

# ASTATIC®

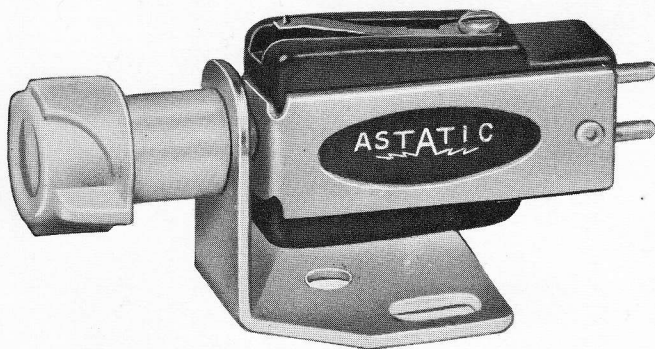
**MICROPHONES**

*Replacement*

**CARTRIDGES**

*and*

**NEEDLES**

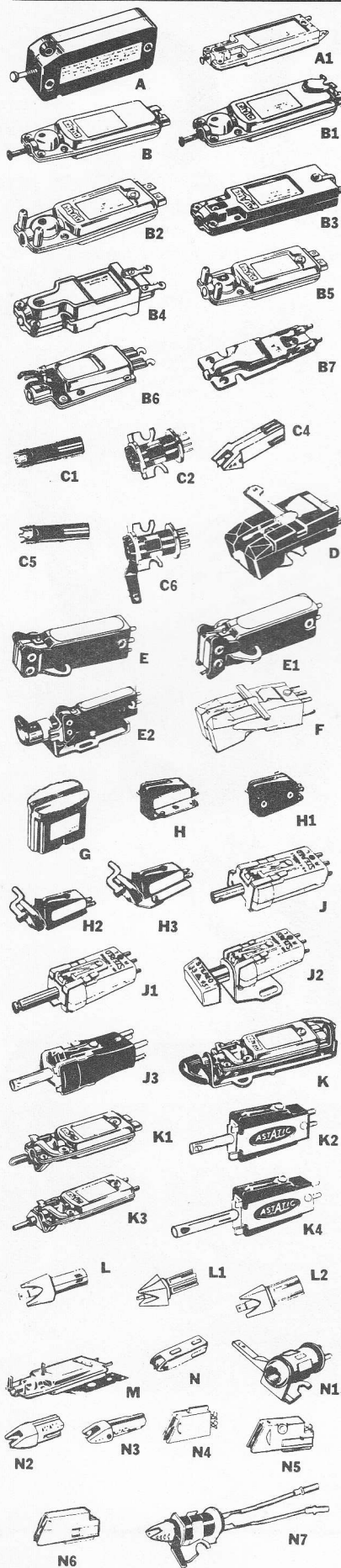


**1964**



**THE ASTATIC CORPORATION**  
CONNEAUT, OHIO

# ASTATIC Phono Cartridges



Complete listing of Astatic phono cartridges for direct replacement use and original equipment use. Type of cartridge may be determined by Model No. suffix, as follows: **M** indicates metal needle; **S**—precision polished synthetic jewel tip; **T**—turnover cartridge; **TB**—turnerover cartridge with bracket; **TY**—turnerover cartridge with formed yoke; **TS**—turnerover cartridge with round spindle; **X**—natural diamond; **D**—natural diamond; **-1**—1 mil needle, for 33 $\frac{1}{2}$  and 45 rpm; **-2**—2 mil needle, for 33 $\frac{1}{2}$ , 45 and 78 rpm; **-3**—3 mil, for 78 rpm; **-7**—7 mil, for stereo plus 33 $\frac{1}{2}$  and 45 rpm. **P-I**—plug-in cartridge.

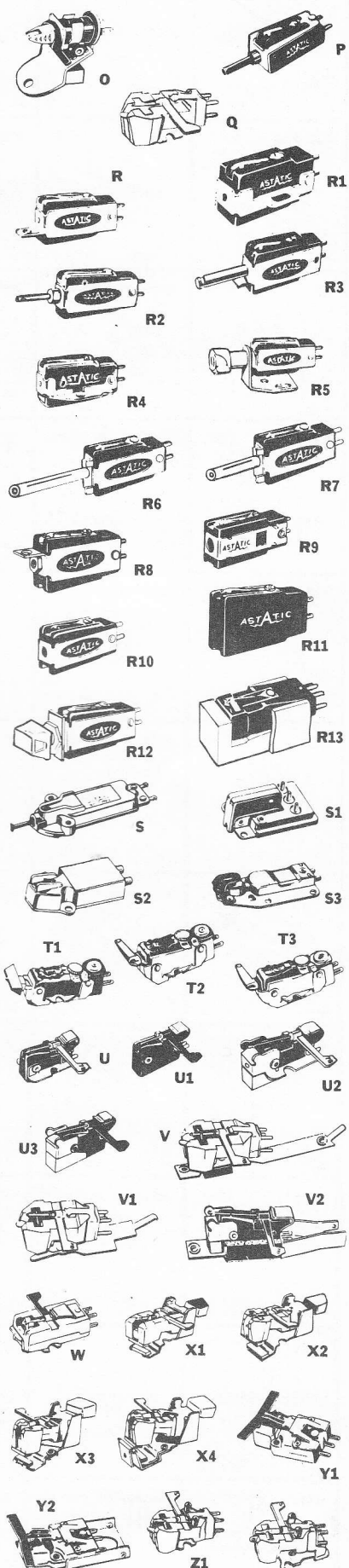
Astatic No.	Fig.	Astatic Needle	Element	Output V.	Speed	Replaces	List Price
2	A	N4-3s*	cry.	2.5	78		\$9.00
4	A1	N4-3s*	cry.	1.4	78		4.45
6	A1	N4-3s*	cer.	0.6	78		4.45
9-7	C1	P-I (.7s)	cer.	0.65	Stereo, 33, 45		6.25
9-7B	C1 & C2	P-I (.7s)	cer.	0.65	Stereo, 33, 45		7.25
9-7BX	C1 & C2	P-I (.7d)	cer.	0.65	Stereo, 33, 45		13.25
11T7	C5	P-I (.7s, 7s)	cer.	0.65	Stereo, 33, 45		6.95
11T7B	C5 & C6	P-I (.7s, 7s)	cer.	0.65	Stereo, 33, 45		7.95
11T7D	C5	P-I (.7d, 7d)	cer.	0.65	Stereo, 33, 45		14.95
12	B	N4-3s*	cry.	4.0	78		4.45
12U	B1	N4-3s*	cry.	4.0†	78		4.95
13AT	C4	P-I (.7s 3s)	cer.	0.35	(St. 33, 45) 78		7.95
13ATB	C4 & C6	P-I (.7s 3s)	cer.	0.35	(St. 33, 45) 78		8.95
13ATX	C4	P-I (.7d 3s)	cer.	0.35	(St. 33, 45) 78		13.95
13T	C5	P-I (.7s 3s)	cer.	0.65	(St. 33, 45) 78		6.95
13TB	C5 & C6	P-I (.7s 3s)	cer.	0.65	(St. 33, 45) 78		7.95
13TBX	C5 & C6	P-I (.7d 3s)	cer.	0.65	(St. 33, 45) 78		11.95
13TD	C5	P-I (.7d 3d)	cer.	0.65	(St. 33, 45) 78		14.95
13TX	C5	P-I (.7d 3s)	cer.	0.65	(St. 33, 45) 78		10.95
16	B2	N4-2s*	cry.	3.5	33, 45, 78		3.95
17	D	N41 (2 tips .7s 3s)	cer.	0.4	(St. 33, 45) 78	Sonotone 8T,	11.75
17D	D	N41sd (2 tips .7d 3s)	cer.	0.4	(St. 33, 45) 78	8TA, 9T	15.75
17DA	D	N41sd (2 tips .7d 3s)	cer.	0.35	(St. 33, 45) 78	Admiral 409C59-1,-3	17.25
18	B7	N6-2m	cry.	3.0	33, 45, 78		3.25
22	B2	N4-2s*	cry.	3.0	33, 45, 78		3.95
24	B3	N4-3s*	cry.	1.0	78		4.95
26	B3	N4-3s*	cry.	3.5	78		4.95
28	B4	N4-2s*	cry.	3.5	33, 45, 78		3.95
32	B3	N4-3s*	cry.	3.5	78		4.45
40-1	E	N27-1s	cry.	1.0	33, 45		6.50
40-2	E	N27-2s	cry.	1.0	33, 45, 78		6.50
40T	E1	N27-1s & N27-3s	cry.	1.0	33, 45, 78		6.95
40TB	E2	N27-1s & N27-3s	cry.	1.0	33, 45, 78		8.45
41T	E1	N27-1s & N27-3s	cer.	0.6	33, 45, 78		9.50
41TB	E2	N27-1s & N27-3s	cer.	0.6	33, 45, 78		10.00
45D	F	N45-7d	cer.	0.2	Stereo 33, 45		44.50
50-1	C	N37-1s	cry.	0.5	33, 45		9.50
51-1	H	N29-1s	cer.	0.7	33, 45		7.40
51-2	H	N29-2s	cer.	0.7	33, 45, 78		7.40
53-2	H1	N29-2s	cer.	0.7	33, 45, 78		7.40
53T	H2	N30 (2 tips 1s 3s)	cer.	0.7	(33, 45) 78		7.95
55T	H3	N30 (2 tips 1s 3s)	cer.	0.7	(33, 45) 78		7.95
57T	H3	N38 (2 tips 1s 3s)	cer.	0.7	(33, 45) 78		9.50
59-2	H	N29-2s	cer.	0.7	33, 45, 78		8.50
60-2	B5	N28-2s	cry.	1.0	33, 45, 78		7.00
62-1	B6	N27-1s	cry.	3.0	33, 45		4.95
62TB	K	N34-1s & N34-3s	cry.	1.0	(33, 45) 78		10.00
62TY	K1	N34-1s & N34-3s	cry.	1.0	(33, 45) 78		7.95
64TS	K2	N8-1s & N8-3s	cry.	3.0	(33, 45) 78		6.95
66-2	B5	N31-2s	cry.	3.0	33, 45, 78		4.95
66-3	B5	N31-3s	cry.	3.0	78		4.95
66TB	K	N31-1s & N31-3s	cry.	3.0	(33, 45) 78		9.00
66TS	K3	N31-1s & N31-3s	cry.	3.0	(33, 45) 78		7.25
66TY	K1	N31-1s & N31-3s	cry.	3.0	(33, 45) 78		6.50
70D	J	N8-3s & N8-7d	cry.	2.0	(St. 33, 45) 78		12.25
70TS	J	N8-3s & N8-7s	cry.	2.0	(St. 33, 45) 78		7.25
74TS	J1	N8-3s & N8-7s	cry.	2.0	(St. 33, 45) 78		7.25
76TSB	J2	N8-3s & N8-7s	cry.	2.0	(St. 33, 45) 78		7.95
78	J	N8-3s & N7-7d	cry.	2.0	(St. 33, 45) 78	RCA	7.25
80D	J	N8-3s & N7-7d	cry.	0.8	(St. 33, 45) 78		12.50
80TS	J	N8-3s & N7-7s	cry.	0.8	(St. 33, 45) 78		7.50
81T	N	P-I (1s 3s)	cer.	1.0	(33, 45) 78		3.95
81TB	N & N1	P-I (1s 3s)	cer.	1.0	(33, 45) 78		4.95
81TBX	N & N1	P-I (1d 3s)	cer.	1.0	(33, 45) 78		8.95
81TX	N	P-I (1d 3s)	cer.	1.0	(33, 45) 78		7.95
83-1	N	P-I (1s)	cer.	1.0	33, 45	RCA	3.50
83-1X	N	P-I (1d)	cer.	1.0	33, 45	RCA	12.00
86D	J2	N8-3s & N7-7d	cry.	0.8	(St. 33, 45) 78		13.50
86TSB	J2	N8-3s & N7-7s	cry.	0.8	(St. 33, 45) 78		8.50
89-1	N	P-I (1s)	cer.	1.3	33, 45	RCA (Silicone filled)	4.25
89-1D	N	P-I (1d)	cer.	1.3	33, 45	RCA (Silicone filled)	10.25
89T	N	P-I (1s 3s)	#	1.3	(33, 45) 78		4.95
89TB	N & N1	P-I (1s 3s)	#	1.3	(33, 45) 78		5.95
89TBX	N & N1	P-I (1d 3s)	#	1.3	(33, 45) 78		11.95
89TX	N	P-I (1d 3s)	#	1.3	(33, 45) 78		10.95
91T	N2	P-I (1s 3s)	cer.	1.0	(33, 45) 78	E.V. 76S, Webcor	3.95
91TX	N2	P-I (1d 3s)	cer.	1.0	(33, 45) 78	E.V. 76DS, Webcor	9.95
93T	N3	P-I (1s 3s)	cer.	1.0	(33, 45) 78	A1919	
93TX	N3	P-I (1d 3s)	cer.	1.0	(33, 45) 78	E.V. 56	3.95
93T1	N3	P-I (1s 1s)	cer.	1.0	33, 45	E.V. 56DS	9.95
93T2	N3	P-I (2s 2s)	cer.	1.0	33, 45, 78	E.V. 51-1	3.95
93T3	N3	P-I (3s 3s)	cer.	1.0	78	E.V. 52-2	3.95
95	N3	P-I (1s 3s)	cer.	1.0	(33, 45) 78	E.V. 53-3	3.95
95D	N3	P-I (1d 3s)	cer.	1.0	(33, 45) 78	Zenith 142-87 Purple	3.95
95-1	N3	P-I (1s 1s)	cer.	1.0	33, 45	Zenith 142-88 White	9.95
97-1	N4	P-I (1s)	coil	.....	33, 45	Zenith 142-89 Brown	3.95
97-1D	N4	P-I (1d)	coil	.....	33, 45	Zenith S-15222 Grn.	3.50
97-2	N4	P-I (2s)	coil	.....	33, 45, 78	Zenith S-21458 Gold	15.00
97-3	N4	P-I (3s)	coil	.....	78	Zenith S-15780 Red	3.50
99-1	N5	P-I (1s)	cer.	0.4	33, 45	and Green	
99-1D	N5	P-I (1d)	cer.	0.4	33, 45	Zenith S-11473 Red	3.50
99-2	N5	P-I (2s)	cer.	0.4	33, 45, 78	Zenith 142-71 Blue	5.00
99-3	N5	P-I (3s)	cer.	0.4	78	Zenith 142-74 Black	15.00
101	N6	P-I (1s 3s)	cer.	0.4	(33, 45) 78	and White	
101D	N6	P-I (1d 3s)	cer.	0.4	(33, 45) 78	Zenith 142-72 Yel.	5.00
						Zenith 142-73 Purp.	5.00
						Zenith 142-77 Brn.	7.50
						Zenith 142-76 Gray	16.50

\*Needle not included with cartridge. †Output with condenser 1.25 v. #Special ceramic. Listing continued on next page

# ASTATIC Phono Cartridges




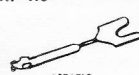




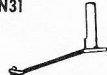


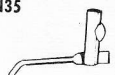





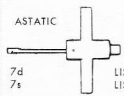



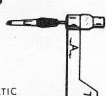
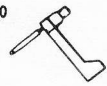




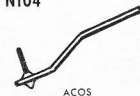


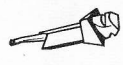
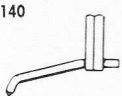





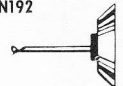
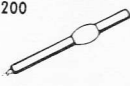


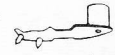





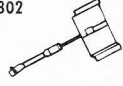

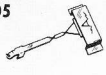

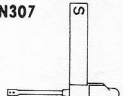
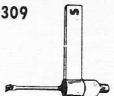

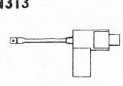

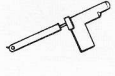
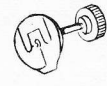
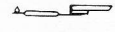
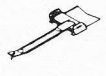

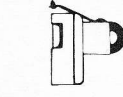


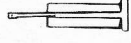
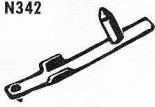
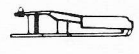
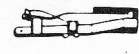
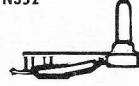
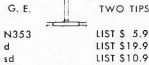
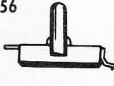
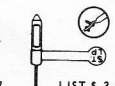

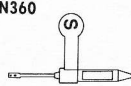

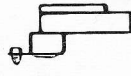

Astatic No.	Fig.	Astatic Needle	Element	Output V.	Speed	Replaces	List Price
103	L	P-I (.7s .7s)	cer.	1.0	St, 33, 45	E.V. 61 Red & Slvr.	55.95
103D	L	P-I (.7d .7s)	cer.	1.0	St, 33, 45	E.V. 61D Red and Gold Dot	12.95
105	L	P-I (.7s 3s)	cer.	1.0	(St, 33, 45) 78	E.V. 66 Blue & Slvr.	5.95
105D	L	P-I (.7d 3s)	cer.	1.0	(St, 33, 45) 78	E.V. 66D Blue and Gold Dot	12.95
106	M	N6-2m*	cry.	3.5	33, 45, 78	Webster	4.95
107	O	(.7s 3s)	cer.	0.5	33, 45, 78	Telefunken	8.95
109	L1	P-I (.7s .7s)	cer.	0.3	St, 33, 45	E.V. 101 Red	5.95
109D	L1	P-I (.7d .7s)	cer.	0.3	St, 33, 45	E.V. 101D Red and Gold Dot	12.95
111	L1	P-I (.7s 3s)	cer.	0.3	(St, 33, 45) 78	E.V. 106 Blue	5.95
111D	L1	P-I (.7d 3s)	cer.	0.3	(St, 33, 45) 78	E.V. 106D Blue and Gold Dot	12.95
113	L2	P-I (.7s .7s)	cer.	0.5	St, 33, 45	E.V. 107 Yellow	5.95
113D	L2	P-I (.7d .7s)	cer.	0.5	St, 33, 45	E.V. 107D Yellow and Gold Dot	12.95
115	L2	P-I (.7s 3s)	cer.	0.5	(St, 33, 45) 78	E.V. 108 Brn.	5.95
115D	L2	P-I (.7d 3s)	cer.	0.5	(St, 33, 45) 78	E.V. 108D Brn. and Gold Dot	12.95
118	P	N8-1s & N8-3s	cry.	0.75	(33, 45) 78	VM Changer	6.45
119	O	(1s 3s)	cer.	1.0	33, 45, 78	Telefunken	5.95
120	P	N8-1s & N8-3s	cry.	3.0	(33, 45) 78	Telefunken	6.45
124	P1	N8-1s & N8-3s	cry.	3.0	(33, 45) 78	VM Changer	6.45
133	Q	N50 (2 tips .7s 3s)	cer.	0.55	(St, 33, 45) 78	.....	9.75
133D	Q	N50sd (2 tips .7d 3s)	cer.	0.55	(St, 33, 45) 78	.....	13.75
135DA	D	N41sd (2 tips .7d 3s)	cer.	.105	(St, 33, 45) 78	Admiral 409C56-1	18.75
137D	Q	N50sd (2 tips .7d 3s)	cer.	.135	(St, 33, 45) 78	.....	15.25
140	W	N60 (2 tips .7s 3s)	cry.	1.0	(St, 33, 45) 78	.....	7.50
140D	W	N60sd (2 tips .7d 3s)	cry.	1.0	(St, 33, 45) 78	.....	12.50
142	W	N60 (2 tips .7s 3s)	cry.	2.0	(St, 33, 45) 78	.....	7.25
142D	W	N60sd (2 tips .7d 3s)	cry.	2.0	(St, 33, 45) 78	.....	12.25
153R	Z2	N56 (2 tips .7s 3s)	cer.	0.35	(St, 33, 45) 78	.....	13.50
153RD	Z2	N56sd (2 tips .7d 3s)	cer.	0.35	(St, 33, 45) 78	.....	17.50
217D	X1	N41sd (2 tips .7d 3s)	cer.	0.35	(St, 33, 45) 78	Sylvania 11-14161-1	17.75
233D	X2	N50sd (2 tips .7d 3s)	cer.	0.5	(St, 33, 45) 78	Sylvania 11-14159-1	15.75
310-1	R	N8-1s	cry.	3.0	33, 45	.....	4.95
310-2	R	N8-2s	cry.	3.0	33, 45, 78	.....	4.95
310T	R1	N8-1s & N8-3s	cry.	3.0	(33, 45) 78	.....	5.45
310TS	R2	N8-1s & N8-3s	cry.	3.0	(33, 45) 78	.....	5.45
312-2	R	N8-2s	cry.	0.75	33, 45, 78	.....	5.45
312T	R1	N8-1s & N8-3s	cry.	0.75	(33, 45) 78	.....	5.45
312TS	R2	N8-1s & N8-3s	cry.	0.75	(33, 45) 78	.....	6.45
314TS	R3	N8-1s & N8-3s	cry.	3.0	(33, 45) 78	.....	5.45
316TS	R3	N8-1s & N8-3s	cry.	0.75	(33, 45) 78	.....	5.95
318	R3	N8-1s & N8-1s	cry.	3.0	33, 45	.....	5.95
320	R3	N8-7s & N8-3s	cry.	3.0	(33, 45) 78	RCA 973543-7	5.45
322	R3	N8-1s & N8-3s	cry.	3.0	(33, 45) 78	RCA	5.45
401	S	N4-3s*	cry.	1.4	78	RCA	5.95
402	S1	N29-3s	cer.	0.7	78	Admiral	7.95
403	S2	N34-3s	cry.	0.7	78	RCA	10.50
405	K1	N31-1s & N31-3s	cry.	3.0	(33, 45) 78	Webster	7.95
406	K3	N31-1s & N31-3s	cry.	3.0	(33, 45) 78	Webster	7.95
407	S3	N6-2m	cry.	4.0	33, 45, 78	Shure, Webster	4.45
408	B6	N560-1s	cry.	0.8	33, 45	RCA (Lanolin Filled)	4.45
409	H3	N30 (2 tips 1s 3s)	cer.	0.7	(33, 45) 78	Admiral	9.50
410	B6	N561-1s & N561-3m	cer.	0.8	(33, 45) 78	RCA (Lanolin Filled)	6.50
414-1	R4	N8-1s	cry.	3.0	33, 45	.....	4.45
414-2	R4	N8-2s	cry.	3.0	33, 45, 78	.....	4.45
416-2	R4	N8-2s	cry.	0.75	33, 45, 78	.....	5.45
420	R5	N8-1s & N8-3s	cry.	3.0	(33, 45) 78	.....	5.45
422	R5	N8-1s & N8-3s	cry.	0.75	(33, 45) 78	.....	5.95
424	R6	N8-1s & N8-3s	cry.	3.0	33, 45, 78	Webster	6.50
426	R7	N8-1s & N8-3s	cry.	3.0	33, 45, 78	Webster	7.50
432	B	N650*	cry.	4.0	33, 45, 78	Shure W56N	7.50
434	R8	N8-2s	cry.	3.0	33, 45, 78	Rystl M88	4.45
436	R9	N8-1s & N8-3s	cry.	3.0	(33, 45) 78	Webster	5.95
438	R9	N8-2s	cry.	3.0	33, 45, 78	Webster	5.45
444	R13	N7-7s	cry.	0.8	St, 33, 45	Ronette, VM	8.50
445	U	N52 (2 tips 1s 3s)	cer.	1.0	(33, 45) 78	Sonotone	7.40
445D	U	N52sd (2 tips 1d 3s)	cer.	1.0	(33, 45) 78	Sonotone	11.95
447	U1	N52 (2 tips 1s 3s)	cer.	1.0	(33, 45) 78	Sonotone	7.40
448	R10	N8-2s	cry.	3.0	33, 45, 78	.....	4.95
451	N7	P-I (1s 3s)	#	1.3	(33, 45) 78	.....	6.95
452	R11	N8-1s & N8-3s	cry.	3.0	(33, 45) 78	.....	5.95
454	R11	N8-2s	cry.	3.0	33, 45, 78	.....	5.45
455	U2	N54 (2 tips 1s 3s)	cer.	0.5	(33, 45) 78	Sonotone	9.50
455D	U2	N54sd (2 tips 1d 3s)	cer.	0.5	(33, 45) 78	Sonotone	15.00
456	R12	N8-1s & N8-3s	cry.	0.75	(33, 45) 78	.....	6.95
457	U3	N54 (2 tips 1s 3s)	cer.	0.5	(33, 45) 78	Sonotone	9.50
459	V1	N50 (2 tips .7s 3s)	cer.	0.55	(St, 33, 45) 78	Magnavox	10.50
459D	V1	N50sd (2 tips .7d 3s)	cer.	0.55	(St, 33, 45) 78	Magnavox	14.50
461	V	N56 (2 tips .7s 3s)	cer.	0.55	(St, 33, 45) 78	Magnavox	10.50
461D	V	N56sd (2 tips .7d 3s)	cer.	0.55	(St, 33, 45) 78	Magnavox	14.50
463	V2	N54 (2 tips 1s 3s)	cer.	0.5	(33, 45) 78	Magnavox	10.50
463D	V2	N54sd (2 tips 1d 3s)	cer.	0.5	(33, 45) 78	Magnavox	14.50
470	K4	N8-1s & N8-3s	cry.	3.0	(33, 45) 78	Vaco	5.95
472	J3	N7-7s & N8-3s	cry.	0.8	(St, 33, 45) 78	Vaco	7.50
474	J3	N8-7s & N8-3s	cry.	2.0	(St, 33, 45) 78	Vaco	7.25
475	Y1	N564 (2 tips .7s 3s)	cer.	0.5	(St, 33, 45) 78	RCA	10.00
475D	Y1	N564sd (.7d & 3s)	cer.	0.5	(St, 33, 45) 78	RCA	19.00
477	Y1	N564 (2 tips .7s 3s)	cer.	0.5	(St, 33, 45) 78	RCA	10.00
477D	Y1	N564sd (.7d & 3s)	cer.	0.5	(St, 33, 45) 78	RCA	19.00
479D	X3	N56sd (2 tips .7d 3s)	cer.	0.35	(St, 33, 45) 78	Zenith 142-128	15.00
481	X4	N56 (2 tips .7s 3s)	cer.	0.35	(St, 33, 45) 78	Zenith 142-126	10.00
481D	X4	N56sd (2 tips .7d 3s)	cer.	0.35	(St, 33, 45) 78	Zenith 142-127	15.00
483	Q	N50 (2 tips .7s 3s)	cer.	0.5	(St, 33, 45) 78	Sears 57-58238	8.50
483D	Q	N50sd (2 tips .7d 3s)	cer.	0.5	(St, 33, 45) 78	Sears 57-58238	12.50
485D	Z1	N50sd (2 tips .7d 3s)	cer.	0.5	(St, 33, 45) 78	Sears 57-5823	14.75
487	Y2	N564 (2 tips .7s 3s)	cer.	0.5	(St, 33, 45) 78	G.E. C-100A, C-200	12.30
487D	Y2	N564sd (.7d & 3s)	cer.	0.5	(St, 33, 45) 78	RCA 111347	19.35
490	T1	N647 (2 tips 1s 3s)	cry.	3.0	(33, 45) 78	RCA 111348	10.95
491	T2	N645 (2 tips 1s 3s)	cer.	0.6	(33, 45) 78	Shure W9	13.45
493	T3	N644 (2 tips 1s 3s)	cer.	0.7	(33, 45) 78	Shure WC6	9.95
493D	T3	N644sd (2 tips 1d 3s)	cer.	0.7	(33, 45) 78	Shure WC10	17.45

\*Needle not included with cartridge. #Special ceramic.

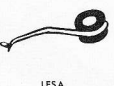






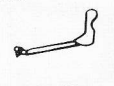




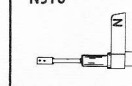

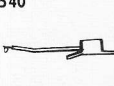
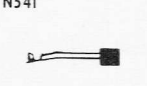





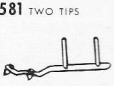

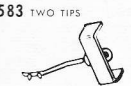


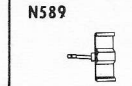
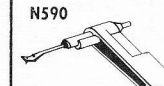


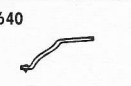
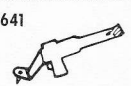



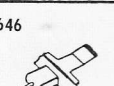
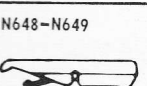
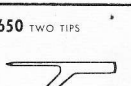


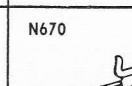
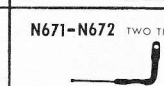
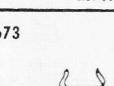
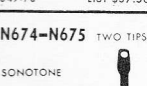
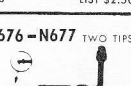
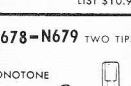

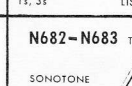
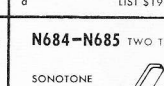
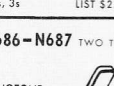
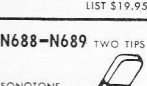
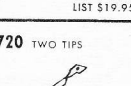
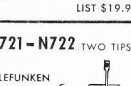

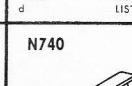
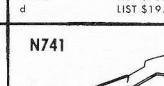
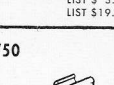

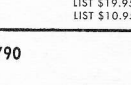



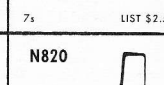
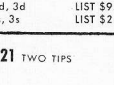
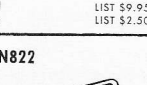
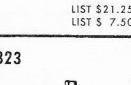
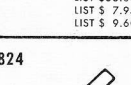

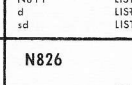
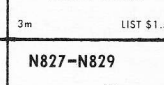
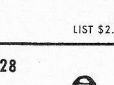
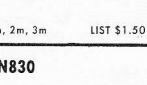
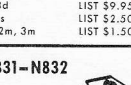
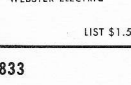

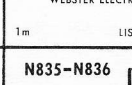
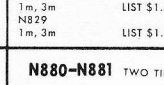


# ASTATIC® REPLACEMENT NEEDLES

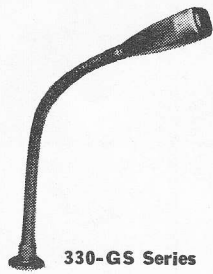
## COMPLETE GRAPHIC BUYING GUIDE

<b>N3</b>  ASTATIC 2m LIST \$ 5.50	<b>N4 N5</b>  ASTATIC 1d, 2d, 3d LIST \$9.95 1s, 2s, 3s LIST \$2.50 2m LIST \$1.50	<b>N6</b>  ASTATIC 2m LIST \$1.00	<b>N7-N8</b>  ASTATIC 7d LIST \$9.95 7s LIST \$2.50 1d, 2d, 3d, 7d LIST \$9.95 1s, 2s, 3s, 7s LIST \$2.50	<b>N27</b>  ASTATIC 1d, 2d, 3d LIST \$9.95 1s, 2s, 3s LIST \$2.50 1m, 2m, 3m LIST \$1.50	<b>N28</b>  ASTATIC 1d, 2d, 3d LIST \$9.95 1s, 2s, 3s LIST \$2.50 1m, 2m, 3m LIST \$1.50	<b>N29</b>  ASTATIC 1d, 2d, 3d LIST \$9.95 1s, 2s, 3s LIST \$2.50 1m, 2m, 3m LIST \$1.50
<b>N30-N38 TWO TIPS</b>  ASTATIC N30 N38 LIST \$ 3.50 1s, 2s, 3s LIST \$19.95 sd LIST \$10.95	<b>N31</b>  ASTATIC 1d, 2d, 3d LIST \$9.95 1s, 2s, 3s LIST \$2.50 1m, 2m, 3m LIST \$1.50	<b>N32</b>  ASTATIC 3d LIST \$9.95 3s LIST \$2.50	<b>N34</b>  ASTATIC 1d, 2d, 3d LIST \$9.95 1s, 2s, 3s LIST \$2.50 1m, 2m, 3m LIST \$1.50	<b>N35</b>  ASTATIC 1m, 2m, 3m LIST \$1.50	<b>N36</b>  ASTATIC 3m LIST \$1.50	<b>N37</b>  ASTATIC 1d, 3d LIST \$9.95 1s, 3s LIST \$2.50 1m, 3m LIST \$1.50
<b>N39 TWO NEEDLES</b>  ASTATIC 1d, 3d LIST \$19.95 1s, 3s LIST \$ 4.00 1m, 3m LIST \$ 2.50	<b>N40</b>  ASTATIC 1d, 3d LIST \$9.95 1s, 3s LIST \$2.50 1m, 3m LIST \$1.50	<b>N41-N42 TWO TIPS</b>  ASTATIC N41 d LIST \$ 4.00 LIST \$19.95 sd LIST \$10.95 N42 d LIST \$ 4.00 LIST \$19.95	<b>N43-N45</b>  ASTATIC 7d LIST \$9.95 7s LIST \$3.50 7d LIST \$12.95	<b>N50-N51 TWO TIPS</b>  ASTATIC N50 LIST \$ 4.00 sd LIST \$10.95 LIST \$ 4.00 N51 d LIST \$19.95	<b>N52-N53 TWO TIPS</b>  ASTATIC N52 LIST \$ 3.50 sd LIST \$10.95 LIST \$ 3.50 N53 d LIST \$19.95	<b>N54-N55 TWO TIPS</b>  ASTATIC N54 LIST \$ 4.00 sd LIST \$10.95 LIST \$ 4.00 N55 d LIST \$19.95
<b>N56</b>  ASTATIC N56 LIST \$ 4.00 sd LIST \$10.95	<b>N60</b>  ASTATIC N60 LIST \$ 3.50 sd LIST \$10.95	<b>N100</b>  ACOS 1d, 3d LIST \$9.95 1s, 3s LIST \$2.50	<b>N101</b>  ACOS 1d, 3d LIST \$9.95 1s, 3s LIST \$2.50	<b>N102</b>  ACOS 1d, 3d LIST \$9.95 1s, 3s LIST \$2.50	<b>N103 TWO TIPS</b>  ACOS N103 LIST \$ 3.95 d LIST \$19.95 sd LIST \$10.95	<b>N104</b>  ACOS 1d LIST \$9.95 1s, 3s LIST \$2.50
<b>N105</b>  ACOS 7d LIST \$9.95 7s LIST \$2.50	<b>N120-N121</b>  AUDIO EMPIRE N120 1d, 3d LIST \$27.50 7d LIST \$20.85 N121 1d, 3d LIST \$35.83 7d LIST \$29.20	<b>N122</b>  AUDIO EMPIRE 6d LIST \$37.50 7d LIST \$45.75	<b>N140</b>  AM. MICRO. 1m, 2m, 3m LIST \$1.50	<b>N141</b>  AM. MICRO. 1d, 2d, 3d LIST \$9.95 1s, 2s, 3s LIST \$2.50	<b>N142</b>  AM. MICRO. 1m, 2m, 3m LIST \$1.50	<b>N150</b>  AUDAK 1d, 3d LIST \$9.95 1s, 3s LIST \$3.50
<b>N190</b>  BANG & OLUFSEN N190 LIST \$ 5.95 sd LIST \$12.95	<b>N191</b>  BANG & OLUFSEN 1d LIST \$10.95 1s, 3s LIST \$ 3.50	<b>N192</b>  BANG & OLUFSEN 7d LIST \$24.90	<b>N200</b>  CLARKSTAN 1d, 3d, 9d LIST \$9.95 1s, 3s, 9s LIST \$4.00	<b>N230</b>  C. B. S. 5d, 7d LIST \$10.95 LIST \$ 3.50	<b>N250</b>  CROSLEY 3s LIST \$2.50	<b>N280-N281 TWO TIPS</b>  DUAL N280 LIST \$ 3.95 d LIST \$19.95 sd LIST \$10.95 N281 LIST \$ 3.95 d LIST \$19.95 sd LIST \$10.95
<b>N282</b>  DUAL 7d LIST \$ 9.95 7s LIST \$ 3.50 3s LIST \$ 3.50	<b>N290</b>  ELAC 1d, 3d LIST \$9.95 1s, 3s LIST \$3.50	<b>N291</b>  ELAC 7d LIST \$29.20	<b>N300</b>  E. V. 1d, 2d, 3d LIST \$9.95 1s, 2s, 3s LIST \$2.50 1m, 2m, 3m LIST \$1.50	<b>N301-N303 TWO TIPS</b>  E. V. N301 LIST \$ 3.50 d LIST \$19.95 sd LIST \$10.95 N303 LIST \$ 2.50	<b>N302</b>  E. V. 3d, 7d LIST \$9.95 3s, 7s LIST \$2.50	<b>N304</b>  E. V. 5d, 7d LIST \$9.95
<b>N305</b>  E. V. 1d LIST \$ 9.95 1s LIST \$ 2.50 2s LIST \$ 2.50 3s LIST \$ 2.50	<b>N306</b>  E. V. 1d LIST \$ 9.95 1s LIST \$ 2.50 2s LIST \$ 2.50 3s LIST \$ 2.50	<b>N307</b>  E. V. N307 LIST \$ 3.50 sd LIST \$10.95	<b>N309</b>  E. V. N309 sd LIST \$ 3.50 LIST \$10.95	<b>N311-N312 TWO TIPS</b>  E. V. N311 LIST \$ 3.50 sd LIST \$10.95 N312 LIST \$ 3.50 LIST \$19.95	<b>N313</b>  E. V. 1s LIST \$ 2.50 1d LIST \$ 9.95 3s LIST \$ 2.50	<b>N314-N315 TWO TIPS</b>  E. V. N314 LIST \$ 3.50 sd LIST \$10.95 N315 LIST \$ 3.50 d LIST \$19.95
<b>N316</b>  E. V. 7d LIST \$ 9.95 7s LIST \$ 2.50	<b>N320</b>  ERCONA 1d, 3d, 9d LIST \$35.00 1s, 3s LIST \$ 9.17	<b>N325</b>  EUPHONIC 1d, 3d, 7d LIST \$9.95 1s, 3s, 7s LIST \$2.50	<b>N326</b>  EUPHONIC 3d, 7d LIST \$9.95 3s, 7s LIST \$2.50	<b>N327-N328 TWO TIPS</b>  EUPHONIC N327 sd LIST \$ 3.50 LIST \$10.95 N328 LIST \$ 3.50 LIST \$19.95	<b>N330</b>  FAIRCHILD 1d, 3d, 7d, 9d LIST \$25.00	<b>N331</b>  FAIRCHILD 7d LIST \$29.20
<b>N340</b>  GARRARD 1d, 3d LIST \$10.95 1s, 3s LIST \$ 3.50	<b>N341</b>  GARRARD 7d LIST \$10.95	<b>N342</b>  GARRARD 1d LIST \$9.95 1s, 3s LIST \$2.50	<b>N350</b>  G. E. 1d, 3d, 9d LIST \$9.95 1s, 3s, 9s LIST \$3.50	<b>N351</b>  G. E. 1d, 3d, 9d LIST \$9.95 1s, 3s, 9s LIST \$3.50	<b>N352</b>  G. E. 1d, 3d, 9d LIST \$9.95 1s, 3s, 9s LIST \$3.50	<b>N353-N354-N355</b>  G. E. TWO TIPS N353 LIST \$ 5.95 d LIST \$19.95 sd LIST \$10.95 N354 LIST \$ 5.95 LIST \$19.95 sd LIST \$10.95 N355 LIST \$ 5.95 d LIST \$19.95
<b>N356</b>  G. E. 5d LIST \$11.95 7d LIST \$ 9.95 7s LIST \$ 3.50	<b>N357-N358 TWO TIPS</b>  G. E. N357 LIST \$ 3.50 sd LIST \$10.95 N358 LIST \$ 3.50 LIST \$19.95	<b>N359</b>  G. E. 5d LIST \$14.95 7d LIST \$12.95	<b>N360</b>  G. E. N360 LIST \$ 3.50 sd LIST \$10.95	<b>N390</b>  GOLDRING 1d, 3d LIST \$9.95 1s, 3s LIST \$3.50	<b>N391</b>  GOLDRING 1d LIST \$14.90 1s, 3s LIST \$ 3.50	<b>N425 TWO TIPS</b>  EUPHONIC N425 LIST \$ 3.50 sd LIST \$10.95

# ASTATIC® REPLACEMENT NEEDLES OVER 600 TYPES

<b>N460</b>  LESA 1s, 3s, 7s LIST \$2.50	<b>N461 TWO TIPS</b>  LESA N461 LIST \$ 3.95 sd LIST \$10.95	<b>N470</b>  MAGNAVOX 3m LIST \$1.50	<b>N471 TWO TIPS</b>  MAGNAVOX N471 LIST \$ 3.75 d LIST \$19.95 sd LIST \$10.95	<b>N501</b>  PHILCO 3d LIST \$9.95 3s LIST \$2.50	<b>N502</b>  PHILCO 1d LIST \$9.95 1m LIST \$1.50 1s LIST \$2.50	<b>N503-N504 TWO TIPS</b>  PHILCO N503 LIST \$ 3.50 d LIST \$19.95 sd LIST \$10.95 N504 LIST \$ 2.50
<b>N510</b>  NORELCO 1d, 3d LIST \$9.95 1s, 3s LIST \$2.50	<b>N511 TWO TIPS</b>  NORELCO N511 LIST \$ 4.50 d LIST \$19.95 sd LIST \$10.95	<b>N512</b>  NORELCO 1d, 3d LIST \$9.95 1s, 3s LIST \$2.50	<b>N513</b>  NORELCO 7d LIST \$9.95 1s, 3s LIST \$2.50 3s, 7s LIST \$2.50	<b>N514-N515</b>  NORELCO 3s LIST \$2.50 N515 7d LIST \$ 9.95	<b>N516</b>  NORELCO N516 LIST \$19.95 sd	<b>N530</b>  PICKERING 1d, 2d, 3d, 9d LIST \$9.95 1s, 2s, 3s, 9s LIST \$2.50
<b>N540</b>  PIEZO 2s LIST \$2.50	<b>N541</b>  PIEZO 7d LIST \$9.95 3s, 7s LIST \$2.50	<b>N560</b>  R. C. A. 1d, 3d LIST \$9.95 1s, 3s LIST \$2.50 1m, 3m LIST \$1.50	<b>N561</b>  R. C. A. 1d, 3d LIST \$9.95 1s, 3s LIST \$2.50 1m, 3m LIST \$1.50	<b>N562-N563 TWO TIPS</b>  R. C. A. N562 LIST \$ 3.50 d LIST \$19.95 sd LIST \$10.95 N563 LIST \$ 3.50 d LIST \$19.95	<b>N564-N565 TWO TIPS</b>  R. C. A. N564 LIST \$ 3.50 d LIST \$10.95 sd LIST \$3.50 N565 LIST \$19.95 d	<b>N580 TWO TIPS</b>  PERPETUUM-EBNER N580 LIST \$ 3.75 d LIST \$19.95 sd LIST \$10.95
<b>N581 TWO TIPS</b>  PERPETUUM-EBNER N581 LIST \$ 3.75 d LIST \$19.95 sd LIST \$10.95	<b>N582</b>  PERPETUUM-EBNER 1d, 3d LIST \$10.95 1s, 3s LIST \$ 3.75	<b>N583 TWO TIPS</b>  PERPETUUM-EBNER N583 LIST \$ 3.95 sd LIST \$10.95	<b>N584-N585 TWO TIPS</b>  PERPETUUM-EBNER N584 LIST \$ 3.95 sd LIST \$10.95 N585 LIST \$ 3.95 sd LIST \$10.95	<b>N587 TWO TIPS</b>  PERPETUUM-EBNER N587 LIST \$ 3.95 sd LIST \$12.50	<b>N589</b>  PERPETUUM-EBNER 7d LIST \$ 9.95 7s LIST \$ 3.95	<b>N590</b>  PERPETUUM-EBNER N590 LIST \$ 3.95 sd LIST \$12.50
<b>N600</b>  RONETTE 1d, 3d LIST \$9.95 1s, 3s LIST \$2.50	<b>N601</b>  RONETTE 1d, 2d, 3d, 7d LIST \$9.95 1s, 2s, 3s, 7s LIST \$2.50	<b>N640</b>  SHURE 1d, 2d, 3d LIST \$9.95 1s, 2s, 3s LIST \$2.50 1m, 2m, 3m LIST \$1.50	<b>N641</b>  SHURE 1d, 2d, 3d LIST \$9.95 1s, 2s, 3s LIST \$2.50 1m, 2m, 3m LIST \$1.50	<b>N643</b>  SHURE 1d, 3d LIST \$9.95 1s, 3s LIST \$2.50 1m, 3m LIST \$1.50	<b>N644 TWO TIPS</b>  SHURE N644 LIST \$ 3.50 d LIST \$19.95 sd LIST \$10.95	<b>N645-N647 TWO TIPS</b>  SHURE N645 SHURE LIST \$ 5.95 d LIST \$19.95 sd LIST \$10.95 N647 LIST \$ 3.50 d LIST \$19.95 sd LIST \$10.95
<b>N646</b>  SHURE N646 LIST \$3.50	<b>N648-N649</b>  SHURE N648-7d LIST \$20.00 N649-7d LIST \$37.50	<b>N650 TWO TIPS</b>  SHURE N650 LIST \$2.50	<b>N651 TWO TIPS</b>  SHURE N651 LIST \$ 5.95 d LIST \$19.95 sd LIST \$10.95	<b>N652-N653</b>  SHURE N652-7d LIST \$13.75 N653-7d LIST \$41.25	<b>N670</b>  SONOTONE 1d, 3d LIST \$9.95 1s, 3s LIST \$2.50	<b>N671-N672 TWO TIPS</b>  SONOTONE N671 LIST \$ 4.00 d LIST \$19.95 sd LIST \$10.95 N672 LIST \$ 4.00 d LIST \$19.95
<b>N673</b>  SONOTONE 1d, 2d, 3d LIST \$9.95 1s, 2s, 3s LIST \$2.50	<b>N674-N675 TWO TIPS</b>  SONOTONE N674 LIST \$ 3.50 d LIST \$19.95 sd LIST \$10.95 N675 LIST \$ 3.50 d LIST \$19.95	<b>N676-N677 TWO TIPS</b>  SONOTONE N676 LIST \$ 3.50 d LIST \$19.95 sd LIST \$10.95 N677 LIST \$ 3.50 d LIST \$19.95	<b>N678-N679 TWO TIPS</b>  SONOTONE N678 LIST \$ 4.00 d LIST \$19.95 sd LIST \$10.95 N679 LIST \$ 4.00 d LIST \$19.95	<b>N680-N681 TWO TIPS</b>  SONOTONE N680 LIST \$ 3.50 sd LIST \$10.95 N681 LIST \$ 3.50 d	<b>N682-N683 TWO TIPS</b>  SONOTONE N682 LIST \$ 3.50 sd LIST \$10.95 N683 LIST \$ 3.50 d LIST \$19.95	<b>N684-N685 TWO TIPS</b>  SONOTONE N684 LIST \$ 3.50 sd LIST \$10.95 N685 LIST \$ 3.50 d LIST \$19.95
<b>N686-N687 TWO TIPS</b>  SONOTONE N686 LIST \$ 3.50 sd LIST \$10.95 N687 LIST \$ 3.50 d LIST \$19.95	<b>N688-N689 TWO TIPS</b>  SONOTONE N688 LIST \$ 3.50 sd LIST \$10.95 N689 LIST \$ 3.50 d LIST \$19.95	<b>N720 TWO TIPS</b>  TELEFUNKEN N720 LIST \$ 3.95 d LIST \$19.95 sd LIST \$10.95	<b>N721-N722 TWO TIPS</b>  TELEFUNKEN N721 LIST \$ 3.95 d LIST \$19.95 sd LIST \$10.95 N722 LIST \$ 3.95 d LIST \$19.95	<b>N723 TWO TIPS</b>  TELEFUNKEN N723 LIST \$ 3.95 sd LIST \$10.95	<b>N740</b>  TEPPAZ 1s LIST \$2.50 3s LIST \$2.50	<b>N741</b>  TEPPAZ 7s LIST \$2.50
<b>N750</b>  VACO 1d, 2d, 3d LIST \$9.95 1s, 2s, 3s LIST \$2.50	<b>N751</b>  VACO 1d LIST \$9.95 1s LIST \$2.50	<b>N790</b>  WEATHERS 7d LIST \$21.25 7s LIST \$ 7.50	<b>N791</b>  WEATHERS 1d LIST \$33.00 3s LIST \$ 7.95 2s LIST \$ 9.60	<b>N810 TWO TIPS</b>  WEBCOR N810 LIST \$4.00	<b>N811 TWO TIPS</b>  WEBCOR N811 LIST \$ 5.00 d LIST \$19.95 sd LIST \$10.95	<b>N820</b>  WEBSTER ELECTRIC 3m LIST \$1.50
<b>N821 TWO TIPS</b>  WEBSTER ELECTRIC N821 LIST \$2.50	<b>N822</b>  WEBSTER ELECTRIC 1m, 2m, 3m LIST \$1.50	<b>N823</b>  WEBSTER ELECTRIC 1d, 3d LIST \$9.95 1s, 3s LIST \$2.50 1m, 2m, 3m LIST \$1.50	<b>N824</b>  WEBSTER ELECTRIC 3m LIST \$1.50	<b>N825</b>  WEBSTER ELECTRIC 1m, 2m, 3m LIST \$1.50	<b>N826</b>  WEBSTER ELECTRIC 1m LIST \$1.50	<b>N827-N829</b>  WEBSTER ELECTRIC N827 LIST \$1.50 1m, 3m N829 LIST \$1.50 1m, 3m
<b>N828</b>  WEBSTER ELECTRIC 1m, 3m LIST \$1.50	<b>N830</b>  WEBSTER ELECTRIC 1m, 3m LIST \$1.50	<b>N831-N832</b>  WEBSTER ELECTRIC N831 LIST \$9.95 1d, 2d, 3d LIST \$2.50 1s, 2s, 3s N832 LIST \$9.95 7d LIST \$9.95 7s LIST \$3.50	<b>N833</b>  WEBSTER ELECTRIC 1d, 3d, 7d LIST \$9.95 1s, 3s, 7s LIST \$3.50	<b>N834 TWO TIPS</b>  WEBSTER ELECTRIC N834 LIST \$ 3.50 d LIST \$19.95 sd LIST \$10.95	<b>N835-N836</b>  WEBSTER ELECTRIC N835 LIST \$1.50 1m, 3m N836 LIST \$1.50 1m, 3m	<b>N880-N881 TWO TIPS</b>  ZENITH N880 LIST \$ 3.50 sd LIST \$10.95 N881 LIST \$ 3.50 d LIST \$19.95

# ASTATIC Microphones, Accessories



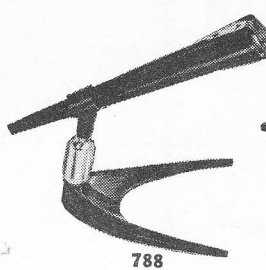
330-GS Series



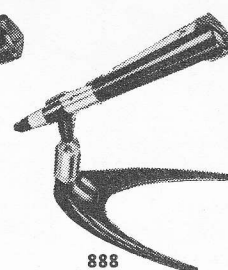
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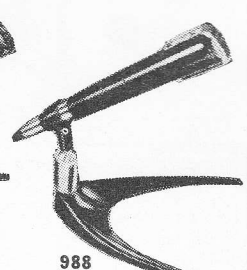
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## SERIES 330-GS GOOSENECK MICROPHONES

Professional performing, all purpose gooseneck microphones for intercommunications, tape recording, amateur language laboratories and many other applications. Gooseneck is permanently attached, 13" in length. Satin chrome finish for both microphone and gooseneck assembly. Complete with 7' single conductor, shielded cable (335L-GS, 2-cond. for balanced line).

**Model 332-GS Crystal**—Output, -54 db; response, 30-15,000 cps. List Price. . . . . **\$24.50**

**Model 333-GS Ceramic**—Output, -58 db; response, 30-10,000 cps. List Price. . . . . **\$24.50**

**Model 335H-GS Dynamic Hi-Z**—Output, -56 db; response, 100-12,000 cps. List Price. . . . . **\$33.00**

**Model 335L-GS Dynamic Lo-Z**—Output, -57 db; response, 100-12,000 cps. List Price. . . . . **\$30.00**

## MODEL 77 DYNAMIC CARDIOID

Most positive anti-feedback mike ever built. Also available in gold finish. Unidirectional design has suspended cartridge; eliminates external shock mounts. Built-in impedance selector. **Front-to-Back Pick-up:** 18 db differential. **Output:** -48 db. **Frequency Response:** 30-15,000 cps. **Impedance:** Low-Z, 30-50 ohms; medium, 150-250 ohms; high, 40,000 ohms. Shipping Weight, approximately 3 lbs., less stand.

**Model 77**—With on-off switch and provisions for locking in "on" position. List Price. . . . . **\$82.50**

**Model 77 Gold Finish**—List Price. . . . . **\$92.50**

**Model 77-L**—Head only for mounting on G Stand. List. . . . . **72.50**

**Model 77-L Gold Finish**—List Price. . . . . **82.50**

**Model G-77**—Includes G Stand and 8' cable. List Price. . . . . **97.45**

## MODEL 788 "METRO" DYNAMIC

Wide range and rugged construction for voice and music reproduction in PA, recording and TV, indoor or outdoor. **Response:** 60-13,000 cps. **Output:** -58 db, lo-Z; -56 db, hi-Z. Black die cast alloy housing with brushed gold trim. Omnidirectional. Balanced high or low imped. by simple change. Max. dia. 1 1/8" x 8 3/8" h. Built-in On-Off switch. Desk-floor stand adapter, lavalier cord and assembly, belt clip, 20' cable. Net Weight, 8 oz. **Model 788**—Dynamic Microphone. List Price. . . . . **\$79.50**

## MODEL 888 "TEMPO" DYNAMIC

High fidelity and advance styling for applications in color TV, sound stage and deluxe PA systems. **Response:** 50-15,000 cps. Multi-impedance, 50-200, balanced, and hi-Z. **Output Level:** -58 db, lo-Z; -56 db, hi-Z. Die cast alloy housing in satin black with brushed chrome finish; 9 1/8" long x 1 1/8" max. dia. Includes SA-8 desk-floor stand adapter, lavalier cord and assembly with belt clip and 20' two-wire shielded cable. Weight, 9 oz. **Model 888**—Dynamic Microphone. List Price. . . . . **\$110.00**

## MODEL 988 "VOGUE" DYNAMIC

Beauty and high fidelity for the most exacting color TV and broadcast requirements. **Response:** 40-17,000 cps. **Output Level:** -56 db, hi-Z. Adjustable imped.: 50, 150 or 250 ohms for balanced line. Black housing with brushed gold finish. 9 1/8" long x 1 1/8" max. dia. With desk-floor stand adapter, lavalier cord and assembly and 20' cable. Net Weight, 8 3/4 oz. **Model 988**—Dynamic Microphone. List Price. . . . . **\$150.00**

## MODEL A-8 "FUTURA" DESK STAND

For Models 788, 888, and 988 mikes. Has 3/8"-27 thread. **Model A-8 Desk Stand** (illus. on Models listed)—List. . . . . **\$82.50**



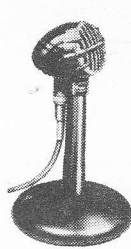
330 Series



A-7



DN-50



JT-30



10-C, 10-D



D-104

## SERIES 330 MICROPHONES

Small, slim mikes with quality performance for various applications at real low price. Model 331 has momentary on, spring-return switch, furnished with hang-up bracket. Cable provides for audio and relay connections. All other models have slide switch with "lock-on" position complete with lavalier and stand adapter with 3/8"-27 thread. High impedance except No. 335L.

Model	Type	Output	Freq.	Body	Grille	Cap	List
331	Ceramic	-58 db	300-7000	Black	Black	Chrome	\$17.90
332	Crystal	-54 db	30-15000	Chrome	Black	Chrome	17.90
333	Ceramic	-58 db	30-10000	Black	Black	Chrome	17.90
335H	Dynamic	-56 db	100-12kc	TV Gray	Chrome	Chrome	26.50
335L	Dynamic	-57 db	100-12kc	TV Gray	Chrome	Chrome	23.50

**Model A-7 Desk Stand**—With adjustable swivel. List. . . . . **\$2.45**

## MODEL DN-50 "THE COMMENTATOR"

General purpose. Unitary moving coil system, carefully proportioned acoustic circuit. **Response:** 50-10,000 cps. **Output:** DN-50, -51 db; DN-HZ, -52 db. Semi- or non-directional. Opalescent gray and bright chrome finish. With 10' cable. **Size:** 6 3/8" h. 2 3/8" grille dia., 4 3/8" d. Net Wt., 1 lb. 12 oz. (mike only). **\$33.50**

**Model DN-50**—Dynamic Mike, 50 ohms imped. List. . . . . **\$33.50**

**Model GDN-50**—Same as above with grip-to-talk stand. 6' two conductor shielded cable. List Price. . . . . **\$52.70**

**Model UG8-DN50**—Same as above, but balanced. List. . . . . **57.70**

**Model DN-HZ**—Same, but Hi-Z. List Price. . . . . **39.70**

**Model GDN-HZ**—Same as DN-HZ with grip-to-talk stand. 6' two conductor shielded cable. List Price. . . . . **\$59.90**

**Model G Stand**—With grip-to-talk On-Off switch. List. . . . . **24.95**

**Model UG8 Stand**—Same as Model G; use with DN balanced line. List Price. . . . . **\$29.95**

## SERIES JT-30 "SPOKESMAN"

Streamline die-cast alloy housing; gray Hammerlin finish with chrome grille and fittings; includes handle and interlocking base. Concentric cable connector. For general PA, recording and communication. 8" high, 2 3/8" grille dia., 5 1/8" base dia. Weight, 21 oz.

**Model JT-30 Crystal**—Output, -49 db; impedance, 1-5 megs; response 30-10,000 cps. Complete with 8' single-conductor shielded cable. List Price. . . . . **\$18.40**

**Model JT-30-C Ceramic**—Same as JT-30 except with -54 db output and 5' cable. List Price. . . . . **\$18.90**

**Model JT-30-F Crystal (Head Only)**—Same as Model JT-30, except less handle and desk stand. Threaded 3/8"-27 for mounting. List Price. . . . . **\$15.90**

**Model JT-30-CF Ceramic (Head Only)**—Same as Model JT-30-C, except less handle and desk stand. Threaded 3/8"-27 for mounting. List Price. . . . . **\$16.40**

## MODELS 10-C, 10-D "THE VOICE"

Ideal for SSB, AM transmitters, paging and industrial applications. High impedance. **Output:** -52 db, Model 10-D; -54 db, Model 10-C. **Range:** 300-3,000 cps. Plug-in 3/8"-27 thread mounting with 5' cable. **\$29.70**

**Model 10-C Ceramic**—Gray chrome grille. List Price. . . . . **\$29.70**

**Model G-10-C Ceramic**—Same as above, but with "G" (grip-to-talk) stand. List Price. . . . . **\$49.90**

**Model 10-D Dynamic**—Chrome body and grille. List. . . . . **39.70**

**Model G-10-D Dynamic**—Same as above, but with "G" (grip-to-talk) stand. List Price. . . . . **\$59.90**

## SERIES D-104 "PREMIER"

The radio amateur's first choice. Balanced performance. Machined brass parts; heavy mesh grille; chrome finish. Standard 3/8"-27 thread mounting; adaptable to SC-11 lock-switch adapter or can be mounted on Model G (grip-to-talk) stand. Metal seal crystal offers protection against moisture and dryness. Ceramic immune to excessive heat and humidity. 3" dia., 1 1/8" deep. Weight, 14 oz. Complete with 5' single conductor shielded cable.

**Model D-104 Crystal**—Output, -46 db; impedance, 1-5 megs; response, 30-7,500 cps rising 500-4,000 cps. List. . . . . **\$31.00**

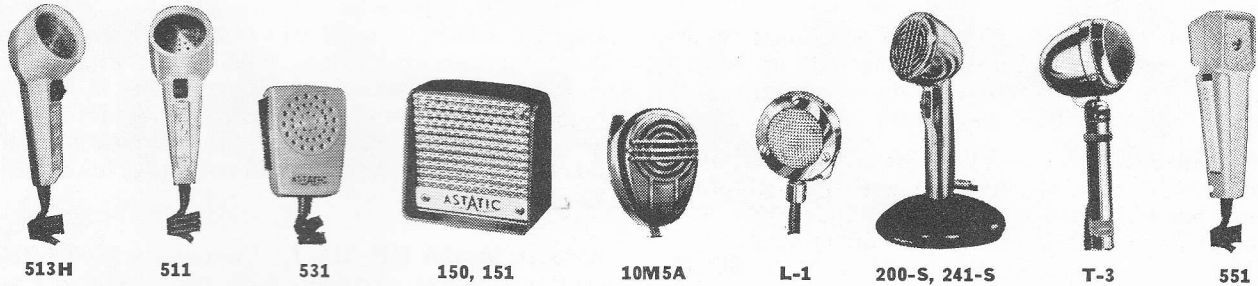
**Model D-104C Ceramic**—Output, -49 db; all other characteristics similar to D-104. List Price. . . . . **\$31.00**

**Model SC-11 Adapter**—List Price. . . . . **9.00**

**Model G Stand**—With grip-to-talk On-Off switch. List. . . . . **24.95**

# ASTATIC Microphones, Accessories

## MICROPHONES



513H      511      531      150, 151      10M5A      L-1      200-S, 241-S      T-3      551

### MODEL 513H MOBILE MICROPHONE

Dynamic mike for Citizens' Band and other communications. Low background noise, feedback and hum. Semi-directional polar pattern. Wide temperature range; humidity-proof. **Frequency Response:** 200-9,000 cps. **Output Level:** -50 db at 1 v./dyne/cm<sup>2</sup>. **Impedance:** 40,000 ohms. With press-to-talk switch, snap-removal mounting bracket and three-conductor (one shielded) coiled cable 5½' long, extended. **Size:** 2¼" w. x 2½" d. x 6" h. Weight, 10 oz.

**Model 513H Mobile Mike—List Price..... \$3450**

### MODEL 511 MOBILE MICROPHONE

Ceramic element mike for Citizens' Band and similar uses. Low background noise, feedback and hum. Semi-directional polar pattern. **Frequency Response:** 200-4,000 cps. **Output Level:** -50 db at 1 v./dyne/cm<sup>2</sup>. **Impedance:** 250,000 ohms (1000 cps). With press-to-talk switch, snap-removal mounting bracket and three-conductor (one shielded) coiled cable extending to 5½' long. **Size:** 2¼" w. x 2½" d. x 6" h. Weight, 7 oz.

**Model 511 Ceramic Mike—List Price..... \$1995**

### MODEL 531 MOBILE MICROPHONE

High performance ceramic mike for amateur and Citizens' Band applications. Carefully calculated response characteristic for maximum clarity and intelligibility. Semi-directional polar pattern. Fully shielded to minimize hum pickup. **Frequency Response:** 150-3,500 cps with 6 db rise in 2,000 cps range. **Output Level:** -50 db at 1 v./dyne/cm<sup>2</sup>. **Impedance:** 250,000 ohms, approx. at 1,000 cps (ELA, 100,000 ohms). With press-to-talk switch, molded Cyclocac\* plastic housing and three-conductor (one shielded) coiled vinyl cord, 5' long extended. **Size:** 2¾" w. x 1½" d. x 3¾" h. Weight, 7½ oz.

**Model 531 Mobile Mike—List Price..... \$1275**

\*Borg-Warner trademark.

### SERIES 150 RECORDER MIKES

For tape recorder use. Low cost; high output; outstanding performance; compact in size. **Size:** 2¾" sq. x 1¼" d. Plastic housing with rigid metal grille. With 5' cable.

**Model 150 Crystal Mike—**Frequency response, 30-10,000 cps. Output, -44 db. List Price..... **\$650**

**Model 151 Ceramic Mike—**Frequency response, 30-8,000 cps. Output, -48 db. List Price..... **\$650**

### MODEL 10M5A "COMMUNICATOR"

For mobile, ship-shore, etc. Sensitive and rugged. **Response:** 100-4,000 cps. Press-to-talk DPST switch. Retracting cable 12-in. coiled extends to 8'. Gray finish.

**Model 10M5A Carbon Microphone—List Price..... \$2950**

### MODEL L-1 CRYSTAL LAPEL MIKE

Tiny dual diaphragm with spring clip and 15' of small diameter single conductor shielded cable. Machined brass housing with wire mesh front and rear grilles; black melamine finish. **Output:** -62 db. **Impedance:** 1-5 megohms. **Response:** 30-10,000 cps. 1½" dia., ¾" deep. Weight, 7 oz.

**Model L-1 Crystal Lapel Microphone—List Price..... \$2735**

### "VELVET VOICE" CRYSTAL MICROPHONES

For PA, home recording, ham, paging, radio. Use with floor or desk stand or in hand. Gold finished housing and handle; chrome grille; brown detachable base. ¾"-27 mounting. 8" high, 2½" grille dia. 5½" base dia. Weight, 24 oz.

**Model 200—**Output, -50 db; impedance, 1-5 megs; **\$1950** response, 30-7,000 cps. Wth 8' cable. List Price.....

**Model 200-S—**With on-off switch in handle. List Price... **\$2150**

**Model 241-S—**Same as 200-S, except response 30-10,000 cps with rising response from 1,500-5,500 cps. List Price..... **\$2150**

### MODEL T-3 CRYSTAL

For studios, intercom, amateur, PA, recording. **Response:** 30-10,000 cps. **Output Level:** -54 db. Semi- or non-directional. With connector, 10' cable. All chrome finish.

**Model T-3 Crystal Microphone—List Price..... \$2930**

### MODEL 551 INDUSTRIAL MICROPHONE

Dynamic industrial mike provides high intelligibility in noisy areas. Housing and transformer shielded. Withstands temperatures to 200° F; 180° F indefinitely. Moisture-sealed. Semi-directional polar pattern. **Frequency Response:** 300-6,000 cps, high impedance; 300-6,500 cps, low impedance. **Output Level:** -50 db at 1 mw/10 dynes/cm<sup>2</sup>, low impedance; -46 db at 1 v./dyne/cm<sup>2</sup>, high impedance; both open circuit, 1000 cps. **Impedance:** 150 or 40,000 ohms, adjustable. With press-to-talk switch, virtually unbreakable Delrin\* housing, and four-conductor (shielded mike, two relay) coiled cord extends to 8' long. **Size:** 1½" x 2" x 6¾". Weight, 20 oz.

**Model 551 Industrial Mike—List Price..... \$6950**

\*DuPont trademark.

## STANDS, CARTRIDGES AND LINE TRANSFORMER



Models G, UG8      Models E-5-G, E-5-B      Model E-1

### MICROPHONE STANDS

**Model G Desk Stand—**Has grip-to-talk SPST on-off switch, sliding bar for "lock-on". Use with DN-50, DN-HZ, T3, D-104, D-104-C, 10-C, 10-D and 77L. Finish: Bright chrome, gray Hammerlin base. List Price..... **\$2495**

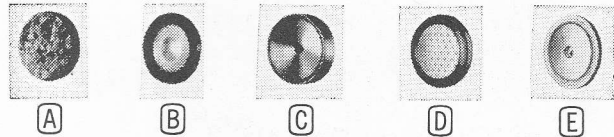
**Model UG8 Stand—**Same as Model G, with DPDT switch for balanced or unbalanced line. Thread, 1¼" x 27; eight-terminal strip in base adapts to any circuit. List Price..... **\$2995**

**Model E-5-G and E-5-B Desk Stands—**Finish: Gray or brown Hammerlin base with bright chrome stem. Has ¾"-27 thread. Overall height 8". List Price..... **\$775**

**Model E-1 Desk Stand—**Finish: Gray Hammerlin base, bright chrome trim. Has ¾"-27 thread. Overall hgt., 5½". List... **\$825**



LT-6



### REPLACEMENT MICROPHONE CARTRIDGES

Model	Fig.	Use with Astatic Mike Model	List
MC 151	D	CX, CX-1, 200, 241, JT-30, JT-30-F, JT-40, T-3	\$7.00
MC 127	D	CC, CC-1, VC, VC-1, JT-30-C, JT-30-CF, JT-40-C, T-3C	7.00
MC 451	E	10M5, 10M5A, 11M5	8.75
MC 563	B	DN-50, DN-500, DN-HZ, DN-MZ, 10-D	16.50
MC 320	A	D-104	9.50
MC 321	A	D-104-C	7.00
MC 551	C	M-301	7.00
MC 558*	....	332	7.00
MC 559-2*	....	331	7.00
MC 560*	....	335H, 335L	7.75

\*Mikes without screw-fastened caps should be returned to factory for repairs.

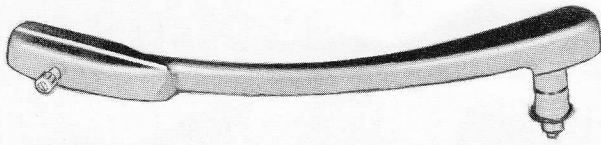
### MODEL LT-6 LINE-MATCHING TRANSFORMER

Matches low impedance microphone to high impedance amplifier input; or high impedance dynamic microphone to low impedance amplifier input. Permits long length of cable on the low impedance side of the transformer. Eliminates high frequency loss and objectionable hum pickup. Completely shielded. **Input:** 30-50 or

150-250 ohms. **Output:** 40,000 ohms or higher. **Response:** ±1 db, 20-20,000 cps. Supplied with Amphenol 91-852 and 75-MC1F end connectors. Opalescent gray body with chrome finish connectors. **Size:** ¾" dia.

**Model LT-6 Transformer—List Price..... \$1750**

# ASTATIC PHONOGRAPH PICKUPS

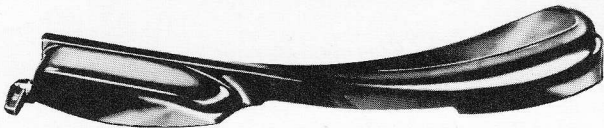


The "Studio Master" Model 400 Professional Series pickups are designed for use on all records up to 16" in diameter, including stereo. Made of pressure cast aluminum with metallized gold finish.

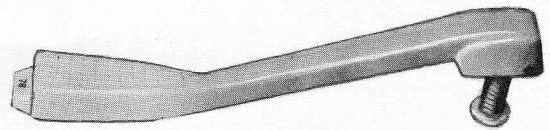
**Astatic Model 400-312-TB**—Contains a turnover Model 312-TB crystal cartridge with two sapphire needles: One 1 mil and one 3 mil. Output, 0.75 volt. Frequency Range, 30–13,000 cps. Compliance, 2.0. List Price..... **\$19.75**

**Astatic Model 400-89-TB**—Contains a Soundflo Model 89-TB ceramic cartridge with two sapphire needles: One 1 mil and one 3 mil. Four-terminal cartridge holder enables user to replace the Model 89-T with a Soundflo Model 13-T stereo cartridge when desired. Output, 1.3 volts. Frequency Range, 30–15,000 cps. Compliance, 2.5. List Price..... **\$18.25**

**Astatic Stereo Model 400-13-TB**—Contains a Soundflo Model 13-TB stereo ceramic plug-in cartridge with two sapphire needles: One 0.7 mil and one 3 mil. Compatible for playing all monaural and stereo records. Output, 0.5 volt. Frequency Range, 20–15,000 cps. Lateral and Vertical Compliance, 1.0. List Price..... **\$22.25**



**Astatic Model 8D**—Replacement pickup for Webcor changer models 3A6, 246, 255, 256, 257, 262, 264, 355, 363 and 364. Contains a Model 40-TB turnover cartridge. List Price..... **\$14.65**

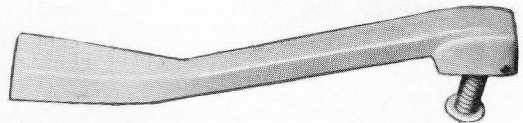


Popular Astatic original equipment pickups, with high output turnover cartridges. Ideal for self placement and as a direct replacement where ruggedness at low cost is required. The base of the pickup retracts into the tone arm, for use on phonographs with low clearance in the lid. Supplied complete with all mounting hardware and an arm rest.

**Astatic Model KR-314-T**—Contains a Model 314-TS crystal turnover cartridge with two sapphire needles: One 1 mil and one 3 mil. Output, 3.0 volts. Frequency Range, 30–11,000 cps. List Price..... **\$6.95**

**Astatic Model K-314-T**—Direct replacement for RCA Model 973543-4. Pickup base is not retractable. Contains a Model 314-TS crystal turnover cartridge with two sapphire needles: One 1 mil and one 3 mil. Output, 3.0 volts. Frequency Range, 30–11,000 cps. List Price.. **\$6.95**

**Astatic Stereo Model KR-74-TS**—Contains a Model 74-TS stereo crystal turnover cartridge with two sapphire needles: One 0.7 mil and one 3 mil. Output, 2.0 volts. Frequency Range, 50–10,000 cps. List Price.. **\$8.25**



**Astatic Model P108**—Contains a single needle cartridge with a 2 mil sapphire needle. For all-speed use. Output, 3.0 volts. Frequency Range, 30–11,000 cps. List Price..... **\$4.75**



## ASTATIPHONE

*the most modern  
concept in engineering  
quality • comfort •  
performance*



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