

Thank You!

When writing for additional
information or when ordering
from sources of supply listed
in this book, please mention

RADIO'S MASTER

ALPHA WIRE PRODUCTS



CONSTRUCTION: Single conductor, extra flexible stranded tinned copper, cotton serve, insulated with special low loss SIC rubber compound, braided tinned copper shield, cotton serve, tough black rubber jacket overall.

CRYSTAL MICROPHONE CABLE

GENERAL PURPOSE: Low loss design for use with crystal, ribbon, dynamic and velocity microphones, photo-electric cells. Use No. 1248 FOR LAPEL MICROPHONES and phonograph pickups.

No.	Put-up	Size	Strand	Mox. Capacity Per Ft. Between Cond. & Shield	O.D.
1248	100 Ft. Spool	20	26/34	40 mmf.	.175"
1249	100 Ft. Spool	20	26/34	30 mmf.	.245"



CONSTRUCTION: Each conductor flexible stranded tinned copper, cotton wrap, 1/64" "Hi-Tension" low capacity rubber, color coded, conductors twisted, cushioned with cotton fillers, braided tinned copper shield, cotton wrap, tough black rubber jacket overall.

SHIELDED MICROPHONE CABLE

GENERAL PURPOSE: Adaptable for all indoor and outdoor crystal, carbon and condenser microphones as well as public address systems.

No.	Put-up	Size	Conduc-tors	Mox. Capacity Per Ft. Between Cond. & Shield	Conds.	O.D.
1250	100 Ft. Spool	20	2	70 mmf.	38 mmf.	.270"
1250/18	100 Ft. Spool	18	2	75 mmf.	40 mmf.	.300"
1251	100 Ft. Spool	20	3	65 mmf.	38 mmf.	.305"
1252	100 Ft. Spool	20	4	65 mmf.	36 mmf.	.345"
1253	100 Ft. Spool	20	5	60 mmf.	32 mmf.	.350"
1254	100 Ft. Spool	20	6	60 mmf.	30 mmf.	.375"
1255	100 Ft. Spool	20	7	60 mmf.	30 mmf.	.380"
1255/8	100 Ft. Spool	20	8	60 mmf.	30 mmf.	.400"



CONSTRUCTION: Each conductor No. 20-10/30 stranded tinned copper, 1/64" rubber, color coded cotton braid, conductors twisted, tinned copper shield overall.

SHIELDED MULTIPLE CONDUCTOR CABLE

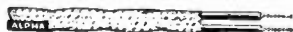
GENERAL PURPOSE: For indoor permanent or portable P.A. systems, photo electric cell circuits, sound recording and auto radios.

No.	Put-up	Conduc-tors	Moximum Capacity Per Ft. Between Cond. & Shield	Conds.	O.D.
1256	100 Ft. Spool	2	60.5 mmf.	32 mmf.	.215"
1257	100 Ft. Spool	3	54.0 mmf.	29 mmf.	.240"
1258	100 Ft. Spool	4	48.0 mmf.	26 mmf.	.270"

1262—1263—1264—Same specifications except with cotton braid over shield.

COTTON BRAID OVER SHIELD

1262	100 Ft. Spool	2	60.5 mmf.	32 mmf.	.225"
1263	100 Ft. Spool	3	54.0 mmf.	29 mmf.	.245"
1264	100 Ft. Spool	4	48.0 mmf.	26 mmf.	.275"



CONSTRUCTION: Two conductors twisted, each #24 16/36 tinned copper, .015" vinyl insulation, color coded, very fine tinned copper shield overall.

SHIELDED TWISTED PAIR CABLE

GENERAL PURPOSE: Where small diameter is required for sound recording, photo electric cell circuits, public address systems, etc.

No.	Put-up	Conductors	O.D.
1261	1000 Ft. Spool	2	.115"

ALL PRICES AND SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.

ALPHA WIRE PRODUCTS

SHIELDED DUPLEX SPEAKER CABLE

GENERAL PURPOSE: For P.A. systems, photo-electric cell circuits, master control sound systems, etc.

TINNED SHIELD OVERALL

No.	Put-Up	Conductors	Maximum Capacity Per Ft. Between		O.D.
			Cond. & Shield	Conds.	
1265	500 Ft. Spool	2	65 mmf.	23 mmf.	.250"

WAXED COTTON BRAID OVER SHIELD

1266	500 Ft. Spool	2	65 mmf.	23 mmf.	.280"
------	---------------	---	---------	---------	-------



CONSTRUCTION: Two conductors twisted, each No. 18-16/30 stranded tinned copper, 1/32" "Hi-Tension" rubber, color coded, paper wrap over both conductors, close tinned copper shield overall.

CONSTRUCTION: Same as #1265 except with waxed cotton braid over shield.

SHIELDED TRANSMISSION LINE

GENERAL PURPOSE: For inter-communication, short wave, P.A. systems, etc.

TINNED SHIELD OVERALL

No.	Put-up	Max. Capacity Per Ft.	O.D.
1267	500 Ft. Spool	25 mmf.	.135"

WAXED COTTON BRAID OVER SHIELD

1268	500 Ft. Spool	25 mmf.	.165"
------	---------------	---------	-------

Surge impedance is one-half the above when using shield as common conductor in dual transmission line.



CONSTRUCTION: Two conductors twisted, each No. 20 solid tinned enameled copper, insulated, color coded, shielded braid overall.

CONSTRUCTION: Same as #1267 except with waxed cotton braid over shield.

ARMORED DUPLEX SPEAKER CABLE

GENERAL PURPOSE: For P.A. systems, oil burner installations, automotive wiring, etc.

No.	Put-up	O.D.
1272	500 Ft. Spool	.132" x .182"



CONSTRUCTION: Two conductors parallel, each No. 18-16/30 stranded tinned copper, rubber insulated, color coded, lacquered cotton braid, galvanized steel armor overall.

INTER-COMMUNICATION CABLE

3 CONDUCTORS

(1 SHIELDED — 2 UNSHIELDED)

GENERAL PURPOSE: This cable is ideal for general wiring from station to station where a shielded single conductor is essential to eliminate cross talk.

No.	Put-up	O.D.
1242	500 Ft. Spool	.155"



CONSTRUCTION: Three conductors, each conductor No. 22 stranded tinned copper wire, vinyl plastic insulation, color coded; one conductor tinned copper shield and two conductors unshielded; cotton braid overall.

LEAD SHEATHED CABLE

GENERAL PURPOSE: For P.A. systems, communications, traffic control, mines, railroads and many other uses where severe moisture conditions are encountered. For all outdoor use including underground and underwater.

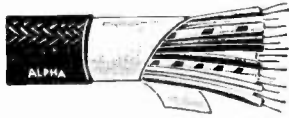
No.	Put-up	O.D.
1271	1,000 Ft. Reel	.325"

ALL PRICES AND SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.



CONSTRUCTION: Two conductors twisted, each No. 19 solid tinned copper, 1/32" "Hi-Tension" rubber, color coded; overall is a pure lead sheath.

ALPHA WIRE PRODUCTS



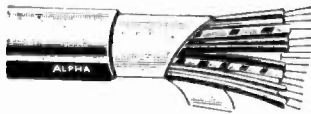
CONSTRUCTION: Each conductor solid tinned copper wire, two cotton reverse serves paraffined, color coded, conductors twisted into pairs, then covered with an impregnated double paper wrap, and overall a cotton braid saturated with a moisture-proof, flame retarding, rodent-proof compound.

BRAIDED COMMUNICATION CABLE

(TWISTED PAIRS)

GENERAL PURPOSE: For interior use designed for connecting inter-communication systems, annunciators, telephones, etc.

No.	Put-up	Size	Pairs	O.D.
1276/2	1,000 Ft. Reel	22	2 (4 Conductors)	.185"
1276/3	1,000 Ft. Reel	22	3 (6 Conductors)	.210"
1276	1,000 Ft. Reel	22	6 (12 Conductors)	.240"
1277	1,000 Ft. Reel	22	10 (20 Conductors)	.300"
1277/13	1,000 Ft. Reel	22	13 (26 Conductors)	.360"
1277/15	1,000 Ft. Reel	22	15 (30 Conductors)	.380"
1277/25	1,000 Ft. Reel	22	25 (50 Conductors)	.445"



CONSTRUCTION: Similar to Communication System Cable above, but with lead antimony sheath instead of cotton braid over the twisted pairs.

LEAD-COVERED COMMUNICATION CABLE

(TWISTED PAIRS)

GENERAL PURPOSE: For use indoors, outdoors, underground and in pipes for connecting inter-communication systems, annunciators, telephones, etc.

No.	Put-up	Size	Pairs	O.D.
1289	1,000 Ft. Reel	22	6 (12 Conductors)	.375"
1291	1,000 Ft. Reel	22	10 (20 Conductors)	.450"
1293	1,000 Ft. Reel	22	15 (30 Conductors)	.510"
1295	1,000 Ft. Reel	22	25 (50 Conductors)	.560"



CONSTRUCTION: Each conductor solid bare copper wire, thermo-plastic insulation, color coded, conductors twisted, waxed cotton braid overall.

INTER-COMMUNICATION CABLE

(BRAIDED)

GENERAL PURPOSE: Designed for interior use for connecting inter-communication systems, annunciators, thermostat controls of oil burners, air conditioners, etc.

No.	Put-up	Size	Conductors	O.D.
1274	500 Ft. Spool	18	2	.150"
1275	500 Ft. Spool	18	3	.165"
1275/4	500 Ft. Spool	18	4	.180"
1275/5	500 Ft. Spool	18	5	.200"
1275/6	500 Ft. Spool	18	6	.220"



CONSTRUCTION: Each conductor 19 solid tinned copper, 1/64" telephone compound rubber, heavy cotton braid with specially treated compound to make it weather-proof for resistance against rain, snow, hail and cold.

OUTDOOR INTER-COMMUNICATION WIRE

GENERAL PURPOSE: For outdoor and indoor use or in any damp location, for connecting communication systems, telephones, etc.

No.	Put-up	Size	Conductors	O.D.
1279	500 Ft. Spool	19	2	.200"
1280	500 Ft. Spool	19	3	.300"



CONSTRUCTION: Two conductors twisted, each No. 20 solid tinned copper, insulated, color coded.

UNSHIELDED TRANSMISSION LINE

GENERAL PURPOSE: For short wave, inter-communication, annunciator systems, etc., where shielding is not required.

No.	Put-up	O.D.
1269	500 Ft. Spool	.125"

ALL PRICES AND SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.

ALPHA WIRE PRODUCTS

MULTI-CONDUCTOR FLEXIBLE CABLE

(RUBBER JACKETED)

GENERAL PURPOSE: For indoor and outdoor speakers, permanent or portable P.A. systems, sound recording and auto radios.



No.	Put-up	Conductors	Capacity Per Ft. Between Conductors	O.D.
1244	100 Ft. Spool	2	22 mmf.	.250"
1245	100 Ft. Spool	3	20 mmf.	.300"
1246	100 Ft. Spool	4	18 mmf.	.320"
1247	100 Ft. Spool	5	17 mmf.	.370"
1247/6	100 Ft. Spool	6	16 mmf.	.400"
1247/8	100 Ft. Spool	8	16 mmf.	.460"

CONSTRUCTION: Each conductor No. 20-26/34 flexible stranded tinned copper, cotton wrap, 1/32" "Hi-Tension" rubber, color coded, conductors twisted, cushioned with cotton fillers, cotton wrap, tough black rubber jacket overall.

MULTI-CONDUCTOR FLEXIBLE CABLE

(COTTON BRAID)

GENERAL PURPOSE: For connecting speakers, analyzers, remote control units, P.A. systems or wherever a multiple circuit hook-up is required.



No.	Put-up	Conductors	Capacity Between Conductors	O.D.
1182	100 Ft. Spool	2	31.5 mmf.	.135"
1183	100 Ft. Spool	3	31.0 mmf.	.170"
1184	100 Ft. Spool	4	30.0 mmf.	.180"
1185	100 Ft. Spool	5	29.5 mmf.	.205"
1186	100 Ft. Spool	6	29.2 mmf.	.225"
1187	100 Ft. Spool	7	28.8 mmf.	.240"
1188	100 Ft. Spool	8	28.5 mmf.	.255"
1189	100 Ft. Spool	9	27.9 mmf.	.275"
1190	100 Ft. Spool	10	27.6 mmf.	.310"
1192	100 Ft. Spool	12	27.0 mmf.	.340"

CONSTRUCTION: Each conductor No. 20-10/30 stranded tinned copper, 1/64" thermoplastic insulation, color coded, conductors twisted, glazed brown cotton braid overall.

RUBBER SHEATHED SERVICE CORD

(UNDERWRITERS APPROVED)

GENERAL PURPOSE: For amplifiers, sound systems, speakers, vacuum cleaners, electric tools, washing machines, refrigerators, appliances, trouble lights, garage lamps or wherever a rough usage power line is required.



No.	Put-up	Size	Conductors	Type	Current Carrying Capacity	Voltage Rating	O.D.
1951	250 Ft. Spool	18	2	SV	5 amps	300	.250"
1952	250 Ft. Spool	18	2	SJ	5 amps	300	.310"
1953	250 Ft. Spool	16	2	SJ	7 amps	300	.340"
1954	250 Ft. Coil	18	2	S	5 amps	600	.390"
1955	250 Ft. Coil	16	2	S	7 amps	600	.410"
1956	250 Ft. Coil	14	2	S	15 amps	600	.540"
1957	250 Ft. Coil	12	2	S	20 amps	600	.605"
1958	250 Ft. Coil	10	2	S	25 amps	600	.640"

Also Available with Additional Conductors.

CONSTRUCTION: Each conductor stranded bare copper, cotton separator, 1/32" "Hi-Tension" rubber, color coded, conductors twisted, cushioned with jute fillers, 40% tough rubber jacket overall.

TYPE POSJ-E-Z STRIP LAMP CORD

(UNDERWRITERS APPROVED)

GENERAL PURPOSE: For line cord on radios, lamps, electric clocks, food mixers and other small devices.



No.	Put-up	O.D.
1966	100 Ft. Spool	.235" x .130"
1967	250 Ft. Spool	.235" x .130"

Standard Colors: Brown, Black and Ivory

CONSTRUCTION: Two conductors parallel, each conductor No. 18-41/34 extra flexible bare copper, color coded cotton serve, 40% tough rubber jacket overall. Slit in jacket to permit "E-Z" separation.

ALL PRICES AND SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.

ALPHA WIRE PRODUCTS



CONSTRUCTION: Very flexible tinned soft annealed copper, concentric strand, cotton wrap, 3/64" "Super Hi-Tension" rubber, satin finish.



CONSTRUCTION: No. 18 - 65/36 tinned soft annealed copper, concentric strand, cotton wrap, 7/64" "Super Hi-Tension" rubber, satin finish.

KINKLESS TEST LEAD WIRE

GENERAL PURPOSE: As test leads in analyzers, oscillators and all other types of testing apparatus or wherever an EXTRA FLEXIBLE insulated wire is required.

No.	Put-up	Size	Strand	Voltage Breakdown (60 Cycles)	D.C. Insulation Resistance Per Ft. (Megohms)	O.D.
1633	100 Ft. Spool	20	41/36	10,000 V.	710	.140"
1635	500 Ft. Spool	20	41/36	10,000 V.	710	.140"
1636	500 Ft. Spool	18	65/36	12,000 V.	800	.150"

Heavy Duty Type

GENERAL PURPOSE: For television, therapeutic equipment, analyzers, oscillators, etc., or wherever a heavy duty EXTRA FLEXIBLE high voltage line is required.

No.	Put-up	Voltage Breakdown (60 Cycles)	D.C. Insulation Resistance Per Ft. (Megohms)	O.D.
1637	100 Ft. Spool	22,000 V.	Over 1,000	.245"
1638	500 Ft. Spool	22,000 V.	Over 1,000	.245"

Stock Colors: Red and Black



CONSTRUCTION: Composed of very fine soft annealed tinned copper wires braided and rolled flat.

TINNED COPPER SHIELDING

GENERAL PURPOSE: For shielding speaker leads, lead-ins, amplifier wires, auto radio installations. Also for bonding.

No.	Put-up	O.D.
1229	50 Ft. Spool	1/8"
1230	50 Ft. Spool	3/16"
1231	50 Ft. Spool	1/4"
1232	50 Ft. Spool	3/8"
1233	50 Ft. Spool	5/8"
1234	50 Ft. Spool	3/4"
1235	50 Ft. Spool	1"



CONSTRUCTION: No. 1200 - 24 gauge flexible stranded copper conductor, vinyl plastic insulation, close tinned copper shielded braid overall.

No. 1201 same as No. 1200 plus cotton braid over shield.

No. 1202 same as No. 1200 except two conductor with shield overall.

SHIELDED PHONO AND GRID WIRE

GENERAL PURPOSE: Extreme flexibility and limpness make this an ideal wire for phonograph pick-up arm cable and grid wire.

No.	Put-up	Insulation	O.D.
1200	1000 Ft. Spool	.010"	.080"
1201	1000 Ft. Spool	.010"	.095"
1202	1000 Ft. Spool	.010"	.080" x .115"



CONSTRUCTION: Single conductor No. 20 - 10/30 stranded tinned copper, insulated with low loss rubber compound, white silk braid, tinned copper shield overall.

SHIELDED LOW LOSS CABLE

GENERAL PURPOSE: For auto radios, lead-ins, short wave receivers and for grid leads in the input stages of P.A. amplifiers.

No.	Put-up	Capacity Per Ft.	O.D.
1241	100 Ft. Spool	26.6 mmf.	.225"



CONSTRUCTION: Stranded tinned copper, low loss insulation, highly lacquered braid, close tinned copper shield overall.

SHIELDED HOOK-UP AND LEAD-IN WIRE

GENERAL PURPOSE: To reduce interference caused by motors, high tension wires, x-ray machines or other apparatus that radiates electrical impulses. Ideal for grid-lead use.

No.	Put-up	Size	Strand	O.D.
1194/22	1000 Ft. Spool	22	7/30	.105"
1194	1000 Ft. Spool	20	10/30	.110"
1196	1000 Ft. Spool	18	16/30	.145"
1197	1000 Ft. Spool	16	26/30	.160"
1198	1000 Ft. Spool	14	41/30	.180"

ALL PRICES AND SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.

ALPHA WIRE PRODUCTS



STRANDED



SOLID

CONSTRUCTION: Single conductor, stranded and solid tinned copper wires with thermoplastic (Vinylite) insulation. High dielectric strength; 80°C (176 F) acid, alkali, oil and moisture resistant. Underwriters approved.

Standard Colors: Black, Red, Green, Yellow, Light Blue, Brown, White, Orange, Slate, Purple, Tan, Pink and Dark Blue

PLASTIC SRIR HOOK-UP WIRE

GENERAL PURPOSE: For radio, radar, electronic devices, transmitters, aircraft instruments, fluorescent fixtures, rectifiers, electrical toys, etc.

No.	Put-up	Size	Strand	Insulation (60 cycles)	Volt. Break-down (60 cycles)	D.C. Insulation Resistance per ft. (Megohms)	O.D.
1551	1000 Ft. Spool	22	7/30	1/64"	8000	5000	.065"
1552	100 Ft. Spool	22	7/30	1/64"	8000	5000	.065"
1553	1000 Ft. Spool	20	10/30	1/64"	8000	5000	.072"
1554	100 Ft. Spool	20	10/30	1/64"	8000	5000	.087"
1555	1000 Ft. Spool	18	16/30	1/64"	8000	5000	.087"
1557	1000 Ft. Spool	16	26/30	1/64"	8000	5000	.100"
1561	1000 Ft. Spool	22	Solid	1/64"	8000	5000	.060"
1562	100 Ft. Spool	22	Solid	1/64"	8000	5000	.060"
1563	1000 Ft. Spool	20	Solid	1/64"	8000	5000	.066"
1564	100 Ft. Spool	20	Solid	1/64"	8000	5000	.066"

TYPE WL HOOK-UP WIRE

GENERAL PURPOSE: For aircraft instruments and lighting and power, radio, electronic devices, radar, transmitters, rectifiers, etc.

COTTON BRAID



CONSTRUCTION: Single conductor, stranded tinned copper, vinyl plastic insulation, cotton or glass braid, lacquered, flame retarding and fungi proof.

(Specification JAN-C-76)

No.	Put-up	Size	Strand	Insulation (60 cycles)	Volt. Break-down (60 cycles)	D.C. Insulation Resistance per ft. (Megohms)	O.D.
1480	1000 Ft. Spool	22	7/30	1000	200	.090"	
1481	1000 Ft. Spool	20	10/30	1000	200	.100"	
1482	1000 Ft. Spool	18	16/30	1000	200	.115"	
1483	1000 Ft. Spool	16	26/30	1000	200	.130"	
1484	1000 Ft. Spool	14	41/30	1000	200	.150"	
1485	1000 Ft. Spool	12	65/30	1000	200	.170"	

GLASS BRAID

1490	1000 Ft. Spool	22	7/30	1000	200	.085"
1491	1000 Ft. Spool	20	10/30	1000	200	.095"
1492	1000 Ft. Spool	18	16/30	1000	200	.110"
1493	1000 Ft. Spool	16	26/30	1000	200	.125"
1494	1000 Ft. Spool	14	41/30	1000	200	.145"
1495	1000 Ft. Spool	12	65/30	1000	200	.165"

LACQUERED HOOK-UP AND LEAD-IN WIRE

(HIGH GLOSS LACQUERED BRAID)

GENERAL PURPOSE: For point to point soldering connections on transformers, amplifiers, panel hook-up, etc., where a low loss dielectric is required. It is not a pushback wire but will strip easily.

No.	Put-up	Size	Strand	Insulation (60 cycles)	Volt. Break-down (60 cycles)	D.C. Insulation Resistance per ft. (Megohms)	O.D.
1513	100 Ft. Spool	20	10/30	1/64"	7000	290	.090"
1515	500 Ft. Spool	20	10/30	1/64"	7000	290	.090"
1523	100 Ft. Spool	18	16/30	1/64"	7000	300	.110"
1525	500 Ft. Spool	18	16/30	1/64"	7000	300	.110"
1533	100 Ft. Spool	18	16/30	1/32"	8500	460	.125"
1535	500 Ft. Spool	18	16/30	1/32"	8500	460	.125"
1543	100 Ft. Spool	16	26/30	1/32"	8500	460	.140"
1545	500 Ft. Spool	16	26/30	1/32"	8500	460	.140"



CONSTRUCTION: Stranded tinned conductor, free stripping insulation, single braid highly lacquered. Bright colors.

Standard Colors: Black, Red, Green, Yellow, Blue, Brown, White

ALL PRICES AND SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.

ALPHA WIRE PRODUCTS

"CL" PUSHBACK WIRE

GENERAL PURPOSE: Pushback hook-up wire in various bright colors for circuit identification; radio, radar, electronics, electrical toys, etc.

No.	Put-up	Size	Strand	Volt. Break-down (60 cycles)	D.C. Insulation Resistance per ft. (Megohms)	O.D.
1460	1000 Ft. Spool	22	7/30	1000	200	.065"
1460Q	100 Ft. Spool	22	7/30	1000	200	.065"
1461	1000 Ft. Spool	20	10/30	1000	200	.070"
1461Q	100 Ft. Spool	20	10/30	1000	200	.070"
1462	1000 Ft. Spool	18	16/30	1000	200	.082"
1462Q	100 Ft. Spool	18	16/30	1000	200	.082"
1463	1000 Ft. Spool	16	26/30	1000	200	.093"
1463Q	100 Ft. Spool	16	26/30	1000	200	.093"
1464	1000 Ft. Spool	14	41/30	1000	200	.105"
1464Q	100 Ft. Spool	14	41/30	1000	200	.105"
1465	1000 Ft. Spool	22	Solid	1000	200	.060"
1465Q	100 Ft. Spool	22	Solid	1000	200	.060"
1466	1000 Ft. Spool	20	Solid	1000	200	.065"
1466Q	100 Ft. Spool	20	Solid	1000	200	.065"
1467	1000 Ft. Spool	18	Solid	1000	200	.075"
1467Q	100 Ft. Spool	18	Solid	1000	200	.075"
1468	1000 Ft. Spool	16	Solid	1000	200	.085"
1468Q	100 Ft. Spool	16	Solid	1000	200	.085"
1469	1000 Ft. Spool	14	Solid	1000	200	.095"
1469Q	100 Ft. Spool	14	Solid	1000	200	.095"



STRANDED



SOLID

CONSTRUCTION: Single conductor, stranded and solid tinned copper, heavy wrap of cellulose acetate, cotton braid with flame-retarding lacquer.

Standard Colors: Black, Red, Green, Yellow, Blue, Brown, White and Orange

LACQUERED PRIMARY WIRE

GENERAL PURPOSE: For automobile head, tail, side, dashboard lamps, horn, spotlight, instrument leads and general high voltage and primary voltage applications.

No.	Put-up	Size	Strand	Rubber	O.D.
1989	100 Ft. Spool	18	16/30	1/64"	.110"
1991	100 Ft. Spool	18	16/30	1/32"	.125"
1995	100 Ft. Spool	16	26/30	1/32"	.140"
1997	100 Ft. Spool	14	41/30	1/32"	.170"
1999	100 Ft. Spool	12	19/25	1/32"	.190"
1983	100 Ft. Spool	10	19/23	1/32"	.208"



CONSTRUCTION: Stranded soft annealed tinned copper, insulated with rubber, over which is a highly lacquered braid. Oil, heat, and moisture resistant.

7 MM LACQUERED CABLE

GENERAL PURPOSE: For high voltage leads in television receivers, cathode-ray tubes, oscilloscopes, etc.

No.	Put-up	O.D.
1981	100 Ft. Spool	.275"



CONSTRUCTION: Single conductor No. 16-19/29 stranded tinned copper, rubber insulated, cotton braid highly lacquered.

7MM SHIELDED IGNITION CABLE

GENERAL PURPOSE: For automotive and aircraft ignition systems requiring grounding to overcome interference.

No.	Put-up	O.D.
1193	100 ft. spool	.300"



CONSTRUCTION: Single conductor No. 16-19/29 stranded tinned copper, rubber insulated, cotton braid highly lacquered, braided tinned copper shield overall.

ALL PRICES AND SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.

ALPHA WIRE PRODUCTS



CONSTRUCTION: Two conductors parallel, each conductor 7/28 bare copper flexible stranding, low loss polyethylene plastic insulation, smooth satin finish. Standard color: brown.

TELEVISION AND FM TWIN-LEAD CABLE

GENERAL PURPOSE: For use especially in television and FM as the lead-in from the antenna to the receiver.

No.	Put-up	Impedance (Ohms)	Capacity Per Ft.	O.D.
1150	1000 Ft. Spool	300	4.5 mmf.	.070" x .395"
1151	1000 Ft. Spool	150	9.5 mmf.	.060" x .190"
1152	1000 Ft. Spool	75	20.0 mmf.	.070" x .120"

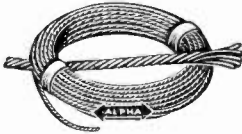


CONSTRUCTION: Conductors flat parallel, each conductor 7/30 stranded copper with one conductor bare and other conductors tinned. Durable rubber insulation.

ROTARY TV-FM CABLE

GENERAL PURPOSE: Designed for use with TV or FM antenna rotators.

No.	Put-up	Conductors	O.D.
1150 3	1,000 Ft. Spool	3	.085" x .265"
1150 4	1,000 Ft. Spool	4	.085" x .345"



CONSTRUCTION: Stranded galvanized steel wires with great tensile strength.

GUY WIRE

GENERAL PURPOSE: To prevent sway of F.M., T.V. and radio receiver masts, poles or towers.

No.	Put-up	Strand.	Breaking Strength	O.D.
1168	1,000 Ft. Spool	6/18	650 Lbs.	.156"
1169	1,000 Ft. Spool	6/20	470 Lbs.	.105"
1170	100 Ft. Coil	6/20	470 Lbs.	.105"
1171	50 Ft. Coil	6/20	470 Lbs.	.105"



CONSTRUCTION: Single conductor No. 22 solid copperweld, polyethylene insulation, bare copper shield, black vinyl plastic jacket overall.

CO-AXIAL CABLE (RG-59U)

GENERAL PURPOSE: Co-axial cable is ideal for television, FM and facsimile reception. Is suitable for very high frequency and ultra high frequency ranges.

No.	Put-up	Nom. Imp. (Ohms)	Nom. Cop.	Max. Oper. Volts RMS	O.D.
1157	1000 Ft. Reel	73	21 mmf./F+	2300	.242"



CONSTRUCTION: 6 feet E-Z Strip cord (Type POSJ-64), molded-on rubber plug attached to one end, TV molded-on rubber connector attached to other end.

TELEVISION POWER CONNECTOR CORD

GENERAL USE: For replacement of worn out or damaged TV cords.

No.	Length
2126	6 Ft. Cord

ALPHA E-Z STRIP LINE CORD



This is the modern and ideal power supply cord for replacement on radios, lamps, fans, etc. It is made of E-Z strip rubber parallel cord (UN-
DERWRITERS APPRO-

VAL) with a small unbreakable soft rubber attachment plug. Free end stripped and tinned ready to attach.

No. 2106 - 6 Ft. No. 2109 - 9 Ft. No. 2112 - 12 Ft.

Cords Available in Any Length

GLASS INSULATOR



Will withstand great strain.

No. 2020 Per Carton 100

NAIL KNOB



A 2 piece knob of glazed porcelain and a heavy nail for secure holding.

No. 2031 Per Carton 100

ALL PRICES AND SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.

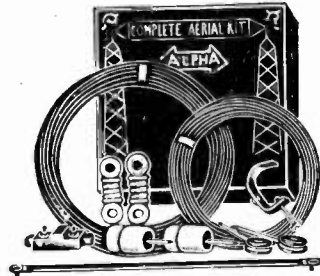
ALPHA WIRE PRODUCTS

AERIAL KITS

Alpha Aerial Kits are designed to meet the requirements of the various types of radio installations. Each kit is complete and boxed attractively.

No. 301
 50 Ft. 7 Strand Copper Aerial
 25 Ft. Lead-in Wire
 2 No. 2022 Insulators
 2 No. 2031 Nail Knobs
 1 No. 2012 Ground Clamp
 1 No. 2002 Lead-in Strip

No. 304
 75 Ft. 7/24 Copper Aerial Wire
 25 Ft. Lead-in Wire
 1 No. 2001 Lightning Arrester
 1 No. 2002 Lead-in-Strip
 2 No. 2031 Nail Knobs
 1 No. 2012 Ground Clamp
 2 No. 2022 Insulators



PHOSPHOR BRONZE AERIAL WIRE

GENERAL PURPOSE: Recommended especially for ship, short wave and transmitting aeriels where high tensile strength is required.

No.	Put-up	Strand	Breaking Strength	O.D.
1160	500-Ft. Spool	7/22	420 Lbs.	.075"
1161	500 Ft. Spool	7/20	650 Lbs.	.100"
1163	500 Ft. Spool	7/18	1000 Lbs.	.122"
1164	500 Ft. Spool	7/16	1600 Lbs.	.150"
1165	500 Ft. Spool	7/14	2140 Lbs.	.190"
1166	500 Ft. Spool	7/12	3670 Lbs.	.240"



CONSTRUCTION: 7 strands Phosphor Bronze.

LEAD-IN AND GROUND WIRE

GENERAL PURPOSE: Lead-in, ground, hook-up, all purpose wire.

No.	Put-up	Size	Strand	Insulation	O.D.
1114	1000 Ft. Spool	20	10/30	1/32"	.105"
1114E	500 Ft. Spool	20	10/30	1/32"	.105"
1131	500 Ft. Spool	18	16/30	1/32"	.125"



CONSTRUCTION: Stranded tinned or solid tinned copper conductor, insulated with live free stripping rubber, jet black waxed finish overall.

COPPER AERIAL WIRE

STRANDED — BARE

No.	Put-up
101	7/20 100 Ft. Coil
104	7/20 75 Ft. Coil
105	7/20 50 Ft. Coil
106	7/20 1000 Ft. Spool
107	7/22 100 Ft. Coil
110	7/22 75 Ft. Coil
111	7/22 50 Ft. Coil
112	7/22 1000 Ft. Spool

STRANDED — TINNED

No.	Put-up
161	7/22 100 Ft. Coil
164	7/22 75 Ft. Coil
165	7/22 50 Ft. Coil
166	7/22 1000 Ft. Spool

SOLID — ENAMEL

No.	Put-up
269	14 100 Ft. Coil
274	14 1000 Ft. Spool
275	12 100 Ft. Coil
280	12 1000 Ft. Spool
281	10 100 Ft. Coil
283	10 1000 Ft. Spool

SOLID — TINNED

No.	Put-up
284	14 100 Ft. Coil
286	14 1000 Ft. Spool
287	12 100 Ft. Coil
289	12 1000 Ft. Spool
290	10 100 Ft. Coil
292	10 1000 Ft. Spool



All Alpha Aerial Wire is pure electrolytic copper properly annealed to assure required flexibility and tensile strength.

AC-DC ANTENNA WIRE

GENERAL PURPOSE: Ideal replacement wire for universal midjets, indoor aeriels and loop antennas.

No.	Put-up
1281	25 Ft. Disc
1282	100 Ft. Spool
1283	500 Ft. Spool
1284	1000 Ft. Spool



CONSTRUCTION: Single conductor No. 24-16/36 stranded bare copper, extra flexible, covered with dark brown braid or plastic.

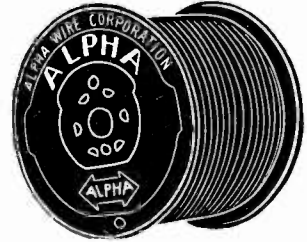
ALL PRICES AND SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.

ALPHA WIRE PRODUCTS

TINNED COPPER BUS-BAR WIRE

GENERAL PURPOSE: Winding of coils, antennas, point to point, bus bar, etc.

No.	Put-up	Size	O. D.
292	1000 Ft. Spool	10	.103"
289	1000 Ft. Spool	12	.082"
286	1000 Ft. Spool	14	.065"
295	1000 Ft. Spool	16	.051"
296	1000 Ft. Spool	18	.040"
297	1000 Ft. Spool	20	.033"
298	1000 Ft. Spool	22	.025"



DIATHERMY CABLE

GENERAL PURPOSE: Its extreme flexibility and tough rubber jacket give it long life. This cable is used as a lead on therapy apparatus, charging cable, battery lead, underground cable, etc.

No.	Put-up	O. D.
1623	100 Ft. Spool	.300"
1625	1000 Ft. Reel	.300"



CONSTRUCTION: Single conductor extra flexible No. 14-104/34 copper, paper serve, 3/64" ASTM performance grade rubber, double cotton braid, .040" oil resistant neoprene rubber jacket.

TWISTED PAIR TRANSMISSION LINE

(WEATHERPROOF BRAID)

GENERAL PURPOSE: For inter-com. hook-up. Also suitable for low loss coupling between antenna and receiver as doublet style twisted lead-in.

No.	Put-up	Capacity Bet. Conds. Per Ft.	Frequency (KC)	Power Factor Per Cent	O. D.
1146	500 Ft. Spool	21.8 mmf.	3,500	3.75	.175"
1148	100 Ft. Coil				
1149	50 Ft. Coil				
1135	500 Ft. Spool	21.8 mmf.	3,500	3.75	.190"



CONSTRUCTION No. 1146: Two conductors No. 22-7/30 stranded tinned copper, 1/32" "Hi-Tension" rubber, color coded, conductors twisted, cotton braid overall, saturated weather-proof finish.

CONSTRUCTION No. 1135: Two conductors No. 18-16/30 stranded tinned copper, 1/32" "Hi-Tension" rubber, color coded, conductors twisted, cotton braid overall, saturated weather-proof finish.

PHOSPHOR BRONZE DIAL CABLE



CONSTRUCTION: Made of 42 strands (6 x 7 x .004) genuine phosphor bronze wire with a linen center for extra flexibility. Is guaranteed not to warp or stretch.

No.	Put-up	Tensile Strength	O. D.
1689	25 Ft. Spool	50 lbs.	.036"
1691	100 Ft. Spool	50 lbs.	.036"
1692	500 Ft. Spool	50 lbs.	.036"

BRAIDED LINEN DIAL CABLE



CONSTRUCTION: Made of the finest linen obtainable. Composed of a very strong linen center over which is a smooth black braid.

HEAVY

No.	Put-up	Tensile Strength	O. D.
1694	25 Ft. Spool	40 lbs.	.057"
1695	100 Ft. Spool	40 lbs.	.057"
1696	500 Ft. Spool	40 lbs.	.057"

Longer Lengths Available.

LIGHT

No.	Put-up	Tensile Strength	O. D.
1697	25 Ft. Spool	22.5 lbs.	.036"
1698	100 Ft. Spool	22.5 lbs.	.036"
1699	500 Ft. Spool	22.5 lbs.	.036"

Longer Lengths Available.

EXTRA-THIN

No.	Put-up	Tensile Strength	O. D.
1700	25 Ft. Spool	18 lbs.	.027"

ALL PRICES AND SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.

ALPHA WIRE PRODUCTS



FLEXIBLE VARNISHED TUBING AND SLEEVING

RADIO VARNISHED TUBING — (Spaghetti). A sleeving with a heavy coat of varnish, in high gloss vivid colors. Average dielectric strength: 4,000 volts.

SATURATED SLEEVING — A fibre yarn sleeving saturated with high grade insulating varnish. Cuts clean and has a smooth interior wall. Average dielectric strength: 2,000 volts.

MAGNETO VARNISHED TUBING—The production of this type of tubing is under rigid control so as to insure a maximum in quality. It is thoroughly impregnated with a varnish of maximum insulating value. It is resistant to heat, oil, gas and acids. Colors are bright and vivid. Average dielectric strength: 7,000 volts.

No.	Approx. I.D.
20	.034"
19	.038"
18	.042"
17	.047"
16	.053"
15	.059"
14	.066"
13	.076"

No.	Approx. I.D.
12	.085"
11	.095"
10	.106"
9	.118"
8	.133"
7	.148"
6	.166"
5	.186"
4	.208"

No.	Approx. I.D.
3	.234"
2	.263"
1	.294"
0	.330"
3/8"	.375"
7/16"	.438"
1/2"	.500"
5/8"	.625"

Tolerances: Sizes:
 0 to 2—plus or minus .005"
 3 to 13—plus or minus .004"
 14 to 20—plus or minus .002"
 Lengths—Standard 36"

Standard Colors: Black, Red, Yellow, Green and Brown
 Sizes follow the B & S System of gauging wires. For instance, a No. 10 tubing will fit over a No. 10 bare wire or any wire with an insulation of which the O.D. is equivalent to No. 10 B & S gauge. If in doubt, it is best to submit a sample of the wire or product to be covered.

Longer Lengths Available.

SPAGHETTI TUBING

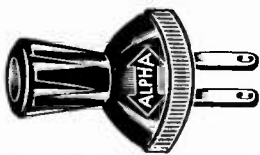


A superior varnished tubing for radio work. It will retain its dielectric and flexibility indefinitely. Takes up to No. 14 wire.

Colors: Black, Red, Yellow, Green and Brown

No. 2091 — 36" Lengths

UNBREAKABLE SOFT RUBBER PLUG



Made of sturdy live soft rubber. Brass blades. Unbreakable, easy to attach.

No. 1964 Per Carton 100

RADIO LIGHTNING ARRESTER



Made of high quality glazed porcelain with nicked screws and nuts. For indoor or outdoor use.

No. 2001 Individually boxed

GROUND CLAMP



Heavy gauge strap, Fahnestock terminal and brass screw and nut. This ground clamp makes a quick and positive connection. Fits a 3/8" to 2" pipe.

No. 2012 Type Strap Per Carton 50

LEAD-IN STRIP-CLIP TYPE



Strips are waterproofed being fully covered with a heavily lacquered braid. Fahnestock clips are riveted to strap for firm contact.

No. 2002 Length 12" Per Carton 50

ALL PRICES AND SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.

ALPHA WIRE PRODUCTS

NOTE: USEFUL INFORMATION FOR ORDERING

- All tests on specifications are approximate and subject to normal manufacturing tolerances.
- Lengths other than those regularly listed can be furnished.
- Other wires and cables made to specifications.
- Use the following symbols alongside catalog number for other than standard put-ups.

COILS		COILS		COILS		SPOOLS		SPOOLS		SPOOLS	
25 Ft.....H	100 Ft.....K	500 Ft.....B	25 Ft.....N	100 Ft.....Q	250 Ft.....D	50 Ft.....Z	150 Ft.....L	1000 Ft.....C	50 Ft.....T	150 Ft.....R	500 Ft.....E
75 Ft.....J	200 Ft.....M	250 Ft.....A	75 Ft.....P	200 Ft.....S	1000 Ft.....F						

G — LONGER LENGTHS ON SPOOLS OR REELS

The constant development of new and improved designs and manufacturing processes results in continually changing specifications. In every case where Alpha wires shipped are different in specifications from those shown in this catalog, an improvement will be noted.

Cat. No.	List Price	Cat. No.	List Price	Cat. No.	List Price	Cat. No.	List Price	Cat. No.	List Price
301	\$ 1.20	1254	\$22.50	1490	\$22.50	1989	\$ 2.75	4	\$12.00
304	2.25	1255	25.00	1491	25.88	1991	3.13	3	13.50
1114	9.38	1255/8	33.75	1492	31.75	1995	4.75	2	15.00
1114E	5.13	1256	7.50	1493	40.50	1997	5.00	1	16.88
1131	12.25	1257	10.00	1494	52.13	1999	6.88	0	20.25
1135	20.50	1258	12.50	1495	91.88	2001	per C 40.00	3/8	24.38
1146	15.00	1261	55.00	1513	2.13	2002	per C 10.63	7/16	29.25
1148	3.13	1262	8.25	1515	10.00	2012	per C 10.00	1/2	33.75
1149	1.63	1263	11.50	1523	2.70	2020	per C 7.50	5/8	39.38
1150/3	32.50	1264	14.75	1525	12.75	2031	per C 7.50		
1150/4	45.00	1265	40.00	1533	2.95	2091	.18		
1150	31.25	1266	50.00	1535	14.00	2106	.35		
1151	37.50	1267	23.13	1543	4.75	2109	.43		
1152	35.00	1268	30.00	1545	22.50	2112	.50		
1157	105.00	1269	17.50	1551	10.50	2126	.70		
1160	21.25	1271	137.50	1552	1.18	101	2.38		
1161	35.00	1272	37.50	1553	13.13	104	1.80		
1163	37.50	1274	15.00	1554	1.45	105	1.23		
1164	50.00	1275	20.00	1555	17.88	106	23.00		
1165	77.50	1275/4	28.75	1557	25.25	107	1.30		
1166	117.50	1275/5	42.50	1559	35.00	110	1.00		
1168	25.00	1275/6	50.00	1561	8.13	111	.67		
1169	15.00	1276/2	75.00	1562	.95	112	12.25		
1170	1.63	1276/3	95.00	1563	10.25	131	.95		
1171	.88	1276	180.00	1564	1.15	134	.75		
1182	4.00	1277	255.00	1565	14.00	135	.50		
1183	5.00	1277/13	325.00	1567	19.13	136	8.75		
1184	6.50	1277/15	375.00	1569	26.88	161	1.68		
1185	8.25	1277/25	575.00	1571	18.38	164	1.28		
1186	10.25	1279	18.75	1573	20.75	165	.88		
1187	11.75	1280	28.13	1575	25.63	166	16.00		
1188	13.50	1281	.23	1577	34.13	269	1.75		
1189	15.25	1282	.95	1579	46.50	274	16.75		
1190	17.50	1283	4.13	1581	13.75	275	2.60		
1192	21.25	1284	8.00	1583	16.50	280	25.25		
1193	15.00	1289	350.00	1585	21.00	281	3.75		
1194/22	37.50	1291	500.00	1587	27.25	283	36.75		
1194	40.00	1293	662.50	1589	35.75	284	1.70		
1196	50.00	1295	937.50	1623	13.13	286	16.25		
1197	62.50	1460	14.38	1625	125.00	287	2.50		
1198	75.00	1460-Q	1.58	1633	2.50	289	24.25		
1200	36.25	1461	16.63	1635	11.25	290	3.70		
1201	40.00	1461-Q	1.80	1636	13.75	292	36.25		
1202	55.00	1462	21.00	1637	6.25	295	12.38		
1229	2.50	1462-Q	2.23	1638	30.00	296	10.75		
1230	2.75	1463	25.88	1689	1.13	297	6.75		
1231	3.25	1463-Q	2.73	1691	3.75	298	4.50		
1232	5.50	1464	34.75	1692	16.25				
1233	8.25	1464-Q	3.60	1694	1.13				
1234	12.00	1465	13.25	1695	3.88				
1235	14.50	1465-Q	1.45	1696	18.00				
1241	10.00	1466	14.25	1697	1.00				
1242	37.50	1466-Q	1.55	1698	3.50				
1244	8.75	1467	18.00	1699	16.88				
1245	10.50	1467-Q	1.93	1700	.68				
1246	12.00	1468	21.63	1951	16.88				
1247	15.00	1468-Q	2.30	1952	18.13				
1247/6	20.00	1469	27.88	1953	21.88				
1247/8	27.50	1469-Q	2.93	1954	28.75				
1248	7.50	1480	21.63	1955	32.50				
1249	10.00	1481	25.25	1956	57.50				
1250	11.25	1482	30.50	1957	82.50				
1250/18	16.25	1483	38.00	1958	112.50				
1251	13.00	1484	49.50	1964	.13				
1252	15.50	1485	89.00	1966	3.63				
1253	20.00			1967	8.25				
				1981	8.25				
				1983	7.75				

SATURATED SLEEVING

Cat. No.	List Price	Per C ft.
24	\$ 5.38	
20	4.13	
19	4.25	
18	4.50	
17	4.63	
16	4.88	
15	5.25	
14	5.50	
13	5.75	
12	6.13	
11	6.50	
10	6.75	
9	7.13	
8	7.50	
7	7.88	
6	8.38	
5	8.63	
4	9.75	
3	11.25	
2	12.00	
1	13.50	
0	16.88	
3/8	21.75	
7/16	26.25	
1/2	30.00	
5/8	35.63	

MAGNETO VARNISHED TUBING

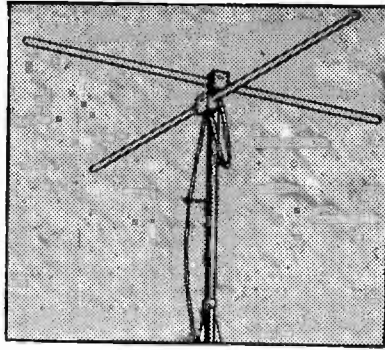
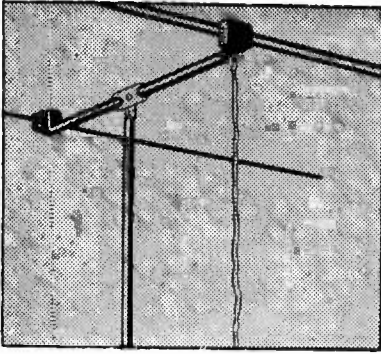
Cat. No.	List Price	Per C ft.
24	\$ 6.00	
20	6.00	
19	6.00	
18	6.00	
17	6.00	
16	6.38	
15	6.75	
14	7.13	
13	7.25	
12	7.50	
11	8.63	
10	9.38	
9	10.13	
8	10.75	
7	11.75	
6	12.88	
5	14.00	
4	15.13	
3	16.25	
2	17.63	
1	18.75	
0	22.50	
3/8	28.13	
7/16	31.88	
1/2	37.50	
5/8	43.13	

RADIO VARNISHED TUBING

Cat. No.	List Price	Per C ft.
24	\$ 6.00	
20	4.63	
19	5.00	
18	5.38	
17	5.63	
16	5.75	
15	6.00	
14	6.13	
13	6.50	
12	7.13	
11	7.50	
10	7.88	
9	8.25	
8	8.63	
7	9.00	
6	9.38	
5	10.50	

ALL PRICES AND SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.

BELDEN • FM antenna systems



- Highly efficient
- Broad response
- Low standing wave ratio
- Perfect matching
- Mechanically strong
- Light in weight
- Factory assembled
- Weather resistant
- Wind resistant



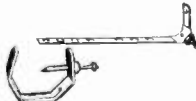






Trade Number	†Pkg.	Description	Net Weight in Lb	Contents
FM DIPOLE ANTENNA				
8320	1K	The Belden FM Dipole Antenna System is scientifically engineered and may be used on all FM radios. It can be used for Standard Broadcast as well as FM reception. Its performance has been proven in laboratory and field service tests. Careful electrical design has resulted in excellent response over the entire FM band. Maximum signal and trouble-free reception are assured.	2.5	1—65' 300-OHM Transmission Line 8225 1—Aluminum Antenna Element 1—Porcelain Junction Block 1—5' Aluminum Standard 2—Stand-off Insulators 8126 2—Mounting Straps 1—Instruction Sheet
FM REFLECTOR				
8321	1K	For greater radio signal strength, use the Belden FM Reflector with the No. 8320 Belden FM Dipole Antenna to form an antenna-reflector array. The addition of a reflector improves FM reception for any installation and is necessary in locations where the radio signal is weak, for example, due to its distance from radio stations or its location among buildings. Also, a reduction in interference may be effected to the rear or reflector side of the antenna.	.8	1—Aluminum Reflector Element 1—Porcelain Junction Block 1—Aluminum Cross Member 1—Instruction Sheet

Trade Number	†Pkg.	DESCRIPTION
8304	1 K	1—75' 7x22 Beldenamel Antenna Wire 8005 1—35' 16 Stranded Lead-in Wire 8201 1—Arrester 8896 1—Type "C" Ground Clamp 8897 1—12" Lead-in Strip 8890 2—Antenna Insulators 8103 2—Porcelain Nail-on-knobs 8102 1—Stand-off Insulator 8104 1—Instruction Sheet
8305	1 K	1—75' 7x22 Bare Copper Antenna Wire 8000 1—35' 16 Stranded Lead-in Wire 8201 1—Arrester 8896 1—Type "C" Ground Clamp 8897 1—12" Lead-in Strip 8890 2—Antenna Insulators 8103 2—Porcelain Nail-on-knobs 8102 1—Stand-off Insulator 8104 1—Instruction Sheet
8309	1 K	1—50' 7x24 Bare Copper Antenna Wire 8002 1—25' 18 Stranded Lead-in Wire 8200 1—Arrester 8896 1—Type "C" Ground Clamp 8897 2—Antenna Insulators 8103 1—Porcelain Nail-on-knob 8102 1—Stand-off Insulator 8104 1—Instruction Sheet

litz wire

8817 100' S For rewinding antenna primaries and for hand-wound r-f coils. 5x44 Celenamel with wrap of nylon.


arresters • ground clamps • lead-in strips • insulators

Trade Number	DESCRIPTION
 8895	1K Belden doublet-type bakelite arrester. Listed as approved by Underwriters
 8896	1K Belden single-type bakelite arrester. Listed as approved by Underwriters
 8892	25K Ground clamp—8¼" long
 8897	25K "C" type ground clamp. Fits pipe up to 1¾" OD
 8104	10K 7" Stand-off insulator
 8890	1K 12" Single lead-in strip—rubber insulated—clips both ends
 8126	10K 3" Stand-off insulator for flat transmission line
 8102	10K Porcelain nail-on-knobs
 8103	10K Porcelain insulators, 2½" over-all length


†CK—Coiled in carton K—Carton CR—Crate reel S—Spool C—Coil SK—Spooled in carton

BELDEN • aerial wire • lead-in wire

shielded lead-in wire

Trade Number	Length and Package	Size	DESCRIPTION	Stranding	Insulation Thickness (Inches)	Finished OD (Inches)
 8206	250' S	18	Tinned copper, flexible stranding; rubber insulation; tinned copper braid shield	7x27	.040"	.155

lead-in wire

 8200	100' S 500' S 1000' S	.18	Tinned copper, flexible stranding; rubber insulation	7x27	.040	.126
8201	50' CK 100' S 250' S 500' S 1000' S	16	Tinned copper, flexible stranding; rubber insulation	7x25	.040	.135

voice coil lead wire



8127	10'***	25	Bare copper wire braided	32x40		.024
------	--------	----	--------------------------	-------	--	------

***Packaged 10 ft on card, 5 cards in carton.

indoor aerial wire—EXTRA FLEXIBLE



8014	25'*	25	Tinned copper, flexible stranding; chrome vinyl plastic insulation	13x36	.010	.044
------	------	----	--	-------	------	------

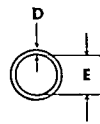
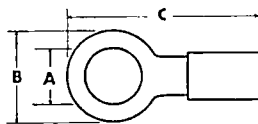
*Packaged 25 ft on card, 5 cards in carton.

aerial wire (FULL GAUGE AND WEIGHT)





STRANDED BARE COPPER			STRANDED BELDENAMEL			SOLID TINNED COPPER (Bus Bar Wire)			SOLID BELDENAMEL		
Trade Number	Length and Package	Size	Trade Number	Length and Package	Size	Trade Number	Length and Package	Size	Trade Number	Length and Package	Size
8000	50' C 75' C 100' C 1000' S	7x22	8005	75' CK 100' CK 1000' S	7x22	8011	100' CK	12	8008	100' CK 200' S 500' S	12
8002	50' C 75' C 100' C 1000' S	7x24	8006	100' CK 1000' S	7x20	8012	100' CK	14	8009	100' CK 500' S	14

terminals

Tinned; easy to solder



DIMENSIONS—INCHES		
A	B	C
Hole Size or Space Opening	Over-all Width	Over-all Length

Trade Number	Quantity and Package	For Screw Size	Hole Size or Space Opening	Over-all Width	Over-all Length
 8989	*25c pkg. 100 K 1000 K	12	.219	3/8	1 11/16
 8992	*25c pkg. 100 K 1000 K	8	.165	1 1/16	2 5/16
 8993	*25c pkg. 100 K 1000 K	10	.191	5/16	3/4
 8995	*25c pkg. 100 K 1000 K	8	.165	5/16	3/4



Trade Number	Quantity and Package	For Screw Size	DIMENSIONS—INCHES		
			Hole Size or Space Opening	Over-all Width	Over-all Length
8996	*25c pkg. 100 K 1000 K	10	.191	5/16	3/4



8997	*25c pkg. 100 K 1000 K	8	.165	1 1/16	1 1/16
------	------------------------------	---	------	--------	--------



8998	*25c pkg. 100 K 1000 K	8	.172	1/4	1/2
------	------------------------------	---	------	-----	-----



8999	*25c pkg. 100 K 1000 K	8	.172	5/16	3/4
------	------------------------------	---	------	------	-----

8994 100 K 100 Assorted Belden Terminals, including 20-8995, 25-8997, 10-8996, 10-8998, 35-8999





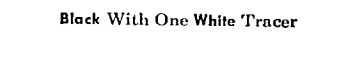

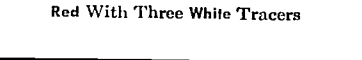



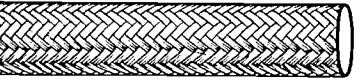
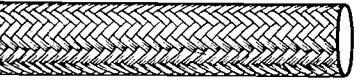
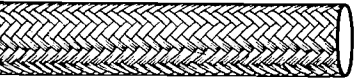
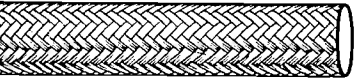
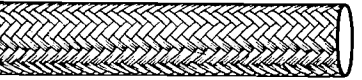


*25c package — Sealed Cellophane Envelopes 20 Envelopes in carton

†CK—Coiled in carton K—Carton CR—Crate Reel S—Spool C—Coil SK—Spooled in carton

BELDEN • auto and aircraft radio wires and shielding

Belden supplies a complete line of auto radio wires and shielding to handle every wire requirement in installation and servicing.

In installations of this type, the use of the correct wire is particularly important. Applications are indicated in the listings below.

ILLUSTRATION AND COLOR	Trade Number	Lengths and Package	A.W.G.	GENERAL CONSTRUCTION	Stranding	Finished Cable OD (inches)	Nominal Capacitance Per Ft (mmf)
 Black	8664	100' S	28	.013" Tinned steel wire, solid; cellulose yarn braid; polyethylene insulation; tinned copper braid shield; black vinyl plastic jacket	solid	.250	14.5
 Black	8667	100' S	16	Tinned copper, flexible stranding; rubber insulation; cotton braid; lacquer coating	19x29	.280	
 Black	8665	100' S	19	Stainless steel alloy, flexible stranding; rubber insulation; glass yarn web braid; neoprene jacket; tinned copper braid shield; neoprene jacket	6x.013"+ 1x.011" steel alloy	.365	
 Black, Blue, Green, Red, Yellow, White	8833	100' S 1000' S	18	Tinned copper, flexible stranding; paper wrap; rubber insulation; cellulose acetate yarn braid; lacquer coating	16x30	.136	
 Black With One White Tracer	8652	100' S	16	Tinned copper, flexible stranding; cellophane wrap; rubber insulation; black cotton braid with one white tracer; lacquer coating	19x29	.140	
 Green With Two White Tracers	8651	100' S	14	Same as 8652 except green cotton braid with two white tracers	19x27	.165	
 Red With Three White Tracers	8650	100' S	12	Same as 8652 except red cotton braid with three white tracers	19x25	.195	
 Black	8656	100' S	16	Tinned copper, flexible stranding; cellophane wrap; rubber insulation; cotton braid; blue lacquer coating; tinned copper braid shield	19x29	.170	
 Black	8655	100' S	14	Tinned copper, flexible stranding; cellophane wrap; rubber insulation; cotton braid; blue lacquer coating; tinned copper braid shield	19x27	.195	
 Black	8654	100' S	12	Tinned copper, flexible stranding; cellophane wrap; rubber insulation; cotton braid; blue lacquer coating; tinned copper braid shield	19x25	.225	
 Black	8660	50' SK 250' S		Tinned copper braid in form of tubing	96x34	13/64 I D	
 Black	8668	50' SK 250' S		Tinned copper braid in form of tubing	120x34	1/8 I D	
 Black	8661	50' SK 250' S		Tinned copper braid in form of tubing	192x34	3/8 I D	
 Black	8669	50' S 250' S		Tinned copper braid in form of tubing	336x34	1/2 I D	
 Black	8662	50' S 250' S		Tinned copper braid in form of tubing	576x34	25/32 I D	
 Black	8657	50' CK		Tinned copper braid shield over fabric loom		3/16 I D	
 Black	8658	50' CK		Tinned copper braid shield over fabric loom		5/16 I D	




†CK—Coiled in carton K—Carton CR—Crate reel S—Spool C—Coil SK—Spooled in carton

BELDEN • microphone cables




Performance and appearance are the outstanding features built into Belden microphone cables. Polyethylene insulation is used for outstanding dielectric properties and vinyl plastic jackets for protection.

Dielectrically, Belden microphone cables have low capacitance, high insulation resistance, and low attenuation at audio frequencies. In addition, they provide resistance to physical abuse, aging, and moisture.

plastic microphone cable

ILLUSTRATION AND APPLICATION	Trade Number	Lengths †Package and Color	A.W.G. and No. Condrs.	GENERAL CONSTRUCTION	Stranding	Fin-ished Cable O D (inches)	Nom. Capacitance Per Ft (mmf)
 For lapel microphones	8411	25' CK 100' S Chrome	25-1	Tinned copper and tinned steel, flexiblestranding; cellulose yarn braid; polyethylene insulation; tinned copper braid shield; chrome vinyl plastic jacket	3x33 copper plus 4x33 steel	.140	40.
 For crystal, ribbon and carbon microphones	8401	25' CK 50' CK 100' S 500' S Chrome	25-1	Tinned copper and tinned steel, flexiblestranding; cellulose yarn braid; polyethylene insulation; tinned copper braid shield; chrome vinyl plastic jacket	3x33 copper plus 4x33 steel	.200	25.
 For carbon microphones	8422	25' CK 50' CK 100' S 500' S Chrome	22-2	Tinned copper, flexible stranding; polyethylene insulation, color coded; conductors cabled with fillers; rayon braid; tinned copper braid shield; chrome vinyl plastic jacket	16x34	.235	**28.

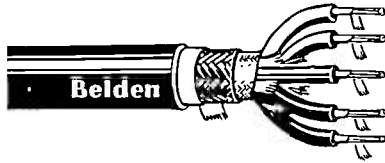
rubber microphone cable

 For crystal ribbon and carbon microphones	8410	25' CK 50' CK 100' S 500' S Black	25-1	Tinned copper and tinned steel, flexiblestranding; cellulose yarn braid; waxed; rubber insulation; rayon braid; tinned copper braid shield; rayon wrap; black rubber jacket	3x33 copper plus 4x33 steel	.245	33.
 For carbon microphones	8412	25' CK 50' CK 100' S 500' S Black	20-2	Tinned copper, flexible stranding; cotton wrap; rubber insulation, color coded; conductors cabled with fillers; rayon braid; tinned copper braid shield; cotton wrap; black rubber jacket	26x34	.280	**63.
 For carbon microphones	8423	50' CK 250' S Black	20-3	Tinned copper, flexible stranding; cotton wrap; rubber insulation, color coded; conductors cabled; rayon braid; tinned copper braid shield; cotton wrap; black rubber jacket	26x34	.280	††54.

**Between one conductor and other conductor connected to shield.
Nominal capacitance between conductors only, 16 mmf per foot.
***Between one conductor and other conductor connected to shield.
Nominal capacitance between conductors only, 36 mmf per foot.
††Between one conductor and other conductors connected to shield.
Nominal capacitance between conductors only, 41 mmf per foot.

shielded multiple conductor cables

Belden multiple conductor cables are developed for long service life, excellent mechanical and electrical characteristics, and uniform quality. These cables are used for a multitude of applications including power and interconnecting cords on radio receivers, electronic devices, speakers, analyzer test equipment, remote control circuits, and press-to-talk microphone circuits.




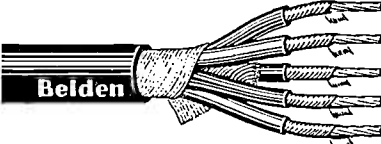


ILLUSTRATION	Trade Number	Lengths †Package and Color	A.W.G. and No. Condrs.	GENERAL CONSTRUCTION	Stranding	Nom. Insulation Thick. (inches)	Nom. Jacket Thick. (inches)	Fin-ished Cable O D (inches)
	*8424	50' CK 250' S Black	20-4	Tinned copper, flexible stranding; cotton wrap; rubber insulation, color coded; conductors cabled; rayon braid; tinned copper braid shield; cotton wrap; black rubber jacket	26x34	.020	.040	.305
	8425	50' CK 250' S Black	20-5	Same as 8424 except five conductors	26x34	.020	.040	.335
	8426	100' S Black	20-6	Same as 8424 except six conductors	26x34	.020	.040	.355
	8427	100' S Black	20-7	Same as 8424 except seven conductors	26x34	.020	.040	.370

*Also used as microphone cable.

†CK—Coiled in carton K—Carton CR—Crate reel S—Spool C—Coil SK—Spooled in carton

BELDEN • multiple conductor cables

RUBBER-JACKETED PORTABLE CORD





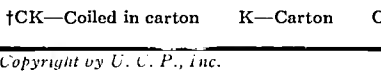


ILLUSTRATION	Trade Number	Lengths (Package and Color)	A.W.G. and No. Conds.	GENERAL CONSTRUCTION	Stranding	Insulation Thick. (inches)	Jacket Thick. (inches)	Finished Cable O. D. (inches)
 Underwriters' Approved Type SV	8452	100' S 500' S Black	18-2	Bare copper, flexible stranding; cotton wrap; rubber insulation, color coded; conductors cabled with fillers; cotton wrap; black rubber jacket	41x34	1/64	1/32	.245
 Underwriters' Approved Type POSJ-64	8453	100' S 500' S Black	18-3	Bare copper, flexible stranding; cotton wrap; rubber insulation, color coded; conductors cabled with fillers; cotton wrap; black rubber jacket	41x34	1/64	1/32	.275
 Underwriters' Approved Type POT-64	8454	100' S 500' S Black	18-4	Same as 8453 except four conductors	41x34	1/64	1/32	.265
 Belden	8455	100' S 250' S Black	20-3 18-2	Bare copper, flexible stranding; cotton wrap; rubber insulation; color coded; conductors cabled with fillers; cotton wrap; black rubber jacket	26x34 41x34	1/64	1/32	.285
 Underwriters' Approved Type POSJ-64	8462	100' S 250' S Brown	18-2	Bare copper, flexible stranding; cotton wrap, color coded; parallel conductors with rubber insulation and jacket integral	41x34	1/32		.123x .223
 Underwriters' Approved Type POT-64	8888	250' S Black	18-2	One bare and one tinned copper conductor, flexible stranding; parallel conductors with vinyl plastic insulation and jacket integral	41x34	1/32		.114x .231

Flexible, light weight and small diameter.

Applications include control, annunciator, and communications circuits.

BRAIDED PLASTIC-INSULATED CABLE




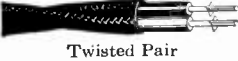
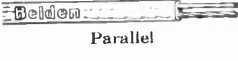
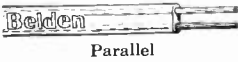


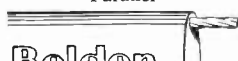





(See intercommunications cables, page 12, for shielded types.)

 Braid	8443	100' S 500' S Brown	22-3	Tinned copper, flexible stranding; vinyl plastic insulation, color coded; conductors cabled; over-all brown cotton braid	7x30	.010		.140
 Braid	8444	100' S 500' S Brown	22-4	Same as 8443 except four conductors	7x30	.010		.153
 Braid	8445	100' S 500' S Brown	22-5	Same as 8443 except five conductors	7x30	.010		.167
 Braid	8446	100' S Brown	22-4 16-2	Tinned copper, flexible stranding; vinyl plastic insulation, color coded; conductors cabled; over-all brown cotton braid	7x30 19x29	.010 .018		.218
 Braid	8447	100' S Brown	22-5 16-2	Same as 8446 except seven conductors	7x30 19x29	.010 .018		.235
 Braid	8448	100' S Brown	22-6 16-2	Same as 8446 except eight conductors	7x30 19x29	.010 .018		.240
 Braid	8449	100' S Brown	22-7 16-2	Same as 8446 except nine conductors	7x30 19x29	.010 .018		.260

†CK—Coiled in carton K—Carton CR—Crate reel S—Spool C—Coil SK—Spooled in carton

BELDEN transmission line cables

NOMINAL ELECTRICAL PROPERTIES

ILLUSTRATION AND TYPE	Trade Number	Lengths and Package	A.W.G.	GENERAL CONSTRUCTION	Stranding	Finished Cable O.D. (inches)	Frequency (mc)	Attenuation Per 100 Ft (decibels)	Impedance (ohms)	Velocity of Propagation (per cent)	Capacitance Per Ft (mmf)	Puncturing Voltage (volts)
 Belden Coaxial	8216	50' S 250' S	14	Tinned copper, flexible stranding; low-loss rubber insulation; tinned copper braid shield; rubber jacket	19x27	.460	.5 1.0 5.0 10. 50. 100.	.30 .51 1.8 2.9 10.0 17.0	72.	56.	37.	30000
 Twisted Pair	8204	500' S	18	Tinned copper, flexible stranding; cotton wrap; low-loss rubber insulation, color coded; two conductors cabled; white cotton braid treated with weather-resistant compound	7x26	.190	.5 1.0 5.0 10. 50. 100.	.37 .53 1.4 2.3 7.4 12.3	72.	61.	21.	
 Twisted Pair (Shielded)	8209	500' S	18	Tinned copper, flexible stranding; cotton wrap; low-loss rubber insulation, color coded; two conductors cabled; paper wrap; tinned copper braid shield; white cotton braid, treated with weather-resistant compound	7x26	.235	.5 1.0 5.0 10. 50. 100.	.91 1.1 2.1 3.2 9.5 14.9	72.	57.	32.*	
 Twisted Pair	8205	500' S	22	Tinned copper, flexible stranding; paper wrap; rubber insulation, color coded; two conductors cabled; black cotton braid, treated with weather-resistant compound	7x30	.175						
 Belden Parallel	8222	100' S 500' S	20	One bare and one tinned copper conductor, flexible stranding; conductors parallel; polyethylene plastic insulation	7x28	.075 x.128	50. 100. 200. 300. 400. 500.	5.3 7.7 11.0 13.6 15.9 17.8	72.	69.	20.7	
 Belden Parallel	8223	100' S 500' S	20	Same as 8222	7x28	.075 x.143	50. 100. 200. 300. 400. 500.	3.5 5.1 7.2 8.9 10.3 11.5	100.	72.	16.3	
 Belden Parallel	8224	100' S 500' S	20	Same as 8222	7x28	.075 x.182	50. 100. 200. 300. 400. 500.	1.9 2.8 4.2 5.4 6.4 7.3	150.	76.	9.8	
 Belden Parallel	8225	100' S 500' S 1000' S	20	Same as 8222	7x28	.075 x.390	50. 100. 200. 300. 400. 500.	1.9 1.1 1.7 2.2 2.7 3.1	300.	85.	4.6	
 Belden Parallel	8235	100' S 500' S	18	Bare copper, flexible stranding; conductors parallel; polyethylene plastic insulation	7x26	.200 x.530	50. 100. 200. 300. 400. 500.	.70 1.10 1.73 2.28 2.74 3.18	300.	82.	5.8	35000
 Belden Parallel	8210	100' S 500' S	13	Bare copper, flexible stranding; conductors parallel; polyethylene plastic insulation	7x21	.166 x.278	50. 100. 200. 300. 400. 500.	2.2 3.1 4.4 5.5 6.3 7.0	72.	85.	22.	15000
 Belden Parallel (Shielded)	8226	100' S 500' S	20	One bare and one tinned copper conductor, flexible stranding; conductors parallel; polyethylene plastic insulation; tinned copper braid shield; black vinyl plastic jacket	7x28	.190 x.310	50. 100. 200. 300. 400. 500.	5.8 8.3 12.0 14.8 17.2 19.4	100.	64.	18.2*	
 Twisted Pair (Shielded)	8227	100' S 250' S	20	One bare and one tinned copper conductor; flexible stranding; polyethylene plastic insulation; two conductors cabled; polyethylene plastic jacket; tinned copper braid shield; black vinyl plastic jacket	7x28	.335	50. 100. 200. 300. 400. 500.	2.6 4.1 6.4 8.4 10.2 11.8	100.	62.	22.*	
 Coaxial	8229	100' S 500' S	22	Bare copper, solid; polyethylene plastic insulation; tinned copper braid shield; black vinyl plastic jacket	solid	.242	50. 100. 200. 300. 400. 500.	3.2 5.0 7.7 10.0 12.1 14.1	72.	67.	20.5	20000
 Coaxial	8228	100' S 500' S	20	Bare copper, solid; polyethylene plastic insulation; tinned copper braid shield; black vinyl plastic jacket	solid	.195	50. 100. 200. 300. 400. 500.	2.75 4.45 7.2 9.6 11.8 13.6	52.	66.	28.5	20000

*Capacitance between conductors.

†CK—Coiled in carton

K—Carton

CR—Crate reel

S—Spool





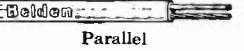
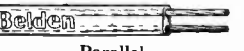
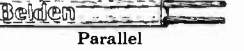
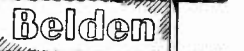

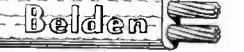




C—Coil

SK—Spooled in carton

Belden transmission cables are available for every receiving and low power transmitting antenna application. Coaxial, twisted pair, and parallel type lines are represented. These cables are designed to meet exacting electrical requirements and are mechanically strong, weather re-

sistant, and give long service life. Cables constructed with polyethylene insulation are especially suitable for very high frequency (VHF) and ultra high (UHF) ranges where the losses in ordinary types of transmission line cables are excessive.

TRANSMISSION LINE CABLE APPLICATIONS

	Lengths and Package	A. W. G.	Trade Number	ILLUSTRATION AND TYPE
72-Ohm cable for use with receiving and low power transmitting antenna at low frequencies. Also for heavy-duty high-voltage leads.	50' S 250' S	14	8216	 Coaxial
72-Ohm cable for use with doublet receiving antenna at low frequencies.	500' S	18	8204	 Twisted Pair
72-Ohm shielded cable for use with doublet receiving antenna at low frequencies to reduce noise pick-up. Also used for long runs in extension speaker installations.	500' S	18	8209	 Twisted Pair (Shielded)
Inexpensive cable for use with doublet receiving antenna at low frequencies. Also used for extension speaker and control circuits.	500' S	22	8205	 Twisted Pair
72-Ohm cable for use with receiving antenna at high frequencies.	100' S 500' S	20	8222	 Parallel
100-Ohm cable for use with receiving antenna, matching transformer, connecting link between electronic units, and experimental applications at high frequencies.	100' S 500' S	20	8223	 Parallel
150-Ohm cable for use with receiving antenna, matching transformer and experimental applications at high frequencies.	100' S 500' S	20	8224	 Parallel
300-Ohm cable especially recommended for use with television and FM receiving antenna. Exceptionally low losses at high frequencies.	100' S 500' S 1000' S	20	8225	 Parallel
300-Ohm heavy-duty cable especially recommended for use with television and FM receiving antenna. Also for low power transmitting antenna. Exceptionally low losses at high frequencies.	100' S 500' S	18	8235	 Parallel
72-Ohm cable for use with low power transmitting antenna at high frequencies.	100' S 500' S	13	8210	 Parallel
100-Ohm shielded cable for use with television and FM antenna to reduce noise pick-up.	100' S 500' S	20	8226	 Parallel (Shielded)
100-Ohm shielded cable for use with television and FM antenna in extremely noisy locations.	100' S 250' S	20	8227	 Twisted Pair (Shielded)
72-Ohm cable for use with television antenna.	100' S 500' S	22	8229	 Coaxial
52-Ohm cable for radio frequency transmission, video, test equipment, and pulse transmission.	100' S 500' S	20	8228	 Coaxial

BELDEN • hookup and lead wires

There is a Belden hook-up and lead wire construction for every service requirement—for receivers, transmitters,

amplifiers, rectifiers, aircraft radio, geophysical instruments, and in all other types of electric equipment.

HOOKUP WIRE CELLULOSE BRAID LACQUERED



Black, Blue, Green, Red, Yellow,
White, Brown, Orange

Black, Blue, Green, Red,
Yellow, White



Black, Blue, Green, Red, Yellow,
White, Brown, Orange

Black, Blue, Green, Red,
Yellow, White



Black, Blue, Green, Red,
Yellow, White



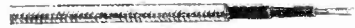
8864
8865

RUBBER-INSULATED PUSH-BACK

Colors:
Black, Blue, Green, Red, Yellow, White



SHIELDED HOOKUP WIRE



R-F PUSH-BACK WIRE CELLULOSE ACETATE BRAID WAXED



Trade Number	Lengths and Package	A.W.G.	GENERAL CONSTRUCTION AND COLORS	Stranding	Insulation Thick. (inches)	Finished OD (inches)	Nominal *D.C. Ins. Res. Per Ft (meg-ohms)	Nominal **Break-down Voltage (volts)
8941	25' CK 100' SK 1000' S	20	Tinned copper, solid; heavy cellulose acetate yarn wrap; cellulose acetate yarn braid; fungus-resistant lacquer coating	solid		.072	200	1000
8945	25' CK 100' SK 1000' S	18		solid		.080	200	1000
8943	25' CK 100' SK 1000' S	20	Tinned copper, flexible stranding; heavy cellulose acetate yarn wrap; cellulose acetate yarn braid; fungus-resistant lacquer coating	10x30		.077	200	1000
8947	25' CK 100' SK 1000' S	18		16x30		.087	200	1000
8942	25' CK 100' SK 1000' S	16		26x30		.099	200	1000
8938	25' CK 100' SK 500' S	14	(2 colors only; Red or Black)	41x30		.115	200	1000

DISPLAY ASSORTMENT

8864

Contents: 6 Rolls 8941. Size 20 solid; cellulose acetate wrap and braid lacquered. One each Black, Blue, Green, Red, Yellow, and White.

8865

Contents: 6 Rolls 8943. Size 20 flexible; cellulose acetate wrap and braid lacquered. One each Black, Blue, Green, Red, Yellow, and White.

General-use hook-up wire and as leads for transformers, speakers, and controls, in audio and power circuits. Furnished in the following 6 colors: Black, Blue, Green, Red, Yellow, and White. SPECIFY COLOR.

8837

25' CK
100' SK
1000' S

20

Tinned copper, solid; cotton wrap; unvulcanized rubber insulation; cellulose acetate yarn braid; fungus-resistant lacquer coating

solid

.010

.075

2000

2000

8838

25' CK
100' SK
1000' S

20

"SAME AS 8837 EXCEPT FLEXIBLE STRANDING"

10x30

.010

.081

2000

2000

8834

100' S
1000' S

20

Tinned copper, flexible stranding; paper wrap, rubber insulation; cellulose acetate yarn braid; fungus-resistant lacquer coating

10x30

.031

.127

10000

8000

8833

100' S
1000' S

18

Tinned copper, flexible stranding; paper wrap, rubber insulation; cellulose acetate yarn braid; fungus-resistant lacquer coating

16x30

.031

.136

10000

8000

Used in circuits where shielded grid return is required and to shield a circuit conductor from stray fields.

8885

25' CK
100' SK
500' S

20

Tinned copper, flexible stranding; rubber insulation; cellulose acetate yarn braid; fungus-resistant lacquer coating; tinned copper braid shield

10x30

.015

.117

5000

4000

Used on r-f circuits where low-loss properties are required. Furnished in following colors: Black, Blue, Green, Red, each with White Tracer, and Yellow and White, each with Black Tracer. SPECIFY COLOR.

8842

25' CK
100' SK
1000' S

22

Tinned copper, solid; two cellulose acetate yarn braids, waxed

solid

.060

1000

1000

8841

25' CK
100' SK
1000' S

20

Colors:
Black—White Tracer
Blue—White Tracer
Green—White Tracer
Red—White Tracer
Yellow—Black Tracer
White—Black Tracer

solid

.067

1000

1000

8861

25' CK
100' SK
1000' S

18

solid

.075

1000

1000

8863

25' CK
100' SK
1000' S

16

solid

.086

1000

1000

*Measurements for d-c insulation resistance were made by means of a megohm bridge at 300 volts on specimens in mercury after subjection to 90% relative humidity and 100 F for 24 hours.

**Measurements for insulation breakdown were made on specimens in mercury by application of gradually increasing 60-cycle a-c potential.

BELDEN • hook-up and lead wires

R-F PUSH-BACK WIRE
CELLULOSE ACETATE BRAID WAXED



8860



Trade Number	Lengths and †Package	A.W.G.	GENERAL CONSTRUCTION AND COLORS	Stranding	Insulation Thick. (inches)	Finished O D (inches)	Nominal *D-C Ins. Res. per Ft (meg-ohms)	Nominal **Break-down Voltage (volts)
--------------	----------------------	--------	---------------------------------	-----------	----------------------------	-----------------------	--	--------------------------------------

DISPLAY ASSORTMENT

8860 Contents: 2 Rolls 8941. Size 20 solid; cellulose acetate wrap and braid lacquered, Black and Red; 2 rolls 8943. Size 20 flexible; cellulose acetate wrap and braid lacquered, Blue and Green; 2 rolls 8913. Size 20 flexible; vinyl plastic, Yellow and White.

8810	25' CK 100' SK 1000' S	22	Tinned copper, flexible stranding; two cellulose acetate yarn braids, waxed	7x30		.065	1000	1000
8839	25' CK 100' SK 1000' S	20	Colors: Black—White Tracer Blue—White Tracer Green—White Tracer Red—White Tracer Yellow—Black Tracer White—Black Tracer	10x30		.072	1000	1000
8844	25' CK 100' SK 1000' S	18		16x30		.092	1000	1000
8862	25' CK 100' SK 1000' S	16		26x30		.095	1000	1000

General-use hook-up wire and as leads for radio components such as transformers, chokes, and controls. Furnished in the eight following colors: Black, Blue, Green, Red, Yellow, White, Brown, and Orange. SPECIFY COLOR.

Wires with 1/4" plastic insulation are designed for use within the chassis of radio receivers, amplifiers, instruments, controls, and other electronic devices. Wires with .025" plastic insulation are designed for use inside or outside the chassis but within the radio cabinet. The operating temperature limit for these wires is 80 C (176 F).

PLASTIC INSULATED



8858



8901	25' CK 100' SK 1000' S	20	Tinned copper, solid; vinyl plastic insulation Colors: Black, Yellow, Blue, White, Green, Brown, Red, Orange	solid	.015	.066	5000	8000
8909	25' CK 100' SK 1000' S	20	Tinned copper, solid; vinyl plastic insulation Colors: Black, Yellow, Blue, White, Green, Brown, Red, Orange	solid	.025	.086	5000	12000

DISPLAY ASSORTMENT

8858 Contents: 6 Rolls 8909. Size 20 solid vinyl plastic. One each Black, Blue, Green, Red, Yellow, and White.

8905	25' CK 100' SK 1000' S	20	Tinned copper, flexible stranding; vinyl plastic insulation Colors: Black, Yellow, Blue, White, Green, Brown, Red, Orange	10x30	.015	.075	5000	8000
8913	25' CK 100' SK 1000' S	20	Tinned copper, flexible stranding; vinyl plastic insulation Colors: Black, Yellow, Blue, White, Green, Brown, Red, Orange	10x30	.025	.093	5000	12000

DISPLAY ASSORTMENT

8859 Contents: 6 Rolls 8913. Size 20 flexible; vinyl plastic. One each Black, Blue, Green, Red, Yellow, and White.








8859

†CK—Coiled in carton K—Carton CR—Crate reel S—Spool C—Coil SK—Spooled in carton

*Measurements for d-c insulation resistance were made by means of a megohm bridge at 300 volts on specimens in mercury after subjection to 90% relative humidity and 100 F for 24 hours.

**Measurements for insulation breakdown were made on specimens in mercury by application of gradually increasing 60-cycle a-c potential.


BELDEN • intercommunicating and sound system cables

ILLUSTRATION AND APPLICATION	Trade Number	Lengths and †Package	A. W. G. and No. Condrs.	No. Pairs	GENERAL CONSTRUCTION	Tinned Copper Shielding	Stranding	Condr. Insulation Thickness (inches)	Finished Cable O D (inches)
 <p>For Station-to-Station and Extension Wiring (Unshielded)</p>	8740	100' S 500' S	22-2	1	Bare copper, solid; heavy formvar enamel coating; cotton braid; waxed; color coded; conductors cabled; over-all brown cotton braid	None	solid		.130
	8741	100' S 500' S	22-4	2		None	solid		.200
	8742	100' S 500' S	22-6	3		None	solid		.225
	8743	100' S 500' S	22-12	6	Tinned copper, solid; vinyl plastic insulated, color coded; conductors cabled in pairs; over-all brown cotton braid	None	solid	.010	.275
	8744	100' S 500' S	22-18	9		None	solid	.010	.320
	8745	100' S 500' CR	22-30	15		None	solid	.010	.415
 <p>For Station-to-Station and Extension Wiring (Shielded)</p>	8746	100' S 500' CR	22-54	27		None	solid	.010	.535
	8734	100' S 500' S	22-3	Not paired	Tinned copper, flexible stranding; vinyl plastic insulation, color coded; three conductors cabled, one conductor tinned copper braid shield, and two conductors unshielded; over-all brown cotton braid	Over 1 conductor	7x30	.010	.155
	8735	100' S 500' S	22-3	Not paired	Tinned copper, flexible stranding; vinyl plastic insulation, color coded; three conductors cabled; tinned copper braid shield; over-all brown cotton braid	Over 3 cabled conductors	7x30	.010	.170
	8737	100' S 500' S	22-2	1	Tinned copper, flexible stranding; vinyl plastic insulation, color coded; conductors cabled; tinned copper braid shield; over-all brown cotton braid	Over 2 cabled conductors	7x30	.010	.155
	8738	100' S 500' S	22-2	1	Bare copper, solid; heavy formvar enamel coating; cotton braid; waxed; color coded; conductors cabled; tinned copper braid shield	Over 2 cabled conductors	solid		.125
	8739	100' S 500' S	22-2	1	Same as 8738 plus over-all brown cotton braid	Over 2 cabled conductors	solid		.160
 <p>For Station-to-Terminal Wiring (Unshielded)</p>	8747	100' S	22-12	6	Tinned copper, flexible stranding; vinyl plastic insulation, color coded; conductors cabled in pairs; over-all brown cotton braid	None	7x30	.010	.305
	8748	100' S	22-18	9		None	7x30	.010	.350
	8749	100' S	22-30	15		None	7x30	.010	.445
	8750	100' S	22-54	27		None	7x30	.010	.565
	 <p>For Station-to-Terminal Wiring (Shielded)</p>	8751	100' S	25-12 16-2	Not paired	Bare copper, flexible stranding; vinyl plastic insulation, parallel thread for color coding; 12 conductors 25-ga individually shielded, cabled (not paired) with 2 conductors 16-ga unshielded; over-all brown cotton braid	Over each 25-ga conductor only	7x33 19x29	.015 .012	.335
8752		100' S	25-22 16-2	Not paired	Same construction as 8751 except 22 conductors 25-ga individually shielded	Over each 25-ga conductor only	7x33 19x29	.015 .012	.485
 <p>P. A. Cable—Amplifier-to-Speaker</p>	8799	100' S 500' S	18-2	1	Bare copper, solid; heavy formvar enamel coating; cotton wrap; cotton braid; waxed; color coded; conductors cabled; tinned copper braid shield	Over 2 cabled conductors	solid		.165
	8432	100' S 500' S	20-2	Not paired	Tinned copper, flexible stranding; paper wrap; rubber insulation; cotton braid; lacquer coating; color coded; conductors cabled; tinned copper braid shield	Over-all	10x30	.015	.215
	8433	100' S 500' S	20-3	Not paired		Over-all	10x30	.015	.230


†CK—Coiled in carton K—Carton CR—Crate reel S—Spool C—Coil SK—Spooled in carton

BELDEN • instrument and lead wires

photoelectric cell cable


Trade Number	Lengths if Package and Color	A. W. G.	GENERAL CONSTRUCTION	Stranding	Finished Cable O. D. (Inches)	Nominal Capacitance Per Ft (mmf)
 8221	100' S Black	25	Tinned copper and tinned steel, flexible stranding; cellulose yarn braid, polyethylene insulation; tinned copper braid shield; black vinyl plastic jacket	3x33 copper 4x33 steel	.240	20

phonograph pickup arm cable

 8431	100' S Brown	24	Tinned copper, flexible stranding; rubber insulation; tinned copper braid shield; fine brown cotton braid	16x36	.010	.085*
--	--------------	----	---	-------	------	-------

 8014	25' ** 500' SK Chrome	25	Tinned copper, flexible stranding; chrome vinyl plastic insulation <i>**Packaged 25 ft on card, 5 cards in carton</i>	13x36	.010	.044
--	-----------------------------	----	--	-------	------	------


cathode-ray tube lead cable

 8869	25' S 100' S Red with Two White Tracers	20	Tinned copper, flexible stranding; polyethylene plastic insulation, red cotton braid with 2 white tracers; lacquer coating	7x28	.035	.145	10000
--	--	----	--	------	------	------	-------

 8868	25' S 100' S Red	20	Same as 8869 except heavier insulation and solid red braid	7x28	1/16	.205	20000
--	------------------------	----	--	------	------	------	-------

test prod wire

 8899	††14' CK 100' S 1000' S Red Black	18	Tinned copper, extra flexible stranding; cotton wrap; rubber insulation	65x36	.043	.140	5000
---	---	----	---	-------	------	------	------

 8898	100' S 500' S Red Black	18		65x36	.088	.230	10000
--	----------------------------------	----	--	-------	------	------	-------

*Suggested values. ††7' Red and 7' Black

magnet wire

SINGLE COTENAMEL

Size	Turns Per Linear Inch	Turns Per Square Inch	APPROX. LENGTH IN FEET	
			¼-Lb Spool	½-Lb Spool
14	14.1	199	....	39
16	17.4	303	....	61
18	21.4	458	....	97
20	26.1	681	....	154
22	31.9	1018	....	241
24	38.6	1490	....	376
26	46.4	2153	295	590
28	55.1	3036	458	916
30	64.7	4186	710	1420
32	74.6	5565	1090	2180
34	86.6	7500	1606	....
36	97.6	9526	2425	....

BELDENAMEL

Size	Turns Per Linear Inch	Turns Per Square Inch	APPROX. LENGTH IN FEET	
			¼-Lb Spool	½-Lb Spool
14	15.2	231	....	40
16	19.1	365	....	62
18	23.9	571	....	100
20	29.9	894	....	160
22	37.4	1399	....	250
24	46.9	2200	....	400
26	59.0	3481	....	638
28	73.8	5446	505	1010
30	92.2	8501	805	1610
32	114.0	12996	1270	2540
34	144.0	20736	2015	4030
36	180.0	32400	3200	6400
38	225.0	50625	5070	....
40	290.0	84100	8050	....







SINGLE NYLTENAMEL

22	34.9	1218	....	248
24	43.1	1857	....	390
26	52.9	2798	309	618
28	64.5	4160	487	974
30	78.1	6059	770	1540
32	93.4	8723	1202	2404
34	113.0	12769	1892	....
36	134.2	18009	2854	....

†CK—Coiled in carton K—Carton CR—Crate reel S—Spool C—Coil SK—Spooled in carton

BELDEN • replacement and extension cords

each cord bears Underwriters' label of approval

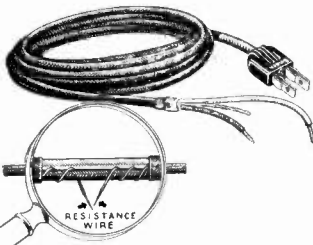
	Trade Number	Lengths †Package and Color	A.W.G.	GENERAL CONSTRUCTION	Stranding	Insulation Thickness (inches)	Finished Cable O.D. (inches)	Voltage* Rating (volts)
	1701	1 K	10 Ft Brown	Extension Cord—Size 18, Type POSJ-64. Extra-flexible all-rubber parallel lamp cord. Both ends unbreakable rubber. Does not mar floors or furniture. Safe for use on table tops.				
	1702	1 K	15 Ft Brown					
	1705	1 K	6 Ft Brown					
	1751	1 K	25 Ft Black	Extension Cord—Size 18, Type SV. All-rubber portable cord with Belden molded-on all-rubber connector and Belden unbreakable soft rubber plug.				
	1725	1 K	7 Ft 6 In. Brown	Replacement Cord—Size 18, Type POSJ-64. Extra-flexible all-rubber parallel lamp cord with Belden unbreakable soft rubber plug; opposite end stripped and tinned—ready for easy attachment. For lamps, radios, small appliances.				
	1749	1 K	6 Ft 3 In. Black	Replacement Cord—Size 18, Type SV. All-rubber portable cord with Belden unbreakable soft rubber plug; opposite end stripped and tinned—ready for easy attachment. For amplifiers, test equipment and small appliances.				
	8874	1 K	6 Ft Brown	Television Power Supply Connector Cord. Original equipment on most television sets. Size 18, Type POSJ-64. Extra-flexible all-rubber parallel lamp cord with Belden molded-on all-rubber connector and Belden unbreakable soft rubber plug.				
	8125	10 K		Male Connector—Flush mounting for use with 8874 cord connector set.				

headphone cords



8872	1 K	5 Ft Brown	Headphone Set, Pin tips all ends. 5 Ft of extra-flexible moisture-resistant rubber insulated tinsel cord. Over-all durable brown cotton braid. "Y" arm sections 15", coupled in series.
8873	1 K	5 Ft Brown	Headphone Set, Spade tips 4 phone ends. Pin tips plug end. 5 Ft of extra-flexible moisture-resistant rubber insulated tinsel cord; over-all durable brown cotton braid. "Y" arm sections 15", coupled in series.

AC•DC resistance cord



To determine the proper ac-dc line cord, add the filament voltages of the individual tubes in the receiver. From the chart at right, select the nearest figure under the heading SUM OF TUBE VOLTAGES in the column headed by the available power supply. Length 6 ft. Size 18.

Trade Number	Resistance (ohms)	Color Marker	Voltage Drop at 0.3 Amps.	*Sum of Tube Voltages for			
				110 Volt Line	115 Volt Line	120 Volt Line	
8920	1 K	135.	Green*	40.5	69.5	74.5	79.5
8921	1 K	165.	Yellow	49.5	60.5	65.5	70.5
8976	1 K	180.	Orange	54.	56.	61.	66.
8929	1 K	220.	Blue	66.	44.	49.	54.
8977	1 K	250.	Grey	75.	35.	40.	45.
8922	1 K	290.	Black	87.	23.	28.	33.
8923	1 K	330.	Brown	99.	11.	16.	21.
8924	1 K	560.	White	**84.	26.	31.	36.
8925	1 K	960.	Red	***72.	38.	43.	48.

*When line voltages other than those shown must be used, subtract sum of tube voltages from available line voltage to obtain voltage drop. The nearest figure in "Voltage Drop" column gives proper ac-dc cord to use.

Voltage drop at 0.175 amps. *Voltage drop at 0.75 amps.

BELDEN • Price List

Belden Trade Number	Unit Package & Length**	Suggested List Price Each	Belden Trade Number	Unit Package & Length**	Suggested List Price Each	Belden Trade Number	Unit Package & Length**	Suggested List Price Each	Belden Trade Number	Unit Package & Length**	Suggested List Price Each
1701	Brown	\$1.30	8422	100'	\$.09'	8810†	1000'	\$.02'	8905†	25'	\$.40
1702	Brown	1.45	8422	500'	.09'	8817	100'	.40	8905†	100'	1.25
1705	Brown	1.20	8423	50'	5.00	8833†	100'	.03'	8905†	1000'	.015'
1706	Brown	2.40	8423	250'	.11'	8833†	1000'	.03'	8909†	25'	.40
1709	Brown	2.75	8424	50'	6.25	8834†	100'	.02'	8909†	100'	1.35
1712	Brown	3.00	8424	250'	.14'	8834†	1000'	.02'	8909†	1000'	.015'
1715	Brown	3.25	8425	50'	7.25	8837†	25'	.50	8913†	25'	.45
1725	Brown	.55	8425	250'	.16'	8837†	100'	1.95	8913†	100'	1.55
1749	Black	.70	8426	100'	.20'	8837†	1000'	.02'	8913†	1000'	.015'
1751	Black	2.15	8427	100'	.21'	8838†	25'	.55	*8918	250'	.025'
*1777		.90	8431	100'	.04'	8838†	100'	2.00	*8918	1000'	.025'
8000	50'	.70	8432	100'	.07'	8838†	1000'	.02'	8920		1.25
8000	75'	1.00	8432	500'	.07'	8839†	25'	.55	8921		1.25
8000	100'	1.25	8433	100'	.09'	8839†	100'	2.00	8922		1.25
8000	1000'	11.40	8433	500'	.09'	8839†	1000'	.02'	8923		1.25
8002	50'	.53	8443	100'	.045'	8841†	25'	.50	8924		1.25
8002	75'	.70	8443	500'	.045'	8841†	100'	1.85	8925		1.25
8002	100'	.90	8444	100'	.06'	8841†	1000'	.02'	8929		1.25
8002	1000'	7.75	8444	500'	.06'	8842†	25'	.45	8938†	25'	.75
8005	75'	1.35	8445	100'	.07'	8842†	100'	1.65	8938†	100'	2.90
8005	100'	1.80	8445	500'	.07'	8842†	1000'	.02'	8938†	500'	.015'
8005	1000'	16.00	8446	100'	.10'	8844†	25'	.60	8941†	25'	.45
8006	100'	3.00	8447	100'	.11'	8844†	100'	2.25	8941†	100'	1.65
8006	1000'	28.25	8448	100'	.12'	8844†	1000'	.025'	8941†	1000'	.015'
8008	100'	1.95	8449	100'	.12'	8858		2.40	8942†	25'	.60
8008	200'	3.75	8452	100'	.05'	8859		2.70	8942†	100'	2.40
8008	500'	9.00	8452	500'	.05'	8860		2.80	8942†	1000'	.025'
8009	100'	1.35	8453	100'	.07'	8861†	25'	.55	8943†	25'	.50
8009	500'	6.00	8453	500'	.07'	8861†	100'	2.05	8943†	100'	1.80
8011	100'	1.95	8454	100'	.08'	8861†	1000'	.025'	8943†	1000'	.02'
8012	100'	1.40	8454	500'	.08'	8862†	25'	.70	8945†	25'	.50
8013	100'	1.05	8455	100'	.10'	8862†	100'	2.65	8945†	100'	1.90
8014	25'	.30	8455	250'	.10'	8862†	1000'	.03'	8945†	1000'	.02'
8014	500'	.015'	8462	100'	.03'	8863†	25'	.60	8947†	25'	.55
810e		.15	8462	250'	.03'	8863†	100'	2.45	8947†	100'	2.10
8103		.15	*8472		.08'	8863†	1000'	.025'	8947†	1000'	.025'
8104		.20	*8482		.015'	8865		3.00	8976		1.25
8125		.20	*8483		.025'	8868	25'	1.55	8977		1.25
8126		.15	8484	500'	.045'	8868	100'	.055'	8989	25c pkg.	.25
8127	10'	.23	8484	1000'	.045'	8869	25'	1.00	8989	100	.75
8200	100'	.015'	8650	100'	.08'	8869	100'	.03'	8989	1000	5.00
8200	500'	.015'	8651	100'	.06'	8872		1.25	8989	25c pkg.	.25
8200	1000'	.015'	8652	100'	.05'	8873		1.15	8992	100	.75
8201	50'	.88	8654	100'	.10'	8874		.70	8992	1000	5.00
8201	100'	.02'	8655	100'	.08'	8885	25'	1.00	8993	25c pkg.	.25
8201	250'	.02'	8656	100'	.07'	8885	100'	.04'	8993	100	.65
8201	500'	.02'	8657	50'	.11'	8885	500'	.04'	8993	1000	3.75
8201	1000'	.02'	8658	50'	.13'	8888	250'	.05'	8994		.65
8204	500'	.04'	8660	50'	.035'	8890		.30	8995	25c pkg.	.25
8205	500'	.03'	8660	250'	.035'	8892		.20	8995	100	.65
8206	250'	.02'	8661	50'	.05'	8895		1.10	8995	1000	3.75
8209	500'	.08'	8661	250'	.05'	8896		.55	8996	25c pkg.	.25
8210	100'	.07'	8662	50'	.19'	8897		.25	8996	100	.65
8210	500'	.07'	8662	250'	.19'	8898†	100'	.04'	8996	1000	3.75
8221	100'	.09'	8664	100'	.09'	8898†	500'	.04'	8997	25c pkg.	.25
8222	100'	.02'	8665	100'	.21'	8899†	14'	.50	8997	100	.65
8222	500'	.02'	8667	100'	.09'	8899†	100'	.025'	8997	1000	3.75
8223	100'	.02'	8668	50'	.05'	8899†	1000'	.025'	8998	25c pkg.	.25
8223	500'	.02'	8668	250'	.05'	8901†	25'	.30	8998	100	.50
8224	100'	.03'	8669	50'	.15'	8901†	100'	1.00	8998	1000	2.50
8224	500'	.03'	8669	250'	.15'	8910†	1000'	.015'	8999	25c pkg.	.25
8225	100'	.04'	8734	100'	.09'				8999	100	.50
8225	500'	.04'	8734	500'	.09'				8999	1000	3.10
8225	1000'	.04'	8735	100'	.09'						
8226	100'	.09'	8735	500'	.09'						
8226	500'	.09'	8737	100'	.07'						
8227	100'	.14'	8737	500'	.07'						
8227	250'	.14'	8738	100'	.04'						
8228	100'	.07'	8738	500'	.04'						
8228	500'	.07'	8739	100'	.06'						
8229	100'	.08'	8739	500'	.06'						
8229	500'	.08'	8740	100'	.03'						
8235	100'	.08'	8740	500'	.03'						
8235	500'	.08'	8741	100'	.06'						
8304		3.45	8741	500'	.06'						
8309		2.30	8742	100'	.07'						
8320		7.50	8742	500'	.07'						
8321		4.25	8743	100'	.09'						
8322		12.65	8743	500'	.09'						
8401	25'	1.90	8744	100'	.13'						
8401	50'	3.75	8744	500'	.13'						
8401	100'	.08'	8745	100'	.21'						
8401	500'	.08'	8745	500'	.21'						
8410	25'	2.50	8746	100'	.34'						
8410	50'	5.00	8746	500'	.34'						
8410	100'	.10'	8747	100'	.13'						
8410	500'	.10'	8748	100'	.18'						
8411	25'	1.55	8749	100'	.28'						
8411	100'	.06'	8750	100'	.48'						
8412	25'	2.40	8751	100'	.40'						
8412	50'	4.75	8752	100'	.65'						
8412	100'	.10'	8799	100'	.05'						
8412	500'	.10'	8799	500'	.05'						
8422	25'	2.25	8810†	25'	.55						
8422	50'	4.50	8810†	100'	2.00						

*New Item. †Specify Color. All prices subject to change without notice.
 **Please indicate length desired, immediately following trade number, when more than one length is listed under the same trade number.

BELDENAMEL MAGNET WIRE			SINGLE COTENAMEL MAGNET WIRE			SINGLE NYLTEXENAMEL MAGNET WIRE		
Size	Suggested List Price		Size	Suggested List Price		Size	Suggested List Price	
	1/4 lb. Spools	1/2 lb. Spools		1/4 lb. Spools	1/2 lb. Spools		1/4 lb. Spools	1/2 lb. Spools
14	—	\$.70	14	—	\$.75	18	—	—
16	—	.70	16	—	.80	20	—	—
18	—	.70	18	—	.85	22	—	\$1.10
20	—	.70	20	—	.90	24	—	1.25
22	—	.70	22	—	.95	26	\$.80	1.45
24	—	.70	24	—	1.05	28	.90	1.70
26	—	.75	26	\$.65	1.15	30	1.15	2.15
28	\$.50	.80	28	.70	1.30	32	1.35	2.50
30	.50	.95	30	.85	1.60	34	1.70	—
32	.55	.95	32	1.00	1.85	36	2.50	—
34	.60	1.05	34	1.35	—			
36	.75	1.30	36	1.60	—			
38	.95	—						
40	1.35	—						

Thank You!

When writing for additional
information or when ordering
from sources of supply listed
in this book, please mention

RADIO'S MASTER



RADIO AND TELEVISION WIRE PRODUCTS

P-A WIRES and CABLES

HOLLYWOOD MICROPHONE CABLES (Shielded-Jacketed)

Substantially made to withstand rough usage. Special low capacity color coded conductors. Braided with tinned copper shield. Tough weatherproof polished jacket overall.

Single Conductor — unusually low capacity. Can be used up to 100 ft. with high impedance ribbon microphones and up to 50 ft. with crystal microphones.



Cat. No.	Conductors	Approx. Feet on Spool	Approx. Outside Diam.	List Price per M ft.
1105	1	100	5/32"	\$85.00
2104	1	500	5/32"	82.00
2101	1	1000	3/2"	80.00



Two Conductor, for low impedance microphones and transmission lines.

1152	2	100	1/4"	\$105.00
1153	2	250	1/4"	102.00
2152	2	500	1/4"	100.00
1154	3	100	3/8"	130.00
1155	3	250	3/8"	127.00
2153	3	500	3/8"	125.00
1156	4	100	3/8"	160.00
1157	4	250	3/8"	157.00
2154	4	500	3/8"	155.00

LAPEL MICROPHONE CABLE



Similar to No. 2101 except smaller in diameter.

1160	1	100	.175"	\$75.00
1161	1	500	.175"	72.00
2160	1	1000	.175"	70.00

SHIELDED CABLES



These cables are recommended for sound recording equipment and P.A. systems where a flexible shielded cable is necessary. Each conductor consists of multi-strand copper wire cotton served, rubber covered and braided with color-coded cotton. Conductors No. 20 gauge unless otherwise specified.

Cat. No.	Put-Up	List Price per M ft.
1114	100' Spool 2 Conductor	\$ 78.00
1115	250' Spool 2 Conductor	75.00
1116	100' Spool 3 Conductor	108.00
1117	250' Spool 3 Conductor	105.00
1118	100' Spool 4 Conductor	135.00
1119	250' Spool 4 Conductor	132.00
1120	100' Spool 5 Conductor	161.00
1121	250' Spool 5 Conductor	158.00
1122	100' Spool 6 Conductor	183.00
1123	250' Spool 6 Conductor	180.00

SHIELDED CABLES—COTTON BRAID OVERALL

Cat. No.	Put-Up	List Price per M ft.
1124	100' Spool 2 Conductor	\$ 98.00
1125	250' Spool 2 Conductor	95.00
1126	100' Spool 3 Conductor	135.00
1127	250' Spool 3 Conductor	132.00
1128	100' Spool 4 Conductor	163.00
1129	250' Spool 4 Conductor	160.00
1130	100' Spool 5 Conductor	193.00
1131	250' Spool 5 Conductor	190.00
1132	100' Spool 6 Conductor	223.00
1133	250' Spool 6 Conductor	220.00

RADIO BATTERY CABLE AND DYNAMIC SPEAKER EXTENSION CABLE

Multi-conductor cables having flexible conductors with overall heavy cotton braid. Individual conductor consists of stranded copper, rubber covered with color-coded cotton braid. Suitable to all types of P.A. Systems. Conductors No. 20 gauge.

Cat. No.	Put up in spool	List Price per M ft.	Cat. No.	Put up in spool	List Price per M ft.
228	3 Wire-100 Ft.	\$ 70.00	241	7 Wire-100 Ft.	\$137.00
219	4 Wire-100 Ft.	85.00	222	8 Wire-100 Ft.	153.00
221	5 Wire-100 Ft.	100.00	223	9 Wire-100 Ft.	170.00
231	6 Wire-100 Ft.	120.00	224	10 Wire-100 Ft.	188.00

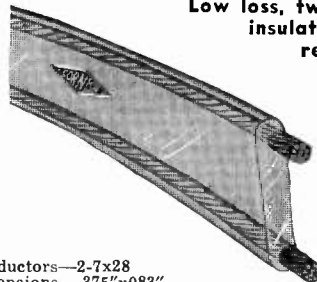
SHIELDED LEAD-IN AND GROUND WIRE

These products are made of flexible stranded copper conductors insulated with a substantial wall of high grade rubber with an overall of close tinned copper shield. They are most frequently used as a shielded down lead to ground out interference noises.

No. 20 1/32" R.C.	List Price Price	No. 18 1/32" R.C.	List Price Price
1143— 50 Ft. Coil....	\$ 1.80	1146— 50 Ft. Coil....	\$ 2.10
1144— 250 Ft. Spool....	8.00	1147— 250 Ft. Spool....	9.25
1145—1900 Ft. Spool....	30.00	1148—1000 Ft. Spool....	35.00

300-OHM TELEVISION DOWN-LEAD

Low loss, twin conductor, insulated with weather-resistant poly-ethylene



Put-Up	List Price Ea.
100 ft. spool....	\$3.70
250 ft. spool....	9.00
500 ft. spool....	17.50
1000 ft. spool....	34.00
	M Ft.
*Mill Reel....	30.00
	*about 2500 ft.

Conductors—2-7x28
Dimensions—.375"x0.83"
Nominal impedance—300 ohms.

RG-59U COAXIAL CABLE



Put-Up	List Price
100 Ft. Spool	\$10.20 ea.
500 Ft. Spool	49.75 ea.
Mill Real (about 2500 ft.)	95.00 M Ft.



RADIO AND TELEVISION WIRE PRODUCTS

INTERCOMMUNICATION CABLES

MULTI-PAIRED CABLES



Conductors are No. 22 solid tinned copper insulated with either vinyl plastic or double cotton impregnated braid—cabled in color-coded twisted pairs—with overall cotton braid.

Cat. No.	Put-Up	Width	List Price per M ft.
1225	2 Pair (O.D. approx. $\frac{3}{8}$ ")		\$ 54.00
1226	6 Pair (O.D. approx. $\frac{1}{2}$ ")		153.00
1227	13 Pair (O.D. approx. $\frac{1}{2}$ ")		325.00
1228	26 Pair (O.D. approx. $\frac{5}{8}$ ")		640.00

TWO CONDUCTOR SHIELDED CABLE



Consists of two No. 20 solid tinned copper plastic insulated conductors, color-coded and twisted with overall close tinned copper shield.

No. 1230 \$45.00

THREE CONDUCTOR CABLE

3 Conductors are No. 20 solid tinned copper, plastic insulated, color-coded, twisted, with overall treated cotton braid.

No. 1231 \$42.00

THREE CONDUCTOR (One Shielded)

Consists of a twisted pair of No. 20 solid tinned copper plastic insulated wires, and a single No. 20 solid tinned copper plastic insulated and shielded, all twisted, with over-all dry cotton braid.

No. 1232 \$75.00
 No. 1233—Same as No. 1232 except conductors are No. 22 solid \$63.00

FLEXIBLE CORDS (Fixture Wires — Lamp Cords)

Fixture wires often used as all-purpose radio and lead-in wire. Lamp cords used for power supply and extension cords. Colors: Brown, Black, Ivory.

Cat. No.	Put-Up	List Price per M ft.
3050—No. 18 Single, Type F, Cotton	1000 ft.	\$17.50
*3020—No. 18 Parallel, Type PO, Rayon	250 ft.	40.00
*3000—No. 18 Parallel, Type POSJ, All Rubber	250 ft.	32.50
*3300—No. 18 All Rubber Service Cord, Type SJ	250 ft.	60.00
*3500—Replacement Cord Set—6 ft. 18/2, POSJ, 1/64 with Molded Rubber Plug	.40 ea.	

*Has Underwriter's Labels.

AERIAL WIRE

STRANDED BARE WIRE — Copper

No.	Ft.	Size	List Price
40A	75-ft. coil	7/22	\$ 1.07
40	100-ft. coil	7/22	1.40
40B	1000-ft. spool	7/22	14.00
42A	75-ft. coil	7/24	.75
42	100-ft. coil	7/24	.95
42B	1000-ft. spool	7/24	9.50

LEAD-IN WIRE

STRANDED—Rubber Covered

No.	Ft.	Size	List Price	No.	Ft.	Size	List Price
300	50' coil	18- $\frac{3}{32}$ "	\$.60	302	500' spool	18- $\frac{1}{16}$ "	\$5.50
301	100' spool	18- $\frac{3}{32}$ "	1.10	303	1000' spool	18- $\frac{1}{16}$ "	10.50

LEAD-IN WIRE

SOLID—Rubber Covered

No.	Ft.	Size	List Price	No.	Ft.	Size	List Price
320	25' coil	18- $\frac{3}{32}$ "	\$.32	330	25' coil	20- $\frac{3}{32}$ "	\$.28
321	50' coil	18- $\frac{3}{32}$ "	.57	331	50' coil	20- $\frac{3}{32}$ "	.51
322	500' spool	18- $\frac{3}{32}$ "	5.25	332	500' spool	20- $\frac{3}{32}$ "	4.75
323	1000' spool	18- $\frac{3}{32}$ "	10.00	333	1000' spool	20- $\frac{3}{32}$ "	9.00

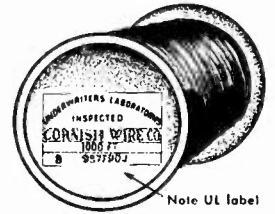
TWISTED PAIR DOWNLEAD

Two conductors, each No. 22 stranded copper, 1/32" rubber-covered (one black, one red), twisted and covered with overall black weatherproof braid.

No. 122—List Mft. \$30.00

"NOFLAME-COR"—

The Television Hook Up Wire



Note UL label

For the first time a hook-up wire for the trade with Underwriters' Label attached. The famous "NoFlame-Cor" wire is approved for 90°C—600 volt usage.

SOLID				STRANDED			
Cat. No.	Size	Put-up	List Each	Cat. No.	Size	Put-up	List Each
470	22	100' spool	\$2.25	473	22	100' spool	\$2.45
471	20	"	2.55	474	20	"	2.80
472	18	"	3.15	475	18	"	3.40

RADIO HOOK-UP WIRE

"CORLAC" HOOK-UP WIRE

Special under-insulation makes this hook-up wire moisture-proof and gives voltage break-down of 3100 volts (as per certified report of Electrical Testing Laboratory, N. Y. C.). Excellent push-back in waxed finish. Tinned copper conductors.

WAXED			LACQUERED		
Cat. No.	Put-Up	List Each	Cat. No.	Put-Up	List Each
No. 22 SOLID					
434—	25 Ft. Cartons	\$.40	452—	25 Ft. Cartons	\$.46
436—	1000 Ft. Spools	10.60	454—	1000 Ft. Spools	12.50
No. 20 SOLID					
437—	25 Ft. Cartons	.48	455—	25 Ft. Cartons	.56
439—	1000 Ft. Spools	13.00	457—	1000 Ft. Spools	16.00
No. 22 STRANDED					
443—	25 Ft. Cartons	.44	461—	25 Ft. Cartons	.50
445—	1000 Ft. Spools	12.00	463—	1000 Ft. Spools	14.00
No. 20 STRANDED					
446—	25 Ft. Cartons	.52	464—	25 Ft. Cartons	.58
448—	1000 Ft. Spools	14.50	466—	1000 Ft. Spools	17.00
No. 18 STRANDED					
449—	25 Ft. Cartons	.64	467—	25 Ft. Cartons	.72
451—	1000 Ft. Spools	19.00	469—	1000 Ft. Spools	22.50

AC-DC ANTENNA WIRE

Flexible Bare copper conductor with brown cotton braid.

661	1000 Ft. Spools	\$10.00
661A	25 Ft. on Fibre	.33

TEST LEAD WIRE

A super flexible conductor covered with heavy live rubber. Will not wear, kink or crack. Made in Black and Red. Mention color when ordering. O.D.—.140".

1140	100 Ft. Spools	\$ 3.00
1141	500 Ft. Spools	13.00
1142	1000 Ft. Spools	25.00

Thank You!

When writing for additional
information or when ordering
from sources of supply listed
in this book, please mention

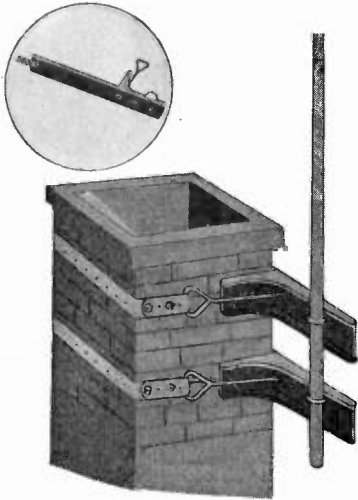
RADIO'S MASTER



Birnbach TV-FM ANTENNA ACCESSORIES

THE NEW MODEL No. 6000

CHIMNEY MOUNT ANTENNA BASE



Installation men have for years shown their preference for Birnbach Products — now, once again Birnbach shows the way. The New Birnbach Chimney Mount Antenna Base No. 6000 has received a ready and sensational acceptance. Its ease of installation, its unusual durability, versatility, and last but not least its very low price have all added up now once again, as in the past, that Birnbach has shown the way to quality at a low, low price.

Here it is . . . The New Birnbach Chimney Mount Antenna Base Model 6000 for . . .
FM • TELEVISION • AMATEURS

A Few of Its Many Features:

- **Simple — One Man Operation**
Sharply reduces installation time and cost.
- **No Drilling**
No special tools — no special equipment.
- **Fits All Chimneys and adaptable for posts, corners of buildings, etc.**
- **Two Separate Sections**
Longer distance between sections allows maximum mast support.
- **Base Castings Made of Strong Corrosion-Resistant Die Cast Aluminum Alloy — highest possible tensile strength.**
- **Easily Installed at Highest Elevation.**
- **Fits Masts 5/8" to 1 1/2" O.D.**
- **Complete With All Hardware — 2 — 12-ft. steel strapping, etc., ALL COMPLETELY RUST-RESISTANT.**
- **Simple Instructions.**

No. 6000 — Complete List Price \$5.50 Per Pair



WOOD SCREW ANCHOR

Especially designed to give permanent anchorage in any kind of masonry for insulated ribbon, coaxial or similar type standoffs. Threaded to take No. 10 Wood Screws and to fit 3/8" dia. hole. After partially inserting the threaded end of the standoff into this wood screw anchor and then using a pair of pliers to dig deeper into the anchor you have positive assurance of trouble-free installation. Rustproof, galvanized steel. Free tamping tool with each 100 anchors.

a permanent
Free tamping
tool with each
100 anchors.

No. 7039 Standard Package 100 List Price \$11.00 per C



MACHINE SCREW ANCHORS

These anchors are tapped for 1/4" machine screw bolts. Takes a 1/2" dia. hole and comes with a 3/4" long bolt. Gives permanent anchorage. Used for fastening wall mounts brackets and pipe straps to any type of masonry. Free tamping tool with each 100 anchors.

No. 7040 Stand. Pack. 100 List Price \$20.00 per C



ANCHOR BOLT ASSEMBLIES

This is the standard anchor used by installation companies for fastening wall mounts and pipe straps to masonry. Cannot pull out. Rustproofed. The 1/4" bolt comes with anchor and nut complete. Hole dia. 1/2". Available in 2" and 3" lengths of bolt. Designed to give permanent anchorage. Corrosion-proof. Free tamping tool with each 100 bolts.

No. 7041—2" Standard Package 100 List Price \$15.00 per C
No. 7042—3" Standard Package 100 List Price 15.00 per C



PIPE HANGER

Made of galvanized steel, this pipe hanger can be used for fastening poles, masts and other objects to walls, roofs, gables, etc.

No. 7038 Stand. Pack. 100 List Price \$0.10 ea.



LAG BOLTS

For permanently holding brackets, etc., in place. Made of galvanized steel, this sturdy bolt screws easily into wood, brick, etc. Available in four sizes: 1", 1 1/2", 2", 3". Specify size.

No. 7043 Stand. Pack. 100 List Price \$9.00 per C



EYE BOLT ASSEMBLIES

Designed for permanent anchoring of guy wires, cables, brackets, etc., in brick or masonry. Cannot pull out. Made of 1/4" material. Overall length 2 1/2". Dia. of eye 3/8". Hole dia. 3/8". Rustproofed. Use tamping tool No. 7046.

No. 7044 Stand. Pack. 100 List Price \$18.00 per C



PIPE BOLT ANCHORS

Used to mount pipe poles or antenna masts directly onto brick or masonry. Cannot pull out. Made of 1/4" stock for 1/2", 3/4" and 1" pipe. A very useful and superior bolt. Rustproofed. Use tamping tool No. 7046.

No. 7045 Stand. Pack. 100 List Price \$28.00 per C

TAMPING TOOLS



Special Tamping Tool for anchoring eye bolts and pipe bolts.
No. 7046 List Price \$4.75 ea.



Tamping Tool for 1/4" anchor bolts.
No. 7047 List Price \$2.00 ea.



3 IN 1 TOGGLE BOLTS

Strongest toggle bolt obtainable. Used for bolting or mounting to wood, hollow concrete, tile partitions or plaster walls. Can be used with nut end or screw end in wall. Bolt dia. 1/4". Bolt length 3". Rustproofed.

No. 7048 Stand. Pack. 100 List Price \$22.00 per C

STAR DRILLS



Made of hand-tempered and hand-forged high-grade tool steel for hand drilling in brick, stone and concrete. Standard package 12.

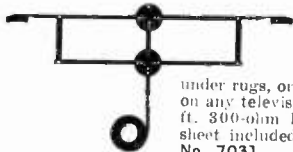
No. 7049—3/8" x 8" long List Price \$0.85 ea.
No. 7050—1/2" x 8" long List Price .90 ea.



Birnbach

TV-FM ANTENNA ACCESSORIES

NEW ALL CHANNEL INDOOR TELEVISION ANTENNA



Can be Used on All Television Sets
Flexible Folded Dipole Antenna for Television—covers all Television Channels (1-13) and FM. No problem to install indoors. Can be placed anywhere; in attic, under rugs, or any out-of-the-way location. Works on any television set. Freq. range 44-216 mc. 10 ft. 300-ohm lead transmission line. Instruction sheet included. Individually boxed.
No. 7031.....List Price \$2.95 ea.

FLEXIBLE FOLDED DIPOLE ANTENNAS

For Television (TV)



The flexible folded dipole antenna for Television is perfect for indoor use. This antenna can be placed in attics or in apartment houses; it can be placed under rugs, behind large couches, behind drapes covering windows, etc. This aerial can be oriented for best reception over all television stations. The new Birnbach indoor Television Antenna should prove a real seller for you. Transition loss measures 2.85 DB in television band.

No. 7027—Flexible Folded Dipole Antenna for Television (TV).....List Price (Individually Boxed) \$1.95 ea.
No. 7027HF—List Price (Individually Boxed) 1.50 ea.

For Frequency Modulation (FM)

The flexible folded dipole antenna for FM is excellent for all FM receivers. With the new FM Converters and Tuners now on the market you can enjoy a very lucrative sale on this low-priced antenna. Losses in line measure .85 DB per 100 feet at 100MC.

No. 7026—Flexible Folded Dipole Antenna for Frequency Modulation (FM).....List Price (Individually Boxed) \$1.65 ea.

For above antennas with 50 ft. lengths of 300 ohm Transmission Line add \$2.00 to the list price.

An attractive display card furnished to aid you in the sale of our two new products.



GUY WIRE CABLE CLAMPS (VIBRATION-PROOF)

New Vibration-Proof Lock Clamps for positive grip on guy wire. Weather-proof throughout. Standard package 100.
No. 762.....List Price \$0.20 ea.



KNIFE SWITCHES

Made of special nickel-plated spring brass on a porcelain base. Screw terminals located conveniently for easy connections in circuit. Has two holes for mounting.

No.	Description	Standard Package	List Price
6100	S.P. S.T.	10	\$0.45 ea.
6102	S.P. D.T.	10	.55 ea.
6103	D.P. S.T.	10	.77 ea.
6104	D.P. D.T.	10	1.00 ea.

No. 6104 is widely used for switching from one television antenna to another.



U BOLT

Useful for mounting poles to steel plates, wooden sections, etc. Nuts and washers supplied. 2 1/4" overall; 1 1/4" thread length; 1 1/2" distance between legs, 3/4-20 size thread.

No. 7035.....Standard Package 50.....List Price \$0.30 ea.

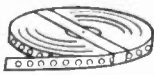
TELEVISION LOOM



This 3/8" Non Metallic Loom is used for the protection of twin lead and Coax Cable on television installations. Use short sections of this

loom over that part of the twin lead or Coax cable which comes in contact with any sharp edges such as corners of buildings, fire escapes, etc. Use friction tape to keep loom in place by binding the end of the loom to the cable.
No. 1013—25 ft.....List Price \$2.75 ea.
No. 1014—50 ft.....List Price 5.25 ea.
No. 1015—100 ft.....List Price 10.00 ea.

PERFORATED HANGER STRAPPING



Can be used and adapted for mounting Antenna Masts to various odd shaped objects; chimneys, towers, etc. Made of 3/8" x .023 galvanized steel strap. Tough but flexible.

No.	Standard Package	List Price
7032—12 ft. coil	25	\$0.75 ea.
7033—100 ft. coil	8	5.50 ea.



TELE-RAY FILTERS FOR BETTER TELEVISION IMAGE VIEWING

Outstanding Features:

- Scientifically compounded, optically perfected filtering for all models.
- Engineered to give a stereoscopic, life-like effect to the Television screen.
- Instantly and easily attached by special adhesive.
- Picture Contrast increased by elimination of unwanted light — softens grays — sharpens blacks.
- Image becomes sharp and clear with increased detail in room illumination.
- Glare from screen eliminated with resulting restfulness to eyes.
- Unbreakable.
- Bevelled edges (Super Quality).
- Both gauges have the correct rigidity for your viewing pleasure and are guaranteed not to bend or buckle under the most extreme operating conditions.
- Not to be confused with any cheap imitations of these quality-engineered products.
- Works on all Television sets.
- Individually packed with simple instructions.

Deluxe TELE-RAY FILTER—40 gauge		Super Quality TELE-RAY FILTER—80 gauge (Beveled Edges)	
No.	List Price	No.	List Price
7051—7" tube size	Each \$1.50	7056—7" tube size	Each \$3.25
7052—10" tube size	Each 2.00	7057—10" tube size	Each 4.25
7053—12" tube size	Each 3.25	7058—12" tube size	Each 7.00
7054—15" tube size	Each 5.50	7059—15" tube size	Each 8.50
7055—20" tube size	Each 8.00	7060—20" tube size	Each 14.50



DRIVE RING

Can be used for securing guy wire. Made of steel galvanized. When hammered in at an angle will remain secure under any condition.

No.	Standard Package	List Price
7036	100	\$0.10 ea.



BRIDLE RING

Ruggedly constructed. Will stand up under maximum strain. Made of galvanized steel.

No.	Standard Package	List Price
7037	100	\$0.10 ea.



GUY SCREW ANCHOR

Designed to be added to existing masts where guy wires are necessary. By drilling a 1/8" hole through mast. Secure any size guy wire. Rustproof. Complete with nut and washer.

No. 1971.....Standard Package 50.....List Price \$0.10 ea.



INSULATED WIRING NAILS

Perfected for twin lead indoors. The minimum of metal, in the head and wide fibreboard giving firm support to plastic band creates an extremely low capacity effect which does not interfere with TV reception. Fully insulated. Standard package 100 to a box (1000 to a carton).

No. T42—White or Brown.....List Price \$7.50 per M



Birnbach

TV-FM ANTENNA ACCESSORIES

LEADIN STRIPS



Covered with a heavy cotton braid, weather-proofed.

No.	Lgth.	Std. Pkg.	List Price Each
611	Black 12"	50	\$0.11
613	White 12"	50	\$0.12

Screw Terminal Leadin Strip



Locks the wire together with the strip in a secure connection assuring perfect contact. Has weather-proof covering over a copper strip with cadmium plated terminals. Available in white or black.

No.	List Price Std. Pkg. Each
617—Leadin Strip	50...\$0.17
2617—Doublet Leadin Strip	25...\$0.35

COPPER STRAP CLAMP



Will take 3/8" to 2" Pipe.
No. 600—Std. pkg. 50. Ea. \$0.10 List

ADJUSTABLE FLEXIBLE PIPE CLAMP

This outstanding adjustable pipe clamp fits all masts and poles from 3/8" to largest size pipe. This clamp, when placed under the Birnbach free floating guy ring provides an excellent anchor for attaching guy wires.



No. 627—Std. pkg. 50. Ea. \$0.25 List

SADDLE GROUND CLAMPS

These ground clamps have a hard pointed screw which digs through rust and makes a positive contact. Fits a 3/8" to 2" pipe.



No.	List Price Std. Pkg. Each
625—Heavy Saddle Clamp	50...\$0.20

FLOATING GUY WIRE RING

This free floating ring fits 1", 1 1/8", 1 1/4" O.D. Masts and telescopes easily over smaller upper mast, and rests on shoulder of mast section.



No. 7034—Std. Pkg. 100...List \$0.25

MAST Standoff ASSEMBLY

For fast mounting of twin lead. Lead slips easily into sturdy insulated insert. This assembly will fit around all size masts from 3/8" to 2" pipes. Standard package 50.



No. 628...Ea. \$0.40 List Price

GLASS INSULATORS



Made of crystal clear glass and have a smooth surface which prevents dirt or ice

No.	Std. Pkg.	List Price
to collect.	100	\$8.00
00—3"	100	C \$8.00

PORCELAIN INSULATORS AND NAIL-IT KNOBS



No.	Porcelain Insulators	Std. Pkg.	List Price
666	Brown or White	100	C \$8.75
669	Glazed Nail-It Knobs	100	C 7.50

GROUND RODS



No.	Std. Pkg.	List Price
616—4 Ft.	12 ea.	\$1.50
618—6 Ft.	12 ea.	2.25

AIRPLANE SPRINGS



This rustproof steel spring cadmium-plated throughout provides a compact compression spring for taking up slack in the guy due to any great pull or strain on antenna during a heavy storm.

No. 764. Std. Pkg. 100. Ea. \$0.33 List

AERIAL SPRING ADJUSTER



Prevents swinging and swaying of antennas. Consists of two books with porcelain rings interconnecting with a powerful compression spring. Cadmium-plated.

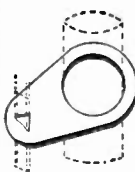
No. 765...Ea. \$0.90 List Price

PORCELAIN TUBES



No.	Std. Pkg.	List Price
42—2"	100	C \$5.00
43—3"	100	C 6.00
44—4"	100	C 7.50
46—6"	100	C 10.50
48—8"	100	C 15.00

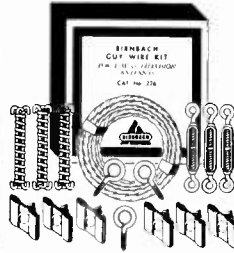
RUBBER STANDOFF INSULATOR



Can be used with either RG59U type cable or ribbon type line. It is heavy, rugged, and weather-proof. Will fit all antenna masts up to 1 1/4". Tough, resilient rubber. It will keep all cables away from poles.

SPECIFY SIZE DESIRED.

Standard Package 100.
No. 968...Ea. \$0.10 List Price



No. 226 Standard Package 24 List Price, Each \$3.40
A "Natural" for your customer's Television pleasure

TV-FM GUY WIRE KIT

A compact and complete kit. Do not allow your new television installation to be destroyed by the first windstorm. A necessary addition for successful television service. Assures a trouble-free and efficient installation with a minimum of effort and cost. Simple and complete directions with each individually boxed kit. Contains 50 ft. 6 strands heavy No. 20 guy wire, 3 No. 665 screw eyes, 3 Birnbach No. 763 turnbuckles, 3 Birnbach No. 764 Springs, 6 Birnbach Vibration-proof No. 762 Clamps. Boxed.

GUY WIRE

Finest quality guy wire obtainable. Constructed of high tensile strength galvanized steel stranded twisted wire. Ideal for guying up television transmitter, receiver masts and poles. Made of 6 strands No. 20. Fully weather-proofed. A real necessity for television installers.



No.	450 lbs. Tensile Strength.	List Price
19	25 ft. coil	Each \$0.44
20	50 ft. coil	Each .88
221	100 ft. coil	Each 1.76
220	500 ft. spool	Each 8.38
1220	1000 ft. spool	Each 16.75

GUY WIRE

This low priced guy wire can be used on short runs and where maximum tensile strength is not required. It has 4 strands of No. 20 high tensile twisted steel galvanized wire. Fully weather-proofed.



No.	225 lbs. Tensile Strength.	List Price
20A	50 ft.	Each \$0.65
221A	100 ft.	Each 1.25
220A	500 ft.	Each 6.25
1220A	1000 ft.	Each 12.00

DOUBLET LIGHTNING ARRESTERS



This Arrester is of the air gap type which is the accepted means of protecting doublet antennas from lightning. Installation instructions are printed on the box.

No. 2650—Doublet Lightning Arrester Std. Pkg. 25...List \$0.50

RADIO LIGHTNING ARRESTER
No. 2650—Std. Pkg. 50. Ea. \$0.56 List

INSULATED STANDOFFS

TWIN LEAD TYPE

This insulated twin lead standoff is quality engineered and is constructed of low loss insulating material. These sturdy insulators are slotted to take the 300-ohm ribbon type line and are solidly held by the eye of the cadmium-plated steel screws. The No. 1965—3" machine screw twin lead standoff is designed for mounting directly on a metal mast—uses a 10/32 thread.

No.	Standard Package	List Price
1963—3"	100	Each \$0.10
1965—3" M.S.	100	Each .15
1964—7"	100	Each .15
1967—12"	25	Each .25

SCREW EYES — BAKELITE EYES



No.	Standard Package	List Price
963—3"	100	Per C \$11.25
964—7"	50	Per C 13.75
967—12"	25	Per C 37.50



TURNBUCKLES

Constructed of rustproofed galvanized steel. Used to take up any slack in guy wire. Convenient, durable, dependable.

No. 763...Standard Package 100...Each \$0.27 List Price

Birnback HOOK-UP WIRE



SPECIAL SPOOL ASSORTMENT \$1.10 LIST PRICE

No.	Ft.	Size	Type	No.	Ft.	Size	Type
3000	.65	.22	Solid Pushback	3013	.60	.18	Solid Leadin
3001	.55	.20	Solid Pushback	3014	.65	.18	Stranded Leadin
3002	.45	.18	Solid Pushback	3015	.35	.18	Stranded Lacquered
3003	.35	.16	Solid Pushback	3016	.75		Brown & White AC-DC Wire
3004	.30	.14	Solid Pushback	3017	.30		Kinkless Wire
3005	.55	.22	Stranded Pushback	3018	.20	.18	Twisted Lamp Cord
3006	.45	.20	Stranded Pushback	3019	.45	.18	Single Fix. Wire
3007	.40	.18	Stranded Pushback	3020	.25	.18	Parallel Silk
3008	.30	.16	Stranded Pushback	3021	.15	.18	Blk., Wht., Bun. Zip Cord
3009	.20	.14	Stranded Pushback	3022	.100	.18	Solid Tinned
3010	.50	.18	Colored Rubber	3023	.75	.18	Bell Wire
3011	.35	.16	Colored Rubber	3024	.15	.18	Shielded Wire
3012	.30	.14	Stranded Leadin				

FREE DISPLAY

One Display is given with each initial order for 100 spools. Each Display made of strong, re-inforced steel, mahogany crackle finish with attractive 3 color Display at top. Space provided to indicate YOUR resale price.

EXTRA DISPLAY RACKS AVAILABLE AT \$3.25 EACH, NET

Height — 24" Width — 12 1/2"



Thermoplastic Synthetic Insulated Radio and Electronic Hook-up Wire (Fungus Proof)

★ SPECIFICATION JAN-C-76 ★

Type SRIR—1000 Volt



COLORS:

Black Red
Gray Yellow
Brown Purple
White Green
Blue Orange
Dk. Blue Pink
Tan

Note: For 25,000 feet of on color, deduct 10% of List Prices above.

Approx. AWG Cat. No.	Navy Standard Conductor Designation	Conductor Construction	Nom. Wall	Max. O. D.	List Price Per M. Ft.
7024—24 Stranded	(16)	16 wires .005"	.013"	.053"	\$16.50
7000—22 Solid	3/5 (1)	.0253 solid	.015"	.062"	12.50
7001—22 Stranded	3/5 (7)	7 wires .010	.015"	.066"	15.00
7002—20 Solid	1 (1)	.032 solid	.015"	.068"	15.00
7003—20 Stranded	1 (10)	10 wires .010	.015"	.071"	19.50
7004—18 Solid	1 1/2 (1)	.0403 solid	.015"	.076"	19.00
7005—18 Stranded	1 1/2 (16)	16 wires .010	.015"	.083"	22.50
7007—16 Stranded	2 1/2 (26)	26 wires .010	.015"	.096"	37.50
7009—14 Stranded	4 (41)	41 wires .010	.018"	.120"	55.00
7011—12 Stranded	6 (65)	65 wires .010	.018"	.140"	80.00

The above items meet all requirements of Army-Navy joint specification JAN-C-76. Type SRIR for plain resin construction where highest resistance to fungus growth is required.

SPECIFICATIONS FOR THE JAN-C-76

- I—Electrical Properties:
 - A—Dielectric strength
 - B—Insulation resistance
 - C—Creepage resistance
- II—Mechanical Properties:
 - A—Low temperature flexibility
 - B—High temperature stability
 - C—Resistance to heat deformation
 - D—Abrasion resistance
 - E—Low moisture absorption
- III—Chemical and Other Properties:
 - A—Resistance to common solvents
 - B—Flame resistance
 - C—Fungus resistance

SHIELDED LEAD-IN WIRE



Used to prevent the pickup of interference or man-made static. Consists of a stranded tinned copper conductor with a wall of live rubber over which a tinned copper braid is woven.

No. 20—1/64"

No.	Ft.	Cap. mmfd. per Ft.	O. D.	List Price
810—500 Spool	.105	.090		\$25.00

No. 18—1/64"

807—25 Coll	.125	.100		\$ 1.30
809—100 Spool	.125	.100		5.00
803—250 Spool	.125	.100		\$2.50

No. 16—1/32"

825—25 Coll	.90	.145		\$ 1.75
851—100 Spool	.90	.145		6.50
802—250 Spool	.90	.145		15.00

No. 14—3/64"

804—25 Coll	.95	.185		\$ 2.25
806—100 Spool	.95	.185		8.50
801—250 Spool	.95	.185		22.50

RADEX SLIPBACK HOOKUP WIRES

It has a covering of rubber over a cotton wrap and is then covered with a bright color cotton braid and dipped into paraffin. This construction will not cause the cotton insulation to fray or bunch up when pushed back. It has a high dielectric strength and will withstand all climatic changes without breakdown.



25 FT. COILS				100 FT. SPOOLS				500 FT. SPOOLS			
Size	No.	List Price	Stranded No. List Price	Solid No. List Price	Stranded No. List Price	Solid No. List Price	Stranded No. List Price	Solid No. List Price	Stranded No. List Price		
20	280	\$0.56	281 \$0.63	380 \$2.25	381 \$2.50	480 \$11.20	481 \$12.60				
18	282	.77	283 .70	382 2.50	383 2.80	482 12.60	483 14.00				
16	284	.77	285 .84	384 3.10	385 3.40	484 15.50	485 17.00				
14	286	1.05	287 1.26	386 4.20	387 5.00	486 19.00	487 22.50				
12	288	1.61	289 1.75	388 6.50	389 7.00	488 32.25	489 35.00				

1000 FT. SPOOLS				SOLID WIRE PUNCTURE VOLTAGE			
Size	No.	List Price	Stranded No. List Price	No. 20	60 Cycle A.C.	No. 18	2100
20	580	\$21.00	581 \$23.25	No. 16	2100	No. 14	2100
18	582	24.50	583 26.00	No. 12	2200		
16	584	28.00	585 31.50				
14	586	35.00	587 39.50				
12	588	63.00	589 70.00				

STRANDED WIRE PUNCTURE VOLTAGE			
No.	60 Cycle A.C.	No.	2300
No. 20	2100	No. 14	2200
No. 18	2200	No. 12	2300
No. 16	2200		

COLORS—Black, Red, Blue, Yellow, Green, White, Brown



BIRNTEX SLIPBACK WIRE

This wire is constructed of quality materials and carefully insulated with a cotton wrap over which a cotton braid is closely woven, and then saturated with paraffin.

SOLID COLORS—Red, Black, Green, Blue, Yellow, White.
TRACER COLORS—Red, Black, Green, Blue, Yellow, Brown.

25 FT. COILS				100 FT. COILS			
Size	No.	List Price	Stranded No. List Price	Solid No. List Price	Stranded No. List Price	Solid No. List Price	Stranded No. List Price
22	70	\$0.42	71 \$0.49	72	\$1.70	73	\$2.00
20	80	.50	81 .56	84	2.00	85	2.25
18	82	.56	83 .63	86	2.25	87	2.55

500 FT. SPOOLS				1000 FT. SPOOLS			
Size	No.	List Price	Stranded No. List Price	Solid No. List Price	Stranded No. List Price	Solid No. List Price	Stranded No. List Price
22	74	\$8.50	75 \$10.00	76	\$15.50	77	\$17.50
20	88	10.00	89 11.20	92	17.50	93	19.60
18	90	11.20	91 12.60	94	21.00	95	24.00

Puncture Voltage 60 Cycle A.C. 1500



Birnbach

CABLE and TRANSMISSION LINE — COAXIAL CABLE —

PA and COMMUNICATING SYSTEM CABLES



Shielded Twisted Pair

Constructed of solid enameled wire with a cotton wrap color coded cotton braid twisted pair waxed, and bare copper braid woven overall.

No.	Size	O.D.	List Price
821—100 Ft.	.22	.125	\$ 6.75
822—500 Ft.	.22	.125	32.00
823—100 Ft.	.19	.145	8.00
824—500 Ft.	.19	.145	37.50



Armored Speaker Cable

Constructed of 2 No. 18 stranded parallel conductors of rubber color coded cotton braid waxed, paper wrap and closely armored.

No.	Size	O.D.	List Price
1110—100 Ft.	.18 $\frac{1}{2}$	.155 x .260"	\$10.00
1111—250 Ft.	.18 $\frac{1}{2}$	.155 x .260"	20.00
1112—500 Ft.	.18 $\frac{1}{2}$	.155 x .260"	40.00
1113—1000 Ft.	.18 $\frac{1}{2}$	.155 x .260"	80.00

Rubber Shielded Microphone Cable



Consists of individual flexible tinned copper conductors, each insulated with a heavy wall of colored rubber for easy identification. A tinned copper shield is woven over all conductors, and then cotton wrapped. A 1/32 wall of tough rubber is placed overall. It is a weatherproof cable, ideal for outdoor use, and will withstand hard and rough usage.

No.	Conds.	Ft.	Size	Cap. bet. Cond. mmdfs.	Cap. bet. Cond. mmdfs.	O.D.	List Price
772	2	100	20	55	31	.270	\$15.00
1772	2	250	20	55	31	.270	35.00
773	2	100	20	58	33	.305	19.50
1773	3	250	20	58	33	.305	48.75
774	4	100	20	48	28	.345	22.50
1774	4	250	20	48	28	.345	59.75
775	5	100	20	51	29	.395	27.50
1775	5	250	20	51	29	.395	68.75
776	6	100	20	45	27	.405	32.00
1776	6	250	20	45	27	.405	80.00
777	7	100	20	49	27	.420	35.00
1777	7	250	20	49	27	.420	87.50

RUBBER S. J. CABLE



Consists of individual flexible tinned copper conductors, each insulated with a heavy wall of colored rubber for easy identification. A 1/32 wall of tough polished rubber is placed overall. It is a weatherproof cable, ideal for outdoor use, and will withstand hard and rough usage.

Cat. No.	No. Conds.	Ft. Spool	O.D.	List Price
788	2	100	.250	\$12.00
789	2	250	.250	28.25
790	3	100	.300	15.25
791	3	250	.300	35.00
792	4	100	.325	19.50
793	4	250	.325	45.00
794	5	100	.370	24.00
796	6	100	.400	30.00
797	6	250	.400	70.00
798	7	100	.400	35.00
749	8	100	.460	40.00

FM and TELEVISION TWIN LEAD 300 OHM TRANSMISSION WIRE



Has full thickness insulation throughout. Polyethylene insulation resists oil, acids and abrasions. Minimizes the effects of attenuation. Reduces distortion.

R.M.A. STANDARD

Conductors, Bare Copper	7/No. 28 AWG
Insulating Material	Polyethylene
Weight per 1000 ft.	14.1 lbs.
Impedance	300 Ohms
Attenuation in Decibels per 100 ft.:	
50 MC	0.68
100 MC	0.85

No. 7028—50 ft. coils List Price \$2.25 ea.
No. 7029—100 ft. coils List Price 4.50 ea.
No. 7030—1000 ft. spools List Price 40.00 ea.
50-ft. and 100-ft. coils individually boxed

COPPERWELD ANTENNA WIRE (STRETCHLESS)



Has steel core covered with copper heavily enameled. High tensile strength—several times that of enameled copper wire. Low I.P. resistance, ideal for transmitting doublet and directional antenna systems. Will maintain frequency characteristics of antenna.

LIST PRICES

Feet	No. 10	No. 12	No. 14
100	\$ 4.50	\$ 3.15	\$ 1.90
250	11.25	7.75	5.25
500	22.50	15.50	10.25
1000	43.75	30.50	20.00
2500	108.00	76.00	49.50

TENSILE STRENGTH

No. 10	1130 lbs.
No. 12	720 lbs.
No. 14	400 lbs.

SPECIAL LENGTHS AVAILABLE ON ORDER

Crystal Microphone Cable



For use with crystal and ribbon microphones. They are designed for low capacity and low losses. Constructed of tinned stranded conductor with a wall of low capacity rubber and closely woven shield and tough rubber wall overall.

No.	Ft.	Size	Cap. mmdfs.	O.D.	List Price
872	100 Crystal	20	37	.270	\$12.00
1872	250 Crystal	20	37	.270	28.50
870	100 Lapel	20	60	.175	9.00
1870	250 Lapel	20	60	.175	22.50
871	100 Lapel	20	50	.155	9.00
1871	250 Lapel	20	50	.155	22.50

Shielded Battery Cable



Constructed of flexible stranded conductors covered with quality rubber compound and braided with cotton, color coded. A tinned copper shield is woven overall. Used to prevent interference from being picked up.

No.	No. Conds.	Ft.	Size	Cap. bet. Shield & Cond. mmdfs.	Cap. bet. Cond. mmdfs.	O.D.	List Price
972	2	100	20	76	61	.205	\$9.50
973	3	100	20	90	50	.210	11.00
974	4	100	20	62	35	.285	14.00
975	5	100	20	61	43	.290	17.00
976	6	100	20	95	48	.300	20.00
977	7	100	20	87	41	.340	25.00
978	8	100	20	103	61	.345	29.00
979	9	100	20	100	57	.360	32.50
980	10	100	20	107	80	.375	37.00

HEAVY DUTY S. J. CABLE

Cat. No.	No. Conds.	Ft.	Gauge	O.D.	List Price each
574	2	500	No. 18	.300	\$45.00
578	2	500	No. 16	.325	54.00

73 OHM COAXIAL CABLE RG-59/U

Constructed of No. 22 solid plain copperweld with .146 O.D. Dielectric insulation, then with copper inner shield and Black Vinyl jacket. Overall O.D. is .242. Nominal impedance 73 ohms. Nominal capacitance 21 mmf. per ft. Permits peak receiver performance without distortion. Meets all requirements for Television and FM range.

Attenuation (Mc)	10	30	100	300	400
DB per 100 ft.	1.0	2.0	3.8	7.0	7.9

No.	List Price
907—100 ft. Spool	\$15.00
908—250 ft. Spool	36.00
909—500 ft. Spool	70.00
910—1000 ft. Reel	137.50

SHIELDED TRANSMISSION CABLE



Twisted, shielded 2-cond. 72-ohm transmission cable. Weather-proof, reduces interference. A matching stub is recommended with this cable in place of 300-ohm line. 2-cond. No. 22 strands, shielded.

No. 1978—100 ft.	List Price \$10.50 ea.
No. 1978—100 ft.	List Price \$10.50 ea.
No. 1980—1000 ft.	List Price \$7.50 ea.

Commercial Type Twisted Pair (No. 18 STRANDED)



This cable is used extensively as original equipment of master antenna systems. It is constructed of 2 No. 18 tinned stranded conductors insulated with a special grade of rubber color coded and covered with a white weatherproof cotton braid.

No.	Ft.	List Price	Surge Imp. per Freq. (Ohms)	Loss 100'
916—50 Spool		\$3.25		
917—100 Spool		6.00	10 Mes. 82	2.1
918—250 Spool		12.00	20 Mes. 82.5	3.9
919—500 Spool		23.75	40 Mes. 82.3	6.3
920—1000 Spool		47.50		

BATTERY CABLE



Constructed of individual rubber insulated stranded conductors, cotton braided and color coded. A closely woven cotton braid overall.

No.	Conds.	Ft.	Size	O.D.	List Price
172	2	100	20	.200	\$6.00
173	3	100	20	.205	8.00
174	4	100	20	.260	10.00
175	5	100	20	.300	12.00
176	6	100	20	.320	14.50
177	7	100	20	.340	17.50
178	8	100	20	.370	20.50
179	9	100	20	.400	23.00
180	10	100	20	.410	25.00
182	12	100	20	.430	30.00

All Cables Available in Special Lengths

Shielded Battery Cable (Cotton Braid Overall)



Constructed of individual tinned stranded copper with a wall of rubber and covered with a colored cotton braid.

No.	Conds.	Ft.	Size	Cap. bet. Shield & Cond. mmdfs.	Cap. bet. Cond. mmdfs.	O.D.	List Price
1972	2	100	20	120	65	.215	\$10.50
1973	3	100	20	86	49	.240	15.00
1974	4	100	20	103	46	.295	18.00
1975	5	100	20	78	38	.312	21.00
1976	6	100	20	70	36	.330	25.00
1977	7	100	20	68	35	.350	28.00

Diathermy Cable



Specially designed for use with electrotherapy apparatus. It is extremely flexible with a special grade of tough live flexible jacket to withstand the exacting service required.

No.	Ft.	Breakdown Voltage 60 Cycles A.C.	O.D.	List Price
756	100 Spool	20,000	.300	\$ 14.00
757	1000 Reel	20,000	.300	126.00

Birnbach BIRACO TUBING DIAL and MAGNET WIRE



DIAL CABLE 42 Strand Phosphor Cable

Constructed of the finest phosphor bronze wire over a linen thread center. Due to its high tensile strength, it will not stretch.

- No. 1025—25' Spool List Price \$1.20 each
- No. 1050—50' Spool List Price 2.25 each
- No. 1051—100' Spool List Price 4.00 each
- No. 1052—1000' Spool List Price 33.00 each

Phosphor Bronze (Light Cable)
A lower quality cable than No. 1025, but a cable that will give good service. This is a braided Phosphor Bronze cable.

- No. 1053—25' Spool List Price \$0.66 each
- No. 1054—50' Spool List Price 1.25 each
- No. 1055—100' Spool List Price 2.50 each
- No. 1056—1000' Spool List Price 18.50 each

Extra Heavy Linen Dial Cable
Made of the finest linen for replacement on all receivers, same as used for Philco. It is extra heavy for exceptional long service.

- No. 1057—25' Spool List Price \$1.30 each
- No. 1058—50' Spool List Price 2.50 each
- No. 1059—100' Spool List Price 4.50 each
- No. 1060—1000' Spool List Price 36.00 each

Heavy Linen Cable
This braided cable is used for replacement for all Philco Receivers.

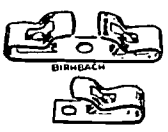
- No. 2025—25' Spool List Price \$1.30 each
- No. 2050—50' Spool List Price 2.50 each
- No. 2051—100' Spool List Price 4.50 each
- No. 2052—1000' Spool List Price 36.00 each

Light Linen Dial Cable (Silk Core)
High quality linen cable used on many receivers specially treated to prevent slipping.

- No. 3025—25' Spool List Price \$1.20 each
- No. 3050—50' Spool List Price 2.25 each
- No. 3051—100' Spool List Price 4.00 each
- No. 3052—1000' Spool List Price 25.00 each

Extra Light Linen Cable
It is a strong extra thin linen cable for replacement. Braided of the finest black linen.

- No. 4025—25' Spool List Price \$0.75 each
- No. 4050—50' Spool List Price 1.40 each
- No. 4051—100' Spool List Price 2.50 each
- No. 4052—1000' Spool List Price 18.50 each



SPRING WIRE CLIPS

They will hold a wire up to No. 10 B&S Gauge, in a secure contact. All clips are brass nickel-plated.

- No. Length Std. Pkg. Per C. List Price
- 32—Spring Clip 1".....100.....\$2.00
- 33—Twin Clip 1 1/4".....100..... 8.50

ALL RUBBER LAMP CORD

This cord is an all rubber covered insulated parallel cord which can be separated by starting with a knife. Connects easily and cannot fray. Sanitary and neat.

- COLORS: Black, White, Brown
- 570—100 Spool.....18.....\$ 4.25
 - 572—250 Spool.....18.....10.00
 - 573—500 Spool.....18.....20.00

BUS BAR WIRE

Used to hook up all types of transmitters, especially ultra short wave equipment. Made of hard drawn copper, tinned, straightened, and cut 2 ft. lengths.

- List Price per 100 lengths
- No. 2010—No. 10 Round Tinned.....\$8.50
 - 2012—No. 12 Square Tinned..... 6.75
 - 2013—No. 12 Round Tinned..... 6.00
 - 2014—No. 14 Square Tinned..... 5.10
 - 2015—No. 14 Round Tinned..... 4.30

MAGNET WIRE

Special Spools — \$0.56 List Price

On attractive spools, even sizes from 14 to 40 inclusive, in Double Cotton, Plain Enamel, and Double Silk. Here is a really sensational seller for the dealer who will put this display on the counter. It is a Silent Salesman which will bring you real profit the year around! **FREE DISPLAY!** One Display is given with each initial order for 100 spools. Each Display made of strong, re-inforced steel, mahogany crackle finish with attractive 3 color Display at top. Space provided to indicate YOUR resale price.

Extra Display Racks available at \$3.50 each, Net.

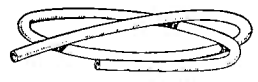
LENGTH OF WIRE OF SPECIAL SPOOLS

Size B&S	Plain Enamel	Double Cotton	Double Silk	Size B&S	Plain Enamel	Double Cotton	Double Silk	Size B&S	Plain Enamel	Double Cotton	Double Silk
12.....	15 ft.....	9 ft.....	— ft.	22.....	112 ft.....	75 ft.....	37 ft.	32.....	675 ft.....	180 ft.....	124 ft.
14.....	26 ft.....	20 ft.....	11 ft.	24.....	184 ft.....	97 ft.....	56 ft.	34.....	900 ft.....	195 ft.....	131 ft.
16.....	34 ft.....	34 ft.....	19 ft.	26.....	244 ft.....	116 ft.....	71 ft.	36.....	1275 ft.....	206 ft.....	142 ft.
18.....	56 ft.....	44 ft.....	23 ft.	28.....	401 ft.....	131 ft.....	90 ft.	38.....	1725 ft.....	210 ft.....	116 ft.
20.....	86 ft.....	56 ft.....	29 ft.	30.....	525 ft.....	158 ft.....	112 ft.	40.....	1950 ft.....	245 ft.....	125 ft.

1/4 LB., 1/2 LB., 1 LB., MAGNET WIRE—Approximate Feet and List Prices

Double Cotton (White)				Plain Enamel				Double Silk (Green)			
1/4 lb Spool	1/2 lb Spool	1 lb Spool	List Price	1/4 lb Spool	1/2 lb Spool	1 lb Spool	List Price	1/4 lb Spool	1/2 lb Spool	1 lb Spool	List Price
12	12	12	\$0.40	12	12	12	\$0.33	12	12	12	\$0.57
14	19	41	39	14	20	35	40	14	19	60	39
16	31	44	62	16	32	56	63	16	31	65	62
18	48	45	97	18	50	87	100	18	48	72	99
20	78	49	157	20	80	160	168	20	78	83	137
22	119	55	238	22	127	241	257	22	123	96	247
24	181	64	369	24	201	430	477	24	195	106	390
26	281	77	568	26	320	52	640	26	303	128	606
28	435	91	871	28	507	55	1015	28	478	143	956
30	611	109	1284	30	805	60	1610	30	739	162	1479
32	976	135	1953	32	1282	66	2564	32	1136	218	2372
34	1365	190	2735	34	2037	75	4075	34	1719	281	3494
36	1827	260	3654	36	3221	87	6442	36	2551	377	5102
38	2738	500	5476	38	5132	100	10246	38	3770	625	7541
40	3405	750	6811	40	8143	150	16286	40	5040	935	10080

BIRACO TUBING (Extruded)



It is an extruded tubing made of the new synthetic plastic material. Extremely flexible and when stretched returns to its original form. Withstands the effects of heat and will not support combustion. Will only soften at 300°F and will not flow at 425°F. Its dielectric strength—750 volts per mil. when dry and 350 volts when wet. It is not affected by oil and is resistant to most coal tar solvents and petroleum solvents. Resists acids, alkalis in concentrations up to 30% by weight. Available in continuous lengths. Dielectric strength—10,000 volts.

COLORS: Black, Red, Green, White and Yellow

No.	Size	I. D.	List Price per 36" lengths	No.	Size	I. D.	List Price per 36" lengths
313.....	20	.034	\$0.17	291.....	20	.034	\$0.17
314.....	18	.042	.17	293.....	18	.042	.17
315.....	16	.053	.19	294.....	16	.053	.17
317.....	14	.066	.19	295.....	14	.066	.17
318.....	12	.085	.19	300.....	12	.085	.17
319.....	4	.208	.50	297.....	12	.133	.50
320.....	2	.263	.60	298.....	3/16	.263	.50
321.....	5/16	.3125	.70	303.....	1/4	.3125	.75
322.....	3/8	.375	.75	304.....	5/16	.375	.75
323.....	1/2	.500	1.2	299.....	3/8	.500	1.50
324.....	3/4	.625	1.3	296.....	1/2	.625	1.50



SERVICE CORDS

Constructed of all rubber Underwriters Approved lamp cord and plug on one end and with the other end stripped and tinned all ready for use.

COLORS: Black or Brown

No.	Ft.	List Price
816-B.....	6	\$0.50
817-B.....	7 1/2	.60
819-B.....	10	.65

VARNISHED TUBING

Provides quality insulation for wires used on radio sets, small electrical equipment and instruments. The outside is impervious to oil, acid and water. It is highly flexible and will not crack after aging. Average dielectric strength 5000 volts.

COLORS: Black, Red, Green, White and Yellow

No.	Size	I. D.	List Price per 36" lengths	No.	Size	I. D.	List Price per 36" lengths
291.....	20	.034	\$0.17	293.....	18	.042	.17
293.....	18	.042	.17	294.....	16	.053	.17
294.....	16	.053	.17	295.....	14	.066	.17
295.....	14	.066	.17	300.....	12	.085	.17
300.....	12	.085	.17	297.....	12	.133	.50
297.....	12	.133	.50	298.....	3/16	.263	.50
298.....	3/16	.263	.50	303.....	1/4	.3125	.75
303.....	1/4	.3125	.75	304.....	5/16	.375	.75
304.....	5/16	.375	.75	299.....	3/8	.500	1.50
299.....	3/8	.500	1.50	296.....	1/2	.625	1.50
296.....	1/2	.625	1.50				

BIRACO & VARNISHED TUBING IN HANDY PACKAGES

Both BIRACO Extruded TUBING and VARNISHED TUBING are also available on convenient paper spools in a variety of lengths to meet practically every demand. Put up in handy packages to fill the requirements of servicemen and manufacturers. Wide assortment of colors.

BIRACO TUBING					VARNISHED TUBING				
Cat. No.	Gauge Size	Approx. I. D.	Length Package	List Price Package	Cat. No.	Gauge Size	Approx. I. D.	Length Package	List Price Package
314B	18	.042	25 ft.	\$0.75	293V	18	.042	25 ft.	\$ 1.50
316B	16	.053	25 ft.	.75	294V	16	.053	25 ft.	1.50
317B	14	.066	25 ft.	.75	295V	14	.066	25 ft.	1.50
325B	10	.106	15 ft.	.75	300V	12	.085	25 ft.	1.50
318B	8	.135	15 ft.	.75	301V	10	.106	20 ft.	1.50
326B	6	.166	15 ft.	.75	302V	8	.135	15 ft.	1.50
319B	4	.208	10 ft.	.75	303V	6	.166	10 ft.	1.50
320B	2	.263	10 ft.	.75	305V	4	.208	10 ft.	1.50
314BC	18	.042	100 ft.	2.75	306V	2	.263	10 ft.	1.50
315BC	16	.053	100 ft.	2.75	293VC	18	.042	100 ft.	5.25
316BC	14	.066	100 ft.	2.75	294VC	16	.053	100 ft.	5.25
317BC	12	.085	100 ft.	2.75	295VC	14	.066	100 ft.	5.25
325BC	10	.106	100 ft.	2.75	300VC	12	.085	100 ft.	5.25
318BC	8	.135	100 ft.	4.40	301VC	10	.106	100 ft.	9.00
326BC	6	.166	100 ft.	4.40	302VC	8	.135	100 ft.	9.00
319BC	4	.208	100 ft.	6.75	305VC	4	.208	100 ft.	9.00
320BC	2	.263	100 ft.	6.75	306VC	2	.263	100 ft.	15.00

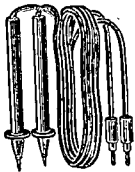


Birnbach

TEST LEADS and ACCESSORIES

High Voltage Test Leads

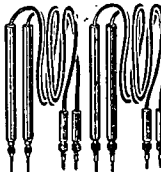
The high dielectric strength and low leakage resistance of these test leads recommend them for testing high voltage high sensitivity devices such as Meggers and Megohmmeters. They are particularly well suited for use in testing breakdown voltages up to 1200 volts. The prods and the tip handles are made of black and red bakelite with special designed tips for application. The prods are 6" long and 1/2" dia. and have a guard ring near the metal tip to prevent accidental touching of the exposed metal part. Extra heavy kinkless test lead wire 7/32" dia. is used throughout. The leads are 60" long.



No. 562—High Voltage Test Leads \$5.00

DeLuxe Test Leads

Constructed with 5" long cast phenolic red and black handles with removable needlepoint chucks or solderless tips. Black and red heavy kinkless instrument 48" long is used to connect the prods with the insulated red and black cast phenolic solderless tips. Either needlepoint or solderless tip available.



No. 560—Solderless prod test leads. \$1.75
561—Needlepoint prod test leads 1.75

Bakelite Pencil Type Test Leads

Red and black bakelite handles, 6" long and 5/16" in dia. and red and black bakelite insulated phone tips. Heavy kinkless wire is used together with the Birnbach Scrulok system of solderless wire connection. The Universal needle and phone tip prod have the same dimensions as the standard phone tip and are useful for piercing insulation without damage. The needlepoint is extra heavy to prevent breakage and should it become broken can be readily replaced. Available only in combination of needlepoint prods and insulated phone tips. Length overall 60".



No. 408—Bakelite Pencil Type Test Lead \$2.50
439—Needlepoint Prod Tip for Replacement25

Test Leads (Bakelite Handles)

Have 4" red and black insulated handles. Needles can be replaced when broken simply by loosening the knurled collar. Available with either phone tips or spade lugs. Length overall 50".



No. 420—Phone Tip Test Leads \$1.12 1/2
421—Spade Lug Test Leads 1.12 1/2

Standard Test Leads

Same as above with a Sr. solderless phone tip.

No. 422—Phone Tip Test Leads. \$1.00
423—Spade Lug Test Leads. 1.00

Insulated Solderless Phone Tips

Insulated handles 3/8" dia. by 1" long fitted to solderless phone tips. The wire can be easily attached by threading through the hole in the handle and tightening the knurled nut. Colors:—red, black, green, and yellow.



List Price
409—Insulated Sr. Solderless Tip—2 1/4" Long each \$0.20
415—Insulated Jr. Solderless Tip—1 1/8" Long each .18

Insulated Phone Tip

The insulated handle is 1" long, 1/8" dia. Connection is made by threading wire through the Scrulok threaded bushing (see drawing). Colors: red, black, green and yellow.



412—Scrulok Pin Tip, 1 1/2" Long each \$0.24
419—Scrulok Pin Tip, 1 1/8" Long each .30

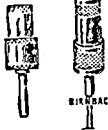


Phone Tip

Ideal for replacement on headset, speaker and extension cords. No. 402—Std. Pkg. 100 List Price \$2.25 per C

Solderless Phone Tips

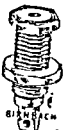
Milled of solid brass and nickel-plated. Designed for easy insertion of the wire.



List Price
No. 24—Junior .. \$1.50
24—Senior .. 12.50
Std. Pkg. 100.

No. 26 Phone Tip Jack

Milled of brass and nickel plated. The bronze springs are specially made to hold the phone tip tight and straight. Mounts in a 3/4" dia. hole.



No. 26—Std. Pkg. 100. List Price \$12.50 per C

No. 407 Insulated Tip Jack

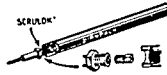
Has a 1/8" insulated top and mounts in a 3/8" dia. hole. The specially designed bronze springs hold the phone tip tight and straight. Colors:—red, black, yellow, and green. Std. Pkg. 100.



No. 407—Insulated Phone Tip Jack \$0.18

No. 411 Bakelite Pencil Test Prods

These prods have the Birnbach Scrulok solderless needlepoint tips. They are made of bakelite and are 6" long and 5/16" dia. The connection is made by threading the wire through the handle and securing to the needlepoint tip by locking the Scrulok. The tip is then screwed into the handle. Available in red or black only.



List Price
411—Bakelite Pencil Test Prods \$1.10

Solderless Tip Prod

Made of highly polished cast phenolic resin. A solderless phone tip is threaded at end permitting replacement of tip. Available in red or black.



List Price
410..... 4" Handle..... \$0.50
343..... 5" Handle..... .50

Needlepoint Test Prod

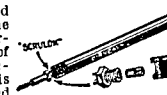
A threaded shank needlepoint chuck is threaded into the end of handle. Made of highly polished cast phenolic handle. Available in red or black.



List Price
344—Needlepoint Test Prod, 4" Handle \$0.45
345—Needlepoint Test Prod, 5" Handle50

SCRULOK Needlepoint Test Prods

These insulated prods have the Scrulok solderless system of wire connection. Wire is easily attached without soldering. An extra heavy needle is fitted into the tip. Colors:—black or red.



List Price
417—Needlepoint Test Prod, 4" Handle \$0.45
418—Needlepoint Test Prod, 5" Handle50



Headset Phone Cords

These cords are closely woven and are very durable and strong. They are used for replacement of worn headset cords. Standard cords are listed which will match practically all headsets manufactured. We will be glad to quote on cords having special terminal requirements.

List Price
No. 104—5 ft. Pin & Spade Tips \$1.15
105—5 ft. Pin & Spade Tips 1.15
107—5 ft. Pin & Eye Tips 1.15
108—8 ft. Pin & Eye Tips 1.50
109—10 ft. Pin & Eye Tips 2.15

AC-DC Resistance Cords



Designed for replacement of the internal voltage dropping resistor on the present and older type of AC-DC sets. It consists of a line cord into which a third element has been incorporated. The voltage dropping resistor reduces the voltage to that needed for the filament of the tubes.

Card Rating	Sets Having	Following Tubes	List Price
35...135 ohm...	2525-43-4*	...	\$1.15
36...160 ohm...	2525-43-3*	...	1.15
34...180 ohm...	1223-43-4*	...	1.15
49...200 ohm...	2525-43-2*	...	1.15
37...220 ohm...	1223-43-3*	...	1.15
41...250 ohm...	1223-43-2*	...	1.15
38...290 ohm...	1223	3*	1.15
45...300 ohm...	1223	2*	1.15
39...330 ohm...	1223	4*	1.15
40...350 ohm...	1223	1*	1.15
47...390 ohm...	1223	3*	1.15
125...220-110 Volt	reducing cord	.....	2.25
126...280 ohm...4	Wire	.....	2.00
127...190 ohm...4	Wire	.....	2.00
128...165 ohm...4	Wire	.....	2.00

* 6.3 volt tubes. † For Emerson Radio.

Speaker Extension Cords



Constructed of stranded annealed copper wire insulated with rubber over which a brown merrized cotton braid is closely woven. Complete with easily attached bakelite connector.

No.	Length	List Price
166	10 ft. Cord.....	each \$1.50
120	50 ft. Cord.....	each 2.00
121	30 ft. Cord.....	each 2.75
122	40 ft. Cord.....	each 3.10
123	50 ft. Cord.....	each 3.50
124	100 ft. Cord.....	each 6.50
151	Bakelite Extension Cord Connector only	..... each .60

Alligator Clips

Made of steel nickel plated. The jaws match accurately permitting them to grip all kinds of wire securely. The insulated handle is 3/8" dia. and 3/4" long and comes in red or black.



No.	Length	Std. Pkg.	List Price
31	Alligator clip 2"	.....50	\$0.09
310	Insulated Alligator clip 2 1/4"	.....50	.23

Test Clips

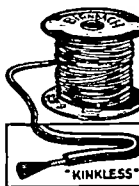


The teeth mesh correctly permitting good contact to be made. The No. 27-S is a solid copper clip with a brass screw designed for high frequency work. Sturdily constructed. Standard Package 50.

No.	Length	Std. Pkg.	List Price
27	Pea Vee 1 1/2"	..... 50	\$0.09
28	Midget 1"	..... 50	.09
29	Medium 2 1/2"	..... 50	.11
30	Large 4"	..... 50	.14
27C	Pea Vee 1 1/2"	..... 50	.20
27	Copper 1 1/2"	..... 50	.17
27R	Rubber Sleeve	.....	.16

Kinkless Test Lead Wire

Abrasion resisting live rubber that will not kink or break down in service. No. 20 has 41 strands and No. 18 has 66 strands of No. 36 tinned annealed copper wire.



No.	Ft.	Price	Size	Rubber Wall Thicknesses	Puncture 60 Cycle A.C.	O.D.
60	25	\$0.75	20 3/4		12,000	.140
61	100	3.75		0.45	12,000	
62	500	17.00			12,000	.155
64	25	1.35	18 3/4	.045		
66	100	4.55				
67	500	21.00				
HIGH VOLTAGE TEST LEAD WIRE						
63	25	\$2.60	18 3/4	.076	16,500	.218
68	100	7.00				
69	500	.42				

COLORS:—Red and Black.



Birnbach PLUGS and JACKS

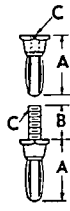
GIANT PLUGS



Used for heavy current, they are rated at 25 amps. The long life nickel silver alloy spring is secured over a pin preventing a collapse of the spring and also maintaining the full action of the spring when inserted into the jack. The No. 398A plug has a hole in the threaded shank to permit soldering to it. It is used extensively on diathermy electrode pad cables. Standard Package 25.



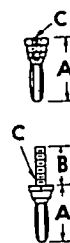
No.	Plug	A	B	C	List Price
396	Plug	1 1/2	—	10-32	each \$0.30
397	Plug	1 1/4	—	1/4-20	each .35
398	Plug	1 3/8	5/8	1/4-28	each .30
398A	Plug	1 3/8	5/8	1/4-28	each .30



Large area of contact is one of the outstanding features of these jacks and plugs. The No. 400 series of packages have a nickel silver contact spring secured over a full length central pin, making these plugs non-collapsible and assuring a low resistance contact. Capacity 5 amperes. Standard Package 100.



No.	Plug	A	B	C	List Price
400	Plug	3/4	1/2	6-32	each \$0.12
401	Plug	3/4	—	6-32	each .13
404A	Plug	3/4	3/8	1/4-28	each .18



BANANA PLUGS

No. 403 BANANA JACK

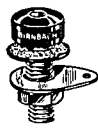
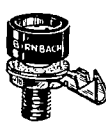


Accurately milled and has a precision reamed hole to help maintain the tight and smooth action of the plug. It is made of brass nickel plated and comes complete with nut and lug. Standard Package 100.

No.	Jack	A	B	C	List Price
403	Jack	1/2	3/8	1/4-28	\$0.12



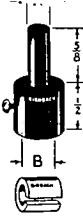
INSULATED BANANA JACKS



The No. 391 Jack is very popular with the electric therapeutic manufacturers. The 1/2" dia. insulated head admits all of the exposed metal part of the metal plug when inserted. Mounts in a 5/8" dia. hole on a panel up to 3/8" thick. The No. 406 Jack has a 1/10" dia. insulated top. It fits into a 3/8" dia. hole and takes up to a 3/8" panel. Both come complete with insulating shoulder washer, nut and lug.

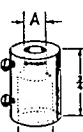
No.	Insulated Jack	Color	Std. Pkg.	List Price
391	Insulated Jack	red or black	50	\$0.19
406	Insulated Jack	red, black, yellow, or green	50	.18

SHAFT COUPLINGS, REDUCERS AND EXTENDERS



By the use of these units all 1/4" and 3/8" dia. shafts and knobs can be assembled together. The insulated units are for use where electrical isolation is desired. Furnished complete with set screws shown. Be sure to specify whether Brass or Insulated is desired.

Brass No.	Insulated No.	Shaft A	Hole B	List Price
534	634	1/4"	1/4"	each \$0.16
535	635	3/8"	3/8"	each .16
536	636	1/2"	1/2"	each .16
537—Reducer for 3/8" Dia. Hole to 1/4" Dia. Shaft.				each .10



Brass No.	Insulated No.	Shaft A	Hole B	List Price
531	631	1/4"	1/4"	each \$0.16
532	632	3/8"	3/8"	each .16
533	633	1/2"	1/2"	each .16



No.	Length	Hole I.D.	Shaft O.D.	List Price
538—Brass	1 3/4"	1/4"	1/4"	each \$0.25
539—Insulated	1 3/4"	1/4"	1/4"	each .25

BRASS SHAFTING

No.	Dia.	Length	List Price
540	3/4"	6"	each \$0.20
541	1/2"	12"	each .40
542	3/8"	8"	each .35

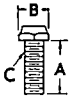
FIBRE SHAFTING

No.	Dia.	Length	List Price
543	3/4"	6"	each \$0.25
544	1/2"	12"	each .50
545	3/8"	8"	each .60

GIANT JACKS



Milled with the central hole being reamed to size to insure a tight fit with all Giant Plugs. The No. 394 and No. 399A have a 10-32 thread tapped at the end permitting connection to be made. They are all made of brass and nickel-plated and come complete with nut and lug.



No.	Std. Pkg.	A	B	C	List Price
399A...Jack	25	1 3/8"	1/2"	3/8-24	each \$0.30
394...Jack	25	1 1/8"	1/2"	1/2-20	each .25
395...Jack	25	1 1/8"	3/8"	—	each .30
399...Jack	25	1 3/8"	5/8"	3/8-24	each .35

No. 392 INSULATED GIANT PLUG



Made so that no projecting edges are exposed, thereby protecting the user from unnecessary contact. Connection is made by soldering into the hole at the end of the threaded shank of the plug. Handle is 1 3/8" long by 5/8" dia.; length overall 3". Colors: red or black.

No. 392—Insulated Giant Plug	List Price \$0.50
------------------------------	-------------------

No. 393 INSULATED GIANT JACK



Designed to leave no metal part exposed on the panel. The 3/8-24 brass nickel plated sleeve has a 10-32 threaded hole at the end permitting a connection to the jack or to the lug under the head. Either assembly available complete with nut, insulating shoulder washer, lock-washer and lug. Length overall 1 3/8". Colors: red or black.

No.	List Price
393—Insulated Giant Jack under head lug	\$0.45
393A—Insulated Giant Jack end lug	.45

HARD RUBBER INSULATED GIANT PLUG



Especially designed for use with diathermy cables. It has 5/8" dia. hole in the handle to take the largest cable. It is made of polished black hard rubber. The handle is 3" long by 7/8" dia. Overall length is 4 3/8".

No. 342—Hard Rubber Insulated Plug	List Price \$2.00
------------------------------------	-------------------

No. 341 Insulated Banana Plug



This plug consists of our No. 404A plug with a larger handle 1 3/8" long by 1/2" dia. Used on a therapeutic apparatus and test equipment. Overall length 2 3/8". Colors: red or black.

No. 341—Insulated Banana Plug	List Price \$0.45
-------------------------------	-------------------

No. 404 Insulated Banana Plug



The plug is for experimental test leads because of its Scrulok solderless connection and the non-collapsible special alloy springs assembled on a pin preventing collapse of the plug spring. The handle is made of phenolic resin and is 3/8" by 1" long. Colors: red, black, yellow and green.

No. 404—Insulated Banana Plug	Std. Pkg. 50	List Price \$0.20
-------------------------------	--------------	-------------------

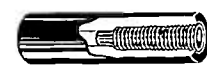
No. 604 BANANA PLUG



Made of solid brass nickel-plated, with the end being slotted. The cast phenolic handle is 1" long by 3/8" dia. and is held on by the screw that secures the wire to the plug. Colors: red, black, yellow and green.

No. 604—Plug	Std. Pkg. 50	List Price \$0.19
--------------	--------------	-------------------

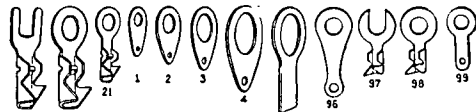
No. 605 HANDLE JACK



Consists of a banana jack inside an insulated sleeve. Connection is made by soldering to the end of the jack. Handle is made of cast phenolic resin 3/8" dia. by 1 1/4" long. Colors: red, black, yellow and green.

No. 605—Handle Jack	Std. Pkg. 50	List Price \$0.25
---------------------	--------------	-------------------

TINNED LUGS



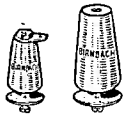
No.	Hole for Screw	Length	List Price Per M
1	6	5/8"	\$ 4.75
2	10	5/8"	4.75
3	1/4"	5/8"	4.75
4	7/8"	7/8"	27.00
5	1/2"	1 1/8"	34.50
21	10	1 1/8"	8.50
22	1/4"	1 3/8"	21.00
201	8	1 3/8"	8.50
96	6-8-10	7/8"	7.00
97	8	5/8"	7.00
98	6-8	1 1/4"	8.50
99	4-6-8	1 1/4"	8.50

Birnback

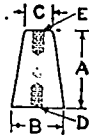
INSULATORS



STEATITE CONE STANDOFF INSULATORS

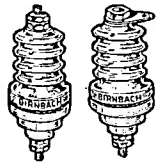


Made of low absorption high tensile strength porcelain with a smooth glaze. All heights except the No. 430 are available with a Jack or a threaded hole top. Range of sizes are adequate for all needs. They are available only in a white glaze and come complete with screws, metal and cork washers.

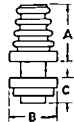


No.	Height		Std. Pkg.	Threaded Holes			List Price each
	A	B		D	E	Hole	
430	5/8"	1 1/8"	100	5/8"	1 1/8"	6-32	0.20
431	1"	1 1/4"	50	1 1/8"	1 1/2"	8-32	.30
431J	1"	1 1/4"	50	1 1/8"	1 1/2"	8-32	.35
432	1 1/2"	1 3/4"	50	1 1/8"	1 3/4"	10-32	.55
432J	1 1/2"	1 3/4"	50	1 1/8"	1 3/4"	10-32	.75
433	2 3/4"	2 1/2"	25	1 3/8"	2 1/4"	1/4-20	1.00
433J	2 3/4"	2 1/2"	25	1 3/8"	2 1/4"	1/4-20	1.20

CORRUGATED FEEDTHRU INSULATORS



The six new corrugated type feedthru insulators have more than twice the leakage path of the straight type because of increased surface of the corrugations and recommends itself where a straight side insulator of equal height is not satisfactory because of its shorter leakage path. Brass nickel-plated hardware and cork mounting washers supplied.



No.	Height		Std. Pkg.	Mounting			List Price each
	A	B		Hole	Hardware		
479	1 3/8"	1 1/4"	25	1 1/8"	1 1/8"	10-32	\$0.55
479J	1 3/8"	1 1/4"	25	1 1/8"	1 1/8"	No. 403 Jack	.65
4276	2 3/4"	10	1 1/8"	1 1/8"	1 1/8"	1/4-20	1.00
4276J	2 3/4"	10	1 1/8"	1 1/8"	1 1/8"	No. 394 Jack	1.20
4452	4 1/2"	5	2 1/8"	1 1/2"	1"	1/4-20	1.50
4452J	4 1/2"	5	2 1/8"	1 1/2"	1"	No. 394 Jack	1.80

HIGH VOLTAGE FEEDTHRU INSULATOR



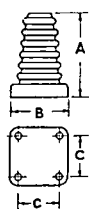
This insulator has been designed to meet the demand for an insulator having high dielectric and mechanical strength. The extra long leakage path is made possible by the corrugations on the top insulator. The bottom sleeve taper from a base dia. of 1 1/4" where the electric stress is greatest.

Height 1 1/2" Base Dia. 2" Mounting Hole 1 1/4" Hardware 1/4-20
No. 4233 List Price \$0.80

METAL BASE INSULATORS



Designed to replace conventional porcelain insulators where failure of the base is due to cracking when fastened down. Extremely long leakage paths due to the corrugated surface is one of the important characteristics. They are made from high tensile strength low absorption porcelain smoothly glazed all over. Supplied with nickel-plated brass

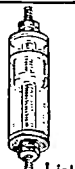


screws and nuts and cadmium plated drawn steel bases.

Cat. No.	Height		Std. Pkg.	Mounting Screw			Hardware	List Price
	A	B		D				
867	1 3/8"	25	1 1/8" x 1 1/8"	1 1/2"	2 No. 8	10-32	ea. \$0.30	
867J	1 3/8"	25	1 1/8" x 1 1/8"	1 1/2"	2 No. 8	No. 403 Jack	ea. .40	
4176	2 3/4"	10	1 3/8" x 1 3/8"	1 3/8"	4 No. 10	1/4-20	ea. .55	
4176J	2 3/4"	10	1 3/8" x 1 3/8"	1 3/8"	4 No. 10	No. 395 Jack	ea. .70	
4451	4 1/2"	5	2 1/4" x 2 1/4"	1 3/8"	4 No. 10	1/4-20	ea. .82	
4451J	4 1/2"	5	2 1/4" x 2 1/4"	1 3/8"	4 No. 10	No. 395 Jack	ea. 1.15	

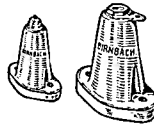
"LUCITE" FEEDTHRU INSULATORS

These feedthru insulators are ideal for bringing high frequency leads thru a panel. They are made of genuine Dupont Lucite. Because of its low loss at high frequency, it is well adapted to insulated elements of high frequency circuits. The 1/2" dia. insulators have brass nickel plated 6-32 hardware and the 3/4" have 10-32 hardware.

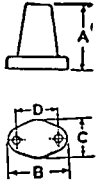


No.	Height		Panel	Insulator	Dia.	Mtg. Hole	Bottom Height	List Price
	A	B						
377	1/4"	1/2"	1/2"	1/2"	1/8"	1/4"	\$0.35	
378	1/2"	1/2"	1/2"	1/2"	1/8"	1/4"	.45	
379	1"	1/2"	1/2"	1/2"	1/8"	1/4"	.50	
475	1 1/2"	3/4"	3/4"	3/4"	1/8"	1/2"	1.00	
476	2"	3/4"	3/4"	3/4"	1/8"	1/2"	1.25	

STANDOFF INSULATORS



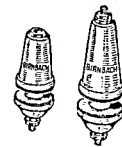
The sizes range from 5/8" to 4 1/2" high in five properly graduated heights. Made of highly vitrified low absorption glazed porcelain. No washers are necessary for mounting as the mounting surface is ground flat; but for the No. 405 and No. 966 Standoff insulators, it is advisable to use cork washers which are available as they



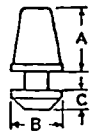
will permit mounting securely without breakage. All brass nickel-plated hardware is supplied. Available in white or brown glaze.

No.	Height		Std. Pkg.	Mounting Holes			Hardware	List Price each
	A	B		C	D			
405	5/8"	100	1"	1 1/8"	1 1/8"	6-32	\$0.11	
965	1"	50	1 1/4"	1 1/8"	1 1/8"	8-32	.15	
966	1"	50	1 3/8"	7/8"	1"	8-32	.15	
966J	1"	50	1 3/8"	7/8"	1"	No. 403 Jack	.20	
866	1 1/2"	25	1 1/4"	1 1/4"	1 1/4"	10-32	.20	
866J	1 1/2"	25	1 1/4"	1 1/4"	1 1/4"	No. 403 Jack	.25	
866J	1 1/2"	10	1 1/4"	1 1/4"	1 1/4"	No. 395 Jack	.60	
4275	2 3/4"	10	2 3/4"	2"	2 1/4"	1/4-20	.52	
4275J	2 3/4"	10	2 3/4"	2"	2 1/4"	No. 399 Jack	.90	
4450	4 1/2"	5	3 3/8"	2 1/2"	2 5/8"	1/4-20	1.00	
4450J	4 1/2"	5	3 3/8"	2 1/2"	2 5/8"	No. 399 Jack	1.35	

FEEDTHRU INSULATORS



Made of highly vitrified, low absorption porcelain smoothly glazed to prevent accumulation of dust or dirt. Maximum strength is achieved by the proper proportions and flat mounting surfaces. Long insulating sleeves on the lower part of the insulator contribute much



to their performance on high voltages. Brass nickel-plated hardware.

No.	Height		Std. Pkg.	Mounting			Hardware	List Price
	A	B		C	D			
458	5/8"	50	1 1/8"	1 1/4"	5/8"	6-32	ea. \$0.22	
478	1"	25	1 1/8"	1 1/8"	1 1/8"	10-32	ea. .30	
478J	1"	25	1 1/8"	1 1/8"	1 1/8"	No. 403 Jack	ea. .38	
4125	1 1/4"	25	7/8"	3/8"	1 1/8"	10-32	ea. .35	
4125J	1 1/4"	25	7/8"	3/8"	1 1/8"	No. 403 Jack	ea. .40	
4234	2 3/4"	10	2"	1"	2 1/4"	1/4-20	ea. .90	
4175	2 3/4"	10	1 1/4"	3/4"	5/8"	1/4-20	ea. .80	
4175J	2 3/4"	10	1 1/4"	3/4"	5/8"	No. 394 Jack	ea. 1.15	

BEE-HIVE STANDOFF

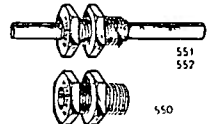


Base measures 2" dia. with 3 holes on a 1 1/2" circle, for No. 6 screws. Supplied complete with 12-24 nickel-plated brass screw and nuts. The No. 766J has a No. 403 Jack. Available white or brown glaze.

No.	Hardware	Std. Pkg.	List Price
766	Standoff Insulator, 12-24 Screw	10	\$0.30
766J	Jack Type	No. 403 Jack	10 .35

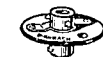
FRONT PANEL BEARING

The No. 550 Front Panel Bearing is cadmium plated brass for panels up to 3/8" in thickness and for 1/4" dia. shafts. The No. 551 and No. 552 are complete assemblies of the No. 550 and 1/4" dia. brass shaft cadmium plated.



Cat. No.	Hardware	Std. Pkg.	List Price
550	Front Panel Bearing	10	\$0.16
551	Front Panel Bearing, 1/4" shaft, 3" long	10	.45
552	Front Panel Bearing, 1/4" shaft, 6" long	10	.55

FLEXIBLE COUPLINGS



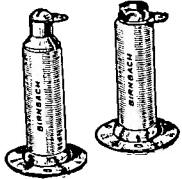
These flexible couplings cover all needs of the constructor. Tandem operation of two or more units is possible without having the shafts in exact alignment. Flexibility without back-lash is obtained by the cadmium plated phosphor bronze springs, which are rigidly riveted to the insulation. All units fit 1/4" dia. shafts.

No.	Dia.	Insulation	List Price
360	1 1/4"	Fibre	each \$0.35
361	1 1/4"	Bakelite	each .50
362	1 1/4"	Steatite	each .60

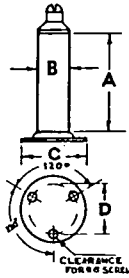


Birnbach INSULATORS

STEATITE PILLARS



These (steatite) pillar insulators have great tensile strength with extremely low losses at very high frequencies and are glazed on the outside to decrease surface leakage. They are tapped on both ends and are supplied complete with nickel-plated mounting base and top hardware.



No.	Height	Std. Pkg.	Base Dia.	List Price
	A		C	each
450	1"	10	1 1/8"	\$0.50
450J	1"	10	1 1/8"	.60
451	1 1/2"	10	1 1/8"	.60
451J	1 1/2"	10	1 1/8"	.65
452	2 1/2"	10	1 1/8"	.85
452J	2 1/2"	10	1 1/8"	1.15
453	2 1/2"	5	1 1/8"	1.35
453J	2 1/2"	5	1 1/8"	1.50
454	4"	5	1 1/8"	1.50
454J	4"	5	1 1/8"	1.60

LUCITE SPREADERS

They are made of Dupont Lucite rod which has a very low loss at radio frequencies. It is water clear and has very low water absorption. The holes are drilled to take a No. 12 wire. A screw at the end of the spreader locks the wire in position.

No.	Wire Spacing	Std. Pkg.	List Price
			Each
436	2"	25	\$0.45
437	3"	25	.50
438	6"	25	.60

LUCITE RODS

No.	Dia.	List Price per Ft.
455	1/4"	\$0.75
459	3/8"	.90
460	1/2"	1.50
461	3/4"	2.75

Available in lengths up to 48 inches

FEEDER SPREADERS

They have a cross section of 3/4" x 1/2". Made of lightly vitrified, low absorption, high tensile strength porcelain with a smooth white glaze overall.

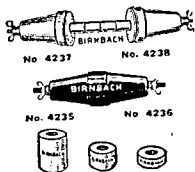
No.	Std. Pkg.	List Price
462—Spreader, 2" long	25	each \$0.22
464—Spreader, 4" long	25	each .30
469—Spreader, 6" long	25	each .40

ANTENNA INSULATORS

These Antenna Insulators have exceptional low moisture absorption. The leakage path is long and the cross section is small and is consistent with the strength required. A smooth white glaze overall prevents the accumulation of dirt or ice.

No.	Std. Pkg.	List Price
668—4 1/4" long	25	each \$0.30
470—7" long	10	each .90
471—12" long	5	each 1.25
468—4 1/2" long Center Insulator	10	each .40

LEADIN INSULATORS



Each come is 2 3/4" high and made of low absorption, highly vitrified glazed porcelain. The Nos. 4237 and 4238 Leadin Insulators have sufficient insulating bushings to insulate the rod that goes through the wall. In addition, 2 bushings are included, 1/4" and 1/2" long, allowing complete insulation of the threaded rod of any length in multiples of 1/4". They come complete with brass nickel-plated hardware and lead and cork washers to permit a water-tight seal.

No.	Description	List Price
4235—10" Rod		\$1.75
4236—15" Rod		2.00
4237—10" Rod with bushings		2.25
4238—15" Rod with bushings		2.85

STEATITE BUTTON

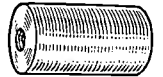
These specially designed steatite buttons are intended for use to simplify wiring and to be used as a binding post or as a binding post insulator, or as a standoff insulator. Attention is called to the uniqueness of the design which prevents either section of the insulator from turning in respect to the special screw. The specially designed screw locks both sections.



A 1 1/8"	B 1/2"	C 3/4"	D 1/2"	F 6-32
No. 457	Std. Pkg. 25			List Price \$0.30

STEATITE PILLARS

(Without Hardware)



In many constructions, these unmounted threaded steatite pillars will facilitate assembly because of the one hole mounting and parallel mounting surfaces. They are made of glazed Steatite with threaded holes on both sides.

No.	Height	Dia.	Threaded Hole	List Price
443	1/2"	1/2"	6-32	\$0.10
444	3/4"	1/2"	6-32	.10
445	1"	1/2"	6-32	.30
446	1 1/2"	1/2"	6-32	.35
447	2 1/2"	1/2"	6-32	.40
448	2 1/2"	3/4"	1/4-20	.60
449	4"	3/4"	1/4-20	.95

AIRPLANE INSULATORS

Used on mobile antenna installations, particularly on aircraft, as they are shaped for the least air resistance. They are made of white glazed low absorption porcelain.



No. Length	Std. Pkg.	List Price
473—2"	100	each \$0.15
474—1 1/2"	100	each .11

STEATITE AIRPLANE INSULATORS

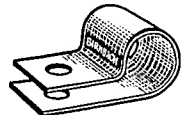
A very small compression type insulator with small wind resistance. It is 1 1/2" long and 1/2" dia.

No. 463—Std. Pkg. 25, List Price \$0.35



TUBE CLAMPS

These tube clips will be found extremely desirable when mounting resonant lines or elements of directive beam antennas. They are made of hard drawn aluminum and are available for 1/8", 3/8", 1/2", 3/4" and 1" dia. tubes. The 1/8", 3/8", and 1/2" have a clearance hole for No. 10 screw and the 3/4" and 1" dia. clamps have holes for 7/8" bolts.



Cat. No	To Fit Tube	List Price
51—Clamp	1/4" Dia.	each \$0.18
52—Clamp	3/8" Dia.	each .18
53—Clamp	1/2" Dia.	each .18
54—Clamp	3/4" Dia.	each .18
55—Clamp	1" Dia.	each .30
56—Clamp	1 1/2" Dia.	each .40
57—Clamp	2" Dia.	each .40

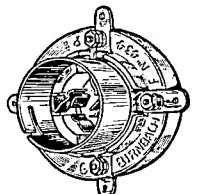
FLEXIBLE SHAFTS

At times there is difficulty getting the controls to the proper position on the panel. With couplings and these flexible shafts, locations can be made with ease on an offset and angles up to 90 degrees. The flexible shafts are made of phosphor bronze and fitted into 1/4" dia. hubs.

Cat. No.	List Price
553—Flexible Shaft, 3" long	each \$0.60
554—Flexible Shaft, 6" long	each .85

TRANSMITTING TUBE SOCKETS

Improved design and additional features of the Birnbach transmitting sockets has increased their popularity and are accepted as standard. The 50 watt socket has extra heavy side-wiping phosphor bronze contact spring with the filament spring having a double contact to safely carry the heavy current. The tube base is supported by the highly polished nickel-plated brass shell set in a highly vitrified low absorption porcelain base which is ground flat to prevent breakage. All brass nickel-plated screw and milled nuts are used.



Cat. No.	List Price
434—50 Watt Socket	each \$1.70
435—10 Watt Socket	each 1.25

RCA ELECTRONIC COMPONENTS



TELEVISION ANTENNAS

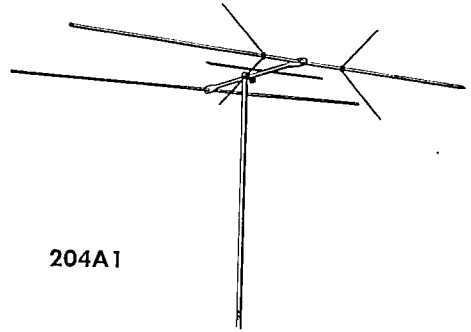
COMPLETELY NEW DESIGN — BUILT TO LAST RCA 12-CHANNEL TELEVISION ANTENNA — TYPE 204A1

BASED UPON YEARS OF FIELD EXPERIENCE
• Easily Assembled • Ruggedly Constructed • Uni-Directional

Here's an RCA "Leader" to meet the majority of your everyday antenna needs. Engineered and developed by RCA for plus-value service, RCA-204A1 is intended for use in most receiver locations where both high and low-frequency stations are in the same general direction. Unique RCA "V" attachments provide uniform directional characteristics for all 12 channels.

RCA-204A1 12-Channel Television Antenna is simple in design and appearance. Sturdily built of aluminum, it will withstand high winds, sleet, and ice. Designed for use with 300-ohm transmission line, the 204A1 rates "A" for antenna achievement:—for over-all performance and unusually flat response over each of the two television bands. It can be readily combined with any of the RCA Stacking Kits for fringe or other difficult reception areas.

Supplied with all necessary hardware and sturdy 5 ft x 1 1/4" aluminum mast which may easily be extended by addition of RCA-207A1 antenna mast sections. Completely illustrated instructions for installations are included.



204A1

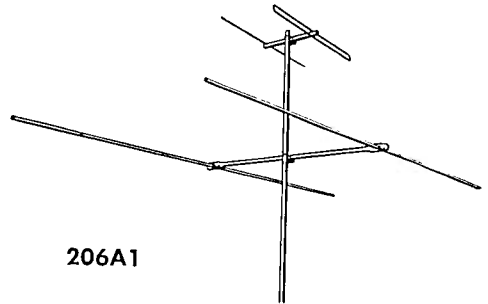
RCA "HIGH-LOW" TELEVISION ANTENNA ARRAY — TYPE 206A1

FOR 12-CHANNEL TELEVISION RECEPTION

Here's an antenna that you can depend upon for optimum performance in locations where high and low-channel stations are widely separated. Sturdily built to provide long, dependable service, the 206A1 will withstand severe weather conditions.

RCA-206A1, thoroughly tested for over-all performance characteristics, provides superior reception. When used with 300-ohm transmission line, it requires no external transformers nor matching stubs.

Comes complete with harness, all necessary hardware and sturdy 5 ft x 1 1/4" aluminum mast which may be easily extended by addition of RCA-207A1 antenna mast sections. Completely illustrated instructions included.

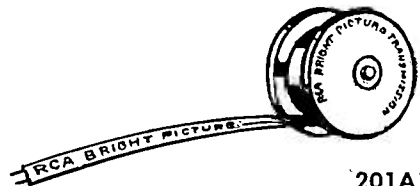


206A1

ANTENNA ACCESSORIES

Bright Picture Transmission Line

Especially designed for Television and FM. Special chemical-resistant plastic finish insures continued flexibility even in extreme heat or cold. Ultralow loss—less than 0.8 db per 100' at 50 Mc; less than 1.2 db per 100' at 100 Mc. 4.5 μf per foot capacitance. Propagation velocity 83%. Extra strong—supports a mile of its own weight (75 lbs.) before breaking. Stock No. 201A1. Sugg'd List Price: \$47.50 per 1000'.

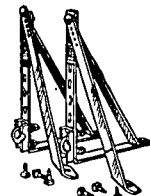


201A1

Antenna Mounting Brackets

For use with RCA Antennas Stock #225A1 and #226A1. Readily adjustable to permit mounting on any roof—regardless of overhang. Can be attached to brick, stone or wood. Entire bracket is plated with bright zinc, preventing rusting and subsequent staining of building surfaces. Special angular supports eliminate sagging. Stock No. 227A1. Sugg'd List Price: \$7.50 per pair.

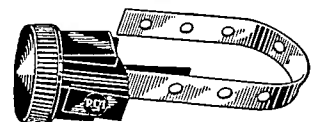
227A1



Twin-Lead Lightning Arrester

For use with FM and TV antennas. Easy to install—cutting or stripping of transmission line is unnecessary. Fits any 1/2"-2" pipe. Continually dissipates static surges. Does not unbalance line. Brown plastic case. Stock No. 206X1. Sugg'd List Price: \$1.10.

206X1



All prices in effect 5/15/49.



E. F. JOHNSON Company WASECA, MINNESOTA

THE JOHNSON "Q" AND JOHNSON "Q" BEAM

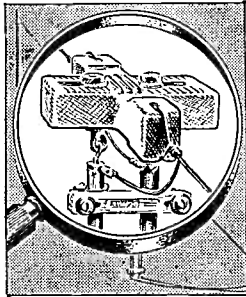
COMPLETE "Q" SYSTEMS

Cat. No.	List Price (Meters)	Band
137-2Q	\$7.00	2
137-6Q	10.50	6
137-10Q	9.75	10
137-14Q	14.00	14
137-20Q	16.50	20
137-40Q	28.00	40

The consistent results obtained by the thousands of users of the JOHNSON Q antenna system are due to the extremely high efficiency of this famous antenna. Applications include half-wave doublet, either horizontal or vertical, harmonic or "long wire" radiator, radiator-reflector, radiator director, "V" Beam, JOHNSON Q Beam and others.

The JOHNSON Q Beam is a special application of the Q system. It consists of two half-wave Q antennas spaced 1-5 wave and Q sections connected in parallel at the bottom. In ordering specify two Q antennas for the lower frequency of the two bands desired. For example if you want a Q Beam to operate on 10 and 20 meters, order two JOHNSON Qs for 20 meters.

The -20Q and -6Q use aluminum tubing for the radiating portion as well as for the matching section. The 136-35 Jack Strip and 136-36 Plug Strip make an ideal feeder connection at the transmitter when the antenna is suspended.



"Q" SUSPENSION ASSEMBLY

Includes new type insulator and all necessary hardware for connecting "Q" matching section to antenna and transmission line. Insulator may also be used to bring off "Zepp" feeders from the flat top.



136-106

Cat. No.	List Price
136-39—Suspension Assembly	\$3.25
136-106—Antenna Feeder Insulator only	.50

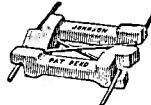
FEEDER INSULATORS

Nos. 136-122, -124 and -126 are conventional feeder spreaders of high grade low absorption porcelain, Silicone impregnated for finest water repellent characteristics. No. 136-122 is provided with notches for 1/2" line spacing. All have 3/8x1/2" cross section. No. 136-31 is a glazed porcelain transposition insulator which permits crossing transmission lines at frequent intervals to prevent radiation and provide 2" line spacing.

Cat. No.	List Price	Lg.
136-122	\$0.16	2"
136-124	.23	4"
136-126	.30	6"
136-31	.16	



136-122, -124, -126



136-31

ANTENNA INSULATORS

These insulators include both wet and dry process porcelain. The 136-107 and 136-112 are wet process and are 1" in diameter.

The Commercial Type is 1 1/2" in diameter, for use where much greater strength is necessary. The 136-104 is dry process and is 3/8" square, for service where the strength of the 1" or 1 1/2" types is not required.

These JOHNSON antenna insulators have long leakage paths, low capacity and their freedom from moisture absorption results in exceptional efficiency.

The 136-151, -152, -153 are wet process porcelain and are 1 1/2" in diameter. End fittings are of non-corrosive aluminum alloy.

Cat. No.	List Price	Break. Strng.	Lg.
136-104	\$0.20	400 lbs.	4"
136-107	1.10	800 lbs.	7"
136-112	1.20	800 lbs.	12"

Cat. No.	List Price	Breaking Strength	Net Overall
136-151	\$9.00	5000 lbs.	8" 15 1/2"
136-152	12.00	5000 lbs.	12" 19 1/2"
136-153	17.50	5000 lbs.	20" 25 1/2"

Cat. No. 136-32—Airplane compression type strain insulator of porcelain. 2" long
List Price \$0.15



136-107, 136-112



136-151, -152, -153

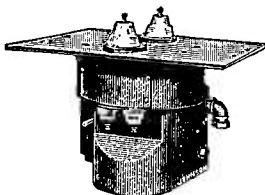


136-32

JOHNSON UNIVERSAL ROTOMATIC ANTENNA ARRAY



New direction indicator and Beam control is Selsyn motor operated.



Heavy-duty drive unit is self-lubricating and fully enclosed.

Available with Parasitic or Phased Driven Elements. Enjoy more QSOs — work more DX with the new JOHNSON Universal Rotomatic Beam.

The new symmetrical unidirectional beam employing phased driven elements is easy to tune — performs beautifully.

DeLuxe Models of the parasitic or phased arrays are available for two-band operation, employing two separate sets of elements but only one transmission line.

NEW JOHNSON PARASITIC ARRAY

When you see it you will realize it's in a class by itself! New, unique design allows an infinite variety of element lengths and spacing. Perfect impedance matching on two bands — any impedance from 50 to 600 ohms — coaxial or open wire line.

NEW ROTATOR AND DIRECTION INDICATOR

The heavy-duty drive unit will take rain, sleet and high winds in its stride — will turn on the coldest mornings. Rotation is instantly reversible, 360° at 1 1/2 RPM. Motor control and antenna relay switch are contained in the selsyn indicator case.

The elements, rotator, direction indicator, etc., may all be purchased separately.

See your JOHNSON Jobber for Rotomatic catalog (includes prices)

ROTOMATIC FEATURES

✓ **New Antenna Array**
The entire unit is so sturdy that it will withstand heavy icing and high winds.

Two-band operation with Deluxe model. Two arrays fed with same transmission line, switched by low-loss RF relay.

✓ **New Matching System**
New matching system permits efficient wide band operation and freedom to move about from the low to the high end of the bands. In addition, either open wire line or coaxial cable may be used.

✓ **New Heavy Duty Drive Unit**
Powerful, smooth, continuous rotation either direction at 1 1/2 RPM. Mechanism is self-lubricating and fully enclosed in weather-proof housing.

Universal bracket for mounting on pole or platform. May be driven with 1/20 HP motor or larger — rated at 1750 RPM.

✓ **New Direction Indicator and Beam Control**

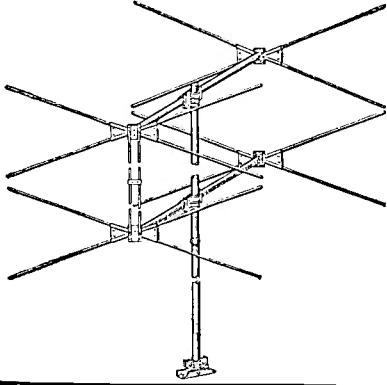
Selsyn motor controlled indicator. Indicating arrow glides through 360°, in either direction, over a map, with compass graduations. Stop beam anywhere instantly.

JIFFY-RIG TELEVISION ANTENNAS

Taco Jiffy-Rig Antennas are the answer to the quickest installations without any electrical or mechanical sacrifice. These antennas come completely assembled, and are readied for installation by merely opening up and tightening a few screws. Elements are all securely

locked in place when antenna is installed.

For performance curves and field patterns on all Taco antennas, refer to Catalog No. 30. Tests are made on all models at the thoroughly equipped Taco laboratories and testing grounds in Sherburne, N. Y.



LAZY X ANTENNA TYPE 950

First introduced by Taco in 1940, this antenna has a single forward lobe for both high and low channels. It has a high front-to-back ratio, high gain, and broad coverage. Available either as a stacked or single antenna. Stacked antenna has approximately twice the gain of single. Outstanding characteristic is stability of impedance and gain over far greater frequency range than most other types. Matches popular 300 ohm lead-in and receiver input.

CAT. No. 950—Stacked Lazy X Antenna for channels 2-13. 2 X Antenna-Reflectors, connecting line between antennas, bakelite terminal panel, mast swivel bracket, 2 five-foot mast sections. (Shipping Wt.: 11 lbs.) List Price \$41.50

CAT. No. 951—Stacked Lazy X Antenna. Same as No. 950 less 2 five-foot mast sections and mast swivel bracket. (Shipping Wt.: 9 1/2 lbs.)....List Price \$34.00

CAT. No. 952—Single Lazy-X Antenna with five foot mast and accessories. (Shipping Wt.: 7 lbs.)

List Price \$21.00

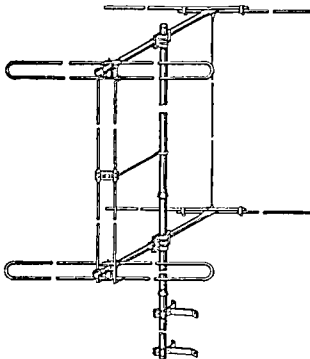
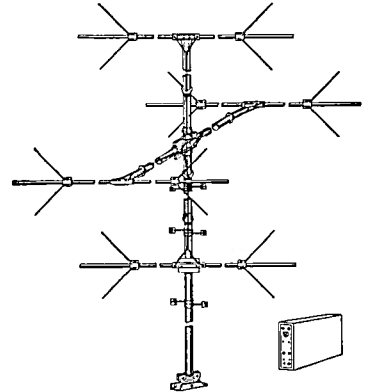
CAT. No. 953—Single Lazy-X Antenna less mast and accessories. (Shipping Wt.: 5 lbs.).....List Price \$16.50

ALL-CHANNEL REVERSIBLE BEAM ANTENNA TYPE 900

An entirely new and improved approach to co-channel interference caused by stations approximately 180° apart, on the same channel. Uses four driven elements instead of parasitic elements, resulting in extremely high front-to-back ratio ranging from 5:1 up to 20:1. Antennas are connected in pairs, each pair with separate lead to receiver. Diplexer supplied with antenna eliminates any ghosts due to mismatch between receiver and lead. Diplexer incorporates a direction-reversing switch to reverse receiving direction 180°. Antenna receives equally well in either direction. Covers all channels 2-13 with a single lobe.

CAT. No. 900 — All-Channel Reversible Beam Antenna Array. Consists of: 4 sets driven elements with wings; 4 dipole connecting links with terminal panel; 3 five-foot section masts; accessories; 1 diplexer. (Shipping Wt.: 14 lbs.)
List Price \$59.50

CAT. No. 905 — High-Band Reversible Beam Antenna Array. Consists of: 4 high-frequency dipoles; 4 connecting links with terminal panel; 2 five-foot mast sections; 1 crossarm; accessories; 1 diplexer. (Shipping Wt.: 8 lbs.).....List Price \$32.00



STACKED HIGH-GAIN ANTENNA TYPE 995

For fringe areas where low-band channels are operating, this antenna has no equal as proved by its record-breaking history. Comes tuned for any one channel (2, 3, 4, 5, 6) but will receive adjacent channels with slight attenuation. Order for weakest channel. Cleans up fuzzy signals with its high signal-to-noise ratio. Used in high-signal areas to eliminate interference. Extremely rugged mechanically. Used with Catalog 992-D () director for extreme fringe areas.

CAT. No. 990-()—Stacked High-Gain Antenna. Specify channel in bracket. Consists of: 2 sets tuned dipole-reflectors; transmission lines with center terminal panel; transmission line brace. (Shipping Wt.: 9 1/2 lbs.)
List Price \$32.00

CAT. No. 995-()—Stacked High-Gain Antenna. Same as No. 990 plus the following: 3 five-foot mast sections; 1 set 190-7 mast brackets; 6 screw-eye insulators; 4 mast insulators; 2 guy rings. (Shipping Wt.: 14 lbs.)
List Price \$40.00

INDOOR ANTENNA TYPE 975

For strong signal areas where regular antenna is not feasible. May be located at receiver or in attic. Base made of mottled mahogany-finished bakelite. Dipoles nickel-plated with metal-balled tips. Mounting feet permit anchoring to rafter in attic. Dipoles may be set in any position or length, thus covering all channels. No knobs to tighten due to exclusive Taco ratchet design.

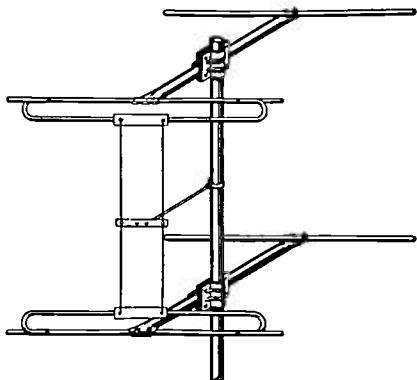
CAT. No. 975—Indoor Antenna. Individually packed. Standard package, 6 antennas. (Shipping Wt. for 6: 13 lbs.).....List Price \$6.50 each

DIRECTOR TYPE 992-D-()

For increased gain and sharper tuning on channels 2, 3, 4, 5, 6, this director has been designed to slip into the open end of Taco No. 995. Increases voltage gain by 3 db for tuned channel. For areas where sharper tuning and higher gain is desired, the addition of director greatly improves reception. Director may be added any time to an existing installation.

CAT. No. 992-D-()—Director (Channel 2, 3, 4, 5, or 6). Consists of: 2 crossarm assemblies with director elements assembled by Jiffy-Rig construction. (Shipping Wt.: 2 lbs.)
List Price \$9.50

JIFFY-RIG TELEVISION ANTENNAS



STACKED HIGH-GAIN ANTENNA TYPE 944 JIFFY-RIG CONSTRUCTION

The finest in high-frequency antennas. Used in fringe areas and areas of average signal strength with excellent results. Cleans up high-frequency signals through the use of two 600-ohm folded dipoles tapped at center terminal for a transmission line impedance of 300 ohms. Exceptionally flat field characteristics eliminates ground reflections. Broad banded, but may be peaked for additional gain on any high-frequency channel by the addition of directors.

CAT. No. 944—Stacked High-Gain Antenna for high-band channels 7-13. Consists of: 2 600-ohm folded dipole antenna-reflector combination mounted on crossarm; terminal panel; 5-foot aluminum mast; mast insulator. (Shipping Wt.: 5 lbs.)
List Price \$16.50

CAT. No. 947 D—H. F. Directors adjustable for any high channel. Attaches to Cat. 944 antenna. (Shipping Wt.: 3 lbs.).....List Price \$3.50
2 packed per carton

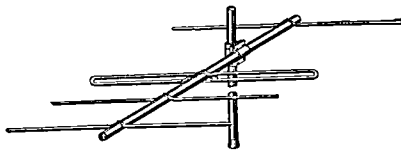
YAGI ANTENNA TYPE 957 JIFFY-RIG CONSTRUCTION

An exceptionally high gain, sharply tuned antenna. Performance comparable to stacked antenna-reflector array for any one channel. Available in 3 models to cover the 7 upper channels. Model 957-8 covers 7, 8, 9; 957-10 covers 9, 10, 11; 957-12 covers 11, 12, 13. Sharp tuning means elimination of much interference and ghosts caused by reflected signals. May be stacked with Type 958 Stacking Kit for a 9 db gain. Jiffy-Rig construction, fully assembled.

CAT. No. 957-(8, 10 or 12)—Yagi Antenna. Consists of: 1 folded dipole antenna; 1 reflector; 2 directors; 1 crossarm with mast-mounting clamp. 5 ft. mast (Shipping Wt.: 4 lbs.)
List Price \$11.00

CAT. No. 958-(8, 10, or 12)—Yagi Antenna Stacking Kit. Same as above without mast but with transmission line for stacking. (Shipping Wt.: 3 lbs.).....List Price \$9.00

CAT. No. 959-(8, 10, or 12)—Stacked Yagi Antenna. Combination of a 957 and a 958 antenna. (Shipping Wt.: 6 lbs.).....List Price \$18.75



SINGLE HIGH-BAND ANTENNA TYPE 945

Ideal for use as high-frequency adapter in average to strong signal areas. Jiffy-Rig construction matches 300-ohm antenna and permits use of common transmission line through use of matching network. Used as antenna in areas where only high frequency stations are operating. May be stacked in weak signal areas using Type 946 Antenna.

CAT. No. 945—Folded Dipole Antenna. Consists of: folded dipole with reflector; 5-foot mast. (Shipping Wt.: 2 lbs.) List Price \$7.00

CAT. No. 946—Folded dipole Stacking Antenna. Same as above less mast. (Shipping Wt.: 1 lb.).....List Price \$5.75

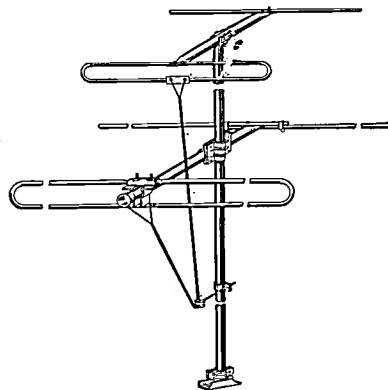
HI-LO BAND ANTENNAS TYPE 920 AND 925 JIFFY-RIG CONSTRUCTION

An improved version of the famous Taco 465, original piggy-back Hi-Lo Band Antenna. The most popular types for areas of average signal strength where both high and low bands are in operation. Separate high and low band elements allow independent orientation of high and low-band antennas for elimination of ghosts and sharpness of picture. Matching network minimizes interaction between sections, and allows full freedom in orientation. Also available as a stacked high and single low-band antenna. Cat. No. 920 for increased gain usually needed in the high-band channels.

CAT. No. 925-5—5-foot Hi-Lo Band Antenna. Consists of: High and low-band folded dipole antennas-reflectors; 5-foot mast; matching network; mast swivel base. (Shipping Wt.: 6 lbs.).....List Price \$17.00

CAT. No. 925-10—10-foot Hi-Lo Band Antenna. Same as above plus extra 5-foot mast section, guy anchor, extra mast standoff. (Shipping Wt.: 7 lbs.).....List Price \$20.00

CAT. No. 920—Stacked High, Single Low-Band Antenna. Consists of: Stacked high-band antenna-reflector combination; Low-band antenna-reflector; matching network; 2 five-foot mast sections; swivel base bracket; guy anchor. (Shipping Wt.: 8 lbs.).....List Price \$25.00



FOLDED DIPOLE ANTENNA-REFLECTOR TYPE 940

An economical, dependable folded dipole antenna for prime service area use. Single lobe in low band, Jiffy-Rig construction assures quick erection. Matches 300-ohm transmission line. For added gain a 992-() director may be used.

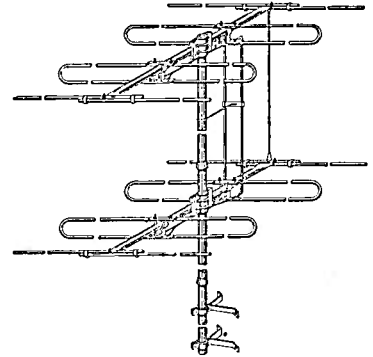
CAT. No. 940-L—Folded Dipole Antenna-Reflector Type 940. Consists of: 1 folded dipole; crossarm with mast clamp; reflector; 1 5-foot mast;

2 mast insulators; swivel base. (Shipping Wt.: 5 lbs.)
List Price \$15.00

JIFFY-RIG TELEVISION ANTENNAS

TWIN-DRIVEN YAGI ANTENNA

For fringe area reception a rotator often permits maximum results. Taco twin-driven Yagi Antenna, due to its high gain, is the ideal antenna because of its low overall height. In sub-fringe areas use 980-() stacked model with a gain of over 9 db. Special bulletin available on request. Tuned for each low band channel. Use 959-() for high band stations. The antenna and first director are driven elements for improved impedance match.

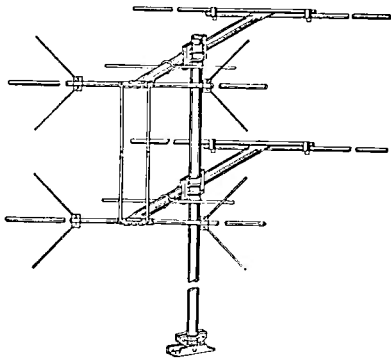


CAT. No. 980-()—Two-Bay Twin-Driven Yagi Antenna, less mast. List Price \$49.50

CAT. No. 985-()—Two-Bay Twin-Driven Yagi Antenna with 15-foot mast. List Price \$59.50

CAT. No. 981-()—Single Bay Twin-Driven Yagi Antenna, less mast. List Price \$24.00

CAT. No. 986-()—Single Bay Twin-Driven Yagi Antenna with 5-foot mast. List Price \$27.50



SINGLE-LOBE DOUBLE-DOUBLET TYPE 912

Originally designed as a low band antenna and well known as Cat. No. 435 Lazy H Antenna. Re-designed for high-low band operation by the addition of high frequency wings and H. F. reflectors to give the one direction lobe necessary for most localities. High gain and excellent front-to-back ratio obtained by use of separate high frequency reflectors. Recommended for low signal strength areas. Good FM coverage. Available as a signal bay unit Cat. 910 for higher signal strength areas.

CAT. No. 912—Single-lobe Double Doublet Antenna. Consists of: 2 antenna-reflectors on separate crossarms; high frequency reflectors; connecting network; 2 five foot masts; mounting accessories; high frequency wings. (Shipping Wt.: 8 lbs.).....List Price \$25.00

CAT. No. 910—One-Bay Single Lobe Antenna for high and medium signal strength areas. Consists of: antenna-reflector combination on one crossarm; high frequency reflector; high frequency wings; 5-foot mast; mounting accessories. (Shipping Wt.: 6 lbs.).....List Price \$15.00

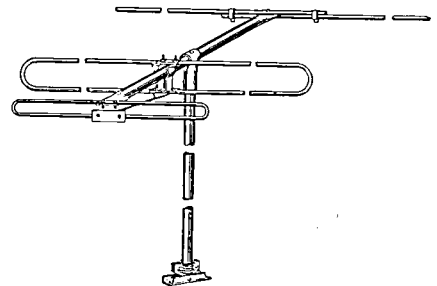
HI-LO BAND IN-LINE ANTENNA TYPE 930 AND 932

Designed for areas of average-to-strong signal strength where both high- and low-band channels are in the same direction. Gain is high in both bands. Directivity lobes show this antenna as having one main forward lobe in both the high and low band. Matching network eliminates troublesome interaction between elements. Perfect match for 300-ohm lead-in. A stacked model Cat. No. 932-10 is available where additional gain is required in either band.

CAT. No. 930-5—5-foot In-Line Antenna. Consists of: High and low-band antenna sections with low-band reflector; 5-foot mast; jumper network; 3 screw-eyes; mast standoff; mast swivel bracket and mounting screws. (Shipping Wt.: 6 lbs.).....List Price \$17.00

CAT. No. 930-10—10-foot In-Line Antenna. Same as 910 plus one extra 5-foot section of mast. (Shipping Wt.: 7 lbs.).....List Price \$20.00

CAT. No. 932—10-foot Antenna. Consists of: 2 high-low antenna-reflectors; 2 crossarms; 2 five-foot mast sections; mounting accessories. (Shipping Wt.: 10 lbs.).....List Price \$34.00



ACCESSORIES AND SUPPLIES

Extension Masts

Sectional Masts

Mast Couplings

Mast Brackets

Mast Swivel Brackets

Antenna Insulators

Strain Insulators

Turnbuckles

Guy Wire

Crossarm Connectors

Mast Guy Anchors

Mast Standoff Insulators

Ribbon Wire Insulators

Baseboard Standoffs

Porcelain Nail Knobs

Lightning Arrestors

Shorting Bars

Replacement Parts

Screw-eye Standoffs

Ribbon Transmission Line

Concentric Cable

Twisted Pair Lead-in

H. F. Splicing Tape

Window Lead-in Strips

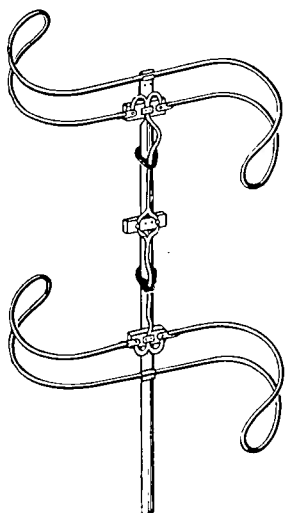
Ground Rods

Ground Clamps

Ground Straps

FM ANTENNAS

FM OMNIDIRECTIONAL ANTENNA TYPE 624



This antenna has nearly the same gain as a single dipole in the FM band, which is unique for an antenna of the non-directional type. Covers FM band with practically equal gain throughout, due to its 300-ohm impedance. Gain and band-width greater than that of turnstile antenna. For areas with less signal strength, the 624 may be stacked $\frac{1}{2}$ wave-length between elements for maximum gain and minimum interaction. In a stacked array it is possible to peak the antennas for weaker stations.

CAT. No. 624—Omnidirectional Antenna. Consists of: 1 S-Type folded dipole with terminal panels; 1 5-foot aluminum mast; 2 mast insulators; 60-foot transmission line; 2 ribbon-type standoff insulators; 2 mast clamps; mounting screws. (Shipping Wt.: 4 $\frac{3}{4}$ lbs.)
List Price \$11.00

CAT. No. 624-L—Omnidirectional Antenna. Same as above less transmission line. (Shipping Wt.: 4 lbs.).....List Price \$8.00

CAT. No. 624ST—Stacked Omnidirectional Antenna. Consists of: 2 S-Type antennas; 1 stacking transmission line with terminal panel and mounting clamp; 2 5-foot aluminum mast sections; 1 coupling for mast with mounting panel; 60-foot transmission line; 2 ribbon type standoff insulators; 2 mast clamps with mounting screws. (Shipping Wt.: 6 $\frac{1}{2}$ lbs.)
List Price \$18.00

CAT. No. 624ST-L—Stacked Omnidirectional Antenna. Same as above less transmission line. (Shipping Wt.: 6 lbs.).....List Price \$15.00

FM FOLDED DIPOLE ANTENNA-REFLECTOR

The folded dipole is the best type FM antenna inasmuch as the spread is only 10% above and below the mean frequency. Has a flat response of 3 db over entire FM band. Unidirectional characteristic is ideal for pinpointing in noisy locations. Mechanically rugged. Electrically perfect.

CAT. No. 620—Folded Dipole Antenna-Reflector. Consists of: 1 folded dipole; 1 reflector with crossarm; 5-foot aluminum mast; 2 mast insulators; 2 mast-mounting straps with mounting screws; 2 standoff insulators; 60-foot 300-ohm transmission line. (Shipping Wt.: 4 $\frac{3}{4}$ lbs.)
List Price \$13.50

CAT. No. 620-L—Folded Dipole Antenna Reflector. Same as above less transmission line. (Shipping Wt.: 3 $\frac{3}{4}$ lbs.).....List Price \$10.50

CAT. No. 621—Folded Dipole Antenna. Consists of: 1 folded dipole with terminal block; 60-foot 300-ohm transmission line; 1 5-foot mast; 2 mounting straps and mounting screws; 3 special screw-eyes. (Shipping Wt.: 3 $\frac{1}{2}$ lbs.).....List Price \$10.25

CAT. No. 621-L—Folded Dipole Antenna. Same as above less transmission line. (Shipping Wt.: 2 $\frac{1}{2}$ lbs.).....List Price \$7.25

FM STACKED HIGH-GAIN ANTENNA

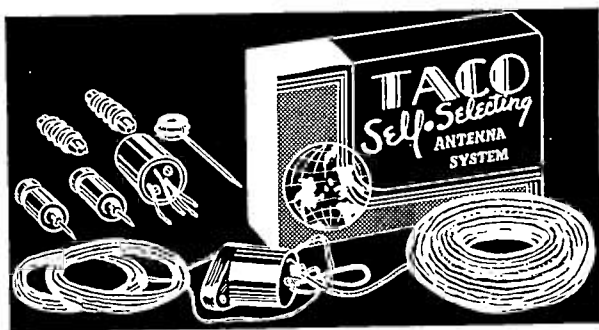
For low-strength signal areas. Maximum gain through proper spacing and matching. Impedance at terminal panel is 300 ohms, assuring good match. Designed to retain broad band coverage despite gain. Front-to-back ratio approximately 15:1; gain about 6.5 db over reference dipole in FM band. Built to withstand all kinds of weather. May be used with a rotator for pinpointing reception in fringe areas.

CAT. No. 635—Stacked Folded Dipole Antenna-Reflector. Consists of: 2 folded dipoles; 2 reflectors with crossarms; 2 transmission lines with terminal panels; 2 5-foot mast sections; mounting hardware. (Shipping Wt.: 9 $\frac{1}{4}$ lbs.).....List Price \$25.00

ANTENNA SYSTEMS

ALL-WAVE NOISE REDUCING ANTENNA SYSTEM

Taco AM antenna kits have been designed and manufactured to perform the important function of delivering as much signal strength to the receiver as possible, and at the same time to hold back undesirable background noises. The signal-to-noise ratio is extremely high, due to the matching transformers incorporated in the following systems.



DOUBLET ANTENNA SYSTEM TYPE 220 FM

Balanced doublet type covering the standard broadcast, shortwave and FM bands. Completely wired, soldered and tested. Includes Type 221 antenna transformer, two 30-foot coils of aerial wire, 60-foot transmission line, and all necessary hardware. Standard Package: 6.

CAT. No. 220-FM—(Shipping Wt.: 4 lbs.).....List Price \$13.50 each
CAT. No. 220—Antenna, AM only.....List Price \$12.75

MULTIPLE OUTLET SYSTEM

Master antenna system for connecting 10-30 AM or FM receivers to one antenna using one or several transmission lines. Used extensively in schools, hospitals and apartment houses. Special type antennas for school public address installations.

INFORMATION ON FM AND AM ANTENNAS IS CONTAINED IN SPECIAL TACO CATALOG.

PREMAX

Telescoping Vertical Antennas

Premax Adjustable Tubular Antennas have been widely used in radio fields for a long period of years and have shown exceptionally efficient, dependable performance under most severe climatic and shock conditions, both in continental United States and abroad. They are available in various lengths to meet all requirements, in monel, aluminum and steel. Mountings and insulators will be found on page S-48.

MONEL ANTENNAS FOR CORROSION RESISTANCE

Premax Monel Antennas have an outstanding combination of strength and corrosion resistance that is vital to trouble-free communications, whether at land or at sea . . . in the tropics or the arctics. The monel used in these Premax Antennas . . . two-thirds nickel and one-third copper . . . is twice as stiff as bronze, strong as structural steel. Yet it will not corrode or lose its strength in salt-water installations, Polished chrome-plated finish on all sizes.

Premax Monel Antennas are built up of multiple sections of hard-drawn monel tubing of a tensile strength exceeding 125,000 pounds per square inch. They are available in five standard units, fully telescoping and adjustable to any height between the minimum and maximum shown. The locking device employs a special knurled thimble and split friction clutch sleeve and holds the sections firmly at any desired height, also providing perfect electrical contacts.

SPECIFICATIONS

No.	Description	Ext'd. Lgth.	C'laps'd. Lgth.	Base O.D.	Base I.D.	Wgt. ea. lbs.
MM-313	2-Sec. Tele.	about 13'	6'9"	.615"	.545"	2 3/4
MM-419	3-Sec. Tele.	about 19'	6'9"	.747"	.667"	5
MM-825	5-Sec. Tele.	about 25'	5'8"	.893"	.799"	7 1/2
MM-430	5-Sec. Tele.	about 30'	6'9"	1.065"	.945"	13
MM-635	5-Sec. Tele. Heavy	about 35'	7'8"	1.250"	1.120"	21

ALUMINUM ANTENNAS FOR LIGHT WEIGHT

Premax Adjustable Type Aluminum Antennas are designed to provide light-weight with corrosion resistance and adequate strength to meet the most exacting conditions, for marine, mobile and commercial installations where convenience in erection and dependable performance are important considerations. They are ideally adapted for use in radio telephone installations on fresh-water craft and commercial installations where convenience in extending and collapsing are important considerations.

These Antennas are built up of tubing that is specially drawn seamless tempered aluminum with diameters, gauges and temper engineered to withstand wind velocities up to 60 m.p.h. The locking device is simple and positive and provides low-resistance contact between sections. Six units are available, all fully telescoping.

SPECIFICATIONS

No.	Description	Ext'd. Lgth.	C'laps'd. Lgth.	Base O.D.	Base I.D.	Wgt. ea. lbs.
AL-106	1-Pc. Taper Rod	6'3"	6'3"	.313"	.....	1/4
AL-312	2-Sec. Tele.	12'4"	6'4"	.500"	.334"	1 1/2
AL-518	3-Sec. Tele.	18'5"	6'4"	.750"	.584"	3
AL-324	4-Sec. Tele.	24'4"	6'4"	1.000"	.834"	5
AL-530	5-Sec. Tele.	30'0"	6'5"	1.250"	1.084"	7
AL-535	6-Sec. Tele.	35'8"	6'5"	1.500"	1.310"	12

HEAVY-DUTY NON-ADJUSTABLE

Another type for special installations under extraordinarily trying conditions is a Heavy-Duty, Non-Adjustable Aluminum Antenna in either 17 1/2' or 35' length. This is a specially heat-treated Antenna designed to withstand wind velocities up to 100 m.p.h. The tubing is step-tapered from a base diameter of 2" to a top of 1 1/2" on the 35' mast and a base of 3 1/2" to a top of 1 1/2" on the 17 1/2' mast.

HEAVY-DUTY, NON-ADJUSTABLE

AM-017	1-Pc. Taper Tube	17'9"	17'9"	.969"	.689"	5 1/2
AM-035	2-Sec. Taper	35'0"	17'9"	2.000"	1.732"	19

(For Base Insulators and Mountings, See Page S-48)

STEEL ANTENNAS FOR LOW COST

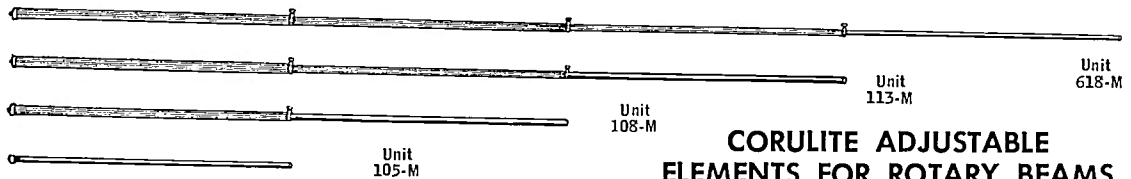
The low initial cost and general satisfaction of Premax Tubular Steel Antennas have made this equipment within all budget requirements for commercial, municipal, amateur and other types of installations. In construction these Antennas are made of high-tensile, copper-nickel steel tubing of carefully engineered diameters and wall thicknesses, heavily cadmium-plated and highly resistant to corrosion. When properly mounted, they will withstand all ordinary stresses without guying, but it is generally advisable to support them by guys or standoff insulators against abnormal winds or extreme strains.

Standard Premax Adjustable Tubular Steel Antennas are available in two, three, four, five and six-section models. All units are fully telescoping and adjustable within the lengths shown for the particular type. The locking device is simple in operation, positive in action and provides a secure and efficient electrical contact between the sections. While these Antennas possess unusual tensile strength, they are light in weight and easily portable. They have widespread use in fixed and mobile installations. NOT recommended for marine use on salt water.

SPECIFICATIONS

No.	Description	Ext'd. Lgth.	C'laps'd. Lgth.	Base O.D.	Base I.D.	Wgt. ea. lbs.
112-M	2-Sec. Tele.	11'8"	6'1"	.656"	.556"	4
318-M	3-Sec. Tele.	17'3"	6'2"	.875"	.775"	7
224-M	4-Sec. Tele.	22'9"	6'3"	1.063"	.963"	11
130-M	5-Sec. Tele.	28'3"	6'4"	1.250"	1.150"	15
136-M	6-Sec. Tele.	33'9"	6'5"	1.500"	1.400"	20

(For Base Insulators and Mountings, See Page S-48)



CORULITE ADJUSTABLE ELEMENTS FOR ROTARY BEAMS

Premax Corulite Elements are designed to meet the need for lightweight but sturdy elements for use in horizontal arrays and similar applications. They are unusually light in weight and their special corrugated or reed design provides exceptional strength and rigidity so essential in horizontal types of installations. All parts are heavily electro-plated to provide corrosion resistance and high electrical conductivity. A positive clamp, spot-welded to the tubing, permits adjustment in length and assures rigid joints and positive electrical contact between the telescoping sections. Ease of adjustment between the two halves of each component element is provided by the Premax "Hairpin" Tuning Bar. By its use it is possible to have all of the elements set at a single physical length and the variation in their electrical length may be accomplished by the "Hairpin."

Corulite Elements are available in one, two, three or four-section units as shown in the specifications at the right. These elements meet all requirements for the various five to twenty-meter arrays in general use and are ideal for combinations in commercial, FM, television or amateur bands.

SPECIFICATIONS

No.	Description	Extended Length	Collapsed Length	Base O.D.	Recommended For	Weight Per Pr.
105-M	1-Section	5'0"	3'0"	.625"	6-meter	1 lb.
108-M	2-Section	8'2"	4'7"	.750"	10-meter	2 lbs.
113-M	3-Section	12'4"	4'8"	.875"	.....	3 1/2 lbs.
618-M	4-Section	17'0"	5'3"	1.000"	20-meter	5 1/2 lbs.

PREMAX PRODUCTS, DIVISION OF CHISHOLM-RYDER COMPANY, INC., NIAGARA FALLS, N. Y.

Television transmitters emit horizontally polarized waves. However, near the receiving antenna, due to reflections from tall trees, buildings and other obstructions, there is bound to be a vertical component which, when combined with the horizontal component, will run the angle of polarization *somewhat above the original horizontal plane*.

Thus a "direct" and a "reflected" signal often combine at the receiving antenna and where an ordinary horizontal type dipole antenna is used this combination of signals produces only a minimum of desired signal *because one signal tends to cancel out the other*.

With the Premax Adjustable V Dipole Antenna the proper vertical or horizontal adjustment of the elements will correct this condition and make the two signals *combine* in phase, thereby *increasing* rather than reducing the received signal.

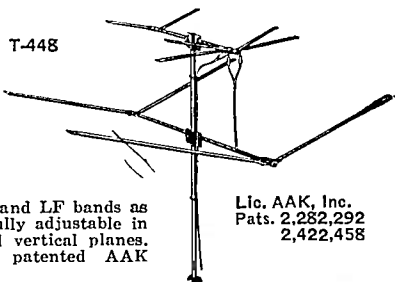
Premax dipole elements are designed to permit any desired adjustment of the angle for strongest reception (usually 35° to 45° above the horizontal plane) and they can be securely locked in the position deemed best.

Another feature of the Premax Adjustable V Dipole Antenna is that, properly mounted, it permits a *sufficient* signal energy at the antenna terminals to minimize the importance of the otherwise difficult task of perfect impedance matching.

Many leading radio engineers who have tested the Premax Adjustable V Dipole Antenna, mounted reasonably high and in the clear, find it insures *optimum reception* of signals from *all* of the TV stations which come within the line of sight.

COVERS ALL TELEVISION & FM CHANNELS

Simpler! Lower in cost! Easy to erect! Oversize elements! Adjustable V Dipole design! Two completely separate arrays on one mast, each of dipole and reflector. Provides maximum signal pickup for all channels in HF and LF bands as well as for FM. Fully adjustable in both horizontal and vertical planes. Interconnected by patented AAK divider coil system.



T-448

Lic. AAK, Inc.
Pats. 2,282,292
2,422,458

Can also be had in individual antennas for either HF or LF. Then, at any time, the other array may be added to give full two-band coverage.

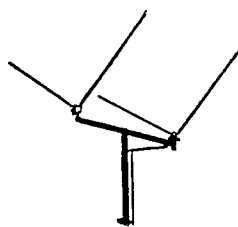
- T-448—LF-HF Antenna complete, less transmission line.
- TL-448—LF-HF Antenna complete with 75' 300-ohm. transmission line.
- TA-4481—LF Antenna and reflector only, including mast, less transmission line.
- TAL-4481—Same as TA-4481 but with 75' 300-ohm transmission line.
- TB-4482—HF Antenna and Reflector only, including mast, less transmission line.
- TBL-4482—HF Antenna and Reflector only, including mast and 75' line.
- TC-4483—HF Conversion Unit, less mast, less transmission line.
- TD-4484—LF Stacked Array, with 9' mast, less line.

FM and TV ADJUSTABLE "V" ANTENNAS



FM-130

Designed for maximum response for FM and TV bands. Dipole arms of heat-treated aluminum with wire terminals for lead-in connections. 50" tubular steel support mast. Arms may be locked at any designed angle. Simple, light-weight design is simple to erect and install. Provides better reception than any straight dipole in congested areas.



FM-230

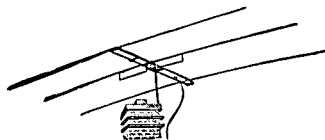
No. FM-130—FM Antenna complete with mounting, less transmission line.

No. FML-130—Same as FM-130 but with 75' 300-ohm twin-lead transmission line..

No. FM-230—Same as FM-130 but with reflector, less transmission line.

No. FML-230—Same as FM-230 but with 75' 300-ohm twin-lead transmission line.

ROTARY BEAM ANTENNA FOR 6-10-11 METER BANDS



RB-6309

A high-gain directive Antenna with many distinctive features and high degree of flexibility for use on 6, 10 or 11 meter bands. Aluminum supporting frame. Seamless duraluminum tubing elements readily adjustable in length for operation at optimum efficiency in any band listed. Light in weight with slight wind resistance.

RB-6309 Kit includes frame, 3 pr. Elements with necessary insulators and hardware including T-match accessories but no transmission line. Weight 30 pounds.

309-A Extra Elements only, no frames, insulators or hardware included. Packed in pairs. Weight 2 lbs. per pair.

HAND-OPERATED TURNTABLE

Will support the largest type of Rotary Beam Assembly and permits rotation for full 360° in either direction. Formed of heavy sheet steel, spot welded. Steel angles spot-welded inside housing for additional strength. Platform or turntable is 10" x 12" formed of extra heavy sheet steel, is supported by 7" ball thrust bearing. Main shaft supported by two bearings to prevent side-play. 5/8" opening through center shaft for lead-in wires. Duraluminum control cable pulleys and 6' galvanized flexible steel cable. Shipping weight 17 pounds.



BM-46

PREMAX PRODUCTS, DIVISION OF CHISHOLM-RYDER COMPANY, INC., NIAGARA FALLS, N. Y.

CENTER-LOADED TUBULAR TELESCOPING MARINE ANTENNA

Gives a remarkable gain over the signal produced by a base-loaded type of same overall length. At high-frequency end of its 2000 to 3000 kc range it gives a measured effective signal power of 6 decibels when compared with a base-loaded antenna of similar length. This is equivalent to that produced by quadrupling the transmitter power output. For example, with this new Antenna, a 10w transmitter will produce a signal equal to that of a 40w transmitter using a base-loaded antenna and tuning system.

The base of this Antenna presents such a low impedance that less loss is experienced with leaky base insulators due to icing, wet weather or water spray. The line feeding the base is a low impedance line and is not critical as to length and body-capacity effects as is the case of the base-loaded antenna where the loading coil is housed in the transmitter cabinet.

The Antenna consists of two telescoping, adjustable base sections on which the loading coil is mounted, with a tapered top whip section. Each tubular section and the top whip is approximately 6 1/2' long, providing a total extended length of about 19'. The base sections collapse to a single unit and the top whip section telescopes through the coil into the lower sections, making a collapsed length of only about 7 1/2'.

Available in monel for salt-water installations or in aluminum for fresh water use.

CLM-519—Monel type

Base O.D. .893" I.D. .799"

CLA-619—Aluminum type

Base O.D. 1.000" I.D. .834"

Solid Stainless Steel Tapered Antennas

Recommended for use where extreme durability and great corrosion resistance are necessary. One-piece solid hard-drawn stainless steel rod, tapered from 1/4" base to 1/8" top. A tough, durable Antenna that will take it. Available in three standard lengths, to fit all standard mountings shown on page S-48.

No. SP-472—Stainless Steel Tapered Antenna, 72" long.

No. SP-484—Stainless Steel Tapered Antenna, 84" long.

No. SP-496—Stainless Steel Tapered Antenna, 96" long.

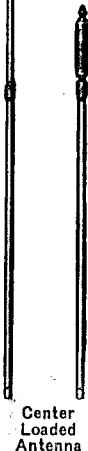
(For Mountings See Page S-48)

Solid Steel "Whip Type" Graduated Diameter Antennas

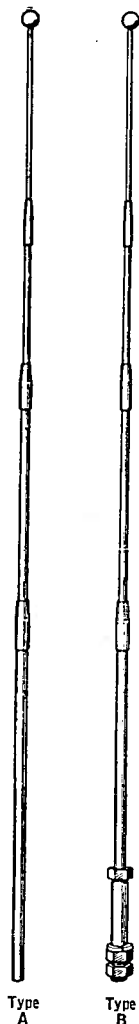
Made of solid steel of extremely high carbon content, heat-treated and oil-tempered to carefully develop physical properties. Rods of varying diameters cold-drawn to rigidly-held tolerances, are joined securely and permanently into a single graduated length Antenna of high flexibility, minimum wind resistance and long life. Available in cadmium-plated with plain 1/4" end (Style A) or 1/8" threaded stud end complete with hexagon nuts and lock washers (Style B). Also available in stainless steel.

CADMIUM-PLATED STEEL			STAINLESS STEEL		
Length	Style A	Style B	Length	Style A	Style B
72"	AC-172	BC-172	72"	AS-172	BS-172
78"	AC-178	BC-178	78"	AS-178	BS-178
84"	AC-184	BC-184	84"	AS-184	BS-184
90"	AC-190	BC-190	90"	AS-190	BS-190
96"	AC-196	BC-196	96"	AS-196	BS-196

(Mountings for Mobile and Police Antennas Shown on Page S-48)



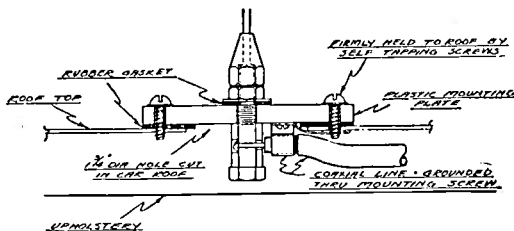
Center Loaded Antenna



Type A

Type B

160 Mc. Roof Antenna—1 Man Mount



The most improved, easiest to install Roof Antenna made! One man makes the installation without cutting or ripping car upholstery. Single hole 1 3/4" diameter in metal roof is all that is necessary.

Mounting grounds coaxial sheathing of lead-in line. Rubber gasket insures against leakage. Transparent plastic insulator makes inspection easy. The antenna is stainless steel wire, 18" long with ball-tip and threaded fitting. Suitable for all frequencies in the 152 to 162 megacycle band.

No. DSH-118—Complete Assembly, less transmission line.

No. DS-118—Antenna only.

No. DSJ-118—Antenna with one-hole mounting and porcelain insulator. (Not illustrated.)

Motorcycle Antennas and Mounts

Overcomes weaknesses and defects commonly found in other types! In this Premax, the coaxial line is grounded to same portion of mounting bracket that carries the antenna support itself. Hence no flexing of cable between ground and antenna connection.

A spring-tension joint permits entire antenna including insulator support and grounded cable to be deflected 90° without injury. Spring tension is sufficient to prevent accidental deflection.

Cadmium-plated steel bracket fits 3/4" tubing frame in either vertical or horizontal position as shown at right.

Antenna is high-carbon, heat-treated tempered steel 34" long mounted in high-strength porcelain cone insulator. Antenna may be changed without disturbing insulator assembly.

No. CCY-134—Complete Assembly, Antenna and Mounting, less cable.

No. CC-134—Antenna only with Adaptor.

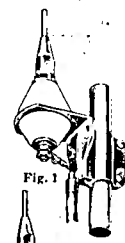


Fig. 1

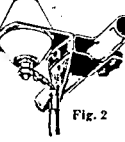


Fig. 2



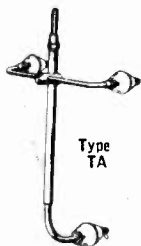
TYPE NA Insulated Bumper Mounting. Plates heavily cadmium-plated steel; insulation white glazed ceramic cones. Fits Style A or 1/4" antenna.



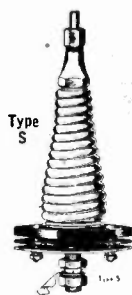
TYPE K Insulated Bumper Mounting. Antenna rod fits into section of heavy brass tubing attached to the insulator and permits 10" adjustment in height of antenna. Nut and compression sleeve lock antenna in place. Fits Style A or 1/4" antenna. White glazed ceramic insulator.



TYPE R Insulated Universal Mounting of split-ball type. Solid cast bronze, which bolts directly to car panel or other surface thru heavy plastic disc insulation with waterproof gasket and steel backplate. Baked black enamel finish. Fits Style A or any 1/4" antenna.



TYPE TA Trunk or Panel Mounting. for Premax Style A or any 1/4" Antenna. Fastens to car body or trunk or to any horizontal surface such as roof. Lower support is solid brass rod joined to 12" brass tube carrying antenna. Upper support is 24" brass rod adjustable on antenna tube and also in insulator assemblies to fit contour of car. High-tension white-glazed ceramic cone insulators. Maximum 10" antenna adjustment. All metal parts heavily cadmium plated.



TYPE S Insulated Roof Mounting for auto or any flat surface. Special plastic insulation disc carrying heavy tempered steel spring with retaining nut and tapered split bushing to fit Premax Style A or any 1/4" antenna. Overall height about 5"; diameter of base about 3". Fittings are solid brass electroplated.



TYPE SA Spring Adaptor Mounting, similar to Type S described above except that a base plug is provided with an adaptor stud to fit any Premax Mounting shown in this column. Fits Premax Type A or any 1/4" Antenna. Overall height about 4 3/4"; base diameter about 1 3/8".



Type 1 Base Insulator; heavy-duty with compression rating up to 10,000 lbs. Galvanized malleable iron or bronze. Available in three styles:

Type 1 RIGID POST TYPES (illustrated)

Galv. No.	Bronze No.	Dia. Post	Top Post	Fits Antennas Nos.
1PG-24	1PB-24	3/8"	3/8"	318-M
1PG-25	1PB-25	1/2"	1/2"	MM-825
1PG-26	1PB-26	5/8"	5/8"	AL-324
1PG-30	1PB-30	1 1/8"	1 1/8"	MM-430, MM-435
1PG-34	1PB-34	1 1/8"	1 1/8"	AL-530
1PG-35	1PB-35	1 1/8"	1 1/8"	MM-635
1PG-41		1 1/8"	1 1/8"	AL-535
1PG-44		1 1/8"	1 1/8"	136-M
1PG-55		1 3/8"	1 3/8"	AM-035

HINGED POST TYPES

Galv. No.	Bronze No.	Dia. Post	Top Post	Fits Antennas Nos.
1HG-25	1HB-25	3/8"	3/8"	MM-825
1HG-26	1HB-26	1/2"	1/2"	AL-324
1HG-30	1HB-30	5/8"	5/8"	MM-430, MM-435
1HG-34	1HB-34	1 1/8"	1 1/8"	AL-530
1HG-35	1HB-35	1 1/8"	1 1/8"	MM-635
1HG-41		1 1/8"	1 1/8"	AL-535
1HG-44		1 1/8"	1 1/8"	
1HG-55		1 3/8"	1 3/8"	

*Can be used with adaptors to fit all other sizes of masts.

TYPE 1X—SOCKET TOP

No.	Material	Top tapped standard
No. 1-XG	Galvanized	3/4" 16-thread
No. 1-XB	Bronze	3/4" 16-thread



Type 2 Base Insulator; light design for masts up to 18' or higher if guyed or supported by standoff insulators. 3/4" top post but with use of adaptors will fit other size masts. Brown-glazed porcelain with galvanized malleable iron top post and base support cemented into insulator.



Deck Bushing of brown glazed porcelain with galvanized malleable flange which bolts thru rubber gasket to roof or deck.

Bushing No.	I.D.	Total Length	Above Deck	Flange Diameter
5D-24	3/4"	6"	3"	4"
5D-40	1 1/4"	8"	4 1/4"	4 1/2"
5D-56	1 3/4"	8 1/2"	4 1/2"	5 3/8"



Type 6 Base Insulator for tower platform, rooftops or Marine. Lead-thru construction permits antenna connections below roof or deck. Flanges 6" diameter with stud and bolts for 1/2" to 3" deck. In galvanized malleable iron or bronze.

Type 6

Galv. No.	Bronze No.	Dia. Post	Top Post	Fits Antennas Nos.
6PG-24	6PB-24	3/4"	3/4"	318-M
6PG-25	6PB-25	1/2"	1/2"	MM-825
6PG-26	6PB-26	5/8"	5/8"	AL-324
6PG-30	6PB-30	1 1/8"	1 1/8"	MM-430, MM-435
6PG-34	6PB-34	1 1/8"	1 1/8"	AL-530
6PG-35	6PB-35	1 1/8"	1 1/8"	MM-635
6PG-41	6PB-41	1 1/8"	1 1/8"	AL-535
6PG-44	6PB-44	1 3/8"	1 3/8"	136-M



Wall Bracket of heavy formed steel for mounting vertical antennas on side walls, parapets, etc. Drilled to fit Premax Type 1 and 2 Base Insulators. Baked black enamel finish. No. WB-1.



Type 10-S Standoff Insulator, heavy-duty type. Chrome-plated bronze base and head-caps, porcelain insulator. Has solid clamp or hinged clamp for use with hinged-base insulator.

Solid Clamp No.	Hinged Clamp No.	Fits Tube O.D.	Height to Center
10S-2832	10SH-2832	7/8" to 1"	about 4 1/2"
10S-3236	10SH-3236	1" to 1 1/8"	about 4 1/2"
10S-3642	10SH-3642	1 1/8" to 1 3/8"	about 4 1/2"



Type 3 Standoff Insulator for supporting verticals or for use in pairs as complete antenna or element mounting. Galvanized iron or bronze with porcelain body, 3" in diameter.

Type 3

Galv. No.	Bronze No.	Fits Tube O.D.
3SG-16	3SB-16	1/2"
3SG-20	3SB-20	3/4"
3SG-24	3SB-24	7/8"
3SG-28	3SB-28	1"
3SG-32	3SB-32	1 1/8"
3SG-34	3SB-34	1 1/8"
3SG-40	3SB-40	1 3/8"
3SG-42	3SB-42	1 3/8"
3SG-48	3SB-48	1 3/8"
3SG-52	3SB-52	1 5/8"

Type 4 Standoff Insulator is similar to Type 3 excepting it is provided with two ringed clamps instead of the bottom plate. In galvanized iron or bronze in same sizes as the No. 3.



Type 7 Standoff Insulator is a low-priced substantial mounting with wide application. Galvanized malleable frame enclosing white split porcelain bushing. Height 6".

No.	Fits Tube O.D.
7S-20	5/8"
7S-24	3/4"
7S-28	7/8"
7S-32	1"



Type 8-C Insulated Mounting Clamp for horizontal arrays, verticals, etc. Galvanized iron frame with white split porcelain bushing. Width 3 1/2".

Type 8-C

No.	Fits Tube O.D.
8C-20	5/8"
8C-24	3/4"
8C-28	7/8"
8C-32	1"



Type 9C Insulated Mounting Clamp for horizontal elements, verticals, etc. Gray iron galvanized frame with white porcelain split bushing. Height to center 2".

Type 9-C

No.	Fits Tube O.D.
9C-20	5/8"
9C-24	3/4"
9C-28	7/8"
9C-32	1"



Type 10-C Insulated Mounting Clamp. Stamped steel electroplated frame, white porcelain split bushing; light-weight. 2" to center.

Type 10-C

No.	Fits Tube O.D.
10C-20	5/8"
10C-24	3/4"
10C-28	7/8"
10C-32	1"

WARD



ANTENNAS For FM and Television

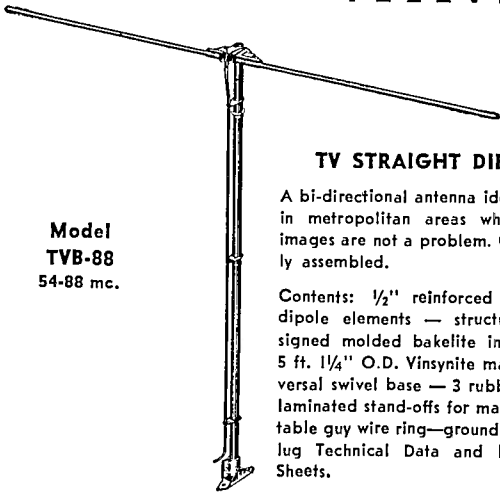
MINUTE MAN SERIES

Can be assembled by 1 Man in 1 Minute!
A magnificent new series of antennas designed and developed in the Ward antenna laboratory.

- Maximum electrical efficiency for all channel coverage.
- Mechanical design that assures permanent and trouble-free installations.

- Vinsynite mast for strength, durability and maximum protection against corrosion.
- Rotatable guy ring for orientation of antenna after guying.
- Nylon insulators on high band antennas.

TELEVISION MODELS



Model TVB-88
54-88 mc.

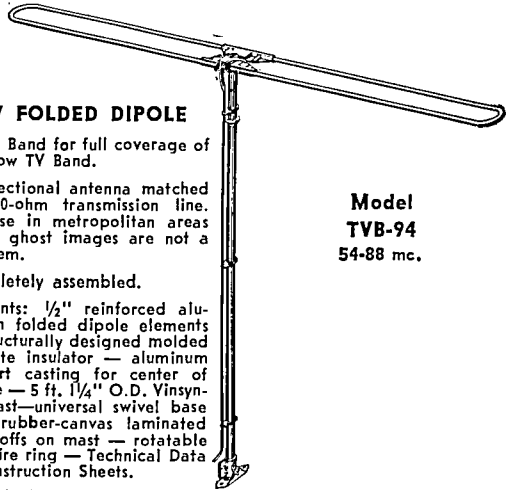
TV STRAIGHT DIPOLE

A bi-directional antenna ideal for use in metropolitan areas where ghost images are not a problem. Completely assembled.

Contents: 1/2" reinforced aluminum dipole elements — structurally designed molded bakelite insulator — 5 ft. 1 1/4" O.D. Vinsynite mast — universal swivel base — 3 rubber-canvas laminated stand-offs for mast — rotatable guy wire ring — grounding solder lug
Technical Data and Instruction Sheets.

Individually packed: six to a master carton.
Approximate individual shipping weight: 4 lbs. 12 oz.

List Price.....\$7.50



Model TVB-94
54-88 mc.

TV FOLDED DIPOLE

Broad Band for full coverage of the Low TV Band.

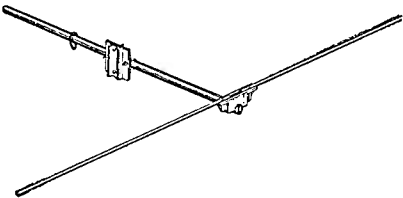
Bi-directional antenna matched to 300-ohm transmission line. For use in metropolitan areas where ghost images are not a problem.

Completely assembled.

Contents: 1/2" reinforced aluminum folded dipole elements — structurally designed molded bakelite insulator — aluminum support casting for center of dipole — 5 ft. 1 1/4" O.D. Vinsynite mast — universal swivel base — 3 rubber-canvas laminated stand-offs on mast — rotatable guy wire ring — Technical Data and Instruction Sheets.

Individually packed: six to a master carton.
Approximate individual shipping weight: 5 lbs. 6 oz.

List Price.....\$8.75



TV REFLECTOR KIT

For use with Straight or Folded Dipoles.

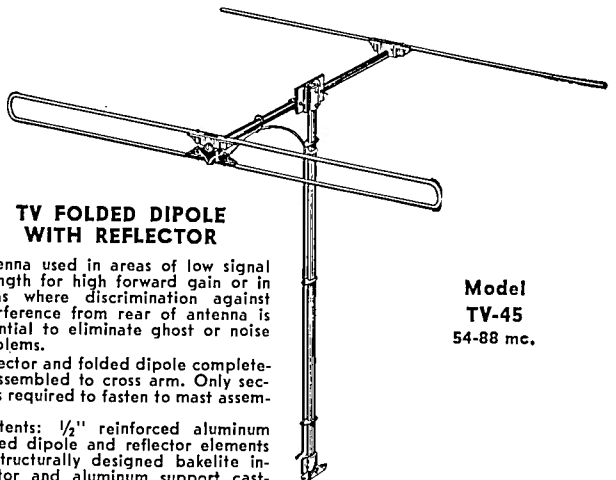
Used to give additional forward gain, to eliminate ghosts and to discriminate against interference from the back side of the antenna.

Contents: 1/2" reinforced aluminum elements — aluminum element support casting for center of dipole — 1 1/4" O.D. Vinsynite cross arm — aluminum bracket for attaching cross arm to mast — rubber-canvas laminated stand-offs — Technical Data and Instruction Sheets.

Individually packed: six to a master carton.
Approximate individual shipping weight: 4 lbs. 2 oz.

List Price.....\$6.95

Model TVRA-92
54-88 mc.



Model TV-45
54-88 mc.

TV FOLDED DIPOLE WITH REFLECTOR

Antenna used in areas of low signal strength for high forward gain or in areas where discrimination against interference from rear of antenna is essential to eliminate ghost or noise problems.

Reflector and folded dipole completely assembled to cross arm. Only seconds required to fasten to mast assembly.

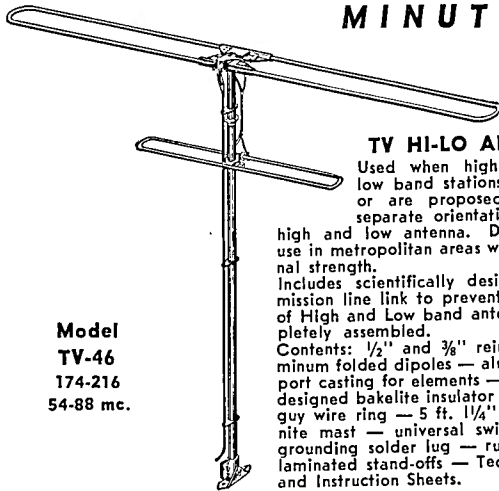
Contents: 1/2" reinforced aluminum folded dipole and reflector elements — structurally designed bakelite insulator and aluminum support castings for elements — aluminum brackets for attaching cross arm to mast — 5 ft. 1 1/4" O.D. Vinsynite metal mast — universal swivel base — rotatable guy wire ring — rubber-canvas laminated stand-offs — grounding solder lug — Technical Data and Instruction Sheets.

Individually packed: six to a master carton.
Approximate individual shipping weight: 8 lbs. 9 oz.

List Price.....\$15.40

WARD Magic Wand Television Antennas

MINUTE MAN SERIES

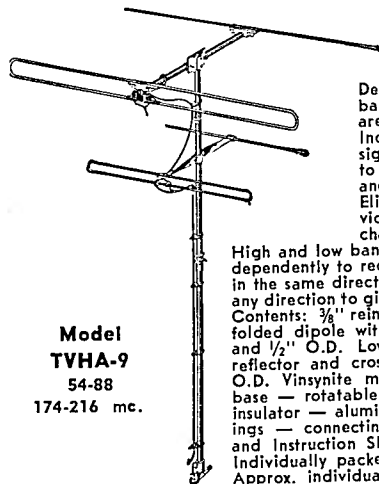


TV HI-LO ANTENNA

Used when high band and low band stations are on air or are proposed. Provides separate orientation on both high and low antenna. Designed for use in metropolitan areas with high signal strength. Includes scientifically designed transmission line link to prevent interaction of High and Low band antennas. Completely assembled. Contents: $\frac{1}{2}$ " and $\frac{3}{8}$ " reinforced aluminum folded dipoles — aluminum support casting for elements — structurally designed bakelite insulator — rotatable guy wire ring — 5 ft. $1\frac{1}{4}$ " O.D. Vinsynite mast — universal swivel base — grounding solder lug — rubber-canvas laminated stand-offs — Technical Data and Instruction Sheets.

Model
TV-46
174-216
54-88 mc.

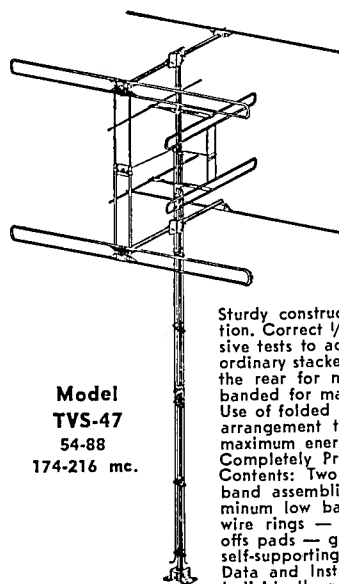
Individually packed: six to a master carton.
Approximate individual shipping weight: 5 lbs. 14 oz.
List Price.....\$11.00



ALL CHANNEL ANTENNA

Designed for use when high band and low band stations are on air or are proposed. Includes scientifically designed transmission line link to prevent interaction of high and low antennas. Eliminates necessity for individual antennas cut for each channel. High and low band bays can be oriented independently to receive stations which are not in the same direction. Each bay adjustable in any direction to give maximum desired signal. Contents: $\frac{3}{8}$ " reinforced aluminum high band folded dipole with reflector and cross arms and $\frac{1}{2}$ " O.D. Low band folded dipole with reflector and cross arms — two 5 ft. $1\frac{1}{4}$ " O.D. Vinsynite mast — universal mounting base — rotatable guy wire ring — bakelite insulator — aluminum element support castings — connecting links — Technical Data and Instruction Sheets. Individually packed: six to a master carton. Approx. individual shipping weight: 12 lbs. List Price.....\$21.00

Model
TVHA-9
54-88
174-216 mc.

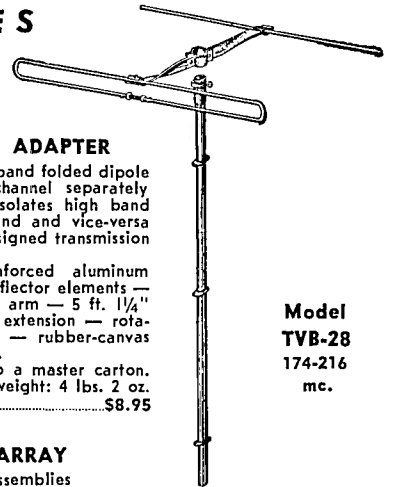


ALL CHANNEL STACKED ARRAY

Combination Low Band stacked folded dipoles and reflectors and High Band stacked folded dipoles and reflectors for complete all channel coverage. Specifically designed for areas on the fringe of both high and low band stations. Half wave bay spacing with phasing link scientifically determined for maximum gain on entire band. Ingenious design allows High Band section to be oriented independently of Low Band section. Sturdy construction insures permanent installation. Correct $\frac{1}{2}$ wave spacing proven by extensive tests to achieve greater forward gain than ordinary stacked arrays. Eliminates signals from the rear for maximum ghost rejection. Broad banded for maximum pick up on all channels. Use of folded dipoles in scientifically designed arrangement to provide broad response and maximum energy transfer. Completely Pre-Assembled. Contents: Two $\frac{3}{8}$ " reinforced aluminum high band assemblies and two $\frac{1}{2}$ " reinforced aluminum low band assemblies — rotatable guy wire rings — rubber-canvas laminated stand-offs pads — grounding solder lug — all angle self-supporting mounting base — Technical Data and Instruction Sheets. Individually packed: six to a master carton. Approximate individual shipping weight: 21 lbs. 12 oz. List Price.....\$49.50

Model
TVS-47
54-88
174-216 mc.

Approximate individual shipping weight: 21 lbs. 12 oz.
List Price.....\$49.50



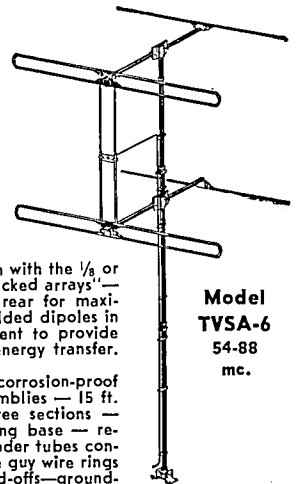
HIGH BAND ADAPTER

Used to convert low band folded dipole to dual band all channel separately orienting antenna. Isolates high band section from low band and vice-versa with scientifically designed transmission line link. Contents: $\frac{3}{8}$ " reinforced aluminum folded dipole and reflector elements — sturdy reflector cross arm — 5 ft. $1\frac{1}{4}$ " O.D. Vinsynite mast extension — rotatable guy wire ring — rubber-canvas laminated stand-offs. Individ. packed: six to a master carton. App. ind. shipping weight: 4 lbs. 2 oz. List Price.....\$8.95

Model
TVB-28
174-216
mc.

TV STACKED ARRAY

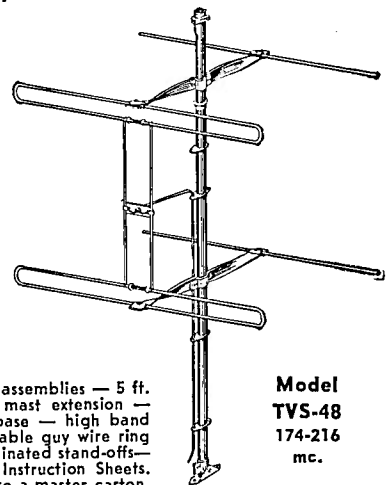
Two Low Band assemblies stacked one above the other to produce the extra forward gain needed for good TV reception in remote installations and poor signal locations. Half wave bay spacing with phasing link scientifically determined for maximum gain on entire band. Broad Banded to give full coverage on channels 2 through 6. Sturdy design and extra-strong construction assures permanently secure mounting in any weather — correct $\frac{1}{2}$ wave spacing proven by extensive tests to achieve greater forward gain, much more than with the $\frac{1}{8}$ or $\frac{1}{4}$ wave spacing of ordinary "stacked arrays" — elimination of signals from the rear for maximum ghost rejection — use of folded dipoles in scientifically designed arrangement to provide broad response and maximum energy transfer. Completely Pre-Assembled. Contents: Two $\frac{1}{2}$ " reinforced corrosion-proof folded dipole and reflector assemblies — 15 ft. $1\frac{1}{4}$ " O.D. Vinsynite mast in three sections — all angle self-supporting mounting base — reinforced aluminum telescopic feeder tubes connecting the two bays — rotatable guy wire rings — rubber-canvas laminated stand-offs — grounding solder lug — Technical Data and Instruction Sheets. Individually packed: six to a master carton. Approximate individual shipping weight: 20 lbs. 4 oz. List Price.....\$42.50



Model
TVSA-6
54-88
mc.

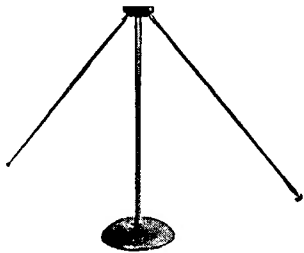
TV HIGH BAND STACKED ARRAY

High Band Stacked folded dipole. Can be used as a stacked high band antenna by itself or as adapter to convert low band stacked array to all channel stacked array. Half wave bay spacing with phasing link scientifically determined for maximum gain on entire band. Superb antenna for use in fringe areas having high band stations. Contents: Two $\frac{3}{8}$ " reinforced aluminum high band folded dipole and reflector assemblies — 5 ft. $1\frac{1}{4}$ " O.D. Vinsynite mast extension — universal mounting base — high band phasing link — rotatable guy wire ring — rubber-canvas laminated stand-offs — Technical Data and Instruction Sheets. Individ. packed: six to a master carton. Approximate individual shipping weight: 5 lbs. 2 oz. List Price.....\$13.50



Model
TVS-48
174-216
mc.

WARD Magic Wand INDOOR TV ANTENNAS

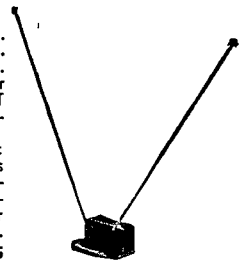


MODEL TVI-43

The TVI-43 is the finest indoor antenna modern skill and technology can produce — far superior by any standard than anything else on the market. Brings in all channels precisely and brilliantly. Beautifully designed in satin beige brown finish — blends perfectly with the most exacting interior.
 Contents: 2½ ft. metal mast — heavy base. Two 45" telescopic tuneable elements of chrome-plated brass tubing — 12 ft. colinear transmission line, Instruction sheet. Individually packed: six to a master carton. Approx. individual shipping weight: 9 lbs.
 List Price.....\$17.95

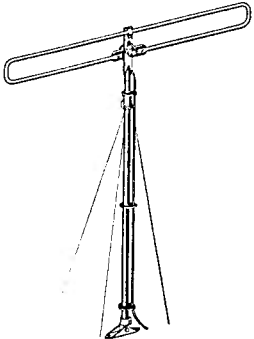
MODEL TVI-49

Excellent reception on all channels. Top quality electric insulation. Orients easily in all directions. Heavy base with large surface for mechanical stability. WILL NOT TIP OVER. Telescopic dipole elements.
 Contents: Ebony black ceramic base — Two 43" tuneable elements of chrome-plated brass tubing — Stainless steel rod allows no corrosion. Ind. packed: six to a master carton. App. in. shipping wt.: 5 lbs.
 List Price.....\$6.95



WARD Magic Wand FM ANTENNAS

FM MODELS

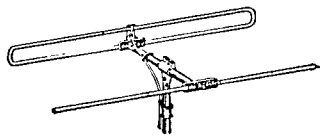
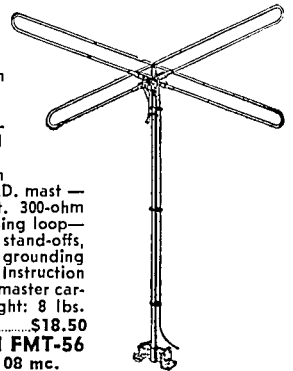


FM FOLDED DIPOLE

Bi-directional.
 Matched impedance to 300-ohm line for broad tuning, high signal gain over entire 88-106 mc. band.
 Adjustable mounting design for greater ease of orienting.
 Pre-assembly into component parts for quick installation.
 Contents: Dipole element of ¾" reinforced aluminum — molded bakelite insulator — 5 ft. 1" O.D. mast and guy wire ring — universal mounting base — conduit clamp—grounding solder lug— Technical Data and Instruction Sheets. Ind. packed: twelve to a master carton. Approx. indiv. shipping weight: 5 lbs.
 List Price.....\$10.95
Model FM-55 88-108 mc.

FM FOLDED TURNSTILE

Exceptional high signal gain from All DIRECTIONS.
 Does not require orienting.
 Packed complete, partially Pre-Assembled components for quick and simple installation.
 Contents: ¾" reinforced aluminum folded dipole elements — 5 ft. 1" O.D. mast — molded bakelite insulators — 60 ft. 300-ohm colinear line and ¼ wave length phasing loop— rubber stand-off pads — 6 plastic stand-offs, guy wire ring and conduit clamp — grounding solder lug— Technical Data and Instruction Sheets. Individually packed: six to a master carton. Approx. indiv. shipping weight: 8 lbs.
 List Price.....\$18.50
Model FMT-56 88-108 mc.



FM REFLECTOR KIT — Model FMR-63 88-108 mc.

Combines quickly and easily to make high gain directional array with Model FM-55. Increases gain and eliminates reflections. Most effective when transmitting stations are in same general direction. Maximum energy transfer of signal from antenna to set as result of accurately determined spacing and correct reflector length. — Contents: ¾" reinforced aluminum reflector element—weather-proofed metal cross arm and brackets plus mounting hardware—Technical Data and Instruction Sheets.
 Ind. packed: six to a master carton. Approx. indiv. shipping weight: 3 lbs.
 ← Reflector for use with Folded Dipole
 List Price.....\$5.25

TELEVISION AND FM ACCESSORIES



MAST EXTENSION

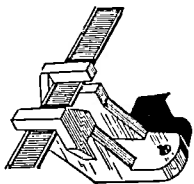
Model MEA-60 — For use with Television Models

Five-Foot Vinsynite mast extension to increase height of vertical mast and raise antenna into area of greater signal strength. Should be used also to comply with local codes in keeping antenna above required height. — Contents: 5 ft. 1¼" O.D. Vinsynite mast—weather-proofed inside and out—guy wire ring— rubber-canvassed laminated stand-offs. — Individually packed: six to a master carton. — Approx. shipping weight: 16 lbs. 4 oz.
 List Price.....\$3.25

MODEL ME-60 MAST EXTENSION FOR USE WITH FM MODELS

5 ft. 1" O.D. Mast Extension weather-proofed inside and out — rubber stand-off pads — guy wire ring — Packed: six to a master carton — Approximate shipping weight: 12½ lbs.
 List Price.....\$2.60

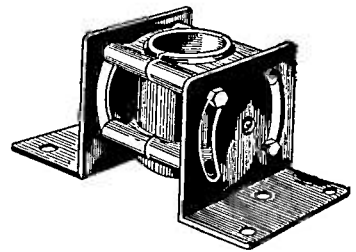
PLASTIC STAND-OFFS
Model SO-144



Unique design holds transmission line completely captive yet cannot pinch line to change impedance. Made of polystyrene to insure minimum loss. Stand-offs are sold in quantities of 144 and shipped in attractive counter display container to increase counter sales. Individ. packed: 144 to a carton. Approx. shipping weight: 2 lbs.
 List Price.....\$14.40

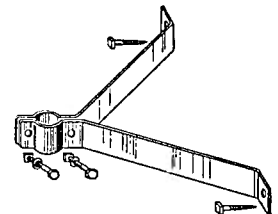
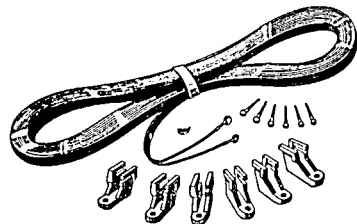
SELF-SUPPORTING BASE
Model C-14

New, heavy, weather-proofed metal base for sturdy installation on any angle. The self-supporting base eliminates the need for guy wire on most installations. Accommodates 1¼" O.D. Mast.
 Ind. packed: six to a master carton. App. ind. shipping wt.: 1 lb. 7 oz.
 List Price.....\$2.45
Model C-11:
 For use with 1" O.D. Mast.
 List Price.....\$0.00
 Ind. boxed. — App. ind. shipping weight: 1 lb. 7 oz.



LEAD AND INSULATOR KIT

Model C-15
 Contains 60 ft. 300-ohm line with terminals — 6 plastic stand-off insulators — 6 wood screws. Individually packed: six to a master carton. Approximate individual shipping weight: 14 oz.
 List Price.....\$3.00

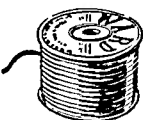


MAST STAND-OFF BRACKET KIT

Two pairs of heavy, cadmium-plated steel stand-off brackets, for 1¼" O.D., to extend mast from side of house or parapet for clearance of 7" or larger size for clearance of 14". Complete with all necessary mounting hardware.
Model C-16 — For 7" clearance.....List Price, \$3.25
 Individually packed: 6 kits to a master carton.
Model C-17 — For 14" clearance.....List Price \$4.25
 Individually packed: 6 kits to a master carton.

COLINEAR TRANSMISSION LINE

Parallel line of 300-ohm impedance insulated with polyethylene for highest quality FM and TV reception. For easy installation, line comes on handy reel.
List Price, \$39.00 1,000 ft.....Model WR-1000
 Approximate individual shipping weight: 18 lbs.
Model WR-500 500 ft.....List Price, \$19.50
 Approximate individual shipping weight: 10 lbs.





by WARD

BUILT FOR RIGOROUS SERVICE

UNIVERSAL SWIVEL MOUNTS

Antennas built for the hardest mobile use. Separate components may be combined to meet any requirements. These rear-mounting Transmitting Antennas are designed for the 25-45 mc. services. Base mounts in such a way as to allow the whip rod to be held vertically regardless of contour of vehicle body.

← SPP-3B

SINGLE ROD

Special Alloy Whip Rod of maximum resilience and durability. 84" Single rod for use in the range of 30 to 45 mc. Non-Corroding, stainless steel tapered for proper stress distribution. Base Adapter threaded 3/8-24 to permit mounting on SPP-3 Base or SPP-3A Spring.

Individually packed. Approx. weight: 2 lbs.
List Price.....\$11.50

SPP-12 →

ADJUSTABLE 2-SECTION ROD

Adjustable Rod. Telescopes from 85" to 103" and is equipped with a locking device that permits removal of the whip rod and replacement at the exact previous length. Heavy wall, hard drawn brass tubing — threaded 3/8-24 to fit either SPP-3 Base or SPP-3A Spring. See SPP-3B for Rod description.

Ind. packed. Approx. weight: 2 lbs. 10 oz.
List Price.....\$22.50

SPP-3

SWIVEL BASE

Swivel base for mounting at any desired point. Half balls of cast aluminum tapped 3/8-24 to accept whip rods and shock springs. Insulator of black bakelite — rubber gaskets — steel back-up plate. All screws are Allen Head type with wrenches supplied.

Individually packed. Approx. weight: 3 lbs. 4 oz.
List Price.....\$13.25



SPP-3A

SHOCK MOUNTING SPRING

This sturdy spring is used to lessen damage to the whip rod. A flexible lead through the center of the spring maintains constant electrical impedance through the spring assembly. 3/8-24 stud on one end — 1/2-24 tapped hole on opposite end — approximately 6" in height — made of oil tempered wire.

Individually packed. Approx. weight: 2 lbs. 12 oz.
List Price.....\$7.90



FENDER MOUNTS

Disappearing type antenna — For Transmitting and Receiving — Designed for rigorous service of Emergency Communications. Non-telescopic construction exactly duplicates standard automotive models in appearance — gives perfect disguise for detective or patrol service. Antenna mounts in fender or cowl — removable whip for quick service or installation.



55" permanent whip eliminates contact troubles . . . Lead take-off accepts standard AN connector. For low or high band services. Used as short 1/4 wave vertical for 25-44 mc. service . . . "J" for 152-162 mc. service. The universal split ball design insures a perfect fit as well as that neat built-in appearance and easy installation.
Lead not included.

Model SPP-71

Individually packed.
Approximate weight: 1 lb. 12 oz.
List Price.....\$22.50



MOTORCYCLE MOUNTS

These Antennas are designed for use on motorcycles and are built to withstand the rugged service and high vibration of vehicle. Rod is electrically short but can be used on all frequencies. 40" rod of same material as SPP-3B — 1/4-20 mounting stud in insulator for mounting to motorcycle. Flexible base of rubber to allow movement when rod is bent — Model SPP-6 with safety ring tip — Model SPP-6A with stainless steel ball tip — no lead supplied. Individually packed. Approx. weight: 1 lb.

Model SPP-6 Ring Tip (Illustrated)..... List, \$9.25
Model SPP-6A Ball Tip (Not Shown)..... List, \$9.25

ROOF TOP MOUNT

Developed for roof top mountings in 30 to 45 Megacycle range. Advantages of this type of antenna is that directional effects caused by car body shielding of antenna are avoided. Base is designed to be used with the SPP-3B rod which is sold separately. This unit consists of all components of Universal Swivel Mounts except that half-balls are replaced by SPP-3A Spring fastened permanently to insulator. No lead supplied.

Individually packed. Approximate weight: 3 lbs.
Model SPP-26 Base..... List, \$16.50

ROOF TOP ANTENNA →

This model is designed for taxicabs, police services, and others using the 140 to 165 Megacycles frequencies. Installed entirely from the outside of vehicle — 12 ft. length of RG-58/U coaxial cable attached permanently to antenna. Whip rod is replaceable.

Individually packed. Approximate weight: 1 lb.
Model SPP-18..... List, \$6.60



WARD AERIALS

World's Finest FOR CAR AND HOME

Offer
You

- ✓ SIMPLIFIED ONE-MAN INSTALLATION.
- ✓ UNIVERSAL DESIGNS TO FIT EVERY CAR.
- ✓ RUGGED, LASTING CONSTRUCTION with —
 - Heavy wall brass tubing
 - Weather-resistant triple chrome

- ✓ GREATEST SIGNAL PICKUP with —
 - High "Q" low-loss lead cables
 - Positive coaxial connections
 - 100% shielding
- ✓ PATENTED FLUID TYPE ANTI-RATTLE.
- ✓ HEAVY CARTONS READY FOR RESHIPMENT.

SIDE COWL MOUNTS

Two stanchions for sturdy installation. Smartly designed insulators with chrome caps. Conversion kit for torpedo bodies included.

LONG RANGER

Four-section, 100-inch, EZ-on installation. A favorite in low Signal areas where its extra length provides fine reception.

Individually packed: 12 to a master carton.
Approximate individual shipping weight: 1 lb. 11 oz.
Model SC-8.....List Price, \$6.95

AIR KING

Three-section, 66-inch, EZ-on installation.
Individually packed: 12 to a master carton.
Approximate individual shipping weight: 1 lb. 4 oz.
Model SC-6.....List Price, \$4.95



SIDE COWL OR FENDER FLEX-ANGLE

Three-section, 68-inch, EZ-on installation.

Individually packed: 12 to a master carton.
Approx. individual shipping weight: 1 lb. 8 oz.
Model CF-6.....List Price, \$5.45

Tops in popularity because of trim styling and a flexible adjustment so rod can be locked in a vertical position, regardless of body contour. Ideal design for new body styles.



TOP COWL OR FENDER "8-BALL"

Featuring the
SPLIT BALL DESIGN



Three-section, 56-inch, collapses to 22 inches.
Individually packed: 12 to a master carton.
Approximate individual shipping weight: 1 lb.
Model TCF-3.....List Price, \$5.35

Smart looking "8-Ball" design developed and engineered by WARD is the answer to every installer's dream. One man installs in five minutes! Secure installation! Perfect fit on every car!



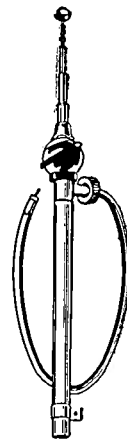
DISAPPEARING COWL OR FENDER IMPERIAL

Four-section, 100-inch, 8-9/16" exposed when collapsed.
Individ. packed: 12 to a master carton.
App. ind. shipping weight: 1 lb. 10 oz.
Model DCF-4.....List Price, \$10.95

A disappearing antenna — 100% shielded from engine noises and completely water-sealed. Unique split-ball design plus popular disappearing feature gives that smart built-in appearance. Universal bracket for sturdy mounting. Ward 36" coaxial lead cable.

PHANTOM

Three-section, 56-inch, 3 1/2" exposed when collapsed.
Ward 36" coaxial lead cable.
Individ. packed: 12 to a master carton.
Approx. ind. shipping weight: 1 lb.
Model DCF-3.....List Price \$6.95



EACH MODEL COMPLETE WITH A WARD COAXIAL LEAD CABLE



Made of the finest insulating materials — Polyethylene, wire shield braid, oil and abrasion-proof vinylite.

WARD's exclusive lead connector fitting provides an easy coaxial connection, 100% shielded. Bayonet adapter for pin plug included so lead will fit every car radio.



Model C-8 (12 in.) List, \$0.75
Model C-9 (18 in.) List, \$1.00
Provides additional lead length required for fender installation.

Covered by one or more of the following Patent Numbers: 104968, 119160, 2152316, 2251889, 2252671, 2269947, 2366634.

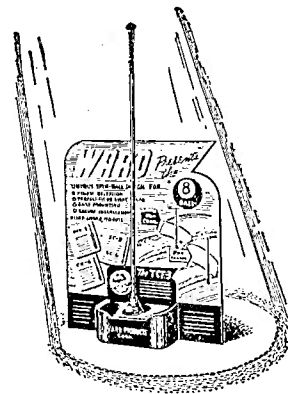
SPOT LITE WARD AUTO AERIALS

WITH THIS NEW ATTRACTIVE
3-COLOR DISPLAY —
FREE!

Featuring the "8-Ball" TCF-3 aerial and beautifully designed in 3 colors — yellow, orange and black. This display will catch the eye of every customer.

Display is FREE!

Just mount an "8-Ball" TCF-3 and set it up on the counter and watch your aerial sales grow.



Model CD-1

A WARD Development to fit every antenna need!

WARD ANTENNAS FOR THE HOME

Are vertical, the same as broadcasting antennas, for greatest signal pick-up, finest reception

HOUSE MAST

4-SECTION, 12-FOOT, COLLAPSIBLE TO 47 INCHES.

FEATURES . . . Easy installation, Universal mounting brackets, Heavy weatherproof cadmium plating, Built-in lightning arrester.

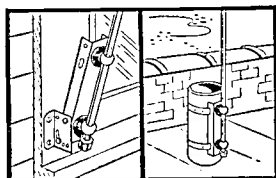
Model HM-4..... **List, \$7.45**

Ind. packed — 12 to the master carton.
Approx. ind. shipping wt. 4 lbs.

Complete Installation
Fittings Included

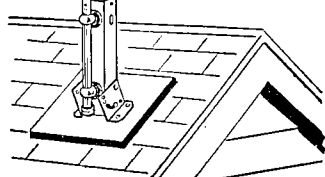


60' Lead Wire — Ground Clamp — 4
Wood Screws — 2 Nail-It-Knobs — 1
Porcelain Tube — 1 Lead-in Strap — 2
Soil Pipe Straps.



**WINDOW
FRAME**

**SOIL
PIPE**



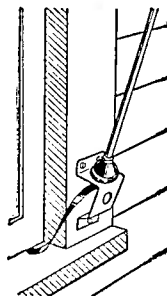
WINDOW MAST

3-SECTION, 8-FOOT, COLLAPSIBLE TO 42 INCHES.

FEATURES . . . Simple 3-point, 3-minute installation for apartments, homes, office buildings, Two-way mounting bracket, 12-inch lead-in strap, and heavy, weatherproof cadmium plating.

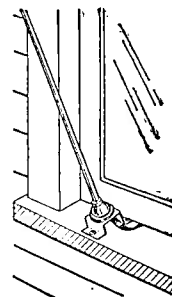
Model WM-3..... **List, \$3.25**

Individually packed — 12 to a master carton.
Approx. ind. shipping weight — 1 lb. 2 oz.



**WINDOW
FRAME
INSTALLATION**

**WINDOW
SILL
INSTALLATION**



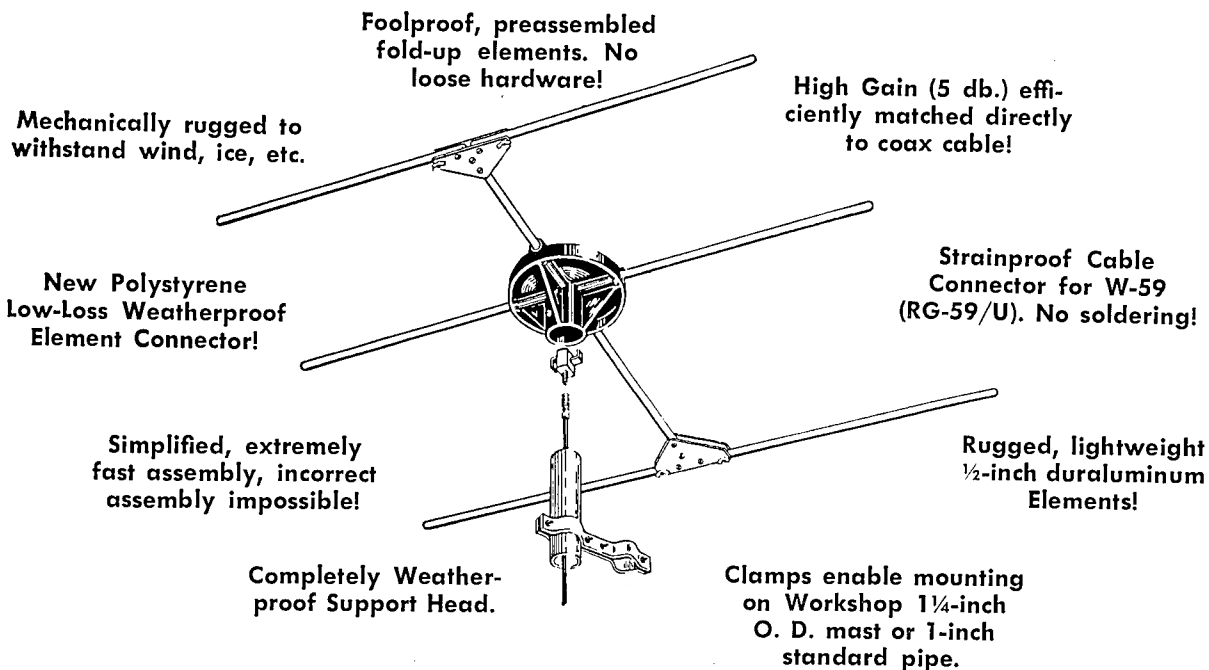
WORKSHOP TELEVISION ANTENNAS and ACCESSORY EQUIPMENT

The Workshop line for '49 has been redesigned to produce even better pictures at lower cost. Three-element arrays, designed for specific channels and combined on a single mast for particular areas, have been pioneered by the Workshop with outstanding success—even to the point of nationwide imitation during 1948.

SERIES A - BASIC THREE ELEMENT ANTENNA

This is a high-gain (5 db.) directional antenna having sufficient broad band response to cover the 6 mc. channel for

which it is engineered. It is the basic unit of all Workshop multi-channel systems. Note the following desirable features—

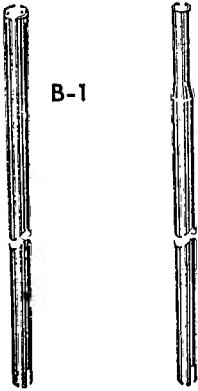


Basic 3-Element High Gain Antenna with Mounting Clamps for 1 1/4" O.D. or 1" Standard Pipe Mast

Low Band Models—List Price \$21.00 Shipping Weight 6 lbs.		High Band Models—List Price \$17.00 Shipping Weight 5 lbs.	
Model	For Channel	Model	For Channel
A-2	2*, 3	A-7	7*, 8
A-3	2, 3*, 4	A-8	7, 8*, 9
A-4	3, 4*, 5	A-9	8, 9*, 10
A-5	5*, 6	A-10	9, 10*, 11
A-6	5, 6*	A-11	10, 11*, 12
		A-12	11, 12*, 13
		A-13	12, 13*

*Optimum Channel

WORKSHOP SERIES B—MAST SECTIONS



MODEL B-1 Top Mast Section

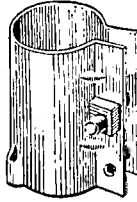
A sturdy 1/4 inch O.D. mast of heavy gauge seamless steel tubing, four feet long. Gray enameled. Holes provided at top for mounting three-element basic antenna. Slot at bottom aids self-tapping screw to hold mast extension described below. Net weight each, 2 lbs.

List Price \$2.50

MODEL B-2 Mast Extension

A swaged 1/4-inch O. D. seamless steel mast tube that will fit into B-1 mast listed above or bottom of another B-2 to extend overall height by approximately four feet. Gray enameled. Net weight each 2 lbs.

List Price \$2.75

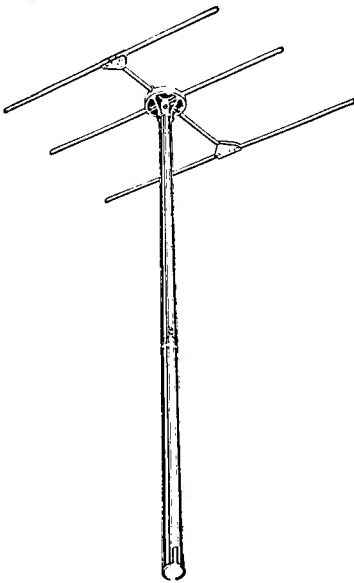


MODEL G-3 Guy Wire Fixture

This fixture can be placed on 1/4-inch O. D. or 1-inch standard pipe mast and tightly clamped in place so that three guy wires can be attached to aid in supporting mast equipment.

List Price \$0.50

SERIES AB—BASIC ANTENNA WITH MAST

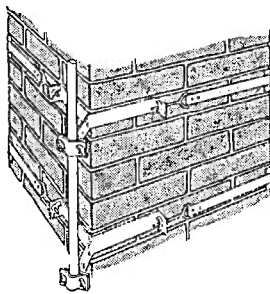


This series consists of a basic high-gain, Series A, three-element antenna described on page S-55 plus a 7 1/2-foot mast (B-1 and B-2 mast sections). Appropriate mounts can be selected from those described under Series C. Clamps for 1/4-inch O. D. mast or 1-inch standard pipe are also furnished. If and when new TV stations start operation in your area, this combina-

tion may be readily converted to a multi-channel system by the simple addition of Series A antennas and Model B-2 mast extensions. Series AB antenna with mast should be selected from the list below for the channel on which reception is desired. This series is furnished less transmission line and mounts.

Basic 3-Element High Gain Antenna with 7 1/2-foot Mast			
Low Band Models List Price \$26.25 Shipping Weight 12 lbs.		High Band Models List Price \$22.25 Shipping Weight 10 lbs.	
Model	Channel	Model	Channel
AB-2	2*, 3	AB-7	7*, 8
AB-3	2, 3*, 4	AB-8	7, 8*, 9
AB-4	3, 4*, 5	AB-9	8, 9*, 10
AB-5	5*, 6	AB-10	9, 10*, 11
AB-6	5, 6*	AB-11	10, 11*, 12
		AB-12	11, 12*, 13
		AB-13	12, 13*

SERIES C—MOUNTING EQUIPMENT



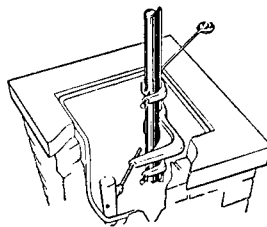
MODEL C-1, Conventional Chimney Mount

An excellent support for antennas with mast equipment that can be mounted on chimneys, posts, and other irregular objects. Made of heavy gauge steel and heavily plated to resist rust. Separation between clamps is variable. Masts from 1 to 2 inches O. D. can be used. Preassembled parts cut installation time. Shipping weight 5 lbs.

List Price \$6.50

Extra 10 feet of strapping, Model ST-1.

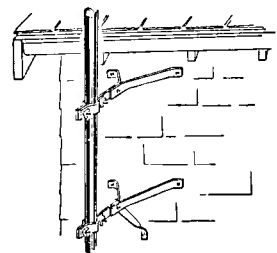
List Price \$0.75



MODEL C-2, Revolutionary New "Minute Mount" for Internal Chimney Mounting

This ingenious "Minute Mount" can be installed a short way *inside* a chimney. Completely adjustable for all chimney flues—tile lined or brick. Will not interfere with operation of chimney. Made of heavy cast alloy capable of supporting 150 lbs. with a generous safety factor. Mast 3/4-1 1/2 inches O. D. and antennas can be oriented while mount is in position. Built-in strain guide prevents chafing of cable against chimney. Shipping weight 2 lbs.

List Price \$8.95

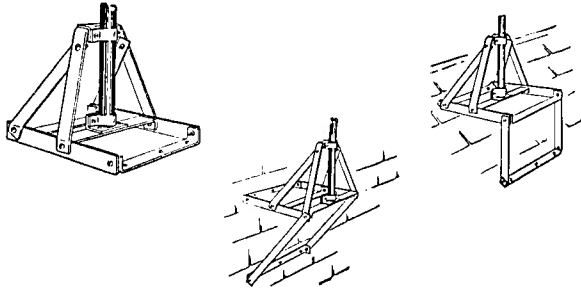


MODEL C-3, Wall Brackets

These rugged braced steel brackets, heavily plated, will furnish a 12 1/2-inch clearance for mast equipment that must be supported adjacent to siding or wall. Will hold masts from 1 to 2 inches in diameter. Furnished with wood screws. Packed 2 to a carton. Shipping weight 3 lbs.

List Price \$5.50

WORKSHOP SERIES C — MOUNTING EQUIPMENT (Con.)



MODEL C-4, Universal Base Mount

For installations requiring a truly sturdy braced mount none can compare with the stability of this universal mount. Made of heavy steel protectively plated to resist rust. This versatile mount has an 11 x 12-inch base. The mast is clamped at two places 9½ inches apart and can range from 1 to 1½ inch in diameter. Its durable and ingenious mounting features will allow mounting relatively heavy antennas and masts on flat, peaked, or inclined roofs, even walls with a 10-inch clearance. Complete with hardware and instructions. Individually packaged. Shipping weight 6½ lbs.

List Price \$11.00

SERIES 2A — SUPER HIGH-GAIN SIX-ELEMENT ARRAY

This six-element array consists of two basic three-element antennas spaced a ½-wave apart and connected by a pre-assembled cable harness as an efficient "broadside array." The forward gain is 7.8 db. compared to the conventional ½-wave dipole and will produce a signal approximately six times as strong in power. The array is essentially single channel with an adjacent channel gain of 5 db. The high front-to-back ratio of 18 db. signifies that the possible response of an interfering co-channel signal arriving from behind the array would be 2% of that picked up from the front.

The sharp directional pattern combined with the advantages of shielded coaxial transmission line, means that the signal-to-noise ratio is considerably greater, and "snow effect" less, than that of other so-called fringe area antennas. In addition, "ghosting" is discouraged, even in city areas where multi-path reflections are numerous.

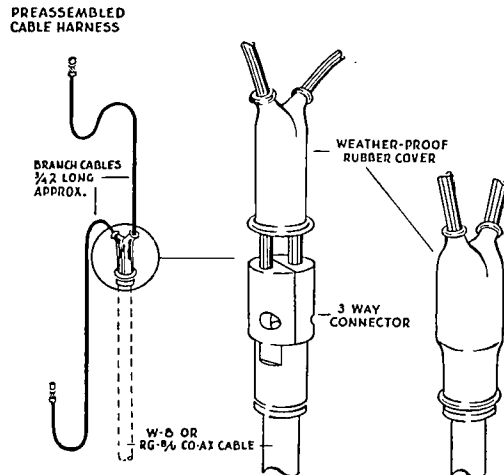
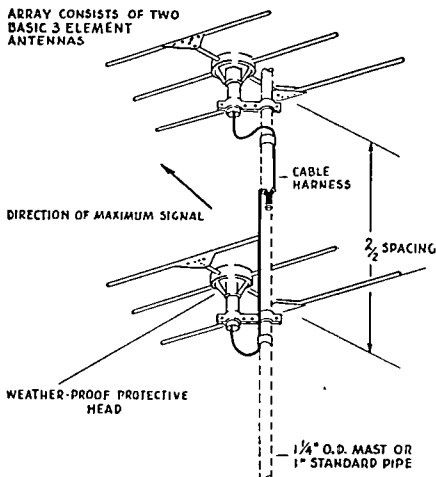
W-8, 52-ohm coaxial cable should be used as transmission line with this array. If a direct connection between the

cable and receiver is not practicable, impedance-wise, a W-100 adaptor together with a T-72 matching transformer and fittings may be necessary.

No mast equipment is supplied with this antenna yet mounting is extremely simple, since the clamp brackets furnished fit any ¼-inch O. D. mast or 1-inch standard pipe. This feature along with "foolproof" assembly of the 2A antennas make installation very simple.

Preassembled Cable Harness Only

The installer can readily convert his present Series A, three-element antenna to a Series 2A, super high-gain, six-element array by adding another corresponding Series A antenna plus a cable harness. The performance of a high band (Channels 7 through 13) six-element Series 2A array can be further enhanced by stacking another Series 2A plus one more cable harness to make a very super high-gain twelve-element array. Details of these arrays are furnished with every Series 2A antenna.



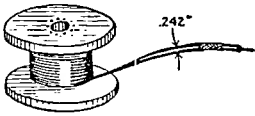
Super High Gain 6-Element Array

Low Band Models List Price \$52.00 Shipping Weight 11 lbs.		High Band Models List Price \$43.50 Shipping Weight 8 lbs.	
Model	Channel	Model	Channel
2A-2	2	2A-7	7
2A-3	3	2A-8	8
2A-4	4	2A-9	9
2A-5	5	2A-10	10
2A-6	6	2A-11	11
		2A-12	12
		2A-13	13

Cable Harness Only—For Making 6- and 12-Element Arrays

Low Band Models \$10.00		High Band Models \$9.50	
Model	Channel	Model	Channel
CH-2	2	CH-7	7
CH-3	3	CH-8	8
CH-4	4	CH-9	9
CH-5	5	CH-10	10
CH-6	6	CH-11	11
		CH-12	12
		CH-13	13

COAXIAL CABLE TRANSMISSION LINE

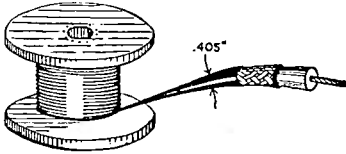


W-59 Standard 72 Ohm Coaxial Cable

Electrical and physical characteristics are the same as RG-59/U. Recommended as the ideal cable for installations not requiring more than 75 feet, directly matches Series A basic three-

element antennas. Neutral colored (weather-proof) jacket with convenient marks indicating 5-foot intervals. Supplied in 500-foot reels, weighing 22 lbs.

List Price \$0.10/ft.

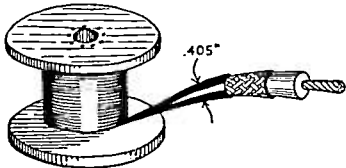


W-11 Very Low Loss 72 Ohm Coaxial Cable

Recommended for Series A three-element antennas when transmission line in excess of 75 feet is needed. Electrical

and physical characteristics same as RG-11/U. Weatherproof. Supplied in 500-foot reels. Shipping weight 55 lbs.

List Price \$0.30/ft.



W-8 Very Low Loss 52 Ohm Coaxial Cable

Electrical and physical characteristics same as RG-8/U. Recommended for transmission line with Series 2A six-

element arrays. Weatherproof. Supplied in 500-foot reels. Shipping weight 60 lbs.

List Price \$0.33/ft.

SOLDERLESS CABLE FITTINGS

Silver Plated Solderless Cable Connector (Male)

Model W-50



Used with W-59 (RG-59/U) coaxial cable. Specially slotted to withstand considerable strain. Mates with W-60 receptacle (on R-4A switch) and W-80 junction listed below. Individually packaged and plainly marked.

List Price \$0.60

Silver Plated Cable or Panel Junction (Female)

Model W-80

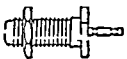


Mates at either end with W-50 male connector. A complete splice requires one W-80 junction and two W-50 connectors which must be ordered separately. Each W-80 individually packaged and plainly marked.

List Price \$1.00

Silver Plated Chassis Receptacle (Female)

Model W-60



Mates with W-50 cable connector. For chassis or panel mounting. Threaded stem 3/8 inch long. Soldering terminal protrudes from rear. Individually packaged and plainly marked.

List Price \$0.80

Cable Adaptor

Model W-100

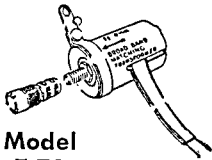


Required when changing from larger size W-11 (RG-11/U) or W-8 (RG-8/U) to smaller W-59 (RG-59/U) coaxial cables. No soldering necessary. W-50 cable connector furnished. Individually packaged and plainly marked.

List Price \$2.50

ACCESSORIES

Matching Transformer



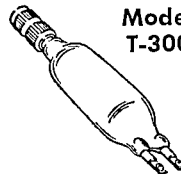
Model T-72

Matches 72 ohm coaxial cable such as Workshop W-59 (RG-59/U) to 300 ohm receivers. Voltage step up of 2 : 1, with a flat response over the TV channels from 52-216 mos. A W-50 solderless cable connector is furnished. Size 2 inches long, 1-inch diameter. Strap provided for grounding and

mounting container on receiver chassis. Negligible mismatch when used with W-8 52-ohm coaxial cable and W-100 adaptor. Individually packaged.

List Price \$4.00

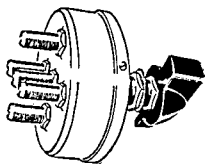
Model T-300 Exterior Matching Transformer



Completely weatherproof device for converting 72 ohm antennas for use with inexpensive 300 ohm Twin Lead transmission line at reasonable efficiency. Can also benefit of 72 ohm coaxial cable. Individually used with 300 ohm antennas to realize fully packed.

List Price \$3.50

New Coaxial Switch (SP4T)



Model R-4A

This virtually lossless, constant impedance switch will connect any one of four single-channel TV antennas to a receiver. By simply using additional switches it can also be used for demonstrating any number of TV receivers in a display room, or for low-level audio applications.

Receptacle fittings mate with W-50 solderless connectors for W-59 cable and must be ordered separately. Decals are supplied for panel marking of TV channels. Only one 7/16-inch hole need be drilled for panel mounting. Size—2 3/8 inches front to back; 2-inch diameter. Individually boxed.

List Price \$12.00

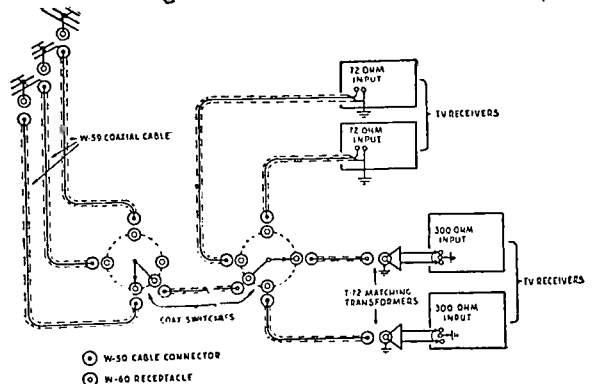


Diagram of a typical display system employing the R-4A coaxial switch and T-72 matching transformer.

THE WORKSHOP ASSOCIATES, INC.

Specialists in High Frequency Antennas

The "TOP" Name In Automobile
Aerials Now Brings You The
"TOPS" In
TV and FM ANTENNAS

Radiart "Simpli-Flex"

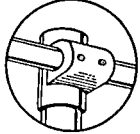


TELEVISION and FM ANTENNAS

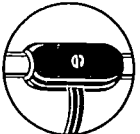
True to Radiart tradition . . . these new Television and FM antennas are the finest available! They are laboratory engineered and designed to deliver peak performance, always! Their top quality construction will produce the finest television picture possible. For just a little more . . . YOU can deliver the best . . . it pays!



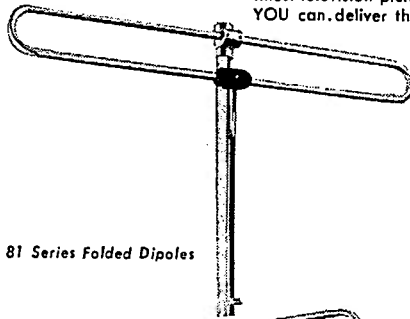
No "assembly puzzles" with Radiart's "SIMPLI-FLEX" design. No degree in engineering or truck-load of tools needed — absolutely no loose hardware. One minute assembly, one man installation!



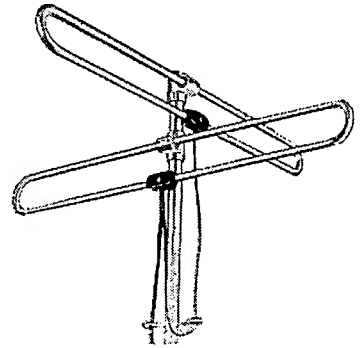
High strength, well engineered design of more than ample safety factor, with simple, sturdy all aluminum castings, elements, and heat-treated support masts for PERMANENT installations.



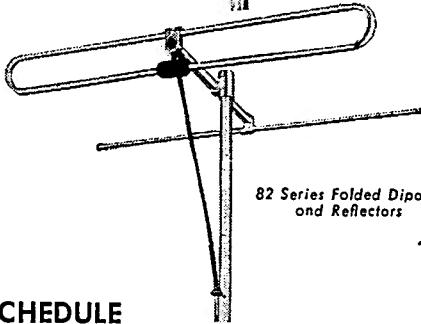
"WEATHER-SHIELD" polystyrene terminal block encloses lead-in connections and protects from all weather conditions! Keeps electrical performance at maximum.



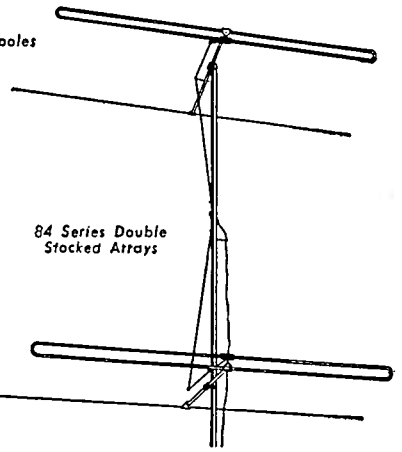
81 Series Folded Dipoles



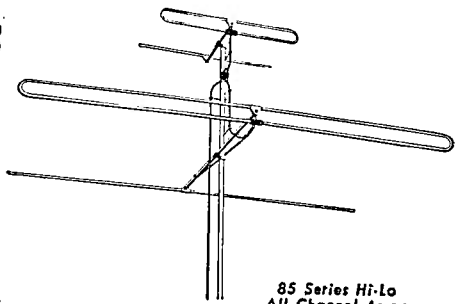
83 Series Turnstile Dipole — Non-directional FM Antenna



82 Series Folded Dipoles and Reflectors



84 Series Double Stacked Arrays



85 Series Hi-Lo All Channel Array

LIST PRICE SCHEDULE

TV and FM ANTENNAS			ACCESSORIES		
Model	Range, MC	List	Part #	Description	List
T81-LTV	54-88	\$14.95	AMT-56-1	4 ft. Mast, 1 1/8" OD, plug-in type	\$ 3.25
81-LTV	54-88	12.45	AMT-62-1	8 ft. Mast, 1 1/8" OD, plug-in type	5.75
T81-HTV	174-216	13.50	AMT-62-2	12 ft. Mast, 1 1/8" OD, plug-in type	8.25
81-HTV	174-216	11.00	AK-26	Mounting straps, dbles. set	2.50
T81-FM	88-108	14.25	AK-27	Universal mounting brackets, set of two, hdwre	5.00
81-FM	88-108	11.75	AK-30	Hvy. swivel mtng. base	2.00
T82-LTV	54-88	20.95	AK-31	Std. swivel base	1.00
82-LTV	54-88	18.45	AMX-122	Stand-off insulator, wood screw type, polythene grommet	.15
T82-HTV	174-216	19.00	ASA-230	Stand-off insulator, machine screw type, 4 1/4" long, #10-32 thrd.	.20
82-HTV	174-216	16.50	ATX-7	300-Ohm Trans. Line, per M	38.00
T83-FM	88-108	19.50	ALW-87	75 ft. coil 300-ohm line, 2 solder lugs attached.	3.00
83-FM	88-108	17.00	ANTENNA PARTS		
T84-LTV	54-88	42.50	AK-32	"Weather-Shield" Terminal Block, Polystyrene, for flat 300 ohm line, set.	1.00
84-LTV	54-88	40.00	AK-33	"Weather-Shield" Terminal Block, Polystyrene, for RG-59U Cable	1.25
T84-HTV	174-216	27.00	ASA-232	Large main aluminum casting, with screws	1.50
84-HTV	174-216	24.50	ASA-229	Small aluminum casting, with screws	1.25
T85-ATV	54-216	30.50	AMX-125	Barrier type junction block, for stacked arrays.	.50
85-ATV	54-216	28.00			
85-X	54-216	23.00			
T85-X	54-216	25.50			
85-XAX	54-216	45.00			
T85-XAX	54-216	42.50			
ADAPTOR KITS					
81-RL	54-88	\$6.75			
81-RFM	88-108	6.45			
81-RH	174-216	6.00			
81-TK	88-108	5.75			
"ADD-ON" ARRAYS					
K82-HTV	174-216	\$8.00			
K82-LTV	54-88	10.00			
K84-HTV	174-216	8.00			
K84-LTV	54-88	10.00			

THE RADIART CORPORATION

MANUFACTURERS OF THE FAMOUS RED SEAL VIBRATORS

RADIART

1949

AUTO

AERIALS

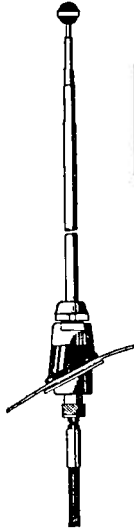


UNIVERSAL LOK-JOINT

This new design has eliminated the last "bug" in this style aerial. Locks easily and positively in any pre-set position without swinging the mast when tightened; 1/2" mounting hole.

MODEL U-3

63" Extended 3-Sections.
Shipping Wt. 1 lb. 3 oz.
LIST.....\$6.25
10 per master carton... 15 lbs.
CHEVROLET & GM
ADAPTOR KIT Included



**EASY TO
INSTALL**

— Features —

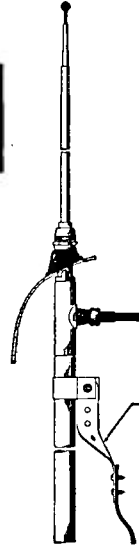
- replace most factory equipped aerials.
- easy one man installation.
- brilliant "SUPER-CHROME" plating.
- small mounting holes.
- highest quality heavy wall brass tubing.
- stainless steel top rod.
- absolutely waterproof.
- DeLuxe 48" interchangeable lead-ins fit all models.

DISAPPEARING MOUNT

This newest addition to the Radiart line collapses to 6" and extends to 60". Fits fender or cowl and features the exclusive "O" Ring Seal around the mast that shuts the door to water entry inside the aerial. Only one 3/8" mounting hole required.

MODEL D-3

60" Extended 3-Sections.
Shipping Wt. 2 lbs.
LIST.....\$7.45
10 per master car-
ton..... 19 lbs.



TWO-INSULATOR SIDE MOUNT

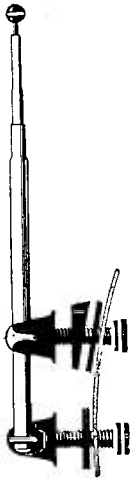
The old reliable with the "New Look"! Chrome trimmed stanchions on the well known sturdy side cowl antenna that requires only 1/2" holes for installation. Wedge type adaptor furnished.

MODEL S-3

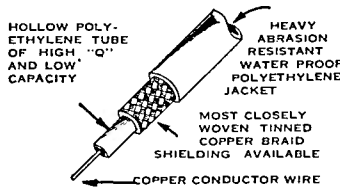
63" Extended 3-Sections.
Shipping Wt. 1 lb. 5 oz.
LIST.....\$5.45
10 per master car-
ton..... 13 lbs. 4 oz.

MODEL S-4 DELUXE

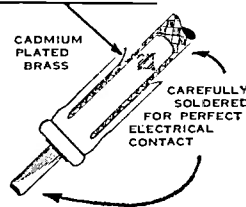
92" Extended 3-Sections,
LIST.....\$6.45
10 per master car-
ton..... 17 lbs. 5 oz.



LEAD-IN



WIPING SPRING FINGERS

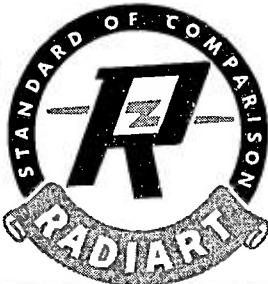
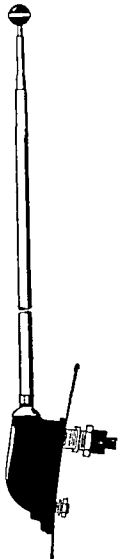


SWING ANGLE SIDE MOUNT

For side of cowl or fender — with 16° swing adjustment — locked PERMANENTLY with hex nut at mast base. Chrome trimmed "Tear Drop" styled insulator mounting through one 1/2" and one 1/4" hole.

MODEL A-3

63" Extended 3-Sections. Shipping Wt. 1 lb. 2 oz.
LIST.....\$5.95
10 per master car-
ton..... 14 lbs. 3 oz.



THE RADIART CORPORATION

MANUFACTURERS OF THE FAMOUS RED SEAL VIBRATORS

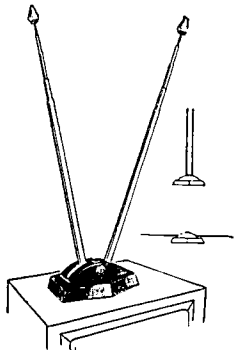
ICA INSULINE ICA

RADIO PRODUCTS

TELEVISION-FM ANTENNAS — ACCESSORIES

Latest Design

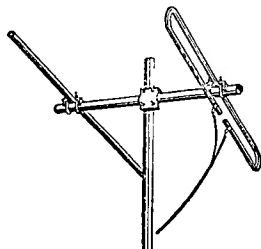
An entirely new and complete line of Television and FM antennas and accessories—precision made by ICA, pioneers in Television for over twenty years. Precision engineered; precision fabricated.



THE "SUPER-WASP" NEW! IMPROVED! SENSATIONAL!

The new INDOOR Television Antenna with amazing reception qualities. Instantaneous horizontal-vertical orienting and tuning for maximum reception. All-Channel selection. Beautifully designed golden-tone brass dipoles and bakelite walnut base with non-scratch cushions. Jiffy installation. Also improves reception when used to supplement existing outdoor antennas.

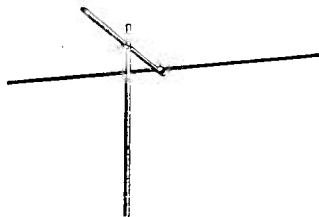
No. 6468—With 300 ohm lead List \$6.95



HI-BAND ANTENNA

Adds to the performance of existing television installations. Broadens reception range of low band antennas to include the higher channels (7 to 13). May be independently rotated for maximum directional response. Matching feature results in more even reception from channel to channel. All metal; weather-resistant. Includes 300 ohm connecting lead.

No. 6440—Ship. Wt. 2 1/4 lbs. List \$6.45



REFLECTOR

Add to existing folded or simple dipole for stronger pick-up. Improves response; cuts down interference. May be added to ICA No. 6420.

No. 6425—Ship. Wt. 3 lbs. List \$4.45

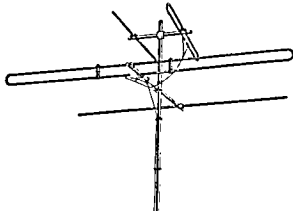
FM RECEPTION

Improves directional strength of FM reception in low signal areas. Eliminates reflections. May be added to No. 6406.

No. 6410—Ship. Wt. 2 1/2 lbs. List \$4.45

Latest Features

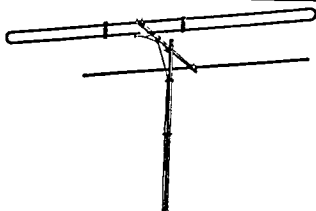
Includes sturdy, rust-proof, all-metal construction; non-corrosive aluminum dipoles, independently rotatable elements. Offers broad-band reception. Easy-fitting units for "jiffy" installation. Full instructions.



HI-BAND LO-BAND TV ANTENNA

For outstanding reception over the entire television channel range. Perfect 300 ohm impedance matching to transmission line and set making losses a minimum. Offers high gain and broad response with strong horizontal reception pattern. Separate elements are independently rotated to yield maximum clarity and signal strength in each band. Dipoles and reflectors of heavy wall non-corrosive aluminum; sturdy steel mast 5 ft. long. Shipping Weight 8 1/2 lbs.

No. 6444 List \$14.75



FOLDED DIPOLE WITH REFLECTOR

For areas of unusual natural interference. The folded dipole element offers matching feature for more even reception. Yields uniform response over a wide band of frequencies. For use with 300 ohm transmission line. Includes rubber stand-off insulators to prevent lead-in "contact" interference or sway.

Hi-Band Antenna (No. 6440) may be attached for coverage of higher channels.

Shipping Weight 7 1/2 lbs.

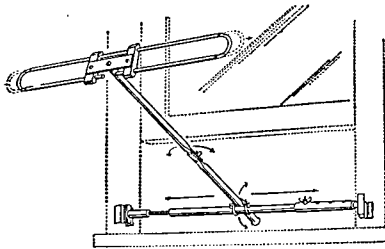
No. 6430 List \$13.75

FM RECEPTION

For maximum FM reception. Especially adaptable to high interference areas. Eliminates reflections.

Shipping Weight 4 1/2 lbs.

No. 6415 List \$13.75



WINDOW ANTENNA

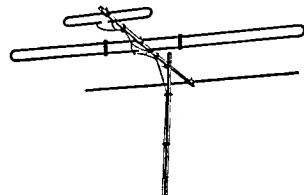
For All-channel Television Reception. Precision engineered, featuring ease of installation; maximum adjustable dipole for best all-channel reception; durable aluminum and steel construction; excellent reception. Special adjustable base spans 30 to 50 inches to fit any wood or casement window frame. Skillfully designed support permits horizontal or vertical positioning for maximum directional response.

Shipping Weight 5 1/2 lbs.

No. 6450 List \$15.35

Latest Types

ICA's new television series offers a wide assortment of antennas and accessories for every type of installation. Includes latest indoor type antennas and varied outdoor set-ups.

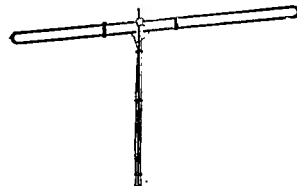


DOUBLE FOLDED DIPOLE-REFLECTOR ARRAY

An outstanding uni-directional broad band antenna system for all-channel, high band-low band reception. Small folded dipole serves as the high band antenna and as a director for the larger dipole. Matching stub provided for use between high and low band dipoles. Excellent 300 ohm impedance matching to transmission line and set. Possesses extremely high sensitivity to build up weak signal reception from distant television transmitters. Engineered to overcome unusual interference from local sources. Includes high band-low band connecting lead; sturdy 5 ft. steel mast; rubber stand-off insulators.

Shipping Weight 8 lbs.

No. 6448 List \$15.75



FOLDED DIPOLE

The ideal antenna for excellent low band television reception (channels 2 to 6) in areas of normally good signal strength with minimum interference present. For use with 300 ohm line. Sturdy 5 foot steel mast; non-corrosive aluminum dipole.

Shipping Weight 4 1/2 lbs.

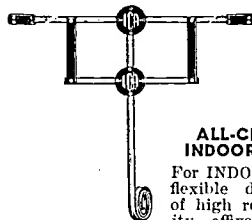
No. 6420 List \$8.95

FM RECEPTION

For optimum FM reception. Features clarity and fidelity. Eliminates reflections.

Shipping Weight 3 1/2 lbs.

No. 6405 List \$8.95



ALL-CHANNEL TV INDOOR ANTENNAS

For INDOOR use. Folded flexible dipole elements of high receptivity quality, affixed to 10 ft. standard 300 ohm twin lead transmission line. May be placed under rug, in attic or other out of way spot. For all television channels.

No. 6012—All-channel List \$2.95

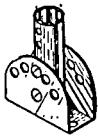
No. 6009—For channels 2 to 6 List 1.95

No. 6008—For FM reception List 1.65

ICA INSULINE RADIO PRODUCTS ICA

TELEVISION ACCESSORIES — TOOLS

VARI-ANGLE ANTENNA BASE ASSEMBLY



Suitable for flat or peaked roofs, gable roofs or side walls. Made of extra heavy gauge steel to insure rigid installation. Special feature permits a variety of mounting positions and directional rotating for best results.

No. 6132.....List \$2.65

ANTENNA MOUNT BASE

This separate section of the ICA antenna base unit is a useful aid in unusual installation problems where the entire ICA unit is not required. Excellent for side wall mounting. Heavy gauge steel.



No. 6133.....List \$1.25

PERFORATED MOUNTING STRAP

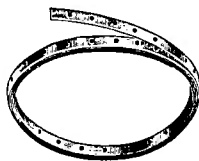


Designed for quick easy fastening of antenna masts to piping, etc. Perforated throughout entire length for maximum adjustability. Sturdy . . . flexible. Includes screw; nut.

No. 6134—15" Length.....List \$1.15
No. 6135—20" Length.....List .20

PERFORATED STRAPPING

Strong, flexible galvanized steel strapping that will serve a multitude of uses in antenna installation work. Ideal for mounting masts on vari-shaped objects—chimneys, posts, etc. Width 3/4". In 12 or 100 ft. lengths.



No. 6148.....List \$7.75 12 ft.....\$4.95 C ft.

DOUBLET LIGHTNING ARRESTER



Weatherproof lightning arrester specially designed for television application. Suitable for any doublet type antenna system. Accommodates twin lead or any other two-wire transmission line.

No. 6111.....List \$.60

LIGHTNING ARRESTER

The same weather-proof lightning arrester described above with convenient metal ground strap to permit ready affixing to water pipes or similar posts.

No. 6112.....List \$.75



MAST COUPLER

Makes addition of masts for greater height a simple matter. Sturdy heavy steel tubing assures rigidity. Slotted feature makes for firm grip. Suitable for masts of 1" diam. Includes 1/4" bolts and nuts.

No. 6140.....List \$1.25

ICA's Mast Coupler with 5 foot mast extension including hardware.

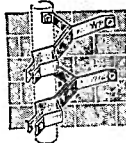
No. 6040.....List \$2.65



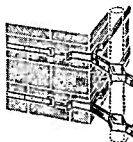
ANTENNA WALL BRACKETS

A useful antenna accessory where a vertical wall installation is desired. Offers a tight-gripping clamping action. Suitable for masts from 7/8" to 1 1/2" in diameter. Made of weather-resistant plated heavy gauge steel.

No. 6131.....List \$2.50 pr.



CHIMNEY ANTENNA MOUNT



For simplified mounting against chimneys, rough parapets and other superstructures. These heavy gauge steel supports solve many types of difficult mountings. The rugged steel strapping is perforated offering the

added feature of adjustability. Minimizes sway, shift or bending.

No. 6130.....List \$4.25 Set

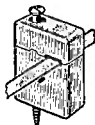
RUBBER STAND-OFF INSULATOR

Fits antenna mast with a snug grip to assure minimum shifting of lead-in cable. Made of long-lasting, tough, natural rubber. Insulates antenna from local grounded objects. Suitable for 300 ohm twin lead. For masts 1" to 1 1/4" diameter.

No. 6125.....List \$8.00 C



CERAMIC STAND-OFF INSULATOR



Moisture-proof for outdoor use. Offers rigid non-swaying grip on wire without insulation damage. For 300 ohm twin lead. With heavy screw for wood or masonry. Ideal for long transmission lines.

No. 6126.....List \$18.00 C

POLYSTYRENE TWIN-LEAD INSULATOR

For either indoor or outdoor application. Maintains firm non-slipping grip without insulation damage. Designed for 300 ohm twin-lead. Weather-resistant plastic. Convenient base hole.

No. 6127.....List \$13.00 C



COAXIAL CABLE



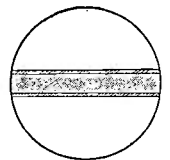
Standard 70 ohm impedance cable necessary in installations requiring long lead-ins or where high level of interference exists.

No. 6115.....List \$13.00 C ft.

TELEVISION - FM WIRE

High-grade 300 ohm transmission line of the twin-lead type. Low-loss polyethylene insulation. Supplied in 1,000 ft. rolls.

No. 6020
List \$ 4.25 C ft.
List 40.00 M ft.



GUY WIRE

For simple antenna installation needs. Strong but flexible enough for easy handling. Stranded copper and monel — 7 strands No. 26. 100 foot coils.

No. 6147.....List \$.40 Coil



The perfect guy wire. Rugged, galvanized steel twisted wire—6 strands No. 20. Weather-proofed—450 lbs. tensile strength.

No. 6186—50 ft.....List \$.88 Coil
No. 6187—100 ft.....List 1.75 Coil
No. 6188—500 ft.....List 8.38 Coil
No. 6189—1000 ft.....List 16.75 Coil

INSULATED SCREW EYES

Dual purpose — for either twin-lead or coaxial cable. Low-loss polyethylene insulation minimizes signal strength loss.

List

*No. 6119—3 1/2" L.....\$.09
*No. 6120—7" L..... .15
**No. 6262—3 1/2" L..... .12
**No. 6264—7" L..... .19

*Wood-screw threaded.
**Machine-screw threaded.



INSULATED SCREW EYES

Stand-off screw eye with convenient mast fitting metal loop for snug securing of transmission line. Fits 1" masts. For twin-lead or coaxial cable.

List

No. 6263—3 1/2" L.....\$.15
No. 6265—7" L..... .21

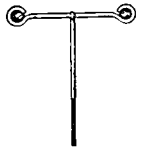


T-TYPE SCREW EYES

Secures double lead-ins with efficient spacing.

No. L. List
*6256 3 1/2" \$.28
*6258 7" .33
**6260 3 1/2" .28
**6261 7" .33

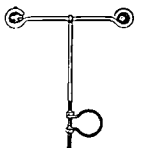
*Machine screw threaded.
**Wood screw threaded.



T-TYPE SCREW EYES

Same as above with mast-fitting metal loop for easy secure installation. Fits 1" mast.

No. L. List
6257 3 1/2" L. \$.38
6259 7" L. .43



ICA INSULINE RADIO PRODUCTS ICA

ICA "DE LUXE" AUTO RADIO ANTENNAS

The Latest, Improved ICA Auto Antennas

Pioneer manufacturers of auto radio antennas, ICA presents its latest line featuring: Noiseless Performance — Rattleproof Engineering — Lifetime Rustproof Guarantee — Easy One-Man Installation. Equipped with BOTH Delco and Motorola fittings.

REPLACEMENT ANTENNA RODS

Specially Designed for
BUICK — FORD

and other cars using antennas of similar windshield mount type. Precision made to assure peak performance

- Simple Installation
- Lasting Service
- Triple-chrome-plated brass

No. 4545—Buick—3 Sec. Extends to 36".....List \$2.75
No. 4546—Ford—2 Sec. Extends to 54".....List 2.25



ICA Disappearing ANTENNAS

For Fender and Cowl Mount
Suitable for all cars, old and new

56" of exposed antenna telescopes to 10". Does not obstruct vision. Plastic and chrome-plated insulator hugs flat or convex surfaces.

Generous length cable . . . 48".

No. 4570.....List \$6.45

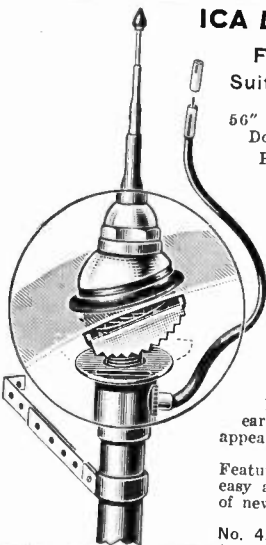
Three-Section
Packed 10 to a standard carton
Weight 11 lbs.

PEERLESS MODEL

Designed especially for 1948 and earlier model cars. Improved streamlined appearance.

Features unique swivel base permitting easy angle adjustment to match contours of new cars.

No. 4571—Three-Section.....List \$6.95
10 to standard carton — Weight 11 lbs



ICA "TOPPER" ANTENNA

For variable angle mounting on tops of fenders and cowls of newest streamlined cars.

- Patented brass shim contacts prevent rattling or vibration.
- Dust and Moisture Proof.
- Snug-fitting tapered telescopic joints.
- Varied mounting positions to harmonize with contour of car.
- Generous length (48") shielded loom Lo-Loss cable . . . Vinylite covered insulation.

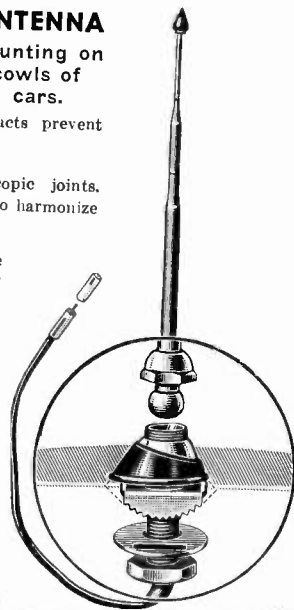
No. 4575.....List \$5.45
Three-Section
Extends from 20" to 63"

"PIVOT TOPPER"

New development in variable angle mountings. Special type pivot permits universal angle mounts. Easily installed. Merely set rod to desired angle and tighten securing nut. Hi-Q loss cable. 48" lead-in.

No. 4576.....List \$4.95

Three-Section
Extends from 20" to 63"
10 to stand. carton. Wt. 10 lbs.



NEW ANTENNA DISPLAY

FREE . . . Ready to Use

A sales stimulating display. Colorful . . . Neatly styled. Suitable for window or counter. (Size 20" x 20".) Display is FREE, you pay only for the following fully-mounted Antennas:

No. 4541—"Rocker"	} Cat No.
No. 4801—Uni-Mount		4500
No. 4568—Side Cowl	} List
No. 4575—Topper		$19.90

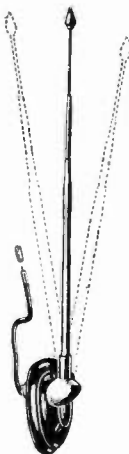


"ROCKER" ANTENNA

A Variable Angle Antenna to Fit the Contours of All Car Bodies

- Suitable for all cars.
- Easily adjusted to desired angle.
- Weatherproof joint construction.
- Easy, one-man installation.
- Streamlined design to harmonize with latest cars.
- High-luster bakelite insulator . . . tamper-proof.
- 48" Lo-Loss cable.
- Completely assembled, ready for installation.

No. 4541.....List \$5.25
Three-Section
Extends from 23 1/2" to 72"
10 to standard carton.
Weight 16 lbs.



UNI-MOUNT ANTENNAS

The Universal Aerial. Fits All Types of Cars . . . Old and New. For Underhood Mounting

- Streamlined modern design.
- Equipped with interchangeable brackets for either sidehood or alligator hood mountings.
- No drilling of holes into car body necessary.
- Sturdy bakelite and chrome-plated brass insulator.
- Shielded loom LO-Loss cable 36" . . . vinylite insulated.

No. 4801.....List \$4.45

Three-Section
Extends from 20" to 63"
10 to standard carton. Wt. 11 lbs.

No. 4803.....List \$5.45

Three-Section
Extends from 31 1/2" to 96"
10 to standard carton. Wt. 14 lbs.



SIDE COWL ANTENNA

A Series of Side Cowl Antennas for Wide Application

Includes patented brass shim contacts for noiseless performance; brass swivel coupling for easy installation; shielded Lo-Loss cable, 36" long.

No. 4566 (10 lbs.*) List \$4.45
3-Section. Extends 20" to 63"
No. 4553 (11 lbs.*) List \$5.45
3-Section. Extends 31 1/2" to 93"

HEAVY DUTY AERIAL

Made of extra large diameter brass tubing. Ideal for long distance reception and rugged wear.

No. 4568 (14 lbs.*) List \$4.75
3-Section. Extends 29" to 68"
No. 4569 (15 lbs.*) List \$4.95
4-Section. Extends 30" to 80"
No. 4559 (15 1/2 lbs.*) \$6.45
4-Section. Extends 36" to 110"

"PACEMAKER"

Has most of the features of above antennas but priced low for quick sales.

No. 4567 (10 lbs.*) List \$3.35
3-Section. Extends 25" to 62"
*10 antennas in standard size.

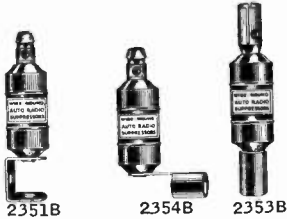


ICA INSULINE ICA

RADIO PRODUCTS

AUTO RADIO CONDENSERS AND SUPPRESSORS

ICA WIRE WOUND SUPPRESSORS LOW RESISTANCE 30 OHMS. D. C.



These suppressors have an extremely low D.C. resistance and thus definitely do not affect the intensity of the ignition spark or cut down the speed of the car.

No.	List
2351B—Spark Plug Suppressor	\$.65
2353B—Distributor Suppressor	.65
2354B—1940-41 Slip-On Suppressor; Will Also Fit Older Type Cars	.65

ICA AUTO ANTENNA CONNECTORS AND ADAPTERS



No. 2347—Antenna Connector. List\$1.0 ea.



No. 2348—Standard Fuse Holder. List\$1.5 ea.



No. 2349
Jumbo Fuse Holder
2 1/2 long x 1/2 wide
List\$3.0 ea.



No. 2372—Lead-in Adapter
—converts standard
leads to Motorola fittings.
List\$3.0 ea.



No. 2375—Motorola Pin Plug List \$1.0 ea.
No. 2378—Motorola Shielded Jack
List\$2.0 ea.



No. 2396—Lead-in Adapters
—converts Motorola lead to
Delco fittings.
List\$1.0 ea.



No. 2357
Ignition Cap Nut
List\$2.00 C

No. 2356
Ignition Cable Lug
List\$2.00 C

ICA WHEEL HUB STATIC ELIMINATOR



Used under hub of front wheel.
An essential on all cars to eliminate
front wheel static. Less
Back Plate and screw.
No. 4476B List \$1.15



2360



2361



2362



2363



2364



2365

ICA SUPER-TEST AUTO RADIO IGNITION SUPPRESSORS

Made of Moulded Bakelite—All Metal Parts
Made of Rugged Machined Brass



Type No.	List
E—349B—Spark Plug Slip-on Suppressor. Fits 1940-41 cars.	\$.30
E—349F—Slip-on Spark Plug Suppressors for New Model Ford cars	.30
D—350B—Spark Plug Suppressors with Dual Threaded Inserts	.30
D—351B—Spark Plug Suppressors for Ford cars up to 1939	.30
A—377—Bracket type Suppressor	.30
B—352B—Distributor Suppressor for all cars	.35
C—4461—Ford Early Models	.35
C—4463—Ford Late Models	.35
F—4465—Cable Type Suppressor	.30

MASTER DIST. CARBON SUPPRESSOR — 10,000 OHMS

For use on new type cars where only one suppressor is needed. Master Suppressor is guaranteed to eliminate all motor noise—making unnecessary the use of individual suppressors.

No. 330 List \$7.5



AUTO BY-PASS CONDENSER
For by-passing ammeter, dome light or generator. Capacity 1/2 mfd.
No. 1244 List \$5.5

ICA GENERATOR SILENCER

Heavy duty generator condenser eliminates generator, ammeter, distributor noises. Capacity 1 mfd.

No. 1243 List \$8.0



**ICA FORD V8
NOISE SILENCER**
No. 1245
List \$8.5

ICA FORD V8 CONDENSERS FOR 1939-1941 MODELS

Equipped with Special Bracket. Capacity 1/2 mfd.

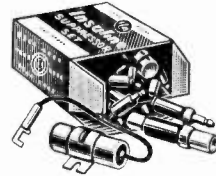
No. 1246 List \$8.0



REPLACEMENT PARTS FOR ANTENNA AND FUSE RETAINERS

No. 2360—Female sleeve of fuse connector	List \$5.00 per C
No. 2361—Female sleeve of antenna connector	List \$3.50 per C
No. 2362—Male part of antenna connector	List \$3.00 per C
No. 2363—Spring for both antenna and fuse connectors	List \$1.00 per C
No. 2364—Fiber insulator for auto fuse holder	List \$.90 per C
No. 2365—Bakelite eyelet bushing	List \$2.50 per C

INTERFERENCE SUPPRESSOR SET



For Auto Radio
All the needed condensers, suppressors, etc. for a complete installation. Neatly packaged as a complete unit. Includes easy instructions. For all cars—old and new. Packed individually or in attractive counter display holding 6 Sets.

No.	For	List
SK-1	—8 Cyl. Cars (except Fords)	\$4.00
SK-2	—6 Cyl. Cars (except Fords)	3.40
SK-3	—Ford Cars (to 1938)	4.00
SK-4	—Ford Cars ('39 to current)	4.05



ELBOW SHAPED SUPPRESSOR

Auto ignition suppressor. Elbow type. Moulded-in bakelite. Machined brass. Metal parts.

No. 4464 List \$3.0

ICA AERIAL KITS



Carries all the essentials for complete antenna installation, packed in handsome 2-color box. Includes:

- 50 ft. heavy 7 strand tinned copper aerial wire. 22 gauge—30 ft. stranded copper, insulated weatherproof, lead-in wire—10 ft. ground wire, 22 gauge—Ground Clamp—Lead-in Strip—Underwriters' Approved Lightning Arrestor—2 Porcelain Insulators—2 Nail-it Knobs.

No. 654 List \$2.50

SPECIAL KIT

Includes the following aerial kit elements:

- 50 ft. heavy 7/22 tinned copper aerial wire—30 ft. stranded copper insulated weatherproof lead-in wire—10 ft. No. 22 Ground wire. 2 Porcelain insulators—Ground Clamp—Lead-in strip—Lightning arrestor.

No. 653 List \$2.25

CAPITALIZER KIT

Includes the following components:

- 100 ft. tinned aerial wire—7 strand copper and monel—30 ft. insulated lead-in wire—lightning arrestor—2 Porcelain insulators—Ground Clamp—Lead-in strip.

No. 651 List \$1.65

JUNIOR KIT

A utility kit for high-grade performance. Includes:

- 100 ft. tinned aerial wire—7 strand copper and monel—30 ft. insulated lead-in wire—2 porcelain insulators—Ground Clamp—Lead-in strip.

No. 649 List \$1.35

ANTENNA ACCESSORIES

No.	List
227	—Porcelain Insulator—glazed ... \$1.0
223	—Ground Clamp—adjustable ..... .10
1504	—Lead-in strip—1/2" wide ..... .15
336	—Approved Lightning Arrestor ..... .35

NOW only

JERROLD TV-FM BOOSTER

**Comes Equipped with the
Amazing New, Built-in**

MATCH-A-TRAN

Included At No Increase In Price

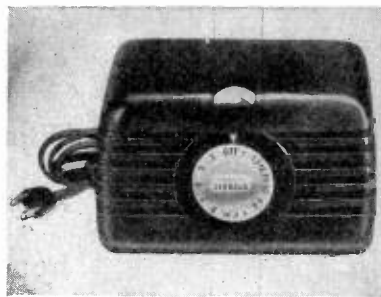
The Jerrold TV-FM Booster has been widely acclaimed for bringing better television reception to distant areas. Now, Jerrold makes another notable advance.

The Match-A-Tran is a new, variable step-impedance transformer that helps provide a perfect match between booster output and TV receiver—any receiver—on all channels. This assures that all the gain of the booster is delivered into the receiver. It is especially efficient on the high channels.

There Is A Difference

Yes, there is a difference between Jerrold and other boosters. Only Jerrold has a tuned-grid, tuned-plate circuit with a channel selector switch to select each channel. Only Jerrold gives a gain of 20 to 30 DB for the entire 6 megacycle bandwidth of each channel. Only Jerrold comes in a beautiful plastic cabinet. Only Jerrold has the Match-A-Tran.

Model TV-FM, \$37.50 List

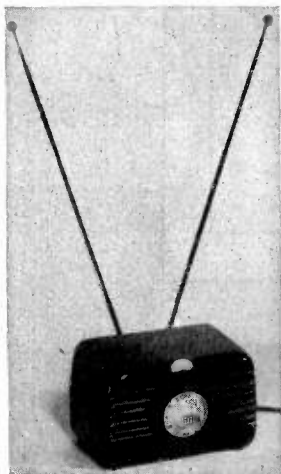


What is the MATCH-A-TRAN?

No present day receiver has an input impedance that is purely resistive for all channels. Thus, standing waves are present on all antenna lead-ins. These standing waves cause peaks and nulls of signal voltage to be spaced along the line at half wave length intervals for each frequency.

For best reception it is necessary that the receiver be connected at a peak signal point for each channel. In effect, the Match-A-Tran is an "electronic line stretcher" that can easily be adjusted for each channel. Thus, brighter, sharper pictures are obtained for all channels. Match-A-Tran is especially efficient on the high (7 to 13) channels.

JERROLD IN-TENNA



Indoor TV Antenna with Outdoor Antenna Gain

Jerrold In-Tenna combines an efficient indoor TV dipole with a high gain, wide band pre-amplifier. This combination offers a superior indoor antenna that is the perfect answer to TV installation problems in apartments, hotels, and private homes. Use it where an outdoor antenna cannot be installed and where an ordinary indoor antenna will not work satisfactorily.

The Jerrold In-Tenna is recommended as an indoor TV antenna, for use in any location up to 25 miles from the television transmitter. **Model TV IN, \$42.50 List**

JERROLD ELECTRONICS CORP.


Thank You!

When writing for additional
information or when ordering
from sources of supply listed
in this book, please mention

RADIO'S MASTER

NEW Teletower with EXCLUSIVE Penn Pilot Hole

*So Foolproof... So Safe...
A Green Apprentice Can Zip it up Fast*



2 Men Do the Job — Minimizes Wind Resistance . . .
Reduces Vibration — Weighs Less Than 2 Pounds per Foot.
Sectional Construction (in 10 foot lengths) — Saves Storage Space.

Penn Pilot Hole — Cuts Assembly Time 1/3.
(Patent Applied For)

Quick erection by the installer means quick profit for the wholesale distributor . . . that's the boiled-down truth about the new Penn TELETOWER.

Why? Because—at last— *a manufacturer has taken the trouble to engineer a simple mechanical feature that serves as a foolproof guide to speedier, safer tower erection.* One leg of the middle section in Penn's tripod-type tower is made longer than the others. Position this single leg correctly and — zip! — the other two are automatically brought

into correct alignment.

As a result of this exclusive feature, Penn offers a tower with tripod stability that's as simply erected as a single pole. Two "green-hands" can put this tower up fast . . . and in safety!

When erected, this Penn Teletower forms a rigidly locked tripod that is unaffected by high winds and will not vibrate out of position. Yet, the entire assembly — built of lightweight steel — weighs less than 20 pounds. Sectional, prefabricated construction permits space-saving storage. Cross braces on tripod serve as rungs and make the tower a safe, useful ladder when erecting antenna. *Mount is so designed that not an ounce of tower weight rests on the motor!*

Penn Teletowers are already on the way "up"! . . . on roofs . . . and in sales! It will pay to drop us a line.

A profitable Penn Teletower connection in your territory may still be available — Though we anticipate heavy Distributor demand. Write or wire today. No obligation.

**PENN BOILER AND BURNER
MANUFACTURING CORP.**

All Channel Television and F-M INDOOR PORTABLE ANTENNAS

The most beautiful antennas on the market—highly efficient—compact—colorful. SPICO Antennas have been accepted as standard equipment by leading television receiver manufacturers. The TENNA-MASTER is available in 2 colors, and with 3 section dipoles and plated faceplates.

EXCLUSIVE FEATURES:

- **Perma-Tension telescopic construction.***
- Lock-Notch vertical orientation, — eliminates knobs and tightening.
- Clean job—no soldering or lugs showing, wires completely concealed.
- Rigid construction throughout; extra heavy wall, and larger diameter tubing.

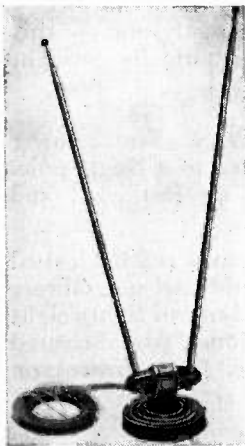
- **YET IT COSTS NO MORE!**

Tenna-Master Model TV 93B
Black bakelite housings and base.

Tenna-Master Model TV 93A
Mahogany bakelite housings and base.



**THE ARISTOCRAT
IN ITS FIELD**



PLUG-IN-TENNA

- Contains all quality features of above.
- Antenna has built-in 4-prong plug which plugs into 4-prong socket molded into base, providing rigid support and excellent electrical contact.
- Antenna easily removed from base and stored in drawer when not in use.
- Engineer-tested, approved, and sold at standard equipment by leading TV set manufacturers.



MASTERETTE

- Economy-priced indoor antenna, with quality features as above.
- Has bell-shaped base, streamline-designed, with no lugs, knobs, or solder showing.
- Easily oriented without knobs.

We manufacture a complete line of standard auto radio antennas. Television, F-M antennas and component parts manufactured to specifications. Your inquiry invited.

*Patented, U. S. Pat. Off.

SPIRLING PRODUCTS CO., INC.

62 GRAND ST., N.Y. 13, N.Y.

Wind-O-Loop

THE IDEAL APARTMENT HOUSE ALL CHANNEL TV & FM ANTENNA

WIND-O-LOOP is a completely novel approach to the problems affecting apartment house or restricted zone installation of television receivers. Constructed of a single rectangular loop and one di-pole, WIND-O-LOOP is attached to the pane of any window, indoors or out, by means of two rubber suction cups. The flat lead-in wire may be brought into the house over the top of the window sash and down behind the curtain or drape to the receiver, thus making the entire antenna invisible from the room.

WIND-O-LOOP is packaged complete with twenty-five feet of lead-in, one end of which is already attached permanently to the antenna for greater convenience of installation. It is also provided with screws for use instead of the suction cups where installation upon a wood surface is desired. An all-channel antenna, WIND-O-LOOP may be oriented through 180° for maximum gain and may be permanently clamped in the most advantageous position. Since it is almost completely assembled upon delivery, WIND-O-LOOP may be assembled and installed in three minutes or less by anyone. Complete with all necessary attachments and 25 feet of wire.

List Price **\$8.50**

Di-Loop

TELEVISION AND FM ANTENNA

DI-LOOP and all-channel TV and FM Antenna is intended primarily for roof-top installation and is packaged complete with an aluminum 6' mast. Constructed of a loop and two di-poles, DI-LOOP uses the loop for high frequency reception and the di-poles for low. When used on low frequencies the loop acts as a resonated section for the di-poles.

DI-LOOP is a high-gain antenna, showing up to four times the gain of conventional folded di-pole antennas, yet its simplicity of construction and sturdy all-metal design insure speedy installation and a long life of excellent performance.

An excellent antenna in any area, DI-LOOP has been found to be ideal in fringe areas of reception where it has been found to out-perform antennas priced many times over its own low price.

Complete with 6' Mast List Price **\$12.50**

Additional 6' extension sections with connector clamps and guy rings List Price: **\$3.50**

SQUARE

ROOT

MANUFACTURING CORPORATION

YONKERS 3, N. Y.

"Wind-O-Loop" and "Di-Loop" are registered trade marks of Square Root Mfg. Corp. Patents Pending.

Quad-Loop

DELUXE

SELECTIVE

DIRECTIVITY

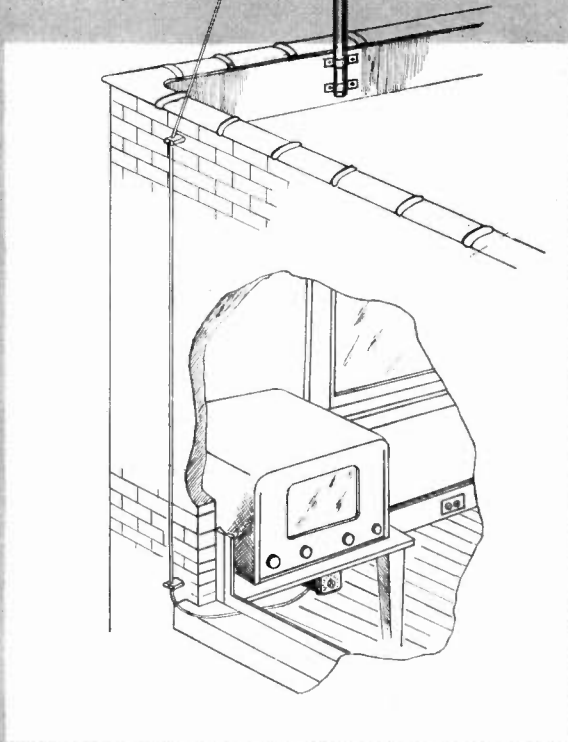
TV & FM ANTENNA

QUAD-LOOP, a quadrature-phasing antenna, achieves all of the advantages of mechanically rotated antennas without any moving parts. Controlled AT THE RECEIVER by a single knob, QUAD-LOOP selects maximum gain for each channel, regardless of the geographical location of the transmitting station.

Because it requires no orientation, QUAD-LOOP needs but one man to install instead of two, thus cutting installation costs materially. Ninety per cent assembled upon delivery, QUAD-LOOP may be completely assembled and installed in far less than the usual time required and because its sturdy, all-metal construction has no moving parts to wear or to become defective QUAD-LOOP will outlast mechanically rotated antennas without servicing or adjustment.

Constructed of two loops and four di-poles, QUAD-LOOP uses the loops for high frequency reception and the di-poles for low. When used on lower frequencies the loops act as resonated sections for the di-poles.

Kit..... List Price **\$34.50**



SQUARE
ROOT

MANUFACTURING CORPORATION
YONKERS 3, N. Y.

"Quad-Loop" is a registered trade mark of Square Root Mfg. Corp. Patent Pending.

ANTENNA
DESIGN ENGINEERS
SINCE 1921

RUTHERFORD AVENUE ON ROUTE 35

Telrex INC.

ANTENNA
• DEVELOPMENT •
• MANUFACTURING •
ASBURY PARK 1, NEW JERSEY

• CONICAL ANTENNAS •

TECHNICAL NOTES

Telrex Conical Antennas technically and practically assume response characteristics similar to a solid conical cone, giving broad band and high gain response with full audio and video band, pass over the entire television spectra.

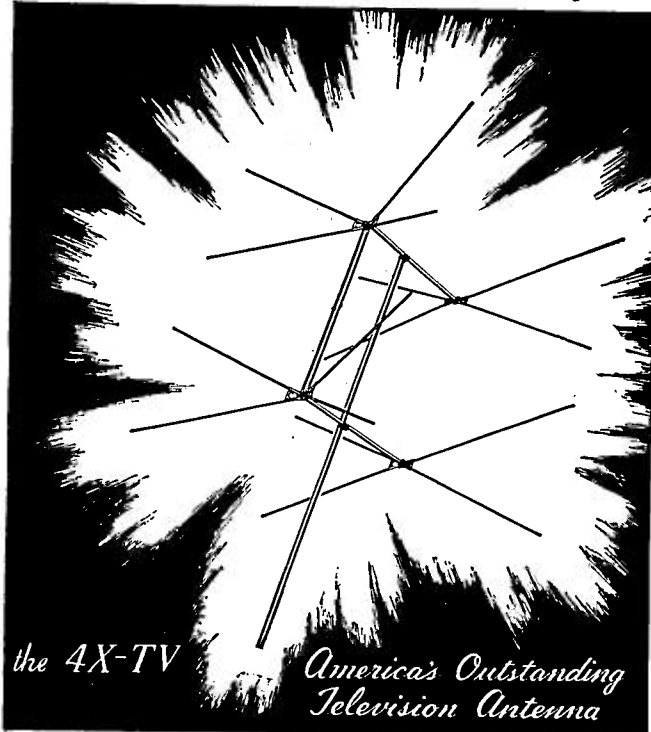
The nominal center impedance is designed to be 150 ohms and is non-varying because of the conical shaped receiving dipoles. The receiving dipoles are tilted forward to present a "V" to the incoming wave, preventing the receiving lobe changing with increasing frequency, and narrowing the forward receiving lobe. Thus the Telrex receiving dipole is an effective $\frac{1}{2}$ wave element on channel 2 increasing to $\frac{1}{2}$ wavelength on channel 3 and increasing in effective "V" beam action to channel 13 where it has become a full wavelength on each leg with the maximum receiving lobe being in line. The reflectors are effective at all frequencies with a front to back ratio of better than 12 DB on all frequencies.

Unlike other methods of covering both bands, Telrex Antennas do not introduce phase shift or discriminate in favor of one band versus the other or one station versus another, and need only one transmission line. Closer to the stations at some locations it may be necessary to use another antenna because one or more stations are located too far either side of the receiving lobe. This antenna should have its own transmission line. Results can be obtained by connecting the antennas together, although this should be avoided as it may impair the reception on one or more stations. When the stations are within a 5 to 15 degree sector depending on distance from the transmitter the Telrex antenna used for maximum efficiency at low frequencies becomes a much more efficient antenna on the high frequencies than a separate cut-to-frequency stacked antenna.

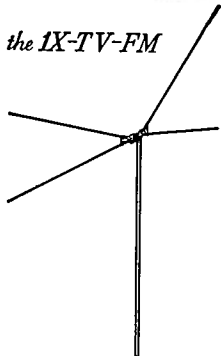
The 2X-TV model presents a modified stacking of $\frac{1}{4}$ wave with highest possible signal-to-noise ratio and minimum reflections. The 4X-TV model is stacked to present a spacing of $\frac{1}{4}$ wave on channel 2 increasing to full wavelength spacing on channel 13 lowering the angle of inception tremendously and eliminating high angle response lobes directly above and below the antenna. The gain effected by stacking is a variable factor depending on distance to the station, angle of radiation, season of year, time of day, etc., but it accounts for tremendous gain and minimizes noise, flutter, fading and reflections. The 8X-TV model presents the ultimate in television arrays with all band coverage.

The 150-ohm non-varying center impedance makes it possible to use any of the commercially available transmission lines whether 75-ohm coaxial, 90-ohm twin-ex or the unshielded variety 150- and 300-ohm ribbons with a standing wave ratio never exceeding 1.6 to 1 regardless of channel being received. Standing waves cause excessive phase-shift, causing blurred pictures, multiple images and decreased sensitivity.

You are invited to consult our engineering staff on any unusual antenna problems.



the 1X-TV-FM

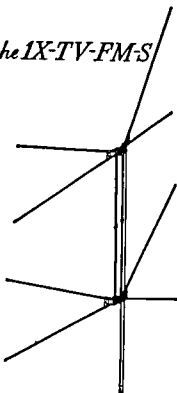


For Use in
Primary Signal Areas

FEATURES:

- Bi-directional Hi-gain Conical "V"
- Beam Channels 2 to 13 and FM
- 2 to 1 Front to Back Ratio
- Low Inception Angle
- Extremely High Signal-to-Noise Ratio
- 150-Ohm Non-Varying Impedance
- Uses 72-, 150- or 300-Ohm Transmission Lines
- Minimizes "Ghosts"

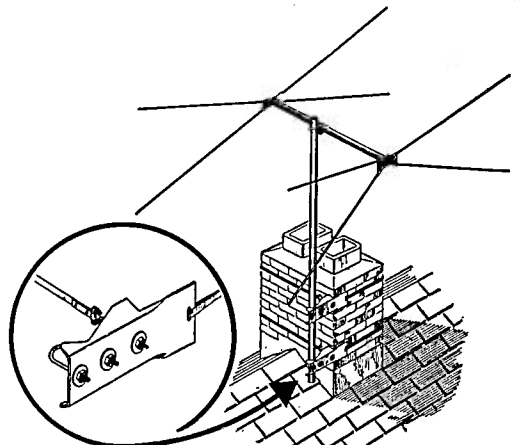
the 1X-TV-FM-S



For Use between Separated
Television Stations

FEATURES:

- Bi-directional Hi-gain Conical "V"
- Beam Channels 2 to 13 and FM
- 2 to 1 Front to Back Ratio
- Low Inception Angle
- Extremely High Signal-to-Noise Ratio
- 150-Ohm Non-Varying Impedance
- Uses 72-, 150- or 300-Ohm Transmission Lines
- Universal Mounting Clamp



Model 2X-TV installed on chimney, using the Telrex CM-2A Chimney Mount with stainless steel band.

ANTENNA
DESIGN ENGINEERS
SINCE 1921

ANTENNA
• DEVELOPMENT •
• MANUFACTURING •

RUTHERFORD AVENUE ON ROUTE 35

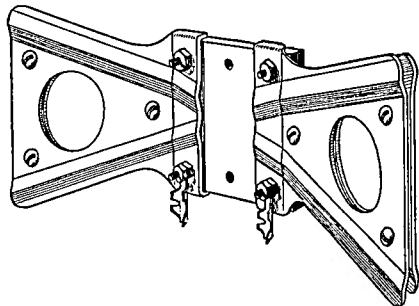
Telrex INC.

ASBURY PARK 1, NEW JERSEY

• TV AND FM ACCESSORIES •

MECHANICAL NOTES

Telrex products are designed to minimize assembly time on the "job" assuring a considerable time-saving and a perfect mechanical installation.

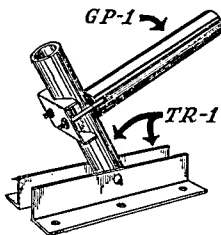
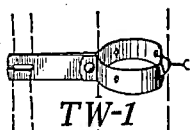


Telrex conical antennas are captivated within better than 3" of clamping action, providing better electrical contact over a longer period of time and a mechanical support that is second to none.

Mast or pipe clamps supplied are universal, allowing correct alignment and flexibility of mounting arrangements, from 3/4" up to and including 1 1/4" tubing.

The hardware in use is at all times the best money can buy oversized for the job.

Transmission Line Stand-off.
Stainless steel banding and phenolic. Used on any size mast or tacked to the building to keep the transmission line away from the pipe or building. Durable; easily installed.

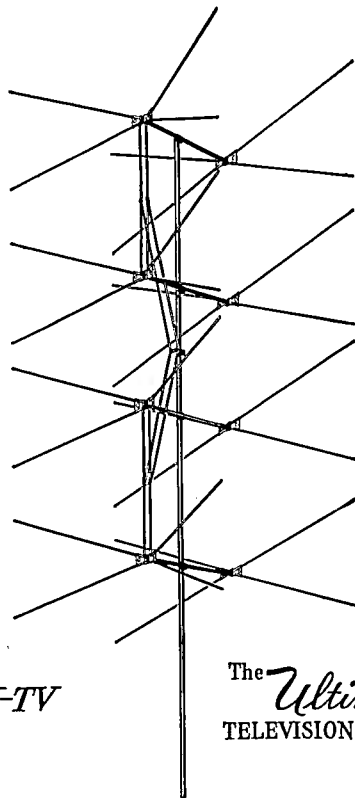
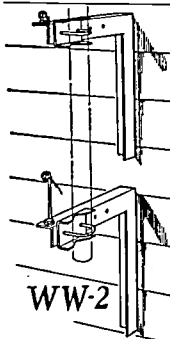


GIN Pole Accessory for use by the installer when a long mast is to be erected. Used in conjunction with the TR-1 (tilt-roof mount) makes erection of long masts a simpler task. Removed after installation for re-use.

Tilt-roof Mount, sturdily built of angle iron—easily mounted to roof—free action of mast for rotation and orientation.

Window Wall Set. A two-piece installation set for use where a roof installation cannot be made or where the roof overhang would interfere with mast being installed flush to the building.

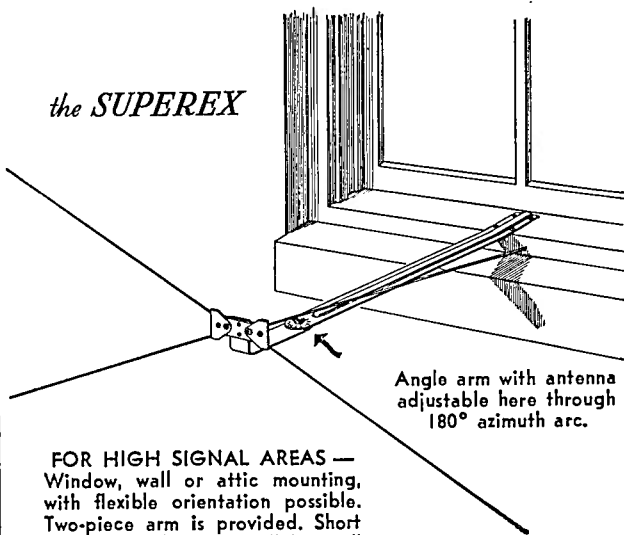
Made of welded angle iron with a cross brace of steel wire. Paint-dipped, assures a lasting installation.



the 8X-TV

The *Ultimate* in
TELEVISION ANTENNAS

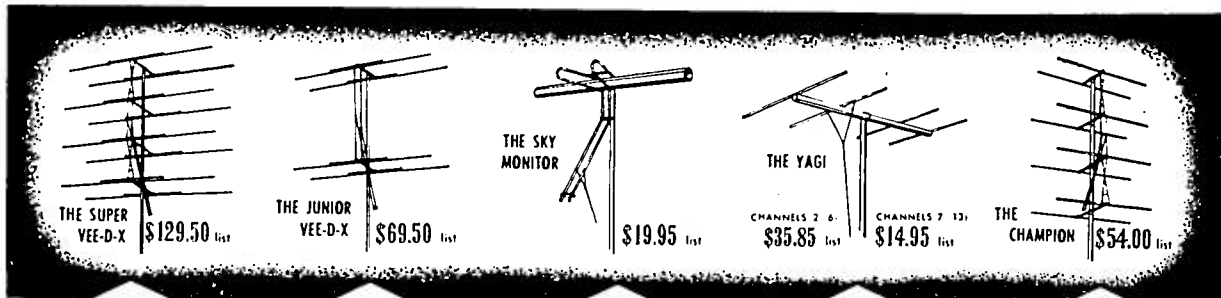
the SUPEREX



Angle arm with antenna adjustable here through 180° azimuth arc.

FOR HIGH SIGNAL AREAS — Window, wall or attic mounting, with flexible orientation possible. Two-piece arm is provided. Short arm is used for parallel-to-wall orientation. The second arm permits other than parallel orientation.

VEE-D-X HAS EVERYTHING YOU NEED FOR BETTER TV & FM INSTALLATIONS



The RD-13, a four bay, full wave, thirty-two element, stacked array, holds every record for long distance reception.

The JR-13, a two bay, full wave, 16 element, stacked array, adequate for most fringe areas.

The DGA-12—for the near fringe and primary areas. Broad band antenna with tunable "Q" Section. Extremely flat response.

The RDY Series, a four element beam cut especially for any channel. Utilizes 2" diameter boom with 1" elements for low channels. High gain at low cost.

The RDH series, a 16 element, full wave, four bay, stacked array, cut especially for any one of channels 7-13. This antenna will out-perform any other high channel antennas.

Whatever you need in the line of TV & FM antenna equipment may now be obtained from one dependable source. Why gamble with profits and customer good-will when you can be sure of all-around satisfaction with Vee-D-X—the complete single source quality line. Every Vee-D-X product is skillfully engineered for your active range of technical requirements and problems. Fast low cost installation insures full profit margin for you on every sale.

ALL ANGLE MOUNT. Particularly suited for mounting on side of house near a window for manual rotation of antenna. Designed to clear overhang of eaves, also excellent for flat or pitched roof.

CHIMNEY MOUNT. Fits any opening — round, square or rectangular from 4" to 22", accommodates 1", 1½" & 1¾" masts, takes only 60 seconds to install. \$7.50 List.

LIGHTNING ARRESTOR. Installed without cutting transmission line. Does not disturb impedance match. High dielectric, low loss. \$2.50 List.

NEW LIGHT-WEIGHT MAST. Extremely light weight (a 20' section weighs only 11 lbs.) without sacrifice of strength. Can be rotated after guy cables have been installed.

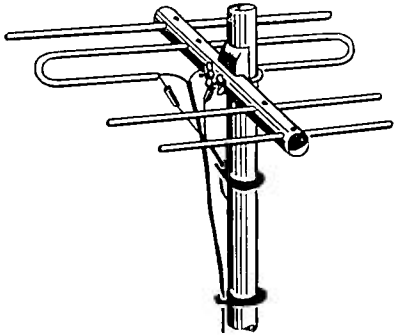
VEE-D-X SECTIONAL TOWER. Made in 10' and 20' Sections for mounting antennas up to 140' high. Sections are shipped assembled and painted. Strictly all welded construction. Antenna can be rotated from base.

THERE'S MORE VISION IN TELEVISION WITH VEE-D-X

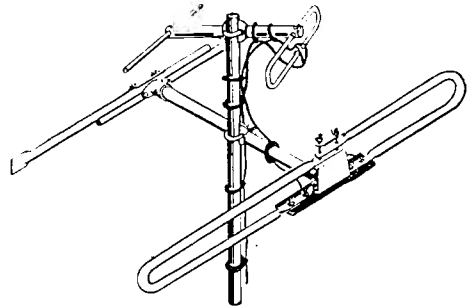
The LaPointe Plascomold Corp. UNIONVILLE, CONN.

ALL VEE-D-X PRODUCTS ARE FULLY PROTECTED BY PRODUCT LIABILITY INSURANCE

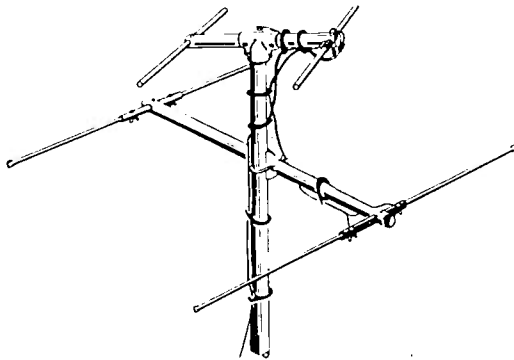
THE COMPLETE SOURCE OF TV AND FM ANTENNAS AND ANTENNA ACCESSORIES



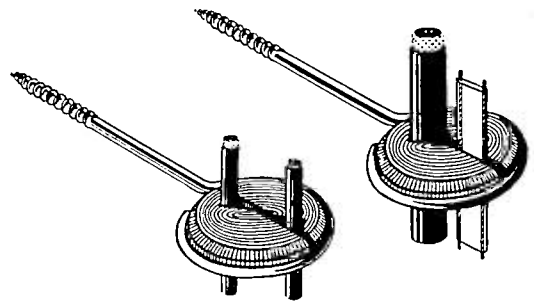
MODEL H-MFDR-5X. Highmaster TV Antenna. The last word in high frequency four-element array design. Super-sensitive pick-up in local or fringe areas. For channels 7-13 and can be independently oriented when used with low frequency array. Model shown contains patented A.A.K. filter divider network which is optional.



MODEL HLB-4. High-Low TV Deluxe Array. Factory assembled for fast installation — no hardware bag. Low array contains adjustable reflector elements for rejection of ghosts, also usable as directors when rotated to reverse position. For all channels and use in localities where there are reflection problems. This model has high forward gain and narrow band. Patented A.A.K. filter divider network is optional.



MODEL HLC-5. High-Low TV Standard Injector Array. Features slatted injection-type elements with bolts and wing nuts for fast assembly — no tools are required. Covers all channels and is used where a good signal level is available, but where there are slight reflection problems. Patented A.A.K. filter divider network is optional.



MODEL SSO-3. Steel Stand-Off. This universally efficient insulator will rigidly clamp any size of TV or F.M. twin-lead or coaxial cable. Various clamping combinations are available by merely reversing either or both half sections of the grommet. Supplied in 3" or 7" lengths. Made of semi-hard, weather resisting rubber compound, which will not deteriorate in heat or cold.

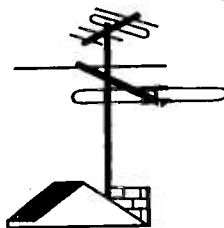
OAK RIDGE ANTENNAS

- Complete line of Model 5 TV Standard Rig-Fast Injector Arrays.
- Complete line of Model 4 TV Deluxe Factory Assembled Arrays.
- All lines contain single dipole to "lazy H" high and low frequency rigs; and, high-low combinations.

OAK RIDGE ACCESSORIES

- 4-Way Clamps
- Chimney Wall Mounts
- Flat and Coaxial Cables
- Steel and Rubber Stand-Offs
- Wall Mounts (6" and 12" sizes)
- Chimney Mount Conversion Units
- Telescopic Masts (24 ft. and 36 ft.)

Send for
FREE CATALOG



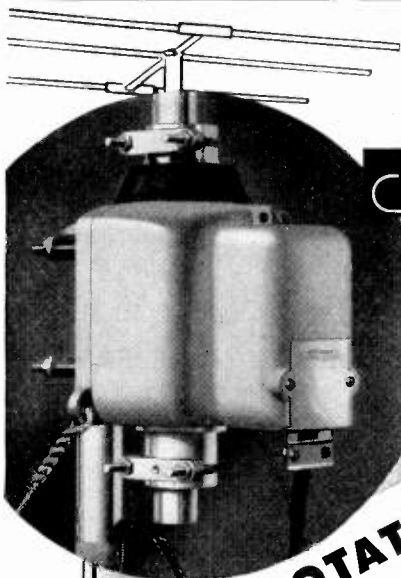
Rigged Fast To Last
OAK RIDGE ANTENNAS

239 East 127th Street, New York 35, N. Y.
Manufacturing Division of Video Television, Inc.

New!

TELEVISION ANTENNA ROTATOR by alliance

Makes the Image Clear - Reduces Interference!



*Operates in any weather
Fits most types of T.V. and F.M. antenna*

alliance
TENNA · ROTOR

GETS
**STRONGER
SIGNALS**

**ROTATES
TV AND FM ANTENNA**

LIST PRICE **\$39.95**



This new Directional Aid means instant "arm-chair" control for Television Antenna. Dealers and Service Shops can order from their jobber now!

CONTROL BOX
Size: 5" x 5" x 4"

Announcement!
New deluxe Tenna-Rotor with indication control case (Model DIR) now available. . . . List Price \$49.95

Model
A T R

Size of
rotor
unit
7 $\frac{3}{4}$ "
x 5 $\frac{1}{4}$ " x
8"

Ship-
ping
weight
12 lbs.

• The Alliance Tenna-Rotor is an antenna rotator designed to rotate the beam antenna in FM, Television and other high frequency radio applications. It consists of the rotator which is mounted on the antenna mast and a control box placed adjacent to the receiver.

The rotator unit, fully enclosed in a split zinc die-cast housing, is an electrically driven rotor—actually a rotating hollow shaft, into which the antenna center post is clamped. A four-conductor cable connects the rotator with a plastic control box which plugs into any 60-cycle 110-volt AC house circuit. A three-position selector switch controls the rotator. Throwing the switch to the right or left rotates the Rotor shaft clockwise or counter-clockwise through a complete arc of 365 degrees.

At the position of optimum reception, the switch is thrown to the center OFF position. Thus, Tenna-Rotor provides positive, instant control of rotation, enabling the operator to select the exact position for "peaked" reception! An automatic signal light illuminates a screen on the panel and tells when the limit of travel in either direction is reached. Tenna-Rotor is factory lubricated for life . . . designed for years of rugged service, works in any weather and the rotor unit resists corrosion. Tenna-Rotor reduces interference, expands the range and improves the performance of TV and FM installations. Amateurs can use it for trans-

mission and reception with a special accessory thrust bearing (List Price \$7.95 additional) which will handle most three element beams with a thrust load up to 200 lbs.

SPECIFICATIONS Electrical

Input volts—110 volts 60 cycle AC
Input power—30 watts
Clockwise or counter-clockwise rotation
Instantly reversible motor
Minimum coast to stop
No receiver interference

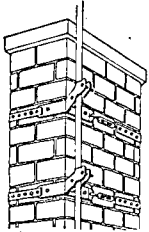
Mechanical

Positive mechanical stop at end of rotation
Rotates through 365 of arc at speed of approx. 1 r.p.m.
Factory lubricated for life
Moisture sealed
Corrosion resistant components throughout—
—cadmium plated parts
Maximum allowable antenna weight—20 lbs.
Maximum O.D. for antenna mast—1 $\frac{3}{8}$ "
Interconnecting cable—4 conductor No. 20 gauge
Rotor Size—7 $\frac{3}{4}$ " x 5 $\frac{1}{4}$ " x 8"
Control Case Size—5" x 5" x 4"
Approx. Shipping Wt., 12 lbs.

Metalace
SETS THE PACE

ANTENNA MOUNTING EQUIPMENT

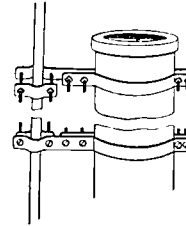
THE ONLY FULL LINE . . . a mount for every purpose . . . all constructed of heavy gauge steel — NOT Castings — treated with a new and improved waterproof coating made to Navy specifications for complete protection against weather conditions . . . in a handsome semi-gloss silver finish . . . vise-type clamps accommodating masts of $\frac{3}{4}$ " to $2\frac{1}{2}$ " . . . all hardware pre-assembled so that no time is lost in installation.



CHIMNEY MOUNT

Model CMA

Designed to allow any spread between mast brackets. Exclusive turnbuckle feature provides rapid and secure take-up. Installed in a matter of minutes with ordinary tools . . . no drilling necessary. Several other chimney type mounts available.



VENT PIPE MOUNT

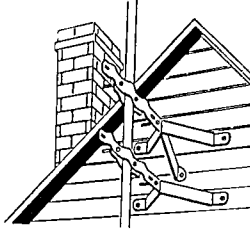
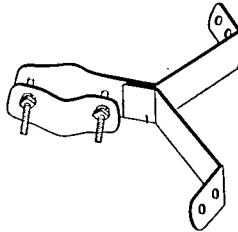
Model VM-6

For speedy installation of mast on 4" to 6" vent pipes or poles.

EAVE BRACKET

Model EM-6

For a simple installation allowing a 6" stand-off.



ADJUSTABLE EAVE MOUNT

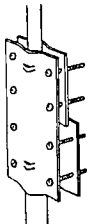
Model EMX

A practical tripod support with simple adjustment permitting an 8", 10" or 12" stand-off or as much as 16" when used in conjunction with Metalace Mast Joiner. Three other non-adjustable models available for 12", 18" or 24" stand-offs.

MAST EXTENDER

Model EM-8

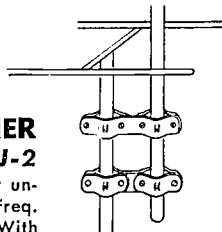
Permits a 4" bite on any two masts of equal or unequal diameter. With six guying points.



MAST JOINER

Model MJ-2

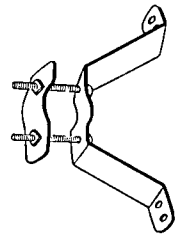
For joining masts of equal or unequal diameter . . . to add Hi-Freq. to an existing installation. With four guying points.



WALL MOUNT

Model WM-4

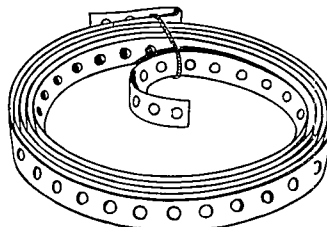
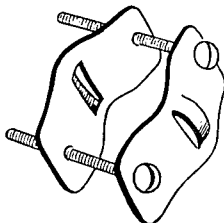
For rugged in-close mounting allowing a 4" stand-off.



GUYING CLAMPS

Model GC-4

Vise-type clamps to hold guys at any point on a mast.



STEEL STRAPPING

Model SM-100

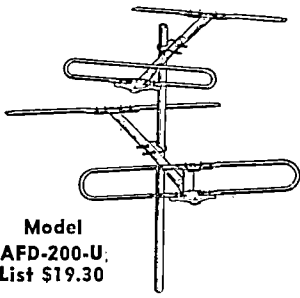
$\frac{3}{4}$ " galvanized steel with $\frac{1}{4}$ " holes on $\frac{3}{4}$ " centers . . . for mounting and securing masts to odd shaped forms. In convenient 100' rolls.

IMMEDIATE DELIVERY • LOWEST PRICES • MANY OTHER PRODUCTS • SEND FOR CATALOG

METALACE CORPORATION

Dept. 112 2101 GRAND CONCOURSE NEW YORK 53, N. Y.

RMS TELEVISION ANTENNAS ACCESSORIES



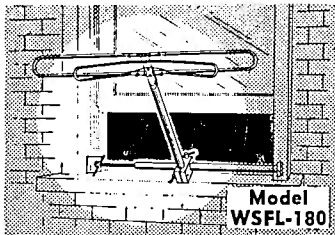
Model
AFD-200-U
List \$19.30

ALL-CHANNEL FOLDED DIPOLES with Reflectors

Aluminum tubing, massively constructed, specially ridged at joints for maximum strength. Both arrays separately oriented. U-Bolt mounting. Complete with mast.

Other RMS All-Channel Television Antennas

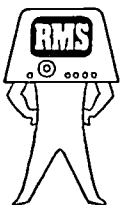
	List Price
ASD-150—Straight Dipoles with Reflectors and mast	\$18.20
AFD-200—Folded Dipoles with Reflectors and mast	20.00
ASD-150-U—Straight Dipoles with Reflectors, less mast, U bolt mounting	17.30
FFD-120—Folded Dipole, with hi-freq lobe, and mast	10.60
FRD-130—Folded Dipole with Reflector, hi-freq lobe, and mast	16.20
ALHS-675—Straight hi and lo dipoles, reflector, in line	15.30
ALH700—Folded hi and lo dipoles, reflector, in line	17.40
CAS725—Pyramidal, with reflector	21.15
CAD750—Stacked Pyramidal, with reflector	42.30
YAC800—Dual "U"	17.40



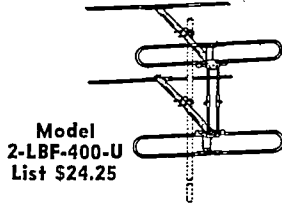
Model
WSFL-180

WINDOW SILL TELEVISION ANTENNAS

WSFL-180—All channel folded dipole with hi-freq lobes, mounts in any window, no drilling or cutting, no holes. Perfectly secure, dependable. List \$17.00
WSS-160—Straight Dipole window antenna, similar to above, channels 2 to 6. List \$13.80



MEMBER
RMA
You are invited to write for catalog #215-U, illustrating complete line of outstanding RMS antennas and associated accessories.



Model
2-LBF-400-U
List \$24.25

LOW BAND FOLDED DOUBLE DIPOLES with Reflectors

High gain array for channels 2 to 6. U-bolt mounting, less mast. Easily oriented. Rigid, massive construction. Other RMS Low Band Antennas

	List Price
SD-10—Straight Dipole	\$ 6.85
FD-25—Folded Dipole	9.40
SDR-50—Straight Dipole with Reflector	12.50
FDR-100—Folded Dipole with Reflector	15.00
LBS-30-U—Straight Dipole with Reflector, U-Bolt mounting, less mast	9.75
LBF-40-U—Folded Dipole with Reflector, U-Bolt mounting, less mast	11.60
2LBS-350-U—Stacked straight Dipoles with Reflectors, U-bolt mounting, less mast	19.25

HIGH BAND ATTACHMENTS

Model HFS-250 List \$6.60

Straight Dipole with reflector and mast, for channels 7 to 13. Easily attached to main antenna mast, by clamps supplied. Heavy gauge aluminum, polystyrene insulation.

Other RMS High Band Attachments

	List Price
SAH-1—Straight Dipole with Reflector	\$ 5.10
DAH-5—Folded Dipole with Reflector	5.40
HFF300—Folded Dipole with Reflector, mast and brackets	7.00
2HBS-450-U—Stacked Straight Dipoles with Reflectors, U-Bolt mounting, no mast	10.65
2HBF-500-U—Stacked Folded Dipoles with Reflectors, U-Bolt mounting, no mast	11.60

TELEVISION ANTENNA DIRECTORS

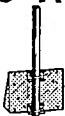
D2 to D6—Directors cut to exact channels 2 to 6. List each \$6.05
D7 to D13—Same, channels 7 to 13. List each \$4.50

EXTENSION MASTS for Television Antennas

AM-6—Heavy walled aluminum 1 1/2" OD, 6 ft. length.	List each \$3.50
SM-6—Heavy gauge plated lock-seam steel, 1" OD, 6 ft. length.	List Price Cartons of Twelve \$32.00
SM-10A—Steel, same as above, but 10 ft. length.	List Price Cartons of Twelve \$53.35
SM-10B—Steel, same, 10 ft. length, 1 1/4" OD.	List Price Carton of Twelve \$60.00

RMS ALL ANGLE MOUNTING BRACKET

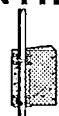
FOR
FLAT
ROOF



FOR
SLOPING
ROOF



FOR
WALL



for TELEVISION
ANTENNAS

Model AMB.

Made of heavy gauge plated steel, supplied with 2 "U" Bolts, nuts, 4 lag screws. List Price \$5.25

RUBBER STAND-OFF INSULATORS

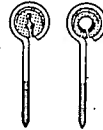
For holding twin-lead neatly, securely at fixed distance from crossbars and masts.

List Price
\$8.25 per 100



SCREW EYE STAND-OFF INSULATORS

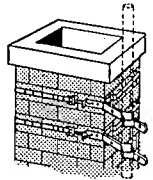
3530—3 1/2", for Twin Lead \$82.50 per M
3572—3 1/2", for Coax Cable \$82.50 per M
730—7", for Twin Lead \$150.00 per M
772—7", for Coax Cable \$150.00 per M



RMS TELEVISION ANTENNA CHIMNEY MOUNT

Model
SCM-100

Made of heavy gauge plated steel. Fits any chimney or other upright rectangular roof structure, having girth up to 12 ft. List Per Pair \$4.30



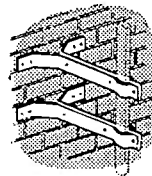
WALL & CHIMNEY MOUNT

for Television
Antennas

Model WCM-500

Holds antennas securely 6" from any wall or chimney.

Made of heavy gauge plated steel, easy to mount. All hardware included. List Per Pair \$2.00



U-BOLT MOUNTING BRACKETS

Model UB-10

Permits joining together of two masts each up to 1 3/8" OD. Packed 25 to carton. List Price per Carton \$12.50



GUY WIRE RINGS

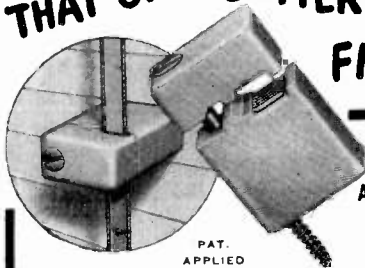
GR-1—1" I.D.
GR-2—1 1/8" I.D.
GR-3—1 1/4" I.D.
List Price any type, cartons of 100 \$15.00



RADIO MERCHANDISE SALES, INC.

NEW YORK, N. Y.

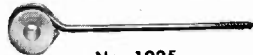
NEW LEAD-IN SUPPORTS THAT GIVE BETTER TELEVISION and FM RECEPTION!



PAT.
APPLIED
FOR
No. 9418

Porcelain Products' exclusively designed lead-in supports give rigid support preventing lead-in wire from twisting in wind or going slack. Quick moisture drainage prevents short circuits. Made of highest quality porcelain, resistant to weather extremes, factory assembled, screws rust-proofed, no maintenance, low initial cost. For all popular types of lead-in cables.

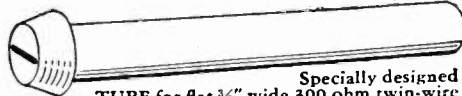
OTHER ANTENNA AND LEAD-IN ACCESSORIES



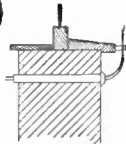
No. 1925
Insulated Screw Eye. Overall length 7-1/4", 5/16" insulator hole.



No. 1961
Split Bridle Ring Insulated Screw Eye. Overall length 3-5/8", 5/8" insulator hole, 1/4" diagonal slot.



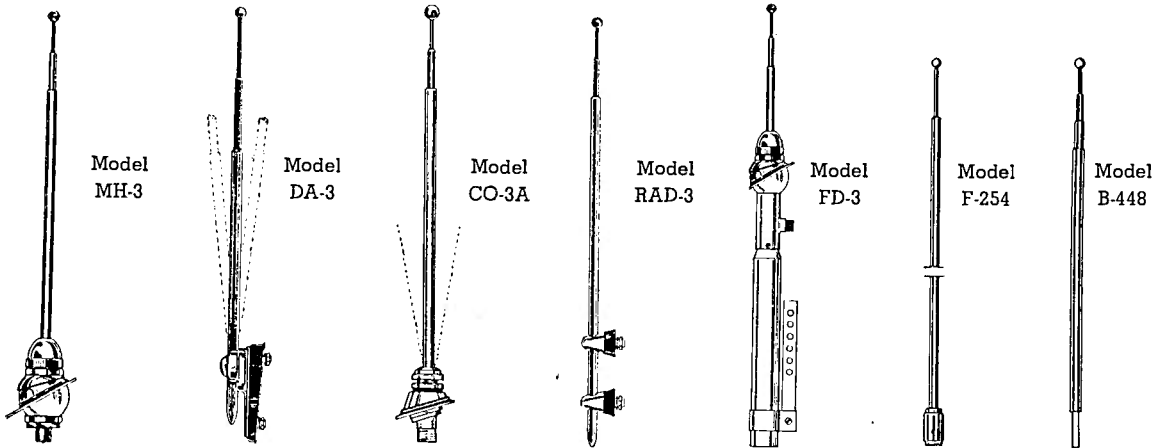
Specially designed TUBE for flat 3/8" wide 300 ohm twin-wire TV-FM Lead-in Conductors. Outside diameter 1 1/8" - fits hole made by standard 3/4" drill bit. Finest electrical porcelain, rectangular hole prevents conductor from twisting. Write for folder.



Porcelain Products, Inc.

FINDLAY, OHIO

RAD-EL-CO AERIALS



THE CHOICE ACROSS THE NATION FOR QUICK, EASY INSTALLATION!

MH-3 MONARCH COWL-FENDER

Chrome plated all metal mounting base adjustable from flat to 30°. Does not crush. Holds adjustment permanently. 36" Radar Cable.

MH-3 List \$5.45 3 Sec. 57"

DA-3 ADJUSTABLE SIDE COWL

Side mounting on sloping or vertical surfaces of cowl or fender. 1/2" mounting holes. Mast swing of 35°. 36" Radar Cable.

DA-3 List \$5.45 3 Sec. 72"

CS-3 CHAMPION SIDE COWL

Quality Built—competitively priced. Chrome plated brass tubing. Black covered shielded cable with screw-on connector. Metal capped ceramic insulators.

CS-3 List \$3.45 3 Sec. 66"

CO-3A ROTOLOK COWL-FENDER

Easy mounting through 1/2" hole. All tightening outside. Non-crushing chrome plated metal mount. VISE-LOCK eliminates braces. 36" Radar Cable.

CO-3A List \$4.95 3 Sec. 57"

RAD DELUXE SIDE COWL

Built to superior quality standards. Automotive specification chrome plate. Low loss 100% shielded 36" Radar cable with screw-on connectors.

RAD-3	List \$4.65	3 Sec.	70"
RAD-4	" 5.65	4 "	92"
RAD-5	" 6.65	5 "	112"

FD-3 CONCEALED COWL-FENDER

Chrome plated all metal adjustable mounting base. Strong, non-crushable. Waterproof, electrically efficient, guaranteed trouble free. 48" Radar Cable.

FD-3 List \$6.95 3 Sec. 4" - 55"

F-254 FORD REPLACEMENT MAST

For 1941-42-46-47 Ford-Mercury Roof Antenna that operates behind windshield center post.

F-254 List \$2.00 2 Sec. 54"

B-448 BUICK REPLACEMENT MAST

Replacement mast for roof aerials on all Buicks 1940 to present.

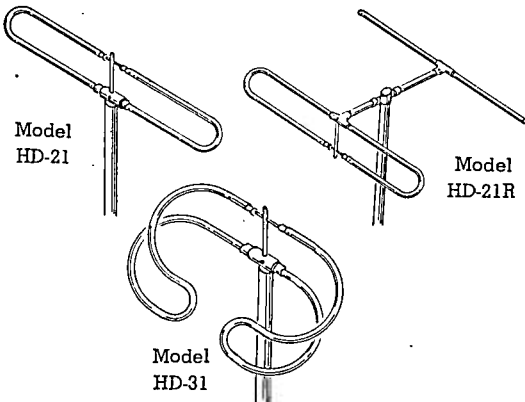
B-448 List \$2.50 4 Sec. 45"

RADAR LEAD CABLES

Radar type coaxial polyethylene cable completely shielded. Type L as supplied with aerials. Extension type LE has male and female pin plug fittings.

Model	L-36	L-48	LE-12	LE-24	LE-36
List	\$1.35	\$1.60	\$.75	\$1.10	\$1.35
Length	36"	48"	12"	24"	36"

★ DOUBLE STAR FM DIPOLES ★



HD-21 FOLDED DIPOLE

Impedance of 300 ohms matches RMA Standard receiver input. Complete with 8 ft. mast, guy ring, stand-off insulator, wall brackets, base and 50 ft. of 300 ohm line.

HD-21 List \$8.25 88-108 MC

HD-21R DIPOLE-REFLECTOR

Same accessories as Model HD-21 plus reflector to increase signal strength. More directional than Model HD-21 with much increase in forward gain.

HD-21R List \$10.75 88-108 MC

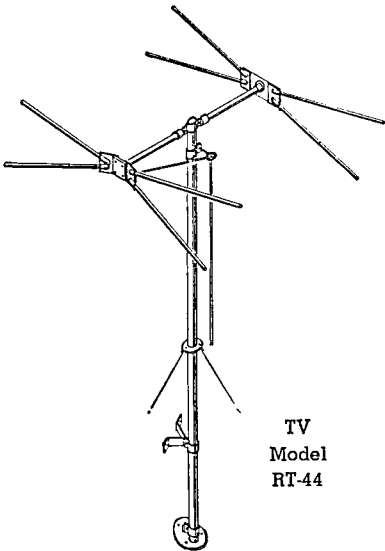
HD-31 DIFOLD DIPOLE

Much less directional than folded dipole. Use where signals come from several directions. Same accessories as HD-21.

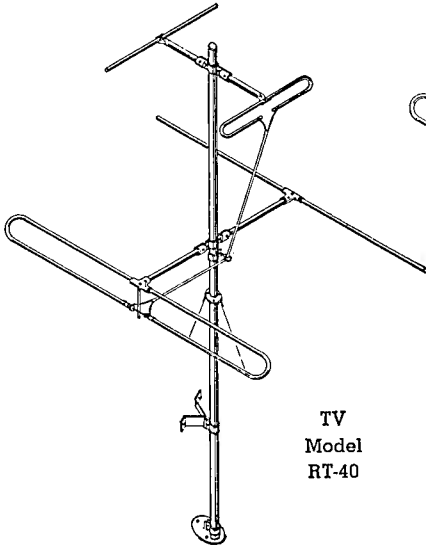
HD-31 List \$8.95 88-108 MC

TV AND FM ACCESSORIES

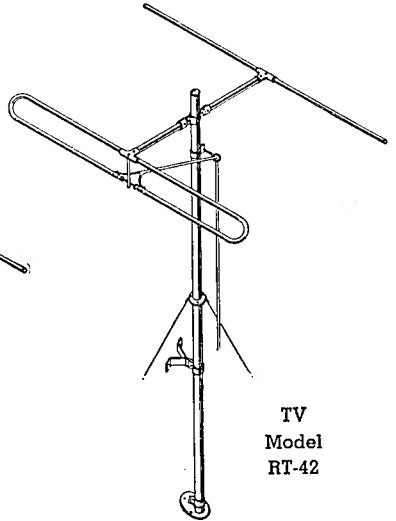
ME-48	4 ft. steel mast extension.....	List \$1.25
HR-1	Reflector Kit for HD-21.....	" 2.50
RQ-42	Stacking Jumper Bar.....	" .75



TV
Model
RT-44



TV
Model
RT-40



TV
Model
RT-42

TODAY'S GREATEST VALUE IN TV ANTENNAS

RT-44 SIMPLEX DIPOLE AND REFLECTOR

New "X" type aerial. Sturdy and simple to assemble. High gain on all channels. Fine for fringe reception. Complete with 8 ft. steel mast, guy washer, stand-off insulator, wall brackets and base. Model RT-44 includes 50 ft. 300 ohm cable.

RT-44.....	List \$13.25.....	54-216 MC
RT-44LL.....	" 11.45.....	54-216 MC

RT-40 HI-LO DIPOLE AND REFLECTOR

Separate high and low frequency bays for efficient reception from stations in different directions. Easy to assemble. Complete with same accessories as RT-44. Model RT-40 includes 50 ft. 300 ohm cable.

RT-40.....	List \$12.75.....	54-216 MC
RT-40LL.....	" 10.95.....	54-216 MC

RT-42 LOW BAND DIPOLE AND REFLECTOR

For reception on channels 2 - 6. Same accessories as RT-44. Model RT-42 includes 50 ft. 300 ohm cable.

RT-42.....	List \$10.75.....	54-88 MC
RT-42LL.....	" 8.95.....	54-88 MC

RT-43 DUAL BAND DIPOLE AND REFLECTOR

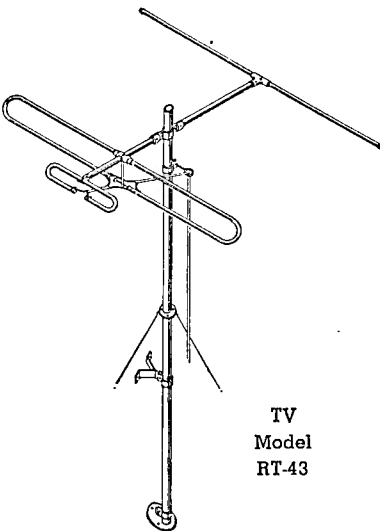
In-line type with special array to provide exceptional gain on all channels. Ideal where all stations are in same direction. Same accessories as RT-44. Model RT-43 includes 50 ft. 300 ohm cable.

RT-43.....	List \$12.25.....	54-216 MC
RT-43LL.....	" 10.45.....	54-216 MC

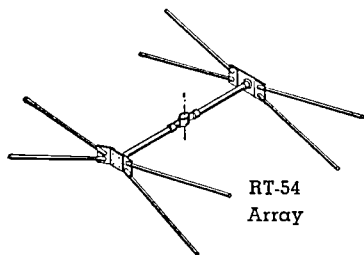
TELEVISION ARRAYS FOR STACKING PURPOSES

To increase gain and reduce interference, the following arrays are designed for use with above aerials.

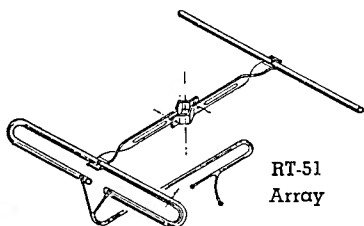
RT-51 High Band Array.....	List \$2.50.....	174-216 MC
RT-52 Low Band Array.....	" 5.95.....	54-88 MC
RT-53 Dual Band Array.....	" 7.45.....	54-216 MC
RT-54 Simplex X type Array.....	" 7.95.....	54-216 MC



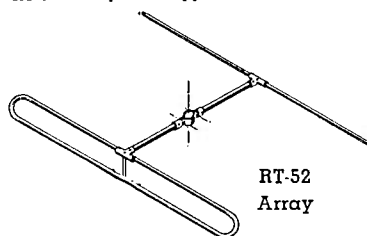
TV
Model
RT-43



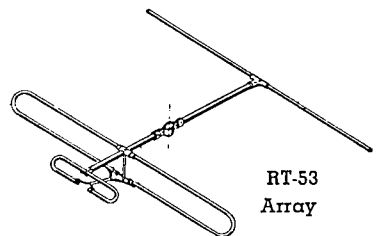
RT-54
Array



RT-51
Array



RT-52
Array



RT-53
Array