ORIGINAL STYLUS COLOR		629-D7	14.95	*	560349-2, 7044250635
560369-10, 560432		1 to 3 Red		629-DQ	33.00	*	560372-2
560418		1 to 3 Yellow		697-D7	12.95	*	560424 (Red), 560433
560429, 25690396		2 to 4 Gray		707-DE	24.95	*	560421
560434		3 to 5 White		710-D7	19.95	*	560430, 25120026
				711-D7	12.95	*	560435

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MAGNAVOX CONTINUED							
569050008 25130071	2 to 4 1 to 3	Gray Red *****		211-D6C 211-D6T	19.95 19.95	*	5690600007 25130072
5604370021	3 to 5	Dk.Gray *****		111-D7C	25.95	*	5604370022
5604370033	4 to 6	Black *****		719-D7	9.95	*	5604370034
25130079, 25130081; Philips GP-330, GP-331	1 to 3	Gray *****		596-D7	19.95	*	5690600005 4H01510029, 4H01510031
5604370111	1½ grams	White *****		213D6C	19.95	*	5604370112
5690200003	2 to 4	Red, Gray *****		796-D7	12.95	*	5690300001
5690500007	2 to 4	Red, Gray *****		793-D7	12.95	*	5690300007, 5690600006
MARANTZ							
	2 to 4	Red *****		710-D7	19.95	*	CT-5S, 3000; CN-5440
	2 to 3	Green ****		209-D6T	19.95	*	CT-6S
	1.3 grams	Grn, Blue, White *****		213-D6C	19.95	*	TT-140, 240, 340, 430, 440
	1 to 2	Black *		799-D7	27.95	*	CTS-143, 243; TT-253, 353
	1 to 3	Red *****		819-D7	19.95	*	CTS-151; TT-275
	1 to 2	Orange ****		798-D7	19.95	*	CTS-153
	1 to 2	Black ***		214-D6	24.95	*	TT-285, 873
	2 to 3	Blk, Red, White ***		792-D7	19.95	*	CT-221, 300, 320, 500; CS-500
	1 to 2	Black ***		743-D7	27.95	*	CT, TT-333, 433, 443, 553
	2 to 3	Yellow ****		697-D7	12.95	*	500S
	1 to 1½	Gray ***		246-D6	19.95	*	TT-530
	1½ grams	Dark Blue ***		815-D7	19.95	*	CTS-551; TT-251, 351, 551
MASTERCRAFT							
RP-100, Y-310, Y-370		White		618-DS77 618-SS73	10.95 3.50	A C	SJN-1
MC-1-5	2 to 4	Grn, Wht		665-D7	19.95	*	MCL-5
MICRO-ACOUSTICS HAS GONE OUT OF BUSINESS. STYLI ARE NO LONGER AVAILABLE FOR THEIR CARTRIDGES.							
MGA - MITSUBISHI							
Many old numbers		Gold-Blue ****		617-D7	9.95	A	3D-20, ST-15, ST-16
DMC-6001, 6002	2 to 4	White		636-D7	19.95	*	3D-23, 24; SP-22, .7 Con.
SDL-5500; CRM350		White		689-D7	12.95	*	3D-29, 31 .7 mil Conical
CRM-450		Nickel		692-D7	12.95	*	3D-32, ST-11
DMC-8700	2 to 4	Red, Grn		638-D7	19.95	*	3D-33M .7 mil Conical
DMC-2200	2 to 4	Green		669-D7	19.95	*	3D-34M .7 mil Conical
Mag-1	1 to 3	Orange		667-D7	19.95	*	3D-37M
DMC-82; 1M; Mag-2	2 to 4	Green		677-D7	19.95	*	3D-38M .7 mil Conical
VM-MAG-3	1 to 3	Gray *****		629-D7 629-DE	19.95 24.95	*	3D-40M .7 mil Conical .2X.7 Ellip.
DP-200	1½ to 2½	Blk, Yel *****		697-D7	12.95	*	3D-42M, 45M
Mag-4	1½ to 2½	Black **		712-D7	19.95	*	3D-44M
Mag-47	2 to 4	Red, Brn *****		710-D7	19.95	*	3D-47M
	1 to 3	White		708-D7	19.95	*	3D-48M
	2 to 3	Black ***		214-D6	24.95	*	3D-51M, 55M
	2 to 3	Blue ***		744-D7	24.95	*	3D-52M
	2 to 3	Black ***		743-D7	27.95	*	3D-54M
	1 to 3	Red *****		119-D7	19.95	*	LT-55, 75
	1 to 2	Black *		799-D7	27.95	*	LT-156
	1 to 3	Red ***		792-D7	19.95	*	
	1.3 grams	Gray *****		213-D6C	19.95	*	3D-56M, 57M
MM-1, 2; Concorde	1½ to 2½	Black		4541-DE	22.95	*	3D-MM1, 2 .4X .7 E11.

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NAGATRON (I.M.S.)							
165S;175IS;185E;195IE	TRACKING FORCE 1 to 3	ORIGINAL STYLES COLOR Black		705-D7	19.95	*	RS165/175; RS185/195
INDUCED MAGNET SYSTEMS 1310	1 to 3	Red,Blu*****		736-D7	19.95	*	CN-104, 106
I.M.S. 1400, 1440 series	1 to 3	Orange		735-D7	19.95	*	1400ER, 1440E
NSM							
NSM/WURLITZER Juke Box	3 to 5	Lt.Blue		4749-D7	19.95	*	N17CM .7 mil Conical
ONKYO							
OC-2, OC-11, etc.		Gold-Blue ***		617-D7	9.95	A	DN-1ST, SN-1ST
OC-5M, 13M, 151M	2 to 4	White,Gray		621-D7	19.95	*	DN-5, 13 .7 mil Conical
OC-9, 20, 26		White		685-D7	12.95	*	DN-8, 9, 20; SN-20
OC-7, 10, 17	2 to 4	Black		682-D7	19.95	*	DN-7, 10, 17.7 mil Conical
OC-12C, CA		Black		674-D7	9.95	A	DN-12
OC-14S		Nickel		691-D7	12.95	*	DN-14ST
OC-15	2 to 4	Gray,Grn.		635-D7	19.95	*	DN-15
OC-16M	2 to 4	Brown		680-D7	19.95	*	DN-16 .7 mil Conical
OC-18M, 24M, 36M	2 to 4	Brn,Grn *		670-D7	19.95	*	DN-18 24,36 .7 mil Conical
OC-21M, 22M, 23M	Av. 2 to 4	Blue,Grn. Brown		660-D7	19.95	*	DN-21, 22, 23; SN-19
OC-27V	1 to 3	Green ****		629-D7	19.95	*	DN-27, 32
OC-29M, 34	2 to 4	Green		695-D7	19.95	*	DN-29, 34 .7 mil Conical
OC-410M	1 1/2 to 3	Red,Gray		614-DQ	33.00	*	DN-25
OC-31(Single-tip)	3 to 5	White		274-DS77	10.95	A	DN-31
OC-33	1 to 3	Red		668-D7	19.95	*	DN-33
OC-35V	1 1/2 to 3	Gold ****		697-D7	12.95	*	DN-35
OC-37V, 38	1 to 1.8	White,Blu ***		201-DEX	45.00	*	DN-ST37V, 38
OC-40	1 1/2 to 2 1/2	Black **		712-D7	19.95	*	DN-40
OC-201V, 202V	1 to 3	Blue ****		209D6T	19.95	*	DN-201, 202
OC-52	2 to 4	Red *****		710-D7	19.95	*	DN-52
OC-61	1 1/2 to 2 1/2	Red,Blue *****		211-D6T	19.95	*	DN-61, 63, 65, 68
OC-62	2 to 3	Black ***		214-D6	24.95	*	DN-62ST
	1 to 2 1/2	Red		117-D6	19.95	*	DN-66
	1 to 2 1/2	Red		119-D7	19.95	*	DN-67
	1 to 1 1/2	Clear *****		718-D7	24.95	*	DN-72ST
	1 to 3	Blk/Wht		698-D7	19.95	*	DN-1005
ORTOFON							
F15E	1.7 to 2.3	White	Current Production is "Universal" Type Rear Post	538-DEL	44.00	*	Numbers 538 thru 542 are products of Ortofon N15E .3X.7 Elliptical
FF15E MkII;FF15 II;FF15E	1.5 to 2	Red		539-DE	30.00	*	NF15EII,NF15II,NF15E
F15E Mk II; F15 II	1.5 to 3	White		539-DEL	44.00	*	N15EII,N15II .3X.7 Ellipt.
M20E Super	1 to 1.5	Blue		539-DEV	90.00	*	D20E Super .3X.7 Ellipt.
M20FL Super	1 to 3	Black		539-DEQ	95.00	*	D20FL Super "Fine Line"
FOR MANY OF THE STYLI LISTED HERE, THERE IS A LOWER-COST ALTERNATIVE. SEE <u>the generic styli</u> LISTING ON PAGE 14.							
VMS 3E; FF10XE	1.7 to 2.3	White		540-DEG	20.00	*	D3E .3X.7 Elliptical
VMS5E Mk II;FF15XE II	1.7 to 2.3	Yellow		540-DEL	30.00	*	D5E; NF15XE II .3X.7 Ell.
VMS10E Mk II	1.7 to 2.3	Green		540-DEV	50.00	*	D10E II .3X.7 Elliptical
VMS20E Mk I,II;M15E Super	.8 to 1.2	Black		540-DEX	70.00	*	D15E,20E,II .3X.7 Ellipt.
VMS30E Mk II	1 to 1.6	Blue		540-DEQ	90.00	*	D30E II "Fine Line"
LM5;MAG2E;OM5E;OMP5E	1.5 to 2	Black		541-DEG	30.00	*	STY-5E .3X.7 Elliptical
LM-10;OM-10;OMP-10; Concorde 10;EC-10;LM-15	1.3 to 1.7	Black		541-DEL	40.00	*	STY10,15 .3X.7 Ellipt.
LM-20;OM-20;OMP-20; TM-20H;Concorde 20	1 to 1.5	Black		541-DEX	75.00	*	STY-20 .3X.7 Elliptical
OM-30;OMP-30;SME-30H; TM-30H;Concorde 30	1 to 1.5	Black		541-DEQ	120.00	*	STY-30 "Fine Line"
TM-7, TM-10H P-Mount	1 1/2 grams	Black		541-DEP	25.00	*	STY-7 .3X.7 Elliptical
TM-14 P-Mount	1 1/2 grams	Black		541-DPX	30.00	*	STY-14 .3X.7 Elliptical
ULM 65E (OEM for Dual)	1.2 to 1.7	Black		542-DEG	36.00	*	DN165E .3X.7 Elliptical
ULM50E,52E,55E	1.3 to 2	Black		542-DEV	42.00	*	DN150E,152E,155E .3X.7
ULM 66E	1.2 to 1.7	Black		542-DEX	45.00	*	DN166E .3X.7 Elliptical
ULM 60E	1 to 1.3	Black		542-DEZ	79.00	*	DN160E .3X.7 Elliptical

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PANASONIC (TECHNICS)							
EPC-76SMAD, SMED	1½ to 2½	Yellow	****	209-D6T	19.95	*	EPS-76STSD, STED
EPC-75SMAD, SMCD, SMLD; EPC-77SMAD, SMD	2 to 4	Red Gray	*****	710-D7	19.95	*	EPS-75STSD EPS-75STCSD, 75SMLD
EPC-13, 16, 17 CAUTION! Similar to 704-D7 listed below	3 - 5	White, Red	*****	711-D7	12.95	*	EPS-38, 41
EPC-79, 86, 270, 271, 290	1½ to 2½	Green		706-D7	19.95	*	EPS-52, 53, 56, 270, 290 .7 mil Conical
EPC-08, 14, 27, 64, 70 EPC-02, 10, 11, 12, 29, 65, 69		Nickel Gold-Blue	****	700-D7 617-D7	9.95 9.95	A	EPS-041P EPS-04ST
EPC-01TTAD		Gold		110-D1	9.95	A	EPS-05STD
EPC-83; SMC-580, SC-581	2 to 4	Gray, Blk.		682-D7	19.95	*	EPS-08, 10, 12 .7 Con.
EPC-81, 95; ST-606		Nickel		691-D7	12.95	*	EPS-11
EPC-34TT, 35TT, 71WTA		Yellow		813-DS77 813-SS77	10.95 3.50	A C	EPS-13, 15
EPC-34STAD, BD, CD		Black		674-D7	9.95	A	EPS-14, 35
EPC-34STFA, STFAD, STGD		White		632-D7	12.95	*	EPS-18STFA; 34STFAD
EPC-40STAD, STBD		Black		681-D7	9.95	A	EPS-19
EPC-42STAB2, STAD	4 to 6	White		627-D7	12.95	*	EPS-25
EPC-74SMAD	1½ to 3	Gray, Yel	****	697-D7	12.95	*	EPS-29, 39, 74
EPC-07, 09STAD	2 to 4	White	***	704-D7	12.95	*	EPS-27, 37
CS-1025M		Nickel		692-D7	12.95	*	EPS-22
EPC-95SS		Nickel		693-D7	12.95	*	EPS-24
EPC-78, 82	1 to 3 1 to 3	Cream, Red Blue	****	629-D7 629-DE	19.95 24.95	*	EPS-31, 34, 35 .7 mil Con. EPS-30, 35EA .3X, 7 Ellipt.
EPC-96SS	2 to 4	Yellow		678-D7	19.95	*	EPS-28 .7 mil Conical
EPC-05STA	1½ to 3	Yellow		678-DQ	33.00	*	EPS-45STQD Shibata
EPC-451, 460 EPC-460C	1½ to 3 2 to 4	White Red Yellow		661-D7 672-DQ 672-D7	12.95 19.95 14.95	*	EPS-36 EPS-46STQD, 451QD, 465QD, Quad EPS-46STDS .7 mil Conical
EPC-23, 25, 28, 202 P-22, 23, 24, 25, 27, 28, 53S, 128	1 to 1½	Clr, Brn, Blu, Orng	*****	718-D7	24.95	*	EPS-22, 23C, 24CS, 25CS, 27CS, 28CS, 53CS, 202
EPC-36, 75SMHD	2 to 4	Gray	*****	211-D6C	19.95	*	EPS-43STSD; EPS-75STHSD
EPC-30, 33; P-30, 33, 510 to 550	1.25 gms	Gray, Blue	*****	798-D7	24.95	*	EPS-30, 33, 510 thru 550
	1 to 1½ 1 to 1½	Gray Green	****	212-D6C 212-DE	19.95 24.95	*	EPS-90SMBD, STGD EPS-90SMAD, STGED
EPC-91SMAD	1 to 1½	Ivory	****	213-D6C	19.95	*	EPS-91STSD, 71CS
PERPETUUM-EBNER							
				Needles are available. Not listed due to inactivity.			
PFANSTIEHL							
P-51				117-D7	9.95	A	117-D7, 117-S7
AT-3482P, 3482U, 3472P			*****	213-D6C	19.95	*	213-D6C
P-129			****	272-DS77 272-SS77	10.95 3.50	A C	272-DS77 272-SS77
P-149			***	273-DS77 273-SS77	10.95 3.50	A C	273-DS77 273-SS77
P-169, P-182			*****	274-DS77 274-SS77	10.95 3.50	A C	274-DS77 274-SS77
P-158D,			***	369-DS77 371-DS77 ^{OR}	10.95 10.95	A A	369-DS77 371-DS77
P-145D			***	510-DS77 510-SS77	10.95 3.50	A C	510-DS77 510-SS77
P-150D			***	511-D7 511-S7	9.95 2.50	A B	511-D7 511-S7
P-134D			*****	557-DS77 557-SS77	10.95 3.50	A C	557-DS77 557-SS77
P-143D			**	591-DS77 591-SS77	10.95 3.50	A C	591-DS77 591-SS77
P-15, P-88, P-94			***	617-D7 617-S7	9.95 2.50	A B	617-D7 617-S7
P-164				646-D7	9.95	A	646-D7
P-2, P-5, P-5S, P-8, P-8S, P-11, P-12, P-12S, P-16, P-33, P-35, P-40, P-45, P-47, P-91, P-204				700-D1 700-S1 700-S2 700-S3	9.95 2.50 2.50 2.50	A B B B	700-D1 700-S1 700-S2 700-S3

PFANSTIEHL CONTINUED NEXT PAGE

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SECTION II

NEEDLE IDENTITY BY CARTRIDGE NUMBER

SECTION II
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CARTRIDGE MAKER & NUMBER	ILLUSTRATION	OUR NO.	SUGG. PRICE	CODE	MANUFACTURER'S NEEDLE NUMBER
PFFANSTIEHL CONTINUED STEREO, P-300 Through P-314 MONO, P-56, P-315 Through P-334		702-D7 702-S3	9.95 2.50	A B	702-D7 702-S3
AT-3400	***** 	710-D7	19.95	*	710-D7
P-185D, P-186	***** 	711-D7	12.95	*	711-D7
P-187D	***** 	719-D7	9.95	*	719-D7
P-29		790-DS73 790-SS73	10.95 3.50	A C	790-DS73 790-SS73
P-10		791-DS77 791-SS73	10.95 3.50	A C	791-DS77 791-SS73
P-92, P-93		809-DS77 809-SS77	10.95 3.50	A C	809-DS77 809-SS77
P-184D	**** 	849-D7	9.95	A	849-D7
P-401D, P-409D, P-419D, P-425D, P-433D, P-440D	***** OSML ***** 	M-853-DS77 M-853-SS77	10.95 3.50	A C	M-853-DS77 M-853-SS77
P-404D, P-407D, P-410D, P-413D, P-422D	***** OSML ***** 	L-853-DS77 L-853-SS77	10.95 3.50	A C	L-853-DS77 L-853-SS77
P-400D, P-405D, P-406D, P-416D, P-430D, P-432D, P-179D	**** OSML ** 	S-854-DS77 S-854-SS77	10.95 3.50	A C	S-854-DS77 S-854-SS77
P-180D, P-181D, P-403D, P-411D, P-417D, P-420D, P-434D, P-439D, P-441D	***** OSML ***** 	M-854-DS77 M-854-SS77	10.95 3.50	A C	M-854-DS77 M-854-SS77
P-414D, P-423D, P-424D	*** * 	L-854-DS77 L-854-SS77	10.95 3.50	A C	L-854-DS77 L-854-SS77
P-408D, P-428D	** OSML 	S-855-DS77 S-855-SS77	10.95 3.50	A C	S-855-DS77 S-855-SS77
P-402D, P-412D, P-421D, P-426D, P-431D P-435D, P-438D	***** OSML ***** 	M-855-DS77 M-855-SS77	10.95 3.50	A C	M-855-DS77 M-855-SS77
P-415D, P-427D	** OSML 	L-855-DS77 L-855-SS77	10.95 3.50	A C	L-855-DS77 L-855-SS77
P-225D P-225		862-DS77 862-SS77	10.95 3.50	A C	862-DS77 862-SS77
P-132D, P-226, P-228, P-89 P-175D	***** *** 	864-DS77 864-SS77	10.95 3.50	A C	864-DS77 864-SS77
P-168D, P-177D	*** 	896-DS77 896-SS77	10.95 4.00	A D	896-DS77 896-SS77
P-176D	*** 	897-DS77 897-SS77	10.95 4.00	A D	897-DS77 897-SS77
P-171D		898-DS77 898-SS77	10.95 4.00	A D	898-DS77 898-SS77
P-170D		899-D7	10.95	A	899-D7
THE DARK HORSE, STRAIGHT ARROW		4763-DE	29.95	*	4763-DE
PHILCO		580 and 581 needles available. Not listed due to inactivity.			
PHILIPS	585 586 587 590 Available - Not Active				
AG-3060, 3063, 3066		588-S3	2.50	B	946/S47
AG-3201, 3202, 3221, 3222, 3301, 3302, 3303, 3304, 3305, 3308; GP-224, 228 I.P. Needle (588) same both series. 78 ndl. SMALL		588-D7 588-S7 589-S3	9.95 2.50 2.50	A B B	946/D42 946/S42, S46 946-S49
AG-3223, 28, 30; 3306, 10, 16, 24; 4000, 4126; GP-200, 04, 05 GP-224, 228, 230, 233, 300, 306, 310; P-143D		591-DS77 591-SS77	10.95 3.50	A C	946/DS1, 946/DS51 Also Repl. 946/SS0, 946/SS50 Single Tip
AG-3404, 05, 07; GP-404, 407, 410, 411		592-D7	19.95	*	946/D55
AG-3311; GP-231, 311, EV 5289 EARLY Replace Cartridge on late production		593-D7 593-S7	9.95 2.50	A B	GP-311
GP-371 Lt. Gray		638-D7	19.95	*	
GP-397 III White		705-D7	19.95	*	
GP-212, GP-213, NSM Jukebox		594-DS77	10.95	A	946/DS62, Wurlitzer NSM
GP-400, 401, 500 Gray, Black		595-D7	19.95	*	946/D60 .7 conical
CA-9036 Yellow		707-DE	24.95	*	9036 .4 X .7 Ellipt.
GP-330; GP-331 1 to 3 Gray	**** 	596-D7	19.95	*	See Magnavox
GP-499 1 to 3 Black	***** 	710-D7	19.95	*	
GP-780 2 to 4 Gray	***** 	211-D6C	19.95	*	

NEEDLE IDENTITY BY CARTRIDGE NUMBER

CARTRIDGE MAKER & NUMBER	TRACKING FORCE	ORIGINAL STYLUS COLOR	ILLUSTRATION	OUR NO.	SUGG. PRICE	CODE	MANUFACTURER'S NEEDLE NUMBER
PICKERING							
REFER TO PAGE ONE FOR EXPLANATION OF EXTRA LETTERS, ETC. IN THESE NEEDLE NUMBERS. See Price List for costs.							
These styli are original replacements for various Private Label types. See Section IV for these and other original numbers.	1 to 2 gr. 1 to 2 gr. 1 to 2 gr. 1 to 2 gr. 3/4 to 1 1/2	Black Gray Black Black Black		600-DSE-1 600-DSE 600-D6E 600-D7E 600-D8E	16.80 23.65 23.95 28.50 30.00	*	DSE-1 (607-DEM can sub) D5E (605-DEM can sub) D6E (607-DEM can sub) D7E (606-DEM can sub) D8E (606-DEL can sub)
IF YOU CANNOT FIND THE NUMBER YOU ARE LOOKING FOR, TRY SECTION IV. IT MAY BE A 'PRIVATE LABEL' TYPE.							
Mark II, T Guard, Stereo 90, 371, Stanton 45 X 45	4 to 7 gr.	Red Yellow Black		601-D7C	14.95	*	D-3707C D-3727C D-9007C
U-38, U-380, V-Guard	2 to 5 gr. 4 to 7 gr.	Black Red		603-D7T 603-D7C	14.95 14.95	*	D-3807AT D-3807A, C (Was Yellow)
THE FOLLOWING STYLI ARE PRODUCTS OF PICKERING & CO.							
V-15 Series, and all of the following: V-15-1, V-15-2, P/AT, NP/AT, P/ATE, NP/ATE, P/AC, NP/AC, NP/AME	3/4 to 1 1/2 2 to 5 gr. 3/4 to 3 2 to 5 gr. 2 to 5 gr. 3 to 7 gr. 3 to 7 gr.	Now ALL GREY. Used to come in different colors		604-DEM 604-DET 604-D7M 604-D7T 604-DEC 604-D7C 604-D3	24.75 22.35 14.95 13.95 16.95 13.95 21.95	*	D-1500-AME2; D AME 2 D-1500-ATE2; D ATE 2,-4 D-1507-AM2; D AM 2 D-1507-AT2; D AT 2, PD07T PDE D-1507-AC2; D AC 2, PD07C D-1527 1527
FOR MANY OF THE STYLI LISTED HERE, THERE IS A LOWER-COST ALTERNATIVE. SEE <u>the generic styli</u> LISTING ON PAGE 14.							
V-15/AME-3 Same as 604, V-15/ATE-3 with brush. V-15/AM-3 Use 604-D3 for 78 rpm V-15/AT-3 V-15/AC-3	3/4 to 1 1/2 2 to 5 gr. 1 to 3 gr. 2 to 5 gr. 3 to 7 gr.	Now All GREY. With Brush		605-DEM 605-DET 605-D7M 605-D7T 605-D7C	29.95 23.65 16.95 15.95 14.95	*	D-1500-AME3; D AME 3,D6EE D-1500-ATE3; D ATE3,4, D-1507-AM3; D AM 3 D-1507-AT3; D AT 3 D-1507-AC3; D AC 3
XV-15/1200E DCF 1200 XV-15/750E DCF 750 XV15/625E DCF 625 XV-15/400E DCF 400 XV-15/200E DCF 200 XV-15/140E DCF 140;625DJ XV-15/350 DCF 350 XV-15/150 DCF 150 XV-15/100 DCF 100	1/2 to 1 1/2 3/4 to 1 1/2 3/4 to 1 1/2 1 to 2 gr. 2 to 4 gr. 3 to 5 gr. 1 to 3 gr. 2 to 4 gr. 3 to 7 gr.	Black Black Black Black Black Black Black Black Black	Also replaces D1800E 	606-DEX 606-DEG 606-DEL 606-DEM 606-DET 606-DEC 606-D7M 606-D7T 606-D7C 606-D3	35.00 33.50 32.95 29.95 28.50 26.95 26.95 22.95 19.95 27.95	*	D 1200 in Gold Ellipse D 750 in Gold Ellipse D625, Gold, .3 X .7 Ellip. D 400 in Gold Ellipse D 200 in Silver Ellipse D 140 in Red Ellipse;DJ D 350 with Gold Dot D 150 with Silver Dot D 100 with Red Dot 4527 with Blue Dot
For 78 RPM in any XV-15 Cartridge							
V-15 Micro IV-AME V-15 Micro IV-ATE V-15 Micro IV-ACE V-15 Micro IV-AM V-15 Micro IV-AT V-15 Micro IV-AC	1 to 2 gr. 2 to 4 gr. 3 to 5 gr. 1 to 3 gr. 2 to 5 gr. 3 to 7 gr.	Ivory Ivory Ivory Ivory Ivory Ivory		607-DEM 607-DET 607-DEC 607-D7M 607-D7T 607-D7C	29.95 25.65 21.00 24.95 21.00 17.95	*	D IV AME D IV ATE in Gold D IV ACE in Gold D IV AM in Gold D IV AT in Gold D IV AC in Gold
For 78 RPM with Micro IV, Use 606-D3 Stylus							
XSV/5000, 5000U XSV/4000;XSP/4004 XUV/4500Q Quad. UV15/2000Q,2400Q Quad. XSV/3000;XSP/3003;XV1800S	1/2 to 1 1/2 .8 to 1.2 1 1/2 to 2 1/2 1 to 3 3/4 to 1 1/2	Ivory Ivory Blk-Blk Blk-Bronze Blk-Blk		608-DEZ 608-DEX 608-DQX 608-DEQ 608-DEV	80.00 56.00 64.95 54.95 54.95	*	D5000 Stereohedron D4000 Stereohedron D4500Q, Gold, Quad. D2000Q,2400Q; Gold; Quad. D3000;D1800S;Stereohedron
TL-4Super TL-3S TL-2E TL-1, 1E TLC	3/4 to 1 1/2 3/4 to 1 1/2 3/4 to 1 1/2 3/4 to 1 1/2 1 to 1 1/2	White White White White White		609-DEZ 609-DEX 609-DEL 609-DE 609-D7C	49.50 44.50 32.50 26.50 20.00	*	DTL-4S Stereohedron DTL-3S Stereohedron DTL-2E .3X.7 Elliptical DTL-1E .4X.7 Elliptical DLC .7 mil Conical
IMPORTS:							
DENON - JAPAN COLUMBIA EXCELL HITACHI JVC KENWOOD - TRIO MGA - MITSUBISHI PANASONIC PIEZO PIONEER SANSUI SANYO SHARP SONY TOSHIBA YAMAHA							
COMBINED LISTING. LOOK UNDER BRAND NAME FOR CARTRIDGE & NEEDLE NUMBERS, SPECIFICATIONS, ETC.							
See Under Following Brand Names				Our Number	Sugg. Price	C O D E	Original Needle Color Our Needle Color
Pioneer				611-D7	19.95	*	Ivory, Purple
Audio Technica, Magnavox				612-D7	19.95	*	Red/Black
Audio Technica				612-DE	27.95	*	Orange
Audio Technica, JVC- Nivico		ATS-13 ATS-14		612-DQ	38.00	*	Burgundy Yellow/Black
Sony, A.U.E., Electro-Voice				613-D7	12.95	*	Red
Excell, Sanyo; Lenco M-100				614-D7	19.95	*	Blue
Excell				614-DE	24.95	*	Red, Yellow
Excell, Onkyo				614-DQ	33.00	*	Gray, Red
Piezo SMT-29; Sanyo				615-D7	9.95	A	Nickel, Grn
Piezo MS-8, Y-153-3				616-D7	9.95	A	Nickel, Blk
Brother, Columbia, Hitachi, JVC, Mitsubishi, Onkyo, Panasonic, Piezo ST-7; Pioneer, Sansui, Sanyo, Sharp, Sony, Toshiba, Pfanstiehl, Etc.				617-D7	9.95	A	Gold-Blue
				617-S7	2.50	B	Gold-Blue
				700-S3	2.50	B	Gold

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SECTION II

NEEDLE IDENTITY BY CARTRIDGE NUMBER

CARTRIDGE MAKER & NUMBER		ILLUSTRATION	OUR NO.	SUGG. PRICE	CODE	MANUFACTURER'S NEEDLE NUMBER	
COMBINED LIST, CONTINUED						Color of Original	Our Color
Mastercraft, Piezo Pfanstiehl, Etc.			618-DS77 618-SS73	10.95 3.50	A C	White White	White White
JVC, Nivico, Japan Victor, Delmonico Pfanstiehl, Etc.			619-DS77 619-SS77	10.95 3.50	A C	Off White Off White	White White
Audio Tech., CEC, Columbia, Hitachi, JVC, NEC, Kenwood-Trio, Onkyo, Pioneer, Sansui, Sanyo, Sharp, Sony, Toshiba, Toyota, Yamaha			621-D7 621-DE	19.95 24.95	*	White, Gray White, Gray	White White
JVC, Rion, Sharp, Toshiba Pfanstiehl, Etc.			622-DS77 622-SS77	10.95 3.50	A C	Black Black	Black White
Pioneer			623-D7	19.95	*	Gray	White
Brother, Pioneer			624-D7	19.95	*	MANY colors	Gray
Sony			625-D7	12.95	*	Red, Green	Red
Sony			626-D7	19.95	*	Nickel	Nickel
Panasonic, Pfanstiehl			627-D7	12.95	*	White	White
Pioneer			628-D7	19.95	*	Yellow	Yellow
A-T, Akai, CEC, Columbia, Crown, Dual, EV, Hitachi, JVC, Kenwood, Magnavox, MGA, Onkyo, Panasonic, Sansui, Sanyo, Sharp, Sony, Toshiba, Yamaha	ATS-10, 11 *** ATS-11E, 12 ATN-12S, 12XE		629-D7 629-DE 629-DQ	19.95 24.95 33.00	*	Cream, Red Blue, Green Black, White	White Blue Charcoal
JVC-Nivico			630-D7	12.95	*	Black	Black
Sony			631-D7	19.95	*	Red, Orange	Red
Panasonic, National			632-D7	12.95	*	White	White
Kenwood-Trio			633-D7	19.95	*	White, Black	White
Sansui			634-D7	19.95	*	Ivory	Ivory
Audio Tech., CEC, Coral, Columbia, Onkyo Pioneer, Sansui, Sharp, Toshiba, Yamaha			635-D7	19.95	*	Gray, Green Black, White	Green
CEC, Coral, Micro Seiki, Mitsubishi, Sansui, Piezo 930, YM-101			636-D7	19.95	*	White, Red	White
JVC-Nivico			637-D7	19.95	*	Red, Green	Red
JVC-Nivico, Sanyo			638-D7	19.95	*	Red	Red, Silver
ONKYO			660-D7	19.95	*	Green, Blue Brown	Green
Panasonic, National, Piezo YM-108			661-D7	12.95	*	White	White
Pioneer			662-D7	19.95	*	Orange	Orange
Pioneer			663-D7	19.95	*	Black	Black
Sansui			664-D7	19.95	*	Gray, Black	Gray-Black
Sanyo, Sansui, Mastercraft, Kenwood-Trio			665-D7	19.95	*	Green, White	White
Sansui, Sanyo			666-D7	19.95	*	Red	Red
Kenwood-Trio, MGA, Sanyo, Sharp, Aiwa			667-D7	19.95	*	Tr. Orange Beige	Orange
A-T, Onkyo, Sony, Yamaha			668-D7	19.95	*	Orange, Red	Red
Hitachi, Mitsubishi, Sansui, Sharp			669-D7	19.95	*	Crn, Yel, Blu	Green
SONY, Columbia, Onkyo, Toshiba, Yamaha, Sansui			670-D7	19.95	*	Red, Yellow White	Red
Toshiba			671-D7	19.95	*	Nickel	Nickel
Panasonic, National			672-DQ	19.95	*	Red, White	Red
Panasonic, National			672-D7	14.95	*	Yellow	Yellow
JVC-Nivico			673-D7	19.95	*	Yellow Green, Black	Yellow
JVC-Nivico			673-DQ	33.00	*	Yellow	Yellow
Panasonic-National, Onkyo, Sharp			674-D7	9.95	A	Black	White
Sony			675-D7	19.95	*	Red, Green	Green
Kenwood-Trio			676-D7	19.95	*	Orange, Blk	Yellow, Black
Mitsubishi, Sansui, Toshiba			677-D7	19.95	*	Green Orange	Green
Panasonic, National			678-DQ	33.00	*	Gray	Yellow
Panasonic, National			678-D7	19.95	*	Yellow	Yellow
Audio Technica Audio Technica Audio Technica	ATN-14, 15SS, 20SS ATN-13, 15XE		679-DQ 679-DE 679-D7	33.00 27.95 19.95	*	Red-Black Orange	Black Orange Red
Brother, CEC, Onkyo, Sanyo			680-D7	19.95	*	Yellow, Red White, Brown	Brown
Panasonic, National			681-D7	9.95	A	Black	Black
Panasonic, NEC, Onkyo			682-D7	19.95	*	Black, Gray	Black
Sony, Sharp, Toyota			683-D7	9.95	A	Black	Black
Sony			684-D7	19.95	*	Green	Green
Brother, Onkyo, Sanyo			685-D7	12.95	*	White	White
Sanyo			686-D7	12.95	*	White	White
Sanyo, Sharp, Toshiba			687-D7	12.95	*	Blue, White	White
Pioneer			688-DQ	33.00	*	Black	Purple
CEC, Columbia, Mitsubishi, Piezo			689-D7	12.95	*	White, Green	White
Columbia, Hitachi			690-D7	12.95	*	Nickel	Nickel
Panasonic, National, Onkyo			691-D7	12.95	*	Nickel	Nickel
JVC-Nivico, Hitachi, Mitsubishi, Panasonic			692-D7	12.95	*	Nickel	Nickel

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NEEDLE IDENTITY BY CARTRIDGE NUMBER

CARTRIDGE MAKER & NUMBER	ILLUSTRATION	OUR NO.	SUGG. PRICE	CODE	MANUFACTURER'S NEEDLE NUMBER	
COMBINED LIST, CONTINUED						
					Color of Original	Our Color
Panasonic, National, Sanyo		693-D7	12.95	*	Nickel	Nickel
JVC-Nivico, Hitachi		694-D7	19.95	*	White, Red	White
Hitachi, Onkyo, Sharp, Sony, Kenwood, Toshiba		695-D7	19.95	*	Green, Rust	Red
Kenwood-Trio, Micro Sound V-2100-5,-6		696-D7	19.95	*	Gold Brown, Red	Gold
A-T, Aiwa, CEC, Crown, Denon, Hitachi, Kenwood, Magnavox, Marantz, MGA, Onkyo, Panasonic, Penney, Sanyo, Scott, Sharp, Sony, Toshiba, Yamaha (ATN-70, 71)	****	697-D7	12.95	*	Gold, Red, White	Gold
Sansui, Sharp, Pioneer K-85		698-D7	19.95	*	Blk/White	Black/White
Sansui		699-D7	19.95	*	Black	Black
Pioneer		703-D7	19.95	*	Green, Yel.	Yellow
Panasonic	****	704-D7	12.95	*	White	White
Toshiba, Nagatron, Akai		705-D7	19.95	*	White, Blk.	Black
Panasonic		706-D7	19.95	*	Green	Green
Acutex, Akai PC100, Excel, Hitachi, Kenwood, Magnavox, J.C. Penney, Philips, Piezo YM-308		707-DE	24.95	*	Yellow, Red, Blue, Black	Yellow
Sanyo		708-D7	19.95	*	Gray	Gray
Audio Technica, Sony		709-D7	19.95	*	Yellow	Yellow
A-T, Aiwa, Denon, Magnavox, Marantz, Onkyo, Panasonic, Pfanstiehl, Quasar, Sansui, Sanyo, Sharp, Sony, Toshiba, Yamaha, Zenith	*****	710-D7	19.95	*	Red, Gray, Yellow, White, Blue	Red
AUE, Hitachi, Magnavox, Panasonic, Sony	*****	711-D7	12.95	*	Org, wht	Orange
Fisher, Kenwood, Sansui, Sanyo, A-T AT952	**	712-D7	19.95	*	Black, Org	Black
Fisher, Sanyo		713-D7	19.95	*	Black	Black
A-T, Fisher, Sanyo, Teac, Yamaha	****	714-D7	19.95	*	Red, Gray	Red
Audio Technica, Fisher, Sanyo	***	715-D7	24.95	*	Black	Black
Kenwood, Sharp		716-D7	19.95	*	Blue, White	Blue
Pioneer		717-D7	19.95	*	Blk, Blue, Red, Yel	Black
Panasonic (Technics), Marantz, Onkyo, Yamaha	*****	718-D7	24.95	*	Clear	Clear
Brother, Chuo Denshi CZ680, Denon, JVC, Sanyo, Sears, Sharp, Wards	*****	719-D7	9.95	*	Black	Black
Sony		720-D7	24.95	*	Red	Red
CEC, Denon, JVC, Sanyo	*	721-D7	19.95	*	Red, Yel	Red
Shinwa CZ398, 698-3; CEC, Toshiba	***	722-D7	12.95	*	White	White
Audio Technica, JVC Linear Track Turntables	**	722-57	4.50	*	White	Black
Sharp Linear Track; Audio Technica		723-D7	27.95	*	Blue	Blue
Kenwood		724-D7	24.95	*	Black	Black
A-T, Fisher, Sanyo	****	730-D7	19.95	*	Black	Black
Sansui, Akai, Kenwood	****	731-D7	19.95	*	Black	Black
Acutex, Aiwa, Pioneer, Akai		732-D7	19.95	*	Red, Black	Red
Toshiba	*	733-D7	19.95	*	Various	Ivory
Toshiba; Induced Magnet Systems IMS 1400ER, 1440E	*	734-D7	19.95	*	Red	Red
Fisher; Sanyo, Aiwa, I.M.S., Hitachi (1 to 3 grams)	*****	735-D7	19.95	*	Orange	Orange
Gold Star; Gran Prix; Samsung; Sanyo (5 to 7 grams)	****	736-D7	19.95	*	Blue, Red	Med. Blue
Pioneer Moving Coil Cartridge	***	736-D7K	19.95	*	Dark Blue	Dark Blue
Sansui Linear Track	**	737-D7	79.00	*	Wht/Brn	Wht/Brn
JVC		738-D7	24.95	*	Gray	Gray
Fisher, Sanyo, Denon, Empire, Kenwood, Toshiba		739-D7	19.95	*	Dark Blue	Dark Blue
H.H. Scott ASC-21	*****	740-D7	19.95	*	Red, Or, Blk	Orange
Aiwa	*	741-D7	19.95	*	Red	Red
A-T, Aiwa, Akai, Marantz, Mitsubishi, Sansui, Toshiba, Kenwood		742-D7	19.95	*	Dark Blue	Dark Blue
Mitsubishi, Sansui	***	743-D7	27.95	*	Black	Black
Aiwa, Sanyo/Fisher	**	744-D7	24.95	*	Blue	Blue
Sanyo, Fisher	****	745-D7	27.95	*	Black	Black
Sony	***	746-D7	19.95	*	Blue, Black	Blue
Pioneer Moving Coil Cartridge	***	747-D7	24.95	*	Blue	Blue
		748-D7	54.95	*	Grey/Wht	Grey/Wht

IMPORTS CONTINUED NEXT PAGE

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CARTRIDGE MAKER & NUMBER		ILLUSTRATION	OUR NO.	SUGG. PRICE	CODE	MANUFACTURER'S NEEDLE NUMBER	
COMBINED LIST, CONTINUED						Color of Original	Our Color
Columbia, Singer, Piezo			790-DS73 790-SS73	10.95 3.50	A C	Black White	Black White
Columbia, Singer, Piezo			791-DS77 791-SS77	10.95 3.50	A C	Black Black	Black White
Marantz, Scott, Sharp, Toshiba, Sears		***	792-D7	19.95	*	Black, Red White	White
Chuo Denshi CZ800, Emerson, Lloyd, YorX		*****	793-D7	12.95	*	Red	Red
Fisher, Sanyo, Kenwood		*****	794-D7	19.95	*	Red, Black	Red
Pioneer P-Mount (T4P)		*****	795-D7	19.95	*	White	White
Fisher, Gran Prix, Lloyd's, Magnavox, Sanyo		*****	796-D7	12.95	*	Red, Gray	Red
Kenwood			797-D7	19.95	*	Black	Black
Panasonic (Technics) "P" Mount Turntables		*****	798-D7	24.95	*	Blue, Gray	Gray
Sharp, Kenwood		*	799-D7	27.95	*	Black	Black
BSR, Columbia, Hitachi, Panasonic, Sanyo, Sharp, Sonotone, Sony, Toyota		***	813-DS77 813-SS77	10.95 3.50	A C	Black White	Yellow Gray
Akai			814-D7	19.95	*	Black	Black
Marantz		***	815-D7	19.95	*	Blue	Blue
Pioneer			816-D7	19.95	*	Gray, Black	Gray
Fisher, Sanyo, Sharp		*****	817-D7	19.95	*	Black, Red	Black
Pioneer		**	818-D7	19.95	*	Yellow	Yellow
Kenwood, Marantz, Sansui, Sanyo		*****	819-D7	19.95	*	Blue, Red	Red
Scott, A-T		*	900-D7	19.95	*	Yellow	Yellow
Fisher, Sanyo		*****	901-D7	19.95	*	Red	Red
Sansui		*	902-D7	27.95	*	Black	Black
Kenwood		NEW	903-D7	27.95	*	Black	Black
AUE, Soundesign		NEW	904-D7	12.95	*	Orgn, Red	Orange
PIONEER							
PC-C3			617-D7	9.95	A	PL-N3	
PLC-6, 7, 8	TRACING FORCE 2 to 4	ORIGINAL STYLUS COLOR White	621-D7	19.95	A	PLN-6, 7, 8 .7 mil Conical	
PLC-9	1½ to 3	Gray	623-D7	19.95	*	PLN-9, PL-44 .7 Conical	
PC-10, 11, 14, 15, 20	2 to 4	MANY Colors	624-D7	19.95	*	PN-10, 11, 14, 15, 20	
PC-12, 110, 150	1½ to 3	Blk, Blue Red, Yel	717-D7	19.95	*	PN-12, 110, 110/11, 150	
PC-16, 30, 50	2 to 4	Purple Gray, Wht.	611-D7	19.95	*	PN-30, 50	
PC-35	2 to 4	Yellow	628-D7	19.95	*	PN-35 .7 mil Conical	
PC-Q1	1½ to 2½	Black	688-DQ	33.00	*	PN-Q1 Shibata	
AT-66	1 to 2½	Gray	635-D7	19.95	*	AT-21	
PC-65	1 to 3	Ivory	733-D7	19.95	*	PN-K65	
PC-75	1 to 3	Yellow	818-D7	19.95	*	PN-K75	
PC-85	2 to 4	Wht/Black	698-D7	19.95	*	PN-K85	
PC-131	2 to 4	Wht, Orgn.	662-D7	19.95	*	PN-131 .7 mil Conical	
PC-135, 155	1½ to 2½	Blk, Wht	663-D7	19.95	*	PN-135, 145, 155	
PC-200, 400, 600	1½ to 3	Grn, Yell	703-D7	19.95	*	PN-200, 400, 600, 800	
PC-220	2 to 4	White	710-D7	19.95	*	PN-220, 320	
PC-240	2 to 4	Gray	211-D6C	19.95	*	PN-240	
PC-230	1½ to 2½	Grn, Yel	211-D6T	19.95	*	PN-210, 230, 320	
PC-250T	1 to 1½	Black	213-D6C	19.95	*	PN250T, 295T, 305T	
PC-290	1 to 1½	White	795-D7	19.95	*	PN-290T, 300T	
PC-301, 291	1½ grams	Gray, Blk	816-D7	19.95	*	PN-291, 301	
PC-3MC, 4MC (Elliptical)	1½ to 2½	Wht/Brn Red	737-D7	79.00	*	PN-3MC, 4MC (Ellipt)	
PC-5MC, 6MC (Elliptical)	1½ to 2½	Gray, Red	748-D7	54.95	*	PN-5MC, 6MC (Ellipt)	

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CARTRIDGE MAKER & NUMBER	ILLUSTRATION	OUR NO.	SUGG. PRICE	CODE	MANUFACTURER'S NEEDLE NUMBER		
RCA RADIO CORP. OF AMERICA							
9890, 9953, 38453, 38598, 39550, 39851, 39919, 70332, 70338, 72552, 74067, 75976		640-D1 640-S1 640-S3	9.95 2.50 2.50	A B B	74068 38449, 39863 72345		
75475, 75575, 75625, 76318, 77779, Astatic 408, 410, Jensen 18, 19, 10		641-D1 641-S7 641-S3	9.95 2.50 2.50	A B B	75496, 74818 75770, 77899 75497		
RMP-200-1 thru -7; 106770A, 106771A, 109690, 108213A, 108214A Astatic 475, 477		643-DS73 643-DS77 643-SS77 643-DD77	10.95 10.95 3.50 19.95	A A C X	108215 108215 108800 108214		
RMP-200-8, 9, 10, 11; RMP-200A-2, -8 106770B, 106771B, 110021A,B; 110023, A, 111347, 111348, 115062 Astatic 487; EV 54, 133		644-DS77 644-DB77 644-SS73 644-SS77	10.95 19.95 4.00 4.00	A X D D	110022 110020		
RMP-203; 115050, 115059 EV 264		645-D7 645-S7	9.95 2.50	A B	115061		
RMP-202. MONO. 115057, 115058, 118054, 118187 EV 263, 5192		646-D7 646-S7	9.95 2.50	A B	115060		
RMP-204-1, -2, 115276, 115277, 115302, 115303, 115346 (647 will also replace single tip 651)		647-DS77 647-DB77 647-SS77	10.95 19.95 3.50	A X C	115329 115911 115328		
RMP-204-1C, -9; 117330, 117331, 122123 1 pc. Plast. (648 will also replace single tip 649)		648-DS73 648-SS73	10.95 3.50	A C	118198 118197		
RMP-204-5, -6. One Piece Plastic 116931, 116932, 118056, 12124		649-D7 649-S7	9.95 2.50	A B	118199 118200		
120694, 120695, 128393 RMP-205-2, -4		650-DS77 650-SS73	10.95 3.50	A C	122057		
RMP-204-15, -16. 126316, 126317, 126672		651-D7 651-S7	9.95 2.50	A B	126566 126567		
115703 (Same lever-arm as 647, but uses larger, external rubber coupler).		652-DS77 652-SS73	10.95 3.50	A C	130398		
131779, 132069, 138262; RMP-206 Dual tip 653 and single tip 654 interchangeable		653-DS77 653-SS77	10.95 3.50	A C	131780 131707		
131777, 131778, 131788, 132024, 25, 26, 27, 36, 69, 133078, 133750. LEVERARM CLIPPED ON ORIGINAL		654-D7 654-S7	9.95 2.50	A B	131781, 133625 132087, 133856		
Dimensia Components; MTT130 1 to 1½ Blue		212-DEC	35.00	*			
RONETTE							
DT-60, MT67, NE395, OV-6045, 9120, 9121; PL & PE395-2; P104, P1222; RA-283, 284, 395; T222, TO-222, 284, 285, 287, 395, 400. See ASTATIC and VARCO. Also many imports. STEREO: Astatic 70, 74, 76, 78, 80, 86, -TS, -TSB Also Argonne, Fuji, Orion Vaco, & MANY imports		701 Series - Available - Inactive 700-D1 700-S1 700-S2 700-S3 700-D7 700-S7	9.95 2.50 2.50 2.50 9.95 2.50	A B B B A B	5304LD; N8-1D 5304L; N8-1S 5304LN; N8-2S 5304N; N8-3S N8-7D, N7-7D N8-7S, N7-7S		
BF-40; Stereo OV, 105, 106, 208; T-MTG; TO-208, 291, 293; PE-90; EV 55, 96, 97; CX210, ST-21 Pfanstiehl P-300 through P-314, STEREO		702-D7 702-S7 702-S3	9.95 2.50 2.50	A B B	DI-075; PE90M SA-075; PE90M SA-250; PE90M		
DC04, 122, 222, 284, 395, 400, 422, 500, EV 87, 88, EV 135; PE-30; Sono. 14T. Pfan. P-315 thru P-334 (TA-600-222 uses 161 needle.)		702-D1 702-S1 702-S2	9.95 2.50 2.50	A B B	DI-100; PE30M SA-100; PE30M SA-200		
SANSUI							
MANY numbers	TRACKING FORCE	ORIGINAL STYLUS COLOR					
AT-6D	2 to 4	Gold-Blue		617-D7	9.95	A	ST-1
AT-21	2 to 4	White-Gray		621-D7	19.95	*	ST-6D .7 mil Conical
AT-3M	2 to 4	Gray-Blk.		621-DE	24.95	*	SN-21, 22 .2x.7 Ellip.
SU-10, SV-10A	1½ to 3	Red		635-D7	19.95	*	ST-9D; SN-24 .7 mil Conical
MC1-5	2 to 4	White, Grn		636-D7	19.95	*	ST-10 .7 mil Conical
MC-6S	2 to 4	Tr. Yellow		664-D7	19.95	*	SN-10, 10M .7 mil Conical
SV-27	1½ to 2½	Black		665-D7	19.95	*	SN-25 .7 mil Conical
SV-24, SC-37	2 to 4	White/Blk		680-D7	19.95	*	SN-26 .7 mil Conical
SC-31, SC-32	2 to 4	Ivory		699-D7	19.95	*	SN-27 .7 mil Conical
SV-34	2 to 4	Blue		698-D7	19.95	*	SN-28, SN-37
SV-36, 42	2 to 4	Green		634-D7	19.95	*	SN-31, ST-3200
SC-43	1 to 3	Burgundy		669-D7	19.95	*	SN-34
SV-45	1½ to 2½	Black		677-D7	19.95	*	SN-36, 42
SV-47	2 to 3	Orange		629-D7	19.95	*	SN-43 (SN-40X = 629-DQ)
SC-50	1½ to 3	Orange, Gry		712-D7	19.95	*	SN-45
SC-70, SC-80	1 to 3	Red, Blk		714-D7	19.95	*	SN-47
SV-101	1 to 3	Red, Yel		670-D7	19.95	*	SN-50, 33
				732-D7	19.95	*	SN-80, SN-60
				697-D7	12.95	*	SN-101

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CARTRIDGE MAKER & NUMBER	TRACKING FORCE	ORIGINAL STYLUS COLOR	ILLUSTRATION	OUR NO.	SUGG. PRICE	CODE	MANUFACTURER'S NEEDLE NUMBER
SANSUI CONTINUED							
SV-111, 1112	1 to 3	Orange, Burgundy	***** 	211-D6T	19.95	*	SN-111, 1112, 3601, 3601/2
SV-202	2 to 4	Yellow	***** 	710-D7	19.95	*	SN-202
SV-P212	1 to 3	Red	***** 	819-D7	19.95	*	SN-P212
	1½ to 2	Black	*** 	743-D7	27.95	*	SN-303
SV-P313, P515	1 to 1½	Black	***** 	213-D6C	19.95	*	SN-P313, 323, 515
SV-505	1½ to 2½	Grey	*** 	738-D7	24.95	*	SN-505
SV-707	1½ to 2½	Blue	*** 	744-D7	24.95	*	SN-707
SV-909, 757	1 to 2	Blk, Red	* 	902-D7	27.95	*	SN-909, 757
SANYO & FISHER MG-53D	1 to 3	Brown	***** 	209D6T	19.95	*	ST-53D, ST-38VD
	1 to 2	Yellow		202-DEM	50.00	*	ST-A1SD
36, 58, 59, STL 440		Gold-Blue	*** 	617-D7	9.95	A	STL-1D
STL-59A		Nickel		615-D7	9.95	A	STL-2D
(SANYO)	2 to 5	White	***** 	711-D7	12.95	*	ST-03, 50D
40T, 41G, STL-412		Yellow	*** 	813-DS77	10.95	A	ST-3D, ST-4D
CX-202-2, CX-202-3		Yellow	** 	813-SS77	3.50	C	
	1 to 2	Brown	*** 	201-DEX	45.00	*	ST-A3D
	3 to 4	Blue	***** 	211-D6C	19.95	*	ST-15D
MG-2	2 to 4	Green		665-D7	19.95	*	ST-5D .7 mil Conical
MGT-1, STL-42		White		685-D7	12.95	*	ST-6D, 2601K
		White					
RS-07260	4 to 6	Black	***** 	719-D7	9.95	*	ST-G6, G5, 170
MG-07, 08	1 to 2	Black, Red	***** 	817-D7	19.95	*	ST-07D, 08D
MGT-2, 42K		White		686-D7	12.95	*	ST-8D
MG-9, MG-17-10	1 to 3	Red, Viol	***** 	736-D7	19.95	*	ST-G9, G11
MG-10	5 to 7	Dark Blue	*** 	736-D7K	19.95	*	ST-G10
MG-09	1 to 3	Red, Blue	***** 	901-D7	19.95	*	ST-09D; STW-17J
MGT-3		Nickel		693-D7	12.95	*	ST-10D
MG-10J, 43	1 to 3	Black	** 	712-D7	19.95	*	ST-10J, 43D
MG-3	2 to 4	White		621-D7	19.95	*	ST-12D .7 mil Conical
		Gray		621-DE	24.95	*	
MG-12	1 to 3	Blue	***** 	119-D7	19.95	*	ST-G12
MGT-5		Blue, Wht		687-D7	12.95	*	ST-14D
MG-14	1 to 3	Red	***** 	819-D7	19.95	*	ST-G14, 670J
MG-15, 15G, 15L	2 to 3	Brn, Yel		680-D7	19.95	*	ST-15D
MG-25, 25L, 31J	1½ to 2½	Blue		614-D7	19.95	*	ST-25D, 31J
MG-40X (Quad)	1½ to 3	Tr. Blue		614-DQ	33.00	*	ST-40DX
MG-25J	1½ to 2½	White	* 	670-D7	19.95	*	ST-25J
MG-26, 36 (MG-45X=Quad)	1½ to 3	Orange		667-D7	19.95	*	ST-26D, 36D, 45DX
MG-26J	1 to 3	Brown	***** 	697-D7	12.95	*	ST-26J
MG-63D	1 to 2	Blue		206-DEM	27.95	*	ST-63D
MG-28, 28J	1 to 2½	Red	* 	666-D7	19.95	*	ST-28D, 28J
MG-29G, 55D	1 to 3	Red, Blk, Orange	***** 	740-D7	19.95	*	ST-29D, G, 55D, 57D
MG-30	1½ to 3	Red		118-D7	24.95	*	ST-30D
MG-34D	1 to 3	Red	* 	721-D7	19.95	*	ST-34D, ST-G8
MG-41J	2 to 4	Gray, Red		710-D7	19.95	*	ST-35D, 41J, 42D
MG-35VD, 36VD	2 to 4	Red, Gray	***** 	629-D7	19.95	*	ST-35VD, 36VD
MG-37D	1 to 2	Blue, Blk	***** 	746-D7	19.95	*	ST-37D, 37LD, 47D
MG-38D	1 to 3	Black	***** 	731-D7	19.95	*	ST-38D
MG-41	1½ to 2½	Blue, Orng	***** 	714-D7	19.95	*	ST-41D, 412D
MG-44	1½ to 2½	Black		713-D7	19.95	*	ST-44D
MG-44J, M11	1 to 1½	Gray, Blue	***** 	213-D6C	19.95	*	ST-44J, M11; TP-F8
	1 to 1½	Black	* 	799-D7	27.95	*	STP-50J

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CARTRIDGE MAKER & NUMBER	TRACKING FORCE	ORIGINAL STYLUS COLOR	ILLUSTRATION	OUR NO.	SUGG. PRICE	CODE	MANUFACTURER'S NEEDLE NUMBER
SANYO & FISHER CONTINUED							
	1 to 3	Red,Blk		210-DE	24.95	*	ST-51D, 51J
MG-66D, 67D	1 to 3	Red,Blk	***** 	794-D7	19.95	*	ST-66D, 67D
MG-100	1 to 3	Black ***		715-D7	24.95	*	ST-100SD
MG-102	1 to 2	Black	** 	745-D7	27.95	*	ST-102SD
MG-103	2 to 3	Black	*** 	214-D6	24.95	*	ST-103D
MM-107	2 to 4	Gray		708-D7	19.95	*	ST-107D,48D,G2
MG-140	2 to 4	Red *****		796-D7	12.95	*	ST-140, G13
	2 to 4	Red *****		793-D7	12.95	*	ST-05,707J
H H SCOTT							
ASC-21	1 to 3	Red	* 	741-D7	19.95	*	ASC-21 .7 mil Conical
	2 to 3	Red	*** 	792-D7	19.95	*	20SC
	1 to 3	Yellow	* 	900-D7	19.95	*	(ATN-3660YL)
SEEBURG							
V-200	4 grams	Blue		4726-D7/PR	14.95	*	246797 - 2 per Package
370 (Sapphire)	2 to 4	Gray Blue		727-D7 727-S7	29.95 21.95	*	727,728 made by Pickering 252710; Pickering D3107 249731; Pickering S3110
FOR MANY OF THE STYLI LISTED HERE, THERE IS A LOWER-COST ALTERNATIVE. SEE <u>the generic styli</u> LISTING ON PAGE 13.							
Showcase (Sapphire)	½ to 3	Yellow Violet		728-D7 728-S7	21.95 16.95	*	253719; Pickering D3407 253772; Pickering S3407
Background Music Systems	3 to 5	Green,Brn		728-D7B	21.95	*	253793,794;D,S34507
SHARP							
MANY numbers		Gold-Blue	*** 	617-D7	9.95	A	N-01D, 4SP, 11S; STY451,
C-54, 57, 512D		Yellow ***		813-DS77	10.95	A	N-03D, 07D
C-91D	2 to 4	White		621-D7	19.95	*	N-05D, 06D
	2 to 4	Gray		621-DE	24.95	*	
C-450, 516, 518		Black		683-D7	9.95	A	N-12,14, 16D; STY-450
C-512D		Black		674-D7	9.95	A	N-13D, 09D
C-93D, C-93E	2 to 4	Green Gray		635-D7	19.95	*	N-17D .7 mil Conical
C-95D, 703; OPT-1,2	1 to 3	White	*** 	629-D7	19.95	*	N-20D, STY202.7 mil Conical
	1 to 3	Green		629-DE	24.95	*	STY-213, 703 .2X.7 Ellip.
Cart. 101	1½ to 2½	White		716-D7	19.95	*	STY-101,111
Cart. 104, 114	1 to 3	Gray		698-D7	19.95	*	STY-104, 114,122
Cart. 105	1 to 3	Blue,Yel	**** 	697-D7	12.95	*	STY-105,115
107	2 to 4	Smoke,Blu		695-D7	19.95	*	STY-107,112
117	2 to 4	Gray		708-D7	19.95	*	STY-117
118	2 to 4	Gray	**** 	710-D7	19.95	*	STY-118,130
121 (Linear-Track T.T.)	Preset	Black		724-D7	24.95	*	STY-121;ATN-3721
123	2 to 4	Gray,Blue	***** 	211-D6C	19.95	*	STY-123,138,140,141,142,155
124	2 to 3	Black***		214-D6	24.95	*	STY-124
127	2 to 3	Red	*** 	792-D7	19.95	*	STY-127, STY-20SG
129,133,139	2 to 4	Black	* 	799-D7	27.95	*	STY-129,133,139
131	1½ grams	Gray	***** 	213-D6C	19.95	*	STY-131
132	3 to 5	Black	***** 	719-D7	9.95	*	STY-132,001
136,137	1 to 3	Cream,Blu		742-D7	19.95	*	STY-136,137
143	1 to 3	Gray	***** 	736-D7	19.95	*	STY-143,147,148,149
146	2 to 5	Red	***** 	793-D7	12.95	*	STY-146
150	1 to 2	Red	***** 	817-D7	19.95	*	STY-150,152
158	1 to 2	Red	***** 	901-D7	19.95	*	STY-158
PU-704		Blue-wht.		687-D7	12.95	*	STY-704
PU-705	1½ to 3	Orange Blue		667-D7	19.95	*	STY-705 .7 mil Conical
PU-707		Black		622-DS77	10.95	A	STY-707, (Single Tip)
PL-750	2 to 4	Blue		669-D7	19.95	*	STY-100,750 .7 mil Conical
PL-752	2 to 4	Green		695-D7	19.95	*	STY-107,112,751,752

SECTION II

NEEDLE IDENTITY BY CARTRIDGE NUMBER

CARTRIDGE MAKER & NUMBER	ILLUSTRATION	OUR NO.	SUGG. PRICE	CODE	MANUFACTURER'S NEEDLE NUMBER
SHURE 750 751 752 Available - Inactive					
ML-44; P-7, 8, 9; PC-2, 3, 4, 5, 6, 25NE, 72SVE; W-9; WC-6, 9, 10 Astatic 490, 491, 493		754-DS77 754-SS13 754-SS11	10.95 3.50 3.50	A C C	A-6, A-9 A-10, N-4
N3, M7, M7-21, M8, M21, M22		757-D7 757-D3	11.95 14.95	*	N21D For 78 RPM .7 mil Conical .3 mil Conical
FOLLOWING STYLI MANUFACTURED BY SHURE BROS.					
M-44-7, 44C, 44MA, 44MB, 98/A R-44C, M-44MC N-44E, 44EM, 55E, 80E 78 RPM Stylus for above		759-D7 759-D7C 759-DE 759-D3	19.95 19.95 21.95 25.95	*	N44-7 N44-C N44E, N55E N44-3 .7 mil Conical .7 mil Conical .4X.7 Ellipt. .0025 Mil Con.
M-75ED Type II M-75EJ Type II M-75ECS, M-81ECS M-71, M-75CS, M-75G, M75-6, M-81CS		760-DED 760-DEJ 760-DE 760-D6	36.95 31.95 25.95 16.95	*	N75ED Ty II N75EJ Ty II N75EC N75C, G-6 .2X.7 Ellipt. .4X.7 Ellipt. .4X.7 Ellipt. .6 mil Conical
M-74CSM M-74CSZ (Zenith only) 78 RPM Stylus for above		760-D7 760-D7Z 760-D3	21.95 17.95 24.95	*	N-74C N-74CZ N75-3; N70-3 .7 mil Conical .0025 Mil Con.
M-91E, ED, G; M-92E, G		761-DED	41.95	*	N91E, ED, G .2X.7 Ellipt.
M93E 78 RPM for M91, M92, M93		762-DE 761-D3	34.95 29.95	*	N93E N91-3 .0025 Mil Con.
FOR MANY OF THE STYLI LISTED HERE, THERE IS A LOWER-COST ALTERNATIVE. SEE the generic styli LISTING ON PAGE 14.					
V15 Type II Use 760-D3 for 78 RPM Upgrade for Type III		763-DE 764-DMR	59.95 79.95	*	VN15E VN35E, 35HE, 35MR .2X.7 Ellipt. Micro Ridge
M24H (Discrete Quad)		765-DQ	59.95	*	N24H Hyperbolic
SC35C 78 RPM Stylus for SC35C		766-D7 766-D3	23.95 29.95	*	SS35C SS78E .6 Mil Conical .5X2.5 Ellipt.
M95ED M95HE (Upgrade for M95ED) M95EJ, M95G 78 RPM Stylus for above		767-DED 767-DHE 767-DE 767-D3	43.95 57.95 39.95 29.95	*	N95ED N95HE N95EJ N95-3 .2X.7 Ellipt. Hyperelliptical .4X.7 Ellipt. .0025 Mil Con.
M70EJ, M72EJ M70B, M72B		768-DE 768-D6 769-DED 769-DEJ	21.95 16.95 56.95 45.95	*	N70EJ, N72EJ N70B, N72B SS39ED SS39EJ SS39B .4X.7 Ellipt. .6 Mil Conical .2X.7 Ellipt. .4X.7 Ellipt. .7 Mil Conical
SC39ED (Broadcast/Disco) SC39EJ SC39B		769-D7	34.95	*	SS39B .7 Mil Conical
See Sect. IV for numbers: SPS-1, 2, 3, 4		770-DEC	29.95	*	N11, 12, 13, 14 .4X.7 Ellipt.
IF YOU CANNOT FIND THE NUMBER YOU ARE LOOKING FOR, TRY SECTION IV. IT MAY BE A 'PRIVATE LABEL' TYPE.					
M97HE, ED		771-DHE	80.00	*	N97HE Hyperelliptical
M97LT Linear Track V15LT Linear Track		771-DLT 772-DLT	77.95 79.95	*	N97LT VN45LT Hyperelliptical Hyperelliptical
V-15 Type IV		772-DMR	89.95	*	VN45HE, MR Micro-Ridge
V-15 Type V-MR V-15 Type V M-111HE		773-DMR 773-DHE 773-DHL	135.00 125.00 82.50	*	VN5MR "Micro-Ridge" VN5HE Hyperelliptical N111HE Hyperelliptical
V-15 Type V-P		773-DLT	110.00	*	VN5P Hyperelliptical
EJ Label		774-DEJ	25.00	*	NDC-EJ .4X.7 Elliptical
M96LT M94LT; M92LT; LTP-2		775-DLX 775-DLT	68.00 28.00	*	N96LT N94LT .2X.7 Elliptical .2X.7 Elliptical
M92E M99E M104E M110HE		776-DE 776-DEL 776-DEX 776-DHE	20.00 30.00 44.00 67.50	*	N92E N99E N104E N110HE .4X.7 Elliptical .2X.7 Elliptical .2X.7 Elliptical Hyperelliptical
ML120HE (has red dot) ML140HE (has white dot)		777-DHE 777-DHX	95.00 125.00	*	N120HE N140HE Hyperelliptical Hyperelliptical
M105E		778-DE	61.00	*	N105E .2X.7 Elliptical
SONOTONE 801 803 805 806 807 810 AVAILABLE					
W9980, 2T, 5T, 7T Series Pfanstiehl P-136; EV 38		800-DS77 800-SS77	10.95 3.50	A C	N2T-SD, N5T-SD, N7T-SD N2T, etc.
3T Series EV 47 & 72 imported after 1969		802-DS77 802-SS73	10.95 3.50	A C	N3T-SD N3T
All 8T, 8TA, 8TA Series		804-DS77 804-SS73	10.95 3.50	A C	N8T, N8TA-SD N8T, N8TA
9T, 16T, 18T, 916T Series		808-DS77 808-SS77	10.95 3.50	A C	N9T, N16T, N18T, 9916-SD N9T, etc.
21T, 21TR, 23T, 24T, 31TA, 35T, 43T		809-DS77 809-SS77	10.95 3.50	A C	N21T-SD; JVC DTS-4 N21T, N22T, N35T

SONOTONE CONTINUED NEXT PAGE

SECTION II
NEEDLE BY
CARTRIDGE






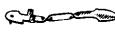
NEEDLE IDENTITY BY CARTRIDGE NUMBER

CARTRIDGE MAKER & NUMBER		ILLUSTRATION	OUR NO.	SUGG. PRICE	CODE	MANUFACTURER'S NEEDLE NUMBER
SONOTONE CONTINUED						
26T, 27T, with turnunder needle 100T with single tip, T shaped needle			811-DS73 811-SS73	10.95 3.50	A C	N26T, N27T-SD; N100T-D N26T, etc.
25T, 28T, 29T, 32T, 39T			812-DS73 812-SS73	10.95 3.50	A C	N25T-SD, N28T-SD N25T, N28T
51T, 52T, 54T, 60T, 65T, 66T. Also replaces most BSR needles and MANY Japanese types.			813-DS77 813-SS77	10.95 3.50	A C	MS, MSD, MS77, and many BSR and Japanese types
2539, 3509, 3559			494-DS77 494-SS77	10.95 3.50	A C	AD AS
SONY						
VL-5, VL-7E	TRACKING FORCE 1½ to 2½	ORIGINAL STYLUS COLOR Blue, Yel	****	209-D6T	19.95	* ND-5, ND-7E
XL-15, XL-25E	1½ to 2½	Red	****	720-D7	24.95	* ND-15G, ND-25E
VX-12P, 13P		Gold-Blue	***	617-D7	9.95	A ND, NS-116P
VC-7P, VC-8E, etc.		Nickel		626-D7	19.95	* ND-107, 111, 112
VM-9P	2 to 4	White		621-D7	19.95	* ND-113P .7 mil Conical
VM-10P, 11G; VM-15P	2 to 4	Gray		621-DG	24.95	*
VX-17P, 18P		Red, Orng		631-D7	19.95	* ND-114P, 115G, 117P Conical
		Red		625-D7	12.95	* ND-119P, 120P
VM-21, 22G, 22P, 24P, VM-26G, 1200G; NS-12	2 to 4	Red, Yell. Blue, Blk.	*	670-D7	19.95	* ND-124, 125, 126, 131, 132 .7 mil Conical
VX-23P		Red	***	613-D7	12.95	* ND-127D, P
VX-24P		Black		683-D7	9.95	* NS, ND-128P
VM-25G CD-4	1 to 3 1½ to 3	Green White	****	629-D7 629-DQ	19.95 33.00	* ND-129G .7 mil Conical * ND-130E, G Shibata
VM-27G	1 to 3	Orange		668-D7	19.95	* ND-135G
VL-30G, 32G	1½ to 2½	Red, Green		675-D7	19.95	* ND-133G, 134G
VL-33G, 36G	1 to 3	Orange	****	697-D7	12.95	* ND-136G .7 mil Conical
VL-37G	1 to 3	Yellow		709-D7	19.95	* ND-137G
VL-38GA	2 to 4	Orange	*****	710-D7	19.95	* ND-138G, 147G
VL-42G	1½ to 2½	Yellow	*****	211-D6T	19.95	* ND-142G
VL-43G	1 to 1½	Blue	***	747-D7	24.95	* ND-143G
VL-44G	1 to 2	Purple		210-DE	24.95	* ND-139G, 144G
VL-45G	1½ gram	Gray	*****	213-D6C	19.95	* ND-145G
VL-48G	1 to 2½	Blue	****	119-D7	19.95	* ND-148G
VX-52G	2 to 5	Red	*****	793-D7	12.95	* ND-152P
VI-53G	1 to 3	Black	***	214-D6	24.95	* ND-153G
VL-55G	2 to 4	Gray	*****	211-D6C	19.95	* ND-155G
VX-60G	2 to 5	Red	*****	711-D7	12.95	* ND-60G
VX-70 (Single-tip)	3 to 5	White	*****	274-DS77	10.95	A ND-70G
VL-100	2 to 4	Green		684-D7	19.95	* ND-100G
VX-108; VM-8GS	1½ to 2½	Red		695-D7	19.95	* ND-108G
CI-ST4		Lt. Blue	***	813-DS77	10.95	A ND-301P
STANTON						
500 BROADCAST SERIES	TRACKING FORCE 1 to 2 grams 2 to 5 grams 3 to 7 grams 3 to 7 grams	ORIGINAL STYLUS COLOR White, Gold ● White, Red ● White, Aqua ● White, Blue ●	All are products of Stanton Magnetics ** ***	820-DEE 820-DE 820-D7AL 820-D3	27.50 23.50 15.50 24.50	* * * * Stanton Number D5100EE & D-5, D-51 D5100E D5107AL D5127 Tip Size & Configuration .3 X .7 Ellipse .4 X .7 Ellipse .7 mil Conical 2.7 mil Conical
600 BROADCAST STANDARD H. P. SERIES	1 to 2 grams 1½ to 3 gr. 2 to 4 grams 3 to 7 grams	Black, 600 Black, 600 Black, 600 Black, 600		821-DEE 821-DE 821-D7A 821-D3	32.50 29.50 24.50 21.50	* * * * D6003EE & D-6, 61, 62 D6004E D6071A D6027 .3 X .7 Ellipse .4 X .7 Ellipse .7 mil Conical 2.7 mil Conical
681 CALIBRATION STANDARD SERIES WITH BRUSH	3/4 to 1½ gr. 3/4 to 1½ gr. 1½ to 3 gr. 2 to 7 grams	Black, EFF Black, Silv. ● Black, Silv. ● Black, Blue ●		822-DDEE 822-DEE 822-D7A 822-D3	49.50 44.50 36.50 36.50	* * * * D6800EE D6800EE D6807A D6827 StereoHedron .2 X .7 Ellipse .7 mil Conical 2.7 mil Conical
680 SERIES STEREO STANDARD	2 to 5 gr. 3/4 to 1½ 2 to 5 gr.	With Brush Minus Brush	*	824-DSL 824-DE 824-DEL	49.50 36.50 34.50	* * * D6800SL D680, D-65 D6800EL StereoHedron .3 X .7 Ellipt. .4 X .7 Ellipt.
881S PROFESSIONAL CALIBRATION STANDARD	3/4 to 1½	White		825-DEV	84.50	* D80, 81, 81S StereoHedron
L747S	3/4 to 1½	Clear		826-DEZ	49.50	* D74S StereoHedron
L737S	3/4 to 1½	Clear		826-DEX	42.50	* D73S StereoHedron
L737E	3/4 to 1½	Clear		826-DEV	36.50	* D73E .3X.7 Elliptical
L727E	3/4 to 1½	Clear		826-DEL	29.50	* D72E .3X.7 Elliptical
L720EE	3/4 to 1½	Black	***	826-DE	22.50	* D71EE .4X.7 Elliptical
TECHNICS - SEE PANASONIC						

SECTION II

NEEDLE IDENTITY BY CARTRIDGE NUMBER

SECTION II
NEEDLE BY
CARTRIDGE

CARTRIDGE MAKER & NUMBER	ILLUSTRATION	OUR NO.	SUGG. PRICE	CODE	MANUFACTURER'S NEEDLE NUMBER
TELEFUNKEN Mono TTSA Available T-10 Mono T-20, T-22 Stereo T-200, T-200/2, T-200/DS (SR-1, SR-20, TW-503 use 702 needle) T/23 (RED) TELEFUNKEN ONLY Grey PE-223/2 IS A DIFFERENT NEEDLE		841-DS77 841-SS77	10.95 3.50	* C	A20/DS, A22/DS A20/2, A22/2
		842-DS77 842-SS77	10.95 3.50	A C	A200/DS A200
		843-DS77 843-SS77	10.95 3.50	A C	A23/1, A23/2
TENOREL 2001 White		848-D7	27.95	*	N-2001D
TEPPAZ	 850  851	AVAILABLE - Not listed due to Inactivity			

TETRAD NOTE: TETRAD needles all have a uniform back end, and all will fit into any Tetrad cartridge. Output will vary with different needle length. To select the correct needle, place old needle on the EXACT SIZE PICTURES below. Match position of the rubber coupler, and overall length (from tip to back end) as closely as possible. To eliminate excessive inventory, we combine two original numbers in each of our numbers, making ours the median length. Variation is only a few thousandths of an inch, and does not appreciably affect performance.

Leverarm lengths are indicated by PREFIX Letters: O=No turnover (single tip), S=Short; M=Medium; L=Long. Use L for longer arms. Try to supply the same leverarm length, but a substitution of a different leverarm length will not affect playing. It may be necessary to clip off an arm that is too long, and interferes with record drop.

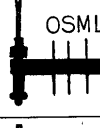




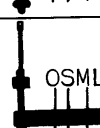

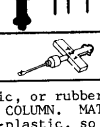
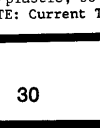




WE DO NOT OFFER THE ALL-PLASTIC VERSIONS OF TETRAD NEEDLES. The rubber-metal construction has better response characteristics and more compliance. It is a BETTER NEEDLE at the same price. USE THE SAME VISUAL COMPARISON METHOD TO SELECT A REPLACEMENT FOR THE ALL PLASTIC TYPES. Match the overall length, and the leverarm length, and the rubber-metal needle will fit and do a better job.

Special Note

TETRAD Replacement CARTRIDGES can be easily selected and sold, using our UNIVERSAL REPLACEMENT Method. We have analyzed the over-700 types produced by Tetrad, and reduced that staggering figure to just 13 numbers which cover all requirements. Each of these UNIVERSAL REPLACEMENTS is ready-to-use, with self-stick adhesive and Diamond Needle included. See SECTION III for complete details.









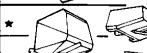










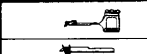
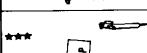
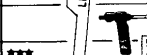
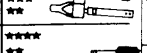
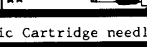




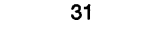





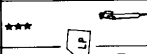
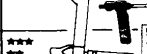

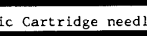

We also offer completely assembled replacements for the most popular Tetrad Cartridges, including the latest types furnished in BSR Changers, as well as a wide variety of replacements for the best-selling cartridges of most other makes—all at money-saving prices!

SECTION VII of this catalog includes exclusive Set-Model to Cartridge replacement listings. No other cartridge supplier offers this helpful information.

ANY TETRAD CARTRIDGE WITH THE FOLLOWING NUMBERS INCLUDED AS PART OF THE CARTRIDGE NUMBER OR STAMPED ON NEEDLE LEVER ARM.	EXACT SIZE ILLUSTRATION	OUR NEEDLE NUMBER	SUGG. LIST PRICE	CODE	TETRAD NEEDLE NUMBER	
50S, 50D, 60S, 60D, A0, B0, C0 BSR(Red color) Example: 2-50D-BSR18*; 2-B0D-2 T50HD	* 	O-853-D7 O-853-S7	9.95 2.50	A B	50, 60, BSR A0, B0, C0	Plastic Types Look Like This: (Not Actual Size)
51D, 51S, 61D, 61S, A1, B1, C1 Example: 2-51S-M10; 3-61D-14		S-853-DS77 S-853-SS77	10.95 3.50	A C	51, 61, K1 A1, B1, C1	
53D, 53S, 63D, 63S, A3, B3, C3 Example: 2-53D-BX; 2-C3D-247-3 TC8H1/T5HD TC8H6/T5HD	**** 	M-853-DS77 M-853-SS77	10.95 3.50	A C	53, 63, T5HD A3, B3, C3;	
52D, 52S, 54D, 54S, 62D, 62S, 64D, 64S, A2, B2, C2 Example: 6-A2D-C; 2-62D-ZZ	**** *	L-853-DS77 L-853-SS77	10.95 3.50	A C	52, 54, 62, 64 A2, 4; B2, 4; C2, 4	
20D, 20S, 40D, 40S, E0, G0 Example: 6-40D-BSR12; 14-E0D-BSR78	**** 	O-854-D7 O-854-S7	9.95 2.50	A B	20, 40 E0, G0	
21D, 21S, 41D, 41S, E1, G1 Example: 1-21D-V15; 3 G1D-V43		S-854-DS77 S-854-SS77	10.95 3.50	A C	21, 41, 121 E1, G1, T21D	
23D, 23S, 43D, 43S, E3, G3 TC12M1/T2MD, TC12M6/T2MD Example: 3-23D-W3; 6-G3D-B TC5/3MD	**** 	M-854-DS77 M-854-SS77	10.95 3.50	A C	23, 43, E3, G3 T2MD, T3MD	
22D, 22S, 24D, 24S, 42D, 42S, 44D, 44S, E2, G2 Example: 2-22D-Z5; 2-E2S-DC4	*** *	L-854-DS77 L-854-SS77	10.95 3.50	A C	22, 24, 42, 44 E2, 4, G2, 4	
10D, 10S, 30D, 30S, 90D, 90S, 110D Example: 2-10D-U4 (no plastic)	* 	O-855-D7 O-855-S7	9.95 2.50	A B	10, 30, 90 110D	Color of Plastic: A = Red B = Orange C = Yellow E = Blue G = Grey K = White
11D, 11S, 31D, 31S (No plastic) Example: 1-11D-M1; 6-31D-V12		S-855-DS77 S-855-SS77	10.95 3.50	A C	11, 31D 11S, 31S	
13D, 13S, 33D, 33S, 93D, 93S, T1LD Example: 2-13D-78-9; 8-33D-G2	**** 	M-855-DS77 M-855-SS77	10.95 3.50	A C	13, 33, 93D T1LD	SINGLE TIP VERSION MAY LOOK LIKE THIS 
12D, 12S, 14D, 14S, 32D, 32S, 34D, 34S Example: 3-12D-SN1; 6-32D-A	** *	L-855-DS77 L-855-SS77	10.95 3.50	A C	12, 14 32, 34	
70D, 70S, 80D, 80S (no plastic) Example: 3-80D-B; 3-70D-W10*	* 	O-856-D7 O-856-S7	9.95 2.50	A B	70D, 80D, TD-1 70S, 80S, TS-1	
71D, 71S, 81D, 81S, (no plastic) Example: 2-71D-V13; 5-81D-P4		S-856-DS77 S-856-SS77	10.95 3.50	A C	71D, 81D 71S, 81S	
73D, 73S, 83D, 83S, (no plastic) Example: 8-73D-242-3; 3-83S-W9*	** 	M-856-DS77 M-856-SS77	10.95 3.50	A C	73D, 83D 73S, 83S	
72D, 72S, 74D, 74S, 82D, 82S, 84D, 84S Example: 6-74D-SN1	** *	L-856-DS77 L-856-SS77	10.95 3.50	A C	72, 74 82, 84	
TZ1D (Special Truncated Tip for all record speeds)		S-854-TD	12.95	*	TZ1D	

To select the correct replacement for either an all plastic, or rubber-metal-plastic TETRAD Needle: JUST LAY THE OLD NEEDLE ON ACTUAL SIZE PICTURES IN CENTER COLUMN. MATCH OVERALL NEEDLE LENGTH, AND ARM LENGTH. Remember, our 3 piece needles perform BETTER than the all-plastic, so you do your customer a favor by selling ours. * Examples marked * are not actual cartridge numbers. NOTE: Current Tetrad production limits choice to equivalent of our M-853-DS, M-854-DS or M-855-DS types.

NEEDLE IDENTITY BY CARTRIDGE NUMBER

CARTRIDGE MAKER & NUMBER			ILLUSTRATION	OUR NO.	SUGG. PRICE	CODE	MANUFACTURER'S NEEDLE NUMBER
THOMSON STC-1000; Soundesign, Morse, Pathe			*** 	849-D7	9.95	A	STC-1000
TOSHIBA							
N-05,08,09,14,19C; TP-102, 125	TRACKING FORCE	ORIGINAL STYLUS COLOR	*** 	617-D7	9.95	A	N2C, N6C
C-03C, C10C		Black	*** 	622-DS77 622-SS77	10.95 3.50	A C	N3C, CB, DB
C-07M	2 to 4	White Gray		621-D7 621-DE	19.95 24.95	*	N4C, N4D .7 mil Conical .2X.7 Ellip.
C-22C		Blue White		687-D7	12.95	*	N11C, 14C .7 mil Conical
C-26M	2 to 4	Green		635-D7	19.95	*	N12C, D. .7 mil Conical
C-27M	2 to 4	Gray	* 	670-D7	19.95	*	N13C .7 mil Conical
C-300F (I.C. Cartridge)		Nickel		671-D7	19.95	*	N300C .7 mil Conical
	3 to 5	White	*** 	722-D7 722-S7	12.95 4.50	*	N-20C .7 mil Conical
C-29,35,52,53	1 to 3	Red,Yel, White	**** 	629-D7	19.95	*	N-14,52,53 .7mil Con.
C-59	1 1/2 to 2 1/2	Blue		629-DE	24.95	*	N-59 .4X.7 Elliptical
C-220M	2 to 4	Green		677-D7	19.95	*	N220M .7 mil Conical
C-55M	1 to 3	White,Grn	**** 	697-D7	12.95	*	N-55,56,57
C-44; C-280,290	1 1/2 to 2 1/2	Blk,Grn, Lt.Blue	* 	705-D7	19.95	*	N-44,280,290
C-45M	1 to 3	Orange	* 	735-D7	19.95	*	N-45M
C-64M	1 to 3	Dk.Red		734-D7	19.95	*	N-64M,62,66,69
C-50M, 51M	1 to 3	Red	***** 	740-D7	19.95	*	N-15C,50,51
C-21D	2 to 5	White	***** 	711-D7	12.95	*	N-21C,60C,61C
C-250M, 260M	2 to 4	Blk, Red	***** 	695-D7	19.95	*	N-250,260
	2 to 4	White	***** 	710-D7	19.95	*	N-60,70C,71M,293
C-72M	1 to 1 1/2	Black	*** 	743-D7	27.95	*	N-72D
C-32M	1 to 1 1/2	Red	***** 	213-D6C	19.95	*	N-32D
C-36C	1 to 2 1/2	Blue,Red	***** 	119-D7	19.95	*	N-36C,37
C-40	2 to 5	Black	***** 	719-D7	12.95	*	N-40C
C-16	3 to 4	Red	***** 	211-D6C	19.95	*	N-16D
C-77	1 to 3	Yellow	***** 	736-D7	19.95	*	N-77D
C-78	1 to 2	Black	* 	799-D7	27.95	*	N78D
SP-SC20	2 to 3	Red	*** 	792-D7	19.95	*	N-272,292
	1 to 3	Green		706-D7	19.95	*	N-320,330
	1 to 3	Red	* 	721-D7	19.95	*	N-501C
TOYOTA							
A-30D	2 to 4	White		621-D7	19.95	*	N05D .7 mil Conical
A-70D, A-200		Yellow	*** 	813-DS77	10.95	A	N-09D
A-300, A-351		Black		683-D7	9.95	A	N-14, 16-S, -D
VACO (Varco)		S-45, T-45 TN-45		860-D7 860-S1	9.95 2.50	A B	860-S2 and 860-S3 Also available
M-50				861-S2	2.50	B	C-50
TO-35, 45, 55, H43, H44, H45, H46; SN-45, SN-55, ST-1, 2, 3, 4, 20, 40, 100, 200; SS-4 See 700 listing under RONETTE for other cartridges			*** 	700-D1 700-D7	9.95 9.95	A A	TO-L, NBS-12-DLP ST-7D, NBS-14-DLP
TN-02-H, TN-02-HD, TN-20 Pfanstiehl P-224, 225				862-DS77 862-SS77	10.95 3.50	A C	LPS-D, NTO-9-DS LPS, TN, NTO-9-SS
MONAURAL CN-60, 62, 65, 67, 68 STEREO CR-70, 72, 73, 75; P-200,01,02,03			*** 	863-DS77 863-SS77	10.95 3.50	A C	CN-D, NTO-11DS CN, NTO-11-SS
TN-4A, 4B, 4D, 8, 8D, 8U; 2T-N4, N4D P-132D, 133D, 226, 228 ;Sngl tip TN-5			**** 	864-DS77 864-SS77	10.95 3.50	A C	TN-4,-5,-8; NTO-7, 8, 10 TN-4,-5,-8; NTO-7, 8, 10
WEBSTER ELECTRIC							
All Webster Electric Cartridge needles are available. Not listed due to inactivity.							

SECTION II
NEEDLE BY
CARTRIDGE

SECTION II

NEEDLE IDENTITY BY CARTRIDGE NUMBER

SECTION II
NEEDLE BY
CARTRIDGE

CARTRIDGE MAKER & NUMBER		TRACKING FORCE	ORIGINAL STYLUS COLOR	ILLUSTRATION	OUR NO.	SUGG. PRICE	CODE	MANUFACTURER'S NEEDLE NUMBER
YAMAHA								
CG-3000		2 to 4	White		621-D7	19.95	*	N-3000 .7 mil Conical
CG-4500		2 to 3	Black		668-D7	19.95	*	N-4500/2 .7 mil Conical
CG-5000		2 to 4	White		635-D7	19.95	*	N-5000 .7 mil Conical
CG-5500		2 to 4	Gray,Grn		670-D7	19.95	*	N-5500 .7 mil Conical
CG-6500		1 to 3	Gray		629-D7	19.95	*	N-6500 .7 mil Conical
CG-6600S (With guard)		1 to 3	Gray		697-D7	12.95	*	N-6600S
CG-6700,6900; YPC-1		2 to 4	Gray		710-D7	19.95	*	N-6700,6900
CG-6800		1 to 3	Gray		714-D7	19.95	*	N-6800
CG-7700,7800		1 to 3	Red,Gray		211-D6T	19.95	*	N-7700,7800,7900
CG-8100		1 1/2 to 2 1/2	Black		799-D7	27.95	*	N8100
CG-8300,8400		1 to 2	Smoke		718-D7	24.95	*	N8300,8400
ZENITH								
2G, 142-126, 127, 128, 136, 137, 138, 140, 141, 142, 143 Japan Columbia PU-1368					896-DS77 896-DD77	10.95 19.95	* X	S-55805, 52498 Col. DTS-4 62698 S-55804, 62648, 62649 62489
First version had metal frame around needle tubes					897-DS77 897-DD77	10.95 19.95	* X	S-68567 S-75801 S-68566
142-150, 151, 163, 166, 168 NOT INTERCHANGEABLE WITH 896					897-SS77	4.00	D	
142-167					898-DS77 898-DD77 898-SS77	10.95 19.95 4.00	* X D	S82621 S-83010X S83010
142-182 Short post, single tip					899-TD 899-D7	12.95 10.95	* *	56-632 (Truncated Tip) Same, with .7 mil Diamond
142-154, 159, 169					1853-DS77	10.95	A	56-534, 535, 590, 591
142-162, 164, 175, 177; 800-330					1854-DS77	10.95	A	56-551, 56-560
142-186, 187, 190, 191, 192, 193, 197, 198, 199					M854-DS77	10.95	A	56-639, 642
142-185 (Stamped "TZ1D")					S854-TD	12.95	*	56-638 (Truncated Tip)
142-189, 194			Lt. Blue		760-D6	16.95	*	56-641
142-195			Brown		760-DE	25.95	*	56-641-02
142-196			Lt. Green		760-DEJ	27.95	*	56-641-03
142-200			White		760-D7Z	17.95	*	56-641-04
78 RPM tip for 760 Series			Dk. Green		760-D3	18.95	*	56-641-01
942-100					111-D7C	25.95	*	856-163
942-239					710-D7	19.95	*	856-203
MD-1045 (AT-3472P)			Blue		213-D6C	19.95	*	DT-45

PLUG IN CARTRIDGES

ASTATIC SOUND FLO CARTRIDGES		OUR NUMBER	SUGG. PRICE	CODE	COLOR CODE Case Dot or Nose	ELECTRO-VOICE	ASTATIC	ZENITH	PHILCO	WEBCOR
	911-DS73	11.95	*	Black	Orange	81D, 89D	81, 89TX			
	911-DS77	11.95	*	Black	Orange	78D, 93D				
	911-SS73	8.95	*	Black or White	Black or White	81, 89	81T, 89T		325-8037	21P567
	912-DS13	11.95	*	Yellow			79D			
	912-SS13	8.95	*	Blue			79			
ELECTRO-VOICE POWER POINT CARTRIDGES "Power Point" is a registered Trade Mark of Electro-Voice, Inc.										
	941-DS73	12.95	*	Blue or Pink	Gold Silver	66D, 61D 66, 61	105D, 103D 105, 103			
	942-DS73	9.95	*	White		76D 76	91TX 91T			A1919D 21P491
FOLLOWING ARE AVAILABLE, BUT NOT LISTED DUE TO INACTIVITY										
				940	943	944 & 945	980	991	992	993

SELLING CARTRIDGES CAN BE EASY

GENERAL INFORMATION

Familiarize yourself with the catalog and these suggestions. Cartridge sales can be very profitable PLUS sales, and well worth a little effort.

Section VII - our EXCLUSIVE Set-Model to Cartridge Listing. The proper replacement is listed for thousands of phonographs, identified by Model Number, which is the easiest information to obtain from your customer.

Section III - within this section is a numerical listing of our comprehensive line of replacement cartridges, plus the magnetic cartridges under their respective brand names. This section tells you whether a cartridge is stereo or mono; the original manufacturer and his number, plus numbers assigned by other cartridge sellers; shows an illustration; lists the color of the cartridge body or shell, the tracking force range, type of element, output voltage, the needle used in the Replacement cartridge, and suggested list price.

Section VI - - a cross-reference listing of cartridges, showing the recommended cartridge to make a replacement. Listings include both actual Cartridge Manufacturers, and phono set makers who have assigned their own numbers to cartridges. Our cartridge line carries a "P-" prefix. Power Points (plug-in cartridges) are listed under our Needle Numbers in the "900" Series. ADC, Empire, Pickering, Shure and Audio Technica magnetic cartridges are listed under their own factory-designated numbers.

MAGNETIC CARTRIDGES



Magnetic cartridges, or pickups, are almost always used in the more expensive types of turntables or changers sold as components. They are also used in "top of the line" phonographs, (usually separate component set-ups) sold by a few major companies. The mounting characteristics and physical size are fairly standard so that you can sell almost ANY magnetic cartridge to replace another magnetic cartridge if you pay attention to the voltage output and tracking pressure. Tracking pressure, and compliance are the two details which distinguish one cartridge from another in a given makers series. The lower the tracking pressure, the higher the compliance. With higher compliance comes wider range frequency response, better channel separation, less record wear, etc.

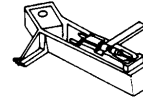
You will note that prices increase almost in direct proportion as tracking forces go down. Here is where salesmanship comes into play, and you get a chance to SELL UP. Study pages 40 to 42 and note the types of units for which given cartridges are recommended, such as "Professional Tonearms", "Light Tracking Automatic Turntables", "Light Changers" and "Changers". Your efforts to SELL UP should not go against these recommendations, or your customer could be disappointed. It would be a waste of time to sell a Cartridge of Top Quality for use on an old changer - it wouldn't track properly; the stylus would retract into its shell. If you adjusted the arm to the proper low pressure, it would very likely skip, and undoubtedly would fail to trip the changer mechanism. On the other hand, if you sold a P/AC to the owner of a high quality turntable with a professional arm, he would not get the quality of reproduction compatible with that type of equipment. Elliptical tips are used on all the top grade cartridges and styli because this shape more closely approximates the very sharp tip of the cutting stylus. The reduced area of contact between the tip and the groove gives a better "reading" of the tiniest variations in the groove. However, an elliptical tip is NOT suitable for playing records except at the very light tonearm pressures of a high quality turntable or changer.

There's nothing mysterious or magical about magnetic cartridges. Don't hesitate to show your customer the magnetic cartridge page of our Needle & Cartridge Catalog. Discuss tonearm pressures, frequency response variations and channel separation differences between one cartridge and another. If the customer has a good quality turntable or changer, with magnetic inputs available on the amplifier used, he is a good prospect for a high priced magnetic cartridge. It is MOST likely that the cartridge selected will fit his tonearm. Some cartridges, (Pickering, for example) come with a package of special mounting plates, to fit various tonearms. ALL the cartridges include mounting screws and complete installation instructions for correct connections.

SPECIAL SUGGESTION: Imported sets with Japanese magnetic cartridges can be a problem. You can sell an American Magnetic Cartridge of the customer's choice to replace most Japanese pickups. Sometimes it is more practical in dollars and cents to sell a complete U.S. cartridge instead of trying to obtain a replacement needle - unless it is a needle included in our wide line of import replacements. If the cartridge needs replacing, it is even more practical to sell him a U.S. type, for which needles are readily available.

IF YOU READ THESE TWO PAGES!

CERAMIC & CRYSTAL CARTRIDGE SELECTION



One way or another, you can almost certainly determine which cartridge is needed by using this Needle & Cartridge Catalog. Remember that it is NOT vital that the replacement be an exact, look alike duplicate of what was in the machine. Set makers sometimes change the cartridge used in the middle of a model run. Servicemen install suitable replacements which may not duplicate what was originally used. What IS important is that the pickup selected have the correct ELECTRONIC characteristics (signal strength and range), operate at comparable tonearm pressures, and fit in the tonearm. Our guide offers THREE WAYS to select a suitable replacement:

1. BY SET MODEL NUMBER

Now, for the first time, you can identify a replacement for a great many sets without knowing the make and model of the cartridge. With our Exclusive SET MODEL TO CARTRIDGE LIST (Section VII), you can determine what to use in any one of thousands of phonograph models, and be confident you will have one with the right electronic and physical properties to do the job.

2. BY CARTRIDGE MAKE & MODEL NUMBER

If customer brings in the old cartridge, or a number from his set or Owner's Manual, refer to CROSS REFERENCE (section VI). This includes numbers assigned to cartridges by set manufacturers, as well as those assigned by the actual maker of the cartridge.

Generally, the model number is marked on the old cartridge - frequently molded into the plastic body. In addition to the model number, you may find a code number (usually three digits). An Astatic cartridge might have "3-70" on it, which means it was made in the third month of 1970. An EV cartridge might have "370" on it, which means it was made in the 37th week of 1970 (or 1960, if a very old type). **IGNORE THESE NUMBERS.** Look for a MODEL NUMBER . . . look at the KINDS of model numbers listed in Section II under a given brand name, and watch for numbers with similar combinations of letters and numbers. For instance, 5015D would be an EV number, or 86TSB would be an Astatic number. Magnavox numbers have six digits, plus a hyphen and another digit, as "560315-1". GE Cartridges have a letter and 3 digits, as "C650", or a factory number, like "EA-1066". RCA may use a number like "RMP-200-4", or one like "115276". Look for "family" similarities, and you'll soon become an expert! See special suggestions on replacing Tetrads cartridges on Page 39

3. BY VISUAL IDENTIFICATION

Replacing imported cartridges is a different ball game. Very few have any numerical identification, and those that do may use a "private label" number put on there for the set maker. That's why we give you MEASUREMENTS of our Japanese replacements. First determine whether it is a monaural cartridge (which has TWO connector pins), or a stereo cartridge (with 4 pins). The color of the cartridge body is not vital, but when you can match it by color, size and shape, do so. Make a special effort to match the HEIGHT (or depth), so it will extend the needle out from under the edge of the tonearm. The width of those which clip into the arm is important, **BUT YOU CAN BEND THE POINTS TO FIT A SLIGHTLY WIDER OR NARROWER ARM**, as long as the rest of the criteria match.

For other than Japanese cartridges, you can often match cartridges physically if you pay attention to some general rules regarding electronic characteristics. The VOLTAGE OUTPUT should be equal to, or slightly higher than that of the cartridge to be replaced. If the output is known, it is simple to refer to the catalog for the output of the cartridge you intend to use. If unknown, it is a general rule of thumb that the cheaper the phonograph itself, the higher the output of the cartridge used. Thus a low priced portable will almost always use a 2.5 to 3 volt cartridge. For a more expensive phonograph, a 1 volt, or .5 volt cartridge will probably do the job, as far as output is concerned.

Usually, tracking force and output are related. The higher output cartridge requires higher tracking pressures, so again, the quality of the phonograph is a clue. There is also a definite relationship between voltage output and sensitivity. The lower the voltage, the higher the sensitivity and/or width of frequency range.... you get better music from lower voltage cartridges, almost invariably.

In most cases, our recommended replacement will be a duplicate of the original, but in those cases where a substitute is listed, it is a simple job to make the changeover. Usually, it is necessary to remove two screws holding the mounting bracket, and use the bracket which comes with the new cartridge. It may, in rare cases, be necessary to unsolder wires from old clips or a connector plug, then re-solder them to new clips or plug, but this, too is not too difficult for anyone with normal finger dexterity, a soldering iron and a pair of tweezers.

SECTION III







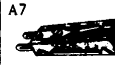
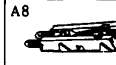







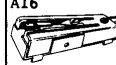
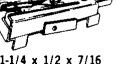







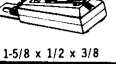




Pfunstiehl

CARTRIDGES IN NUMERICAL ORDER

SECTION III
CARTRIDGE
LISTING

Cat. No.	Mono or Stereo	Replacement Notes	Fig.	Body Color	Repl. Needle Number	Track Force Grams	Element	Output, Volts	Sugg. Price
P-2	M	GE, RT-1054, 1660 (SHOW N TELL), Majorette National, Panasonic, Philco, Realistic	A1	White	700-S1	6	Xtal	2.5	7.95
P-5	M	Alaron, Aristo, Bradley, Canary, Channel Mast, Delmonico, Electra, Electro, Four Star, GE, Gaytone, Givtone, Heritage, Juliette, Lloyd, Mastercraft, Metex, Philco, RCA, Raleigh, Sublime	A2	White	700-S1	4	Xtal	2.8	8.95
P-5S	M	Belair, Browni, Electra, Elite, Empire, Gaytone, Highwave, Marlin, Mastercraft, Nuvox, Singer, Ross, Toshiba, Tru-tone (Western Auto)	A3	White	700-S1	4	Xtal	2.8	4.45
P-8	M	Alaron, Aristo, Arvin, Belair, Bradford, Browni, Chnlmaster, Crown, Empire, GE RT-2716, 2717, Juliette, Magnavox 560313-5, Mastercraft, North American, Nuvox, Paros, Peerless-Telerad, Philco RCA, Raleigh, Realtone, Ross, Silvano, Singer, Symphonic, Toshiba, Viscount, Webcor	A4	Gray	700-S1	4	Cer.	1.0	9.25
P-8S	M	Advanco, Belair, Browni, Commodore, Electra, Elite, Empire, Fourstar, Gaytone, Highwave, Mastercraft, Mercury, Nuvox, Robin, Ross, Silvano, Singer, Sonele, Soundwave, Sublime, Tempest, Windsor	A5	Gray	700-S1	4	Cer.	1.0	9.25
P-10	S	Singer PU-1299	A6	White	791-SS77	3	Xtal	0.7	7.95
P-11	M	Arrow, Crown, Delmonico, Electra, Fourstar, GE, Kyoel, Peerless-Telerad, Realtone, Takt, Tempest, Tenphonic Toshiba, Viscount FHF, Webcor	A7	Gray	700-S1	4	Cer.	0.5	6.95
P-12	M	Alaron, Commodore, Electra, Electro, Fenco, GE RS-6623, Heritage, Katone, Lloyd PH-42, Mastercraft, Metex, Midland, Philco, Realtone, Ross, Spicola, Stellar, Sublime, Takt, Taya, Viscount, Webcor	A8	White	700-S1	4	Xtal	2.0	5.45
P-12S	M	Electra, Fourstar, Midland, Ross, Takt, Tru-tone	A9	White	700-S1	4	Xtal	2.0	5.45
P-15	S	Electra, Gaytone, M-craft, Ross, Takt, Taya	A10	White	617-S7	4	Xtal	1.0	8.75
P-16	M	Alwa, Arvin, Delmonico, DeJay, GE RT-1051, EA-2389, Majorette, Philco, Starlite, Supra	A11	White	700-S1,3	8	Xtal	3.5	6.95
P-29	S	Singer Automatics, 484-023-008	A12	Gray	790-SS77	6	Cer.	0.5	9.85
P-33	M	Galaxy, Heritage, Nuvox, RCA, Taya, Toshiba	A13	White	700-S1	4	Xtal	2.8	8.95
P-35	M	Granada, Marlin, Sound Master, Viscount, Webcor	A14	White	700-S1	4-6	Xtal	2.0	6.45
P-40	M	General Electric RT-4240, EA 2467	A15	Gray	700-S1	6-8	Cer.	0.75	6.20
P-45	M	Alaron, Electro, Fourstar, Midland, Naco, Sharp Starlight, Takt (Round Pins)	A16	White	700-S1	2-4	Xtal	1.0	7.45
P-47	M	North American	A17	White	700-S1	2-4	Xtal	1.0	7.45
P-51	M	Arvin, Record Eater, Commodore	A18	Black	117-S1	4	Cer.	0.6	9.85
P-56	M	Columbia Rover	A19	White	702-S1	3-5	Xtal	0.5	6.75
P-88	S	Denon, Delmonico, Sharp, Sanyo, Toshiba	A20	White	617-S7	5-7	Cer.	0.4	7.25
P-89	S	Piezo Y-590, MGA (Mitsubishi), Toshiba	A21	Black	864-SS77	5-8	Cer.	0.5	9.85
P-91	M	Crown, Nivico, JVC	A22	White	700-S1,3	6-8	Cer.	0.5	5.75
P-92	S	Crown, Delmonico, JVC, Nivico	A23	White	809-SS77	4-6	Cer.	0.5	8.95
P-93	S	Sharp GS-5500	A24	White	809-SS77	4-6	Cer.	0.5	8.95
P-94	S	Apollo, Crown, Sharp	A25	White	617-S7	7-9	Xtal	1.0	8.45
P-129	S	BSR SX5H, SX6H	A26	Black	272-SS77	7	Xtal	2.0	9.95
P-132D	S	Varco TN4AD; Admiral 78A249-2; Ast. 17,153; EV 149, 5126D; Morse 221F	A27	Black	864-DS77	4-6	Cer.	0.4	15.95
P-134D	S	Magnavox 360344, 345, 346, 347, 350, 355; Ast. 163D, 163D, 195, 197; EV 275D, 5097D, 5098D, 5166D	A28	White or Gray	557-DS77	2-4	Cer.	0.2	15.95
P-143D	S	Philips AG-3201, 02, 21, 22, 24, 28; 3302, 05, 06, 10, 24, 28; GP-200, 224, 28, 33, 306, 310; EV180, 181, 182	A29	Chrome	591-DS77	4-6	Cer.	.55	18.95

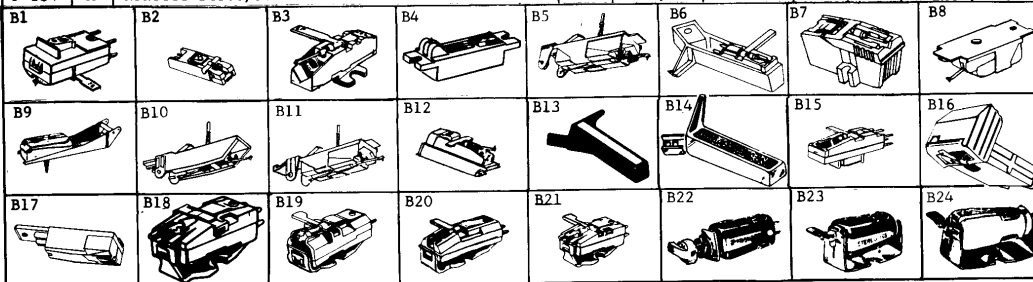
DIMENSIONS OF IMPORTED CARTRIDGES LISTED TO AID IDENTIFICATION. READ AS: LENGTH X WIDTH X DEPTH (Inc. TIP)

A1  1-3/8 x 7/16 x 3/8	A2  1-1/4 x 1/2 x 7/16	A3  1-1/4 x 1/2 x 7/16	A4  1-1/4 x 1/2 x 7/16	A5  1-1/4 x 1/2 x 7/16	A6  1-11/16 x 3/8 x 1/2	A7  1-1/4 x 5/16 x 3/8	A8  1-1/4 x 1/2 x 5/16
A9  1-1/4 x 1/2 x 5/16	A10  1-1/4 x 1/2 x 7/16	A11  2-3/4 x 3/8 x 5/8	A12  1-9/16 x 5/8 x 5/8	A13  1-1/4 x 3/8 x 5/16	A14  1-1/4 x 5/16 x 7/16	A15  1-3/8 x 11/16 x 1/2	A16  1-5/16 x 5/16 x 3/8
A17  1-1/4 x 1/2 x 7/16	A18  1 x 1/4	A19  1-1/8 x 1/2 x 1/2	A20  1-11/16 x 3/8 x 7/16	A21  1-1/4 x 9/16 x 11/16	A22  1-1/4 x 3/8 x 3/8	A23  1-1/4 x 3/8 x 3/8	A24  1-1/4 x 7/16 x 1/2
A25  1-5/8 x 1/2 x 3/8	A26 	A27 	A28 	A29 			

Pfanstiehl CARTRIDGES IN NUMERICAL ORDER

Cat. No.	Mono or Stereo	Replacement Notes	Fig.	Body Color	Repl. Needle Number	Track Force Grams	Element	Output, Volts	Sugg. Price
P-149	S	BSR SC5H, SC5M; Adm. 78A265; Airline 60-160, 65; Ast. 667; EV5363, 5540; Sears 88531, 33	B1	Blu/Gry	273-SS77	4-7	Cer.	.59	9.95
P-150D	S	G.E. C-650, 660; EA1013, 2223, 80X431; Ast. 351D, 357D; EV 239D, 5546D	B2	Black	511-D7	5 - 7	Cer.	0.6	15.95
P-158D	S	EV 5000D; Airline 60-136; Ast. 653; Sears 33-448, 449, 453; V-M 39437-C, -D	B3	Black	371-DS77	2-4	Cer.	.23	16.95
P-164	M	RCA 115057, 115058; Ast. 346; EV 263	B4	Black	646-S7	8	Xtal	2.5	8.95
P-168D	S	Zenith 142-150, 151, 163, 166; Ast. 605D; EV 5371D	B5	Clear	897-DS77	2-3	Cer.	.25	17.95
P-169	S	BSR SC7H2, 8H2, 10H2, 12U2; EV 5573D; Ast. 419	B6	Black	274-SS77	4	Cer.	0.5	11.95
P-170D	S	Panasonic EPC-42STAB, STAD; EV 5564D	B7	Black	627-D7	4-6	Cer.	0.2	20.00
P-171D	S	Zenith 142-182	B8	Clear	899-D7	2-3	Cer.	.25	19.95
P-175D	S	Zenith 142-140, 141, 142, 143; EV 249D	B9	Blue	896-DS77	3	Cer.	.35	19.95
P-176D	S	Zenith 142-167; EV 5188D	B10	Clear	898-DS77	1-3	Cer.	.25	17.95
P-177D	S	Zenith 142-168; EV 5195D	B11	Clear	897-DS77	1-3	Cer.	.35	17.95
P-179D	S	Zenith 142-185; Tetrad 1-TZ1D-22; EV 5631D	B12	Blk/Chr	S854-TD	5	Cer.	.59	18.95
P-180D	S	Zenith 142-187; Tetrad 3-T3MD-V134	B13	Blk/Sil	M-854-DS	4	Cer.	.20	18.95
P-181D	S	Zenith 142-176; Tetrad 3-T3MD-BSR77	B14	Chrome	M-854-DS	4	Cer.	.20	18.95
P-182	S	BSR SC7M1, SC8H1	B15	Black	274-SS77	4	Cer.	0.5	9.95
P-184D	S	Thomson STC-1000D; Soundesign	B16	Black	849-D7	3-5	Cer.	0.5	15.95
P-185D	S	AUE CP-30; Panasonic EPC-13; Sears 89473; Concert Hall & many others	B17	Black	711-D7	3-5	Cer.	0.5	15.95
P-186	M	AUE CP-33S; Sears 89463	B17	Black	711-D7	4-6	Cer.	0.5	9.95
P-187D	S	Chuo Denshi CZ-680; Sears 89381; Ward's	B18	Black	719-D7	4-6	Cer.	0.5	15.95
P-200	M	Varco CN-62; Adm. 78C223-2	B19	Black	863-SS77	8	Xtal	0.9	8.95
P-200D	M	Varco CN-62D; EV 5242	B19	Black	863-DS77	8	Xtal	0.9	15.95
P-225	S	Varco TN-02H, TN-02M; Adm 78C239-3; EV5245	B20	Black	862-SS77	6	Cer.	.57	9.95
P-225D	S	Varco TN-02HD, TN-02MD	B20	Black	862-DS77	6	Cer.	.57	15.95
P-226	S	Varco TN-4B, TN-4A; EV 5126; Morse 221	B21	Black	864-SS77	4-6	Cer.	0.5	9.95
P-226D	S	Varco TN-4BD, TN-4AD; Airline 60-154	B21	Black	864-DS77	4-6	Cer.	0.5	15.95
P-228	S	Varco TN-8U, TN-8T; Adm 78C224-6, 239-4, -5	B21	Black	864-SS77	6-8	Cer.	0.9	9.95
P-228D	S	Varco TN-8UD; Airline 60-161; EV 5209, 5210	B21	Black	864-DS77	6-8	Cer.	0.9	15.95
P-303	S	Ronette 105/A1, 105/3, Ste. OV-3; Ast. 86TS	B22	Gray	702-S7, 3	6	Xtal	0.7	6.45
P-304	S	Ronette 105/53606	B23	Gray	702-S7, 3	6	Xtal	0.7	6.45
P-308	S	Ronette 106/A1, Ste. 106/A1	B22	Gray	702-S7, 3	6	Xtal	1.7	6.45
P-309	S	Ronette 106/53606; EV 96	B23	Gray	702-S7, 3	6	Xtal	1.7	6.45
P-313	S	Ronette 208/A1, Stereo 208/1	B22	Gray	702-S7, 3	6	Xtal	2.3	6.45
P-314	S	Ronette 208/53606	B23	Gray	702-S7, 3	6	Xtal	2.3	6.45
P-324	M	Ronette DC400-OV/53606	B24	Ivory	702-S1, 3	8	Xtal	0.9	5.95
P-329	M	Ronette DC400-T/53606	B24	Ivory	702-S1, 3	8	Xtal	2.2	5.95
P-334	M	Ronette DC500/53606	B24	Ivory	702-S1, 3	8	Xtal	3.5	5.95

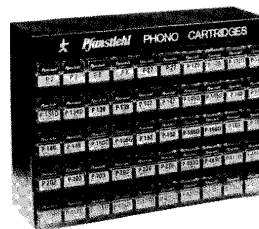
SECTION III
CARTRIDGE LISTING



CARTRIDGE DISPENSER RACK ...

CR-50... THE PRACTICAL STORAGE CABINET FOR PHONO CARTRIDGES. HOLDS 50 BOXES IN LESS THAN 1/3 SQUARE FOOT OF COUNTER SPACE-OR, HANG IT ON THE WALL! EACH CARTRIDGE IS FULLY VISIBLE AND EASILY REMOVED. THE CR-50 CABINET IS STURDILY CONSTRUCTED OF WELDED STEEL AND FEATURES A SCRATCH-PROOF, WALNUT-COLOR FINISH.

WE SHARE THE COST WITH YOU, HOLDING YOUR PRICE DOWN TO JUST \$3.00!



CR-50 Cabinet

Pfanstiehl CARTRIDGES IN NUMERICAL ORDER

Pfanstiehl REPLACEMENTS FOR TETRAD CARTRIDGES

Here's the replacement answer to the enormous variety (742 different numbers at last count) of Tetrad cartridges in use. We offer two alternatives:

1. "UNIVERSAL REPLACEMENTS" - consisting of the basic cartridge element (see Fig. F12) combined with the appropriate Diamond replacement needle. This is a LOW-COST solution to be used if the old cartridge element can be pried loose from its mounting. Merely check the color of the socket on the rear of the element, and determine the number stamped on the turnover handle of the needle, and order the corresponding UNIVERSAL REPLACEMENT Cartridge. For example, if you wish to replace a Tetrad Original cartridge having a red socket and a needle stamped "21D", order our P-434D.
2. If the original cartridge element cannot be removed, or if the mount or head is damaged, order a completely assembled EXACT REPLACEMENT. We have included in our replacement line many of the most popular of these. Check Section VI for the Tetrad Cross-Reference. If there is a direct replacement in our line, it will be listed.

See pictures bottom of next page

Following is a numerical listing of our line of Replacement Cartridges for Tetrad Originals.

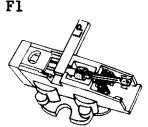
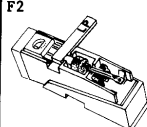
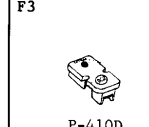
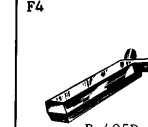
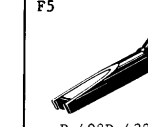
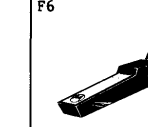

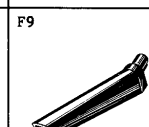
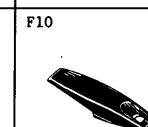
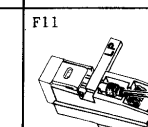

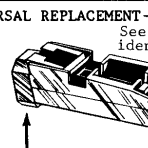
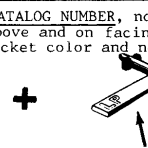
Cat. No.	Mono or Stereo	Replacement Notes	Fig.	Body Color	Repl. Needle Number	Track Force Grams	Element	Output, Volts	Sugg. Price
P-400D	S	Tetrad 1-21D-M4; Mot. 63816A01; EV5111D	F6	Brn/Gld	S-854-DS	3	Cer.	.45	18.95
P-401D	S	Tetrad 1-C3D-SN4; Ev 5254D; Ast. 1250D; Garrard Universal Replacement-Tetrad ctdgs. with black socket, and needle stamped: 10 thru 14, 30-34, 90,93,110, TILD	F2	Black	M-853-DS	5½	Cer.	.36	16.95
P-402D	S	Universal Replacement-Tetrad ctdgs. with black socket, and needle stamped: 20 thru 24, 40-44, E0-E4, G0-G4, T2MD, T3MD	F12	Black	M-855-DS	2-6	Cer.	.45	15.95
P-403D	S	Tetrad 2-C2D-A; Adm.78C244-1,2,3,4,7; Airline 60-148,153; Ast.1134D; EV 5271D; Penncrest; Sears 88601; VM 36470J, L, M, 42818A, B, D; Zen.142-162,193	F1	Black	L-853-DS	5	Cer.	.45	16.95
P-404D	S	Tetrad 2-21D-BSR2; Adm.; Ast.1117D; EV 5488D	F4	Blk/Sil	S-854-DS	3	Cer.	0.4	18.95
P-405D	S	Tetrad 2-41D-PSX; Ast. 1122D; EV 5116D; Philco 35-2877-2, 325-1513-44, 45, P-38, 8X	F8	Blk/Chr	S-854-DS	2½	Cer.	.31	18.95
P-406D	S	Tetrad 4-62B-SNIX; Arvin 93929-23; Ast. 1129D; EV 5254D VM 39363A, B, Zen. 142-199	F2	Black	L-853-DS	6	Cer.	.73	16.95
P-407D	S	Tetrad 2-11D-V4; Arv. 2005039-2; Ast.1114D; EV 5119D; Sears 88722; VM 36487D, F, 37634B, C, G, J	F5	Brn/Chr	S-855-DS	1½	Cer.	.21	18.95
P-408D	S	Universal Replacement-Tetrad ctdgs. with blue* socket, and needle stamped: 50 thru 54, 60-64, A0-A4, B0-B4, C0-C4, T5HD; Ctdg. TC8H0	F12	Black	M-853-DS	5	Cer.	0.5	15.95
P-409D	S	Tetrad 2-A2D-DC2, DC3; Airline 60-168; Ast. 1216D. EV 5388D; Teledyne 63079; Used by Bradford; V-M 43099-A thru -H	F3	Chrome	X-853-DS	8	Cer.	.56	18.95
P-410D	S	Universal Replacement-Tetrad ctdgs. with blue* socket, and needle stamped: 20 thru 24, 40-44, E0-E4, G0-G4, T2MD, T3MD; Ctdg. TC11M0, TC12M0	F12	Black	M-854-DS	3-5	Cer.	.41	15.95
P-411D	S	Universal Replacement-Tetrad ctdgs. with blue* socket, and needle stamped: 10 thru 14, 30-34, 90, 93, 110, TILD	F12	Black	M-855-DS	2-4	Cer.	.24	15.95
P-412D	S	Tetrad 3-64D-A; Ast.1155D; EV 5310D; Motorola 60459-B01,03; Philco 35-2894-1; VM 36470-U	F1	Black	X-853-DS	6-8	Cer.	.38	16.95
P-413D	S	Tetrad 3-E2D-244-5; Adm.78C244-5; Airline 60-167; Ast.1229D; EV 5271D; Emerson 820138; Phonola 25183; VM 36470E, F; Zenith 142-175,177,191	F1	Black	L-854-DS	2-4	Cer.	.19	16.95
P-414D	S	Tetrad 3-12D-A; Ast. 1150D; Bradford; EV 5301D; Emerson 820120; VM 36470-P, Z	F1	Black	L-855-DS	2-4	Cer.	.15	16.95
P-415D	S	Tetrad 3-41D-F13; Ast.1147D; EV 5396D; Philco 35-2876-3, 2878-3, 2893-4; VM 35469A, 41542C	F9	Black	S-854-DS	3-5	Cer.	.22	18.95
P-416D	S	Tetrad 3-43D-78-7; Adm. 78C235-6, 8, 409C78-6, -7, -9; Ast.1151D; EV 5254D; Emerson 966512	F2	Black	M-854-DS	2-4	Cer.	.27	16.95
P-417D	S	Universal Replacement-Tetrad ctdgs. with gray** socket, and needle stamped: 50 thru 54, 60-64, A0-A4, B0-B4, C0-C4, T5HD	F12	Black	M-853-DS	6	Cer.	.38	15.95
P-419D	S	Universal Replacement-Tetrad ctdgs. with gray** socket, and needle stamped: 10 thru 14, 20-24, 30-34, 40-44, 90, 93, 110, E0-E4, G0-G4, T2MD, T3MD	F12	Black	M-854-DS	3-5	Cer.	.22	15.95
P-420D	S	Universal Replacement-Tetrad ctdgs. with gray** socket, and needle stamped: 70-74, 80-84, TILD	F12	Black	M-855-DS	2½	Cer.	.12	15.95
P-421D	S	Tetrad 5-62D-24; Airline 60-142, 44, 45, 46, 50; Ast.1165D; EV 5302D; Phonola 21839, 24158; Sears 88582; VM 36470A, S, AA, AC, 42818D; Zen.142-154	F1	Black	L-853-DS	6	Cer.	0.4	16.95
P-422D	S	Tetrad 5-22D-B; Adm.78C233-3, 4, 419A21-1, 2; Airline 60-135; Ast.1162D; EV 5100D; Emerson 820110; Mot.61359B03,05; VM 36470G, W, Y	F1	Black	L-854-DS	3-6	Cer.	.25	16.95
P-423D	S	Tetrad 5-42D-27-2; Adm.78A, C247-1, 3; Airline 60-147; Ast.1163D; EV 5273D; Phon. 24222; Sylv.11-26626, 27; VM 37635A, 43039G	F2	Black	L-854-DS	3-5	Cer.	.22	16.95
P-424D	S	Universal Replacement-Tetrad ctdgs. with yellow socket, and needle stamped: 50 thru 64, 60-64, A0-A4, B0-B4, C0-C4, T5HD	F12	Black	M-853-DS	5-7	Cer.	.25	15.95
P-425D	S	Universal Replacement-Tetrad ctdgs. with yellow socket, and needle stamped: 10 thru 14, 30-34, 90, 93, 110, TILD	F12	Black	M-855-DS	3-5	Cer.	.19	15.95
P-426D	S								

* -- Also replaces original Tetrad having Green Socket.
** - Also replaces original Tetrad having Orange Socket.

Pfanstiehl CARTRIDGES IN NUMERICAL ORDER

Cat. No.	Mono or Stereo	Replacement Notes	Fig.	Body Color	Repl. Needle Number	Track Force Grams	Element	Output, Volts	Sugg. Price
P-427D	S	Tetrad 6-32D-75-1; Adm.78A,C233-1,2,5,6; Ast. 1190D; EV 5100D; Emerson 820118; Motorola 61359B01,61598B01; VM 36470-B,C,D;Zen.142-169	F1	Black	L-855-DS	2½	Cer.	.13	16.95
P-428D	S	Tetrad 6-31D-M5; Ast.1186D; EV 5109D; Motorola 63784A01,03, PP202B, PP301B	F6	Brn/Sil	S-855-DS	2	Cer.	.13	18.95
P-430D	S	Tetrad 6-41D-P9, 6-71D-P4; Ast.1197D, 1201D; EV 5115D, 5252D; Philco 35-2877-1,2	F8	Blk/Chr	S-854-DS	2½	Cer.	.15	18.95
P-431D	S	Tetrad 6-33D-78-1; Adm.78A,C235-1,2,3,4,409C78-1,2,3,4,419A35-1,2,419A36-1,2; Ast.1191D; EV 5104D; Sylvania 11-26249-1,2,26599-1	F2	Black	M-855-DS	2½	Cer.	.13	16.95
P-432D	S	Tetrad 6-11D-V11, 6-21D-V2; Ast.1173D,1181D; EV 5117D,5317D; VM 36277,36470K,36487A,B,E,36537,38,37634A,D,E,F,H,45013B	F5	Brn/Sil	S-854-DS	3	Cer.	.18	18.95
P-433D	S	Universal Replacement-Tetrad ctdgs. with red * socket, and needle stamped: 50 thru 64, 60-64, A0-A4, B0-B4, C0-C4, T5HD	F12	Black	M-853-DS	6½	Cer.	.23	15.95
P-434D	S	Universal Replacement-Tetrad ctdgs. with red * socket, and needle stamped: 20 thru 24, 40-44, E0-E4, G0-G4, T2MD, T3MD	F12	Black	M-854-DS	3	Cer.	.18	15.95
P-435D	S	Universal Replacement-Tetrad ctdgs. with red * socket, and needle stamped: 10 thru 14, 30-34, 70-74, 80-84, 90, 93, 110, T1LD	F12	Black	M-855-DS	1½	Cer.	0.1	15.95
P-438D	S	Tetrad 6-31D-M11; Ast. 1187D; EV 5299D; Mot. 63643A04,5,6,7,8; VM 38,39676A,B,C	F10	Gry,Brn	M-855-DS	2½-4½	Cer.	.13	18.95
P-439D	S	Tetrad 1-21D-M2; Ast. 1101D,1102D; EV 5106D, 5107D; Motorola 62971A01,2, PK-175A,180A; VM 35130A,B	F10	Brn/Gld	M-854-DS	3	Cer.	.45	18.95
P-440D	S	Tetrad TCSH1, TC12H1; BSR ctdgs. with needle stamped "T5 or T50"; Ast. 1312D; EV 5626D	F11	Black	M-853-DS	3-5	Cer.	0.5	16.95
P-441D	S	Tetrad TC1M1, TC12M1; BSR ctdgs. with needle stamped "T2, T3, T20, T30"; Ast. 1306D, 1309D; EV 5628D, 5635D; Zenith 142-186,190,193,202	F11	Black	M-854-DS	4	Cer.	.22	16.95

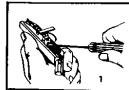
SECTION III
CARTRIDGE LISTING

 P-404D,413D,414D,415D,422D,423D,427D	 P-401D,407D,417D,424D,431D	 P-410D	 P-405D	 P-408D,432D	 P-400D,428D																				
	 P-406D,430D	 P-416D	 P-438D,439D	 P-440D,441D	PLEASE!! Order by Catalog No., not 'F' No.																				
SOCKET COLOR CODE <table border="1"> <thead> <tr> <th>Color</th> <th>Prefix #</th> </tr> </thead> <tbody> <tr><td>Black</td><td>1-</td></tr> <tr><td>Blue</td><td>2-</td></tr> <tr><td>Gray</td><td>3-</td></tr> <tr><td>Green</td><td>4-</td></tr> <tr><td>Yellow</td><td>5-</td></tr> <tr><td>Red</td><td>6-</td></tr> <tr><td>Purple</td><td>8-</td></tr> <tr><td>Orange</td><td>14-</td></tr> <tr><td>Pink</td><td>15-</td></tr> </tbody> </table>		Color	Prefix #	Black	1-	Blue	2-	Gray	3-	Green	4-	Yellow	5-	Red	6-	Purple	8-	Orange	14-	Pink	15-	TETRAD CARTRIDGE PLUGS!  Order: T/PLUG (5/pkg)		F12 -- UNIVERSAL REPLACEMENT-Order by CATALOG NUMBER, not Figure number. Catalog Nos. P-402D,403D P-409D,411D P-412D,419D P-420D,421D P-425D,426D P-433D,434D P-435D  Socket	
Color	Prefix #																								
Black	1-																								
Blue	2-																								
Gray	3-																								
Green	4-																								
Yellow	5-																								
Red	6-																								
Purple	8-																								
Orange	14-																								
Pink	15-																								
		 + Stamped Number (78 RPM side)																							

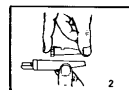
* -- Also replaces original Tetrad having pink socket

UNIVERSAL REPLACEMENT... Easy As 1-2-3!

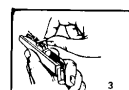
STEP 1. Remove old cartridge from head or mount.



STEP 2. Peel paper backing from UNIVERSAL REPLACEMENT and install.






STEP 3. Install new replacement needle.



SECTION III






MAGNETIC CARTRIDGES

MODEL	SUGG. PRICE	USED IN	CARTRIDGE COLORS	STYLUS COLOR/Marks	OUTPUT	CHAN. SEP.	TRACKING FORCE	FREQUENCY RESPONSE	NEEDLE NUMBER	TIP SIZE
ADC MAGNETIC CARTRIDGES										
QLM30/III-EP	52.95	Changers	Silver	Char/QLM30	6.5 mv	18db	3 - 5	20/15KHz	111-D7C	.7 mil
					** Furnished with removable adapter for use in 1/2" center Standard Mounting Tonearms.					
QLM30-EP						AUDIO TECHNICA AT3482P, 3482U		AUDIO TECHNICA AT201EP, AT216EP, AT231LP		

SECTION III
CARTRIDGE LISTING

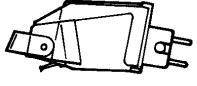
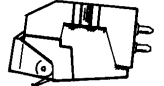
audio-technica MAGNETIC CARTRIDGES

AT155LC	250.00	Prof. Arms	Gold	Black	5 mv	31db	3/4-1 1/2	5/35KHz	208-DEX	Lin.Cont
AT140ML	195.00	Prof. Arms	Black	Violet	5 mv	30db	3/4-2	5/32KHz	208-DEV	Lin.Cont
AT130E	135.00	Prof. Arms	Black	Red	5 mv	30db	3/4-2	10/30KHz	208-DEM	.2 X .7
AT125LC	150.00	Lt. Auto	Black	Cream	5 mv	29db	1 - 2	10/28KHz	208-DEL	Lin.Cont
AT120E	95.00	Lt. Auto	Black	Caramel	5 mv	29db	1 - 2	15/25KHz	208-DE	.3 X .7
AT110E	70.00	Changers	Black	Blue	4.5 mv	26db	1 - 2	20/22KHz	207-DE	.4 X .7
AT105	55.00	Changers	Black	Yellow	4.5 mv	26db	1 1/2-2 1/2	20/20KHz	207-D7	.7 mil
AT152MLP **	250.00	Plug-in	Black	Black	5.0 mv	31db	.8-1.8	5/35KHz	212-DLX	Lin.Cont
AT132EP **	150.00	Plug-in	Black	Orange	5.0 mv	30db	.8-1.8	10/30KHz	212-DEM	.2 X .7
AT231LP **	145.00	Plug-in	Gray	Blue/Gray	5.0 mv	31db	1-1.5	10/30KHz	215-DEL	Lin.Cont
AT216EP **	100.00	Plug-in	Gray	Brown/Gray	5.0 mv	29db	1-1.5	15/25KHz	215-DET	.3 X .7
AT201EP **	65.00	Plug-in	Gray	Ivory/Gray	5.0 mv	26db	1-1.5	20/25KHz	215-DE	.4 X .7
ATP-3	80.00	Disco/Prof.	Black/Silver	Brnz/White	5.3 mv	23db	2 - 3	15/25KHz	204-DET	.3 X .7
ATP-1	45.00	Disco/Prof.	Black/Silver	Red/White	5.3 mv	21db	3 - 5	20/20KHz	204-D6C	.6 mil
ATX-5E	80.00	Prof. Arms	Black/Silver	Brnz/Gray	5.3 mv	23db	1-1 3/4	15/25KHz	205-DET	.3 X .7
ATX-3E	60.00	Lt. Auto	Black/Silver	Blue/Gray	5.3 mv	23db	1 - 2	15/22KHz	205-DEC	.4 X .7
AT3400	39.50	Changers	Black/Chrome	Ivory	5 mv	20db	2 - 4	20/20KHz	710-D7	.7 mil
AT3482P AT3482U **	39.50	Plug-in	Black	Black	5 mv	20db	1 - 1 1/2	20/20KHz	213-D6C	.6 mil



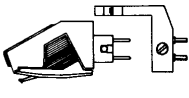
				
AT105, AT110E	AT120E, AT125LC, AT130E, AT140LC, AT155LC	AT3400	ATP-1, 3 ATX-3E, 5E	AT132EP, AT152LP

EMPIRE MAGNETIC CARTRIDGES




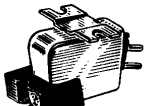
485LT	150.00	Plug-in	Black	Red	4.0 mv	28db	1.25	7/32KHz	246-DEX	.2 X .7
295LT	80.00	Plug-in	Black	Blue	4.0 mv	26db	1.25	15/26KHz	246-DE	.3 X .7
195LT	60.00	Plug-in	Black	Yellow	4.0 mv	24db	1.25	15/22KHz	246-D6	.6 mil
140C	60.00	Changers	Black	Blue	3.1 mv	25db	1 1/2-3	20/20KHz	247-D6	.6 mil

				
195LT, 295LT, 485LT	140C			

MAGNETIC CARTRIDGES

MODEL	SUGG. PRICE	USED IN	CARTRIDGE COLORS	STYLUS COLOR/Marks	OUTPUT	CHAN. SEP.	TRACKING FORCE	FREQUENCY RESPONSE	NEEDLE NUMBER	TIP SIZE
Pfanstiehl MAGNETIC CARTRIDGES										
Dark Horse	49.95	S-, J-Arm TT	Black	Black	4.3 mv	22db	1½ gms	20/22KHz	4763-DE	.3 X .7
Straight Arrow	49.95	Straight Arm TT's	Black	Black	4.3 mv	22db	1½ gms	20/22KHz	4763-DE	.3 X .7
AT-3482U UNIVERSAL	39.50	All TTs	Black	Black	5 mv	20db	1 - 1½	20/20KHz	213-D6C	.6 mil
										
DARK HORSE (PRE-MOUNTED)		STRAIGHT ARROW (PRE-MOUNTED)		AT-3482U 'UNIVERSAL' (WITH ADAPTER)						
PICKERING MAGNETIC CARTRIDGES										
XSP-3003	140.00	Plug-in**	Black	Black	5.0 mv	35db	1½ gms	10/30KHz	608-DEV	Stereohed.
XSP-4004	180.00	Plug-in**	Met. Smoke	Black	3.9 mv	35db	1½ gms	10/36KHz	608-DEX	Stereohed.
TL-4 Super	135.00	Plug-in**	Black	White	4.4 mv	35db	1½ gms	10/25KHz	609-DEZ	Stereohed.
TL-3S	110.00	Plug-in	Gold	White	4.4 mv	35db	1½ gms	10/25KHz	609-DEX	Stereohed.
TL-2E	80.00	Plug-in	Black	White	4.4 mv	32db	1½ gms	10/22KHz	609-DEL	.3 X .7
TL-1E	75.00	Plug-in	Silver	White	4.4 mv	32db	1½ gms	10/20KHz	609-DE	.4 X .7
TE	35.00	Plug-in	Silver	White	4.4 mv	25db	1½ gms	10/20KHz	826-DE	.7 mil
XSV/5000	230.00	Prof. Arms	Black	White/Brnz	4 mv	35db	½ - 1½	10/50KHz	608-DEZ	Stereohed.
XSV/4000	180.00	Prof. Arms	Black	White/Gold	4 mv	30db	¾-1½	10/40KHz	608-DEX	Stereohed.
XSV/3000	140.00	Prof. Arms	Black	Black/Gold	4.0 mv	35db	¾-1½	10/30KHz	608-DEV	Stereohed.
XV-15/750E	90.00	Prof. Arms	Gold	Blk/Gold	3.5 mv	35db	½ - 1½	10/25KHz	606-DEG	.3 X .7
XV-15/625E	80.00	Lt. Auto	Black	Blk/Gold	3.5 mv	35db	¾-1½	10/25KHz	606-DEL	.3 X .7
XV-15/400E	70.00	Lt. Auto	Gray	Blk/Gold	5.5 mv	35db	1 - 2	10/25KHz	606-DEM	.4 X .7
XV-15/200E	65.00	Changers	Gray	Blk/Silver	8 mv	35db	2 - 4	10/25KHz	606-DET	.4 X .7
XV-15/150	50.00	Changers	Gray	Blk/Silver	8 mv	35db	2 - 4	10/25KHz	606-D7T	.7 mil
XV-15/100	45.00	Changers	Gray	Blk/Silver	8 mv	35db	3 - 7	10/20KHz	606-D7C	.7 mil
NP/AME	29.95	Lt. Auto	Silver	Gray PD/AME	7.5 mv	28db	1 - 3	20/18KHz	604-DEM	.4 X .7
NP/ATE	24.95	Auto TT	Silver	Gray PDE	7.5 mv	26db	2 - 5	20/15KHz	604-DEC	.5 X .7
NP/AT	19.95	Auto TT	Silver	Gray PD07T	7.5 mv	26db	2 - 5	20/15KHz	604-D7T	.7 mil
NP/AC	17.95	Changers	Silver	Gray PD07C	7.5 mv	24db	3 - 7	20/15KHz	604-D7C	.7 mil

**Furnished with adapter for use in Standard Mounting Tonearms (½" centers)

				
XSP-3003, XSP-4004	TL SERIES	XSV, XV-15 SERIES	NP' SERIES	

SECTION III

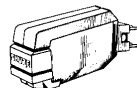
MAGNETIC CARTRIDGES

SECTION III
CARTRIDGE LISTING

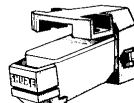
MODEL	SUGG. PRICE	USED IN	CARTRIDGE COLORS	STYLUS COLOR/Marks	OUTPUT	CHAN. SEP.	TRACKING FORCE	FREQUENCY RESPONSE	NEEDLE NUMBER	TIP SIZE
SHURE[®] MAGNETIC CARTRIDGES										
V15 Type V-P	221.50	P-Mount	Black	Gray	3.2 mv	25db	1½ gms	20-20KHz	773-DLT	Hyperell
V15 " V-MR	297.00	Std. Mount	Black/Silver	Blk/Silver	3.2 mv	25db	1 gram	20-20KHz	773-DMR	Mic.Ridg
M92E **	32.95	Std & P-Mt	Black/Silver	Red	4 mv	20db	1½ gms	20-18KHz	776-DE	.4 X .7
M99E **	53.95	Std & P-Mt	Black/Silver	Blue	4 mv	20db	1½ gms	20-20KHz	776-DEL	.4 X .7
M104E **	75.95	Std & P-Mt	Black	Yellow	4 mv	25db	1½ gms	20-20KHz	776-DEX	.2 X .7
M105E **	107.95	Std & P-Mt	Black	Black	4 mv	25db	1½ gms	20-20KHz	778-DE	.2 X .7
M110HE **	118.95	Std & P-Mt	Black	White	4 mv	25db	1½ gms	20-20KHz	776-DHE	Hyperell
M111HE **	145.95	Std & P-Mt	Black	Black/Red	4 mv	25db	1½ gms	20-20KHz	773-DHL	Hyperell
ML120HE	155.00	Std. Mount	Black	Blk/Wht Dot	4 mv	25db	1½ gms	20-20KHz	777-DHE	Hyperell
ML140HE	190.00	Std. Mount	Black	Blk/Red Dot	4 mv	25db	1 gram	20-20KHz	777-DHX	Hyperell
M55E	70.95	Lt. Auto	Black	Yellow	6.6 mv	25db	3/4-2	20/20KHz	759-DE	.4 X .7
M44E	61.95	Lt. Chgrs.	Black	Brown	9.3 mv	25db	1½ - 4	20/20KHz	759-DE	.4 X .7
M44C	54.95	Changers	Black	Lt. Blue	9.3 mv	25db	3 - 5	20/20KHz	759-D7	.7 mil
M93E-P	67.00	Lt. Auto	Blue-Gray	Grn.HiTrack	6.2 mv	25db	1½ - 3	20/20KHz	762-DE	.4 X .7
SC-39B	68.00	Disco/Prof.	Black	Beige	3.8 mv	25db	1½ - 3	20/20KHz	769-D7	.7 mil



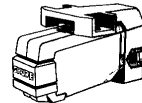
V15 TYPE V-MR



V15 TYPE V-P



M92E, M99E



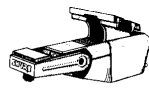
M104E, M110HE



M105E



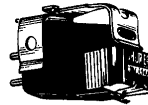
M111HE



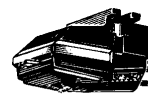
ML120HE, ML140HE



M55E, M44E, M44C



M93E-P



SC39B

**Furnished with adapter for use in Standard Mounting Tonearms (½" centers)

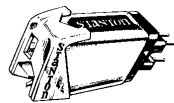


MAGNETIC CARTRIDGES

L747S	125.00	Plug-in**	Silver	Clear	4.4 mv	35db	1½ gms	10/25KHz	826-DEZ	Stereohed
L737E	85.00	Plug-in**	Silver	Clear	4.4 mv	32db	1½ gms	10/22KHz	826-DEV	.3 X .7
L720EE	50.00	Plug-in**	Silver	Black	3.2 mv	28db	1½ gms	10/20KHz	826-DE	.4 X .7
881S/II	180.00	Prof. Arms	Silver	White	5.0 mv	35db	3/4-1½	10/25KHz	825-DEV	Stereohed
681EEE/IIIS	120.00	Prof. Arms	Silver	Black	4.5 mv	35db	3/4-1½	10/22KHz	822-DEEE	" "
680EE	76.00	Lt. Auto	Silver	Black	4.5 mv	35db	3/4-1½	10/20KHz	824-DE	.3 X .7
500E/II	45.00	Lt. Auto	Silver	Blue	4.4 mv	35db	1 - 2	10/22KHz	820-DEE	.4 X .7
500AL	53.00	Disco/Prof.	Gold	Black	5.5 mv	35db	3 - 7	20/20KHz	820-D7AL	.7 mil



L720EE



L737E, L747S



881S
680EE, 681EEE



500AL, 500E/II

**Furnished with adapter for use in Standard Mounting Tonearms (½" centers)

SECTION IV

NEEDLE IDENTITY BY SET-MAKER'S CARTRIDGE NUMBER

A-T (Continued)	Our No.	A-T (Continued)	Our No.	A-T (Continued)	Our No.	A-T (Continued)	Our No.	EMPIRE (Continued)	Our No.	EMPIRE (Continued)	Our No.	EMPIRE (Continued)	Our No.
A1605E	200DEC	AT112E2	212DE	MS1300E	201DEM	VS215EP	212DE	OP2	242DE	245E	(545E)	2001ZE/X	239PDE
A1650E	200DEC	ATP221	204DEC	N-10-100	200D7C	VS220E	200DET	OP4	242DET	250E	239DEC	2001ZE/III	239PDE
A1666	200DET	ATU7PM	213D6C	N-20-110H	200DEC	VS225EP	212DEC	OP5	242DEX	250ES	239PDE	2002E/X	239PDE
A1705X	201DQX	ATU12E	212DE	N-40-130	201DEM	VS235EP	212DET	OP7	242DLAC	260ME	241DME	2002E/X	239PDE
A1733	213D6C	ATU12E2	212DE	OMEGA	201DEM	VS240LC	201DQX	OP100,122	243D6	266RB	239PDE	2002E/X	239PDE
A1777	201DQX	ATU13E	201DEM	P101E	212DE	VS245LP	212DEL	OP110	243DE	300Z	242DET	2002HC	239PDE
A1910,960X	200D7C	ATU13L2	212DEL	P811E	200DEC	W12555	200DEC	OP115	242DE	350DE,375C	243D6	2002/Z	239PDE
A1910B	200DEC	ATU4000	213D6C	P812S	201DQX	X-11	200D7C	OP120	241DME	366HB	239PDE	2002/III	239PDE
A191E	200DEC	ATU4020EP	212DE	P839E	201DEX	X-12	200DEC	OP125,130	242DET	400H	239DEC	2002/V-ZE	239PDE
A19125aB	201DQX	ATU4020EP	213D6C	PC44U,55U	NR	X-14	200DET	OP135	241DFR	404/CDQ	239DQ	2002/ZH	239PDE
A1962X	200DEC	ATU4030LC	212DEL	PC100E,110	NR	XE-120	200DEC	OP150,155	242DLAC	450LT	241DEC	2003A/E, X	239PDE
A19645a	201DQX	ATU4030LC	213D6C	PC110E,220	NR	XE-130	201DEX	OP215,225	245DE	475E	243D6	2003E/H, X	239PDE
A19665a	201DQX	CEI2010	200D7C	PC220XE	NR	XL-E40	200DEC	P40E	241DE	500E	239PDE	2003SE/X	239PDE
A19665a	201DQX	CEI12011E	200DEC	PC30LCU	NR	XL-E50	200DET	P50NS	242DET	535E/P	239DEC	2003/Z	239PDE
A19665a	201DQX	CEI12011E	200DEC	PC440,440LC	NR	XL-S-601	201DQX	P60RC	241DME	600LT	241DFR	2003ZE/X	239PDE
A19665a	201DQX	CEI12011E	200DEC	PC550ML	NR	XL-S-70 II	201DQX	P99E	245DE	600T	239DFR	2004	239PDE
A19665a	201DQX	CEI12011E	200DEC	PK29P,29PC	213D6C	XR18E	200DET	Pro 4500/3	239PDE	620X	239DFR	2004TE/X	239PDE
A19665a	201DQX	CEI12011E	200DEC	PM7000	212DE	Z-500	200DEC	Q-phase 100:	239D7C	640EE	239PDE	2005/V	239PDE
A19665a	201DQX	CEI12011E	200DEC	PM9000	212DEL	Z-700	200DET	Q-phase 500:	239PDE	666EE	239PDE	2006	239DQ
A19665a	201DQX	CEI12011E	200DEC	PRO 11E	200DEC			Q-phase 1000:	239PDE	666E	239DEC	2008	239DET
A19665a	201DQX	CEI12011E	200DEC	PRO 12E	200DET			QX-2003	239DEC	666E/2,E/3	239PDE	2008 Imp	239DEX
A19665a	201DQX	CEI12011E	200DEC	PRO 13E	201DEM			QX2005	239PDE	700E/X	239DEC	2010	239DEC
A19665a	201DQX	CEI12011E	200DEC	PRO 14S	201DEM			QX5000/III	239DEC	700NE	239PDE	2100E	239D7C
A19665a	201DQX	CEI12011E	200DEC	S-100HP	200DEC			QX5000/IV	239PDE	700T	239DEX	2100E/I	239PDE
A19665a	201DQX	CEI12011E	200DEC	S-200HP	200DET			Q5000/V	239DET	707X	239D7C	2100E/II	239PDE
A19665a	201DQX	CEI12011E	200DEC	S-300HP	201DEX			RM05	243D6	777E/I,E/3	239DEC	2100E/III	239PDE
A19665a	201DQX	CEI12011E	200DEC	Series I	213D6C			RM10	242DE	777E/II	239PDE	2121E/I	239PDE
A19665a	201DQX	CEI12011E	200DEC	Series II	200DEC			RM20	239PDE	777E/III	239PDE	2121E/II	239PDE
A19665a	201DQX	CEI12011E	200DEC	Series III	213D6C			RM25LT	241DE	750LAC	242DLAC	2121E/III	239PDE
A19665a	201DQX	CEI12011E	200DEC	Series IV	201DEX			RM30,45LT	242DET	775XLT	242DET	2100E/LBR	239PDE
A19665a	201DQX	CEI12011E	200DEC	Series V	213D6C			RM35,55LT	245DE	777E/X	239PDE	2200E/III	239PDE
A19665a	201DQX	CEI12011E	200DEC	Series VI	201DQX			RM50,60	240EX	800L/E	239DEC	2200E/IV	239PDE
A19665a	201DQX	CEI12011E	200DEC	Series VII	213D6C			RM62,75LT	242DET	845QE/D	239PDE	2200MS	239PDE
A19665a	201DQX	CEI12011E	200DEC	Series VIII	213D6C			RM65LT	241DFR	875LT	245D6	2200XE/III	239PDE
A19665a	201DQX	CEI12011E	200DEC	Series IX	200DEC			RM75,80	242DLAC	900C/X	239D7C	2201E/H,ZH	239PDE
A19665a	201DQX	CEI12011E	200DEC	Series X	200DET			RM90,95	242DLAC	900NE	239DEX	2201E/I	239PDE
A19665a	201DQX	CEI12011E	200DEC	Series XI	201DEX			Orange	242DEX	909X	239D7C	2202E/III	239PDE
A19665a	201DQX	CEI12011E	200DEC	Series XII	212DE			Ivory	242DLAC	949QD	239DQ	2202E/H	239PDE
A19665a	201DQX	CEI12011E	200DEC	Series XIII	212DET			Label*	242DEX	990E/E, X	239DEC	2202E/H	239PDE
A19665a	201DQX	CEI12011E	200DEC	Series XIV	213D6C			Label*	242DEX	990E/E, X	239DEC	2203E/H	239PDE
A19665a	201DQX	CEI12011E	200DEC	Series XV	200DEC			Label*	242DEX	999A/E, X	239D7C	2203E/H	239PDE
A19665a	201DQX	CEI12011E	200DEC	Series XVI	200DEC			Label*	242DEX	999A/E, XII	239DEC	2203E/H	239PDE
A19665a	201DQX	CEI12011E	200DEC	Series XVII	200DEC			Label*	242DEX	999A/E, XIII	239DEC	2205/ZH	239PDE
A19665a	201DQX	CEI12011E	200DEC	Series XVIII	200DEC			Label*	242DEX	999E/X Imp	239DEC	2300E	239DEC
A19665a	201DQX	CEI12011E	200DEC	Series XIX	200DEC			Label*	242DEX	999KE, QE/X	239PDE	2300E/III	239PDE
A19665a	201DQX	CEI12011E	200DEC	Series XX	200DEC			Label*	242DEX	999SE, TE/X	239PDE	2300Z	239PDE
A19665a	201DQX	CEI12011E	200DEC	Series XXI	200DEC			Label*	242DEX	999TE/X	239DEC	2400E/III	239PDE
A19665a	201DQX	CEI12011E	200DEC	Series XXII	200DEC			Label*	242DEX	999 II/MEX	239DEC	2500/I	239PDE
A19665a	201DQX	CEI12011E	200DEC	Series XXIII	200DEC			Label*	242DEX	999ZE/X	239PDE	2500/II	239PDE
A19665a	201DQX	CEI12011E	200DEC	Series XXIV	200DEC			Label*	242DEX	1000A/E/II	239DEC	2500E/X	239PDE
A19665a	201DQX	CEI12011E	200DEC	Series XXV	200DEC			Label*	242DEX	1000A/E/III	239DEC	2500PE/X	239PDE
A19665a	201DQX	CEI12011E	200DEC	Series XXVI	200DEC			Label*	242DEX	1000A/E/IV	239DEC	2500QE/X	239PDE
A19665a	201DQX	CEI12011E	200DEC	Series XXVII	200DEC			Label*	242DEX	1000A/E/V	239DEC	2500Q/X	239PDE
A19665a	201DQX	CEI12011E	200DEC	Series XXVIII	200DEC			Label*	242DEX	1000A/E/VI	239DEC	2500R/X	239PDE
A19665a	201DQX	CEI12011E	200DEC	Series XXIX	200DEC			Label*	242DEX	1000A/E/VII	239DEC	2500S/E	239PDE
A19665a	201DQX	CEI12011E	200DEC	Series XXX	200DEC			Label*	242DEX	1000E/I	239DEC	2500X/EN	239PDE
A19665a	201DQX	CEI12011E	200DEC	Series XXXI	200DEC			Label*	242DEX	1000E/II	239DEC	2500X/EP	239PDE
A19665a	201DQX	CEI12011E	200DEC	Series XXXII	200DEC			Label*	242DEX	1000E/III	239DEC	2500Z/I	239PDE
A19665a	201DQX	CEI12011E	200DEC	Series XXXIII	200DEC			Label*	242DEX	1000E/IV	239DEC	2600E	239PDE
A19665a	201DQX	CEI12011E	200DEC	Series XXXIV	200DEC			Label*	242DEX	1000E/V	239DEC	2600E/III	239PDE
A19665a	201DQX	CEI12011E	200DEC	Series XXXV	200DEC			Label*	242DEX	1000E/VI	239DEC	2600X	239PDE
A19665a	201DQX	CEI12011E	200DEC	Series XXXVI	200DEC			Label*	242DEX	1000E/VII	239DEC	3000	239PDE
A19665a	201DQX	CEI12011E	200DEC	Series XXXVII	200DEC			Label*	242DEX	1000MEX/III	239DEC	3000 I	239PDE
A19665a	201DQX	CEI12011E	200DEC	Series XXXVIII	200DEC			Label*	242DEX	1000MEX/IV	239DEC	3000 II	239PDE
A19665a	201DQX	CEI12011E	200DEC	Series XXXIX	200DEC			Label*	242DEX	1000MEX/V	239DEC	3000 III	239PDE
A19665a	201DQX	CEI12011E	200DEC	Series XL	200DEC			Label*	242DEX	1000MEX/VI	239DEC	3000 IV	239PDE
A19665a	201DQX	CEI12011E	200DEC	Series XLI	200DEC			Label*	242DEX	1000MEX/VII	239DEC	3000 V	239PDE
A19665a	201DQX	CEI12011E	200DEC	Series XLII	200DEC			Label*	242DEX	1000MEX/VIII	239DEC	3000M I	239PDE
A19665a	201DQX	CEI12011E	200DEC	Series XLIII	200DEC			Label*	242DEX	1000MEX/IX	239DEC	3000M II	239PDE
A19665a	201DQX	CEI12011E	200DEC	Series XLIV	200DEC			Label*	242DEX	1000MEX/X	239DEC	3000M III	239PDE
A19665a	201DQX	CEI12011E	200DEC	Series XLV	200DEC			Label*	242DEX	1000MEX/XI	239DEC	3000M IV	239PDE
A19665a	201DQX	CEI12011E	200DEC	Series XLVI	200DEC			Label*	242DEX	1000MEX/XII	239DEC	3000M V	239PDE
A19665a	201DQX	CEI12011E	200DEC	Series XLVII	200DEC			Label*	242DEX	1000MEX/XIII	239DEC	3000M VI	239PDE
A19665a	201DQX	CEI12011E	200DEC	Series XLVIII	200DEC			Label*	242DEX	1000MEX/XIV	239DEC	3000M VII	239PDE
A19665a	201DQX	CEI12011E	200DEC	Series XLIX	200DEC			Label*	242DEX	1000MEX/XV	239DEC	3000M VIII	239PDE
A19665a	201DQX	CEI12011E	200DEC	Series L	200DEC			Label*	242DEX	1000MEX/XVI	239DEC	3000M IX	239PDE
A19665a	201DQX	CEI12011E	200DEC	Series LI	200DEC			Label*	242DEX	1000MEX/XVII	239DEC	3000M X	239PDE
A19665a	201DQX	CEI12011E	200DEC	Series LII	200DEC			Label*	242DEX	1000MEX/XVIII	239DEC	3000M XI	239PDE
A19665a	201DQX	CEI12011E	200DEC	Series LIII	200DEC			Label*	242DEX	1000MEX/XIX	239DEC	3000M XII	239PDE
A19665a	201DQX	CEI12011E	200DEC	Series LIV	200DEC			Label*	242DEX	1000MEX/XX	239DEC	3000M XIII	239PDE
A19665a	201												

NEEDLE IDENTITY BY SET-MAKER'S CARTRIDGE NUMBER

EMPIRE (Continued)	Our No.	G-E (Continued)	Our No.	MAGNAVOX (Continued)	Our No.	MOTOROLA (Continued)	Our No.	PHILCO (Continued)	Our No.	PHILCO (Continued)	Our No.	PICKERING (Continued)	Our No.	
3500TE	239DEX	1009,1010	164	56026,247	804	69130	150	2643,2658	87AS-5	8079,8080	365	Following are "Private Label" cartridge nos., showing the correct replacement stylus		
3800TE	239DEX	1013	509	560250,253	352	471595	752	2671,2690	752	8081,82,85	365			
4000E/V	239PDE	1026	700	560255	270			2682	580	8083,8084	164			
4000MKI	239DEC	1066,1101	164	560259,260	804	Following have 99C- prefix:		2739,2763	154	8097	365			
4000MKIII	239PDE	1493,1588	863	560268,269	352	60210B	700	2743,2754	150					
4000X/XI	239PDE	1838	164	560275	460	60333B	164	2765	802	Following are full part nos.			Micro 395E	600D6E
4000X/XII	239PDE	1953	700	560276,280	352	60337A	460	2767,2795	800	25130071	211D6T		MX/15-800E	600D6E
4000X/XIII	239PDE	2223	511	560277,278	702	60337A	806	2775,2776	700	25690386	710D7		MX/15-900E	600D6E
4000Z/III	239PDE	2389,2467	700	560281	460	60459B	M853	2785,2787	700	345-0001	700		V-15/Mic. 5	600D6E
4000ZE/IV	239PDE	3133	604DET	560283	702	60615B	808	2803	NLA	425-0009,11	581		V-15/M-3	600D6E
4000Z/X	239DEX	3134	629D7	560288	700	60668B	5853	2805	700	425-0012	154	V-15 Ser. 4	600D6E	
4001E/X	239PDE	3081,52	509	560290	352	60872A	808	2806,2812	700	425-0013	150	V-15/101E	600D6E	
4002ZE/X	239PDE	80X165	509	560296-3	352	61599B	M855	2806	352	425-0014,16	581	V-15/202E	600D6E	
4004A/S-4	239DC	80X208,209	507	560296-7,8	461	61918A	700	2816,2817	NLA	425-0015,17	580	V-15/220E	600D6E	
4004D/IV	239DQ	80X214	164	560305,307	359	61100A	461	2820	702	P-1,2,6,7	S855	V-15/303E	600D7E	
4004ZE/X	239DET	80X234,235	510	560310,311	365	61182B	S855	2829	700	P-3,5X	S854	Impr:	600D6E	
4400/IV	239DQ	80X341	511	560313-3,5	700	61270A	461	2849,2850	NLA	P-4	S856	V-15/440E	600D7E	
4400D	239DQ	80X361	617	560315	365	61276B	863	2851	352	P-8X,9X	S854	V-15/480E	600D6E	
4500Z/EEE	239DEC	80X368,402	863	560325-1,2	462	61438B	M855	2853,2859	159	P-10,11	S855	Impr:	600D7E	
5000E/III	239PDE	80X422	604DET	560336-2	558	61496A	164	2857	365	P-12,13	S855	V-15/510E	600D6E	
5000E/X	239DQ	80X525	604D7C	560336-2	558	61519B	864	2860,63,64	163	U2	O855	V-15/510E	600D6E	
5000HPT	239DET	80X2223	511	560337,338	557	61519B	864	2865,2868	365			V-15/610E	600D6E	
5000HPT Im	239DEX	97X4	804	560340,342	365	61519	163	2876-1,2,4	S855	PHONO LA (Teles)	Our No.	V-15/615E	600D6E	
5000LAC	239DQ	97X8	NLA	560344,345	557	61597B	272	2876-3,2877	S854	12827	911	V-15/630E	600D6E	
5000LS/XIII	239PDE	97X135,156	159	560346,347	558	61619A	700	2887	O855	2889	164	V-15/660E	600D6E	
5000MKI	239PDE	97X152,250	506	560348	376	61619A	700	2890,91,92	272	13134,137	700	V-15/701E	600D7E	
5000MKIII	239PDE	97X475	506	560351-2	365	61640A,560A	358	2891-1,4	S854	13203	911	V-15/725E	600D6E	
5000MKV	239PDE	97X497	507	560352,353	376	61816B	272	2892-2	S856	13211	700	V-15/810E	600D6E	
5000 Ph. IV	239PDE	97X569,570	507	560355	170	61944B	S854	2893-3	L853	13376	804	V-15/845E	600D7C	
5000V Imp.	239DEC	Following are all full part nos.		560356	629	62077A	358	2894	L853	13939	352	V-15/890E	600D6E	
5000XE/IV	239PDE	MA-8	629D7C	560360,365	369	62090A	751	2895	272	14120	NLA	VEV-1000	600D6E	
5000Z/IV	239PDE	CC-5,-7	504	560361,363	NLA	62356A	462	2896	S854	14121,14266	700	VEV-2000	600D7E	
5500MS	239DQ	RPX Series	500	560366	376	62367	808	2897	M853	14630,14665	980	390 Mk. III	600D6E	
6000E, E/X	239PDE	RPX-A Ser.	501	560369-9,10	697D7	62392A	702	2898	S856	14630,14665	980	950EE-1	600D6E	
6000III	239DEC	Following have 8E- prefix:		560375,378	369	62432A	164	8036,47,56	352	14713	804			
6000IV	239PDE	1599	911	560376	M854	62510B	S855	8076	359	14964	702	SHURE	Our No.	
6000KEE	239PDE	16515,1652	NLA	560380	584	62945A	164	8079,8080	365	15207,15504	700	Following are "Private Label" cartridge nos., showing correct replacement stylus		
6000XEL	239PDE	2195	804	560384	557	62971A01,03	S855	8081,82,85	365	15399	808	A20E	774DEJ	
6009,6900T	239PDE	6216,2701	NLA	560389-1	M855	62971A02,04	S854	Following are all full part nos.		15723	461	A90LTD	761DED	
6900	239D7C	2923,3109	700	560389-3	369	63211A	367	45-1608,1612	580	15850,16164	700	A90LTD	761DED	
6900E/III	239PDE	3108,3422	702	560397	629DQ	63441	800	45-961,9785	581	16406,16408	808	A90LTD	761DED	
6900E/T	239PDE	3476,3478	808	560398-1	612D7	63443A	S855	45-9792	580	16744	359	A90LTD	761DED	
7000/I	239D7C	3480	702	560398-2	760D6	63464A	464	Following have 32E- prefix:		16836,16845	700	A90LTD	761DED	
7000/III	239DEC	3586,3587	702	560399	557	63679A	164	45-1681,1682	462	16837	462	A90LTD	761DED	
7000/IV	239PDE	3800	700	560405	L854	63784A	S855	16881,16882	462	17027,17055	462	A90LTD	761DED	
7000/VII	239PDE	3824,3825	507	560407	CRS4	63816A	S854	17027,17055	462	17660	365	A90LTD	761DED	
7000E/D	239PDE	4186,4722	700	560411	707D6	643220,221	352	17660	365	A150	774DED	A90LTD	761DED	
7000E/X	239PDE	4694	507	560422	CRS4	64570	941	17660,17927	702	A1000	770DEC	A90LTD	761DED	
8000/III	239PDE	6090,6091	700	560428	M854	64570,701	804	17902,17908	700	A2000	NLA	A90LTD	761DED	
8000/XVE	239PDE	6295	507	560429-2	710D7	Following are full part nos.		17938	365	AA92E	761DED	A90LTD	761DED	
8000E/X	239PDE	6516,6519	164	560432-1	711D7	01,29,0130	163	18224,18643	702	Alpha 20	770DEC	A90LTD	761DED	
9000/III	239DET	6327	509	560435-31	711D7	01,51,029,31	596D7	18576	163	AM19	761DED	A90LTD	761DED	
9000T	239DET	670	700	560439-1	M855	59D6002A	358	18716,18852	164	AM25E	760DED	A90LTD	761DED	
9000T Imp.	239DEX	6769	507	560439-2	710D7	59D6007A	808	19102	365	AM35E	760DED	A90LTD	761DED	
9000X	239PDE	6770	509	560439-3	369	59D6182B	S855	19672,19691	164	AM39E	761DED	A90LTD	761DED	
9000V/SI	239DEC	Following have 8E- prefix:		560439-4	710D7	59D61496A	808	19694,19731	272	AM39E	767DED	A90LTD	761DED	
9000V/SII	239PDE	1051,1054	700	560439-5	213D6C	59D62271A	808	20014,20265	164	AMC50E	759DE	A90LTD	761DED	
9000Z/X	239DET	1660	700	560439-6	719D7	59D62855	800	20262	863	APC-1	NLA	A90LTD	761DED	
9900E	239PDE	2716,2717	700	560439-7	719D7	59E60336A	808	20272	369	APC-2	NLA	A90LTD	761DED	
9900E/2,3	239PDE	2734,3424	700	560439-8	719D7	Following have the 32K-prefix:		20272	462	APC-3	770DEC	A90LTD	761DED	
11000LSX/III	239PDE	4240,4496	700	560439-9	719D7	62090A	752	20322	462	APC-4	770DEC	A90LTD	761DED	
		Following are all full part nos.		560439-10	719D7	634530	941	20456	809	APC-5	NLA	A90LTD	761DED	
		VR-11 Ser.	503	560439-11	719D7	634613,614	700	20456	809	APC-6	NLA	A90LTD	761DED	
		VR-225,227	505	560439-12	719D7	636710	NLA	20456	809	ARC28	770DEC	A90LTD	761DED	
		VR-1000	NLA	560439-13	719D7	63683A	802	20456	809	ARC44	770DEC	A90LTD	761DED	
				560439-14	719D7	642982	941	20456	809	ARC28	770DEC	A90LTD	761DED	
				560439-15	719D7	643009	808	20456	809	ARC44	770DEC	A90LTD	761DED	
				560439-16	719D7	643220,221	352	20456	809	ARC28	770DEC	A90LTD	761DED	
				560439-17	719D7	643335	804	20456	809	ARC44	770DEC	A90LTD	761DED	
				560439-18	719D7	643765	910	20456	809	ARC28	770DEC	A90LTD	761DED	
				560439-19	719D7	643997	615	20456	809	ARC44	770DEC	A90LTD	761DED	
				560439-20	719D7	645701	352	20456	809	ARC28	770DEC	A90LTD	761DED	
				560439-21	719D7	645704	804	20456	809	ARC44	770DEC	A90LTD	761DED	
				560439-22	719D7	645875	941	20456	809	ARC28	770DEC	A90LTD	761DED	
				560439-23	719D7	Following are full part nos.		20456	809	ARC44	770DEC	A90LTD	761DED	
				560439-24	719D7	59P60015A	700	20456	809	ARC28	770DEC	A90LTD	761DED	
				560439-25	719D7	59P6002A	358	20456	809	ARC44	770DEC	A90LTD	761DED	
				560439-26	719D7									

NEEDLE IDENTITY BY SET-MAKER'S CARTRIDGE NUMBER

SYLVANIA (Continued)	Our No.	V-M (Continued)	Our No.	V-M (Continued)	Our No.	V-M (Continued)	Our No.	V-M (Continued)	Our No.	V-M (Continued)	Our No.	ZENITH (Continued)	Our No.
0037	460	4918	150	29288	462	4507C	374	V-167	0854	142-123	461		
0038,0039	461	4928	751	29564	464	45106B,C	5854	V-168,69,70	5854	142-124,125	700		
0040	700	5172	151	30013	700	45106D,E	5855	V-171	5855	142-126,127	896		
		5403	150	30085	164	45106F	5853	V-172,173	5854	142-128	896		
954-0025	700	5573	752	30576,77,80	365	45107A,B,D	5855	V-180 thru		142-133,134	462		
Following have 11:		5636	641	31167	465	45107C,P	5853	191:	5854	142-136,137	896		
prefix:		5639	156	31365	164	45107E,R	5855			142-138,140	896		
10328-1,2	700	5799	153	31688,31961	367	45107N	5854	WESTING-		142-141,142	896		
10328-3,7	700	6045,6344	700	33701,33861	463	45108	5854	HOUSE		142-143	896		
10328-8	NLA	6115	156	35130AB	5854	45109A,B	5854	Our		142-144,145	164		
10328-9	L853	6348	BAS-S	35349C,G	0854	45109C,D,N	5853	No.		142-146,147	702		
10329-2,15	164	6394	153	35469A	5854	45109E thru		670L514M	159	142-148,149	164		
10329-4	700	6649	156	35469B,C,D	5855	M:	5854	670L514M(02	163	142-150,151	897		
10329-16	165	6655,6714	751	35621B,L	5854	45109P,S,U	5854	670L514M(03	164	142-152,153	702		
10329-18	163	6749	154	35918,35277	5855	45109T,X	5854	670L519M(01	808	142-154	L853		
14158-1	700	6751	156	36288A	5855	45109V,W	0854	Following have 621VQ		142-155	365		
14159-1	164	6981	751	36470A	L853	45122	557	as their 1st five digits:		142-156	272		
14161-1	159	7316,7477	800	36470B,C,D	L855	45139A,B	373	01H02,02H02	NLA	142-157	702		
14162-1	604D7C	7447,7825	700	36470E,F,G,J	L854	45139D,E	375	04H01	802	142-159	L853		
14353-1	700	7647	BAS-S	36470K	5853	45140A,ACAD	5854	04H04	911	142-160	365		
14469-1	164	7949,9004	154	36470L,M,S	L853	45140A,AAE	5853	04H05,04H06	700	142-161	700		
14701-1	164	9120,9121	700	36470P,Z	L855	AE,AG:	5853	04H08	271	142-162,164	L854		
14702-1,3	165	9138	754	36470U	L853	45140H,IAU,		04H09,04H10	700	142-163	897		
14703-1	163	9168,9234	700	36470V,Y	L854	AW,AX:	5854	04H09,04H10	700	142-165	272		
14704-1	604D7C	9288,9468	154	36470AA,AC	L853	45140AN,AP,		09H01	804	142-166,168	897		
14716-1	163	9511	154	36470AA,AR	L854	AV:	5855	09H02	700	142-167	898		
14883-1	604D7C	9543	150	36470AA,AS,AU	L854	45140B,C,F	5855	09H03	702	142-169	L853		
18250-1,2	365	9590	754	36470AA,AV	L855	45140E,G,H,J	5854	10H01,10H02	700	142-170,171	272		
18254-1	165	9655,9777	700	36477	L853	45140K,N,P	5853	10H03	702	142-172	369		
18259-1	165	9930	154	36487A,B,F,G	5854	45140L,M,V,W	5854	11H01	700	142-173	5854		
18561-1	604D7M	14432	153	36487D,E	5855	45140RS	5853	12H01	616	142-175	L854		
18939-1	604D7C	14456	802	36537,36538	5854	45140T,U,X,Y,		12H04	808	142-178	273		
22322-1	604D7T	14626	700	37364,37577	5854	Z:	5855	13H02,13H03	808	142-179,181	274		
22463-1	604D7T	14843	754	37634A,C,J	5853	45163A,AA,		20H02,20H03	808	142-182	899		
22877-1	604D7T	14877,14900	711	37637B,D,E	5855	AB	M854	21H01,21H02	808	142-185	5854		
26249-1	M855	14918,15258	700	37639A,C,H	5855	45163AC,AE,		21H01,21H02	462	142-186,187	M854		
26599-1	M856	15039,15242	NLA	37639A,C	M854	AD,AG:	M853	21H01	616	142-189	760D6		
26626-1	M854	15480	503	37639C,F	M855	45163AF	M854	21A05	465	142-190,191	M854		
26627-2,3	L854	16618,30,33	911	38349B,D,G	0855	45163B,C,M	M853	24H01,2,3,4	462	142-192,193	M854		
26645-1	604D7C	16707	804	38349E	0854	45163N,R,T	M853	24H05	465	142-194	760D6		
28301,28302	S854	16729	352	38349G	0854	45163P,V,W	M854	25H01,25H02	462	142-195	760DE		
28473	S854	16744	359	38632	0856	45163S	0853	26H02,26H05	462	142-196	760DEJ		
28652	607D7M	16855,860	NLA	38605A50	5854	45438	760D6	26H01,2,4	465	142-197,198	M854		
28657	759D7	17529,18444	700	38619	863	45440A,B,C	373	28A01,28B01	463	142-199	M854		
32399	S854	18464	911	38633A,C	5855	45440D,E,F	375	28B02,28H02	463	142-200	760D7Z		
32751	M854	18615,18639	NLA	38636B,E	5854	45756	375	29A01,31A01	272	142-201,202	M854		
32752	S854	18618	702	38663D	5853	SN-2	M854	35A01	462	942-100	111D7C		
32753	S854	18642	700	38663E	M854	V-1,2,6,7,9	5854	37B01	163	942-239	710D7		
34059-1	274	18696,18792	NLA	38664	M854	V-4,8,10	5855	38B01	5854				
25130071	211D6T	18697,18698	911	38976,40184	5855	V-11,12	5855	39B01,39B02	5854				
25130078,122	793D7	18973	700	40177	373	V-13,14	5855	39B03	5853				
25690396	710D7	19387,19737	NLA	41542A,D,E,F	5855	V-15,20	5854	40B01,40B02	272				
		19464	911	41542G	5854	V-21,23,24	5855	41B01	5854				
		19790	NLA	41715	760D6	V-22	5854	42B01	272				
		19814	NLA	42106	940	V-25	5853	42B02	273				
0-394,0-410	700	19814	892	42125	5853	V-40 thru V-46	5854	672V003H06	700				
649	BAS-S	19786	114	42425	0855	V-47	5855	672V003H08	700				
649L,649N	752	19922	358	42818A,E,H	M855	V-48,49	5854	Following have 690YQ					
1281,1282	752	20702	358	42818B	L854	V-53,54,55	5854	as their 1st five digits:					
2404	352	20703,20995	702	42818D	M853	V-61,82	5853	18H58,62,63,64	700				
2606	752	20855,21400	700	42818E,R,U	M855	V-80,81	5855	21H07	702				
2753,2876	156	21449,21499	700	42818N,P	M854	V-83,84	5855	21H40,49,51	700				
3063,3182	752	21688	352	42818Q	0855	V-86,87	0854	23H05	804				
3137,3168	156	21794	NLA	42870B	M853	V-90,94	5855	25H28	465				
3239	880	21965	462	42870C	5855	V-92	5854	25H29,25H30	272				
3345	154	21511,12,13	NLA	42870F,G	5855	V-93	5853	25H62,25H83	700				
3368	751	21592,93	NLA	42870H	M854	V-105,106	5854	25H87	5854				
3370	156	22763,22811	461	43039D	M854	V-107,108	5853						
3373	752	22867	159	43039E,K,S	5854	V-109 thru							
3384	350	22891A,B	460	43039J	5855	116:	5854	ZENITH					
3399	880	22891C,D	461	43070A	5853	V-117,118	5853	Our					
3411,3415	752	22942	461	43070B,C	5855	V-119,121	5854	No.					
3443	150	23431,23538	700	43099A	M854	V-120,122	5853	142-71,72,73,74	991				
3455	752	23859	462	43099B,D,F,G	L854	V-123,124	0854	142-76,77	992				
3500	156	23960	460	43099C,E	M855	V-125,130	5854	142-80,83	NLA				
3547	152	24016	461	43099H	M853	V-128,129	5853	142-81	154				
3553	751	24041	808	43151A,B,D	5855	V-131,132,133	5855	142-82	153				
3555	880	24232	700	43151C,E	5854	V-134,136,137	5854	142-84,85,86	700				
3560	152	24257,58	NLA	43151F,S,T,U	5853	V-138,140,141	5854	142-87,88,89	993				
3579,3686	752	24402,04	159	43151K,L,V	5855	V-142	5853	142-90	NLA				
3691,3719,49	752	24643,24698	702	43151P,X,Y	5854	V-143,144,145:	5853	142-92,93	352				
3794	641	25238	NLA	43174	5855	V-146,147	5855	142-95,96,97	700				
3797	152	25267	358	43630A,B	373	V-148,149	5854	142-98,99	702				
3917	880	25292	808	43630C,D	374	V-150,51,52	5855	142-101	702				
4021	151	25586,88	461	43757B	369	V-153	5853	142-102,103	NLA				
4074	350	25830	506	43757C	374	V-154,55,56	5854	142-105,106	NLA				
4099,4186	150	27172,27269	365	43880B	369	V-157,58,59	5853	142-107	702				
4200	350	27271,72	163	43880C	374	V-161	5853	142-108,109	NLA				
4254	150	27493	462	43886	5856	V-162	0853	142-110,111	460				
4278	751	28999	700	44423	864	V-164,65,66	5855	142-113	702				
4487	752	29011,29264	700	44626	371			142-115	460				
4845	880	29286,29290	358	44634	5854			142-117,118	352				
				45013	5853			142-119,120	NLA				
				45037A,B	373			142-121,122	461				

SECTION IV
SET-MAKER'S
CARTRIDGE #

SECTION V

NEEDLE CROSS-REFERENCE

ADC	Our No.	ADMIRAL (Continued)	Our No.	AIRLINE (Continued)	Our No.	ARISTA (Continued)	Our No.	ARISTA (Continued)	Our No.	ARISTA (Continued)	Our No.	ARISTA (Continued)	Our No.	
		95-15	4607	10020	4607	32-282	798D7	AR-11D	628D7	EV-5	942	PK-4B	607D7T	
		95-16	4613	10157	150D1	32-290	698D7	AR-12D	635D7	EV-6	941	PK-4D	607D7C	
		95-17	4615	10159	150S1	32-291	663D7	AR-13D	625D7	EV-7	NLA	PK-50	606DEX	
		95-18	46157	10161	164D6	32-301	738D7	AR-14D	626D7	EV-8	NLA	PK-51D	608DEQ	
		95-19	461D7	10172	164S5	32-302	732D7	AR-15D	631D7	EV-9	358	PK-52D	608DQ	
NAD91	111DEC	95-20	702D7	10925	752D1	32-310	666D7	AR-16D	630D7	EV-10	359	PK-53D	608DQX	
NAD92	111DEM	95-21	808S5	10928	506D6	32-311	740D7	AR-17D	613D7	EV-11	360	PP-1	586	
NAD93	108DET	95-22	808D6	10929	752S1	32-312	713D7	AR-18D	611D7	EV-12	356	PP-2	585	
R20,R20X	NLA	95-23	345D8	10930	150S1	32-313	715D7	AR-20D	632D7	EV-13	365	PP-3	588	
R35XE,R50XE	NLA	95-24	462S5	11381	501D7	32-314	NR	AR-22D	634D7	EV-14	363	PP-4	590	
R60XE,R90X	NLA	95-25	462D6	11387	700S7	32-316	721D7	AR-23D	636D7	EV-15	354	PP-5	587	
R90XE	NLA	95-26	359D6	11388	700S3	32-317	731D7	AR-25D	637D7	EV-16	355	PP-6	591	
R95QE	111DEC	95-27	359S5	11389	893S5	32-318	736D7	AR-26D	638D7	EV-17	367	PP-7	593	
R105QE	111DET	95-28	700S1	11390	893D6	32-319	745D7	AR-29D	670D7	EV-18	368	PP-8	592	
R125,150QE	111DEM	95-29	700S3	11392	942S5	32-320	746D7	AR-30D	719D5	EV-19	369	PP-9	595	
R341 LM	111DET	95-30	702S1	11393	942D6	32-321	794D7	AR-31D	629D7	EV-20	371	PP-10	594	
RK3E	108DEC	95-31	702D1	11394	NLA	32-328	720D7	AR-32D	671D7	EV-21	370	RC-1	640	
RK5E	111DET	95-32	163D6	11395	NLA	32-330	684D7	AR-33D	612D7	EV-22	374	RC-2	641	
RK6E,RK7E	111DEC	95-33	163S5	11400	941S5	32-331,332	675D7	AR-34D	679DQ	EV-24	373	RC-3,4	643	
RK9	111DEC	95-34	358S5	11405	941D6	32-333	709D7	AR-35D	679DQ	EV-25	376	RC-5	644	
RLX1	111DEC	95-35	358D6	11441	800S5	32-335	747D7	AR-40D	675D7	EV-26	375	RC-6	645	
RLXII	111DET	95-36	164D6	11463	644S5	34-400	411D7C	AR-41D	684D7	EU-1	460	RC-7	646	
RLXIII	111DEM	95-37	164S5	11464	644D6	34-401	411D7C	AR-42D	679DQ	EU-2	461	RC-8	647	
RLXM100	108DET	95-38	11467	11467	461D7	34-402	411D7C	AS-1	150	EU-3	462	RC-9	648	
RP 30	111D7C	95-39	463S5	12166	462S5	36-403	4110DET	AS-2	NR	EU-4	463	RC-10	649	
RP 32	111D7C	95-40	535D6	12167	462D6	34-404	119D7	AS-3	153	EU-5	464	RC-11	650	
RP 36	108DEC	95-41	700S3	15562	368D6	34-420	423D7C	AS-4	155	EU-6	465	RC-12	651	
RQ 32	111DEM	95-42	700S7	15563	509D6	36-421	423D7C	AS-5	156	GA-1	490	RC-13	653	
RQ36	111DEM	95-43	700S3	15564	647D6	34-430	NLA	AS-6	152	GA-2	491	RO-1	701	
RQLM30	111DEC	95-44	700S7	15565	585S5D6	34-440	463D7C	AS-7	151	GA-3	492	RO-2,3	702	
RQLM36	111DEM	95-45	348D6	15566	64-41	34-441	463D7C	AS-8	154	GA-4	493	SH-1	752	
R50QE	111DET	95-46	348S5	15567	894D6	34-442	4605D7C	AS-9,12	700	GE-1	500	SH-2,3	751	
R5D	108DEC	95-47	464D6	15568	897D6	36-443	4605DET	AS-10	911	GE-2	501	SH-4	750	
R5KAC	108DEC	95-48	L855	30127	643D6	34-445	4606D7C	AS-11	NLA	GE-3	503	SH-5	754S-5	
R5LM63	111DEM	95-49	M855	44378,381	864D6	34-455	4728D7 / AS-13,14	AS-13,14	159	GE-5	505	SH-6,7,8	754S-6	
R5Q321	111DEC	95-50	L855	44379	273D6	34-460	PR	AS-15,16	164	GE-7	NLA	SH-12D	759D7C	
RWLX-1	111D7C	95-51	535D6	44380,383	373D6	34-460	757D7	AS-17	163	GE-8	506	SH-13D,14D	759D7	
RXP8101	111DEC	95-52	535S5	44382	M855D6	34-461	4759D7	AS-18	165	CE-9	507	SH-15D,16D	759D6	
RXP8102	111DET	95-53	843S5	44384	M853D6	34-462	4759D7	AS-19	161	CE-10	510	SH-17D	NLA	
RXP8103	111DEC	95-54	843D6	44385	274D6	36-463	4759DE	AS-20	162	CE-11	511	SH-19D	760DE	
TD-1	O854D7	95-55	M855	45205	273D6	34-464	4760D6	AS-21	169	GR-1D,3D	525D7	SH-20D,22D	760D6	
TS-1	O854D7	95-56	M856	45207	272D6	36-465	4760DE	AS-22	166	GR-10D	NLA	SH-21D,22D	NR	
		95-57,58	L853	45779	5854D6	36-466	4760DE	AS-23	167	GR-11D	NLA	SH-23D	763DE	
		95-59	700D7	78361	358D6	36-467	NR	AS-24	168	GR-12D,13D	NLA	SH-24D	763DE	
		95-60,61	864			36-468	4761DE	AS-26	165	CO-1D	530	SH-25D,26D	NLA	
		95-62,63	L855			36-469	4762DE	AS-27	173	JE-1D	535	SH-29D,30D	761DE	
		95-64,65	5855			34-470	768D6	AS-28	175	LE-1	552	SH-32D	762DE	
		95-66,67	5854			36-471	768DE	BO-1	260	MA-1	556	SH-33D	NR	
		95-68,69	5853			34-472	4767DE	BO-2	261	MA-2	557	SH-35D,36D	757D7	
		95-70,71	272			36-473	4767DE	BO-3	263	MA-3	558	SH-37D	NLA	
		95-72,76	274D6			36-475	4769DE	AS-17	272	OR-1,2	540D7	SH-38D	759D7	
		95-74	M855			36-476	4769DE	AS-18	273	OR-3,4	540DE	SH-39D	759D3	
		95-75	5853			36-477	4772E	BS-5,6	274	PE-1	560	SH-40D	761DE	
						34-490	4820DE	CO-1	290	PE-2	562	SH-41D	NLA	
						36-491	4820DE	DU-2	302	PE-3	563	SH-45D,47D	760DED	
						34-492	822D7A	DU-3	303	PE-4,5	564	SH-46D	760D6	
						36-493	822DEE	DU-4	304	PH-1	580	SH-48D	760DE	
						911857	911857	DU-5	304	PH-2	581	SH-49D,50D	760D6	
						911860D	911860D	DO-4,7	305	PI-1	616	SH-52D	762DE	
						M855D6	40-1556	EL-1	329	PI-2	615	SH-53D	761DED	
						M854D6	40-1566D	EL-2	561	PI-3	617	SH-54D	764DMR	
						M853D6	AC-1D	EL-3	325	PK-1D	604DEM	SH-55D	760D6	
						0854D7	AC-2D	EL-4	326	PK-2D	604DET	SH-57D	766D7	
						864D6	AC-3D	EL-5	327	PK-3D	604D7M	SH-60D	768D6	
						897D6	AC-4D	EL-6	328	PK-4D	604D7T	SH-61D	768D6	
						898D6	AC-5D	EL-7	330	PK-5D,6D	604D7C	SH-63D,64D	767DE	
						617D7	AC-6D	EL-8D	331D7	PK-7D	604D3	SH-65D	767DED	
						849D7	AC-7D	EL-9D	332D7	PK-8D	NLA	SH-70D	765DQ	
						30-110	AC-8D	ES-1D	251D7	PK-9D	603D7T	SO-1	801	
						30-120	AD-1D,3D	ES-4D	252D7	PK-10D,11D	603D7C	SO-2	803	
						30-130	AD-8D,9D	ES-5D	232DE	PK-12D,13D	603D7C	SO-3	800	
						30-140	AD-10D,11D	ES-6D,8D	232DE	PK-14D,19D	NLA	SO-4	804	
						30-150	AD-12D,13D	ES-7D,9D	232SDE	PK-15D,16D	601D7C	SO-5	802	
						30-160	AD-14D,15D	ES-10D	230D7	PK-17D,18D	601D7C	SO-7	980	
						793D7	AD-16D,17D	ES-12D,15D	232SDE	PK-20D	601D7C	SO-8	807	
						707DE	AD-18D	ES-13D	230DE	PK-26D	605DEM	SO-9	805	
						629D7	AD-19D	ES-17D,18D	252D7	PK-27D,32D	605DET	SO-10,11	806	
						629DE	AD-20D	ES-19D	232SDE	PK-28D	605D7M	SO-13	809	
						697D7	AD-21D,22D	NLA	ES-21D	235VDE	PK-29D	605D7T	SO-14	810
						710D7	AD-23D,24D	NLA	ES-22D,23D	235SDE	PK-30D,33D	605D7C	SO-16,18	812
						209D6T	AD-25D	NLA	ES-24D	235DE	PK-31D	604D3	SO-17	811
						714D7	AD-27D	ES-25D	235D7	PK-34D	606D7M	SO-19	813	
						213D6C	AD-28D	ES-26D,27D	234DE	PK-35D	606D7T	ST-1D	822D7A	
						211D8T	AD-29D	ES-28D	233DE	PK-36D,41D	606D7C	ST-2D	822DEE	
						743D7	AD-30D	ES-29D	234ZDE	PK-37D	606DEM	ST-3D	822DEE	
						212D6C	AD-31D	ES-30D	239DEC	PK-38D	606DET	ST-5D	820D7	
						214D6	AR-1D	ES-31D	239D7C	PK-39D	606DEC	ST-6D	820DE	
						721D7								

NEEDLE CROSS-REFERENCE

ARISTA (Continued)	Our No.	ASTATIC (Continued)	Our No.	ASTATIC (Continued)	Our No.	ASTATIC (Continued)	Our No.	ASTATIC (Continued)	Our No.	ASTATIC (Continued)	Our No.	ASTATIC (Continued)	Our No.
TE-4	843	AT110-6d	629D7	EM126-6d	240DLAC	PI107-6d	60DDEM	SH108,110	768D8	N43-7D	159D7	N247-ED	114DEC
TP-1	851	AT110-ed	629DE	EM127-7d	4241D7	PI108-ed	60DSE1	SH108-3d	760D8	N50,51-SD	164D8	N248-ED	114DEC
TD-1	850	AT111-ed	629DE	EM128,129	4241DME	PI109-7d	4607D7C	SH109,111	768DE	N52-SD	161D6	N249	100D7
TD-2	M853	AT111-6d	629DQ	EM130,131	4241DEX	PI109-ed	607DEC	SH112,113	4760D6	N54-SD	162D8	N251,253	820D7AL
TD-3	L853	AT111-ed	6297	EM132-6d	241DLAC	PI110-7d	607D7M	SH115,116	4760DE	N56,58-SD	163D8	N252,254	820DE
TD-4	L855	AT112-ed	612DE	EM133-6d	240DEDR	PI110-ed	607DEM	SH117-ed	760DEJ	N60,62,63-SD	164D8	N255-ED	820DEE
TD-5	L854	AT112-6d	612DQ	EM134,135	232SDE	PI111-7d	4607D7C	SH118 thru	121:	N66,66-SD	165D8	N256-1D	820D7AL
TD-6	M854	AT113-6d	612D7	EM136-ed	235VDE	PI111-ed	607DE7	SH113-3d	760D3	N68,70,72-SD	164D8	N257-3D	820D3
TD-7	M855	AT114-ed	612DE	EM137-7d	230D7	PI113-3d	68D3	SH112,123	NLA	N73,74-SD	169D8	N258-ED	821DE
TD-9	C854	AT115-6d	612DQ	EM137-ed	230DE	PI114-7d	4605D7C	SH114 thru	127:	N79-SD	167D8	N259-ED	821DEE
VA-1	860	AT116-ed	NR	EM138	232DE	PI114-ed	605DET	SH124 thru	4761DE	N81-SD	168D8	N260-1D	821D7A
VA-2	861	AT117-7d	612D7	EX100,101,102	614D7	PI115-7d	605D7M	SH128-ed	4762DE	N83-SD,84	170D8	N261-3D	821D3
VA-3	863	AT118-ed	679DE	EX103,104	614DE	PI115-ed	605DEM	SH124-3d	4767DE	N85-SD	165D8	N262,265	822D7A
VA-4	862	AT119-ed	679DE	EX104-6d	614DQ	PI116-7d	4605D7C	SH129,130	4767DE	N89-SD	174D8	N263,264	822DEE
VA-5,6,7	864	AT120-ed	679DE	EX105 thru109	NR	PI116-ed	605DET	SH131-3d	767DDE	N90,91-SD	175D8	N267-ED	822DEE
WE-1	880	AT121-6d	679DQ	GO100 thru104	NR	PI117-3d	604D3	SH132-6d	NR	N92,99-7D	174D8	N268-QD	NLA
WE-2	885	AT122-6d	679DQ	GO100 thru 108	NLA	PI118-7d	4606D7C	SH134,135,136	771DHE	N104-1D	112D1	N270-7D	820D7AL
WE-3	892	AT122-ed	679DE	HI103-7d	694D7	PI118-ed	606DEC	SH137-ed	NR	N105-1D	113D7	N271-ED	825DEV
WE-4	893	AT123-6d	679DQ	HI104-7d	673D7	PI119-7d	4606D7C	SH138	4763DE	N106-7D	115D7	N272-ED	824DE
ZE-1 thru ZE-6: NLA		AT123-6d	679DQ	HI104-6d	673DQ	PI119-ed	606DET	SH139-6d	766D7	N107-SD	116D8	N273-ED	824DEL
ZE-7,8	896	AT126,127	NR	HI105	695D7	PI120-7d	606D7M	SH140-ed	4764DE	N112-ED	238DQ	N274-1D	822D7A
ZE-9	897	AT128,129	697D7	HI106 thru 109	NR	PI120-ed	606DEM	SH141-6d	764DMR	N113,114ED	238DQ	N275-3D	822D3
ZE-10	898	AT130-6d	697D7	HI110-7d	669D7	PI121-ed	606DEL	SH142-ed	764D3	N115,116ED	237D7	N280-SD	300D8
ZE-11	899	AT130-ed	206DET	JV100,101	NR	PI122-ed	606DEC	SH143	4772DHE	N117-ED	237D7	N281-SD	301D8
		AT131-6d	697D7	JV102-7d	638D7	PI122-ed	606DEC	SH144 thru	148:	N118ED	237D7	N282-7D	302D7
		AT132-6d	206DEM	JV103-7d	637D7	PI124-ed	606DE	SH150-ed	769D7	N119ED	237D7	N283-SD	304D8
		AT132-6d	204D6C	JV104,105	NR	PI125,126	608DEQ	SH149-7d	760D7	N120,121-7D	251D7	N284-SD	305D8
		AT133-ed	204DEC	JV106-7d	673D7	PI127-ed	608DEV	SH151-ed	769DEJ	N122-ED	252D7	N285-7D	303D7
		AT134-ed	205D6C	JV106-6d	673DQ	PI128-qd	608DEX	SH151-ed	769DEJ	N123-6D,ED	232DE	N290-1D	325D1
		AT134-6d	205D6C	JV108,109,110	NR	PI129-qd	608DQX	SH152-6d	771DLT	N124,125ED	232DQ	N291-7D	331D7
		AT135-ed	205DEC	JV111-7d	723D7	PI130-ed	608DEZ	SH154-ed	NR	N126-7D	230D7	N292,293	332D7
		AT135-ed	205DE	JV112-ed	NR	PI131-ed	605D5E	SH155-ed	NR	N127-ED	235VDE	N294	332D7
		AT136-6d	205D6C	JV100 thru 104	NR	PI132-ed	606DE	SH155-ed	774DEJ	N128-ED	233DE	N300-1D	350D1
		AT137-6d	697D7	KE103-7d	NR	PI133-ed	600D7E	SH156-ed	774DEJ	N129-ED	234DE	N301,303SD	351D8
		AT138,139,140	209D6T	KE101-7d	633D7	PI134-ed	600D8E	SH156-qd	774DHE	N130-7D	235D7	N302-7D	352D7
		AT141,142	710D7C	KE102,103,104	NR	PI135-7d	603D7C	SH157,158,159	4759D7	N130-ED	235DE	N304-7D	353D7
		AT143-6d	207D7	KE105-7d	676D7	PI136-7d	603D7T	SH160-ed	4759DE	N131-ED	235DDE	N305-1D	354D1
		AT143-ed	207DE	KE106-7d	730D7	PI138-3d	NLA	SO100-7d	NR	N132-ED	235VDE	N306-1D	355D1
		AT144-ed	208DE	KE107-7d	NR	PZ101-7d	636D7	SO101,102	720D7	N133-ED	234ZDE	N307-SD	365D8
		AT145-qd	208DEL	KE108-7d	797D7	PZ102 thru	107:	SO103 thru	NR	N134-ED	237DEZ	N309-SD	356D8
		AT146-ed	208DEM	LE103-7d	NR	107:	NR	SO107-7d	684D7	N135-ED	239DET	N311-SD	358D8
		AT147-qd	208DEV	MO100 thru	110:	NR	NR	SO108-7d	631D7	N136-ED	238SDE	N313-1D	360D1
		AT148-qd	208DEX	MI100-7d	667D7	PR100-7d	624D7	SO109-7d	670D7	N137-ED	234DE	N314-SD	359D8
		AT149,150,	NR	MI101,102	NR	PR101 thru	104:	SO110-7d	NR	N138-ED	232SDE	N316-7D	363D7
		AT151,152:	210DE	MI103-7d	669D7	PR101,102	717D7	SO110-7d	670D7	N141-ED	137D1	N317-SD	368D8
		AT153,154,155	NR	MI104-7d	677D7	PR108,109	611D7	SO111,112	675D7	N143-ED	239DQ	N319-SD	367D8
		AT156,157	710D7	MI105-ed	NR	PR110-7d	662D7	SO114 thru	709D7	N144,145ED	239D7	N325-1D,7D	460D7
		AT158-6d	4211D6	MI106-ed	NR	PR111-7d	663D7	SO114 thru	120:	N146,147ED	239DEC	N326-7D	461D7
		AT159,160	4211D6	NA100 thru	104:	PR112 thru	107:	ST100,101,102	820D7AL	N148-7D	239D7C	N327,328SD	462D8
		AT161-6d	NR	NE100-7d	NR	115:	703D7	ST103-ed	4820DE	N149-ED	239DET	N340-1D	490D1
		AT162-ed	212DE	ON100,101	660D7	PR116,117,118	NR	ST104-ed	820DDE	N153-ED	239DEX	N341-7D	492D7
		AT163-ed	212DET	ON102-7d	NR	PR-119-7d	698D7	ST104-ed	820DDE	N160-SD	239D8	N343-SD	494D8
		AT164-ed	212DEM	OR100-7d	4540D7U	PR120-7d	628D7	ST105-3d	820D8	N161-7D	234D8	N345-7D	525D7
		AT165-ed	212DLX	OR100-ed	4540DEU	SI00-7d	NR	ST106-ed	821DE	N162-ED	234D8	N350,353	501
		BO100,101,102	263D7	OR101-7d	4540D7U	SI01-7d	636D7	ST106-ed	821DEE	N164-SD	234D8	N351-1D	503D7
		BO103-ed	264DE	OR101-ed	4540DEU	SI02-7d	645D7	ST108-3d	821D3	N165-7D	232D8	N352-1D	500D1
		BR103-ed	NR	OR102-7d	4540D7U	SI03-7d	680D7	ST109-ed	824DE	N175,176ED	110DET	N354,355	501
		CE100-7d	680D7	OR102-ed	4540DEU	SI04-7d	699D7	ST110-7d	822D7A	N177-ED	110DET	N356-7D	505D7
		CE101-7d	635D7	OR103-7d	4540D7U	SI05-7d	634D7	ST111-ed	822DEE	N178-7D	111D7C	N357-SD	506D8
		CE102	NR	OR103-ed	4540DEU	SI06,108	NR	ST112-ed	822DEE	N179-ED	107DEX	N359-7D	NLA
		CE103-7d	624D7	OR104-7d	4540D7U	SI07-7d	677D7	ST113-ed	NR	N180-7D,ED	NLA	N360-SD	507D8
		CE104,105	NR	OR105-7d	4540D7U	SI09-7d	712D7	ST115-qd	825DEV	N182-ED	108DEX	N363-SD	509D8
		CE105,103	NR	OR105-ed	4540DEU	SI10-7d	669D7	ST115-qd	825DEV	N183-ED	111DEM	N363-7D	511D7
		DE102-7d	621D7	OR106,108	540DEX	SI11,112	732D7	ST116-3d	822D8	N184-ED	111DEM	N390-1D	530D1
		DE106-7d	689D7	OR107-ed	540DEX	SA100-7d	665D7	ST117	NR	N185-ED	111D7C	N400-SD	369D8
		DE107 thru	NR	OR109	538DEX	SA101,102	680D7	ST119-7d	NR	N186-7D	111D7C	N406-SD	373D8
		DE111:	NR	OR110,111,112	4541DE	SA103-7d	NR	TL100-7d	848D7	N187-3D	108D3	N407-SD	375D8
		AD100-ed	4110DET	PA100,101,102	628D7	SA104-7d	666D7	TO100-7d	670D7	N188-ED	108DET	N408-SD	369D8
		AD100-7d	4111D7C	PA103-7d	678D7	SA105-7d	118D7	TO101,103	NR	N189-ED	111DEM	N410-7D	558D7
		AD101-7d	4111D7C	PA104-qd	678DQ	SA106-7d	708D7	TO104-7d	705D7	N190-SD	260D8	N425-SD	462D8
		AD102-ed	4110DET	PA105-7d	672D7	SA107,108	NR	TO1-5 thru	NR	N191-1D	261D1	N427-SD	463D8
		AD103-ed	4110DET	PA106 thru	672DQ	SA110-7d	715D7	110:	NR	N192-7D	263D7	N429,431	464D8
		AD104-ed	4110DET	PA107-7d	672D7	SA111-7d	731D7	YA100-7d	NR	N205-QD	240DEDR	N432-SD	465D8
		AD105-7d	4111D7C	PA108 thru	672DQ	SA112,113	NR	YA101-7d	670D7	N206-QD	241DLAC	N440-SD	535D8
		AD106-ed	4110DET	PE103 thru 107	NR	SEI00,101	4626D7	YA102,103,104	NR	N207-ED	241D1D	N445-SD	NLA
		AD107-3d	108D3	PE108 thru 109	NR	SEI03-7d	4728D7	N2	557D8	N208-ED	241D7C	N446-ED	NLA
		AD108-qd	108DQ	PH100-7d	NR	SP100,101	NR	N3,4,5,6	845-5	N209-ED	241DME	N447,448ED	NLA
		AD109-ed	108DEX	PH101-7d	638D7	SP102-7d	698D7	N7,N8-7D	700D7	N210-ED	241DE	N461-SD	552D8
		AD110-ed	108DET	PH102 thru	638D7	SP103 thru 106	NR	N8-1D	700D1	N211-7D	241D7	N462QD	679DQ
		AD111-ed	108DQ	PH103 thru	638D7	SP107-7d	667D7	N14-SD	171D8	N212-ED	242DEX	N470	NLA
		AD112-ed	114D8C	PI100-7d	669D7	SP108-7d	669D7	N17-SD	172D8	N213-ED	242DET	N471-SD	556D8
		AD114-ed	114D8C	PI101-7d	660D7C	SP109-7d	716D7	N19-SD	173D8	N214-ED	242DE	N475-SD	619D8
		AD115,117,119	NLA	PI102-7d	660D7C	SH100,101	757D7	N27-1D	150D1	N215-QD	242DLAC	N477-SD	622D8
		AD118-7d	100D7	PI103-ed	660DEM	SH102-7d	4759D7	N28-1D	151D1	N230-7D	290D7	N478,479	629D7
		AD102-7d	621D7	PI104-ed	660D7C	SH103-3d	759D3	N30-SD	153D8	N240-ED	108DEX	N480-7D	612D7
		AT103-7d	635D7	PI105-ed	660D7C	SH104-3d	759D7	N31-1D	154D1	N241-7D	111DEX	N481-QD	629DQ
		AT104-7d	370D7	PI106-ed	660D7C	SH105-6d	4759D7	N31-1D	154D1	N242-ED	NLA	N482-7D	629D7</

NEEDLE CROSS-REFERENCE

ASTATIC (Continued)	Our No.	ASTATIC (Continued)	Our No.	ASTATIC (Continued)	Our No.	ASTATIC (Continued)	Our No.	ASTATIC (Continued)	Our No.	COLUMBIA (Continued)	Our No.	COLUMBIA (Continued)	Our No.
N489-QD	679DQ	N699-SD	813DS	N880,881	896DS	N1562-7D	670D7	N1690-7D	207D7	A-6	151	TE1	535
N490-7D	627D7	N720-SD	840DS	N882-SD	897DS	N1565-7D	NR	N1691-ED	207DE	A-7,9,11	NR	LE-2	552
N491-7D	674D7	N721-SD	841DS	N883-SD	898DS	N1566-7D	635D7	N1692-ED	206DE	A-10	156	M-1	NLA
N492-7D	621D7	N722-SD	842DS	N884-7D	899DT	N1567-6D	204D6C	N1693-ED	208DEM	A-12	155	M-3	556
N493-7D	623D7	N723-SD	843DS	N900-7D	0853D7	N1568-ED	204DEC	N1694-QD	208DEL	A-13	154	NI-1	619
N494-7D	624D7	N730,734	855SDS	N901,902	0855D7	N1569-ED	204DET	N1695-QD	208DEV	A-14	911	P-1	580
N495-7D	628D7	N732-SD	854DS	N903,904	853DS	N1570-6D	205D6C	N1696-QD	208DEX	A-15	NLA	P-2,5	581
N502-1D	580D1	N736-SD	M853DS	N905-SD	M853DS	N1571-ED	205DEC	N1697-SD	697D7	A-16,17	700	P-3	NLA
N504-SD	581DS	N738-SD	L853DS	N906-7D	0853D7	N1572-ED	205DET	N1700 thru		A-18	159	PE-1	560
N510-1D	583D1	N740-SD	850DS	N907-7D	0854D6	N1573-7D	635D7	170B:	NR	A-19	NLA	PE-2	561
N511-SD	585SD	N741-7D	854D7	N910-ED	600DSE1	N1574,1575	NR	N1720-ED	NR	A-20,22	164	PE-3	562
N512-1D	587D1	N750-1D	860D1	N940-ED	761DED	N1576-7D	697D7	N1750-7D	697D7	A-21	159	PE-4	326
N513-7D	588D7	N751	861S2	N941-ED	760DE	N1577	NR	N1776	M854DS	A-23	165	PE-5	327
N515-7D	590D7	N752-SD	863DS	N942-6D	760D6	N1578-ED	206DEC	N1800-7D	NR	A-24	163	PE-6	328
N516,517	591DS	N754-SD	862DS	N943-3D	761D3	N1579 thru		N1801-7D	707DE	A-25	161	PE-7	NLA
N520-7D	4540D7U	N756,757	864DS	N944-3D	760D3	N1583:	695D7	N1825-7D	707D7	A-26	162	PE-8	563
N520-ED	4540DEU	N770,776	L853DS	N945-3D	759D3	N1585	NR	N1826-7D	730D7	A-27	166	PE-8	563
N521-ED	4540DEU	N772-SD	M853DS	N946-ED	764D3	N1586-7D	669D7	N1827-7D	NR	A-28	167	PH-1	586
N521-ED	4540DEU	N774-SD	S854DS	N947-ED	767DED	N1587-7D	633D7	N1828-7D	716D7	A-29	168	PH-2	585
N530-1D	725DD	N778-SD	M854DS	N948-ED	767DE	N1588-7D	NR	N1850-7D	704D7	A-30	169	PH-3	591
N540-2S	616S2	N780-SD	L854DS	N949-QD	765DQ	N1589-7D	696D7	N1851-7D	706D7	A-31	165	PH-4	588
N541-7D	615S7	N802,784	S853DS	N950-ED	768DE	N1590-7D	667D7	N1852-7D	718D7	A-32	170	PH-5	590
N542-7D	617D7	N786-SD	L853DS	N951-7D	768D6	N1591-7D	662D7	N1853-7D	706D7	AC-1	110S1	PH-6	587
N543-SD	618DS	N788-SD	M854DS	N952-7D	766D7	N1592-7D	637D7	N1854-7D	706D7	AC-2	111S1	PK-1	725
N540-1D	649D1	N790-SD	S853DS	N953-7D	766D7	N1593-7D	669D7	N1855-7D	704D7	AC-3	114	PK-2,7,8	603D7C
N561-1D	641D1	N793-7D	0854D7	N954-6D	NR	N1594-7D	683D7	N1875-7D	NR	AC-4	113	PK-3	601D7C
N562,568SD	643DS	N794-SD	L853DS	N955-6D	NR	N1595-7D	NR	N1900-7D	662D7	AC-5	115	PK-4	601D7C
N564,568SD	644DS	N796-SD	M853DS	N956,57,58	NR	N1597-7D	667D7	N1901,02	703D7	AC-6	112S1	PK-5,6	603D7T
N566-7D	646D7	N798-SD	S856DS	N959-ED	772DMR	N1598-7D	NR	N1903,04,25	NR	AC-8	116	PK-9	604DEM
N567-7D	645D7	N800-SD	M856DS	N960-ED	767DHE	N1599-7D	695D7	N1925-7D	674D7	AD-1	110S1	PK-10	604DET
N568-SD	647DS	N802-SD	L854DS	N961-ED	767DHE	N1599-7D	695D7	N1930-7D	NR	AM-1	PDN	PK-11	604D7M
N570-7D	648D7	N804-SD	M856DS	N962-ED	769DEM	N1601,1604	NR	N1951-7D	713D7	AM-2	135	PK-12	604D7T
N571-SD	650DS	N806-SD	L854DS	N963-ED	769DEJ	N1602,1603	670D7	N1952-7D	715D7	AM-3	136	PK-103	604D7C
N573-SD	648DS	N808-SD	L853DS	N964-ED	764DMR	N1605-7D	694D7	N1953-7D	NR	AM-4	137	PK-13D	604D3
N575-7D	651D7	N823-1D	880D1	N965-QD	771DHE	N1606-7D	637D7	N1975-7D	716D7	AE-1	251	PK-14	605DEM
N576-SD	653DS	N824-3M	BA5-S	N966-ED	771DHE	N1607-1D	NR	N1976-7D	NR	AE-2,3	252	PK-15	605DET
N577-7D	654D7	N825-1M	891M1	N967-ED	NLA	N1608-7D	673D7	N1997-7D	848D7	AE-4	253	PK-17	605D7M
N580-SD	650DS	N826-1M	881M1	N968-ED	NR	N1610-7D	635D7	N2501 thru		AE-5	230	PK-18	605D7T
N581-SD	651DS	N827-1M	890M1	N969-6D	768D6	N1611-7D	670D7	2505:	NR	BO-1	260	PK-19	605D7C
N583-1D	562D1	N828-1M	882M1	N970-ED	768D6	N1612-7D	671D7	N2525,26,27	NR	BO-2	261	PZ-1	616
N583-SD	326DS	N829-1M	883M1	N971-QD	NLA	N1612-7D	671D7	N2528-7D	695D7	B-1	270	PZ-2	617
N584-SD	328DS	M830-1M	884M1	N972-QD	771D7T	N1613-7D	NR	N2529,30	NR	B-2	272	PZ-3	615
N585-SD	327DS	M831-1S	885S1	N973-QD	772DLT	N1614-7D	622DS	N2530,51	NR	B-3	271	PZ-4	611
N587-SD	330DS	N832-7S	885S7	N1500-7D	631D7	N1615-7D	NR	N2532,ED	721D7	B-4	272	RC-1	640
N589-7D	329D7	N833-7D	892D7	N1501,1503	633D7	N1616-7D	690D7	N2533,54	NR	C-10S	BA5-S	RC-2,3	641
N590-SD	543DS	N834-SD	893DS	N1502-7D	630D7	N1617-7D	696D7	N2535,54	NR	CD-1	290	RC-6	643
N600-1D	701D1	N840-1D	NLA	N1504-7D	624D7	N1618,1619	675D7	N2576-7D	697D7	CR-1	700	RC-7	644
N601-7D	702D7	M841,42,43	601D7C	N1505-6D	614D7	N1620,23,24	NR	N2577-7D	714D7	CR-2	701	RC-8	645
N620	725	N844M,45,46	603D7C	N1506,1507	614DE	N1621,1622	636D7	N2578-7D	697D7	CR-3	702	RC-9	646
N621,622	4726D7	N847-7D	603D7T	N1508,1509	614DQ	N1625-7D	689D7	N2585-7D	711D7	R-1	NR	RC-10	647
N623	4272D7	N848-7D	604D7C	N1510-7D	624D7	N1626-7D	638D7	N2587-7D	711D7	CO-2	896	RC-11	648
N624	4728D7	N848-SD	604D3	N1511-7D	623D7	N1627-7D	691D7	E:		E-1	320	RC-12	649
N636-ED	790DS	N849-7D,1D	604D7T	N1512-7D	670D7	N1628	NR	E-2	351	E-2	351	RC-13	650
N639-ED	760D7E	N849-ED	604DET	N1513-7D	676D7	N1629,1630	706D7	E-3	NLA	E-3	NLA	SC-1	790
N639-ED	760DED	N850-7D	604D7M	N1514 thru		N1631-7D	661D7	E-4	352	E-4	352	SC-2	791
N640-1D	752D7	N850-ED	604DEM	N1518:	NR	N1632,1633	592D7	E-5	941	E-5	941	SH-1	752
N641-1D	751D1	N851-7D	605D7C	N1519-7D	621D7	N1634,1635	NR	E-6	942	E-6	942	SH-2,3,4	751
N642-ED	760DE	N851-3D	604D3	N1520-7D	NR	N1636,1637	595D7	E-7	943	E-7	943	SH-5,6,8	754
N643-1D	750D1	N852-7D	605D7T	N1522-ED	673DQ	N1638-7D	611D7	E-8	355	E-8	355	SH-7	750
N644,645	754DS	N853-ED	605D7M	N1524-7D	638D7	N1640,1642	698D7	E-9,10	NLA	E-9,10	NLA	SH-9,10	757
N646,649	757D7	N853-ED	605DEM	N1525-7D	673D7	N1641-7D	677D7	E-11	358	E-11	358	SH-11,12	NR
N652,653	757D7	N854-7D	604D7T	N1526,1527	660D7	N1643,1645	680D7	E-12	359	E-12	359	SH-13	757
N654-7D	759D7	N854-ED	604DEC	N1528-7D	660D7	N1644-7D	663D7	E-13	365	E-13	365	SH-14	NLA
N654-ED	759DE	N855-7D	604D7C	N1529-7D	682D7	N1646-7D	667D7	E-14	356	E-14	356	SH-15	759D7
N655-ED	759DE	N856-7D	606D7M	N1530-7D	632D7	N1647-7D	667D7	E-15	363	E-15	363	SH-16	760D6
N656,657	NLA	N856-ED	606DEM	N1531-7D	681D7	N1648,1649	NR	E-16	365	E-16	365	SO-1	800
N658-ED	759DE	N857-7D	606D7T	N1532-7D	692D7	N1650,51,52	NR	E-17	360	E-17	360	SO-2	801
N659-4D	760D6	M857-ED	606DET	N1533-7D	693D7	N1653-7D	635D7	E-18	367	E-18	367	SO-3	802
N660-ED	763DE	N858-7D	606D7C	N1534-7D	678D7	N1654-7D	684D7	E-19	368	E-19	368	SO-4	803
N661-7D	759D7	N858-ED	606DEC	N1535-QD	678DQ	N1655-7D	NR	E-20	369	E-20	369	SO-5,7	804
N662,663	NLA	N859-ED	606DEB	N1536-7D	672D7	N1656-7D	668D7	E-21	335	E-21	335	SO-6	806
N664-4D	760DE	N860-7D	607D7M	N1536-QD	672DQ	N1657-7D	720D7	EC-1	325	EC-1	325	SO-8,10,11	808
N665-ED	761DED	N860-ED	607DEM	N1537-7D	611D7	N1658 thru		EC-2	330	EC-2	330	SO-9	805
N666-ED	760DE	N861-7D	607D7T	N1538-7D	634D7	1162:	NR	EC-3	331	EC-3	331	SO-12,17	809
N667-ED	762DE	N861-ED	607DET	N1539-7D	664D7	N1633-7D	689D7	EC-5	329	EC-5	329	SO-13	702
N668-7D	763DE	N862-7D	607D7C	N1540-7D	665D7	N1634-7D	689D7	EU-1	460	EU-1	460	SO-14	810
N669-4D	760D6	N862-ED	607DEC	N1541-7D	634D7	N1665-7D	710D7	EU-2	461	EU-2	461	SO-15	812
N670-1D	803D1	N863,864	608DEQ	N1542-7D	685D7	N1666-7D	719D7	EU-3,4	462	EU-3,4	462	SO-16, 8	811
N671-672	802DS	N865-ED	608DEX	N1543-7D	686D7	N1667,68,69	NR	EU-5,6	463	EU-5,6	463	SO-19	813
N673-1D	801D1	N866-1D	NR	N1544-7D	685D7	N1670-7D	695D7	EU-6	464	EU-6	464	TE-1	840
N674-SD	803DS	N866-3D	606D3	N1545-7D	614D7	N1672-7D	692D7	GA-1	490	GA-1	490	TE-2	841
N676,677	804DS	N868-QD	608DOX	N1546-7D	680D7	N1673-7D	677D7	GA-2	491	GA-2	491	TE-3	842
N678,679	808DS	N869-ED	608DEV	N1547-7D	686D7	N1674 thru		GA-3	492	GA-3	492	TE-4	843
N680,681	807DS	N870-ED	606DEL	N1548,1549	631D7	1677:	NR	GA-4	493	GA-4	493	TR-1	5855
N682,683	806DS	N871-ED	NR	N1550-7D	625D7	N1678-QD	NR	GE-1,3	501	GE-1,3	501	TR-2	5854
N684,685	805DS	N872-ED	604DEM	N1551-7D	NR	N1679-7D	699D7	GE-2	500	GE-2	500	TR-3	1854
N686,687	808DS	N873-ED	608DEZ	N1552,1553	670D7	N1680-7D	614DQ	GE-4	503	GE-4	503	TR-4	M855
N688,689	808DS	N874-ED	608DEX	N1554-7D									

NEEDLE CROSS-REFERENCE

COLUMBIA (Continued)	Our No.	C.M. (Continued)	Our No.	DUOTONE (Continued)	Our No.	DUOTONE (Continued)	Our No.	DUOTONE (Continued)	Our No.	DUOTONE (Continued)	Our No.	DUOTONE (Continued)	Our No.
UA-2	301	024,025	M854DS	468	607DET	604	58651	739	53355	854	50658	970D	604DEC
UA-3	302	026,027,028	374DS	469	606DEC	605	58596	740	89253	855	50457	972D	604D3
UA-4	303	030,032,034	M854DS	470	606DEC	606	15159	741	35251	856	29057	973	65157
UA-5	304	031	274DS	471	606D3	607	15151	742	35253	857	80458	974D	NLA
VA-1,3,5	700	035	110DET	472	604D7C	608	75153	743	70251	858D6	NLA	975D	760DE
VA-2	860	036	629D7	473	603D7C	609	75151	744	70252	859D	505D7	976D	761DED
VA-4	861	039	697D7	474	603D7T	610	75152	745	58751	860	80758	977D	NLA
VA-6,7	863	040,043,046	710D7	475	628D7	612,613	15252	746	58753	861,862	46087	978D	763DE
VA-8	862	041,042,047	206DET	476	624D7	614	NLA	748	64557	863	46053	979D	763DE
W-1,2	880	044	704D7	477	630D7	621	888M3	749	NLA	864,866,867	80858	981	L853S
W-3,4	PDN			478	494DS	622	888M1	750,753	70053	865	61557	982	M853S
W-5	887			479	375DS	626	11251	751	70051	866,869	80958	984	L854S
W-6	889			480	624D7	627	11253	752,753	70052	870	NLA	987	M854S
W-15	886			481	626D7	628,629	75458	756	86152	871	15958	988,989	8645S
W-17	883			482	813DS	630	174DS	758	64657	872	15957	990	8985S
W-18	884			482	627D7	631	171DS	760	49157	873	16458	991	1705S
W-21	885			484	625D7	632	75455	770	5855	874,879	70253	992	8135S
W-21	892			485	NLA	633,634,635	BAS-S	762	49153	875	70251	993	3695S
W-23	893			486	607DEM	636	PDN	763	70053	876	81057	994	6232S
WC-1,2	NR			487	607D7M	638	15386	764	503525	877	81158	995D	623D7
WC-1	NR			488	526D7	639	13751	765	61652	878	81258	996	M856S
ZE-1 thru				489	373D7	640	13753	766	11587	880	55258	999D	NLA
ZE-5:	NLA			490	374DS	642	15588	767	11583	881	NR	1000,1001	608DQ
ZE-6	896			491	305DS	643,645	75053	768	5854	884	4645S	1002D	608DQ
ZE-7	897			492	274DS	644,646	75051	769	L855	885	46153	1003D	605DET
				493 thru 499:	NLA	647,648	75458	770	5855	886,887	46157	1004D	606DQ
				D = Single Tip	Diamond	15653	13651	771	36053	888,889	46258	1005D	767DED
				D / S = Diamond /	Sapphire	15651	13652	772	36051	890	46358	1006D5	594DS
				NONE=Sapphire		505,506	13653	773	35451	893D5	260D5	1007D	768D6
						507,508	15453	774	35453	894D	261D1	1008D	765DQ
						509	64053	775	61757	895	27258	1009	5915S
						510,515	64051	776	35551	896	NLA	1010D	683D7
						511,512	75253	777	35553	897,898	27157	1011D	684D7
						513	660,661	778	353D7	899	27057	1012D	824DE
						516	662,663	779	61757	900	511D7	1013D	608DEQ
						517,518	15451	780	61587	901	M855S	1014D	608DEV
						519	75251	781	331D7	902	27258	1015D	604DEL
						520	75252	783	32957	903	65058	1016D	682D7
						521	15152	784,785,787	16458	904,905	86358	1017D	821DE
						522	15253	786	16358	906	86258	1018D	822DEE
						523,524,526	NLA	788	16588	907	16558	1019D	671D7
						525	58158	789	16198	908	11658	1020D	NR
						527	35658	790	16298	909	16657	1021D	688DQ
						528	887M	793	85051	910	16758	1022D	824DEL
						529	35053	794	85157	911	16858	1023D	108DQ
						530,534	35051	795	61988	912	16958	1024D	237DEZ
						531,532	35158	797	79058	913	230D7	1025D	697D7
						533	35053	798,801	251D7	914	30458	1026DQ	679DQ
						535	35052	677	15652	915	36958	1026,1027	237DEC
						536,537	35053	678	53053	916	53558	1028D	239DET
						538	15152	679	53051	917	61858	1029	772DMR
						539,540	15252	684	80258	918D,921D	NLA	1030	698D7
						545	64653	803	59158	919,920,922	601D7C	1031,1032	NR
						547,549	88051	804	58953	923,927	NLA	1033	663D7
						548,550	88053	805	804D5,807D5	924	603D7T	1034	717D7
						551	BAS-S	806DS	941D5	925,926	603D7C	1035	697D7
						552	75252	809D	35658	928	604DEM	1036	687D7
						553	58158	810	64758	929	604DET	1037	706D7
						554	15053	811	L853S8	930	604D7M	1038	665D7
						555	15051	812	NLA	931	604D7T	1039	664D7
						556	15052	813	35658	932	604D7C	1040	668D7
						557,559	64153	814	49257	933	604D3	1041	662D7
						558,559	64151	815	32858	934	64858	1042	667D7
						561	889M3	816	64957	935	64957	1043	612DQ
						562	889M1	817,818,820	757D7	937	81258	1044	697D7
						563,565	891M3	819	NR	938	81158	1045	677D7
						564	891M1	820	757D7	939	84358	1046	695D7
						566,569	500525	821	32758	940	08557	1047	680D7
						567	50051	822	70057	941	M854S	1048	689D7
						568	501	823	30158	942	76158	1049	694D7
						570	15051	824	59357	943	59357	1050	696D7
						571	15053	825	30257	944	759D7	1051	678D7
						572	15052	828	33058	945D	2325DE	1052	660D7
						573	15251	829	36358	947	37458	1053	685D7
						574	15253	831	35858	948D	525D7	1054	686D7
						575	35052	832	35958	949	46558	1055	669D7
						576,577	72558	833D	363D7	950	558D7	1056	108DEQ
						580	75153	835	36758	951D	332D7	1057	111DET
						581	75151	836	36858	952D	100D7	1058	767DHE
						582	75152	837	84258	953D	230D7	1059	540DE
						585	80058	838	30253	954	11757	1060	666D7
						586	15153	839	88557	955	56458	1061	661D7
						587	15151	840	89257	956D	592D7	1062	NR
						588	15152	841,842	53658	957D	68DEM	1063	669D7
						589	55658	843	89358	958D	606DET	1064	237DEM
						590,591	BAS-S	844	64458	960D	606D7T	1065	849D7
						594	70051	845	NLA	961D	606D7C	1066	118D7
						595	70053	846	11498	962	79158	1067	683D7
						596	PDN	847	11387	963D	621D7	1068	716D7
						597	135M3	848D	303D7	964	L853S8	1069	NR
						598	135M2	849	89758	965D	605DEM	1070	704D7
						599	135M1	850,853	51058	966D	605DET	1071	703D7
						603	58653	851D	NLA	967D	605D7M	1072	NR
								852	50758	968D,971D	605D7C	1073	707DE

SECTION V
NEEDLE

NEEDLE CROSS-REFERENCE

DUOTONE (Continued)	Our No.	DUOTONE (Continued)	Our No.	E-V GAME (Continued)	Our No.	E-V GAME (Continued)	Our No.	E-V GAME (Continued)	Our No.	E-V GAME (Continued)	Our No.	E-V GAME (Continued)	Our No.
1074	711D7	1211D	1131D/C	2225	111D7C	2610	354S3	2827	615S3	3058	698D7	3320,3323	M854S5
1075	112DEX	1212D	736D7	2226	110DET	2611	355S1	2828	616S7	3059	699D7	3321	O854S7
1076,1077	NR	1213D	741D7	2227	111DET	2612	355S2	2829	617S7	3060	634D7	3322	O855S7
1078	709D7	1214D	4541DE	2229	108DQ	2613	355S3	2830	618S5	3065	686D7	3324	S833S5
1079,80,81	NR	1215	737D7	2230	112DEX	2614,2615	356S5	2831	619S5	3066	665D7	3325	860S1
1082,83,84	NR	1216	735D7	2231	108D3	2616	358S5	2832	NR	3067	685D7	3326	860S2
1085	769DED	1217	734D7	2232	111D7C	2617	360S1	2833,2838	NR	3068	683D7	3327	860S3
1086	710D7	1218	723D7	2233	111DEC	2618	360S3	2834	621D7	3069	680D7	3328	861S2
1087	712D7	1219	739D7	2234	111DET	2619	359S5	2835	622S5	3070	667D7	3329	700S2
1088	720D7	1220	712D7	2235	111DEM	2620,2622	365S5	2836	625D7	3071	614D7	3330	862S5
1089	540D7U	1221	774DEJ	2236	108DEQ	2621	363S7	2837	631D7	3072,3081	NR	3331,3333	863S5
1090	112DEG	1230	740D7	2237	108DEQ	2622	367S5	2839	626D6	3080	683D7	3332,34,36	864S5
1091,1092	NR	1231	4213D6	2275,2276	629D7	2624	365S5	2840	675D7	3082	629DE	3356	L854S5
1093	82SDEV	1232	738D7	2277,2278	629DE	2625	369S5	2841,2845	NR	3083	667D7	3357	L855S5
1094,1095	NR	1233,35	NR	2279	612DE	2626	370S5	2842	668D7	3084,3087	NR	3358	O854S5
1096	665D7	1234	747D7	2280	629DQ	2627	372S1	2843	684D7	3085,3086	685D7	3359,3362	L853S5
1097	240DEDR	1236D	743D7	2281	612DQ	2628,2629	372S2	2846	671D7	3100	750S1	3360	M856S5
1098	241D7	1237D	4243D6	2282,2283	679DQ	2630,2632	371S1	2847,2849	NR	3101	750S2	3361	M853S5
1099	241DE	1238D	4245D6	2284,2287	679DE	2633,2634	373S5	2848	635D7	3102	751S1	3363,3365	L854S5
1100	241DME	1239D	596D7	2285	679DQ	2635,2636	374S5	2850	560S5	3103	751S2	3364	L855S5
1101	241D7C	1240D	744D7	2286	629DE	2637,2638	369S5	2851	561S5	3104	751S3	3366,3370	L853S5
1102	241D1D			2288 thru 2293:	NR	2639,2641	373S5	2852	562S1	3105	752S1	3367	S856S5
1103	241DLAC			2295	697D7	2640	376D7	2853	562S3	3106	752S2	3368	M856S5
1104	NLA			2297D	239DET	2642	374S5	2857,2859	NR	3107	752S2	3369	L856S5
1104DE	NLA			2380D	237DEZ	2644	557S5	2858	611D7	3108 thru 3111:	754S5	3371	M853S5
1104HE	771DHE			2381	238DQ	2645	371S5	2860	688DQ	3112,13,14	757D7	3372	L854S5
1105	771D7			2382,2383	238DEQ	2646	375S5	2861	623D7	3115	NLA	3373,3374	S854S5
1106	848D7			2384	237D7C	2647	558D7	2862	624D7	3117,20,22	759D7	3375	M854S5
1107	204D6C			2385,2386	237DEC	2648	374S5	2863	628D7	3118	757D7	3376	O855S7
1108	207DE			2387,2388	237DEC	2649,2650	613D7	2864	611D7	3119	760D6	3377,3378	O856S7
1109	705D7			2389	239DEE	2660,2669	629D7	2875	580M1	3121	759D3	3379	M853S5
1110	713D7			2390	239D7C	2662	631D7	2876	581S5	3123	759D7C	3380	O853S7
1111	715D7			2391	233DE	2671	612D7	2883	591S5	3124,3125	759DE	3381	L853S5
1112	235D6C			2392,2393	234DE	2675	430S7	2884	594D6	3126	NR	3382,84,85	S853S5
1113	NR	2000	110S1	2394	235D7	2676	460S3	2885	595D7	3127	760DE	3383	O855S7
1114	714D7	2001	110S3	2395	235DE4	2677	461S7	2886	NR	3128	760D6	3384	M853S5
1115,116,117	NR	2002	111S1	2396,97,98	235SDE	2678	461S3	2888	592D7	3129	760D3	3387,3396	O853S7
1118,1119	NLA	2003	111S3	2399	235VDE	2679,2680	462S5	2889	591S5	3130	763DE	3388,3394	O854S7
1120,1121	770DEB	2004	112S1	2400	251D7	2681	463S5	2890	585S5	3132,33,34	NLA	3389	O853S5
1122,1123	NLA	2006	113S7	2401	252D7	2682,2684	464S5	2891	586S1	3136	761DEE	3390,93,97	M854S5
1124,125,126	NR	2007,2010	114S5	2403,2406	232DE	2683	465S5	2892	586S3	3139	762DE	3391	M855S5
1127DE-2	208DE	2008	115S7	2404,2405	252D7	2686	614D7	2893	587S3	3140	NR	3395	M853S5
1127DE-3	208DEM	2009	115S8	2407,2049	232DE	2687	614DQ	2894	587S3	3141	760DEJ	3400	880S1
1127LC-1	208DE	2011	116S5	2408	232DE	2700	460S1	2895,2897	588S7	3143	760D6	3401	880S2
1127LC-2	208DEX	2030	135M1	2410	263D7	2704	492S7	2896	588S3	3144	760DE	3402	880S2
1127LC-3	208DEX	2031	135M2	2414	236ZDE	2705	493S7	2898	589S3	3146	764DMR	3403	881M1
1128	721D7	2031	135M2	2415	230D7	2709	NR	2899	590S7	3147	764D3	3404	882M1
1129	NR	2032	135M3	2416	230DE	2718	NLA	2900	640S1	3148	766D7	3405	882M3
1130,131,132	718D7	2034	136S2	2417,18,19	232SDE	2720	NLA	2901	640S3	3149	765DQ	3406	883M1
1133	4541DE	2035	136S3	2420	270S7	2721,2722	525D7	2902	641S1	3150	790S5	3407	883M3
1134	242DE	2036	137S1	2421,26,27	273S5	2723	NLA	2903	641S3	3151	791S5	3408	884M1
1135	242DE	2037	137S2	2422	271S7	2725	508S1	2904,2905	NLA	3155	767DE	3409	884M3
1136	242DE	2038	137S3	2423	271S5	2726,2727	508S2S	2906,2908	643S5	3156	737DE	3410	885S1
1137	209D6T	2100	150S1	2424,2425	272S3	2728	501S1	2907,2909	644S5	3157	768DE	3411	885S2
1138	719D7	2101	150S2	2428,29,30,31	274S5	2729,2730	501S2S	2910	645S7	3158	768D6	3412	885S3
1139	724D7	2102	150S3	2440D	793D7	2731,2732	NLA	2911	646S7	3159	760D3	3413	886S1
1145E	775DLT	2103	150S3	2450	290S7	2733	503S1	2912	647S5	3200,3201	800S5	3414	886S2
1145HE	772DLT	2104	151S2	2456	624D7	2734,2735	503S2S	2913	248S5	3202	801S1	3415	887MM
1146	722D7	2105	151S3	2470	NR	2736	504S7	2914	649S7	3203	801S2	3416	881M1
1147	NR	2106	152S1	2471	690D7	2737,2738	505D7	2915	650S5	3204	801S3	3417	888M3
1148	479D7	2107	152S2	2472	670D7	2739,2740	506S5	2916	651S7	3205,3206	802S5	3418	889M1
1149	760D7	2108	152S2	2473,74,78	NR	2741,2742	NR	2917	654S7	3208	803S1	3419	889M3
1150	212DEC	2109	153S5	2475,2477	621D7	2743	NLA	2918	653S5	3209	803S2	3420	890M1
1151	212DET	2110	154S1	2476	635D7	2744	509S5	2920	630D7	3210	803S3	3421	890M3
1152	212DEL	2111	154S2	2479	849D7	2745	501S7	2921	638D7	3211,3213	804S5	3422	891M1
1153	212DEM	2112	154S3	2480D	722D7	2746	503S7	2922	694D7	3214,3215	805S5	3423	891M2
1154	212DLX	2113	155S5	2481D	719D7	2747	NLA	2923	637D7	3216,3217	805S5	3425	885S7
1155	212D6C	2114	156S1	2500	300S5	2748,2749	503S7	2924	673D7	3218 thru 3221:	805S5	3426	892S7
1156	212DE	2115	156S2	2501	301S5	2750,2751	NLA	2925 thru 2932:	NR	3222,3223	806S5	3427	892S3
1157,1158	NR	2116	156S3	2502	302S7	2752	511S7	2940	633D7	3224,3225	809S5	3428	893S5
1159	705D7	2117,2118	159S5	2503	302D3	2770,72,74	NR	2941,2950	NR	3226	810S7	3429	892S1
1160,165,175	NR	2119	159S7	2504	303D7	2771	695D7	2942	674D7	3227	702S3	3430	892S2
1161	691D7	2120,21,23	164S5	2505	304S5	2773	637DQ	2955	694D7	3228	811S5	3431	361S2
1162	114DET	2122	163S5	2506,2507	305S5	2796 thru 2799:	NR	2956,2958	NR	3229	812S5	3432	362S2
1163	114DEC	2124	161S5	2550	325S1	2800	530S1	2965	636D7	3230	800S5	3433	884M1
1170	732D7	2124	161S5	2551	325S3	2801	530S3	2966,2968	NR	3231	807S5	3434	884M3
1171	609DE	2125	162S5	2552	326S5	2803	171S1	2967	689D7	3232	811S5	3435	890M1
1172	609DEL	2126	163S5	2553	327S5	2805	535S5	2969	677D7	3233	494S5	3436	890M3
1173	609DEX	2127	164S7	2554	328S5	2807,08,09	NR	2970	669D7	3300	840S5	3437	891M1
1180	4211D6	2128,2131	167S5	2555	330S5	2810,2811	556S5	2971 thru 2991:	NR	3301	841S5	3438	891M2
1182	210DE	2130	168S5	2556	331D7	2813	691D7	3000	700S1	3302	842S5	3439	366S3
1185	731D7	2132	171S5	2557	329D7	2814	681D7	3001	700S2	3303,3304	843S5	3440	NR
1198	733D7	2132	171S5	2558	563S5	2815	327D7	3002	700S3	3305	850S1	3441	NLA
1200	764DE	2133	172S5	2559	561S5	2816	674D7	3003	701S1	3306	851S7	3450 thru 3453:	896S5
1201	776DEL	2134	173S5	2560,2561	332D7	2817	632D7	3004	701S2	3307	M853S5	3454,3455	897S5
1202	776DEX	2135	174S5	2600	350S1	2818	672DQ	3005	702S7	3308	L853S5	3456,3457	898S5

NEEDLE CROSS-REFERENCE

E-V GAME (Continued)	Our No.	E-V GAME (Continued)	Our No.	E-V GAME (Continued)	Our No.	E-V GAME (Continued)	Our No.	FIDELITONE (Continued)	Our No.	FIDELITONE (Continued)	Our No.	FIDELITONE (Continued)	Our No.
4003,4007	6047C	PM2284	679D	PM2873	795D	PM4004	600DEC	For clarity, we have omitted the prefix.	135,136	881M1	264	460S3	
4005	604D3	PM2288D	204D6C	PM2874	NR	PM4052	606DEC		138	752S5	265,266	505D7	
4008	NLA	PM2289DE	204DEC	PM2878,79,81	NR	PM4055	608DQ	SUFFIX CODE:	139	580M1	267	700S7	
4009	603D7T	PM2290DE	204DET	PM2887	59D7	PM4056D2	678D7P	None = Sapphire	140	153S5	269,270	737D7	
4010 thru 4013	603D7C	PM2291D	205D6C	PM2890,91	707DE	PM4057D2	677D7P	D = Diamond	142	885S1	271	892S1	
4014	NLA	PM2292DE	205DEC	PM2924	673D7	PM4058D2	678D7P	D/S = Diam./Sapph.	143	885S3	272,275	892S3	
4015 thru 4018	601D7C	PM2293DE	205DET	PM2934,35,36	NR	PM4202	600D7AL	We have omitted only the Sapphire version.	144	BAS-S	273	892S2	
4019,4021	NLA	PM2294D	697D7	PM2937	797D7	PM4204	4820DE		147	151S2	274	892S7	
4020	601D7C	PM2295D	697D	PM2938	NR	PM4208	821DEE		148	581S5	276,277	893S5	
4024	605DEM	PM2296DE	206DET	PM2939	730D7	PM4211	822D7A		149	882M1	278	114S5	
4025,4028	605DET	PM2298D	710D7	PM2943	676D7	PM4212,16	822DDE		151	882M3	279	841S5	
4026	605D7M	PM2299	207D7	PM2943DE	72D7	PM4217	823DQ		152	151S1	280	808S5	
4027	605D7T	PM2300	207DE	PM2944	638D7	PM4219	821D7A		153	151S2	281	301S5	
4029,4030	605D7C	PM2301	208DE	PM2945	739D7	PM4401	815D7		154	151S3	282,283	616S2	
4031	604D3	PM2302	208DEL	PM2974	NR	PM4402DE	815D7		157	137S1	284	644S5	
4032	604DET	PM2303	208DEX	PM2979	747D7				158	137S3	286	327S5	
4033	604D7T	PM2304	209D6T	PM3012	740D7				159	155S5	287	328S5	
4034	604D7C	PM2305	670D7	PM3020	740D7				162	154S1	288	326S5	
4035	606DEC	PM2306	714DEX	PM3022,24	4540D7L				163	154S2	289	530S1	
4036	606DEM	PM2307	688D7	PM3023,25	4540DEL				164	154S3	290	530S3	
4037	606DET	PM2308	712D7	PM3026DE	4541DE				165	884M1	291	260S5	
4038,4041	606D7C	PM2309DE	202DEC	PM3027DE	542DE				166	884M3	292	261S1	
4039	606D7M	PM2310	212DET	PM3060	634D7				168	801S1	293	261S3	
4040	606D7T	PM2311DE	212DEM	PM3061	666D7				169	801S3	294 thru		
4042	606D3	PM2312	421D6	PM3064	792D7				170,171	750S1	299	NLA	
4043	606D7C	PM2313	207D7DE	PM3072	370D7				174	NLA	300	NLA	
4044	604DET	PM2314DE	210DE	PM3078,79,88	NR				22	580M1	301	805S5	
4045	607D7M	PM2315	421D6	PM3089	665D7				24	752S3	302	806S5	
4046	607DEM	PM2316DE	215DE	PM3090	680D7				26	BAS-S	303,304	808S5	
4047	607D7C	PM2317	743D7	PM3091	699D7				27	154S1	305	159S5	
4048	607DEC	PM2318	214D6	PM3092	698D7				28	752S2	306	306,307	
4049	607D7T	PM2319,20	NR	PM3093	677D7				29,30	NLA	182	154S1	306,307
4050	606DEX	PM2320	421D6	PM3094	730D7				31	351S5	183	154S2	308
4052	606DEX	PM2322	421D6	PM3095	736D7				32	752S5	185,86,87	754S5	311
4053	608DEQ	PM2323 thru		PM3096	721D7				33	152S2	189	866S1	312
4054	608DQ	PM2325:	NR	PM3097	731D7				34	156S3	190	802S5	313
4055	608DQX	PM2376	429PDE	PM3098	713D7				35,36	154S2	192	506S5	314
4056,4058	608DEV	PM2380	429DET	PM3099	708D7				39	156S3	193	700S1	315
4057	608DEL	PM2383	239DQ	PM3100DE	715D7				42	350S3	194	700S2	316
4059	600DE	PM2384	427D7C	PM3101	666D7				43	752S3	197	754S5	317
4060	600D7E	PM2385,88	427DEC	PM3102	740D7				44	NLA	198	701S1	318
4061	600D7E	PM2389	429PDE	PM3103	738D7				45	350S2	199	701S3	320
4062	600D8E	PM2390	427D7C	PM3104	744D7				46	152S1	200	NLA	321
4063	600D8E1	PM2392	235D7C	PM3112	NR				47	152S2	202	164S5	
4064	604D7C	PM2395	235DE	PM3114,118	757D7				49	752S2	203	500S25	322
4065	604DEC	PM2399	235SDE	PM3115	NLA				50,52	NLA	204,205	752S2	323
4066	604D7T	PM2400	251D7	PM3116	687D7				51,53	350S1	210	501S25	324
4067,4202	603D7AL	PM2401	671D7,23	PM3117,23	679D7				54,57	151S3	211	110S1	325
4200,4203	820DE	PM2403	232DE	PM3124,25	4759DE				60	150S1	212	110S3	326
4204	822DE	PM2407	232SDE	PM3127	4763DE				55	151S2	213	111S1	327
4205	NR	PM2410	263D7	PM3128	4760D6				56	151S1	214	111S2	328
4206	820DE	PM2415	230D7	PM3134	NLA				58	350S3	213D	680D7	328
4207	821DE	PM2418	242DE	PM3136	4761DE				59	350S2	214	111S3	329
4208	821DEE	PM2419	242DET	PM3139	4762DE				60	150S1	214D	698D7	330
4209	NR	PM2420	242DEX	PM3143	4763DE				61	150S3	215	560S5	331
4210	821D3	PM2472	670D7	PM3144	4760DE				62	150S2	217	561S5	332
4211	822D7A	PM2483,84	4243D6	PM3145	NR				63,64	356S5	218	586S3	334
4212,4213	822DDE	PM2485,86	424SDE	PM3146	4764DE				65,66,67,68	351S5	219	858S5	335
4214	NR	PM2556	331D7	PM3148	766D7				74	889M3	220	503S1	336
4215	822D3	PM2560	332D7	PM3155,56	4767DE				75	889M1	221	503S25	337
4216	822DEEB	PM2650	613D7	PM3157	768DE				76,78	880S3	222	490S1	338
4217	823DQ	PM2671	612D7	PM3158	768D6				77,79	880S1	224	300S5	340
4218	823DQ	PM2720	NLA	PM3160DE	472ZDHE				80	BAS-S	225 thru 228:	NLA	341
4219	821D7A	PM2721	525D7	PM3161D	NR				81,82	880S2	229	352S7	342
		PM2723	NLA	PM3162DQ	477ZDHE				83	FDN	230	352S3	343
		PM2726,69	NR	PM3163D	760D7				84	891M3	231	860S1	344
		PM2775	695D7	PM3164	NLA				85	891M3	232	860S3	345
		PM2802,04	NR	PM3165	770DEC				86	892M2	233	702S7	346
		PM2818	672DQ	PM3166,67,68	NLA				88	135M1	234	702S3	347
		PM2822	678D7	PM3169	771DHE				90	135M3	235	840S5	348
		PM2823	706D7	PM3170	771DHE				91	135M2	236	562S1	349
		PM2827	704D7	PM3171	775D7L				92 thru 96:	BAS-S	237	562S3	350
		PM2828	636D7	PM3172DE	771D7L				97	640S1	238	804S5	351
		PM2834	621D7	PM3173	776DE				98,99	641S1	239	860S2	352
		PM2836	625D7	PM3174DE	776DEL				101,102	640S3	240	352S1	353
		PM2840	675D7	PM3175DE	778DE				103	641S3	241	352S3	354
		PM2843	684D7	PM3176DQ	777DHE				109	500S1	242	911S5	355
		PM2844	631D7	PM3197	817D7				110	500S25	243,244	504D7	356
		PM2848	635D7	PM3198	817D7				111,113	NLA	245	290S7	357
		PM2852	709D7	PM3199	794D7				112	151S1	246,247	941D5	358
		PM2853	704D7	PM3202	746D7				114,119	751S3	248,249	NLA	359
		PM2854	711D7	PM3204	687D7				115,117	751S1	251	980D5	360
		PM2855DE	718D7	PM3208	614D7				116,118	752S2	252	270S7	361
		PM2856	816D7	PM3209DE	614DE				121	BAS-S	254	702S1	363
		PM2861	628D7	PM3210	745D7				122	151S2	255	804S5	364
		PM2863	628D7	PM4000,06	4604DEC				123	156S1	256	NLA	365
		PM2864	611D7	PM4007	4604D7C				124	156S2	257	702S2	366
		PM2865,66	NR	PM4011	608D7C				126	153S3	258	647S5	367
		PM2867	720D7	PM4022,23	826DE				127	581S5	259	700S7	368
		PM2868	734D7	PM4025,28	4605DET				128	890M1	259	700S3	369

SECTION V

NEEDLE CROSS-REFERENCE

FIDELITONE (Continued)	Our No.	FIDELITONE (Continued)	Our No.	FIDELITONE (Continued)	Our No.	FIDELITONE (Continued)	Our No.	FIDELITONE (Continued)	Our No.	FIDELITONE (Continued)	Our No.	JENSEN	Our No.
371,372	1448S	483	605D/T	590	237DET	695	717D7	833	719D7	172S-873	208D6		
373	61757	484,485	605D7C	591	237DEC	696	661D7	834	709D7	173E-874	212D6		
374	700S3	486	604D3	592	237D7C	697	235SDE	835	708D7	174E-875	212DEC		
375,376	251D7	487	356SS	593	760DED	698	629DE	836	701D7	200S-377	252D7		
377	252D7	488	360S1	594	672DQ	699	629DQ	837	207D7	201E-442	232DE		
378	897SS	489	166S7	595	NLA	700,702	NR	844	665D7	202S-527	230D7		
379	112S1	490	159S7	596	526DE	701	272SS	847	373DS	203S-806	235D7		
380	112S3	491,493	167SS	597	633D7	703	864SS	848	696D7	203E-647	235SDE		
381	137S1	494	116SS	598	611D7	704	824DE	849	689D7	204E-646	233DE		
382	137S2	495	117S7	599	630D7	705	273SS	850	680D7	204P-999	NR		
383	137S3	496	232DE	600	637D7	706	629D7	851	678DQ	205S-592	4237D7C		
384	354S1	497	271S7	601	638D7	707	679DQ	852	651D7	205E-590	4237DEC		
385	354S2	498	303D7	602	634D7	708	8854TD	857	812DS	205P-669	238DQ		
386	354S3	499	304SS	603	4764DE	709	758D7	859	722D7	206S-767	4237D7C		
387	355S1	500	326SS	604	766D7	710	675D7	860	771DED	206E-651	4239PD		
388	355S2	501,502	NR	605	670D7	711,12,13	NR	861	0853D7	207E-671	239DET		
389	355S3	503	843SS	606	607DEM	714	669D7	862	912DS	207P-999	NR		
390	759D7	504	861S2	607	607DET	715	679DE	863	721D7	208E-869	241DE		
391	535SS	505	864SS	608	607DEC	717	640DET	864	734D7	250S-806	601D7C		
392,393	NR	506	850S1	609	607DM	718	594DS	865	718D7	251S-415	603D7C		
395	885SS	507	851S7	610	607D7T	720	108DEX	866	720D7	252S-408	4604D7C		
396	L85SS	508	NR	611	607D7C	721	108DEX	867	712D7	252E-717	4604DEC		
397	884SS	509	813SS	612	NLA	722	111DEC	868	212D6C	252P-999	NR		
398	L83SS	510,512	376D7	613,614	L85SS	723	111D7C	870	NR	253S-483	4605D7C		
399	M85SS	511	369SS	615	635D7	724	111DEM	871	211D6C	253E-479	4605DET		
400	557SS	513	653SS	616	614D7	725	111DET	872	213D6C	253P-999	NR		
401	165SS	514	085S37	617	636D7	726	112DX	876	596D7	254S-476	4606D7C		
402	369SS	515	M853SS	618	621D7	728	540DS	877	730D7	254E-471	60KDEC		
403	449S7	516,518	0854S7	619	NLA	729	595D7	878	733D7	254P-999	NR		
404	M854SS	517	273SS	620	235D7	730	666D7	879	737D7	255S-610	4607DEC		
405,406	863SS	519	654S7	621,622	608DEQ	731	614DQ	880	748D7	255E-607	607DEC		
407	604D7C	520	171SS	623,24	NLA	732	621DE	881	732D7	256-470	606DEL		
408	604D7T	521	172SS	625	233DE	734	629D7	882	736D7	257E-807	608DEV		
409	604D7M	522	173SS	626	679DQ	735	634D7	883	740D7	257P-622	608DQ		
410	604DEM	523	174SS	627	NR	736	660D7	884	731D7	300S-269	757D7		
411	604DET	524	175SS	628	110DET	737	622D7	885	715D7	301S-393	4759D7		
412	604D7C	525	629	629	820DEE	738	663D7	886	798D7	301E-665	4759DE		
413	604D3	526	374SS	630	820DE	739	664D7	887	792D7	302S-808	4759D7		
414	NLA	527	230D7	631	820D7AL	740	665D7	888	796D7	303S-659	4760D6		
415,416	603D7T	528	791SS	632	820D3	741	667D7	889	793D7	303E-693	4760DE		
417,418,419	603D7C	529	622SS	633	821DEE	742	668D7	890	119D7	303P-999	NLA		
420	NLA	530	760DE	634	821DE	743	688DQ	891	819D7	304E-593	760DED		
421 thru 424:	601D7C	531	760DE	635	821D7A	744	669D7	892	214D6	305S-854	4762DE		
425	601D3	532,533	864SS	636	821D	745	672D7	894	745D7	305E-547	4761DE		
426	601D7C	534	604D7C	637	822DEE	746	677D7	895	794D7	305P-999	NR		
427	790SS	535	272SS	638	822DEE	747	678D7	896	817D7	306S-855	NR		
428	170SS	536	274SS	639	822D7A	748	679DQ	897	795D7	306E-549	4763DE		
429	811SS	537	627D7	640	822D3	749	680D7			306P-999	NR		
430	M853SS	538	674D7	641	823DQ	750	681D7			307S-856	NR		
431	0854S7	539,542	0854S7	642	823DQ	751	682D7			307E-608	4764DE		
432	166S7	540	368SS	643	761DED	752	683D7			307P-999	764DMR		
433	650SS	541	538D7	644	234DE	753	684D7			308S-809	NR		
434	648SS	543	624D7	645	235DE	754	685D7			308E-668	4767DE		
435	169SS	544	625D7	646	235DE	755	686D7			308P-999	767DHE		
436	862SS	545	626D7	647	235SDE	756	687D7			309S-777	768D6		
437	618SS	546	629D7	648	232SDE	757	689D7			309E-776	768DE		
438	592D7	547	761DED	649,650	232SDE	758	690D7			310P-685	768DQ		
439	791SS	548	762DE	651	239DEC	759	691D7			311E-765	4772DHE		
440	564SS	549,550	762DE	652	239PDE	760	629DQ			311P-999	4772DHE		
441	NLA	551	631D7	653	673D7	761	629D7			312E-860	771DHE		
442	232DE	552	621D7	654 thru 658:	NR	762	693D7			312P-999	771DHE		
443	585SS	553	623D7	659	760D6	763	694D7			313E-887	773DHE		
444	332D7	554	628D7	660	629DE	764	695D7			350S-631	820D7AL		
445	525D7	555	106DE	661	679DE	765	772DMR			350E-630	4820DE		
446	371SS	556	108DEC	662	239DQ	766	697D7			350P-999	NR		
447	583SS	557 thru 560:	NLA	663	899D7	767	239D7C			351S-639	821D7A		
448	L83SS	561	5853SS	664	236ZDE	768	614D7			351E-638	821DE		
449	M853SS	562	274SS	665	759DE	769	614DE			351P-999	NR		
450	0855S7	563	5854SS	666	675D7	770,771	614Q			352E-637	822DEE		
451,453	L85SS	564	5853SS	667,669	239DQ	772	108DQ			352P-999	NR		
452	M85SS	565	M853SS	668	767D7	773	151S-615			353S-810	629D7		
454	L854SS	566	0854S7	670	238DQ	774	824DEL			353E-811	825DEV		
455,457	583SS	567	M856SS	671	237DEC	776	236ZDE			400P-594	672DQ		
456,458	L83SS	568	5856SS	672,673	NR	777	768D6			401S-812	NR		
459,461	M856SS	569	0855S7	674	110D7C	778,81,82	NR			402S-812	4540D7U		
460	L856S	570	632D7	675	M856SS	783,784	697D7			402E-814	4540DEU		
462	5854SS	571	111DET	676	M855SS	785,86,87	NR			403E-893	4541DE		
463,467	L854SS	572	110DET	677	M854SS	788	606DEL			500S-997F	NR		
464	619SS	573	626D7	678	M853SS	789	719D7			501E-998F	NR		
465	M854SS	574	613D7	679	0856S7	790,792	NR						
466	L853SS	575	0854S7	680	0855S7	791	760D7						
468	89SS	576	L854SS	681	0854S7	794	704D7						
469	369SS	577	L853SS	682	0853S7	797	849D7						
470	606DEG	578	M853SS	683	108DET	798	710D7						
471	606DEM	579	5855SS	684	237DEZ	800,801	711D7						
472	606DET	580,581	M854SS	685	765DQ	802	711D7						
473	606DEC	582	L853SS	686	676D7	815	671D7						
474	606D7M	583	375SS	687	629D7	826	706D7						
475	606D7T	584	305SS	688,689	679DQ	827	699D7						
476,477	606D7C	585	612D7	690	629DE	828	703D7						
478	60K3	586	494SS	691	629DQ	829	705D7						
479	605DEM	587	108DEC	692	759DE	830	679D7						
480,481	605DET	588	111DEC	693	760DE	831	713D7						
482	605D7M	589	111DEM	694	692D7	832	848D7						

JENSEN/MILLER

SUFFIX CODE:
None = Sapphire
D = Diamond
2 = ml Sapphire
X = Stereo Tip (a)
E = Elliptical
DS = Diam./Sapph.
Our No. shows basic needle type.

A-41,42,43	911SS
A-44,45	NLA
A-67	154
A-68	155
A-70	156
A-71,72	153
A-73	151
A-74	152
A-75,79	150
A-76	154
A-78,82	NLA
A-80,81	156
A-83,86	151
A-84	152
A-85	150
A-87,88,89	NLA
A-90,93	159SS
A-91	159S7
A-94,95	164
A-96	161
A-97	162
A-98	163
A-100,102	164
A-104,107	164
A-106	165
A-108	169
A-110	166
A-113	168
A-115	170
A-116	167
A-117,118	165
A-119	171
A-120	172
A-121	173
A-122	174
A-123	175
AC-27	110S1
AC-28	11S1

NEEDLE CROSS-REFERENCE

JENSEN (Continued)	Our No.	JENSEN (Continued)	Our No.	JENSEN (Continued)	Our No.	MAGNAVOX (Continued)	Our No.	MOTOROLA (Continued)	Our No.	MOTOROLA (Continued)	Our No.	MOTOROLA (Continued)	Our No.
DU-14	302	JPS-58	763DE	S-43	801	560007	617D7	593	586	60872A04	801DS	594	587
DU-15	303D7	JPS-59	760DE	S-66,68	800	560102	NLA	100	112D1	60918	700S3	595	588
DU-16	304	JPS-60	760DE	S-69 thru 73:	804	560138,153	566S8	101	110D1	61100	461D7	596	589
DU-17	760D6	JPS-61	760D3	S-75,76	808	560137,167	566D6	102	111D1	61276	863DS	597	590
DU-18	760DE	JPS-62	763DE	S-78	805	560182,183	700S1	103	113D7	61359	M855DS	610	616
E-10	358	JPS-63-67	NLA	S-80 thru 83:	808	560184,187	75ADS	104	114DS	61496A03	164SS	611	615
E-11	354	JPS-75	760DE	S-84	806	560190,200	700D1	136	156	61496A04	164DS	612	610
E-12	355	L-2	552	S-85	805	560191,200	800DS	137	154	61519	864SS	622	622
E-13,14	356	MC-2	NLA	S-86	809	560193,208	75ADS	138	152	61597	273SS	623	641
E-15	359	M-50	556	S-87	810	560210	700S1	139	150	61640	358DS	624	644
E-16,19	365	M-51	557	S-88,90	811	560211	700S3	140	154	62266	462DS	625	644
E-17	360	M-60	580	S-89	812	560224	352D7	141	153	62271	808DS	626	644
E-18	363	M-70,71	640	S-91,92	813	560225	352S3	142	155	62392	702S7	627	644
E-20	367	M-74,75	641	SI-1	790	560244	804SS	143	157	62971A03	S855DS	628	644
E-21	368	M-76	NLA	SI-2	619	560245	460D7	144	159	62971A04	S854D6	629	644
E-22	369	M-77,78	643	SI-3	791	560288	702S3	148	164	59D60918	700S7	630	644
E-23,24,25	371	M-80,81	644	T-1,6	S855	560289	702S7	149	164	59D60982	808DS	631	644
E-26	373	M-82	645	T-2,7	S854	560292	4661S7	150	164	59K642691	NLA	632	644
E-27,28,29	374	M-83	646	T-3	L855	560299-4	461S3	202	274	59K643765	NLA	633	644
E-30,31,33	369	M-84	647	T-4,5	M855	560306	399DS	236	290	59K645875	941DS	634	644
E-32,34	373	M-85	649	T-8	L853	560311,312	365DS	242	300	59K691908	752S2	635	644
E-35	374	M-86	650	T-9	M853	560313-2	617D7	243	301	59K691909	350S2	636	644
E-36,39,40	NLA	M-87,88	651	T-10,16	L855	560313-4	700D1	244	302	66T642558	501S1	637	644
E-37	654	M-89	652	T-11,18,19	L854	560313-9	M854DS	262	325	66T642559	754SS	638	644
E-44	369	M-90	653	T-12	O854	560331	NLA	293	358	66T642560	802SS	639	644
E-46,47	941	MC-1	618	T-13,15	S853	560336	462DS	288	351			640	644
E-48	371	P-1,2	615	T-14	M854	560339	369DS	294	360			641	644
E-49	375	P-3	617	T-16,20	L855	560341	NLA	295	360			642	644
E-50	557	P-4	621D7	T-17	L853	560346	376D7	296	359			643	644
E-54	629D7	P-5	622	T-21	S854	560371	612D7	297	363			644	644
E-56,87,88	NLA	P-6	619	T-22,25	L853	560372	629DQ	298	367			645	644
E-90,95	350	P-7	627	T-23	M856	560379	379D7	387	460			646	644
E-91,92,93	351	P-8	623	T-24	M853	560382	S854D7	388	461			647	644
E-98	352	P-9	627	T-27,29	L855	560386	M855DS	389	462			648	644
E-99	353	P-10	624	T-28	L854	560390	369DS	390	462			649	644
EL-250	325	P-11	628	T-30	S856	560403	760D6	391	463			650	644
EL-251	327	P-50	NLA	T-31	M855	560414	O854D7	392	464			651	644
EL-252	328	P-51	604DEM	T-32	L856	560419	697D7	393	464			652	644
EL-253	326	P-52	604D7M	T-33	L853	560421	707DE	412	490			653	644
EL-254	331D7	P-52-1	605DEM	T-34,35	M855	560424-2	697D7	414	492			654	644
EL-256	329	P-53,57	604D7T	T-36	S854	560430	710D7	432	500			655	644
EL-257	330	P-54,58	604D7C	T-37	M854	560433	711D7	434	501			656	644
EL-258	561	P-56	604D3	T-38	O854	560435	711D7	434	501			657	644
EL-259	332D7	P-57-1	605D7T	T-39,41,49	O855	560435	711D7	434	501			658	644
EU-1,2	462	P-58-1	605D7C	T-40	O856	560436	NLA	293	358			659	644
EU-3	463	P-59	NLA	T-43	O853	560444	557DS	290	355			660	644
EU-4,6	464	P-60	603D7T	T-44	L853	560449	629D7	291	354			661	644
EU-5	465	P-61,62	603D7C	T-45,47,48	S854	560457	376D7	292	356			662	644
G-1,2,5,3	501	P-65,70,72	NLA	T-46	O855	560459	170DS	293	356			663	644
G-4,5,6	503	P-66,67,71	601D7C	T-50	O853	560459	369DS	294	360			664	644
G-8,9	T-Bar	P-73	604DET	T-54	M855	560461	NLA	293	358			665	644
G-10	500	P-73-1	605DET	T-56	M854	560466	376D7	296	359			666	644
G-12,5,13,14	501	P-74	604D7M	T-57	S854	560371	612D7	297	363			667	644
G-15,16	T-Bar	P-74-1	605D7M	T-58	M853	560372	629DQ	298	367			668	644
G-17,18	504	P-75	606DET	T-59	O853	560379	379D7	387	460			669	644
G-19,20	505	P-76	606DEM	TE-18	840	560382	S854D7	388	461			670	644
G-21	506	P-77	606D7T	TE-19,22	841	560390	M855DS	389	462			671	644
G-22	507	P-78	606D7M	TE-20	842	560396	369DS	390	462			672	644
G-23,25	NLA	P-79	606D7C	TE-21,23	843	560403	760D6	391	463			673	644
G-24	509	P-80	606D3	TP-1	850	560414	O854D7	392	464			674	644
G-26	511	P-81	605D7C	TP-2	851	560419	697D7	393	464			675	644
GA-97	490	P-82	604D3	VA-29	860	560421	707DE	412	490			676	644
GA-98	491	P-83,84	604DEC	VA-302	700	560424-2	697D7	414	492			677	644
GA-99	492	P-85	604D7C	VA-303	862	560430	710D7	432	500			678	644
GA-100	493	P-86	606DEC	VA-304	863	560433	711D7	434	501			679	644
CR-1,2	525D7	P-87	606DEM	VA-305,306	864	560435	711D7	434	501			680	644
CR-3	526D7	P-88	606DET	W-05	887	560435	711D7	434	501			681	644
CR-4	526DE	P-89,92	606D7C	W-12	886	560435	711D7	434	501			682	644
CR-500	530	P-90	606D7M	W-14,17	880	560435	711D7	434	501			683	644
J-1,2,3	886	P-91	606D7T	W-15	NLA	560435	711D7	434	501			684	644
J-5,10	NLA	P-93	606D3	W-30	BAS-S	560435	711D7	434	501			685	644
J-11	640	P-94	606DEC	W-36	891	560435	711D7	434	501			686	644
J-15,25	BAS-S	P-95	604DEC	W-37	PDN	560435	711D7	434	501			687	644
J-21,23	641	P-96	607D7M	W-38	880	560435	711D7	434	501			688	644
J-31	640	P-97	607DEM	W-43	881	560435	711D7	434	501			689	644
J-41,43,47	460	PH-9,11	580	W-44	890	560435	711D7	434	501			690	644
J-53,57	461	PH-10	NLA	W-45	882	560435	711D7	434	501			691	644
J-73,74,76	535	PH-12,13	581	W-46	883	560435	711D7	434	501			692	644
J-77	358	PL-600	586	W-49	PDN	560435	711D7	434	501			693	644
J-352	861S2	PL-601	585	W-52	884	560435	711D7	434	501			694	644
J-613	370	PL-602	587	W-57,58,59	885	560435	711D7	434	501			695	644
JPS-30,31	752	PL-603	588	W-60	892	560435	711D7	434	501			696	644
JPS-32,33	751	PL-604	590	W-61,62,63	893	560435	711D7	434	501			697	644
JPS-3,4	750	PL-605	591	W-72,73	889	560435	711D7	434	501			698	644
JPS-35 thru 39:	754	PL-606	589	W-81,82	888	560435	711D7	434	501			699	644
JPS-40 thru 44:	757	PL-607	592D7	W-122,132	886	560435	711D7	434	501			700	644
JPS-45,48	NLA	PL-608	593	W-412,422	BAS-S	560435	711D7	434	501			701	6

NEEDLE CROSS-REFERENCE

PICKERING (Continued)	Our No.	QUALITONE (Continued)	Our No.	QUALITONE (Continued)	Our No.	QUALITONE (Continued)	Our No.	QUALITONE (Continued)	Our No.	RCA (Continued)	Our No.	RADIO SHACK (Continued)	Our No.
V7690E	600D6E	1374	152S3	1519	114DS	1625	L83D5	353,35,36,37	252D7	106786	643DS	2776	212DE
V691E	600D7E	1375	350S2	1520	643DS	1626	897D6	558	232SD	106787,788	643SS	2780,2782	760DE
VEV-100	600D5E	1376,77	725S8	1521	757D7	1627	758D7	559	232DE	108214,216	643SS	2781	760DEJ
VEV-200	600D7E	1379	NLA	1522	804DS	1628	303D7	560,61,62,63	232DE	108215	643DS	2783	760DED
390Mk III	600D6E	1380	751S3	1524	260DS	1629,30	464D6	564	232DE	108555	911S8	2784	778DE
950EE-II	600D6E	1381	751D1	1525	261D1	1631	164D6	565	235VDE	108719	700S7	2802	M853DS
		1382	751S2	1526	261S3	1632	863DS	566,67,68	235DE	108800	643DS	2804	164DS
Following have prefix		1385	800D5	1527	327DS	1633	304DS	569	235DE	110020,-A	644SS	2805	863DS
V11A-		1387	151S3	1528	328DS	1641	647D6	570	235D7	110022,-A	644DS	2806	159DS
M-3	600D5E	1388	151D1	1529	326DS	1642	648DS	571,572	234DE	110305	700S7	2807	862DS
Micro 5	600D6E	1389	151S2	1530	841DS	1636	640D7	573	233DE	110506	646S1	2808	164DS
Series 4	600D8E	1391	890M1	1531	804DS	1637	S855D5	590,591	525D7	115061	643SS	2810	273DS
101E	600D5E	1392	890M3	1532	808DS	1638	L855D5	592	NLA	115328	647SS	2811	365DS
202E	606D6E	1393	153DS	1533	807DS	1639	S854D5	593	NLA	115329,703	647DS	2813	700D7
220E	600D5E	1393R	155DS	1534	460D7	1640	843DS	600 thru 604:	601D7C	115911	648DS	2814	164DS
303E	600D7E	1396	556DS	1535	615D7	1641	843DS	606	603D7C	118189,198	648DS	2815	810D7
380E Impr.	600D6E	1398	530S3	1536	616D7	1642	862DS	606	603D7C	118199	649D7	2818	365DS
440E	600D7E	1400	700S3	1537	159D7	1643	509DS	607 thru 610:	603D7C	118200	649S7	2819	702D7
480E Impr.	600D7E	1401	700D1	1539	461DS	1644	592D7	611,621	604DEM	118207	649S7	2821	702D7
510E	600D7E	1402	801D1	1540,1541	808DS	1645	811DS	612,16,22	604DET	122057	650DS	2822	897DS
605E	605D5E	1403	801S2	1542	330DS	1646	368DS	613	604D7M	123490	164D7	2823	358DS
610E,615E	600D6E	1404	801S3	1543	506DS	1647	272D6	614,617	614D7T	124188	700D7	2824	649D7
630E,640E	600D8E	1408	135M1	1544	644DS	1648	169DS	615,18,19	604D7C	126566	651D7	2825	557DS
710E	600D7E	1409	135M2	1545	462DS	1649	618DS	620,628	604D7C	126567	652DS	2826	365DS
725E,810E	600D8E	1410	135M3	1547	358DS	1651	232DE	624	605D7M	131707	653SS	2828	272DS
		1414	136D1	1548	359DS	1652	166D7	625,627	605D7T	131780	653DS	2829	352D7
		1415	136S3	1549	360D1	1654	369DS	626	605D7C	131781	654D7	2830	165DS
		1417	NLA	1550	356DS	1655	369DS	626	605D7C	132087	654S7	2834	618DS
		1418	501D7	1551	462DS	1656	M853DS	629	606DEC	133625	653DS	2835	462DS
		1419	501S25	1552	491D7	1657	167DS	630	606DEG	133703,707	653DS	2836	701D7
1-31-1	700S2	1423	751D1	1553	492D7	1658	170DS	631	606DEH	133856	653DS	2837	519DS
1-32-1	700S7	1424	751S2	1554	493D7	1659	604D7C	632	606DEC	164652	700S7	2838	648DS
030037	615S7	1425	751S3	1555	563DS	1660	563DS	632	606DEC	171951	501D1	2839	864DS
030038	615S8	1427	754DS	1556	585DS	1662	116DS	634	606D7T	973088	911S8	2840	M855DS
030035	616S2	1430	882M1	1557	588D7	1663	331D7	635,636	606D7C			2841	1854DS
084117-2	615D7	1431	882M3	1558	591DS	1664	263D7	637	606D3			2842	647DS
084117-3	616D7	1432	883M1	1559	617D7	1665	354D1	639	606DEM			2843	647DS
484001	790DS	1433	883M3	1560	842DS	1666	603D7C	675,676	757D7			2845	503D7
484005	791DS	1443	700S2	1561	861S2	1667	100D7	678	NLA			2852	507DS
AN308 Ser.	707DE	1444	154S3	1562	896DS	1668	168DS	680	759D7			2857	461D7
Y-100,310	813DS	1445	154D1	1563	113D7	1669	165DS	681	759D7			2867	754DS
Y-870	772DS	1446	154S2	1564	159D7	1670	232DE	682,83,84	759D7			2875	643DS
Y-840	685D7	1447	750S3	1565	161DS	1671	370DS	685,86,87	759DE			2877	644DS
Y-870	689D7	1448	750D1	1566	162DS	1672	1674	688 thru 691:	760DE			2879	802DS
Y-930,940	636D7	1449	886D1	1567	163DS	1673	806DS	692	760D6			2883	800DS
YM-101	616D7	1450	886S3	1568	164DS	1676	0854D7	693	760D3			2885	804DS
YM-102	636D7	1451	885S3	1569	NLA	1677	S853DS	696,695	761DED			2888	808DS
YM-108	660D7	1452	885D1	1570	272DS	1678	M853DS	697	760DE			2889	S855DS
		1453	885S2	1571	302D7	1679	0856D7	698,699	762DE			2890	368DS
		1454	110S3	1572	330DS	1681	619DS	700,702	763DE			2891	273DS
		1455	110D1	1573	331D7	1682	506DS		NLA			2892	274DS
		1456	111S3	1574	355D1	1683	622DS					2896	509DS
		1457	111D1	1575	363D7	1684	791DS					2897	809DS
		1458	561DS	1576	365DS	1685	621D7					2898	864DS
		1460	802DS	1577	463DS	1686	650DS					2899	511D7
		1461	803D1	1578	NLA	1687,1697	898DS					2901	0853D7
		1463	803S3	1579	331D7	1688	371DS						
		1464	700D7	1580	262D7	1689	374DS						
		1465	700S2	1581,1582	808DS	1691,1699	273DS						
		1466	700S3	1583	809DS	1693,1694	369DS						
		1469	560DS	1584	812DS	1695	373DS						
		1470	503D7	1585	811DS	1696	601D7C						
		1471	503S25	1586	896DS	1698	760DE						
		1472	490D1	1587	271D7	1700,1711	864DS						
		1473	490S3	1588	NLA	1701	S856DS						
		1475	701D1	1589	911DS	1702	L856DS						
		1476	701S3	1590	942DS	1703,1705	S854DS						
		1477	586D1	1591 thru		1704	M854DS						
		1478	586S3	1595:	NLA	1706	1854DS						
		1479	860D1	1596	942DS	1707	1853DS						
		1480	860S3	1597 thru		1708	M853DS						
		1481	840DS	1561:	NLA	1709	S853DS						
		1482	NR	1602	850D1	1712	171DS						
		1483	1493,1494	1603	851D7	1713	172DS						
		1484	1495	137D1	1604	509DS	1714	173DS					
		1485	350S3	137S2	1605	645D7	1715	174DS					
		1486	350D1	137S3	1606	646D7	1716	274DS					
		1487	152S2	562D1	1607	810D7	1717	373DS					
		1488	152S2	562S3	1608	S853DS	1718	375DS					
		1489	152S2	804DS	1609	M854DS	1719	511D7					
		1490	152S2	702D7	1610	165DS	1720	653DS					
		1491	152S2	290D7	1611,1612	164DS	1721	645D7					
		1492	152S2	352D7	1613	367DS							
		1493	888M3	504D7	1614	368DS							
		1494	888M1	505D7	1615	252D7							
		1495	891M3	505D7	1616	251D7							
		1496	891M1	112D1	1617	272DS							
		1497	891M1	112S3	1617	272DS							
		1498	888M2	1513	270D7	1618	507DS						
		1499	500S25	1513-1	700D1	1619	507DS						
		1500	500D1	1514	300DS	1620	507 thru 519:						
		1501	150S3	1515	301								

NEEDLE CROSS-REFERENCE

RECOTON (Continued)	Our No.	RECOTON (Continued)	Our No.	RECOTON (Continued)	Our No.	RECOTON (Continued)	Our No.	RECOTON (Continued)	Our No.	RECOTON (Continued)	Our No.	RECOTON (Continued)	Our No.	
320	15151	448	750S1	561	588S7	664	650S8	765	604DEC	864	111D7C	100E-722	NLA	
321	15233	449	886S1	562	588S3	665	812S8	766	604D7C	865	111DEC	101S-802	4111D7C	
322	15251	450	886S2	563	644S8	666	0854S7	767	606DEC	866	111DEE	101E-797	4110DET	
323,324	NLA	451	885S3	564	330S8	667	M854S8	768	607DET	867	111DEM	102S-904	111DEC	
325	581S8	452	885S1	565	506S8	668	116S8	769	607D7T	868	108DEX	102E-866	111DET	
326	NLA	453	885S2	566	462S8	669	232SDE	770	607DEC	869	108DEQ	103S-905	108DEC	
327	556S8	454	110S3	567	164S8	670,671	252D7	771	607D7C	870	112DEX	103E-867	111DEM	
328	887MM13	455	110S1	568	358S8	672	230D7	772	NLA	871	629DQ	104S-906	4111D7C	
329,333	350S3	456	111S3	569	355S1	673,674	757D7	773	107DEX	872	629DE	104E-864	4110DET	
330,334	350S1	457	111S1	570	355S2	675	605DEM	774,775	107DE	873	679DE	105E-869	108DET	
331,332	351S8	458	561S8	571	355S3	676	605D7M	776	111DEM	874	698D7	105P-799	108DQ	
335	350S2	459	501S2S	572	356S8	677	605D7T	777	111DEC	875	698D7	105P-799	108DQ	
336,337	15682	460	802S8	573	360S1	678	609S8	778	108DET	876	238DQ	105E-830	112D7	
338	15152	461	803S1	574	359S8	679	791S8	779,780	NLA	877	237D7C	108S-986	117D7	
339,340	15252	462	803S2	575	617S7	680	621D7	781	632D7	878	239DE	150S-782	612D7	
339 thru 344:	NLA	463	803S3	576	462S8	681	843S8	782	612D7	879	237DEZ	151S-784	635D7	
345	641S3	464	700S1	577	850S1	682	165S8	783	494DS	880	694D7	152S-747	629D7	
347,349	880S1	465	700S2	578	850S3	683	593S7	784	635D7	881	667D7	152E-828	629DE	
348,350	880S3	466	700S3	579	851S7	684	592D7	785	274S8	882	695D7	152P-829	629DQ	
351	880S2	467	BA5-S	580	591S8	685	169S8	786	633D7	883	697D7	152E-830	679DE	
352	752S2	469	560S8	581	363S7	686	371S8	787	637D7	884	691D7	154E-831	612DE	
353	470	470	501S1	582	582,583	NLA	687	622S8	788	638D7	885	692D7	155P-832	679DQ
354	15083	471,472	503S2S	584	491S7	688	583S8	789	611D7	886	693D7	156E-873	679DQ	
355	15081	473	490S1	585	492S7	689	M853S8	790	634D7	887	678DQ	157S-901	677D7	
356	15082	474	490S3	586	493S7	690	L853S8	791	621D7	888	604DET	157E-899	206DET	
357 thru 360:	NLA	475	701S1	587	365S8	691	0854S7	792	4764DE	889	662D7	158S-926	710D7	
361	888M3	476	701S3	588	302S7	692	085S7	793	633D7	890	663D7	159S-944	679DE	
362	888M1	477	585S1	589	302S3	693	0854S7	794	760DEM	891	668DQ	160S-945	207D7	
363	891M3	478	585S3	590	563S8	694	S856S8	795	111DET	892	677D7	161S-947	205D6C	
364	891M1	479	860S1	591	NR	695	M856S8	796,797	110DET	893	698D7	161E-948	205DEC	
365	891M2	480	860S3	592	271S7	696	606DEM	798	672DQ	894	669D7	162E-949	207DE	
366,369	500S2S	481	840S8	593	271S3	697	606DET	799	108DQ	895	668D7	163E-950	208DE	
367	500S1	482 thru 489:	NLA	594	507S8	698	606D7T	800,801	108DEC	896	608DQX	164P-951	208DEL	
368	501S1	490	942S8	595	809S8	699	373S8	802	111D7C	897	606DQ	165E-952	208DEM	
370	15081	491	911S8	596	463S8	700	L855S8	803,804	NLA	898	608DQ	166S-953	209D6T	
371	15083	492	NLA	597	702S1	701	L854S8	805	237DET	899,901	697D7	167S-954	710D7	
372	15082	495	137S1	598	702S3	702	L856S8	806	239DEQ	900	664D7	168S-955	209D6T	
373	15281	496	137S2	599	810S7	703	564S8	807	239DEC	917	849D7	169S-966	212D6C	
374	15283	497	137S3	600	810S3	704	651S7	808	614D7	918	704D7	170S-968	4211D6	
375	350S2	498	562S1	601	161S8	705	813S8	809	673D7	919	NR	171S-969	4213D6	
376,377	725S8	499	562S3	602	162S8	706	864S8	810	664D7	923,24,25	711D7	172S-970	208D6	
378,379	NR	501	860S2	603	163S8	707	898S8	811	665D7	926	710D7	173E-971	212DE	
380	751S3	503	804S8	604,605	164S8	708	L856S8	812	627	927	174E-972	212D7	212D7	
381	751S1	504	705S7	606	272S8	709	232SDE	813	698D7	928	706D7	200S-677	252D7	
382	751S2	505	702S3	607	368S8	710	235DE	814	670D7	929	699D7	201E-709	232DE	
385	800S8	506	352S7	608	367S8	711,12	NLA	815	671D7	930	703D7	202S-672	230D7	
386	15153	507	352S3	609,610	464S8	713	605DET	816	822DEEE	931	705D7	202S-907	235D7	
387	15151	508	NLA	611	509S8	714	605D7C	817	822DEE	932	679D7	202E-741	235SDE	
388	15152	509	702S1	612	644S8	715	606D7C	818	822D7A	933	697D7	204E-744	233DE	
389	889M1	511	352S7	613	811S8	716	606D7M	819	821DEE	934	614DE	204P-999	NR	
390	889M3	512	270S7	614	812S8	717	759D7	820	821DE	935	614DQ	205S-877	4237D7C	
391	890M1	513	700S1	615	115S7	718,719	759D7	821	820DEE	936,937	NR	205S-805	4237DEC	
392	890M3	514	700S2	616	115S3	720,721	760DE	822	820DE	938	713D7	205P-876	238DQ	
393R	1558S	515	700S3	617	165S8	722	761DED	823	820D7AL	939	273DS	206S-908	4237D7C	
393	1538S	516	700S7	618,619	164S8	724	763DE	824	761DED	940	848DS	206E-807	4239PDE	
394,95,96	556S8	517	885S7	620	896DS	725	376D7	825	759D7C	941	719D7	207E-878	4239DET	
397	641S3	518	892S7	621	645D7	726,729	373S8	826	M853S8	942	709D7	207P-999	942	
398	530S3	519	893S8	622	646D7	727	374S8	827	629D7	943	708D7	208E-966	4241D7	
399	530S1	520	306S8	623	385S8S	728	369S8	828	629DE	944	709D7	208E-647	601D7C	
400	700S3	521	504S7	624	5854S8	730	375S8	829	629DQ	957	722D7	251S-652	603D7C	
401	700S1	522	804S8	625	897DS	731	171S8	830	679DE	958	0853D7	252S-656	4604D7C	
402	801S1	523	NLA	626	647S8	732	172S8	831	612DE	959	912DS	252E-653	4604DEC	
403	801S2	524	290S7	627	303D7	733	173S8	832	679DQ	960	721D7	252P-999	NR	
404	801S3	525	114S8	628	L855S8	734	174S8	833	696D7	961	724D7	253S-677	4605D7C	
405	15451	526	301S8	629	M855S8	735	175S8	834	676D7	962	718D7	253E-675	4605DET	
406	15452	527	941D6	630	L853S8	736	510S8	835	680D7	963	720D7	253P-999	NR	
407	15453	528	506D7	631,632	465S8	737	511S8	836	660D7	964	712D7	254S-698	4606D7C	
408	135M1	529	804S8	633	304S8	738	633DS	837	591S8	967	NR	254E-696	606DEC	
409	135M2	530	NLA	634	272S8	739	654S7	838	594DS	973	596D7	254P-999	NR	
410	135M3	531	112S1	635	863S8	740	623D7	839	595D7	974	730D7	255S-769	4607D7C	
411,414	136S1	532	112S3	636	862S8	741	236ZDE	840	608DEV	975	733D7	255E-768	607DEC	
412	136S2	533	643S8	637	L854S8	742	235VDE	841	606DEL	976	737D7	256E-746	606DEL	
413,415	136S3	534	841S8	638	618S8	743	235SDE	842	717D7	977	748D7	257E-909	608DEV	
417,418	501S1	535	804S8	639	648S8	744	233DE	843	636D7	978	732D7	257P-840	608DQ	
419	501S2S	538	892S1	640	790S8	745	322D7	844	665D7	979	734D7	300S-674	757D7	
420,423	751S1	539	892S2	641	557S8	746	606DEG	845	685D7	980	740D7	301S-717	4759D7	
421,424	751S2	540	892S3	642	811S8	747	629D7	846	686D7	981	731D7	301E-718	4759DE	
422,425	751S3	541,542	460S7	643	843S8	748	273S8	847	687D7	982	715D7	302S-825	4759D7	
427	754S8	543	460S3	644	791S8	749	274S8	848	681D7	983	798D7	303S-720	4760D6	
428	752S1	544	808S8	645	649S7	750	627D7	849	NR	984	793D7	303E-754	4760DE	
429	752S3	545	808S8	646,47,48	601D7C	751	674D7	850	767DED	985	119D7	303P-999	NLA	
430	882M1	546	159S8	649,650	NLA	752	652S8	851	767DE	986	819D7	304E-794	4760DE	
431	882M3	547	327S8	651,652	608D7C	753	085S7	852	768D6	987	792D7	305S-920	4762DE	
432	883M1	548	328S8	653	608D7C	754	608D7C	853	768DE	988	796D7	305E-722	4761DE	
433	883M3	549	328S8	654	608DET	755	760DE	854	765DQ	989	214D6	305P-999	NR	
434	884M1	550	616S2	655	604D7M	756	762DE	855	683D7	991	745D7	306S-921	NR	
435	884M3	551	615S7	656	604D7T	757	305S8	856	675D7	992	794D7	306E-724	4763DE	
436,437,438	PDN	552	615S3	657	604D7C	758	558D7	857	M855S8	993	817D7	306P-999	NR	
439 thru 442:	BA5-S	553,554	808S8	658	166S7									

NEEDLE CROSS-REFERENCE

RECOTON (Continued)	Our No.	SEARS (Continued)	Our No.	SEARS (Continued)	Our No.	T.A.E. (Continued)	Our No.	T.A.E. (Continued)	Our No.	T.A.E. (Continued)	Our No.	T.A.E. (Continued)	Our No.
309S-852	768D6	5760,5761	501S1	26594-41	5854DS	5059	167D8	5850	363D7	7773 thru	7904	614DE	614DQ
309E-853	768DE	5762	501S2S	26594-43	M854DS	5060	168D8	5851	367D8	7778	NR	7905	614DQ
310P-854	765DQ	5763	500S1	32754-73	M856DS	5061	170D8	5852	368D8	7779	742D7	7906	621DE
311E-910	4772DHE	5769	700S1	32754-51	M853DS	5062	165D8	5871,5876	369D8	7780	799D7	7907	629DE
311P-999	4772DHE	5770	700S3	32754-52	M853DS	5063	174D8	5872	557D8	77981 thru	7908	661D7	7908
312E-956	771DHE	5771	700S2			5064	175D8	5873,5874	371D8	7784:	NR	7909	660D7
312P-999	771DHE	5773	806S8	Following have prefix 8020D:		5065	171D8	5875,5881	374D8	7785	215DE	7910	662D7
313E-984	773DHE	5776	804S8			5066	172D8	5877,5878	373D8	7786	215DET	7911	663D7
350S-823	820D7AL	5778	700S2			5067	173D8	5879	376D7	7787	215DEL	7912	664D7
350E-821	4820DE	5787	941D8	02	754DS	5100	246DEX	5880	375D8	7788,7789	NR	7913	665D7
352P-999	NR	5801	808S8	04	700S3	5113	51,01,51,02	740D7	5885	558D7	7790	748D7	677D7
351S-818	821D7A	5804	700S2	05	700S1	5103	246DE	6001	460D7	7791	747D7	7915	668D7
351E-817	821DE	5806	700S1	06	700S2	5104	246DEX	6002	461D7	7792	542DEZ	7916	669D7
351P-999	NR	5807	700S3	07	700D1	5105	246D6	6003	462D8	7793	NR	7917	672D7
352E-816	822DEEE	5809	460S7	08	800S8	5106,51,07	247D6	6004	463D8	7794	596D7	7918	673DQ
352P-999	NR	5810	460S3	09	800D8	5108	243DE	6005	464D8	7795	735D7	7919	678D7
353S-911	NR	5812	808S8	10	702S1	5109,10,11	NR	6007	465D8	7796	745D7	7920	683D7
353E-912	825DEV	5817,5820	700S7	11	702S3	5112	242DE	6029	111D7C	7797	794D7	7921	685D7
402P-798	679DQ	5822	462S8	12,14,18		5113	245DE	6030	111DEC	7798	214D6	7922	686D7
401S-913	NR	5824	365S8	13,19	700S3	5114	242DET	6031	111DET	7799	744D7	7923	687D7
401E-914	NR	8800	164S8	15	700S2	5115	242DEX	6032	111DEM	7800	710D7	7924	688DQ
402S-915	4540D7U	8801	270S7	16	702S2	5116	NR	6033	112DEX	7801,02,04	NR	7925	689D7
402E-916	4540DEU	8802	359S8	17	702S7	5117	241DFR	6034	112DEC	7803	736D7	7926	690D7
403E-990	4541DE	8803	462S8	20	700D7	5118	NR	6036	111DEC	7805	740D7	7927	691D7
500E-997	NR	8804	644S8	21	841DS	5119	244DE	6037	108DEQ	7806	794D7	7928	692D7
501E-998	NR	8805	700S7	22,25,29,30	700S3	5120	245DE	6038	108DET	7807	697D7	7929	693D7
		8806	894S8	23,28	700S7	5121	248	6039,40,41	NR	7808,7809	NR	7930	694D7
		8807	461S7	24,31	700S1	5122	243D6	6042	NR	7810	699D7	7931	695D7
		8808	358S8	26	159DS	5123	243DE	6043	113D7C	7811	212DEL	7932	696D7
		8809	164S8	27	804DS	5124	242DLAC	6044	113DEC	7812	212DE	7934	681D7
		8810	331D7	32	702D7	5125	242DEX	6045	113DET	7813	4213D6	7935	682D7
		8811	368S8	33	702S3	5126	242DET	6046	113DEM	7814	738D7	7936	697D7
		8812	462S8	35,37	460S3	5127	241DME	6047	113D7C	7815	NR	7937	698D7
		8813,8814	369S8	36	460S7	5128	241DE	6048	113DEM	7816	212DX	7938	666D7
		8815	169S8	38	460D7	5129	242DE	6049	121D7	7817	212DEM	7939	118D7
		8816	164S8	39	461D7	5130	239D7C	6050	119D7	7818	212DET	7940	564DS
		8817	166S7	40	700D7	5131,5132	239DEC	6051	116D7M	7819	212DEC	7941,42	NR
		8818	272S8		793D7	5134,5135	239PDE	6052	116DEM	7820	212DE	7943	711D7
		8819	0854S7		796D7	5136	239DQ	6053	116DEZ	7821	4211D6	7944	704D7
		8820,8821	164S8			5137	239DET	6054	121D7	7822,7825	NR	7945	697D7
		8822	185S8S			5138	239DEX	6055	119D7	7823	743D7	7946,47	629D7
		8823	M854S8			5139	234ZDE	6056	6040,6061	7824	792D7	7948	629DE
		8825	164S8			5140	246DE	6202	492D7	7826	734D7	7949,50	629DQ
		8826	369S8			5148,5171	251D7	6203	491D7	7827	732D7	7951	204D6C
		8827	332D7			5173,5174	252D7	6204	493D7	7828	739D7	7952	205D6C
		8828,29,30	369S8			5175,5176	232DE	6205	594D6	7829	731D7	7953	705D7
		8831	0854S7			5176ED	232SDE	6211,13	500D1	7830	243D6	7954	707DE
		8832	085S7			5178	230D7	6215	501D7	7831	746D7	7955	7630D7
		8833	894S7			5179ED	240DE	6216	502D7	7832	NR	7956	709D7
		8834	0853S7			5180ED	243DE	6218	504D7	7833	4211D6	7957	710D7
		8835	185S8S			5186	235VDE	6219	505D7	7834	210DE	7958	703D7
		8836,37,38	369S8			5187	235SDE	6220	506D6	7835	737D7	7959	NR
		8839	604D7C			5188	235DE	6221	507D6	7836,7837	NR	7960	848D7
		8840	374S8			5189	235D7	6222	NLA	7838	724D7	7961	637D7
		8841	760DE			5190	234DE	6223	509D6	7839	740D7	7962 thru	NR
		8842	864S8			5191	237D7C	6224	510D6	7840	794D7	7965:	NR
		8843	274S8			5192,5193	237D7C	6225	511D7	7841	542DE	7966	818D7
		8844	0853S7			5194,5195	237DET	6201	490D1	7842	NR	7967	685D7
		8845	273S8			5196,97,99	238DQ	6251	530D1	7843	797D7	7968	NR
		8846	5854S8			5198	238DEQ	6501	525D7	7844	722D7	7969	713D7
		8847	5855S8			5200	240DEDR	6502,03,04	NLA	7845,7846	719D7	7970	622D6
		8848	274S8			5204	NLA	6801	NR	7847	723D7	7971,72	NR
		8849	863S8			5205	263D7	7201	535D8	7848	711D7	7973	63D7
		8853	710D7			5206	264DE	7204	532D6	7849	NR	7974,75	NR
		8854,85,86	711D7			5212,13,18	272DS	7301	556D6	7850,51,52,53	NR	7976	717D7
		8857	111DEC			5214,17	273DS	7338	NR	7854	208DEX	7977 thru	NR
		8858	760D7			5215,16	274DS	7740	NR	7855	208DEL	7987:	NR
		8859	666D7			5403	290D7	7741	818D7	7856	208DE	7988	716D7
		8890	5013			5601	300D6	7742	NR	7857	207D7	7989 thru	NR
		8892	629D7			5602	301D6	7743	901D7	7858	NR	7994:	NR
		8893	M853DS			5603	302D7	7744	NR	7859	611D7	7995	720D7
		8894	629DQ			5604	303D7	7745	NR	7860	NR	7996 thru	NR
		8895	761DE			5605	304D6	7746	819D7	7861	714D7	7999:	NR
		8896	M854DS			5606	305DS	7747	817D7	7862 thru	NR	8001	560DS
		8898	111DET			5801	561DS	7748	NR	7870:	NR	8002	562D7
		8899	617D7			5802	325D1	7749	741D7	7871	715D7	8016	586D1
						5804	326D6	7750	NR	7872,73,74	NR	8017	585D6
						5805	327D6	7751	NR	7875	712D7	8018	587D1
						5806	328D6	7752	817D7	7876,77,78	NR	8020	588D7
						5807	330D6	7753	208DEV	7879	4541DE	8022	590D7
						5808	331D7	7754	208DEM	7880	539DEQ	8023,8026	591D6
						5809	329D7	7755	740D7	7881,82	4540DEU	8024	592D7
						5810,11	363D6	7756	793D7	7883	4540D7U	8025	593D7
						5812	332D7	7757	794D7	7884,86	NR	8049	581D8
						5831	350D1	7759	900D7	7885	209D6T	8051	618D6
						5833	351D6	7760	795D7	7887,88,89	NR	8052	614D7
						5834	352D7	7761	814D7	7890	721D7	8054	615D7
						5838	354D1	7762	746D7	7891 thru	NR	8056	617D7
						5841	355D1	7763	796D7	7896:	NR	8058	619D6
						5844	356D6	7764,65	NR	7897	712D7	8059	622D6
						5845	358D6	7766	819D7	7989,7999	NR	8060	791D8
						5846	360D1	7767 thru	NR	7900,7901	595D7	8061	627D7
						5845	359D6	7771:	NR	7902	612DE	8062	674D7
						5849	365D6	7772	798D7	7903	612DQ	8063	621D7

SANSUI,
SANYO, SHARP
See Section II

SHURE
PRIVATE LABEL
See Section IV

SILVERTONE
(Sears)

If number has five
digits, the last digit
denotes tip material:
1 = Diamond
2 = Sapphire
3 = Diam./Sapph.
We list only the
sapphire version for
clarity.

5702 806S8
5704 616S2
5706 805S8
5708 808S8
5709 643S8
5711 700S7
5712 BAS-S
5713 35-S
5714,5716 352S7
5715 352S3
5717 702S1
5718 702S9
5719 8984,85,86
5719 702S2
5720 702S7
5721 804S8
5724 BAS-S
5727,5728 NLA
5729 151S2
5730 156S3
5731 BAS-S
5732 152S2
5733 752S3
5734 752S1
5735 752S2
5737 700S1
5738 700S3
5739 700S2
5741 641S1
5742,5746 800S8
5745 156S1
5747 802S8
5748 503S2S
5750

NEEDLE CROSS-REFERENCE

T.A.E. (Continued)	Our No.	T.A.E. (Continued)	Our No.	T.A.E. (Continued)	Our No.	TETRAD (Continued)	Our No.	TRANSCRIBER (Continued)	Our No.	TRANSCRIBER (Continued)	Our No.	TRANSCRIBER (Continued)	Our No.
8064	621D7	8403	641D1	8802	841DE	82D,82S	L856DS	P-47	491D7	83	303D7	199	899D7
8065	624D7	8405,8407	643DS	8803	842DS	83D,83S	M856DS	P-48	860D1	84	NLA	200	274DS
8066	494DS	8408	644DS	8804	843DS	84D,84S	L856DS	P-52	646D1	85	897DS	201	849D7
8067	611D7	8409	645D7	8816	850D1	80D,90S	O855D7	P-53	354D1	86,87	251D7	202	NR
8068	612D7	8410	646D7	8818	851D7	83D,93S	M855DS	P-54	355D1	88	252D7	203	711D7
8069	613D7	8411	647DS	8826	O855D7	110D	O855D7	P-55,56,57	NLA	89	8854DS	204	O853D7
8070	628D7	8412	648DS	8827	M854DS	121D	M854DS	P-58	161DS	90	8853DS	205	722D7
8071	625D7	8413	649D7	8828	S855DS	A0D,A0S	O853D7	P-59	912DS	91	S855DS	206	596D7
8072	626D7	8414	650DS	8829	S854DS	A1D,A1S	S853DS	PE-10	561DS	92	L855DS	207	719D7
8073	631D7	8415	651D7	8830	L855DS	A2D,A2S	L853DS	PE-12	560DS	93,94	M855DS	208	793D7
8074	632D7	8416	653DS	8831	M855DS	A3D,A3S	M853DS	PE-7000	562D1	95	L853DS	209	796D7
8075	635D7	8417	654D7	8832	L856DS	A4D,A4S	L853DS			96	563DS	400	823DQ
8076	637D7	8431,8433	700D7	8833	L853DS	B0D,B0S	O853D7		Following are all	97	S854DS	401	823DQ
8077	638D7	8434	701D1	8834	L854DS	B1D,B1S	S853DS		stereo needles, either	98	M853DS	402	822DDE
8078	630D7	8436,8437	702D7	8835	O853D7	B2D,B2S	L853DS		ES or NO prefix:	99	593D7	403	822DDE
8079	639D7	8401	725S8	8836	M853DS	B3D,B3S	M853DS	1	804DS	100	863DS	404	822D7A
8080	614D7	8611	752D7	8837	M856DS	B4D,B4S	L853DS	2,3A	702D7	101	862DS	405	821DDE
8081	636D7	8612	751D1	8838	L855DS	C0D,C0S	O853D7	3	290D7	102	649D7	406	821DDE
8082	621D7	8613	750D1	8839	O856D7	C1D,C1S	S853DS	4	910DS	103	464DS	407	820D7A
8083	633D7	8614	754DS	8840	O854D7	C2D,C2S	L853DS	5	352D7	104	493D7	408	820D7E
8084	634D7	8615,8617	4760D6	8841	L854DS	C3D,C3S	M853DS	6	941DS	105	329D7	409	820D7E
8085	670D7	8616	760D7	8842	S854DS	C4D,C4S	L854DS	7	NLA	106	NR	410	820D7A
8086	671D7	8618,8621	757D7	8843,8844	L854DS	E0D,E0S	O854D7	8	270D7	107	590D7	500	605DEM
8087	673D7	8619	4760DE	8445,8850	O853D7	E1D,E1S	S854DS	9,9B	757D7	108	592D7	501	605DET
8088	672DQ	8620	4764DE	9202	860D1	E2D,E2S	L854DS	10	804DS	109	368DS	502	605D7M
8089	675D7	8622,23,24	4759D7	9204	861S2	E3D,E3S	M854DS	11	700D7	110	272DS	503	605D7T
8090	674D7	8625,26,27	NLA	9208	863DS	E4D,E4S	L854DS	12	980DS	111	169DS	504	605D7C
8091	677D7	8628,30	4760DE	9210	862DS	G0D,G0S	O854DS	14	460D7	112	790DS	505	604D3
8092	679DE	8629,33	4759DE	9211,9212	864DS	G1D,G1S	S854DS	15,22	757D7	113	232DE	506	604DEM
8093	680D7	8632	NLA	9435	892D7	G2D,G2S	L854DS	16	643DS	114,117,119	L853DS	507	604DET
8094	629DQ	8634,35	4760D6	9439	893DS	G3D,G3S	M854DS	17	504D7	115	170DS	508	604D7M
8095	678DQ	8636,38	4761DE	9802	896DS	G4D,G4S	L854DS	18	893DS	116	369DS	509	604D7T
8096	648D7	8639	4762DE	9803	897DS	K1D	S853DS	19	892D7	118	167DS	510	604D7C
8097	679DQ	8640	4763DE	9804	898DS	TL1D	M855DS	20,29	166D7	120	166D7	511,512	603D7T
8098	706D7	8641	801D1	9805	899D7	T2M,D,T3MD	M854DS	21	841DS	121	304DS	513 thru 516	603D7C
8099	849D7	8642	800DS	9952	727D7	TS4D	M853DS	23	114DS	122	618DS	517,522	NR
8101	604DEM	8643	802DS	9953	728D7	T10LD	O855D7	24	NLA	123	370DS	518 thru 521	601D7C
8102,03	664DEM	8644	808DS	9954	4726D7/ FR	T20MD	O854D7	25	700D7	124	812DS	522	601D7C
8104,07	664D7C	8646	803D1			T30MD	O854D7	26	492D7	125	650DS	524,25,26	605D7C
8109,8110	603D7T	8647	809DS			TS0HD	O853D7	27	505D7	126	843DS	527	604D3
8111,8112	603D7C	8648	812DS			TD-1	O856D7	28	159DS	127	L854DS	528	604D7C
8116,17,21	601D7C	8649	811DS			TS-1	O856S7	30	461D7	128	165DS	529	604D7T
8123	605DEM	8650	810D7			TZ1D	S854TD	31	330DS	129	791DS	530	606DEM
8124,26	606DET	8653	807DS					32	944DS	130	117D1	531	606DET
8125	606D7C	8654	806DS					33	807DS	131	813DS	532	606DEC
8127	606DEC	8655	805DS					33B	806DS	132	622DS	533	606D7M
8128,8129	664D7C	8656,8657	812DS					33C	805DS	133,134	L853DS	534	606D7T
8130,8131	605D7C	8658	813DS					34	164DS	135	M853DS	535,536	606D7C
8134	606DEM	8660,61,62	4767DE					35	462DS	136	S854DS	537	606D3
8135	606DET	8664	765DQ					36	326DS	137	L854DS	538	606DEG
8136	606DEC	8665	768DE					37	328DS	138	M854DS	539	604DEC
8137	606D7M	8666	768DS					38	506DS	139	811DS	540 thru 543	525D7
8138,8139	606D7C	8667	760DS					39	644DS	140	648DS	544 thru 550	NLA
8142	607DET	8668	759D3					40	842DS	141,142	864DS	551,545,56	NLA
8143	607D7C	8669	751DS					41	301DS	143	619DS	552,557	100D7
8144,8147	660D7C	8670	4772DHE					42	359DS	144	813DS	558 thru 562	NLA
8145	607DEM	8671	767DS					43	358DS	145	235VDE	563	104DE
8146	607D7M	8672	760DS					44	896DS	146	615D7	564	NLA
8148	606DEX	8673	767DHE					45	588D7	147	S853DS	570	607DEM
8149,50	608DEQ	8674	769DED					46	159D7	148	898DS	571	607D7M
8151	608DQX	8675	769DEJ					47	NLA	149	174DS	572	607DET
8152	606DEL	8676	769D7					48	462DS	150	791DS	573	607DHC
8153	608DEV	8677	764DMR					49	505D7	151	230D7	574	607D7T
8154	600DSEI	8678	768DE					50	617D7	152	273D7	575	NR
8155	600DSE	8679	768DS					51	615D7	153	376D7	576	607D7C
8156	600D6E	8680	760D7					52	591DS	154	L856DS	577	606DEX
8157	600D7E	8681	771DHE					53	463DS	155	369DS	578	607DET
8158	600D8E	8682	771DHE					54	808DS	156	465DS	579	607D7T
8159	604D3	8683,8684	NLA					55	331D7	157	464DS	580	608DEV
8160	604D3	8685	NR					56	307DS	158	171DS	581	608DEL
8161	608DEV	8686	771D3					57	365DS	159	172DS	582	608DQX
8163	609DE	8687,8688	NLA					58	343D7	160	NR	583,584	608DQ
8164,65,66	NR	8689	770DEC					59	812DS	161	511D7	585	600DSE
8167	609DEL	8690	770DEC					60	811DS	162	L854DS	586	600D6E
8168	609D7C	8691	NLA					61	809DS	163	305DS	587	607DEM
8169	609D7C	8692 thru						62	115D7	164	700D7	588	608DEV
8170,71	NR	8695:	NR					63,64,66	758D7	165	173DS	589	600D7E
8250	824DE	8696,8697	775DLT					65	759D7	166	274DS	590	600D8E
8251	4820DE	8698	775DLX					66	164DS	167	S853DS	591	604D7C
8252	820DDE	8699	771D1T					68	S855DS	168	653DS	592	604D7T
8253	820D7AL	8700	772D1T					69	S854DS	169	654D7	593	604DEC
8254	821DDE	8701	790DS					70	509DS	170 thru 173:	332D7	594	609DE
8255	821DE	8702	791DS					71	896DS	174	263D7	595	609DEL
8256	821D7A	8703	776DE					72	165DS	175,184	374DS	596,597	609DEX
8257	822DDEE	8704	776DHE					73	645D7	180,181	373DS	600 thru 603:	757D7
8258	822DDE	8705	778DE					74	163DS	182,183	371DS	604,605	NLA
8259	824DEL	8706	773DHL					75	810D7	185,186	494DS	606,607	759D7
8260	822D7A	8707	777DHE					76	302D7	187,188	161DS	608,609	759DE
8262	826DE	8708	77DFX					77	335DS	189 thru 193:	NR	610	760DED
8263	826DEL	8709	773DLT					78	557DS	194	627D7	611,614	NLA
8264	826DEX	8710	773DMR					79	464DS	195	632D7	612,613	762DE
8265	NR	8711	773DHE					80	367DS	196	510DS	615,616,624	763DE
8401	640D1	8801	840DS					81	273DS	197	558D7	617	761DED
								82	647DS	198	595D7	618,621	NLA

SECTION V
NEEDLE CROSS-REFERENCE

TELEFUNKEN
See Section II

TETRAD
SUFFIX CODE:
D = Diamond or
Diamond/Sapphire
S = Sapphire or
Sapphire/Sapphire
We list Diamond
only, for clarity.

**TOSHIBA,
TOYOTA**
See Section II

TRANSCRIBER
Prefix Code:
P for PO = Manual
Needle

NEEDLE CROSS-REFERENCE

TRANSCRIBER (Continued)	Our No.	TRANSCRIBER (Continued)	Our No.	TRANSCRIBER (Continued)	Our No.	V-M (Continued)	Our No.	V-M (Continued)	Our No.	VIDAIRE (Continued)	Our No.	WALCO (Continued)	Our No.
619,620	760D6	1010	687D7	TX.0613	4762DE			24043	460S7	318,319,320	252D7	48,50,60	NLA
622	759D7C	1015	716D7	TX.0616	4763DE			24044	460S8	321,322	23QD7	51,52	554D6
623	760DE	1016	676D7	TX.0619	4764DE			24045	460J7	350	604DEB	53	725S8
625	760DE	1018	721D7	TX.0622	4769D7			24257,58	NLA	351	606DEM	55	PDN
626	4764DE	1019	637D7	TX.0626	4764DE			24570	461S7	352	606DET	56	135M1
627	761DED	1020	612D7	TX.0627	4761DE			24571	461S8	353	606DEB	57	135D1
628	NR	1021	612DQ	TX.0631	4767DE			24572	461D7	354	606D7M	58	137D1
629	760D6	1022,25,26	629D7	TX.0635	768DE			24661	159S8	355	606D7T	59	701D1
630	760DE	1023,27,28	629DE	TX.0639	4772DHE			24662	159D8	356,357	606D7C	61	860D1
631	767DED	1024	630D7	TX.0740	411D7C			24757	702S1	358	606D7	64	700D1
632	767DE	1026	630D7	TX.0741	4110DET			24758	702S2	359	607DEM	65	885D1
633	766D7	1031	612DE	TX.0756	423PDE	2628,3120	751S1	24759	702D1	360	607D7M	66,68	501D1
634	765DQ	1032,34,35	679DQ	TX.0764	423D7C	3135,3709	156S1	25238	NLA	361	605DEM	67	500D1
635	768DE	1033	612DQ	TX.1025,26	629D7	3156	156S3	25296A	808S8	362,363	605DET	69	503D1
636	768DE	1036	635D7	TX.1027	629DE	3539,3561	152S2	25296B	808D6	364	605D7M	75	800D6
637	760D3	1037	629DQ	TX.1030	679DE	4022	156S2	27614	L854S6	365	605D7T	76	801D1
638	759D3	1038	629D7	TX.1031	612DE	4100,4211	150S2	27615	L854D6	366,367	605D7C	77	802D6
639	772DMR	1039	203DEX	TX.1037	629DQ	4324	150S1	28446	164S8	368	604D3	78	803D1
640	760DE	1040	634D7	TX.1038	629D7	4325	150S3	28447	164D6	369	604DEM	86	260D1
641	762DE	1041	698D7	TX.1050	613D7	4939	751S1	29030	359S8	370	604DET	87	261D1
644	767DHE	1042	NR	TX.1051	625D7	4940	751S3	29031	359D6	371	604D7M	88	325D1
645	768DE	1043	740D7	TX.1060	710D7	5425	815S5	29389	159D6	372	604D7T	89	562D1
646	707DEC	1044	731D7	TX.1072	672DQ	5791	156S2	29400	462S8	373,374	604DET	91	560D1
647	NLA	1045	667D7	TX.1074,76	697D7	6684	153S8	29901	462S1	375,377	604DEC	93	561D1
648	771DHE	1046	666D7	TX.1078	704D7	6857	154S1	30308	164S8	376	604DEC	94	584D1
649,650	NLA	1047	712D7			6858	154S3	30307	164D6	379,380	603D7T	95	300D6
652	764DMR	1048	713D7			6859	154S5	30581	365S8	382,384	603D7C	96	110D1
652	771DHE	1049	714D7			6859	156S1	30582	365D6	385	NLA	97	111D1
653	760D7	1050	613D7			7317	800S8	30755	358S8	387,89,91	601D7C	98	560D6
700,01,02	107DE	1051	625D7			7677	700S1	30756	358D6	392	607DET	99	490D6
703	108DE	1052	626D7			7722	802D6	31160	585D6	393	607D7T	100	845-S
704,706	108DEC	1053	631D7	56-611	373D6	9298	154S3	31573	163D6	394	607DEC	101,102	352D7
705	111DEM	1054	675D7	44319	371D6	9310	154S1	31678	164D6	396	606DEX	104	702D7
707	111DEC	1055	684D7	45127	557D6	9411	150S1	31679	164D6	427,428	763DE	105	NLA
708	107DEX	1056	670D7	45536	371D6	9462	501S1	35917	5854D6	429	757D7	106	270D7
709	106DE	1057	683D7	45-21840	L853D6	9463	501S2	35918,19	585D6	430,431	NLA	108,1213	700D7
710	105DE	1058	695D7	45-23130	863D6	9467	164S1	36277	585D6	433,437	759D7C	109	892D7
711 thru 720:	NLA	1059	709D7	45-25147	864S8	9531,9538	154S1	36477,78	L854D6	434	759D3	110	504D7
722,722	111DET	1060	710D7	45-25147	864S8	9532,9539	154S3	36537,38	5854D6	436	759D7	111	504D7
723,25,26	112D7C	1061	720D7	9544	150S3	9544	150S3	38362	0654D7	438,439	759DE	115	587D1
724	111D7C	1062	711D7	45-29181	M854D6	9734	800D6	38396	0655D7	440	760D3	116	505D7
727	108DQ	1063	NR	45-30403	M855D6	14455	501D1	38601	M854D6	441	760D6	117	643D6
728	108DE	1064	747D7			14472	802S8	38620	863D6	444	761DE	118	757D7
729,730	100D7	1066	119D7	Following have prefix 3D2C-		14487	802S8	38749	L854D6	447	762DE	119	491D7
731	111D7C	1070	4211D6	5231	640D1	14625	NLA	38749	L854D6	447	762DE	119	491D7
732	111DEC	1071	718D7	5237	700D1	14627	700S1	41131	M854D6	448	NLA	114D6	
733	111DET	1072	672DQ	5308,5316	BAS-S	14628	700S3	41285	5854D6	449,451	474DE	121	113D7
734	NR	1073	672D7	5326	153D6	14900	911S8	41722	760D6	452	761DED	122	841D6
735,737	NR	1074,1076	697D7	5329	804D6	15039,15242	NLA	42819,20	L854D6	453,455	760DE	124	808D6
736	112DE	1075	206D7	5334	460D7	15277	802S8	42988,99	5854D6	454	760DED	125	757D7
738	112DE	1077	706D7	5335	460S3	15378	754D6	43040,41	585D6	456,457	761DED	126	327D6
739	108D3	1078	704D7	5345	804D6	15385	700S1	43101,102	5854D6	459,461	760D6	127	328D6
740	111D7C	1080	NR	5346	804D6	15386	700S3	43170	373D6	462	759D7C	128	460D7
741	111DEC	1081,1082	614DE	5346	804D6	15411,12	NLA	43731	373D6			129	700D7
742	111DE	1085	717DE	5351	154S3	15481	503D1	43813,814	L854D6			130	893D7
743	111DEM	1086	209D6T	5352	154D1	15481	503D1	43834	374D6			131	616D7
744	111DEC	1092	541DEQ	5355	460D7	15483	503S1	43881	369D6			131	131
745	108DEX	1093	540DEB	5356	154S2	15483	503S2	43881	369D6			WH-132	806D6
746	NR	1094	540DEL	5357	700S1	15483,633	911D6	43888,889	5854D6			WL-132	805D6
747	114DEC	1096	4540D7U	5358	700S3	16630	911S8	43898,899	5854D6			WT-132	807D6
748	108DQ	1097	540DEV	5373	702S3	16710	941D6	43898,899	5854D6			WT-132	807D6
750,751	251D7	1098	540DEX	5374	700D7	16855,860	NLA	44313,44591	375D6	1,6	151D1	133	492D7
752	252D7	1099	540DEQ	5375	702D7	18565	702S7	45039	373D6	2	154D1	134	584D7
753	252DE	1125	205D6C	5377	461S3	18609	352D7	45049	374D6	3	152D1	135	159D6
754	255DE	1126	205DEB	5378	461D7	18610	352S7	45127	509D6	4,7	NLA	136	700D7
755	290DE	1127	205DET	5379	702D7	18611,112	352S3	45164	371D6	5	150D1	137,140	617D7
756	238DEC	1128	207D7	5380	700S3	18615A	910S3	45167	M853D6	8	153D6	138	391D7
757,58,60	294DE	1129	207DE	5383	890M3	18615B	910D6	45169	M854D6	9	887DM	139	644D6
759	235D7	1130	208DE	5384	460S3	1862C	804S6	45206	M853D6	10,11	880D1	140	808D6
761	235DE	1131	212DE	5385	861S2	18626D	804D6	45447	760D6	12,15,18	PDN	141	326D6
762	255DE	1132	212D6C	5386	702S7	18639	941D6	45506	369D6	13,14	BAS-S	142	808D6
763	256DE	1133	212DET	5388	700S1	18880	702D7	45507	374D6	16	888M1	143	329D7
764	239D7C	1134	212DEM	5390	461D7	18890,930	702S3	45675	760D6	17	889M1	144	159D7
765	237D7C	1135	212DLX	5393	890M1	19499	358S8	46015,53	0654D6	18	889M1	145,146	NLA
766,767	237DEB	1136	208DEX	5399	461S7	19500	358D6	46208	M833D6	20,21	NLA	147	461D7
768	237DET	1137	212DEB	5749	454D6	19737	NLA			22	351D6	148	NLA
769	248DQ	1138	212DEL	5750,54,55		19791	114S8			23	891D6	149	808D6
770,771	238DQ	1139	4213D6	5751	861S2	19819	892S7			24	PDN	150	BAS-S
772,773	239DE	1150	707DE	5770	358S8	20705	164S8			25	154D1	151	842D6
774	239DET	1175	732D7	5771	358D6	20706	164S8			26	890M1	152	NLA
775	239DQ	1190	736D7	5772	535S8	20							

SECTION V

NEEDLE CROSS-REFERENCE

WALCO (Continued)	Our No.	WALCO (Continued)	Our No.	WALCO (Continued)	Our No.	WALCO (Continued)	Our No.	WALCO (Continued)	Our No.	ZAFIRA (Continued)	Our No.	ZAFIRA (Continued)	Our No.
172	859DS	366	369DS	543PD	688DQ	707STDE	108DEX	80PD	789D7	5050.8	108DEQ	5143.44	2007C
173	563DS	367	653DS	544D	213D6C	708PD	108DEQ	810D	242DE	5050.9	108DET	5145	2007T
175	552DS	368	625D7	545,546ST	758D7	709STDE,PD	772DMR	810DE	242DET	5051.2	121D7	5146	200DE
176	302D7	369	813DS	547D	746D7	710ST	629D7	810PD	242DEX	5051.6	119D7	5147	200DEJ
177	759D7	370	627D7	548ST	262D7	710STDE	629DE	811D	732D7	5051,52,53	NR	5148	201DEX
178	NLA	371	558D7	529ST	263D7	710PD	629DQ	814D	NR	5054	4110DET	5149	201DQX
180	861D7	372	305DS	530ST	603D7C	711 thru 714:	707DE	815D	720D7	5055,56	4110D7C	5150	201DQ
181	850D1	373,74,77	369DS	551D	745D7	715ST	699D7	816D,817D	NR	5057	4110DET	5151	202DQX
182	894DS	375,76	373DS	552D	736DQ	716ST	667D7	818D	716D7	5058	4110D7C	5152	203DEX
183	365DS	376	274DS	553ST	NLA	717ST	614D7	819D	721D7	5059	4110DET	5153	203DQ
184,188	462DS	379	273DS	554D	792D7	717STDE	614DE	820D	204D6C	5060	4110DET	5153.2	211D4C
185	809DS	380	899D7	555D	NR	718STDE	NR	821D	766D7	5061	111DEEM	5154,5155	NR
186	272DS	400	BAS-S	556ST	251D7	719ST	629D7	822DE	774DET	5062	108DEX	5156,5157	206D6C
187	363D7	401	O853D7	557D	739D7	719STDE	629DE	822D	774DHE	5063	108DEQ	5158,5160	206D6T
189	161DS	402	S83DS	558,559ST	737D7	720ST	679D7	823D,DE,PD	770DEC	5064,65	121D7	5159	206DET
190	115D7	403	M853DS	560STDE	608DEV	720STDE	679DE	824D	209D6T	5066,67	117D6	5161	206DEM
191	700D7	404,405	L833DS	561DE	210DE	721ST	4111D7C	825D	722D7	5068	116D7M	5162	201DEX
192	645D7	406	O854D7	562DE,564D	NR	721STDE	4110DET	826D	596D7	5069	116DEM	5163	201DQX
193	165DS	407	S854DS	563MGD	990D1	722ST	663D7	827PD	244DE	5069.2	116DEX	5164	201DEM
194	509DS	408	M854DS	563AGD	990D2	723ST	118D7	902ST	4749D7	5069.3,4	120D7	5165	205D4C
195	S855DS	409,410	L854DS	564MGD	991D1	724ST	697D7			5070	NLA	5166	209D4T
196	S854DS	411	O855D7	564AGD	991D2	724STDE	206DEC			5071	174D6	5167	697D7
197	493D7	412	S855DS	565D	775DLT	725ST	665D7			5072	152D7	5168	204D6C
198	163DS	413	M855DS	565DE	775DLX	726ST	595D7			5073,75	159D7	5169	204DEC
199	646D7	414,415	L855DS	565PD	771DLT	727ST	NR			5074	159D6T	5170	204DET
201	NLA	416	O856D7	567ST	252D7	728ST	712D7			5076	154D1	5170.8,9	NR
202	942DS	417	S856DS	568D	215DE	729ST	670D7			5077	NLA	5171	710D7
203	941DS	418	M856DS	568DE	215DET	730ST	705D7			5078	154D7	5172	207D7
204	910DS	419,420	L856DS	568PD	215DEL	731STDE	208DE			5079	153D5G3	5173	207DE
205,207	911DS	421,24,25	L853DS	569D	799D7	732ST	4540D7U			5080	BAS-S	5173.2	207DE
206,08,09	NLA	422	S853DS	570ST	627D7	733ST	423D7C			5081	164D577	5174	208DE
290	752D7	423	M853DS	571ST	767DE	734STDE	4541DE			5084,87	167D577	5175	208DEL
290	810D7	426	S854DS	571STDE	767DED	735ST	710D7			5085	168D573	5176	208DEM
301	164DS	427,29,30	L854DS	572ST	237D7C	736ST	704D7			5086	170D577	5177,3	208DE
302	272DS	428	M854DS	572STDE	237D8C	737ST	714D7			5088	161D577	5177.2	212DEL
303	368DS	431	O853D7	572PD	237DE	738STDE	NLA			5090	163D577	5177.4	208DEX
304	812DS	432	S854D7	573D	238DQ	739STDE	423D7DEC			5092	169D577	5177.5	212DLX
305	535DS	501ST	232DE	574STDE	822DEE	740ST	709D7			18H59,60	70057	5095	69SD7
306	464DS	502ST	232SDE	574PD	822DEEE	741ST	710D7			18H63	70051	5096	69SD7
307	367DS	503ST	575D	731D7		742ST	NR			18H64	70053	5096,5100	NR
310	647DS	504ST	525D7	576ST	768D6	743STDE	542DE			21H08	70251	5101	667D7
311	647DS	505ST	108DE	576STDE	768D6	744D	719D7			21H09	70253	5102	710D7
312	590D7	506ST	332D7	577ST	759D7	745STDE	542DEZ			21H40,50,51	70052	5103	209D6T
313	162DS	507ST	606D7C	577STDE	759DE	746 thru 750:	NR			23H03	70057	5104,5106.8	NR
314	L855DS	507STDE	606DEM	578DS	992DS	751DE	76DE			23H04	NLA	5105	733D7
315	M855DS	507PD	606DEX	579ST	605D7C	751PD	774DHE			23H05	804DS	5106	743D7
316	L853DS	508ST	100D7	579PD	605DEM	752DE	778DE			23H51	80858	5107	721D7
317	304DS	509ST	820D7AL	580ST	303D7	753PD	773DHL			23H52	808D6	5108	708D7
318	863DS	509STDE	820DE	581ST	592D7	754ST	698D7			23H54	46258	5108.2	541DEG
319	368DS	509PD	820DEE	582STDE	4764DE	755ST	670D7			25H24	61582	5108.3	706D7
320	465DS	510ST	822D7A	583ST	607D7C	756ST	718D7			25H25	46258	5108.4	742D7
321	464DS	510STDE	822DEE	584ST	111D7C	757ST	NR			25H26	462DS	5108.5	214D6
322	843DS	510PD	822DEEE	584STDE	1110DET	758PD	777DHE			25H27	46588	5108.7	736D7
323	811DS	511ST	760D6	585ST	111DEC	759PD	777DHE			25H28	465DS	5108.8	697D7
324	618DS	511STDE	760DE	585STDE	108DEC	760D	705D7			25H29,32	27288	5108.9	4211D6
325	648DS	511PD	760DED	586ST	108DEC	761D	704D7			5110	629D7	5110	629D7
326	L854DS	512STDE	761DED	586STDE	108DET	762D	713D7			25H30,47	272DE	5110.2,3	799D7
327	862DS	512PD	761DED	586PD	108DQ	763D	116D7M			25H31	464DS	5110.4	814D7
328	790DS	513ST	230D7	587ST	611D7	763DE	116DEM			25H32	273D7	5110.4	814D7
329	649D7	514ST	614D7	588ST	613D7	764PD	116DEZ			25H33	462DS	5110.5	705D7
330	169DS	515ST	633D7	589ST	629D7	765D	119D7			25H68	163DS	5111	629DQ
331	272DS	516ST	634D7	589STDE	629DE	766D,768D	NR			25H69	S854DS	5112,16	209D6T
332	166D7	517STDE	763DE7	590ST	672D7	767DE	748D7			25H82	70051	5113,19,9	707DE
333	791DS	518ST	757D7	590PD	672DQ	769D	735D7			25H84	700D1	5114,19	NR
334	369DS	519ST	635D7	591ST	238D7C	770D	214D6					5115,19,7	710D7
335	593D7	520ST	636D7	591STDE	239DEC	771D	243D6					5117	201DEX
336	812DS	521ST	638D7	592ST	NLA	771DE						5118	202DQX
337	170DS	522ST	637D7	592STDE	NLA	772DE,774D	NR					5118.2	4213D6
338,339	M854DS	523ST	NR	593ST	673D7	773D	742D7					5118.3	743D7
340	116DS	524ST	621D7	593STDE	673DQ	775D	212D6C					5118.3	743D7
341	165DS	525ST	757D7	594ST	684D7	775DE	212DEC					5119.2,4	541DEG
342	370DS	526,528ST	235D7	595STDE	235DEZ	775PD	212DEM					5119.3	732D7
343	564DS	526STDE	235DE	596	NR	776D,778DE	NR					5119.4	5119.4
344	O855D7	527ST	632D7	597ST	540D7U	777D	743D7					5119.5	732D7
345	O854D7	528STDE	234ZDE	597STDE	540DEU	779D	798D7					5119.6	797D7
346	L853DS	529D	740D7	598STDE	825DEV	780D thru	783D					5121 thru 5128:NR	5192.6
347	O856D7	530ST	100D7	598PD	825DEV	783D:	NR					5129	796D7
348	619DS	531ST	630D7	599ST	679D7	784D	744D7					5129.2	O854D7
349	168DS	532ST	631D7	599STDE	679DE	785PD	773DLT					5129.3	736D7
350	813DS	533ST	621D7	599PD	679DQ	786PD	773DMR					5129.4	793D7
351	650DS	534ST	623D7	600ST	661D7	787PD	773DHE					5130	708D7
352	648DS	535ST	624D7	701ST	678D7	788PD	772DLT					5131	712D7
353	864DS	536ST	625D7	701STDE	678D7	789DE,789PD	NR					5132	695D7
354	998DS	537D	715D7	701PD	678DQ	790D	609DE					5134	NR
355	174DS	538ST	331D7	702ST	629D7	790DE	609DEL					5135	621D7
356	622DS	539D	211D6C	702STDE	629DE	790PD	609DEX					5041,2,3	NR
357	494DS	540ST	606D7T	702PD	629DQ	791D	609D7C					5042,43,44,45	NR
358,359	273DS	540STDE	606DET	703STDE	608DEX	791DE,792PD	NR					5050	100D7
360	274DS	540PD	606DEL	703PD	608DQX	792DE	826DE					5050.2	116DEZ
361	171DS	541ST	675D7	704ST	108DET	794DE	826DEL					5050.3	411D7C
362	172DS	541STDE	675D7	704PD	108DQ	794PD	826DEX					5050.4	4110DET
363	173DS	542ST	676D7	705PD	765DQ	795PD thru	807D					5050.5	4110DET
364	165DS	543ST	611D7	706STDE	679DE	807D	NR					5050.6	111DEM
365	511D7	543STDE	611D7	706PD	679DQ	808D	734D7					5050.7	108DEX
												5141,42	670D7

WESTINGHOUSE

671V001H02 NLA
671V001H04 NLA
671V032R01 O854DS
671V035A01 462DS
671V036R03 369DS

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NEEDLE CROSS-REFERENCE

ZAFIRA (Continued)	Our No.	ZAFIRA (Continued)	Our No.	ZAFIRA (Continued)	Our No.	ZAFIRA (Continued)	Our No.	ZAFIRA (Continued)	Our No.	ZAFIRA (Continued)	Our No.	ZAFIRA (Continued)	Our No.
5207 thru		5427	719D7	5882 thru		5883	NR	6042	206DE1	6213	697D7	6281.6	4211D6
5215:	NR	5428,29	NR	5686:	NR	5884	673D7	6043	4211D6	6214	672D7	6281.7	NR
5215.2	710D7	5430	200DEB	5687	614DQ	5885	710D7	6044,45	NR	6215,16	NR	6282	621D7
5215.3	792D7	5431,33,34	NR	5688	NR	5886,87,88	NR	6049	4213D6	6217.2	718D7	6282.2,3	NR
5217,18	NR	5432	243D6	5689	710D7	5889	694D7	6049.2	796D7	6217.3,5	798D7	6282.4,5	209D6T
5219	541DEB	5435	214D6	5689.2 thru		5890	697D7	6050	804DS	6217.4	NR	6282.6	NR
5220	273D6	5436,38	736D7	5689.5:	NR	5891	201DEX	6050.2	200D7C	6217.6	NR	6282.7	721D7
5221,30	272D6	5437,39	NR	5690	200D7	5892	200D7C	6050.3	697D7	6218.2,3	NR	6383,89	540DEL
5223	NR	5440	740D7	5690.2,7	817D7	5893	200DEB	6050.4	612D7	6218.8	705D7	6284,87	539DEL
5224	270D7	5440	300D6	5690.3	746D7	5894	612D7	6050.5	707DE	6219 thru	NR	6285	538DEX
5226,28	273D6	5463,65,66	302D7	5690.5	214D6	5896	NR	6050.6	710D7	6225	NR	6286	NR
5227,29	274D6	5470	304DS	5690.6	793D7	5897	669D7	6050.7	711D7	6225.8	706D7	6288	539DE
5231	4211D6	5471	305DS	5690.8	736D7	5898	670D7	6050.8	4211D6	6226,27,28	NR	6290	539DEL
5235	0854D7	5472	303D7	5690.9	736D7K	5899	607DE	6050.9	596D7	6228.2	740D7	6291	540DEV
5235.2	719D7	5473	200D7C	5691	688D7	5899.2	4213D6	6051.2	411D7C	6229.20	NR	6292	539DEV
5240	621D7	5474,75,76	NR	5691.2	119D7	5899.3	212D6	6052	799D7	6231	614D7	6294	540DEL
5240.2	4213D6	5477	4759D7C	5691.3	796D7	5899.4	208D7	6052.2	743D7	6235	732D7	6295	541DEL
5240.3	NR	5478	4604D7C	5691.4	740D7	5899.5 thru	NR	6052.3	815D7	6235.2	4211D6	6295.2	541DEX
5240.4	719D7	5480	476DDE	5691.5	799D7	5899.8:	NR	6052.4	798D7	6235.3	710D7	6296	541DQ
5240.5	722D7	5481,82	4761DE	5691.6	819D7	5899.9	4213D6	6052.5	819D7	6235.4	NR	6296	539DQ
5240.6	793D7	5483,85	540DEL	5691.7	901D7	5900	NR	6052.6	214D6	6235.5	714D7	6297.2	541DQ
5240.7	796D7	5484	4764DE	5692	713D7	5900.2	736D7	6053	792D7	6236	721D7	6297.3	541DEV
5240.8	NR	5486,87	4767DE	5693	710D7	5900.3	710D7	6055	697D7	6232.2	NR	6297.4,5,6	NR
5240.9	794D7	5488,89,90	NR	5694	NR	5901	697D7	6056	710D7	6236.2	4213D6	6298,99	NR
5241	635D7	5491	542DEV	5695	715D7	5902	687D7	6057	209D6T	6237	212D6C	6299.2	707DE
5241.2,4,9	736D7	5492	NR	5695.2	745D7	5903	202DEM	6058	4237D7C	6238	744D7	6299.3	273DS
5241.3,6	NR	5492.2	542DEB	5696	714D7	5904	210DE	6059.2	710D7	6239,40,41	NR	6300,01,02	NR
5241.5,7	794D7	5493	263D7	5697	710D7	5905	714D7	6059.3 thru	NR	6242	687D7	6304	449D7
5241.8	5494	NR	NR	5698	208D6T	5905.2	212D6C	6059.6:	NR	6243	683D7	6305	NR
5242	624D7	5495	542DE	5699	721D7	5905.3	212D6T	6059.7	4213D6	6244	NR	6306	200D7C
5242.2,3	NR	5495.2	542DEL	5699.2	731D7	5906	710D7	6059.8	6244	6245	687D7	6307	712D7
5242.4	794D7	5495.3,5	NR	5699.2	697D7	5907	209D6T	6059.9	799D7	6246	621D7	6308	200DEB
5242.5,8	736D7	5495.4	4211D6	5699.4	740D7	5908	792D7	6060,62,63	NR	6247	669D7	6309	201DEX
5242.6	817D7	5495.6	4213D6	5699.5	746D7	5909	210DE	6061	614D7	6248	716D7	6310	202DEM
5242.7	NR	5495.7	119D7	5699.6	736D7	5910	NR	6101	614D7	6249	206D6C	6311	NR
5242.9	4211D6	5495.8,9	NR	5699.7	NR	5911,11	NR	6102 thru	665D7	6250	200D7C	6312	710D7
5243,44	NR	5500 thru	NR	5699.8	794D7	5914	680D7	6103	NR	6251	200D7C	6313	697D7
5245	680D7	5520:	NR	5699.9	719D7	5915	NR	6145	636D7	6252	708D7	6314	210DE
5246	697D7	5521	325D1	5700	719D7	5916	665D7	6146 thru	NR	6253	688D7	6315	4211D6
5247	5522	NR	NR	5701	NR	5917 thru	NR	6151:	NR	6254	NR	6316	718D7
5248	714D7	5524,25	326D6	5710,11,12	NR	5921	797D7	6152	696D7	6257	695D7	6317	119D7
5249,50	NR	5526	327D6	5720	NR	5921	6152	6153 thru	NR	6258	NR	6320,27	NR
5251	721D7	5527	329D7	5801	4211D6	5922	NR	6157:	NR	6259	680D7	6321	6321
5252,54	NR	5528	328DS	5802	490D1	5920	676D7	6160	201DEX	6259.2	714D7	6322	5610DS
5253	640D7	5529,30	330DS	5803	491D7	5920.2	799D7	6163.2	NR	6259.3	797D7	6323	564DS
5253,58	NR	5530	543DS	5804,05	492D7	5920.3	NR	6163.3	4237D6C	6259.4	792D7	6324	562D7
5256	209D6T	5532	332D7	5806	493D7	5920.4	4213D6	6163.4	119D7	6259.5	710D7	6325	331D7
5257	710D7	5535	331D7	5807,10	NR	5920.5	734D7	6163.5	NR	6260	200D7C	6326	793D7
5260	698D7	5538,39,40	NR	5811,12	494DS	5920.6	NR	6163.6	NR	6260.2	710D7	6327	594D7
5265,69	NR	5550	350D1	5813	668D7	5920.7	119D7	6163.7	799D7	6260.3	4211D6	6328	710D7
5266	200D7C	5551,53	351DS	5814	NR	5920.8	740D7	6164	NR	6260.4	210DE	6359	4211D6
5271	712D7	5552,54	352D7	5815	635D7	5920.9	621D7	6165,70	4541DE	6260.5	697D7	6360	588D7
5268	201DEX	5556,57	NLA	5816	612D7	5921	633D7	6166 thru	NR	6260.6	121D7	6361	585D6
5270	697D7	5558	360D1	5817,18	210DE	5921.2	819D7	6169:	NR	6260.7	641DE	6362	586D1
5271	4111D7C	5559	358DS	5819,20	NR	5921.3	794D7	6171	636D7	6260.8	NR	6363	587D1
5272	210DE	5561	370DS	5821	614D6	5921.4	901D7	6172	NR	6260.9	738D7	6364,65	NR
5273	710D7	5563	369DS	5822	697D7	5921.5	215D6	6173	638D7	6261	200DEB	6366	588D7
5274	208DE	5566,68	365DS	5823	710D7	5921.6	901D7	6174	669D7	6262	712D7	6367,68	NR
5275	718D7	5567	363D7	5824	NR	5922	716D7	6175	667D7	6263	NR	6369	591DS
5276	743D7	5570	367D6	5830	506DS	5923	621D7	6176	200D7C	6265	712D7	6370	593D7
5277	4211D6	5575	232DE	5831	504D7	5924	206D6C	6177	697D7	6265.2	714D7	6371	590D7
5278	119D7	5576,77	251D7	5833	500D7	5925	665D7	6178	712D7	6265.3	710D7	6372	592D7
5279	736D7	5578	252D7	5836	503D7	5925.5	635D7	6182	677D7	6265.4	209D6T	6376,77	595D7
5280,82,83	NR	5579	232SDE	5837	505D7	5926	5958,62	NR	6183	6265.5	731D7	6378	594DS
5281	636D7	5580,82	4237D7C	5838	NR	5929	200D7C	6184	744D7	6266	682D7	6379,80,81	NR
5284	119D7	5581,83	4237DEB	5840	510DS	5930	696D7	6185	743D7	6266.2	4540DEU	6382	638D7
5285	697D7	5584,92	238DQ	5841	507DS	5933	670D7	6186	4213D6	6266.3,5	NR	6383 thru	NR
5286	200D7C	5585	235DE	5842	511D7C	5944	676D7	6186.2	NR	6266.4	4211D6	6392:	NR
5287	200D7T	5586,91	4239DET	5843	5965	5945	730D7	6190	711D7	6266.6	119D7	6393	705D7
5288	719D7	5587	239DEX	5850 thru	200D7C	5946	200D7T	6190.2	212D6C	6266.7	698D7	6394,95	NR
5289	NR	5588,89	4237DEB	5859:	NR	5947	667D7	6190.3	212DE	6266.8	NR	6397	200D7C
5290	721D7	5590	4237DEB	5860	695D7	5948	NR	6190.4,6	NR	6266.9	673D7	6398	617D7
5300 thru		5593	4241D7	5861	716D7	5949	712D7	6190.5	798D7	6267	680D7	6399	710D7
5309:	NR	5594	4241DME	5862	669D7	5970	201DQX	6191	209D6T	6267.2	667D7	6400	4604D7C
5370	4211D6	5595	235SDE	5863 thru		5971	797D7	6192	672DQ	6267.3	NR	6400.2	4604D7C
5371	706D7	5597,99.4	NR	5872:	NR	5972	707DE	6193	629D7	6267.4	NR	6400.3	4605DEC
5372	216D6	5598,99.2	4243D6	5863.7	614D7	5973	710D7	6194,95	704D7	6268	614D7	6400.4	4607D7C
5373	796D7K	5599	4243D6	5873	NR	5974,75,76	NR	6196,97	710D7	6269	695D7	6400.5	4606D7C
5410	4211D7	5599.3,5	4241DEX	5874	525D7	5977	743D7	6198	206DE1	6270	NR	6400.6	608DQ
5410.2	119D7	5599.6	241DEZ	5874.2	NR	5978,80	NR	6199	200DEB	6271	710D7	6400.7	609DE
5410.3	793D7	5599.7	236ZDE	5875	697D7	5979	732D7	6199.2	4211D6	6272	670D7	6400.8	609D7C
5410.4,5	NR	5599.8	240DEDR	5875.2,3	4211D6	6001,03,04	NR	6199.3	4213D6	6273	635D7	6404	603D7C
5411	NR	5599.9	NR	5875.4	207DE	6001.2	NR	6200	110D1	6274	712D7	6406	4605D7C
5412	670D7	5600,02,08	NR	5875.5	4211D6	6002	614D7	6201	693D7	6275	201DEX	6407	4607D7C
5413	200D7T	5601	119D7	5875.6	4213D6	6005	4605D7C	6202	813D677	6276	206D6C	6408	608DQX
5414	629DQ	5602,21	NR	5876	212DEB	6006	482DDE	6203	674D7	6277	668D7	6424	4245D6
5415,16,17	NR	5660	460D7	5876.2,77	NR	6007 thru	NR	6204</					

NEEDLE CROSS-REFERENCE

ZAFIRA (Continued)	Our No.	ZAFIRA (Continued)	Our No.	ZAFIRA (Continued)	Our No.	ZAFIRA (Continued)	Our No.	ZAFIRA (Continued)	Our No.	ZAFIRA (Continued)	Our No.	ZENITH (Continued)	Our No.
6438,39	634D	6572	6981D	6617	635D	6671	800DS	6835	708D	6910,8 thru		56-540	365DS7
6440	616D	6573	621D	6618,20,21	NR	6672	802DS	6836	710D	6914	NR	56-545B	7007
6441	615D	6574	664D	6619	621D	6674	804DS	6837	732D	6913	694D	56-551	1,854DS7
6442	617D	6575,78	NR	6622	716D	6675,78,85	808DS	6837.2	721D	6915,16,17	NR	56-557	272DS7
6443 thru		6576	699D	6623,25,27	NR	6677	807DS	6837.3	742D	6918	621D	56-558	164DS7
6446	NR	6577	634D	6624	697D	6680	810DS	6837.4	793D	6919	638D	56-559	164DS7
6447	662D	6579	677D	6626	667D	6681	805DS	6837.5,6	211D&T	6920	637D	56-560	1,854DS7
6447.2	795D	6579.2	743D	6628	695D	6682	806DS	6837.7,8	121D	6921	200D7C	56-566	272DS7
6447.3	4213D6	6579.3	698D	6629	660D	6688,95	NR	6837.9	719D	6922,23	NR	56-567,B	272DS7
6447.4	818D	6579.4	710D	6629.2	NR	6700,01	NR	6840	NR	6924	200DEC	56-580	1,854DS7
6448	NR	6579.5	732D	6629.3	698D	6704	210DE	6841	792D	6925,31	612D	56-590	1,854DS7
6449	698D	6579.6	738D	6629.4	708D	6704.2 thru		6842	708D	6927,28	NR	56-597	269DS7
6450	624D	6579.7	4213D6	6629.5	4211D6	6704.8	NR	6842.2,3	NR	6929	721D	56-598	363DS7
6451	663D	6579.8	744D	6629.6	710D	6704.7	4211D6	6842.4	706D	6930	673DQ	56-600	174DS7
6452	611D	6579.9	NR	6629.7	799D	6704.9	813DS	6842.5	732D	6932,36	NR	56-611	273DS7
6453	NR	6580	680D	6629.8	214D6	6705	747D	6842.6	742D	6933	692D	56-621	384DS7
6454	628D	6580.2	NR	6629.9	792D	6705.2,3	NR	6842.7	4211D6	6934	622DS	56-629	274DS7
6455	717D	6580.3	118D	6630	774D	6705.4	119D	6842.8	697D	6935	723D	56-632,04	891D
6456	623D	6580.4	813DS	6630.2	757D	6705.6	NR	6842.9	629D	6937,38	NR	56-632,05	897D
6457	621D	6580.5	713D	6630.3	765DQ	6705.7	626D	6845	848D	6939	710D	56-634	612DQ
6458	NR	6580.6	715D	6630.4,5	NLA	6705.8	NR	6850,54	NR	6940	739D	56-638	5854D
6459	703D	6580.7	708D	6630.6	768DE	6706	682D	6851	853D1	6941	4213D6	56-639	1,854DS7
6460	710D	6580.8,9	719D	6630.7,8	NR	6707,08,09	NR	6853	851D	6942,46	NR	56-641-01	760D3
6461,64	737D	6581	665D	6630.9	772DLT	6710	670D	6861	1,856DS	6943	4213D6	56-641-02	760DE
6462	733D	6581.2	794D	6631	776DEL	6712	625D	6862	0,855D	6944,45	4211D6	56-641-03	760D3
6463	4211D6	6581.3	NR	6631.2	6713,14	6713	675D	6863	5,855DS	6945,2	214D6	56-641-04	760D7,2
6465,66	748D	6581.4	794D	6631.3	749D	6715	6864	6864	1,855DS	6947 thru	NR	56-642	1,854DS7
6467,68,70	NR	6581.5,9	817D	6631.4	769DE	6716	683D	6866	1,853DS	6952	NR	56-643	1,854DS7
6469	4216D6	6581.6	746D	6632	776DEX	6717	684D	6870,71	NR	6955	0,854D	56-647	0,854D
6471	816D	6581.7	214D6	6632.2	778DE	6718	613D	6872	200D7C	6956	0,853D	856-15B	7007
6480	697D	6581.8	793D	6632.3	776DHE	6719,20	NR	6873	712D	6965	200D7C	856-22B	159DS7
6481,83	710D	6582	614D	6632.4	773DHL	6721	621D	6874	200DEC	6966	NR	856-50	159DS7
6482	411D7C	6582.2	736D	6632.5	777DHE	6722	200D7C	6875	201 DEX	6967	697D	856-51	164DS7
6484	274D	6582.3	736D/K	6632.6	777DHE	6723	668D	6876	202DEM	6968	710D	856-52	165DS7
6485	721D	6582.4	119D	6632.7	4772DHE	6724	697D	6877	697D	6969	210DE	856-54	166D
6486	718D	6582.5	796D	6633.2	773DHE	6725	720D	6878	NR	7010	4211D	856-54	166D
6487	NR	6582.7	740D	6633.3	773DLT	6726	709D	6879	4111D7C	7010,2	736D	856-55	169DS7
6488	4211D6	6582.8	693D	6633.4	773DMR	6727	710D	6879,3	210DE	7011	NR	856-56	273DS7
6489	541DEG	6582.9	799D	6633.5	760DED	6728	201DQX	6879.4	710D	7012	736D	856-57	359DS7
6490,91	NR	6583	666D	6633.6	767DHE	6730	209D&T	6879.5	4211D6	7013	668D	856-59	368DS7
6492	117D6	6583.2	901D	6633.7	771DHE	6731,33	NR	6879.6,7	NR	7014	670D	856-60	373DS7
6493	711D	6584,87	NR	6633.8	764DMR	6732	695D	6879.8	119D	7015	635D	856-61	373DS7
6495	799D	6585	686D	6634	766D	6733,39	NR	6879.9	743D	7016	200D7C	856-62	557DS7
6500,02	NR	6586	687D	6634,39	4759D	6739,2	4213D6	6880	200D7C	7017,18,19	NR	856-63	557DS7
6501	NR	6588	712D	6638	4759DE	6739,3	711D	6881	209D&T	7020	697D	856-64	464DS7
6502	NLA	6589	421D	6640,41,42	NR	6739,4,5	NR	6882	4211D6	7021	710D	856-65	503D
6503	411D7C	6590	697D	6643	4760DE	6740	820D7AL	6883	792D	7022	714D	856-66	506DS7
6504	4760DE	6590.8	202DEM	6645	4761DE	6740.2	826DE	6883.2	4213D6	7023	698D	856-67	509DS7
6505	4213D6	6591	200D7C	6648	4763DE	6740.3	826DEX	6883.3,4	NR	7024,25	NR	856-68	503D1
6506	760D6	6592	201DEX	6649	4764DE	6740.4,6	NR	6883.5	119D	7026,28	4211D6	856-69	627D
6507	774DE	6593	714D	6650,55	NR	6740.5	825DEV	6883.6	719D	7027	NR	856-71	622DS7
6508	110DET	6594,96	710D	6651	4767DE	6741	4820DE	6883.7	711D	7029	799D	856-72	591DS7
6509	604DT	6595	209D&T	6653	748D	6742	883,8	6883.8	NR	7040	990D1	856-73	643DS7
6509	697D	6597	206DEM	6654	770D&C	6743	822DEE	6883.9	799D	7045	NR	856-74	644DS7
6509.2	711D	6597.2	670D	6656	4749D	6744	822DEEE	6884	621D			856-75	647DS7
6509.3	773DHL	6597.3,8	NR	6658	NR	6745	821D7A	6884.2	736D			856-76	649D
6510	206DET	6597.4	731D	6659	771DHE	6746	821DE	6884.3	740D			856-77	700D
6520	640D1	6597.6	710D	6659.2	771D7T	8747	825DEV	6884.4,8	NR			856-78	800DS7
6521	641D1	6597.7	210DE	6659.3	774DE	6750 thru		6884.5,7	710D	56-349B	5619813	856-79	804DS7
6523	643D6	6597.9	745D	6659.4,5	NR	6758	NR	6884.9	NR	56-354	154S2	856-80	808DS7
6525	644D6	6598	721D	6659.6,7	4759D	6800	NR	6885	635D	56-360	153D513	856-81	809DS7
6526	645D	6598.2	614D	6659.8,9	4759DE	6803	4213D6	6885.2,3	NR	56-361	154S1	856-82	855DS7
6528	646D	6598.3	212D6C	6660	4759D7P	6803.2	732D	6885.4	705D	56-361	705D	856-83	855DS7
6530,40,50	NR	6598.4	4213D6	6660.2	4772D7P	6804	714D	6885.5	NR	56-371	703S1	856-84	855DS7
6539	666D	6598.5	746D	6660.3	4728D7P	6805	200D7C	6885.6	4211D6	56-372	703S2	856-85	1,855DS7
6540	702D	6598.6	736D	6662 thru	NR	6806	697D	6885.7	NR	56-377B	885S3	856-86	1,855DS7
6541,62	NR	6598.7	4211D6	6662.7	NR	6807	695D	6885.8	736D	56-378	885D1	856-87	1,855DS7
6543	700D	6598.8	NR	6662.8	212DEC	6808	4211D6	6886	670D	56-399	352S	856-88	1,854DS7
6544	701D1	6598.9	NR	6662.9	212DET	6809	NR	6887	200DET	56-400	352S	856-89	862DS7
6546,67,68	NR	6601,05	NR	6663	212DEL	6810	680D	6887.2	NR	56-401	352D	856-91	863DS7
6548.2	201DEX	6602	200D7T	6665	202DEM	6811 thru	NR	6888,89	NR	56-403B	702S7	856-92	864DS7
6548.3	207DE	6603	697D	6665.2	NR	6814	NR	6890	687D	56-408B	702D7	856-93	1,853DS7
6548.4	NR	6604	209D&T	6665.3	710D	6815	247D6	6891	671D	56-407B	702S	856-94	1,854DS7
6548.5	NR	6606	4213D6	6665.4	4111D7C	6818	541DEL	6892	200D7C	56-418,21	702S7	856-95	374DS7
6549	697D	6607	792D	6665.5	721D	6820,22	841DS	6893	622DS	56-422B	702S	856-96	111D7C
6549.2	695D	6608	740D	6665.6	NR	6823	842DS	6894	697D	56-436B	460S7	856-203	111D7C
6549.4	680D	6609	669D	6665.7	711D	6824,25	843DS	6895,98	NR	56-438B	460S7	641S1	RC75575
6549.5	NR	6612	617D	6665.8	4211D6	6826	840DS	6896	705D	56-441,B	702S7	641S1	RC75770
6549.6	210DE	6612.2	4213D6	6666	697D	6827	201DEX	6897	695D	56-442,B	702S7	856-97	896DS7
6549.7	721D	6612.3	742D	6666.2	NR	6828	206DEM	6898.2	NR	56-445	461D	856-98	896DS7
6549.8	792D	6612.4,5	NR	6666.3	732D	6829	4211D6	6899.3,6	NR	56-446	461S3	856-99	896DS7
6570	653D	6612.6	736D	6666.4	742D	6829	NR	6899.4	721D	56-467	461S7	856-100	896DS7
6570.2	670D	6612.7	NR	6667	695D	6829.2	712D	6899.5	710D	56-480	700S7	856-101	896DS7
6570.3	201DQX	6612.8	674D	6668	698D	6829.3	M853DS	6899.7	722D	56-495	462S7	856-102	897DS7
6570.4	200D7C	6612.9	793D	6669	NR	6829.5	210DE	6899.8,9	734D	56-496	164S7	856-103	897DS7
6570.6	697D	6613	724D	6669.2	721D	6829.6	710D	6901	621D	56-519	164DS7	856-104	897DS7
6570.8	635D												

CARTRIDGE CROSS-REFERENCE

NOTE: The demand for the old crystal and ceramic cartridges of the 50's and 60's has decreased to the point where many can no longer be supplied. If the number you are looking for is not listed, then we no longer provide a replacement for it.	ADC (Continued)	Our No.	ADC (Continued)	Our No.	ADMIRAL (Continued)	Our No.	AIRLINE (Continued)	Our No.	ARVIN (Continued)	Our No.	ARVING (Continued)	Our No.	ASTATIC (Continued)	Our No.
	LM.LX.II	PSX20	360	QLM30	ALL 4092E:		88-1560S	NP/ATE	2006/39-15	P-8	647	P-10		
	LM.LX.III	PSX30	391LM,EP	PSX30	30	911SS	88-15606	P-434D	2008/29-51	P-8	651	P-10		
	LM 20/III	PSX20	431LM	PSX20	32-1,2	941SS	3860SA50	P-434D	2008/30-12	P-56	653	P-158D		
	LM 40/III	PSX20	441LM	PSX20			38340D	P-412D	Following are all		655	P-158D		
	LM 100/III	PSX30	491LM	PSX30	ALL 4092C:		45109E	P-411D	2011/13E:		659	P-33		
	LM MK.II	PSX20	1000XE,EP	PSX30	51-1,3	P-132D	45140	P-180D	1	P-441D	661	P-40		
	LM MK.V	PSX30	54 series		54 series	P-132D	2-21D	P-405D	2	P-180D	667	P-149		
	MK V.VII	PSX20	55 "		55 "	P-132D	14-CID-BSR26	P-411D	3	P-421D	687D	P-180D		
	MK.VIII	PSX20	56 "		56 "	P-132D			4	P-140D	715D,716D	P-132D		
	NAD9100	PSX20	59-1,2		59-1,2	P-132D			6	P-169	724D	P-132D		
	NAD9200	PSX30	62 series		62 series	P-132D			8	P-414D	740	P-132D		
	NAD9300	PSX30	75-1,2		75-1,2	P-423D			11	P-409D	765D	P-132D		
	Phase I.II	PSX20	77-2		77-2	911SS					1101D,02D	P-439D		
	Phase III	PSX20	78-1,2		78-1,2	P-431D					1103D	P-400D		
	Phase IV	PSX30	78-3,4		78-3,4	P-431D					1104D	P-408D		
	Pro.Ser. I	PSX20	78-5		78-5	P-407D					1105D	P-402D		
	Pro.Ser. II	PSX20	78-6,7,9		78-6,7,9	P-417D					1106D	P-407D		
	Pro. Ser. IV	PSX30	419A21-1	P-423D	419A21-2	P-423D					17 series	P-132D	1107D	P-402D
	Q407,303	PSX20	419A21-2	P-423D	419A21-2	P-423D					45D	P-132D	1108D,09D	P-404D
	Q321,303	PSX20	419A31-1	P-431D	419A31-2	P-431D					811, TB	911SS	1110D	P-404D
	Q361	QLM30	419A35-2	P-431D	419A35-2	P-431D					817B, TBX	911DS	1111D	P-412D
	Q401,02,03	PSX20	419A36-1	P-431D	419A36-1	P-431D					83-1X	911DS	1112D	P-407D
	Q401,02,03	PSX20	419A36-2	P-431D	419A36-2	P-431D					87T1	911SS	1113D	P-412D
	QLM MA.IV	PSX20	700E200-219	P-435D	700E200-219	P-435D					89-1	911SS	1114D	P-408D
	QLM MKX	PSX30	940M1-3A	P-424D	940M1-3A	P-424D					89-1	911SS	1115D	P-415D
	QLM50,50PM	PSX20	940M1-5	P-407D	940M1-5	P-407D					89-1D	911DS	1116D	P-407D
	QLM55E	PSX20	2078A2-2	P-149	2078A2-2	P-149					89-1D	911DS	1117D	P-405D
	QLN MK.II.4	PSX30									89-1D	911DS	1118D	P-411D
	QLN MK.II.6	PSX20									89-1D	911DS	1119D	P-408D
	QLN MK.V.X	PSX20									89-1D	911DS	1120D	P-404D
	QLN 38,42	PSX20									89-1D	911DS	1121D	P-412D
	QLN46	PSX30									103,105	941SS	1122D	P-406D
	QLX.1	PSX20									103D,105D	941DS	1123D	P-408D
	QLX-2,3	PSX30									107	910SS	1125D	P-409D
	R91,95QE	PSX20									119	911SS	1126	P-409D
	R101,105QE	PSX20									131	P-132D	1127D	P-413D
	R125,150QE	PSX20									133,D,A	P-132D	1128D	P-405D
	R31,341LM	PSX20									159	911SS	1129D	P-407D
	R391LM	PSX30									163D,165D	P-134D	1130D	P-409D
	RK,RS50E	PSX20									195D,197D	P-134D	1131D	P-412D
	RS/1	PSX40									227D	P-158D	1132D	P-408D
	RLX I.III	PSX20									245,D	P-175D	1133,34D	P-404D
	RLX II	PSX20									351D	P-150D	1135,36	P-410D
	RLX III	PSX20									357D	P-150D	1137D	P-412D
	RSK KC	QLM30									359	P-424D	1138	P-410D
	RSLM 63	PSX20									361D,63D	P-438D	1139D	P-412D
	S1EAD	PSX20									362D	P-428D	1140D	P-420D
	S2EAD	PSX20									367,D	P-428D	1142D	P-420D
	Series I	PSX20									369D	P-400D	1143D,44D	P-402D
	Series II	PSX20									373	P-416D	1145D	P-420D
	Series III	PSX20									375D	P-408D	1146D	P-406D
	Series IV	PSX30									377D	P-406D	1147D	P-406D
	Spectrum I	PSX20									379D	P-427D	1148D,49D	P-420D
	Spectrum II	PSX20									381D,83D	P-431D	1150D	P-414D
	Spectrum III	PSX20									385D	P-432D	1151D	P-412D
	SLM 63SX	PSX20									387D	P-408D	1152D	P-405D
	SRM,SRX I	PSX20									389D	P-432D	1153	P-419D
	SRX II	PSX30									391D	P-408D	1154D	P-420D
	SRX III	PSX20									393D	P-422D	1155D	P-413D
	SRX IV	PSX30									395D	P-408D	1157D,58D	P-420D
	SRX V	PSX30									399D	P-408D	1159D	P-426D
	STC.F 100	PSX20									399D	P-430D	1160D	P-432D
	ST.MKX	PSX20									411	P-182	1161D	P-427D
	STC.F 100	PSX20									413	P-169	1162D	P-423D
	ST 145QE	PSX20									417	P-182	1164D	P-434D
	ST 145QE	PSX20									419	P-169	1165D	P-422D
	Super SRM	PSX30									427	P-169	1166D	P-435D
	WKL1	QLM30									431	P-182	1167D	P-434D
	XL MK.IV	PSX20									431	P-182	1168D	P-438D
	XL-40	PSX40									434	P-2	1169D	P-435D
	XL-400,500	PSX40									434	P-2	1171D	P-416D
	XL.M/3 pro	PSX40									434	P-2	1171D	P-416D
	XL.M/30 SRX	PSX40									434	P-2	1171D	P-416D
	XLN MK.IV	PSX40									434	P-2	1171D	P-416D
	XL.T-1	QLM30									434	P-2	1171D	P-416D
	XL.C-IV	PSX30									434	P-2	1171D	P-416D
	XL.E-II	PSX20									434	P-2	1171D	P-416D
	XPH 105	PSX30									434	P-2	1171D	P-416D
	XPS101,102	PSX20									434	P-2	1171D	P-416D
	XPS 105	PSX30									434	P-2	1171D	P-416D
	XPSM I	PSX20									434	P-2	1171D	P-416D
	XPSM II	PSX20									434	P-2	1171D	P-416D
	XPSM III	PSX20									434	P-2	1171D	P-416D
	XPSM IV	PSX20									434	P-2	1171D	P-416D
	XPSM V	PSX20									434	P-2	1171D	P-416D
	Y MK.III	PSX40									434	P-2	1171D	P-416D
	Y MK.V	PSX40									434	P-2	1171D	P-416D
	ZL-1000	PSX30									434	P-2	1171D	P-416D
	Z 100E	PSX30									434	P-2	1171D	P-416D
	Z 200S	PSX40									434	P-2	1171D	P-416D
	95QE-100X	PSX20									434	P-2	1171D	P-416D
	100,100XE	PSX20									434	P-2	1171D	P-416D
	101,100QE	PSX20									434	P-2	1171D	P-416D
	125,150QE	PSX20									434	P-2	1171D	P-416D
	200DX	PSX30									434	P-2	1171D	P-416D
	300LX	PSX40									434	P-2	1171D	P-416D
	300XE,EP	PSX30									434	P-2	1171D	P-416D
	331LM,EP	PSX40									434	P-2	1171D	P-416D
	441LM,EP	PSX20									434	P-2	1171D	P-416D

SECTION VI
CARTRIDGE
CROSS-REF

SECTION VI

CARTRIDGE CROSS-REFERENCE

ASTATIC (Continued)	Our No.	ASTATIC (Continued)	Our No.	AUDIO TECHNICA	Our No.	AUDIO TECHNICA	Our No.	AUDIO TECHNICA	Our No.	AUDIO TECHNICA	Our No.	DECCA	Our No.
1205D,10D	P-422D	Following have prefix of XY-13-:		AT10PQ	AT110E	A1444	AT110E	CTC404	AT110E	XLE-40	AT110E	<p>●●●●●●●●</p> <p>PLEASE NOTE:</p> <p>The number shown in the "Our No." column is EITHER a DUPLICATE of the original or a SUITABLE SUBSTITUTE, if the original is no longer available.</p>	
1206D	P-424D			AT11EPQ	AT110E	AT45SEX	AT120E	CTG808	AT120E	XLE-50	AT120E		
1210D	P-420D	2006	/100	AT11EX	AT110E	AT477SX	AT140LC	CTG909	AT120E	XLS-60 I	AT125LC		
1211D,12D	P-412D	2007	/140E	AT11EZ	AT120E	AT508SE	AT110E	DMT1XE	AT110E	XLS-70 II	AT140LC		
1213D	P-411D	2008	/150E	AT12EP	AT120E	AT530E	AT120E	DMT3XE	AT130E	XRI8E	AT110E		
1214D	P-420D	2009	/200E	AT12SAPO	AT125LC	AT554Sa	AT125LC	GM130E	AT110E	Z-500	AT110E		
1215D	P-412D	2010	/350E	AT12XEPQ	AT120E	AT590E	AT110E	GSC11E	AT110E	Z-700	AT120E		
1216D	P-410D	2011	/400E	ATU12E	AT120E	AT600SE	AT110E	GSC14Sa	AT140LC				
1217D	P-409D	2012	/750E	AT13EX	AT130E	AT605E	AT110E	HP100MKII	AT110E				
1218D,19D,20	P-404D			ATU13E	AT130E	AT650E	AT110E	HP200MKII	AT120E				
1221D,22	P-420D	2015	NP/AC	AT14SZ	AT140LC	AT666	AT120E	HP300MKII	AT120E				
1223D	P-181D	2016	NP/AT	AT16XE	AT120E	AT706SX	AT125LC	LARX1E	AT120E				
1224D,25D	P-420D	2017	NP/ATE	AT22MP	AT120E	AT777	AT125LC	LARX1E	AT125LC	SCSH4HD	P-149		
1226D	P-415D	2020	IV/AME	AT26E	AT120E	AT7910	AT13400	LS-300	AT110E	SC3M,MD	P-149		
1227D	P-420D	2021	IV/AM	AT26S	AT110E	AT910B	AT110E	LM102E	AT120E	SC7M	P-182		
1228D	P-409D	2022	IV/ATE	AT33	AT3400	AT911E	AT120E	LR3	AT110E	SC7M2	P-169		
1229D	P-414D	2023	IV/AT	AT33IMP	AT130E	AT912SaB	AT120E	LS11E	AT110E	SC8H,11M1	P-182		
1230D,31D	P-426D	2024	IV/ACE	AT36	AT110E	AT100XE	AT110E	LS-100	AT3400	SC8H2	P-169		
1234D,35D	P-425D	2025	IV/AC	AT39	AT130E	AT1001E	AT110E	LS-200	AT110E	SC10H2	P-169		
1236D	P-434D	2027	V1SH/AT3	AT40	AT110E	AT1010E	AT110E	LS350/LT	AT201EP	SC12H2	P-169		
1237D	P-413D	2028	V1SHB/AT2	AT42	AT110E	AT1340B	AT110E	LS40	AT120E	SC12HLM	P-182		
1238D,33	P-426D	2037	XS900	AT43Ea	AT130E	AT1100E	AT110E	LS40/LT	AT201EP	SC2H	P-129		
1239D	P-433D	2038	XV1562SE	AT44S	AT140LC	ATX1100E	AT110E	LS500	AT216EP	SX2H	P-129		
1240D	P-434D	2100	M-44-C	AT45E	AT110E	AT1111E	AT110E	LS580LT	AT231LP	SX5H,6H	P-129		
1241D	P-435D	2104,5,6	M-44-C	AT51W1	AT120E	AT112XE	AT120E	LS80LT	AT231LP	TC8H1	P-440D		
1242	P-432D	2107	M-44-E	AT52W1	AT125LC	AT113	AT130E	LS80LTM	AT120E	TC8H6	P-409D		
1250D	P-407D	2108	M-55-E	AT53W3	AT140LC	AT1200Sa	AT125LC	LS900	AT3400	TC11M1,12M1	P-441D		
1251D,53D	P-411D	2109	M-104E	AT55E	AT120E	AT1200S	AT125LC	LS100R	AT3400	TC12M6	P-411D		
1252D,55D	P-412D	2112	M-104E	AT60	AT3400	AT1201E	AT110E	LSN200R	AT110E				
1254D,56D	P-426D	2114	M-90E	AT62E	AT110E	ATX1201S	AT125LC	LSN300R	AT110E				
1257D,59D	P-181D	2115	V-15/V	AT64E	AT120E	AT1250E	AT120E	LSN400R	AT120E				
1258D	P-420D	2117,18	M-44-C	AT65E	AT130E	AT1300E	AT130E	LT01,111	AT201EP				
1260D	P-180D	2119	M-44-E	AT68XC	AT3400	AT1313E	AT130E	LT121	AT216EP				
1261,62D	P-409D	2122	M-105E	AT69XL	AT3400	AT2000	AT3400	LT131	AT231LP				
1263D,65D	P-181D	2125	M-105E	AT70	AT3400	AT2011E	AT110E	LT211E/U	AT216EP				
1264,66D	P-411D	2126	M-104E	AT71	AT3400	AT2012E	AT125LC	LT311E/U	AT216EP				
1267D	P-421D	2128	M-104E	AT72E	AT110E	AT2012S	AT120E	M12E	AT120E				
1268D	P-180D	2129	AT3400	AT73Ea	AT120E	AT2013E	AT110E	M13E	AT130E				
1269D	P-419D	2130	SC39B	AT74SA	AT140LC	AT2014S	AT140LC	M13EU	AT216EP				
1270	P-409D	2131	M-44-E	AT75XE	AT120E	AT2015S	AT140LC	M14EU	AT231LP				
1271D	P-425D	2132	M-44-C	AT75Sa	AT125LC	AT2100E	AT110E	MACH I	AT110E				
1272D	P-434D	2135	V-15/V	AT75E	AT130E	AT211E	AT110E	MACH II	AT120E				
1273D,74D	P-425D	2200	PSX20	AT777EP	AT110E	AT2113	AT110E	MG200E/H	AT110E				
1275D	P-420D	2201	PSX20	AT78EP	AT120E	AT221E	AT110E	MK125I	AT125LC				
1276D,77D	P-435D	2202	PSX20	AT78E	AT120E	AT2211EH	AT110E	MK125II	AT125LC				
1278D,79D,80D	P-434D	2203	QLM30	AT79EP	AT130E	AT2212EH	AT120E	MK145I	AT140LC				
1282D	P-419D	2204	PSX20	AT80E	AT110E	AT2213EH	AT130E	MS1100E	AT110E				
1283D	P-410D	2205	QLM30	AT80EB	AT110E	AT2214SH	AT140LC	MS1300E	AT130E				
1284D	P-435D	2206	PSX40	AT82ED	AT120E	AT2500	AT3400	N-10-100	AT3400				
1285D,86D	P-180D	2207	PSX40	AT82EDB	AT110E	AT2500S	AT125LC	N-20-110	AT120E				
1287D	P-409D	2208	PSX30	AT84XE	AT130E	AT2512E	AT120E	N-40-130	AT130E				
1288D	P-409D	2209,10	PSX20	AT84XEB	AT130E	AT2512Z	AT120E	PB11E	AT110E				
1289D	P-434D	2211	QLM30	AT85Sa	AT140LC	AT3311E	AT110E	PB12S	AT125LC				
1290D	P-419D	2301,02	M105E	AT87EP	AT110E	AT3312S	AT125LC	PB33E	AT120E				
1291D	P-420D	2303,04	M105E	AT87SL	AT140LC	AT3312XE	AT120E	PRO 11E	AT110E				
1292,93D	P-409D	2305,06	140C	AT88E	AT110E	AT3400	AT3400	PRO 12E	AT120E				
1294D	P-409D	2307	140C	AT89E	AT110E	AT3401	AT3400	PRO 13E	AT120E				
1295D	P-410D	2308,09	M105E	AT90E	AT110E	AT3402	AT110E	PRO 14S	AT140LC				
1297D	P-411D	P1009,12D	P-143D	AT94E	AT110E	AT3500ED	AT120E	S-109HP	AT110E				
1299D	P-180D			AT96E	AT120E	AT3500S	AT125LC	S-111HP	AT110E				
1300D	P-420D			AT97E	AT120E	AT3600L	AT3400	S-200HP	AT120E				
1302D	P-411D			AT99E	AT120E	AT3601	AT3400	S-300HP	AT120E				
1303D	P-435D			AT100E	AT120E	AT4000	AT110E	SL788E	AT201EP				
1304D	P-180D			AT111EPM	AT110E	AT4011EP	AT110E	SL796E	AT216EP				
1305D	P-411D	AT10,11	AT3400	AT112KPM	AT120E	AT4011ET	AT110E	ST400	AT110E				
1306D	P-441D	AT11E,12E	AT110E	AT112SPM	AT125LC	AT4012E	AT120E	ST800	AT120E				
1309D	P-441D	AT12XE	AT120E	AT114SX	AT140LC	AT4013E	AT130E	TC150EP	AT201EP				
1312D	P-440D	AT12Sa	AT125LC	AT200EP	AT201EP	AT4020XE	AT120E	TC250EP	AT216EP				
1313D	P-179D	AT13Ea	AT130E	AT211E	AT110E	AT4025XEP	AT126EP	TC350EP	AT231LP				
1314D,15D	P-409D	AT14Sa	AT140LC	AT212E	AT120E	AT4030LC	AT125LC	TC450LP	AT231LP				
1316D	P-440D	AT15Sa	AT140LC	AT212ED	AT120E	AT4040E	AT110E	TP111E	AT3400				
1317D	P-409D	AT15XE	AT130E	AT212EDP	AT120E	AT4411E	AT110E	TP112XE	AT120E				
1318D,19D	P-411D	AT20SLa	AT155LC	AT212EP	AT120E	AT4411EP	AT120E	TP112Sa	AT125LC				
1320D	P-441D	AT20SS	AT155LC	AT212EX	AT120E	AT4412XE	AT120E	TP114Sa	AT140LC				
1321D	P-411D	AT3472P	AT3482P	AT214S	AT140LC	AT4414S	AT140LC	TR430E	AT120E				
1322D,23D	P-411D			ATP221	AT120E	AT5000	AT110E	TR440X	AT125LC				
1324D	P-441D			ATP222	AT110E	AT5011E	AT110E	TR450E/LT	AT201EP				
1325D	P-411D	Following are 'Private Label' cartridge nos.		ATP223	AT110E	AT5013E	AT130E	TR460E/LT	AT231LP				
1326D,27D	P-409D	I-LT	AT201EP	ATP224	AT110E	AT5015E	AT120E	TR475U	AT216EP				
1328D	P-440D	II-LT	AT201EP	ATP225	AT110E	AT5017E	AT120E	TR485U	AT231LP				
1329D	P-409D	III-LT	AT216EP	ATP226	AT110E	AT5019E	AT120E	VS200	AT3400				
1330D,31D	P-411D	100E/U	AT201EP	ATP227	AT110E	AT5021E	AT120E	VS210E	AT110E				
1332D	P-402D	111	AT110E	ATP228	AT120E	AT5023E	AT120E	VS215EP	AT201EP				
1333D	P-409D	112	AT120E	ATP229	AT110E	AT5025E	AT110E	VS220E	AT120E				
TK-1	P-491D	113	AT130E	ATP230	AT120E	AT5027E	AT110E	VS225EP	AT216EP				
TK-2	P-433D	1000HP	AT110E	ATP231	AT201EP	AT5029E	AT120E	VS230E	AT120E				
2000	IV/AC	3000HP	AT120E	ATP232	AT201EP	AT5031E	AT130E	VS235EP	AT216EP				
2001	IV/AM	3080	AT3400	ATP233	AT201EP	AT5033E	AT130E	VS240LC	AT125LC				
2002	IV/ATE	4040E	AT110E	ATP234	AT201EP	AT5035E	AT125LC	VS245LP	AT231LP				
2003	IV/ACE	7070XE	AT120E	ATP235	AT110E	AT5037E	AT130E	X-11	AT3400				
2004	IV/AME	ALPHA	AT130E	ATP236	AT120E	AT5039E	AT120E	X-12	AT110E				
2005	IV/ATE	AL13E	AT3400	ATP237	AT120E	ATU4030LC	AT231LP	X-14	AT120E				
				ATP238	AT140LC	CTD11E	AT110E	XE-120	AT110E				
								XE-130	AT120E				

SECTION VI
CARTRIDGE
CROSS

CARTRIDGE CROSS-REFERENCE

EMERSON	Our No.	EMPIRE	Our No.	EMPIRE	Our No.
820048	9118S	OP4	M105E	100KLSX/III	140C
820110	P-423D	OP5	M105E	100KMEK/II	140C
820115	P-404D	OP7	M105E	100KMEK/III	140C
820118	P-427D	Pro 4500/3	140C	1000MKII	140C
820120	P-415D	Q-phase 100	140C	1000 Ph IV	140C
820123	P-433D	Q-phase 500	140C	1000QE/X	140C
820134	P-404D	Q-phase 1000	140C	1000SE/X	140C
820138	P-414D	QX-2003	140C	1000TE/X	140C
820139	P-404D	QX-2005	140C	1000XE	140C
962263	9118S	QX500/III	140C	1001-E	140C
964025	P-132D	QX5000/IV	140C	1001ZE/III	140C
965931	P-422D	QX5000/V	M105E	1001ZE/X	140C
966512	P-417D	RM10	140C	1100M4S	140C
966906	P-435D	RM30	M105E	1100SLX	M105E
983202	P-8	RM50	M105E	1800	140C
		RM75	M105E	1803	140C
		Series VII	M105E	2000/VII	140C
		SE9300	140C	2000E/VII	140C
		SE9900	M105E	2000E/X	140C
		TC40	M105E	2000D	140C
		TT/E	140C	2000ME/XIII	140C
		TTE/II/III	140C	2000MKI	140C
		XL15-11C	140C	2000MKII	140C
		XL15-21E	140C	2000PE	M105E
		XL15-31E	140C	2000S	M105E
		XL15-41E	140C	2000SE/X	140C
		XL15-51E	M105E	2000TE	M105E
		XL17/III	140C	2001AE/X	140C
		Z200E/III	140C	2001E/X	140C
		Z300E/III	1410C	2001MKI	140C
		Z400E/III	140C	2001MKII	140C
		Z5K-HZ	140C	2001MKV	M105E
		8881E	140C	2001T	140C
		902E/X	140C	2001TE/II	M105E
		905E/X	140C	2001ZE/X	140C
		999/X	140C	2001ZE/XIII	140C
		999E/X	140C	2002-E	140C
		999PE/X	140C	2002E/X	140C
		999TE/X	140C	2002E/II	140C
		999VE/X	M105E	2002HC	140C
		1000ZE/X	M105E	2002/J	140C
		2000	140C	2002/IXE	140C
		2000E/I	140C	2002/V-ZE	140C
		2000E/II	M105E	2002/ZH	140C
		2000E/III	M105E	2003AE/X	140C
		2000E/IV	M105E	2003E/H/X	140C
		2000E/V	M105E	2003HC	140C
		2000E/VI	M105E	250E	140C
		2000E/VII	M105E	250ES	140C
		2000E/VIII	M105E	250ESer.	M105E
		2000E/IX	M105E	366HB	140C
		2000E/X	140C	400NE	140C
		2000E/XI	140C	500E	140C
		2000E/XII	140C	404/ACDQ	M105E
		2000E/XIII	140C	535E/P	140C
		2000E/XIV	M105E	600T	M105E
		2000E/XV	140C	620X	140C
		2000E/XVI	140C	640EE	140C
		2000E/XVII	140C	660EE	140C
		2000E/XVIII	140C	666E	140C
		2000E/XIX	140C	666E/2E/3	140C
		2000E/XX	M105E	700E/X	140C
		2000E/XXI	140C	700NE	140C
		2000E/XXII	140C	700T	M105E
		2000E/XXIII	140C	707X	140C
		2000E/XXIV	140C	727E/IE/X	140C
		2000E/XXV	140C	727E/II	140C
		2000E/XXVI	140C	727E/III	140C
		2000E/XXVII	140C	777E/X	140C
		2000E/XXVIII	140C	800E/X	140C
		2000E/XXIX	140C	845QE/D	140C
		2000E/XXX	140C	900C/X	140C
		2000E/XXXI	M105E	900NE	M105E
		2000E/XXXII	140C	909X	140C
		2000E/XXXIII	140C	949QD	M105E
		2000E/XXXIV	140C	990E/X	140C
		2000E/XXXV	140C	990PE/X	140C
		2000E/XXXVI	140C	999AE/X	140C
		2000E/XXXVII	140C	999AE/XXII	140C
		2000E/XXXVIII	140C	999AE/XXIII	140C
		2000E/XXXIX	140C	999E/X Imp.	140C
		2000E/XXXX	140C	999KQE/X	140C
		2000E/XXXXI	140C	999SE/TE/X	140C
		2000E/XXXXII	140C	999XE/X	140C
		2000E/XXXXIII	140C	999 II/MEX	140C
		2000E/XXXXIV	140C	1000AE/II	140C
		2000E/XXXXV	140C	1000AE/III	140C
		2000E/XXXXVI	M105E	1000AE/IV	M105E
		2000E/XXXXVII	140C	1000AE/V	140C
		2000E/XXXXVIII	140C	1000AE/X	140C
		2000E/XXXXIX	140C	1000AJS	140C
		2000E/XXXXX	140C	1000E/E/I	140C
		2000E/XXXXXI	140C	1000E/II	140C
		2000E/XXXXXII	M105E	1000E/IV	M105E
		2000E/XXXXXIII	140C	1000E/V	140C
		2000E/XXXXXIV	140C	1000E/X	140C
		2000E/XXXXXV	140C	2600E/III	140C

SECTION VI
CARTRIDGE
CROSS-REF

CARTRIDGE CROSS-REFERENCE

EMPIRE (Continued)	Our No.	EMPIRE (Continued)	Our No.	JENSEN	Our No.	MAGNAVOX (Continued)	Our No.	PENNCREST	Our No.	P-E	Our No.	PHILCO (Continued)	Our No.
2600X	M105E	9900E/2.3	140C	JENSEN				PLEASE NOTE					
3000	140C	11000LSX/III	M105E	GARRARD				If the number you are looking for is not listed, then we no longer provide a replacement for it.					
3000 I	140C			G-E				P-E					
3000II,III	140C			JVC				All have PE-prefix: 9000/2 M-44-C					
3000A	M105E			LLOYDS				PFNSTIEHL					
3000A/I	140C			MAGNAVOX				NOTE: "NS"					
3000A/II	140C			OLYMPIC				indicates that we have no suitable substitute for the old Pfanstiehl cartridge, which has been discontinued.					
3000AE/III	140C			PANASONIC				All have 325-prefix:					
3000A/V	M105E			PHILCO				0065 P-435D					
3000D/X	140C			PICKERING				0145-148 P-181D					
3000E	140C			SECTION VI				0169 P-421D					
3000E/D	140C			CROSS REF				0170 P-454D					
3000E/II	140C			EMPIRE				1371-9 P-16					
3000E/III	140C			JENSEN				1376-68 P-18					
3000ME/X	140C			MAGNAVOX				1513-44 P-406D					
3000MKI	140C			MAGNAVOX				1513-45 P-406D					
3000MKII	140C			MAGNAVOX				8037 9115S					
3000MKIII	140C			MAGNAVOX				8068 P-132D					
3000MKV	M105E			MAGNAVOX				8076 P-132D					
3000 Ph. IV	140C			MAGNAVOX				25130071 P-AT3400					
3000PPC	M105E			MAGNAVOX				25130078 P-187D					
3000TE/X	M105E			MAGNAVOX				All have 325-prefix:					
3000XLE	140C			MAGNAVOX				0065 P-435D					
3000ZE	M105E			MAGNAVOX				0145-148 P-181D					
3000ZE,EEE	140C			MAGNAVOX				0169 P-421D					
3003SC	140C			MAGNAVOX				0170 P-454D					
3100T	M105E			MAGNAVOX				1371-9 P-16					
3100TE	M105E			MAGNAVOX				1376-68 P-18					
3300MS	140C			MAGNAVOX				1513-44 P-406D					
3500E/III	140C			MAGNAVOX				1513-45 P-406D					
3500/Z-II	140C			MAGNAVOX				8037 9115S					
3500TE	M105E			MAGNAVOX				8068 P-132D					
3800TE	M105E			MAGNAVOX				25130071 P-AT3400					
4000E/V	140C			MAGNAVOX				25130078 P-187D					
4000MKI	140C			MAGNAVOX				All have 325-prefix:					
4000MKII	140C			MAGNAVOX				0065 P-435D					
4000MKIII	140C			MAGNAVOX				0145-148 P-181D					
4000MS	M105E			MAGNAVOX				0169 P-421D					
4000X, XLI	140C			MAGNAVOX				0170 P-454D					
4000X, XLII	140C			MAGNAVOX				1371-9 P-16					
4000Z/III	140C			MAGNAVOX				1376-68 P-18					
4000ZE, IV	140C			MAGNAVOX				1513-44 P-406D					
4000Z	M105E			MAGNAVOX				1513-45 P-406D					
4001E/X	140C			MAGNAVOX				8037 9115S					
4002ZE/X	140C			MAGNAVOX				8068 P-132D					
4004AJS-4	M105E			MAGNAVOX				25130071 P-AT3400					
4004D/IV	M105E			MAGNAVOX				25130078 P-187D					
4004ZE/X	M105E			MAGNAVOX				All have 325-prefix:					
4400/IV	M105E			MAGNAVOX				0065 P-435D					
4400D	M105E			MAGNAVOX				0145-148 P-181D					
5000E, EIII	140C			MAGNAVOX				0169 P-421D					
5000E/X	140C			MAGNAVOX				0170 P-454D					
5000HP Imp.	M105E			MAGNAVOX				1371-9 P-16					
5000LAC	M105E			MAGNAVOX				1376-68 P-18					
5000LS/III	140C			MAGNAVOX				1513-44 P-406D					
5000MKIII	140C			MAGNAVOX				1513-45 P-406D					
5000MK V	M105E			MAGNAVOX				8037 9115S					
5000 Ph. IV	140C			MAGNAVOX				8068 P-132D					
5000V Imp.	M105E			MAGNAVOX				25130071 P-AT3400					
5000/XE-I	140C			MAGNAVOX				25130078 P-187D					
5000/Z-IV	M105E			MAGNAVOX				All have 325-prefix:					
5500MS	M105E			MAGNAVOX				0065 P-435D					
6000	140C			MAGNAVOX				0145-148 P-181D					
6000E, E/X	140C			MAGNAVOX				0169 P-421D					
6000III	140C			MAGNAVOX				0170 P-454D					
6000IV	140C			MAGNAVOX				1371-9 P-16					
6000V	M105E			MAGNAVOX				1376-68 P-18					
6000XEE	140C			MAGNAVOX				1513-44 P-406D					
6000XEL	140C			MAGNAVOX				1513-45 P-406D					
6006	140C			MAGNAVOX				8037 9115S					
6009, 6900T	M105E			MAGNAVOX				8068 P-132D					
6900	140C			MAGNAVOX				25130071 P-AT3400					
6900E/III	140C			MAGNAVOX				25130078 P-187D					
6900E/T	140C			MAGNAVOX				All have 325-prefix:					
7000/I	140C			MAGNAVOX				0065 P-435D					
7000/III	140C			MAGNAVOX				0145-148 P-181D					
7000/IV	140C			MAGNAVOX				0169 P-421D					
7000/VII	M105E			MAGNAVOX				0170 P-454D					
7000E/D	140C			MAGNAVOX				1371-9 P-16					
7000E/X	140C			MAGNAVOX				1376-68 P-18					
8000/III	140C			MAGNAVOX				1513-44 P-406D					
8000/XVE	140C			MAGNAVOX				1513-45 P-406D					
9000E/X	140C			MAGNAVOX				8037 9115S					
9000T	M105E			MAGNAVOX				8068 P-132D					
9000T Imp.	M105E			MAGNAVOX				25130071 P-AT3400					
9000X	M105E			MAGNAVOX				25130078 P-187D					
9000V/SI	140C			MAGNAVOX				All have 325-prefix:					
9000V/SII	140C			MAGNAVOX				0065 P-435D					
9000V/SIII	M105E			MAGNAVOX				0145-148 P-181D					
9000Z/X	M105E			MAGNAVOX				0169 P-421D					
900ZE/X	140C			MAGNAVOX				0170 P-454D					
9900E	140C			MAGNAVOX				1371-9 P-16					

CARTRIDGE CROSS-REFERENCE

PICKERING (Continued)	Our No.	PIEZO (Continued)	Our No.	SEARS (Continued)	Our No.	SHURE (Continued)	Our No.	SHURE (Continued)	Our No.	SHURE (Continued)	Our No.	SHURE (Continued)	Our No.
GA38A1G	IV/AM	Y493	P-2	451	P-420D	SHURE		BU87/88	M110HE	HTE 1	M104E	M3010SW	M105E
HP/AC-1	HP/AC1	Y499	P-16	464,465	P-420D			BU89,90	M105E	HTE 4	M110HE	M3050SW	M105E
HP/AC-106	HP/AC1	Y490	P-89	474	P-420D			BU91,92	M110HE	Hudsons 4	M44E	M7022ED	M104E
MK11907	IV/AC	Y410	P-88	486	P-420D			BU80	M105E	Hudsons 6	M110HE	M7004	AT3400
MK11A	IV/AM	Y800	P-8					BU802	M105E	IC-100	M44E	M7500ED	M105E
MK11C	IV/AC			All 82:		LTP-2	M92E	BU803	M104E	IC-200	M105E	M9095ED,EX	M105E
MK11U	IV/AC			863	P-420D	M3D	M-44C	BU804	M44E	IC-300	M105E	M9111E	M105E
P/AC	NP/AC			863	P-11	M3/NZ1D	M-44C	BU805	M110HE	IC-400	M110HE	M9502ED	M105E
P/AC-1	NP/AC			85331	P-149	M3/NZ2D	M-44C	BU806	M110HE	ID-1	M110HE	MA10	M105E
P/AT	NP/AT					M7D,M8D	M-44C	C965	M105E	JR-1	M105E	MA20	M110HE
P/ATE	NP/ATE					M7/NZ1D	M-44C	C967	M105E	JR-2	M105E	Magnum 1	M44E
R150S120	IV/AC	83-1,-1X	911DS	Following have a suffix		M33-5,-7	M-44C	C4001	M44E	K747	M105E	Magnum 2,4	M105E
S140,5220	IV/AC	202C	P-164	of D.S. or SD.		M44-5,-7	M-44C	CA-T1	M105E	L19ED	M105E	Magnum 5	M44E
US8A1,39	IV/AT	70481	P-132D	861	P-129	M44-5,-7	M-44C	CA-2	M105E	L84B	M104E	Mark V	M44E
US8A7C	IV/AM	105336,37	911SS	5787,88	941DS	M44-5,-7	M-44C	CA-3	M104E	L96H	M105E	Maxim	M105E
V15/AC1,2	NP/AC	106045	911DS	862	P-409D	M44E	M-44C	CA-4	M44E	LASSO	M44E	MCK15	M44E
V15/AC3	IV/AC	108536,55	911SS	863	P-420D	M44MG	M-44C	CD-1	M110HE	LA560	M110HE	MCK25	M105E
V15/AMC	IV/AM	115057,58	P-164	869	P-434D	M55E	M-55-E	CD-5,7	M105E	LD-E	M104E	MD192	M44E
V15/AM1,2	NP/ATE	124215	P-8	870	P-420D	M70B	AT3400			Loran 100	M104E	MD195	M105E
V15/AM3	IV/AM	127733	P-5	872	P-408D	M70E	M-44E			Loran 400	M110HE	ME103,109	M105E
V15/AM1,2,3	IV/AM	128805	P-33	873	P-126	M71C-6	AT3400			ED	M105E	ME908D	AT3400
V15/AM1,2,3	IV/AME	12957,75	P-33	874	P-420D	M71EB	M-44E			EJ	M104E	ME909D	M104E
V15/AM1,2,3	IV/AME	134795	P-5	876	P-434D	M72B	M-44E			HE	M110HE	ME910ED	M105E
V15/AMS	NP/AT	171464	P-11	879	P-434D	M72E	M-44E			DESIGNER Series:		ME910ED	M105E
V15/AT1,2	NP/AT	973051,54	911SS	881	P-129	M75C	M-44C			D15DX	M44E	ME910ED	M44E
V15/AT3	IV/AT	973066	911SS	888	P-225	M75-6G	AT3400			D100	M104E	ME915D	M105E
V15/ATE	IV/ATE	158503	P-132D	57873,82	941DS	M75E,BC	M-44E			D200	M105E	ME930ED-II	M105E
V-15F	IV/AT	MI-38613	911SS	88511	NP/AC	M75E	P-11			D300	M110HE	MEC-1	M44E
V15H/ATO	IV/AT	RK223	911DS	88521	NP/AC	M75ED	M105E			Disco Trak	M44E	ME956	M105E
V15/PG-3	IV/AM			88523,33	P-149	M77	M-44C			DJ151,950	M44E	ML51	M104E
V15/DAC	IV/AC			888	P-408D	M80E Ser.	M-44C			DM401,103	M104E	MO75	M104E
V15H/AC,2	IV/AC			8852	P-408D	M91E,92E	M105E			DS Mod. 2	M105E	MCKED	M104E
V15H/AT,2,3	IV/AT			8852	P-411D	M91ED	M105E			DS Mod. 4	M44E	MCK15	M44E
V15HP/AT	HB/AT2			8852	P-433D	M92G	M-44C			DS10,90	M104E	MCK25	M105E
V15HS/AT	HB/AT2			8858	P-422D	M93E	M93E-P			D620	M105E	MD192	M44E
		All 42: prefix:		8891	P-181D	M95E	M104E			D830	M110HE	MD195	M105E
		055	P-132D	8891	P-408D	M95ED	M105E			DI10-M75E	M105E	ME103,109	M105E
		756,758	P-132D	88612,13	P-129	M97B	M-44C			EAGLE A	M105E	ME908D	AT3400
		757	P-121	88621	P-405D	M97E	M105E			EAGLE X	M105E	ME909D	M104E
		766	943DS	88622	P-409D	M97HE	M110HE			EI	M104E	ME910ED	M105E
		2701	942DS	88631	P-420D	M94LT	M99E			EPM2A,94MA	M44E	MR4E	M104E
		XV15/AC	100	88641	P-420D	M96LT	M105E			E92M,94MA	M44E	MR51E	M44E
		XV15/ACE	140E	88691	P-434D	M97LT	M110HE			E1005	M105E	MR55E	M105E
		XV15/AM	250E	88702	P-420D	ML44 ser.	911DS			E1005	M105E	MR55E	M105E
		XV15/AME	400E	88722	P-408D	PC25 "	911DS			E98M	M110HE	MR55E	M105E
		XV15/AT	150	88733	P-126	PCASNE	911DS			E745	AT3400	MR55E	M105E
		XV15/ATE	200E	88742	P-420D	PC25NE	911DS			E945	M105E	MR55E	M105E
		Private Label		88762	P-434D	R47E,MB	M-44C			E1001	M104E	MR55E	M105E
		Micro 395E	IV/AME	88762	P-434D	R47E,MB	M-44C			E1002	M105E	MR55E	M105E
		MX/15 800E	IV/AME	88762	P-434D	R47E,MB	M-44C			E1005	M105E	MR55E	M105E
		MX/15 900E	400E	88813	P-129	V-15 series:	Type V			EA-1	M44E	MR55E	M105E
		V15 Mic. 3	IV/AME	88813	P-129	V15LT	V15V-P			EA-X	M110HE	MR55E	M105E
		V15 Mic. 5	IV/AME	8882,83	P-225					EA40	M104E	MR55E	M105E
		V15 Ser. 4	625E	88892,93	P-27	Following are "Private Label" nos., showing our replacement:				EA80	M105E	MR55E	M105E
		V15 101E	IV/AME	88941	M-44-C					EC11	M105E	MR55E	M105E
		V15 202E	IV/AME	89002	P-158D					EC22	M104E	MR55E	M105E
		V15 220E	IV/AME	89011	M-44-C					EC22	M104E	MR55E	M105E
		V15 202E	400E	89032	P-132D					EC81	M104E	MR55E	M105E
		V15 380E	IV/AME	89042	P-169					EC82	M105E	MR55E	M105E
		V15 440E	400E	89051	P-420D					EC95ED	M105E	MR55E	M105E
		V15 480E	400E	89061	P-420D					EJ10,47	M104E	MR55E	M105E
		V15 510E	IV/AME	89071,72	P-181D					EL21	M44E	MR55E	M105E
		V15 605E	IV/AME	89082	P-419D					EL21	M44E	MR55E	M105E
		V15 610E	IV/AME	89092	P-180D					EL965	M105E	MR55E	M105E
		V15 615E	IV/AME	89122	P-419D					ES-5	M104E	MR55E	M105E
		V15 630E	625E	89142	P-409D					ETS-109E	M105E	MR55E	M105E
		V15 660E	625E	89162	P-420D					F3 MKIII	M44C	MR55E	M105E
		V15 710E	400E	89172,73	P-169					FORMULA 1	M105E	MR55E	M105E
		V15 725E	625E	89182	P-181D					FORMULA 2	M105E	MR55E	M105E
		V15 810E	625E	89192	P-427D					FORMULA 3	M104E	MR55E	M105E
		V/645E	400E	89202,212	P-409D					G2000	M105E	MR55E	M105E
		V/691E	IV/AME	89221	P-410D					G400	M44E	MR55E	M105E
		VEV-1000	IV/AME	89231	P-409D					G500	M110HE	MR55E	M105E
		VEV-2000	400E	89242	P-200					Gamma 60	M110HE	MR55E	M105E
		950E-II	IV/AME	89243	P-200					Cauchos 69W	M44E	MR55E	M105E
				89262	P-409D					GE	M105E	MR55E	M105E
				89271	M104E					GH	M110HE	MR55E	M105E
				89282	P-441D					GJ	M104E	MR55E	M105E
				89292	P-420D					G510	M104E	MR55E	M105E
				89303	P-2					G520	M105E	MR55E	M105E
				89313	P-5					G530	M110HE	MR55E	M105E
				89331	AT125LC					G540	M99E	MR55E	M105E
				89333	P-94					G1750	M44E	MR55E	M105E
				89341	P-440D					G1950	M105E	MR55E	M105E
				89351	AT3400					G17500	M110HE	MR55E	M105E
				89362	P-411D					H947	M110HE	MR55E	M105E
				89381	P-187D					H967	M105E	MR55E	M105E
				89391	P-409D					H967	M105E	MR55E	M105E
				89401	AT3400					H967	M105E	MR55E	M105E
				89411	AT3400					H967	M105E	MR55E	M105E
				89421	PSX20					H967	M105E	MR55E	M105E
				89441	P-185D					H967	M105E	MR55E	M105E
				89463	P-186					H967	M105E	MR55E	M105E
				89473	P-185D					H967	M105E	MR55E	M105E
				89481	AT3400					H967	M105E	MR55E	M105E
				89511	P-187D					H967	M105E	MR55E	M105E
										H96			

CARTRIDGE CROSS-REFERENCE

SHURE (Continued)	Our No.	SHURE (Continued)	Our No.	SHURE (Continued)	Our No.	TELEDYNE	Our No.	TETRAD (Continued)	Our No.	TETRAD (Continued)	Our No.	TETRAD (Continued)	Our No.
Purist 3A	M44E	STAB0	M104E	9910ED	M105E			31D-V150	P-180D	E3D-SN4	P-407D	C3D-111-6	P-419D
Purist 5A	M105E	STAI00	M110FE	9959ED	M105E			31D-V165	P-180D	E3D-111-24	P-411D	E1D-BSR79	P-420D
R7C	M44C	STX5	M44E	10005	M105E			31D-V166	P-412D	G0D-BSR53	P-411D	E1D-S21_A	P-420D
R25EC_ED	M44E	STX10	M104E					31S-V164	P-180D	G1D-SN4	P-407D	E1D-V115	P-420D
R27E_ED	M105E	STX20	M105E					32D-32S-A	P-404D	G1D-V49,53	P-411D	E2D-B	P-414D
R47EB_ED	M104E	SuperPro 1	M44E					33D-SN-4	P-407D	G1D-V110	P-411D	E2D-244-5	P-414D
R700E	M105E	SuperPro 4	M44E					34D-M1-7	P-407D	G1D-V125	P-411D	G1D-P16	P-420D
R1000E	M105E	Super 7	M110FE					34D-SN1-4	P-407D	G1D-V136	P-180D	G1D-S7	P-420D
R1000ED	M105E	S970	M104E	PU1299	P-10			41D-BSR31	P-411D	G1D-V186	P-411D	G1D-V43,45	P-420D
R9000E,TWS	M105E	T1000	M110FE	PU1513	P-29			41D-P5,5X	P-406D	G1S-V48,52	P-411D	G1D-V137	P-180D
RD101,191	M105E	T5000	M44E	PU3012A	P-42			41D-V9	P-408D	G1S-V109	P-411D	G1D-V191	P-421D
RD195	M105E	TM-1S	M44C					41D-V89	P-411D	G1S-V138	P-180D	G1S-58	P-420D
RD291	M105E	TM-1E	M44E	All 44E:				41D-V130,V140,		G2D-DC2	P-410D	G1S-V42,44	P-420D
RM98H	M105E	TM-2E	M104E	023-003	P-10			V163,V173:	P-180D	G2S-DC2,3	P-410D	G1S-V155	P-180D
RM900E	M104E	TM-3E	M105E	023-005	IV/AT			41S-B	P-404D	G3D-111-18	P-411D	G2D-A,B	P-414D
RM4910E	M104E	TM-4E	M110FE	023-008	P-29			41S-P3	P-421D	G3S-111-29	P-411D	G2S-A	P-414D
RM4910ED	M105E	TM5E,7E	M110FE	023-009	HB/AT2			42D-42S-A	P-404D	T2MD-GL65	P-411D	G3D-111-20	P-420D
RM4930C	M44C	TMDE	M44E	023-010	P-11			43D-78-5	P-407D	T2MS-GL66	P-411D	T3MD-GL125	P-420D
RM4950ED	M105E	TR50	M104E	023-011	P-11			43D-235-5	P-407D	T2MD-GL67	P-411D	T3MS-GL126	P-420D
RS2T	M44E	TR80	M105E	023-013	P-226			43D-SN1,3	P-407D	T2MS-GL68	P-411D	T3MD-GL127,P-420D	
RS2T	M104E	Trac 1	M105E	023-015	P-228			43D-M1-7	P-407D	TSHD-GL77	P-409D	T3MS-GL128,P-420D	
RS6E	M44E	Trac 2	M44E	023-016	P-411D			51D-AR1	P-409D	TSHS-GL78	P-409D		
RS8T	M105E	TS55	M105E					51D-BSR54	P-409D	TSHD-GL79	P-409D		
RS9E	M105E	TS75	M44E					51D-BSR103	P-409D	TSHS-GL80	P-409D		
RS100	M105E	TX7E	M44E					51D-GL77	P-409D				
RS120E,220E	M44E	TX9E	M105E					51D-TC8H6	P-409D				
RXT4	M104E	USA-1	M110FE					51D-V93	P-409D				
S10	M104E	UT100	M44E					51S-GL78	P-409D				
S20	M105E	VE20	M104E					51S-M10	P-409D				
S30	M110FE	VE30	M105E					52D-SN1,X	P-407D				
S76E	M44E	VH50	M110FE					53D-B	P-404D				
S96E	M104E	VP80	M44E					53S-B,8X	P-404D				
S98ED	M105E	VP85	M105E					54D-A	P-404D				
S300E	M105E	VP90	M110FE					61D-BSR11	P-405D				
S320	M104E	W59	M104E					61D-S16	P-409D				
S400E	M105E	W950ED	M105E					61S-V82	P-409D				
S420	M105E	WC975	M104E					62D-C	P-404D				
S854E	M44E	WCS-1	M104E					62D-SN1,X	P-407D				
S6000	M44E	WCS-2	M110FE					62S-C	P-404D				
S819DE	M105E	WCS-3	M110FE					62S-SN4	P-407D				
S850E	M104E	WIZ44	M44E					63D-SN4	P-407D				
S859DE	M105E	X10	M104E					63D-SN4	P-407D				
S880H	M110FE	X30	M105E					71D-M24,27	P-412D				
SD1,1S,11	M104E	X50	M110FE					71D-S4	P-412D				
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SD7753	M110FE	X555,666	M104E					71D-V21,81	P-412D				
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SE69	M104E	XL7-2	M44E					71D-BSR16	P-411D				
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SE722	M110FE	XM10,Y999	M104E					71D-BSR18	P-411D				
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SO515	M105E	ZX5	M105E					71D-BSR24	P-411D				
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SO595	M105E	17MK6	M110FE					71D-BSR27	P-411D				
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Spec 61	M105E	98-1100S	M104E					71D-BSR34	P-411D				
Spec 90	M110FE	155S	M105E					71D-BSR35	P-411D				
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Spec 200	M110FE	200E	M44E					71D-BSR37	P-411D				
Spec 300	M110FE	202S	M110FE					71D-BSR38	P-411D				
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Spectra II	M110FE	395DE	M105E					71D-BSR40	P-411D				
Spectra I	M110FE	400E	M105E					71D-BSR41	P-411D				
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		600H	M110FE					71D-BSR45	P-411D				
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		75S	M104E					71D-BSR47	P-411D				
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		96S	M110FE					71D-BSR59	P-411D				
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		96S	M110FE					71D-BSR72	P-411D				
		96S	M110FE					71D-BSR73	P-411D				
		96S</											

CARTRIDGE CROSS-REFERENCE

TETRAD (Continued)	Our No.	TETRAD (Continued)	Our No.	TETRAD (Continued)	Our No.	TRUETONE (Continued)	Our No.	V-M (Continued)	Our No.	V-M (Continued)	Our No.	ZENITH (Continued)	Our No.
13D-B	P-427D	C3D-SN3	P-431D	G0D-BSR58	P-420D	49-1004	P-8	37634G	P-408D	V40,41	P-411D	154	P-422D
13D-BSR27	P-435D	C3D-247-1	P-431D	G0D-BSR72	P-181D	66-761	P-126	37634H	P-432D	V42,43	P-420D	156	P-126
13D-BSR81	P-435D	E2S-B	P-427D	G0D-V123	P-420D	600-201	911SS	37635A	P-424D	V44,45	P-420D	159	P-422D
13S-78-4	P-431D	G1D-BSR65	P-434D	G0S-B	P-414D			37635C	P-431D	V46,47	P-426D	162,164	P-404D
13S-235-4	P-431D	G3D-A,B	P-427D	G0S-V124	P-420D			37635F	P-407D	V48,49	P-411D	163	P-168D
13S-A6	P-431D			G1D-752-1	P-181D			38349B,C	P-435D	V52,53	P-411D	165,8	P-126
14D-A	P-427D			G1D-A	P-414D			38349D	P-412D	V54,55	P-420D	166	P-168D
21D-BSR5	P-434D			G1D-BSR59	P-181D			38349E	P-435D	V61	P-432D	167	P-176D
21D-MW1	P-434D			G1D-BSR61	P-420D			38605A50	P-435D	V80,83	P-435D	168	P-177D
21D-S5,14	P-434D			G1D-BSR60	P-420D			38619C,D	P-202	V81	P-412D	169	P-427D
21D-SN4	P-431D			G1D-BSR61	P-420D			38676A,B	P-438D	V82	P-411D	170,8	P-126
21D-V2,V7	P-432D			G1D-BSR71	P-181D			38676C	P-438D	V105 thru 110:P-411D		171,8	P-149
21D-V161	P-180D			G1D-BSR76	P-420D			38683A,B	P-412D	V113 thru 118:P-419D		173	P-404D
21D-V183	P-434D			G1D-SN4	P-417D			38683C,E	P-412D	V120,121	P-411D	175	P-415D
21S-V1	P-432D			G1D-V55	P-420D			38683D	P-435D	V122,123	P-419D	176	P-181D
22D-233-3	P-427D			G1D-V113	P-420D			39363	P-407D	V130 thru 155:P-180D		177	P-414D
22D-A,B	P-427D			G1D-V114	P-420D			39437C,D	P-158D	V182	P-420D	178	P-149
22S-233-4	P-427D			G1D-V116	P-420D			39437K	P-158D	V183,184	P-434D	179	P-169
22S-A	P-427D			G1D-V119	P-420D			39676	P-438D	V186,188	P-411D	181	P-169
22D-C4,C6	P-434D			G1D-V134	P-180D			39949K	P-158D			182	P-171D
23S-SN2	P-431D			G1D-V182	P-420D			39953B	P-225			185	P-179D
21D-BSR67	P-435D			G1D-V189	P-420D			39983A,B	P-200			186	P-404D
31D-BSR68	P-435D			G1S-V54	P-420D			40184D	P-412D			187	P-180D
31D-BSR81	P-435D			G2D-B	P-414D			40184J	P-432D			190	P-441D
31D-M3	P-438D			G2D-SN1	P-417D			41542A	P-421D			191	P-414D
31D-M5	P-428D			G3D-111-14	P-420D			41542B	P-421D			192	P-404D
31D-M8,11	P-438D			G3D-111-19	P-420D			41542D	P-421D			193	P-441D
31D-M12	P-438D			G3D-SN4	P-417D			41542E,F	P-421D			197	P-420D
31D-M20,21	P-435D							41542G	P-416D			198	P-411D
31D-SN4	P-431D							41715A	AT3400			199	P-407D
31D-V12	P-432D							42125	P-409D			201	P-404D
31D-V151	P-180D							42625A	P-435D			202	P-411D
31S-M6	P-428D							42625B	P-412D				
32D-75-1	P-427D							42818A,B	P-435D				
32D-233-1	P-427D							42818D	P-422D				
32D-AA,1	P-427D							42818E,G	P-404D				
32S-75-2	P-427D							42818H thru 42818S					
32S-233-2	P-427D												
32S-A2	P-427D												
33D-78-1	P-431D												
33D-235-1	P-431D												
33D-A3	P-431D												
33D-M1-6	P-431D												
33S-78-2	P-431D												
33S-235-2	P-431D												
33S-235-2	P-431D												
33S-AA	P-431D												
33S-SN4	P-431D												
40D-BSR1	P-434D												
40D-BSR12	P-434D												
40D-SN4	P-431D												
41D-BSR3,8	P-434D												
41D-BSR35	P-434D												
41D-BSR41	P-434D												
41D-BSR47	P-434D												
41D-P9,X	P-430D												
41D-S12	P-434D												
41D-V184	P-434D												
42D	P-427D												
43D-B	P-427D												
43D-235-10	P-431D												
44D-A	P-427D												
51D-A	P-427D												
51D-BSR17	P-433D												
51D-BSR34	P-433D												
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51S-S18	P-433D												
51S-SN4	P-424D												
52D-A,C	P-422D												
52D-BSR20	P-433D												
52S-Z7	P-422D												
53D-B	P-422D												
53D-G5	P-433D												
62D-C	P-422D												
71D-BSR23	P-435D												
71D-BSR27	P-435D												
71D-BSR38	P-435D												
71D-BSR45	P-435D												
71D-BSR62	P-435D												
71D-473-1	P-435D												
71D-P4	P-430D												
71D-P10	P-421D												
71D-P15	P-435D												
71D-S15,20	P-435D												
71D-V83	P-435D												
73D-99-2	P-431D												
74D-SN1	P-431D												
80D-E1	P-431D												
A2D-A,B,C	P-422D												
C1D-96	P-433D												
C1D-V51	P-433D												
C1D-V61	P-432D												
C1S-V50	P-433D												
C3D-V50	P-433D												
C3D-SN3	P-431D												
C3D-247-1	P-431D												
E2S-B	P-427D												
G1D-BSR65	P-434D												
G3D-A,B	P-427D												
G0D-BSR58	P-420D												
G0D-BSR72	P-181D												
G0D-V123	P-420D												
G0S-B	P-414D												
G0S-V124	P-420D												
G1D-752-1	P-181D												
G1D-A	P-414D												
G1D-BSR59	P-181D												
G1D-BSR60	P-420D												
G1D-BSR61	P-420D												
G1D-BSR71	P-181D												
G1D-BSR76	P-420D												
G1D-SN4	P-417D												
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G1D-V113	P-420D												
G1D-V114	P-420D												
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G1D-V119	P-420D												
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	ADC				X	DAEWOO				X	LESA		X	X	
ADMIRAL		X	X	DAYLIN			X	LION		X		REALTONE			X
AIRCASLE		X		DAYTRON			X	LLOYD'S		X	X	RHAPSODY			X
AIRLINE	X	X	X	DEAN		X		MAGNAVOX	X	X	X	ROBERTS			X
AIWA			X	DECCA		X	X	MAJOR		X	X	ROSS			X
AKAI		X		DEJAY			X	MARANTZ	X	X	X	ROTEL			X
ALARON			X	DELMONICO		X	X	MARCONI		X	X	SABA		X	X
ALDEN		X	X	DIAMONDSTONE		X	X	MARLIN		X		SAMSUNG			X
AMBASSADOR		X	X	DORCHESTER			X	MASTERCRAFT		X		SANSUI			X
A.M.C.		X	X	DUMONT		X	X	MATHES		X	X	SANYO			X
ANDREA		X		DYN		X	X	MAYFAIR		X		SCHNEIDER			X
A.P.F.		X		DYNAMIC		X		R.J.McDONALD		X		H.H.SCOTT			X
A.R.		X		DYNAVOX		X	X	MELVILLE		X		SEARS		X	X
ARTONE	X	X		EDELMUTH		X		MERCURY		X	X	SHARP			X
ARVIN		X	X	ELECTONE			X	MERITON		X		SHERWOOD			X
ASTREX		X		ELECTRA		X	X	MESA		X		SILVERTONE	X	X	X
AUDIO INDUSTRIES	X	X		ELECTRO			X	MGA		X	X	SINGER			X
AUDIO MASTER	X	X		ELECTROHOME	X	X		MIDLAND		X	X	SOLAR			X
AUDITION			X	ELECTROPHONIC		X	X	MIDA		X	X	SONIC		X	X
AUROCRAAT		X		EMBASSY		X	X	MIRACORD		X		SONORA			X
B & B		X		EMERSON	X	X	X	MITCHELL		X		SONY			X
BELL		X		EMPIRE			X	MITSUBISHI		X	X	SOUNDESIGN			X
B.I.C.			X	FANON		X		MONTCLAIR		X	X	SOUNDMUSIC			X
BIRCH		X		FEDWAY		X		MONITOR		X		SPARTON		X	
BLAUPUNKT		X		FIDELITY		X		MONTEVERDI		X		STARLITE			X
B & N		X		FIRESTONE		X	X	MORSE		X	X	STEELMAN		X	
BOGEN	X	X		FISHER	X	X	X	MOTOROLA	X	X		STROMBERG CARLSON	X		
BRADFORD	X	X	X	FLEETWOOD	X	X		MUNTZ	X	X		SUPERSCOPE		X	X
BRAUN		X		FONOVOX		X		MUSIC MASTERS		X		SUPRA			X
BRENTWOOD			X	GARRARD		X	X	MUSKAT		X		SYLVANIA	X	X	X
BROADMOOR		X		G.E.		X	X	MUSTANG		X		SYMPHONIC	X	X	X
BROCKWOOD			X	GLENBURN		X	X	NEWCOMB	X	X	X	TANGLEWOOD	X	X	X
BROTHER		X	X	GOLD STAR		X		NIKKO		X		TEAC			X
BSR		X	X	GOTHAM		X	X	NORDMENDE	X	X	X	TECHNICS		X	X
BULOVA	X	X		GRANCO		X		NORELCO		X		TECHWOOD			X
CALIFCO		X		GRAN PRIX		X		NUVOX		X		TECHWODE			X
CALIFONE	X	X	X	W.T.GRANT	X	X	X	OLYMPIC	X	X		TELEDYNE			X
CAPEHART	X	X	X	GRUNDIG	X	X		ONKYO		X		TELEFUNKEN	X	X	
CAPITOL	X	X		GUILD		X		OPTONICA		X		TELEPHONE	X	X	X
CARNEGIE		X		HALLMARK		X		PACKARD BELL	X	X		TELEX			X
CASCADE	X	X		HANIMEX			X	PANASONIC	X	X	X	TEPPAZ	X		
CASIO		X		HARMAN KARDON		X		PANORAMA		X		THOMAS			X
CATALINA	X	X		HERITAGE		X		PEERLESS		X		TIGER			X
CAVANAIRE	X	X		HITACHI	X	X		J.C.PENNEY	X	X	X	TOSHIBA			X
CENTREX		X		HOFFMAN	X	X		PENNCREST	X	X	X	TRAV-LER	X		
CENTURY		X		I.C.P.	X	X	X	PERPETUUM EBNER	X			TRUETONE	X	X	
CHANNEL MASTER	X	X	X	IMPERIAL		X		PHILCO	X	X	X	ULTRATONE	X	X	
CLAIRTONE	X	X		INTERSTATE		X		PHILIPS	X	X		UNITECH			X
CLARICON		X		INVICTA		X		PHOENIX	X	X		UROPA	X		
COLLARO		X		IONIC		X		PHONOLA	X	X		VANITY FAIR	X	X	X
COLUMBIA	X	X		I.T.T.		X		PHONO CORP/AMERICA	X			VIKING	X		
COMMAND		X		JULIETTE	X	X		PHONOMASTER	X	X		VISCOUNT			X
CONCEPT 2000		X		JVC	X	X		PHONOSONIC		X		V.M.	X	X	
CONCERT HALL	X	X		KENWOOD	X	X		PILOT	X	X	X	WEBCOR	X	X	
CORONADO	X	X		KINGS POINT		X		PIONEER	X	X		WELTON			X
CRAIG	X	X		KLH	X	X		PLYMOUTH	X	X		WELTRON			X
CRESCENT	X			KORVETTE	X	X		QUASAR	X	X		WESTBURY			X
CRESTMARK	X	X		KUBA	X	X		R.C.A.	X	X	X	WESTINGHOUSE	X	X	
CROMWELL	X	X		LAFAYETTE		X		RADIOMASTER	X			YAMAHA			X
CROWN	X	X		LEAR JET		X		RADIO SHACK	X	X		YORK	X	X	
CURTIS-MATHES	X	X		LENOXX		X		RANDIX		X		YORK	X	X	
												ZENITH	X	X	X

PHONOGRAPH MODEL NUMBER INDEX

ADC - see BSR		AIWA		V-1200; VX-1500 X-33, 55, 88 X-8000; X-T8000 2600	214D6 3482P 211D6C 214D6 767DED M104E	ALARON (RHAPSODY)			
AIRLINE (WARDS)									
						NOTE: The replacement cartridge listed in the column headed "Cart." is either a duplicate of the original cartridge installed in the set, OR a suitable substitute, if the original is not available.			
Model Number	Needle Cart.					AKAI			
NOTE: Airline Model Numbers have a 3 letter prefix, such as GAA, GEN, etc. For clarity, we have omitted them.									
2023, 2087, 2127	M-853 P-440D								
2133, 2207, 2212	M-853 P-440D								
2210	M-854 P-441D								
2215, 2216	702D7								
2222, 2223, 2237	M-853 P-440D					Model Number	Needle Cart.		
2348, 2349, 2353	M-853 P-440D					AP-A1, 2, 50, 100	213D6C 3482P		
2368, 2433, 2443	M-853 P-440D					AP-A150, 201, 202	213D6C 3482P		
2560	O-854 P-411D					AP-A300, 301	213D6C 3482P		
2825, 2851, 2852	111D7C QLM30					AP-A400, 402	213D6C 3482P		
2826, 2869	111D7C QLM30					AP-B1; Pro E110	211D6T AT3400		
2851, 2869, 2992	O-854 P-411D					AP-B10C, D33	209D6T AT3400		
2870	211D6T					AP-B21, B110, D2, D3	710D7 AT3400		
2882, 2930	O-853 P-409D					AP-B110, L45	707DE AT3400		
2921	M-853 P-440D					AP-D210, L95, Q310	710D7 AT3400		
6011, 6012, 6016	272 P-129					AP-M3 (Clarity 1&3)	732D7		
6025, 6026, 6028M	M-853 P-440D					AP-M5, Q41, Q80	541DEL		
6028, 6029	272 P-149					AP-M7	212DLX 152LP		
6037, 6038, 6047	M-853 P-440D					AP-M10, 10W, 20W	814D7		
6106, 6109, 6123	O-854 P-411D					AP-M11, M335	213D6C 3482P		
6110R, 6128R	M-853 P-440D					AP-M300, 305, 310	213D6C 3482P		
6111, 6117, 6118	719D7 P-187D					AP-M313, 315	213D6C 3482P		
6128, 6131	M-854 P-441D					AP-O41, Q330	209D6T AT3400		
6130, 6132, 6133	710D7 AT3400					AP-X1	213D6C 3482P		
6131, 6136, 6137	M-853 P-440D					FD-1; FP-3	710D7 AT3400		
6141, 6142, 6143	710D7 AT3400					FD-5; FP-7	733D7		
6155, 6166	604D7C NP/AC					HT-225, 452	213D6C 3482P		
6156	111D7C QLM30					HTR-445	213D6C 3482P		
6157, 6177	710D7 AT3400					M-8W, 20R	814D7		
6167	211D6T					PRO-A7CD, A9CD, A70	213D6C 3482P		
6216, 6218, 6221	M-853 P-440D					PRO-A90, 100, 200	213D6C 3482P		
6218, 6219	M-854 P-441D					PRO-A201, 301, 401	213D6C 3482P		
6221	M-853 P-440D					PRO-E210, 310	710D7 AT3400		
6228, 6229	M-854 P-441D					PRO-S11, 22, 32	710D7 AT3400		
6309, 6317, 6322	M-854 P-411D					PRO-222, 332	213D6C 3482P		
6342, 6325, 6326	719D7 P-187D					PRO-410, 442	213D6C 3482P		
6316	M-853 P-409D					PRO-900, 1100	710D7 AT3400		
6332, 6340, 6341	719D7 P-187D					PRO-1033, 1055, 3033	209 AT3400		
6350	710D7 AT3400					PRO-3000, 4000, 5000	213 3482P		
6488	M-853 P-440D					SR-CA3, 4	213D6C 3482P		
6738, 6745, 6747	M-853 P-440D								
6740	604D7C NP/AC								
6745, 6755, 6777	111D7C QLM30								
6771	111DEC M99E								
6927	111D7C QLM30								
"Component Series:"									
Quanta 400	111D7C QLM30								
Quanta 500	111DET M99E								
NOTE: These listings contain information on phonos built since 1974; info on those built between 1964 and 1974 will be found in Catalog P-6474, and those built prior to 1964 will be found in Catalog P-1963.									

SECTION VII

SECTION VII

PHONOGRAPH MODEL NUMBER INDEX

BSR Code	Our Ctdg.	Our Ndl.	BSR Code	Our Ctdg.	Our Ndl.	BSR Code	Our Ctdg.	Our Ndl.	BSR Code	Our Ctdg.	Our Ndl.	BSR Code	Our Ctdg.	Our Ndl.	BSR Code	Our Ctdg.	Our Ndl.
50.	910		148.	P-201	700	245.	P-225	862	344.	P-434D	S853	452.	NR	374	558.	P-440D	M853
51.		270	149.		700	246.	P-203	863	345.	P-181D	S854	453.	AT3400	760	559.	P-440D	M853
52.		270	150.	P-202	863	247.	P-411D	S854	346.	P-434D	S854	457.	P-421D	S854	560.	P-182	274
53.		273	151.		700	248.	P-404D	S853	347.	P-414D	S854	458.	P-181D	S853	561.	P-440D	M853
54.		273	152.	P-324	700	249.	P-203	863	349.	P-202	272	459.	NLA	864	562.	P-409D	S853
56.	NLA	700	153.	P-406D	S855	250.	P-27	813	350.	AT3400	760	460.	NR	274	563.	P-409D	S853
57.		700	154.	P-407D	L853	251.	P-226	864	351.	NR	371	461.		S854	564.	P-421D	S855
58.		462	155.	P-27	463	252.	NP/AT	604	352.	P-435D	S854	463.	P-182	274	565.	AT105	200D7T
59.		462	156.	P-124	272	253.	P-411D	S855	353.	P-181D	S853	464.	P-182	274	566.	P-420D	S854
60.	P-148	700	157.	P-430D	S854	254.	M-44C	759	354.	P-413D	S853	465.	P-421D	S853	567.	P-420D	M854
61.		700	158.	P-201	700	255.	P-434D	S853	355.	P-413D	S853	466.	P-181D	S853	568.	P-420D	M854
62.		273	159.	P-136	800	256.	P-225	862	356.	P-421D	S855	467.	P-421D	S853	570.	P-440D	M853
63.		462	160.	P-202	863	257.	P-27	813	357.	NR	371	468.	P-421D	S853	571.	P-441D	M854
64.	NLA	702	161.	P-434D	S854	258.	P-435D	S854	358.	P-421D	M853	469.	P-149	273	572.	P-409D	M853
65.		462	162.	P-151D	808	259.	P-151D	808	359.	P-405D	S855	471.	M99E	761	573.	P-126	273
66.		700	163.	P-203	863	260.	P-202	272	360.	P-202	273	472.	AT3400	233	574.	P-179D	S854TD
67.		462	164.		270	261.	P-202	272	361.	NR	371	473.	AT3400	760	575.	P-179D	S854TD
68.		462	165.		270	262.	P-202	272	362.		864	474.	M-55E	759	576.	P-441D	M854
69.		273	166.		270	263.	P-435D	S854	363.		369	475.		S854	577.	P-434D	M854
71.		462	167.		270	264.	P-435D	S854	364.	AT3400	760	476.	AT3400	234	578.	P-407D	M854
72.		462	168.	P-202	116	265.	P-434D	S855	365.	NP/AC	604	477.	P-182	274	579.	AT110E	200DEC
73.	NR	700	169.		810	266.	P-226	864	366.	P-414D	L854	478.	P-182	274	581.	NR	864
74.		462	170.	P-126	272	267.	P-226	864	367.	NR	274	479.	P-421D	S853	582.	P-441D	M854
75.		462	171.	P-405D	S854	268.	P-226	864	368.	NR	274	480.	P-181D	S853	583.	P-440D	M853
76.	P-124	273	172.		272	270.	P-435D	S856	369.		371	482.	P-414D	L854	584.	P-411D	M854
78.		462	173.	P-129	272	272.	P-126	272	370.	P-435D	S853	483.	P-169	274	585.	P-441D	M854
79.	P-136	800	174.	P-129	272	273.	P-126	272	371.	P-181D	S854	484.	P-169	274	586.	P-420D	M854
80.		270	175.		272	274.	P-126	272	372.	P-421D	S854	485.	P-169	274	587.	P-126	272
81.	P-202	809	176.	P-129	272	275.	P-126	272	373.	P-421D	S854	486.	P-421D	S855	588.	P-409D	M853
82.		809	177.	P-129	272	276.	P-126	272	374.	P-181D	S854	487.	P-169	274	589.	P-412D	M855
83.		702	178.		272	277.	P-126	272	376.	P-417D	L854	488.	NR	864	590.	NR	864
84.	P-151D	808	179.	P-129	272	278.	P-149	272	377.	P-421D	S853	489.	NR	274	591.	P-441D	M854
85.		273	180.	P-129	272	279.	P-149	272	379.	P-421D	S853	490.	P-182	274	592.	P-441D	M854
86.		462	181.	P-126	272	280.	P-149	272	380.	P-126	272	491.	P-182	274	593.	P-441D	M854
87.	P-126	273	182.	P-126	272	281.	P-27	813	381.	P-126	273	492.	P-169	274	594.	P-441D	M854
88.	P-129	273	183.	P-126	272	282.	P-202	809	382.	P-421D	S853	493.	P-169	274	595.	P-420D	M854
89.	P-151D	808	184.	P-126	272	283.	P-202	809	384.	P-149	273	494.	NR	494	596.	P-409D	M853
90.	P-202	365	185.	P-126	272	284.	P-421D	S854	386.	AT3400	760	495.	P-419D	S853	597.	P-441D	M854
91.	P-129	273	186.	P-126	272	285.	P-421D	S854	388.	P-421D	S854	496.	P-419D	S853	598.	P-182	274
92.		273	187.	P-126	272	286.	QLM30	757	389.	P-181D	S854	497.	P-421D	S855	599.	P-182	274
93.		462	188.	P-126	272	287.	AT3400	760	390.	NR	369	498.	P-417D	S855	600.	P-409D	M853
94.	P-126	273	189.	P-126	272	288.	P-226	864	391.	P-181D	S854	499.	P-420D	S854	602.	M44E	760DE
95.		700	190.	P-126	272	289.	NP/AC	604	393.	P-420D	S854	500.	P-420D	S854	603.	P-411D	M854
96.		700	191.	P-126	272	290.	AT3400	760	395.	P-129	273	501.	P-419D	S853	604.	P-441D	M854
97.	P-27	164	192.	P-126	273	291.	P-404D	L854	396.	P-129	273	502.	P-420D	S854	605.	NR	NLA
98.		462	193.		462	292.	P-407D	L853	397.	P-176D	898	503.	QLM30	110D7C	606.	QLM30	111DEC
99.	P-27	365	194.		232	293.	P-417D	L855	398.	NR	116	504.	M44E	110DET	608.	AT3400	239D7C
100.	P-201	700	195.	NP/AC	604	294.	AT3400	760	400.	P-413D	L853	505.	M44E	110DET	609.	P-409D	M853
101.	NLA	700	196.	P-132D	163	295.	AT3400	760	401.	P-421D	S853	506.	AT3400	760D6	610.	AT3400	760D6
102.		702	197.	P-151D	808	296.	P-404D	L853	403.	P-405D	S854	507.	AT3400	239DEC	611.	M44E	108DEC
103.		164	198.	P-434D	S854	297.	P-434D	L853	404.	P-435D	S854	508.	M44E	111DET	612.	M55E	111DEM
104.	P-146	164	199.		810	298.	P-228	864	405.	P-421D	S853	509.	M44E	108DEC	613.	P-441D	M854
105.	P-129	273	200.	P-126	272	299.	NR	174	406.	P-435D	S855	510.	P-417D	L855	614.	M44E	108DEC
106.	P-126	273	201.		164	300.	NR	174	407.	P-435D	S855	511.	P-169	274	615.	P-126	273
107.	P-225	365	202.	P-126	273	301.	P-411D	S853	408.	P-404D	L853	512.	AT105	118D7	616.	QLM30	111D7C
108.	P-151D	808	203.	P-434D	S854	302.	P-411D	M855	409.	P-417D	M853	513.	NR	494	617.	P-411D	M854
109.		164	204.	P-434D	S854	303.	P-435D	S853	410.	IV/AT	605	514.	AT105	NR	618.	P-411D	M854
110.	P-27	809	205.	P-411D	S854	304.	P-410D	L854	411.	P-169	274	515.	M44E	760DEJ	620.	P-404D	M854
111.		702	206.		164	305.	P-404D	S853	412.	P-169	274	518.	P-420D	S854	621.	P-441D	M854
112.	P-146	702	207.	NR	165	306.	P-181D	S854	413.	P-182	274	519.	M93E	762DE	622.	P-427D	M855
113.		462	208.	NR	165	307.	P-228	864	414.	P-182	274	520.	P-420D	S854	623.	M44E	111DEC
114.		164	209.		164	308.	P-405D	S853	415.	P-417D	M855	521.	P-182	274	624.	M44E	111DEC
115.		462	210.	P-434D	S855	309.	AT3400	760	416.	P-129	273	522.	P-182	274	625.	QLM30	111D7C
116.	P-126	273	211.	P-126	272	310.	P-422D	L853	417.	NR	274	523.	P-182	274	627.	P-409D	M853
117.	P-406D	S854	212.	P-222	700	311.	P-421D	S856	418.	NR	274	524.	P-412D	S855	629.	P-411D	M854
118.	P-27	463	213.	NR	116	312.	P-434D	S856	419.	P-27	813	525.	P-412D	S855	630.	P-409D	M853
119.		164	214.	P-225	862	313.	NR	369	420.	AT3400	760	526.	P-421D	S855	632.	P-440D	M853
120.	P-126	273	215.	P-434D	S855	314.	P-149	272	421.	P-170D	627	527.	P-182	274	633.	P-404D	M853
121.	P-126	273	216.	NR	116	315.	P-149	273	422.	P-421D	S856	528.	P-182	274	635.	P-411D	M854
122.	P-202	809	217.	NLA	371	316.	P-149	273	425.	P-421D	S854	529.	P-182	274	636.	P-404D	M853
123.		462	220.	NR	464	317.	P-202	273	426.	P-181D	S854	530.	NR	274	637.	M44E	111DET
124.		700	221.	P-434D	S854	318.	P-202	273	427.	P-181D	S854	531.	P-182	274	638.	P-420D	M854
125.	P-146	116	222.	NR	116	319.	P-435D	S854	428.	P-421D	S854	532.	P-182	274	639.	P-411D	M854
126.	P-146	164	223.	NR	116	320.	P-129	273	429.	P-407D	S855	533.	M44E	110DET	640.	P-404D	M854
127.	P-126	273	224.	P-405D	S853	321.	P-129	273	430.	P-421D	S855	534.	P-182	274	641.	P-441D	M854
128.	P-27	365	225.	P-413D	L853	322.	AT3400	760	432.	P-411D	S854	535.	P-182	274	642.	P-409D	M853
129.		462	226.	P-427D	L854	323.	IV/AT	605	433.	P-129	272	536.	P-182	274	644.	M55E	111DEM
130.	P-129	273	227.	P-422D	L853	324.	P-404D	S853	434.	P-129	273	537.	NR	274	645.	M105E	108DEX
131.	P-129	273	228.	P-434D	S854	325.	P-414D	L854	435.	P-129	273	539.	P-202	273	646.	P-409D	M853
132.		164	229.	P-27	812	326.	P-421D	S855	436.	P-410D	L854	540.	P-129</				

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110, 111		112		BIC		BROTHER		7P, 8P Ser.; 8MCR		M-853		P-440D		
								8T4CQD, 8T5, 6	274	274	P-169			
						Model Number	Needle Cart.	8TP12, 22, 72, 73, 79	272	272	P-149			
						PRO-123, 350, 450	S-853 P-409D	8TP12 thru 173	274	274	P-169			
						Planotron 2000	M-853 P-409D	8TP100, 101, 103	272	272	P-149			
						Primus II	M-853 P-409D	8TP143, 172	M-853	617D7	P-15			
Model Number	Needle Cart.	Model Number	Needle Cart.	Model Number	Needle Cart.	IMPACT 22.23	M-853 P-409D	8TP205R	617D7	617D7	P-182			
BSR, continued		Model Number	Needle Cart.	Model Number	Needle Cart.	Model 4000	864	8TP800; 8TR103, 143	274	274	P-182			
Accuglide	111DEC M99E	SP65, 85	767DED M104E	Model Number	Needle Cart.			18MX1, 18X1	617D7	617D7	P-182			
Accutrac, 4000	112DEG	SP65, 85	761DED M104E	Model Number	Needle Cart.			22A5, 23A5, J5, 24E5	M-853	M-853	P-440D			
Accutrac Plus 6	112DEG	SP402, 602, 802	767DED M104E	Model Number	Needle Cart.			32D5, D7, 36G7	274	274	P-169			
C123R2	M-854 P-420D	SP402, 602, 802	761DED M104E	Model Number	Needle Cart.			32B5, 36B5, D5	N-853	N-853	P-440D			
C-123, 136R	M-853 P-441D	150X, 250X, 350X	760D7 AT3400	Model Number	Needle Cart.			42D5, L5, 46A5	M-853	M-853	P-440D			
C-129	M-854	202, 920	760DE M99E	Model Number	Needle Cart.			185, 280	M-853	M-853	P-409D			
C129R2, 141R1	M-854 P-411D	911/2, 912/2, C/2	762DE M93E-P	Model Number	Needle Cart.			500, 501, 502	M-853	M-853	P-440D			
C-136, 180	M-853 P-409D	914, 916	761DED M104E	Model Number	Needle Cart.			500/9	274	274	P-169			
C-141, 164, 173	111D7C QLM30	918, 1000G	764DMR V/15MR	Model Number	Needle Cart.			832, 842, 1000/C, /9	M-853	M-853	P-440D			
C-154, 180, 181	M-853 P-440D	940, 960, 980, 981	761DED M104E	Model Number	Needle Cart.			1600	760D6 M44C	760D6 M44C	P-226			
C-180	111DET M99E			Model Number	Needle Cart.			1760, 1766	864	864	P-203			
P-182, 189; GU-8	M-853 P-440D			Model Number	Needle Cart.			2002, P314F	863	863	P-182			
P-182, 200, 208	111D7C QLM30			Model Number	Needle Cart.			5001, 5002, 5005	274	274	P-169			
C-197	274 P-182			Model Number	Needle Cart.			6014	274	274	P-169			
C-197, 217	M-853 P-409D			Model Number	Needle Cart.			6055	M-853	M-853	P-440D			
C-198, 212, 218	111D7C QLM30			Model Number	Needle Cart.			'79, '80 models use	M-853	M-853	P-409D			
P-204, 207, 246, 259	M-853 P-409D			Model Number	Needle Cart.									
P-204, 231, 268	274 P-182			Model Number	Needle Cart.									
P-207	M-854 P-441D			Model Number	Needle Cart.									
C-210X	273 P-149			Model Number	Needle Cart.									
P-232, 255	111D7C QLM30			Model Number	Needle Cart.									
C-250, 260, 272, 273	0-853 P-409D			Model Number	Needle Cart.									
P-278, 284; L-306	M-853 P-409D			Model Number	Needle Cart.									
P-289; C-401C	719D7 P-187D			Model Number	Needle Cart.									
C-401M; L-32, 33, 34	120D7 PSX10			Model Number	Needle Cart.									
LT-30, 31	121D7			Model Number	Needle Cart.									
LT-32, 33, 43	119D7			Model Number	Needle Cart.									
LT34, 60	Sold w/o Cart			Model Number	Needle Cart.									
MA-50	M-853 P-440D			Model Number	Needle Cart.									
Quanta 50MX, 60MX	111D7C QLM30			Model Number	Needle Cart.									
Quanta 70MX, 350SX	111DEC M99E			Model Number	Needle Cart.									
Quanta 400, 450, SX	111DEC M99E			Model Number	Needle Cart.									
Quanta 500, 550SX	111DET M99E			Model Number	Needle Cart.									
Quanta 550, 800	111DEM M105E			Model Number	Needle Cart.									
Quanta 600, 700	111DET M99E			Model Number	Needle Cart.									
RC-1	120D7 PSX10			Model Number	Needle Cart.									
RTS20A, 28A	272 P-129			Model Number	Needle Cart.									
RTS30, 40	760D6 AT3400			Model Number	Needle Cart.									
SA100	M-853 P-440D			Model Number	Needle Cart.									
SA150, 200S, 250S	111D7C QLM30			Model Number	Needle Cart.									
20BFX	110DET M99E			Model Number	Needle Cart.									
20CX, 25CX, 35CX	M-853 P-409D			Model Number	Needle Cart.									
62SX, 65SX	111D7C QLM30			Model Number	Needle Cart.									
72MX, 75MX, 80SX	111D7C QLM30			Model Number	Needle Cart.									
100BAX, 2310X	110DET M99E			Model Number	Needle Cart.									
100SX, 205SX, 225SX	111DEC M99E			Model Number	Needle Cart.									
150SX	111DET M99E			Model Number	Needle Cart.									
200BAX	111DEC M99E			Model Number	Needle Cart.									
200S, 240MX, 250S	111D7C QLM30			Model Number	Needle Cart.									
Pro 200	111DEM M105E			Model Number	Needle Cart.									
275P, 360WX	111DEC M99E			Model Number	Needle Cart.									
360WX	760DE M99E			Model Number	Needle Cart.									
610AX, 620AX	111DET M99E			Model Number	Needle Cart.									
2000AX, 4800CX	274 P-182			Model Number	Needle Cart.									
2260AG	111D7C QLM30			Model Number	Needle Cart.									
2260BX, 2320W	110D7C QLM30			Model Number	Needle Cart.									
4800, 6500CX	M-853 P-440D			Model Number	Needle Cart.									
				NOTE: The replacement cartridge listed in the column headed "Cart" is either a duplicate of the original cartridge installed in the set, OR a suitable substitute, if the original is not available.										

SECTION VII


PHONOGRAPH MODEL NUMBER INDEX

CATALINA, cont.			COLLARO		CRAIG		DEJAY	
FOLLOWING HAVE 123- PREFIX:								
3324 thru 3340	864	P-226	494	612	110	854	166	
3338; 3718, 3746, 47	274	P-169						
3612, 3614; 3780	864	P-226						
3630, 3640, 3680	S-855	P-180D						
3704, 3708	863							
3708, 3718, 3746	272	P-129						
4202, 04, 12, 15	700D7	P-16						
4216	864	P-226						
4244	272	P-129						
4246, 48; 4322	274	P-169						
4322, 26, 30, 36	864	P-226						
4486, 89	S-855	P-421D						
4615, 16, 17, 26, 27	274	P-169						
4623	864	P-226						
4646 thru 4830	S-855	P-180D						
4886; 4986, 89	S-855	P-421D						
5202, 06	700D7							
5204; 6204	863	P-200						
5213	272	P-149						
5322, 24, 26, 36	864	P-226						
5350	760D6	M44C						
5616, 26	274	P-169						
5623	S-853	P-409D						
5643; 5786	M-855	P-421D						
6203	164							
6203, 6208, 6212	700D7							
6323, 6375	M-853	P-440D						
6360, 6376; 6659	M-854	P-441D						
6413	864	P-226						
6616, 46, 56, 66, 76	M-853	P-440D						
6876	273	P-149						
7207	274	P-182						
7212; 7376	M-853	P-440D						
7246; 7378	M-854	P-441D						
7248	760D6	M44C						
7613, 7616, 7659	M-853	P-440D						
7666, 7676	M-854	P-441D						
266-1008, 1009	M-854	P-411D						
266-1101	M-855	P-412D						
266-1102, 1103	M-853	P-409D						
Centrex - see Pioneer								
CENTURY (FEDERAL)								
								
804	853							
Model Number	Needle	Cart.						
CMC60; MC54, 57, 59	M-853	P-409D						
CPR7600	M-853	P-403D						
MPX1001, 2301, 2401	M-853	P-409D						
MPX1003, 1005	M-853	P-403D						
MPX2450, 2460, 2550	M-853	P-409D						
MPX7001, 8001, 9005	M-853	P-409D						
TT-20, 22	604D7T	NP/AT						
CHANNEL MASTER								
								
110	853							
Model Number	Needle	Cart.						
6047, 6060, 6080	S-853	P-409D						
6349	110D7C	QLM30						
NOTE: In a few instances, the listed information may not be entirely correct. Set makers occasionally use more than one type of cartridge in a given model, without changing the model number; also, the cartridge may have been changed by a repairman.								
CONCEPT 2000 (ELGIN)								
272	700							
Model Number	Needle	Cart.						
Model 24, 25	700D7							
Sesame Street	700D7							
Triphonic	700D7							
SCP	272	P-129						
CONCERT HALL (WILDCAT)								
166	272							
Model Number	Needle	Cart.						
Disco Kid	700D7							
Disco Kid II	711D7	P-185D						
25	272	P-129						
50 (Disco), 51	M-853	P-409D						
80, 101, 102	700D7	P-5						
101, 102	166D7							
105, 110	711D7	P-186						
110, 112, 122	617D7	P-15						
115, 120	722D7	TA-M1						
140, 145	0-853	TA-M1						
211, 214	166D7							
211, 220, 222, 224	711D7	P-186						
211, 226	722D7	TA-M1						
301, 302, 310, 342	166D7							
330 thru 342	617D7	P-15						
352, 363, 300	M-854	P-441D						
360, 410, 420	0-853	P-409D						
400, 638 (Swingmate)	272	P-149						
400, 420, 430, 450	M-854	P-411D						
704	711D7	P-185D						
936 Willdcat (Some)	S-853	P-409D						
936 (Some), 937, 938	M-854	P-441D						
940	272	P-129						
940	711D7	P-185D						
3120	166D7							
3122	722D7	TA-M1						
3122 (Mickey Mouse)	700D7	P-2						
7420A thru 7428A	711D7	P-185D						
7420B thru 7428B	722D7	TA-M1						
9052, 9053	274	P-169						
99-3012 thru 3351	274	P-169						
Some Concert Hall sets shown with 166, 700 or 711 needle were made with a monaural Tetrax Cartridge, using 0-853.								
Crestmark - see Vanity Fair								
CROWN								
793								
Model Number	Needle	Cart.						
CD-2000, 2500	793D7	P-187D						
MC-44, T70, H90	793D7	P-187D						
MZ-1000, 2000, 2100	793D7	P-187D						
Curtis-Mathes - see Mathes								
DAEWOO (DAYTRON)								
211	736							
Model Number	Needle	Cart.						
ACD680	211D6T							
AMC330, 332, 340	793D7							
AMC340; RCS3300	793D7							
AMC560, 570, 680	211D6T	AT3400						
AMC670, 690; ACS690	736D7K							
APC900; MC3000	211D6T	AT3400						
D160 thru D196	M-854	P-420D						
110, 170, 171	M-853	P-440D						
180, 181, 235, 240	M-853	P-440D						
236	M-853	P-409D						
310MS	211D6T	AT3400						
2300 Series	M-854	P-420D						
Daylin - see Teletone								
NOTE: In a few instances, the listed information may not be entirely correct. Set makers occasionally use more than one type of cartridge in a given model, without changing the model number; also, the cartridge may have been changed by a repairman.								
NOTE: These listings contain information on phonos built since 1974; info on those built between 1964 and 1974 will be found in Catalog P-6474, and those built prior to 1964 will be found in Catalog P-1963.								
DORCHESTER								
273	617							
Model Number	Needle	Cart.						
CRP75; CRPA80	711D7	P-185D						
HEC400, 450; MC500	617D7	P-15						
MC500	719D7	P-187D						
MC800, 900, 1000	711D7	P-185D						
MMC300	711D7	P-185D						
RP25, 50; RPD75	617D7	P-87						
RP25, 60; RPA65	711D7	P-185D						
RRP100	617D7	P-87						
RRP200	711D7	P-185D						
RRP300	273	P-149						

PHONOGRAPH MODEL NUMBER INDEX

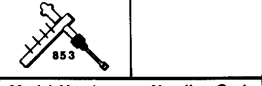
EMERSON		Model Number	Needle	Cart.	EMPIRE RADIO CORP.		Model Number	Needle	Cart.
		M2404	711D7	P-185D			8560D, 8561D, 8580D	745D7	
		M2405	722D7				8600	740D7	
		M2410A, 2430	M-854	P-441D			8550D, 8620D, 8630D	794D7	3482P
		M2420, 2460	M-853	P-409D			8640D, 8660D	794D7	3482P
		M2450	274	P-169			8670D, 8680D, 8690D	214D6	
		M2550, 2554, 2565	M-853	P-409D			8806, 8816, 8819	901D7	
		M2550, 2565D, 2700	M-854	P-411D			8825, 8836	901D7	
		M2660, 2670, 3000	M-853	P-409D			8845, 8848, 8855	794D7	3482P
		M2660A, P, 5050PA	711D7				ACS81	746D7	AT3400
		M3000, 3003, 3100C	M-854	P-441D			ACS100, 105, 108	712D7	AT3400
		M3010, 3022;MMIT	M-854	P-411D			ACS110, 116	712D7	AT3400
		M3350	719D7	P-187D			ACS112, 118, 122	714D7	AT3400
		M3500	111D7C	QLM30			ACS122, 125	712D7	AT3400
		M4000	793D7				ACS132, 146, 148	714D7	AT3400
		M5050PA	M-853	P-440D			ACS221, 280A	714D7	AT3400
		M6000PA, PB	M-853	P-440D			ACS221-1, 225, 255	721D7	AT3400
		MC1100, 1155	719D7	P-187D			ACS-M270	731D7	AT3400
		MC1250, 1255	719D7	P-187D			ACS365, 370, 400	714D7	AT3400
		MC1330P, 1435P, 1453	793D7				ACS810, 815, 820	746D7	AT3400
		MC1400, 1422	719D7	P-187D			ACS830, 850, 851	746D7	AT3400
		MC1433P, 1633P	M-853	P-187D			ACS860, 870	746D7	AT3400
		MC1434, 1435	719D7	P-187D			ACS1520	604D7T	NP/AT
		MC1500, 1610, 1636	719D7	P-187D			ACS1715, 1728	666D7	QLM30
		MC1550, 2293	793D7				ACS1718, 1723	604D7T	NP/AT
		MC1600P	211D6C	AT3400			ACS1735, 1738, 1756	629D6	M44E
		MC1700, 1880	719D7	P-187D			ACS1766	606D6X	4000
		MC2590, 2593	719D7	P-187D			ACS1817, 1823	604D7T	NP/AT
		MS1	700D7	P-5			ACS6845, 6846	794D7	AT3400
		MS15	863	P-200			ACS8603, 8610, 8645	794D7	3482P
		MS105, 111, 112	617D7	P-15			ACS8665, 8675	794D7	3482P
		SA31	617D7	P-15			ACS8685, 8690	214D6	
		SA31; 731	273	P-149			ACS8700, 8703, 8705	901D7	
		32P50; 101	166D7				ACS8710, 8720, 8737	901D7	
		101, 101A, 140, 144	700D7	P-5			ACS8730, 8735, 8740	794D7	3482P
		101, 124	700D7	P-2			ACS8750, 8760, 8765	794D7	3482P
		727	274	P-169			ACS8780, 8790	214D6	
		750	111D7C	QLM30			ACS8800	715D7	AT3400
		760	760D6	M44C			ACS8800	901D7	
		202050, 612350	111D7C	QLM30			ACS8810, 8820	901D7	
		402660, 520660	760D6	M44C			ACS8840, 8850, 8855	794D7	3482P
							AVS810, 815	746D7	AT3400
							AVS822, 860, 870	746D7	AT3400
							AVS1085, 1086	740D7	AT3400
							AVS1185, 1186, 1285	794D7	3482P
							AVS1286, 1386	746D7	AT3400
							AVS1485, 1486	746D7	AT3400
							AVS1500, 1586, 1686	745D7	3482P
							AVS2386	745D7	3482P
							AVS2386	213D6C	3482P
							AVS4010, 4015, 4030	794D7	3482P
							AVS4020, 4025, 4040	214D6	
							AVS4050, 4060, 4070	214D6	
							AVS4509, 4565, 4576	794D7	3482P
							AVS4586, 4685	214D6	
							AVS4602, 4603, 4645	794D7	3482P
							AVS4665, 5738, 6709	794D7	3482P
							AVS5700, 5705	901D7	
							AVS5785, 6785, 6790	214D6	
							AVS5800, 5820, 5836	901D7	
							AVS6715	746D7	
							AVS6735, 6740, 6760	794D7	3482P
							AVS6737	901D7	
							AVS6800, 6811, 6836	901D7	
							AVS6852	794D7	3482P
							CA272	740D7	AT3400
							DCS-W02, W03	817D7	
							DCS-W03, W04	901D7	
							DCS-W05, W012	793D7	P-187D
							DCS-W06, W07, W08	746D7	AT3400
							DCS-W09	794D7	3482P
							ICS70	719D7	P-187D
							ICS320XA, 426, 441	604D7T	NP/AT
							ICS352-430	604D7T	NP/AT
							ICS400	M-853	P-440D
							ICS400A, 419, 419	111D7C	QLM30
							ICS419, 457-1	697D7	AT3400
							ICS432, 439	604D7T	NP/AT
							ICS432, 457-1, 512	111D7C	QLM30
							ICS439A, B	710D7	AT3400
							ICS445, 445-4	629D7	AT3400
							ICS457-1, 520	604D7T	NP/AT
							ICS457-1, 520, 530A	760D7	AT3400
							ICS510, 520, 529	697D7	AT3400
							ICS529, 530, 560	110D7	AT3400
							ICS530, 549	697D7	AT3400
							ICS550, 551	604D7T	NP/AT
							ICS550, 559, 560	697D7	AT3400
							ICS550, 560, 561	760D7	AT3400
							ICS560	111D7C	QLM30
							ICS580	712D7	AT3400
							ICS581	760D7	AT3400
							ICS617, 620	793D7	P-187D
							ICS625, 630	793D7	P-187D
							ICS705, 710	736D7	AT3400
							ICS705, 709, 712	719D7	P-187D
							ICS710	209D6T	AT3400
							ICS713, 723	796D7	P-187D

PHONOGRAPH MODEL NUMBER INDEX

KENWOOD, continued			LLOYD'S (LION)			R858 thru 961			M-854 P-411D			BA, BB, BJ, BK1212 thru 1217:		
KD37, 57, 67, 77, 87	819D7	3482P				R861-14 thru 973	M-854	P-411D						
KD44, 54, 64, 74, 74A	213D6C	3482P				R861, 973	M-854	P-411D				BC1219	697D7	AT3400
KD55F	697D7	AT3400				R871-44	711D7					LE, LF1220, 1230	111D7C	QLM30
KD55F; SRM9	710D7	AT3400				R858	604D7T	NP/AT				LF1236	760D6	M44C
KD56R, 66F	819D7					R973-88	M-854	P-407D				MX1410, 1411, 1415	629D3	ML10HE
KD-74, 75, 76, 77	799D7					R102084	274	P-169				FP1413	596D7	P-187D
KD881	825DEV	881S				RS106, 110, 115, 210	793D7	P-187D				MX1418, 1420, 1430	793D7	P-187D
KD1033 thru 6030	604D7T	NP/AT				9F01, 101; 6237A, C	700D7					FP1463, 1513	213D6C	3482P
KP-D7	215DE	201EP				BW1/R817	617D7	P-88				MX1475, 1600, 1605	793D7	P-187D
P-5X	819D7	3482P										MX1610, 1700	793D7	P-187D
P-91	799D7											BG1708, 1725	M-854	P-441D
P-92; Series 11	903D7											BH1708, 1725	M-854	P-414D
Separate #2, #3	604D7C	NP/AC										BA, BK1712 thru 1735:		
Spectrum Series	710D7	AT3400										BJ1712	M-854	P-411D
												MD1720, 1721	M-854	P-414D
												ME1730, 1732; MF1731	719D7	P-187D
												MF1733	796D7	P-187D
												BB1737 thru 1743	711D7	P-185D
												BC, MD1741, 1743, 1760:		
												BB1755; MD1852, 53	710D7	P-187D
												MX1800, 1810, 1820	793D7	P-187D
												BJ1823, 1825, 1830	O-854	P-414D
												BH1823 thru 1836	O-854	P-414D
												BJ, BK1835 thru 1846:		
												BB1847, 1848	697D7	AT3400
												BC1849, 1850, 1851	711D7	P-185D
												MD1849, 1850, 1851	211D6T	AT3400
												MX1910, 1915	211D6T	AT3400
												MX1920, 1970	793D7	P-187D
												EE, EF2000, 2001, 02	M-855	P-420D
												EE, EF2000, 2001, 02	369	P-420D
												ED2003RS21, BK21	376D7	
												ED2003BK22, 23, 24	M-855	P-420D
												ED2003BK22, 23, 24	369	P-420D
												EE, EF2004 thru 2101:		
												EE, EF2004 thru 2101:	M-855	P-420D
												BJ2030, 2040, 2050	369	P-420D
												BA, BB, BC, BK2051 thru 2072:	697D7	AT3400
												BC2063, 2073	697D7	AT3400
												EE2240	612DE	M44E
												EC, MX4010, 4011	793D7	P-187D
												EC, MX4015	793D7	P-187D
												EC, MX4018, 4019	793D7	P-187D
												BG4924, 26; CA4936	M-855	P-420D
												BG4924, 26; CA4936	369	P-420D
												BG4924, 26; CA4936	557	P-134D
												CD, CE4945, 46, 47	M-855	P-420D
												CD, CE4945, 46, 47	369	P-420D
												CE, RG4961, 4967	557	
												CE, CG4971 thru 4987:		
												RG, SG4987, 4997	557	
												RJ4961, 4967	O-854	P-414D
												BA5426 thru 5476	O-854	P-414D
												BK5426 thru 5476	O-854	P-414D
												RB5446	711D7	P-185D
												RC5456; RB5482	697D7	AT3400
												EC, MX6000	793D7	P-187D
												BB6056PE01	O-854	P-414D
												BB6056PE02	711D7	P-185D
												BA, BJ, BK6056 thru 6166:		
												BC6066	711D7	P-185D
												PD, PE6102 thru 6206:		
												PD, PE6102 thru 6206:	M-855	P-420D
												PH, PJ6207 thru 6226:		
												PH, PJ6207 thru 6226:	M-855	P-420D
												PF, PG, PH, PJ6207 thru 6226:		
												PF, PG, PH, PJ6207 thru 6226:	369	P-420D
												BG6240 thru 6246	M-855	P-420D
												BG6240 thru 6246	369	P-420D
												BA, BB, BJ, BK6264 thru 6277:		
												BA, BB, BJ, BK6264 thru 6277:	O-854	P-411D
												BA, BB, BJ, BK6264 thru 6277:	711D7	P-185D
												BH6266	O-854	P-414D
												BC6286	711D7	P-185D
												PE, PF, PG6324 thru 6356:		
												PE, PF, PG6324 thru 6356:	M-855	P-420D
												PE, PF, PG6324 thru 6356:	369	P-420D
												BH6364, 6366, 6367	O-854	P-414D
												BA, BJ, BK6374 thru 6486:		
												BB6377; BC6386	O-854	P-411D
												BB6377; BC6386	711D7	P-185D

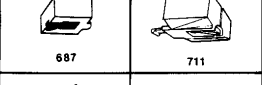
CAUTION: Some models listed may have been sold without a cart-ridge. Have your customer compare new needle to the old one before attempting installation.

KINGS POINT



Model Number	Needle	Cart.
1150, 2150, 7150	M-853	P-440D
7250, 7450, 8050	M-853	P-440D
8151, 8450, 9250	M-853	P-440D
Some of above:	M-853	P-409D
7600, 8151	M-853	P-409D
8450, 8500	M-853	P-409D
RS-90	793D7	P-187D

LENOXX



Model Number	Needle	Cart.
JZ100	O-853	P-440D
MC100	711D7	P-185D
S100, 102, 103, 200	M-853	P-409D
S300, 301, 303, 325	M-853	P-409D
S400, 500, 502, 503	M-853	P-409D
S504, 600, 601	M-853	P-409D
S, SL602, 604, 10316	M-853	P-409D
SL118, 905	687D7	
SL118, 119, 210	719D7	P-187D
SL320, 325, 328, 329	793D7	P-187D
SL318, 319, 320, 906	719D7	P-187D
SM10416, 60319	O-853	P-440D
S, SL50219, 50421	M-853	P-409D
S, SL50509, 50721	M-853	P-409D
S, SL60120, 220, 225	M-853	P-409D
S, SL60319, 60421	M-853	P-409D
S, SL60425, 70025	M-853	P-409D
S, SL72721, 80621	M-853	P-409D
S, SL80625, 90099	M-853	P-409D
S, SL90412, 90902	M-853	P-409D

Model Number	Needle	Cart.
BB1028 thru 4394	M-854	P-441D
BB4501	M-853	P-440D
BB7264	274	P-169
BB7488 thru 9559	M-854	P-441D
BB9567, 9811	M-853	P-409D
BB9617 thru 9807	M-854	P-441D
BB9815	M-854	P-441D
C262	M-854	P-420D
C312 thru 663	274	P-169
CS100	719D7	P-187D
CS100, 105, 110, 115	793D7	P-187D
CS209, 210, 215	793D7	P-187D
D614 thru 723	274	P-169
DD7892-8813	274	P-169
F262, 263	M-854	P-420D
F263, 470, 472, 475	760D6	AT3400
F264	604D7T	NP/AT
F265	M-854	P-404D
F440, 450	M-854	P-441D
F450, 820	M-853	P-409D
F637, 689	274	P-169
F811, 815; G645	719D7	P-187D
F820-95	760D6	AT3400
FF2163, 2171, 2189	274	P-169
FF2189 thru 8772	M-854	P-441D
G606 thru 850	274	P-169
G650-94, 856	M-853	P-409D
G650-94, 856-20	M-854	P-441D
M850, 961, 980, 981	M-854	P-441D
M923-75	M-853	P-440D
MM8111	274	P-169
MP1912, 7401, 9551	274	P-169



































PHONOGRAPH MODEL NUMBER INDEX

MESA		MITSUBISHI (MGA)		NEWCOMB		CP1260, 1280 Integra Soundstage	209D6T AT3400 710D7 AT3400 211D6T AT3400
						PANASONIC (TECHNICS)	
				Model Number Needle Cart. EDTS-40; RTS-40 910 T-50 M-853 P-409D			
				NIKKO			
							
Model Number Needle Cart.		Model Number Needle Cart.		Model Number Needle Cart.			
I (Some) 557 II (Some) 629D7 AT3400 III (Some) 629DE AT110E IV (Some) 679DQ 140LC 65SV, 70, 100C, 200C 697D7 AT3400 500S, 600S, 2600SV 697D7 AT3400 2600SV 808		DP-15, 37 792D7 AT3400 DP-37B 740D7 DP-51; E-41 710D7 AT3400 LT-10V; X-7, 10, 12 710D7 AT3400 LT-46 213D6C 3482P LT-55, 160 119D7		NP550, 750 213D6C 3482P			
MIDLAND		CAUTION: Some models listed may have been sold without a cartridge. Have your customer compare new needle to the old one before attempting installation.		NORDMENDE			
		MONITOR					
							
Model Number Needle Cart.		Model Number Needle Cart.		Model Number Needle Cart.			
225B, 469, 508, 512 274 P-169 514, 518, 558, 569 274 P-169 578, 751, 770, 777 274 P-169 771, 835, 838 S-854 P-409D 801, 802, 822 274 P-169 833, 834, 839 274 P-169 850, 851, 876, 901B 274 P-169 860, 901, 903 272 P-129		STR500 793D7 P-187D MSW1000 740D7 AT3400		Arabella, Boheme 272 P-129 Carusa, Casino 272 P-129 Cosima, Samba 272 P-129 QP40(Quadrado) 760D6 AT3400 200, 400 272 P-129 CPR612, 614 274 P-182 7160, 8025 760D6 AT3400			
MIIIDA		MONTEVERDI		ONKYO			
							
		Model Number Needle Cart.					
		84-371-5 M-853 P-440D 6589-M01 760D6 AT3400 Some sets use 849D7 P-184D					
Model Number Needle Cart.		Model Number Needle Cart.		Model Number Needle Cart.		Model Number Needle Cart.	
C1000, C1120B, W S-853 P-409D 1110, 1115, 1120 274 P-169 1115, 1135 M-853 P-440D 1120, C1155W 110D7C QLM30 1125, 1130, 1135 274 P-169 C1155 629D7 AT3400 1211, 1216, 1228 274 P-169 T3112, 3115 629D7 AT3400		853, 854 All sets use M-854 P-441D This brand made by LLOYD'S- See their listing for numbers		730, 755, 770 117D6 AV808; CB55V 117D6 AV868, 888, 955, 959 718D7 3482P AV901; CP1100A 119D7 AT3400 CP1000, 1017, 1022 710D7 AT3400 CP1008A 117D6 PSX10 CP1022A 211D6T AT3400 CP1022A, 1044F 209D6T AT3400 CP1027, 1028, 1033 710D7 AT3400 CP1028R 715D7 CP1036, 1046, 1057 Sold w/o cart CP1046 211D6T AT3400 CP1055, 1130, 1150 710D7 AT3400 CP1114 117D6 CP1116 Sold w/o cart CP1140 718D7 3482P		P4, P5(Soundscape) 710D7 P4R, P5R(") 211D6C P7, P9(") 209D6T Systems "2000" 111D7C QLM30 RA6500, 6700, 6800 697D7 AT3400 RA6600; RD3100 111D7C QLM30 RD620, 720 627D7 P-170D RD820, 3600 629D7 AT3400 RD2900, 3500 697D7 AT3400 RD3100 604D7T NP/AT RD7503, D 274 P-182 RE7014, 7070, 7453 813 RE7016, 7554 274 P-169 RE7556, 8016, 8176 M-853 P-440D RE8015, 8016, 8175 274 P-169 RE7844, 8484, 8585 672DQ RS864 672DQ RX-C45 718 "P" Mnt SC-A200, A210 798 "P" Mnt SC-A220, A230 798 "P" Mnt SC-A610, A420, A430 718 "P" Mnt SC-A440, A450 718 "P" Mnt	
NOTE: In a few instances, the listed information may not be entirely correct. Set makers occasionally use more than one type of cartridge in a given model, without changing the model number; also, the cartridge may have been changed by a repairman.		NOTE: The replacement cartridge listed in the column headed "Cart" is either a duplicate of the original cartridge installed in the set, OR a suitable substitute, if the original is not available.					
























PHONOGRAPH MODEL NUMBER INDEX

ROSS		SAMSUNG					
						System 1590 902D7 XP-99 210DE XR-05 697D7 AT3400 XR-Q11;2100,7100 209D6T AT3400 XR-50;05,A7 Sold w/o cart 920,1100 698D7 AT3400 990,9900 710D7 AT3400 2200,4400 698D7 AT3400 3300,7700 670D7	
						CAUTION: Some models listed may have been sold without a cart-ridge. Have your customer compare new needle to the old one before attempting installation.	
							
Model Number	Needle Cart.						
RE502,505,508 700D7 RE514,515,516 617D7 6170,6890,6894 M-854 P-434D 6860,6892,6960 274 P-169 Some use 272 P-129		Model Number	Needle Cart.	Model Number	Needle Cart.		
ROTEL		SANSUI				SANYO	
							
							
							
							
Model Number	Needle Cart.						
CR100 S-853 P-409D CR300 274 P-169 RP550 541DEG RP830 207DE AT110E RP1001 697D7 AT3400 RP2500 629D7 AT3400 RP3000 604D7C NP/AC							
CAUTION: Some models listed may have been sold without a cart-ridge. Have your customer compare new needle to the old one before attempting installation.							
NOTE: These listings contain information on phonos built since 1974; info on those built between 1964 and 1974 will be found in Catalog P-6474, and those built prior to 1964 will be found in Catalog P-1963.							
							
							
							

PHONOGRAPH MODEL NUMBER INDEX

		GXT4512,4800,4848 GXT4545 GXT4620,4621,4650 GXT4651,4652 GXT4800,4831 GXT4812,4881 GXT4830,4880 GXT5000 J500 JXT45,50 JXT55,64,65,6911 JXT655P JXT4404,6420 JXT4800 JXT6430,6440 JXT6430/A,6440 JXT6830,6910 JXT6910	864 P-226 AT3400 274 P-169 S-853 P-417D 274 P-169 S-853 P-417D 700D7 AT3400 211D6T AT3400 711D7 P-185D 710D7 AT3400 714D7 AT3400 274 P-169 708D7 AT3400 666D7 AT3400 697D7 AT3400 666D7 AT3400 697D7 AT3400 697D7 AT3400 617D7 213D6C 3482P 617D7 210DE 604D7T NP/AT P-169 274 700D7 273 P-129 274 P-169 617D7 617D7 617D7 680D7 M44C S-853 P-417D 211D6T AT3400 213D6C 3482P 213D6C 3482P 819D7 680D7 M44C 680D7 M44C 901D7 819D7 819D7 666D7 AT3400 629D7 AT3400 667D7 680D7 M44C 760D6 AT3400 604D7T NP/AT 629D7 AT3400 211D6T AT3400 710D7 AT3400 Solid w/o cart 213D6C 3482P 710D7 AT3400 250,280,560,580 819D7 3482P 350D,360D,370D 710D7 AT3400 500D 710D7 AT3400	SCHEIDER			RRK4040 RK4040,4050,4060 RK4101,4501 RX100A,111 RX111 RX200,210,211 RX300,310 RX1501,3101 RX2101,3101 RX3150,4040,4050 RX4060,4101,4501 Salem 45 Slimcom 25,1000S Slimcom 1000 SMP53 SMP53 25SLR,SLX;35SLX 40SLA;45SLX;50SLX 65SLA,SLX	211D6T AT3400 900D7 211D6T AT3400 120D7 211D6T AT3400 900D7 794D7 3482P 211D6T AT3400 900D7 213D6C 3482P 213D6C 3482P 211D6T AT3400 211D6T AT3400 213D6C 3482P 741D7 AT3400 741D7 AT3400 741D7 AT3400
		OP-3;PQ5 thru 65 P-30;"RC" System PG-R1 thru PG-R7 Plus P33 Plus Q40,50,60 RD4135,8020 RPT1200;SKT1000 SAT-3 SKT299 STG350,390,470 STG550;STL3 STP20 thru 580 STV280;TP80 TP75S TP220 TP240,340 TP420,430 TP560 TP600,605 TP626,636,700 TP670A TP670,682A,686 TP686A,690,690A TP727,1020 TP728,825 TP747 TP805,825,905 TP1000 TP1010,1020,1030 TP1012,1020 TP1400 TP1670,1672 TPB1 TPB2;TPX2 TPB2;TPX1S,TPX3 TPB3;TPD2,TPD4 TPV10,20;TPQ5 TPV12 TPX1,2,3 V6,6CD,8,12,14,16 W10 W30 Component T.T. 200D,350D 710D7 AT3400	864 P-226 AT3400 274 P-169 S-853 P-417D 274 P-169 708D7 AT3400 666D7 AT3400 697D7 AT3400 666D7 AT3400 697D7 AT3400 697D7 AT3400 617D7 213D6C 3482P 617D7 210DE 604D7T NP/AT P-169 274 700D7 273 P-129 274 P-169 617D7 617D7 617D7 680D7 M44C S-853 P-417D 211D6T AT3400 213D6C 3482P 213D6C 3482P 819D7 680D7 M44C 680D7 M44C 901D7 819D7 819D7 666D7 AT3400 629D7 AT3400 667D7 680D7 M44C 760D6 AT3400 604D7T NP/AT 629D7 AT3400 211D6T AT3400 710D7 AT3400 Solid w/o cart 213D6C 3482P 710D7 AT3400 250,280,560,580 819D7 3482P 350D,360D,370D 710D7 AT3400 500D 710D7 AT3400			Model Number Needle Cart. 31,41 209D6T AT3400 Consort 6014 710D7 AT3400 6015;SBD63 111D7C QLM30 SI 7010,7020 710D7 AT3400 SPP32 695D7 AT3400 TS1652,1672 494 TS1672;TriSet 103 760D6 AT3400 TS1700,1702,1772 760D6 AT3400 TS1700,1702,1773 494 TS1873,4003,5005 760D6 AT3400	CAUTION: Some models listed may have been sold without a cart-ridge. Have your customer compare new needle to the old one before attempting installation.	
		END "System" Number Listing CH30/B DS13 thru DS93 DXT60,70 DXT5004,5204 DXT5205,5214,5220 DXT5211,5216,5250 DXT5240,5252,5402 DXT5340,5341,5342 DXT5404 G,GXT107,140,180 G,GXT211,220,727 G230,255 G777,888 G1005;GXT170,210 G11707,1747 G11727 GXT110 GXT200,300 GXT210,707,747 GXT310,400,410 GXT808,828,848 GXT858,1747 GXT1600,4620 GXT4300,4500 GXT4310,4510 GXT4503,4504,4505 GXT4511,4514 GXT4512,4600,4610	M-854 P-411D 617D7 710D7 AT3400 274 P-169 274 P-169 S-853 P-417D 864 P-226 274 P-169 697D7 AT3400 796D7 P-187D 796D7 P-187D 736D7K 793D7 P-187D 719D7 P-187D 793D7 P-187D 796D7 P-187D 710D7 M-853 P-409D 710D7 P-187D 710D7 P-187D 736D7K 793D7 P-187D 793D7 P-187D 700D7 274 P-169 S-853 P-417D 274 P-169 S-853 P-417D 274 P-169	H. H. SCOTT			Model Number Needle Cart. 2052 thru 2714 604D7T NP/AT A600,650;PS10 604D7T NP/AT AV70 211D6C AT3400 Andover 45R 794D7 3482P Berkeley 90 213D6C 3482P Boston 200 213D6C 3482P Cambridge 65 213D6C 3482P Cape Cod 50 213D6C 3482P Concord 25 213D6C 3482P CCS3028,5038 794D7 3482P CCS3068,6038 211D6T AT3400 DS36,76 Solid w/o cart Gloucester 70 213D6C 3482P Lexington 40 213D6C 3482P PS16,18 697D7 AT3400 PS17A,47,70B Sold w/o cart PS39 211D6T AT3400 PS48,48A 741D7 AT3400 PS49A,69A,89,100 213D6C 3482P PS59;Woburn 45 794D7 3482P PS68,68A,88 741D7 AT3400 PS77X 612D7 PS150,160,270 211D6T AT3400 PS358,360 900D7 PS4003,4004 900D7	CAUTION: Some models listed may have been sold without a cart-ridge. Have your customer compare new needle to the old one before attempting installation.
		Model Number Needle Cart. SANYO, continued Artisan 1960 213D6C 3482P FOLLOWING ARE "System" NUMBERS: 10,100 20 50 200,240,246,250 220,330,550,1400 266,300,340,346 400,500,540,566 600,660,667,685 600,1600 670 672T 687,688,760,960 1040,1540,1566 1400,2000,2003 1660,1664,1667 1672T,2670T 1689,1760,1876 1877,1960,2040 AV6D,12,540,660 AV3000,3540,3660 AV4000,5000 G,GXT100 G,GXT110 G,GXT210 G,GXT300 G,GXT310 V6,V8,V14,V16	819D7 819D7 617D7 AT3400 745D7 213D6C 3482P 211D6T AT3400 213D6C 3482P 213D6C 3482P 213D6C 3482P 793D7 P-187D 819D7 901D7 213D6C 3482P 213D6C 3482P 710D7 AT3400 213D6C 3482P 901D7 213D6C 3482P 213D6C 3482P 213D6C 3482P 213D6C 3482P 213D6C 3482P 711D7 M-853 P-409D 719D7 P-187D 710D7 AT3400 736D7K 213D6C 3482P	SEARS (SILVERTONE)			Model Number Needle Cart. 2052 thru 2714 604D7T NP/AT A600,650;PS10 604D7T NP/AT AV70 211D6C AT3400 Andover 45R 794D7 3482P Berkeley 90 213D6C 3482P Boston 200 213D6C 3482P Cambridge 65 213D6C 3482P Cape Cod 50 213D6C 3482P Concord 25 213D6C 3482P CCS3028,5038 794D7 3482P CCS3068,6038 211D6T AT3400 DS36,76 Solid w/o cart Gloucester 70 213D6C 3482P Lexington 40 213D6C 3482P PS16,18 697D7 AT3400 PS17A,47,70B Sold w/o cart PS39 211D6T AT3400 PS48,48A 741D7 AT3400 PS49A,69A,89,100 213D6C 3482P PS59;Woburn 45 794D7 3482P PS68,68A,88 741D7 AT3400 PS77X 612D7 PS150,160,270 211D6T AT3400 PS358,360 900D7 PS4003,4004 900D7	CAUTION: Some models listed may have been sold without a cart-ridge. Have your customer compare new needle to the old one before attempting installation.
		Model Number Needle Cart. SANYO, continued Artisan 1960 213D6C 3482P FOLLOWING ARE "System" NUMBERS: 10,100 20 50 200,240,246,250 220,330,550,1400 266,300,340,346 400,500,540,566 600,660,667,685 600,1600 670 672T 687,688,760,960 1040,1540,1566 1400,2000,2003 1660,1664,1667 1672T,2670T 1689,1760,1876 1877,1960,2040 AV6D,12,540,660 AV3000,3540,3660 AV4000,5000 G,GXT100 G,GXT110 G,GXT210 G,GXT300 G,GXT310 V6,V8,V14,V16	819D7 819D7 617D7 AT3400 745D7 213D6C 3482P 211D6T AT3400 213D6C 3482P 213D6C 3482P 213D6C 3482P 793D7 P-187D 819D7 901D7 213D6C 3482P 213D6C 3482P 710D7 AT3400 213D6C 3482P 901D7 213D6C 3482P 213D6C 3482P 213D6C 3482P 213D6C 3482P 711D7 M-853 P-409D 719D7 P-187D 710D7 AT3400 736D7K 213D6C 3482P	SCHEIDER			Model Number Needle Cart. 31,41 209D6T AT3400 Consort 6014 710D7 AT3400 6015;SBD63 111D7C QLM30 SI 7010,7020 710D7 AT3400 SPP32 695D7 AT3400 TS1652,1672 494 TS1672;TriSet 103 760D6 AT3400 TS1700,1702,1772 760D6 AT3400 TS1700,1702,1773 494 TS1873,4003,5005 760D6 AT3400	CAUTION: Some models listed may have been sold without a cart-ridge. Have your customer compare new needle to the old one before attempting installation.
		GXT4512,4800,4848 GXT4545 GXT4620,4621,4650 GXT4651,4652 GXT4800,4831 GXT4812,4881 GXT4830,4880 GXT5000 J500 JXT45,50 JXT55,64,65,6911 JXT655P JXT4404,6420 JXT4800 JXT6430,6440 JXT6430/A,6440 JXT6830,6910 JXT6910	864 P-226 AT3400 274 P-169 S-853 P-417D 274 P-169 708D7 AT3400 211D6T AT3400 711D7 P-185D 710D7 AT3400 714D7 AT3400 274 P-169 708D7 AT3400 666D7 AT3400 697D7 AT3400 666D7 AT3400 697D7 AT3400 697D7 AT3400 617D7 213D6C 3482P 617D7 210DE 604D7T NP/AT P-169 274 700D7 273 P-129 274 P-169 617D7 617D7 617D7 680D7 M44C S-853 P-417D 211D6T AT3400 213D6C 3482P 213D6C 3482P 819D7 680D7 M44C 680D7 M44C 901D7 819D7 819D7 666D7 AT3400 629D7 AT3400 667D7 680D7 M44C 760D6 AT3400 604D7T NP/AT 629D7 AT3400 211D6T AT3400 710D7 AT3400 Solid w/o cart 213D6C 3482P 710D7 AT3400 250,280,560,580 819D7 3482P 350D,360D,370D 710D7 AT3400 500D 710D7 AT3400	SCHEIDER			Model Number Needle Cart. 31,41 209D6T AT3400 Consort 6014 710D7 AT3400 6015;SBD63 111D7C QLM30 SI 7010,7020 710D7 AT3400 SPP32 695D7 AT3400 TS1652,1672 494 TS1672;TriSet 103 760D6 AT3400 TS1700,1702,1772 760D6 AT3400 TS1700,1702,1773 494 TS1873,4003,5005 760D6 AT3400	CAUTION: Some models listed may have been sold without a cart-ridge. Have your customer compare new needle to the old one before attempting installation.
		OP-3;PQ5 thru 65 P-30;"RC" System PG-R1 thru PG-R7 Plus P33 Plus Q40,50,60 RD4135,8020 RPT1200;SKT1000 SAT-3 SKT299 STG350,390,470 STG550;STL3 STP20 thru 580 STV280;TP80 TP75S TP220 TP240,340 TP420,430 TP560 TP600,605 TP626,636,700 TP670A TP670,682A,686 TP686A,690,690A TP727,1020 TP728,825 TP747 TP805,825,905 TP1000 TP1010,1020,1030 TP1012,1020 TP1400 TP1670,1672 TPB1 TPB2;TPX2 TPB2;TPX1S,TPX3 TPB3;TPD2,TPD4 TPV10,20;TPQ5 TPV12 TPX1,2,3 V6,6CD,8,12,14,16 W10 W30 Component T.T. 200D,350D 710D7 AT3400	864 P-226 AT3400 274 P-169 S-853 P-417D 274 P-169 708D7 AT3400 211D6T AT3400 711D7 P-185D 710D7 AT3400 714D7 AT3400 274 P-169 708D7 AT3400 666D7 AT3400 697D7 AT3400 666D7 AT3400 697D7 AT3400 697D7 AT3400 617D7 213D6C 3482P 617D7 210DE 604D7T NP/AT P-169 274 700D7 273 P-129 274 P-169 617D7 617D7 617D7 680D7 M44C S-853 P-417D 211D6T AT3400 213D6C 3482P 213D6C 3482P 819D7 680D7 M44C 680D7 M44C 901D7 819D7 819D7 666D7 AT3400 629D7 AT3400 667D7 680D7 M44C 760D6 AT3400 604D7T NP/AT 629D7 AT3400 211D6T AT3400 710D7 AT3400 Solid w/o cart 213D6C 3482P 710D7 AT3400 250,280,560,580 819D7 3482P 350D,360D,370D 710D7 AT3400 500D 710D7 AT3400	H. H. SCOTT			Model Number Needle Cart. 2052 thru 2714 604D7T NP/AT A600,650;PS10 604D7T NP/AT AV70 211D6C AT3400 Andover 45R 794D7 3482P Berkeley 90 213D6C 3482P Boston 200 213D6C 3482P Cambridge 65 213D6C 3482P Cape Cod 50 213D6C 3482P Concord 25 213D6C 3482P CCS3028,5038 794D7 3482P CCS3068,6038 211D6T AT3400 DS36,76 Solid w/o cart Gloucester 70 213D6C 3482P Lexington 40 213D6C 3482P PS16,18 697D7 AT3400 PS17A,47,70B Sold w/o cart PS39 211D6T AT3400 PS48,48A 741D7 AT3400 PS49A,69A,89,100 213D6C 3482P PS59;Woburn 45 794D7 3482P PS68,68A,88 741D7 AT3400 PS77X 612D7 PS150,160,270 211D6T AT3400 PS358,360 900D7 PS4003,4004 900D7	CAUTION: Some models listed may have been sold without a cart-ridge. Have your customer compare new needle to the old one before attempting installation.
		END "System" Number Listing CH30/B DS13 thru DS93 DXT60,70 DXT5004,5204 DXT5205,5214,5220 DXT5211,5216,5250 DXT5240,5252,5402 DXT5340,5341,5342 DXT5404 G,GXT107,140,180 G,GXT211,220,727 G230,255 G777,888 G1005;GXT170,210 G11707,1747 G11727 GXT110 GXT200,300 GXT210,707,747 GXT310,400,410 GXT808,828,848 GXT858,1747 GXT1600,4620 GXT4300,4500 GXT4310,4510 GXT4503,4504,4505 GXT4511,4514 GXT4512,4600,4610	M-854 P-411D 617D7 710D7 AT3400 274 P-169 274 P-169 S-853 P-417D 864 P-226 274 P-169 697D7 AT3400 796D7 P-187D 796D7 P-187D 736D7K 793D7 P-187D 719D7 P-187D 793D7 P-187D 796D7 P-187D 710D7 M-853 P-409D 710D7 P-187D 710D7 P-187D 736D7K 793D7 P-187D 793D7 P-187D 700D7 274 P-169 S-853 P-417D 274 P-169 S-853 P-417D 274 P-169	SEARS (SILVERTONE)			Model Number Needle Cart. 2052 thru 2714 604D7T NP/AT A600,650;PS10 604D7T NP/AT AV70 211D6C AT3400 Andover 45R 794D7 3482P Berkeley 90 213D6C 3482P Boston 200 213D6C 3482P Cambridge 65 213D6C 3482P Cape Cod 50 213D6C 3482P Concord 25 213D6C 3482P CCS3028,5038 794D7 3482P CCS3068,6038 211D6T AT3400 DS36,76 Solid w/o cart Gloucester 70 213D6C 3482P Lexington 40 213D6C 3482P PS16,18 697D7 AT3400 PS17A,47,70B Sold w/o cart PS39 211D6T AT3400 PS48,48A 741D7 AT3400 PS49A,69A,89,100 213D6C 3482P PS59;Woburn 45 794D7 3482P PS68,68A,88 741D7 AT3400 PS77X 612D7 PS150,160,270 211D6T AT3400 PS358,360 900D7 PS4003,4004 900D7	CAUTION: Some models listed may have been sold without a cart-ridge. Have your customer compare new needle to the old one before attempting installation.
		Model Number Needle Cart. SANYO, continued Artisan 1960 213D6C 3482P FOLLOWING ARE "System" NUMBERS: 10,100 20 50 200,240,246,250 220,330,550,1400 266,300,340,346 400,500,540,566 600,660,667,685 600,1600 670 672T 687,688,760,960 1040,1540,1566 1400,2000,2003 1660,1664,1667 1672T,2670T 1689,1760,1876 1877,1960,2040 AV6D,12,540,660 AV3000,3540,3660 AV4000,5000 G,GXT100 G,GXT110 G,GXT210 G,GXT300 G,GXT310 V6,V8,V14,V16	819D7 819D7 617D7 AT3400 745D7 213D6C 3482P 211D6T AT3400 21					

PHONOGRAPH MODEL NUMBER INDEX

















		30753, 30754 M-854 P-420D 30754500, 30755500 274 P-169 30755400 M-854 P-441D 30755410, 30875400 M-854 P-420D 30875401 274 P-169 31000, 31001 M-854 P-420D 31003000 164 31003001 864 P-226 31093100 369 31093101 M-854 P-420D 31093110, 31096110 M-854 P-180D 31096100, 31096101 369 31356 M-854 P-420D 31406 thru 31516 368 31554, 31556 864 P-226 31564, 31566, 31574 M-854 P-420D 31574332 274 P-169 31576 M-854 P-420D 31915, 31925, 31926 M-854 P-420D 31916, 31963 L-855 P-415D 31953 368 32260, 32261 166D7 32270 617D7 32333 thru 32400 166D7 32410 thru 32440 700D7 P-11 32470400 700D7 32470410 863 P-200 32490 272 P-129 32510 274 P-169 32521 thru 3252401: 369 32524200 274 P-182 32525 thru 32580 274 P-182 32590 O-854 P-420D 32610, 32630 272 P-129 32621, 32622, 32623 376D7 32624, 32643 274 P-182 32641 thru 32664 376D7 32664201, 32681 O-854 P-420D 32670, 32680 617D7 32690, 32710 272 P-129 32701, 32712 376D7 32711, 32712102 O-854 P-420D 32713 O-854 P-420D 32713200 376D7 32720 164 32721, 32722, 32771 O-854 P-420D 32772, 32780 O-854 P-420D 32790 274 P-169 32840, 32851, 32860 O-854 P-181D 32850, 32861, 32880 O-854 P-420D 3286006, 32871 376D7 33025 thru 33954 M-854 P-441D 33454600, 33754501 274 P-169 33654500 274 P-182 40000 864 P-226 74200, 74201 O-854 P-420D 74210 M-854 P-411D 90002, 90003 166D7 90010300 863 90010, 90011 274 P-182 90012 274 P-169 90012500 M-854 P-441D 90013, 90014 M-854 P-441D 90018, 90019, 90022 273 P-149 90021 274 P-182 90031, 90032 617D7 P-419D 90050 M-853 P-182 90060 274 P-420D 90061, 90062, 90063 M-854 P-420D 90062 thru 90065 M-854 P-441D 90200, 90400, 90410 M-853 P-419D 90210 O-854 P-420D 90402 617D7 90411 273 P-129 90502 274 P-169 90502, 90503 M-854 P-441D 90504, 90505 M-854 P-411D 91360, 91361402 O-854 P-420D 91361400, 91361404 M-854 P-441D 91361401 M-854 P-411D 91361403 274 P-169 91362, 91403 O-854 P-420D 91405 719D7 P-187D 91406 M-854 P-441D 91410 273 P-149 91420 274 P-182 91421, 91422 O-854 P-420D 91423, 91424, 91425 M-854 P-441D 91426, 91428 M-854 P-411D 91429, 91430 711D7 P-185D 91450, 91460 M-854 P-181D 91460301, 91460303 O-854 P-420D 91461, 91462 O-854 P-420D 91621, 91632, 91703 274 P-182 91633 164 91710 274 P-169 91711 thru 91714 M-854 P-411D 91716, 91717 711D7 P-185D	491721 thru 91732 M-854 P-420D 91733, 91734, 91735 M-854 P-441D 91741, 91742 274 P-169 91743, 91744, 91752 M-854 P-441D 91751 M-854 P-420D 91753, 91754 111D7 M44E 91761 thru 91801 M-854 P-441D 91802 617D7 91810, 91811, 91814 719D7 P-187D 91811, 91821 M-854 P-441D 91815 793D7 P-187D 91822, 91823, 91824 M-854 P-411D 91825, 91826, 91854 711D7 P-185D 91827 719D7 P-187D 91831, 91851, 91852 M-854 P-441D 91831, 91851 796D7 P-187D 91845, 91848 M-853 P-409D 91852, 91854, 91861 M-854 P-420D 91862 793D7 P-187D 91863, 91865 796D7 P-187D 91866, 91867 M-853 P-409D 91870, 91874 719D7 P-187D 91871 111D7 M44E 91872, 91881 760D7 AT3400 91876, 91877, 91881 796D7 P-187D 91878, 91879 M-853 P-409D 91880, 91885 719D7 P-187D 91883 711D7 P-185D 91886, 91888 719D7 P-187D 91891, 91892 760D7 AT3400 91892 710D7 AT3400 91895, 91896 211D6C AT3400 91898 793D7 P-187D 91916, 91940 719D7 P-187D 91917 711D7 P-185D 91921, 91922, 91925 M-854 P-411D 91922, 91923, 91924 711D7 P-185D 91931, 91951 M-854 P-441D 91941, 91942 M-854 P-411D 91942 796D7 P-187D 91946, 91947 711D7 P-185D 91961, 91971 M-854 P-411D 91969, 91972, 91974 711D7 P-185D 92530, 92540 M-853 P-419D 92897, 92999 796D7 P-187D 94200, 94210, 94212 M-853 P-419D 94213, 94215, 94217 M-853 P-419D 94216, 94240 M-854 P-180D 94218, 94245 M-854 P-441D 94221 629DQ 94230 274 P-169 94231, 94242, 94244 M-854 P-420D 94251, 94270, 94280 760D6 AT3400 94261 761DE M99E 94271 629D7 AT3400 94282 thru 94291 111D7 M44E 94942 796D7 P-187D 97021 M-854 P-180D 97101 M-854 P-420D 97291, 97921 666D7 AT3400 97301 M-853 P-409D 97550300, 97551 M-854 P-180D 97550301, 97551 M-854 P-420D 97900, 97940 760D7 AT3400 97951 629D7 AT3400 97970 710D7 AT3400	SEVILLE  Model Number Needle Cart. 5601, 5611, 5615 M-853 P-409D 6001, 7701, 7702 M-853 P-409D 7704, 7705, 7707 M-853 P-409D	SHARP  111  211  213  214  272  617  621  629  635  637  667  669  683  694  695  697  700  710  711  719
<p>Model Number Needle Cart.</p> <p>SEARS, continued</p> <p>2015 thru 2019 369 2250 thru 2260 700D7 2901, 2944 700D7 P-5 2908 O-853 TA-M1 2915 700D7 P-2 2916, 2940 711D7 TA-M1 2920, 2924 M-854 P-441D 2932 700D7 P-15 2947, 3226, 3228 M-854 P-420D 3227 863 P-200 3247 273 P-149 3249 700D7 3256A 700D7 3259, 3271, 3273 376D7 3262 164 3264 M-854 P-411D 3266, 3267, 3268 617D7 3272 164 3274, 3276 273 P-129 3288 M-854 P-420D 3291 M-853 P-422D 4252, 4260, 4284 700D7 6242, 6250, 6251 700D7 7413 thru 7417 M-853 P-433D 8231 thru 8238 700D7 8241 700D7 8254 thru 8258 166D7 9190 719D7 P-187D 9200, 9210 119D7 9282 213D6C 3482P 9288, 9289, 9294 796D7 P-187D 9290, 9293, 9296 119D7 9291, 9296, 9793 792D7 AT3400 9422, 9794 761DED M105E 9429 110DET M104E 9790 760D7 M99E 9791 710D7 AT3400 9794 thru 9798 710D7 AT3400 9799 212DE 201EP</p> <p>For the rest of the SEARS list, some Owner's Manuals refer to a number with eight digits; to save space, we've omitted the final three digits, except when they denote an actual difference between models.</p> <p>10110 M-853 P-433D 29000 thru 29100 166D7 29010, 29150 700D7 29160 711D7 29180 166D7 29200, 29240, 29330 M-854 P-441D 29280, 29300, 29320 617D7 29340 166D7 29430, 29460, 29470 711D7 29470502 700D7 P-11 29500 166D7 30025, 30424, 30426 M-854 P-420D 30554, 30555 M-854 P-411D</p>		<p>NOTE: The replacement cartridge listed in the column headed "Cart." is either a duplicate of the original cartridge installed in the set, OR a suitable substitute, if the original is not available.</p> <p>NOTE: In a few instances, the listed information may not be entirely correct. Set makers occasionally use more than one type of cartridge in a given model, without changing the model number; also, the cartridge may have been changed by a repairman.</p> <p>NOTE: These listings contain information on phonos built since 1974; info on those built between 1964 and 1974 will be found in Catalog P-6474, and those built prior to 1964 will be found in Catalog P-1963.</p>			

SECTION VII

PHONOGRAPH MODEL NUMBER INDEX

SYMPHONIC		TELEPHONE (DAYLIN)		TOSHIBA		UNITECH	
						Model Number Needle Cart. MC10 793D7 P-187D MC14, 15, 17, 20, 22 719D7 P-187D MCR2000 719D7 P-187D	
						VANITY FAIR	
		Model Number Needle Cart. PM-2 (Some) M-853 P-409D PM-2 (Some) 617D7 P-15 685, 1475 166D7 P-147 905, 936, 1005 274 P-182 980, 1080, 1475 273 P-149 1475 700D7 1590, 1597, 1598 700D7 P-5 1593, 1595, 1596 700D7 1697, 1797 617D7 P-88 4750, 4759 (Some) 700D7 TA-M1 4750, 4759 (Some) 166D7 P-147 14740, 14749, 74740 166D7 P-147 24740 thru 94740 700D7 P-5 24740 thru 94740 M-853 P-409D					
Model Number Needle Cart. S201; 304 719D7 P-187D SV270 793D7 P-187D 304 211D6T AT3400 310 740D7 AT3400 6003C, 6004-2F 711D7 P-185D 6005 M-853 P-409D 6008, 6009 719D7 P-187D 6014DX, 6014JX 719D7 P-187D 6015, 6016, 6018 M-853 P-409D 6030, 6031, 6032 M-853 P-409D 6040W, 6041G M-853 P-409D P7300 710D7 AT3400		THOMAS 					
Tanglewood - see Soundesign		TEAC (MICRO SEIKI) 					
Model Number Needle Cart. ACE-7, 7S, 9, 9S 695D7 DD22, 25, 26, 40, 100 Solid w/o cart J-Compo 61 213D6C 3472P Libero 3000, 5000 629D7 AT3400 P-161, 480, 680 213D6C 3472P PC-708 213D6C 3472P Prism 50, 50C, 50S 714D7 AT3400 Prism 70, 70C, 70S 714D7 AT3400 S-100CD 211D6T AT3400 3300, 5500 714D7 AT3400 5000, 7000 213D6C 3472P		Harley Davidson 796D7 P-187D HT-200 796D7 P-187D TSC975, 1000 719D7 P-187D Some use M-853 P-409D					
Technics - see Panasonic		Tiger - see Concert Hall					
Techwood - see Welton		NOTE: The replacement cartridge listed in the column headed "Cart." is either a duplicate of the original cartridge installed in the set, OR a suitable substitute, if the original is not available.				Model Number Needle Cart. Annie; Crayola 711D7 P-186 Country & Western 711D7 P-186 Dukes of Hazzard 711D7 P-186 Music Time 711D7 P-186 Smurfs; WKRP 711D7 P-186 30, 40, 50 700D7 53 863 55, 65, 66, 99 166D7 65-6, 80, 85, 99 700D7 100, 112, 115, 118 711D7 P-186 101, 101-6 700D7 P-5 102 thru 114; 203 166D7 119, 123, 152, 300 711D7 P-186 201, 203-6 863 300, 800; Bee Gees 166D7 400, 600, 700 BAS-S 500 thru 590 M-853 P-409D 850, 853, 1034, 1201 700D7 1012 thru 1028 272 2100 thru 4710 700D7 7100, 7700 166D7 7100, 7400, 7401 711D7 7301 272 7700, 7750 711D7 7700, 7701 700D7 8103, 8104 711D7 8108, 8109R M-854 P-411D 8700, 8750 711D7 8700, 8750 617D7 9700, 9708 617D7 9700, 9705, 9708 700D7 9981 0-853 P-409D	
NOTE: In a few instances, the listed information may not be entirely correct. Set makers occasionally use more than one type of cartridge in a given model, without changing the model number; also, the cartridge may have been changed by a repairman.		NOTE: These listings contain information on phonos built since 1974; info on those built between 1964 and 1974 will be found in Catalog P-6474, and those built prior to 1964 will be found in Catalog P-1963.		Model Number Needle Cart. AX-8; AZ-8 710D7 AT3400 DS50, 60, 210, 211 705D7 AT3400 DS120T, 125X, 150X 735D7 AT3400 DS1000, 2000 734D7 AT3400 DS1208, 1208X 735D7 AT3400 DS3350, 4000 734D7 AT3400 ES7300P 615D7 FS7300EA, 7500E 615D7 MS35; SE40 615D7 SB40 671D7 SL5, 50, 55, 77 711D7 P-185D SL3046, 3066, 3086 711D7 P-185D SL3127, 3147 793D7 P-187D SM100, 150, 200, 206 711D7 P-185D SM150 719D7 P-187D SMC3400C M-853 P-440D SMC5460C, 5560C M-854 P-411D SMC5460M 111D7C QLM30 SP252 615D7 SP680C, 780C, 850C 615D7 SR230 697D7 AT3400 SR5638 819D7 3482P SR-A102, A200, F102 705D7 AT3400 SR-B2, B20L; UM-20 734D7 AT3400 SR-B22, D33 710D7 AT3400 SR-B152 735D7 AT3400 SR-F450, 451, 452 705D7 AT3400 SR-V12 211D6T AT3400 STR5561 M-854 P-411D STR7553, 7563 111D7C QLM30 STR8563 111D7C QLM30 System 22, 33, 55 210D7 AT3400 " 50, 70, 100 213D6C 3482P " 120, 8500 213D6C 3482P " VII 119D7 " V12, V32 211D6T AT3400			

PHONOGRAPH MODEL NUMBER INDEX

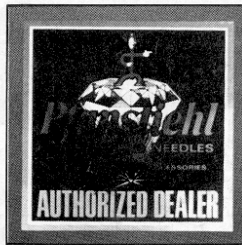
WELTON (TECHWOOD)		YAMAHA		YORK ELECTRONICS (YORX)		ZENITH	
							
							
Model Number	Needle Cart.	Model Number	Needle Cart.	Model Number	Needle Cart.	Model Number	Needle Cart.
105, 1401, 1800	211D6T AT3400	17, 27, 28, 35, 36	211D6C AT3400	AVX130, 131	793D7 P-187D	E911 thru 966	898 P-176D
400, 1401, 1402	793D7 P-187D	45, 46, 56, 67, 68	211D6C AT3400	AVX200, 7500	793D7 P-187D	E902G; ET902, 904	898 P-176D
1403, 1815, 1825	793D7 P-187D	60, 70	710D7 AT3400	DAD2207	79607 P-187D	ET914, 915	898 P-176D
1802, 1803, 1804	211D6T AT3400	78, 500B	211D6C AT3400	DAR2305; DAR4210	793D7 P-187D	F584 thru 594	898 P-176D
1805, 1807, 1809	211D6T AT3400	161, 181	718D7 3482P	DAR4305, 5500, 5505	793D7 P-187D	F725, 736	898 P-176D
1808, 1809, 1829	120D7 AT3400	201, 221, 242, 262	718D7 3482P	FM2100, 2206, 2207	793D7 P-187D	F902 thru 916	898 P-176D
1810, 1816	111D7C QLM30	AV-1	213D6C 3482P	FM2411ST, 2507	793D7 P-187D	F923, 924, 925	898 P-176D
1818	211D6T AT3400	AV-2, 4	718D7 3482P	FXV131; LSC2203	793D7 P-187D	F966, 8748	898 P-176D
1841, 1842, 1850	793D7 P-187D	CS101CD, 102CD	213D6C 3482P	G5501	111D7C QLM30	FR923 thru 937	898 P-176D
1860, 2501, 2502	793D7 P-187D	CS121CD, 122CD	213D6C 3482P	M2000, 2116, 2121	793D7 P-187D	G, GR584 thru 596	899D7 P-171D
2504; XL4000	793D7 P-187D	CS141CD, 1412	213D6C 3482P	M2200, 2300	719D7 P-187D	G584, 596, 736	8554TD P-179D
		CS360, 382, 385, 402	718D7 3482P	M2202, 2203, 2206	793D7 P-187D	GR587, 590, 591, 596	8554TD P-179D
		CS440, 503, 570	718D7 3482P	M2207, 2208	793D7 P-187D	G, GR736	899D7 P-171D
		CS470CD, 550, 560	211D6C AT3400	M2207, ST	796D7 P-187D	G, GR901, 902, 903	M-854 P-441D
		CS640, 642, 645	211D6C AT3400	M2352, 2372, 2405	M-853 P-409D	G904	898 P-176D
		P-07, 17, 26, 27	211D6C AT3400	M2404, 2408, 2409	793D7 P-187D	G914 thru 942	899D7 P-171D
		P28, 30, 31	718D7 3482P	M2407, 2408, 2455	719D7 P-187D	GR936; G946AE	899D7 P-171D
		PE2036	213D6C 3482P	M2456, 2457, 2458	719D7 P-187D	G946AES	8554TD P-179D
		TT400U, 500U	635D7 AT3400	M2461, 2489, 2500	719D7 P-187D	H, HR584 thru 596	8554TD P-179D
		YP50, 70, 500	211D6C AT3400	M2462	722D7 P-187D	H736	8554TD P-179D
		YP50, 450, 500, 700	629D7 AT3400	M2500, 2501, 2502	793D7 P-187D	H, HR901, 902, 903	M-854 P-180D
				M2605, 2657, 2686	711D7 P-187D	H, HR901, 902, 903	M-854 P-441D
				M2608, 2612	111D7C QLM30	H, HR914 thru 922	899D7 P-171D
				M2655, 2656	M-853 P-440D	HR936, 937, 966	8554TD P-179D
				M2657-16	M-853 P-440D	IS4020, 4030, 4040	M-854 P-411D
				M2657; Ceramic TT	M-853 P-409D	IS4021, 4031, 4041	M-854 P-420D
				M2662, 2673, 2674	719D7 P-187D	IS4060, 4061	760D7Z AT3400
				M2675, 2677, 2678	719D7 P-187D	IS4060, 4070, 4080	760D6 AT3400
				M2676	793D7 P-187D	IS4070, 4071	760D7Z AT3400
				M2680	M-854 P-411D	IS4080, 4081, 4090	760D7Z AT3400
				M2680, 2681	719D7 P-187D	IS4100, 4130, 4140	M-854 P-411D
				M2684, 2685	719D7 P-187D	IS4170, 4175, 4180	111D7C QLM30Z
				Q/100, 101, 200	793D7 P-187D	J584W1	8554TD P-179D
				Q/100, 801	719D7 P-187D	J, JR584, 587, 588	M-854 P-441D
				R4106, 4109, 4110	793D7 P-187D	J, JR590 thru 596	760D6 AT3400
				R4116, 4121, 4125	793D7 P-187D	JR900P1	M-854 P-180D
				R4210, 4212	793D7 P-187D	J, JR900 thru 922	M-854 P-414D
				STX500, 4900, 5000	793D7 P-187D	JR966; J9026	760D6 AT3400
				STX8000; 2409	793D7 P-187D	K900; KR902	M-854 P-411D
				2685	700D7 P-187D	K2579; KR966	760D6 AT3400
						KR912, 915, 916	M-854 P-407D
						KR919, 920	M-854 P-404D
						L900, 902	M-854 P-411D
						LC912; LD919	M-854 P-411D
						LC912; LD919	M-854 P-404D
						LC912; LD919	M-854 P-441D
						L-E50	213D6C 3472P
						LR912, 915, 916	M-854 P-404D
						LR916, 917; MD912	M-854 P-441D
						LR917, 919, 920	M-854 P-404D
						LR919, 920	M-854 P-411D
						M900; MD919	M-854 P-411D
						MC9020	760D6 AT3400
						MC9020; MD966	760D7Z AT3400
						MC9030, 9035	760DE M44E
						MC9040, 9050	760DEJ M99E
						MC9045	111D7C QLM30Z
						MC9055	710D7 AT3400
						MR902, 920	M-854 P-411D
						MR915, 916, 917	M-854 P-441D
						NC, NR900AE	M-854 P-411D
						ND902 thru 920	M-854 P-411D
						ND966	760D7Z AT3400
						SJ2597	M-854 P-414D
						SJ2599	760D6 AT3400
						SL2597	M-854 P-404D
						SR917, 918	S-854 P-180D



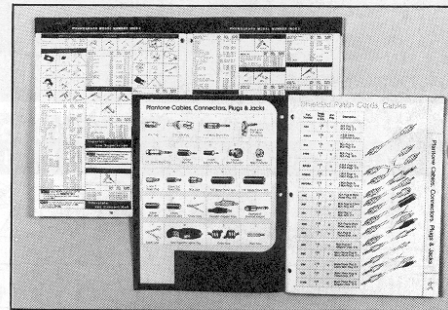
Bag Stuffers (F-9209 & F-9210)



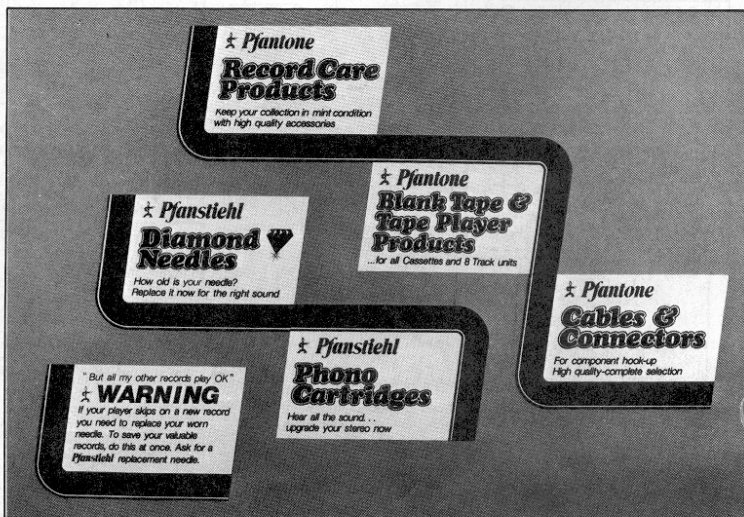
Store Hour Decal



Authorized Dealer Sticker



Needle and Cartridge Guide; Accessory Catalog



Display Kit - Banners

Dealer Aids available from Pfanstiehl

BAG STUFFERS (F-9209 & F-9210)

To further increase your sales, be sure to use Pfanstiehl's cleverly illustrated bag stuffers. Printed in colorful magenta and blue, the hand outs provide valuable information about needles and accessories. They point out the dangers of using a worn needle and explain to customers when they need to replace needles. In addition, the bag stuffers provide an area where you can write, stamp or print your store's name, address and phone number. Free when requested with your order for merchandise. Two versions - specify form number. F-9209 - needle & accessories, F-9210 needles both sides.

STORE HOUR DECAL

Do you need an attractive window or door decal which clearly depicts your store hours? Then use the one provided by Pfanstiehl! Our three color decal states the hours you are open, and reinforces the message "Is it time to change your needle?" In addition, it announces that you are an authorized Pfanstiehl dealer. Free when requested with your order for merchandise.

NEEDLE & CARTRIDGE GUIDE/ACCESSORIES CATALOG

These two catalogs provide a complete guide to all Pfanstiehl and Pfanstiehl products. These manuals are divided into sections, systematically numbered, fully cross-referenced, and clearly illustrated for easy use. The Pfanstiehl needle and cartridge guide is widely recognized as the most comprehensive and up-to-date in the business! It is a vital tool for the closing of every sale. Free when requested with your order for merchandise.

AUTHORIZED DEALER STICKER

Make sure that customers think of **YOUR** store when they need a replacement needle. Place this classic 6" X 6" Pfanstiehl authorized dealer decal in any prominent place. It is printed on both sides, and its scratch resistant mylar surface allows repeated washings. Free when requested with your order for merchandise.

DISPLAY KIT - BANNERS

To create a highly visible sales message in your store, decorate your walls and windows with Pfanstiehl banners. The brightly colored posters (with selling messages for diamond needles, phono cartridges, record care products, blank tape and tape player products, cables and connectors) can stand separately, form a long, continuous streamer, or be grouped at angles for an interesting effect. When used creatively, these attractive banners can enhance your store's appearance and boost sales. Free when requested with your order for merchandise.

PFANSTIEHL RESERVES THE RIGHT TO LIMIT QUANTITIES OF ALL ITEMS



Pfanstiehl

DEALER SELLING AIDS

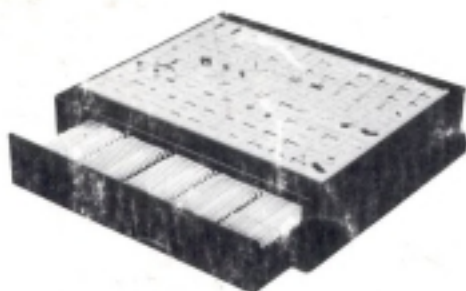


COUNTER TOP CHANGE MAT

Needle chart in full color shows the top 100 sellers. Your sales people need only match the customer's old needle to the actual-size photos for quick identification.

S9-1 ATTACHE CASE

Fits box with storage space for a goodly supply of profitable Pfanstiehl needles. Capacity 200. \$25 needle order qualification (\$5 purchase price).



SB-3 COUNTERTOP DISPLAY

Welded-steel construction, with scratch-proof walnut-color finish. Can be stacked to 3 or 4 high for your expanding inventory. Includes chart with actual-size photos of all the top-selling needles. Capacity over 200. \$100 needle order qualification (\$12.50 purchase price).

SB-7 16-DRAWER CABINET

For shelf storage or wall hang-up. Welded steel construction, scratch-proof, walnut-color finish. Stackable for additional capacity. Capacity over 300. \$100 needle order qualification (\$12.50 purchase price).



We propose to supply our dealers with enough display units to store their inventory of PFANSTIEHL Needles. No Charge is made, but they are not billed as "premiums" with every order. Qualifying orders are specified because of the considerable costs.