Film-Tech

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REED

Drive-in Theater Speaker and Junction Box Parts List (includes special tools)

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Revised February, 1980

REED SPEAKER MANUFACTURING CO., INC.

INDEX

CONE/MECHANISMS

Part No.	Size	Mag. wt. oz.	Alum VC Impd.	Height	Guarantee	All Parts Weather proofed	See Photo on Page
63	2¼ x 6¼	1.47	3.2	2-1/8"	Yes	Yes	DISCONTINUED
64	4 x 6	1.47	3.2	2-1/4"	Yes	Yes	DISCONTINUED
65	3½"	1.47	3.2	2"	Yes	Yes	DISCONTINUED
70X	4"	1.47	3.2	2-1/8"	Yes	Yes	17
70XT	4" Taper Tabs	1.47	3.2	2-1/8"	Yes	Yes	
70-5	5"	1.47	3.2	2-1/8"	Yes	Yes	
70-6	6"	1.47	3.2	2-1/8"	Yes	Yes	
70XCM	4"	"Ceramic"	Requires #272 Tension Spring when used in Reed #2234 Speaker.				

The above Cone/Mechanisms are especially designed for use in connection with the reproduction of Motion Pictures in Outdoor Theatres.

PART NUMBER	DESCRIPTION	See Photo on Page
72	PROTECTOR SCREEN. Perforated Aluminum Screen for 4" Cone/Mechanisms.	17
73	CROSS CONNECT WIRE. Has #310 Spade Terminal on one end — #75 Kwik-On Connector on other end. Used to Ground terminal of Cone/Mechanism in Reed Speaker for #412 SHUT-OFF operation. See Photo on Page 29.	21-29
73-J	JUMPER WIRE. Used to ground Terminal #1 of Barrier Strip in Junction Head for #412 SHUT-OFF operation. Also see #601 and 602 grounding straps.	21-30
74	CROSS CONNECT WIRE. For connecting Volume Control to Cone/Mechanism. Has #75 Kwik-On Connector on both ends of wire.	21
74-Ins	CROSS CONNECT WIRE. Same as #74 except one Connector is Insulated for center terminal of #400LN Volume Control.	21
75	CONNECTOR KWIK-ON. Female connector. Used on ends of speaker cords for quick connection or disconnection in Field. Used in conjunction with #305 Two-Way Male terminals installed in Junction Heads. Also used inside Reed Speakers for interconnecting of Volume Control, Cone/Mechanism and Speaker Cord.	19
80	CONNECTOR-TAPER TAB. Female connector. Used on ends of SIMPLEX SPEAKER cords for quick connect and disconnect. Used in conjunction with #306 Two-Way male terminals which are permanently installed in the SIMPLEX Junction Head. Also for interconnection of Volume Control and Cone/Mechanism inside the SIMPLEX Speaker.	19
82-A	CONNECTOR for connecting Knox Junction Head to underground wiring. Replaces old Knox #82 connectors which are no longer available.	19
85	CORD. Straight Speaker Cord, 18-2 SVT Black Color. Specify type of Terminals, see list of various types on Page 3.	3
108	CABLE. Theft resistant speaker cable. Has two #18 Conductors and one steel aircraft cable inside grey Vinyl low temperature tubing. Specify type terminals, see list Pg. 3.	20
108W	CABLE. Same as #108 except tubing is white Vinyl. Vinyl weathers better than rubber. Does not dry out and crumble in outdoor service.	19
108-Loop	Same as 108 except has Loop on End of Steel-Cable. See Information on Page 3.	

TERMINALS FOR CORDS AND CABLES

See Photo on Page

Specify type of terminal wanted on each end of Cord or Cable.

Terminal

#75 = Kwik-On Female Terminal. Specify how many 2 or 4.
80 = Taper Tab Terminal. Specify how many 2 or 4.
310 = Spade Terminal. (2 on Post end of Speaker Cord or Cable)
Loop = Loop formed on Post end of Steel Cable for Looping over Wire Speaker Basket as used in Old RCA Junction Heads. 19
312 = Ring Terminal on ends of steel cable of the 108 TR Cable.
312-C = Same as #312 except that terminal is slightly bent cup shape to fit certain speakers having smaller Cable Hole.
ST = Speaker end of cord or cable is bare copper ready for soldering to Speaker terminals.

EXAMPLES OF CORD OR CABLE ORDERING.

#85 Speaker Cord with 2 #75 Terminals and 2 #310 Terminals.
or
#85 Speaker Cord with 4 - #75 Kwik-On Termnals.
or
#108 Theft Resistant Cable with 4 #75 Kwik-On Terminals and Steel Cable Looped on Post end.
or
#108 Theft Resistant Cable with 4 #75 Kwik-On Terminals and Cupped 312 Ring Terminal on Post End of Cable.
ST = Bare Copper Tips on Speaker end of Cord or Cable for soldering to Speaker and Volume Control terminals.

110 CRIMPING TOOL. For attaching terminals and connectors to speaker cords and cables. Has insulation Support forming slots. DISCONTINUED 17

111 CRIMPING TOOL. Same as above #110 except has Diagonal Cutter instead of Insulation forming slots. DISCONTINUED 17

115-X CORD. 18-2 SVT Semi-finished straight speaker cord. Cut to 6 Ft. lengths. Jacket removed 3" each end. Terminals to be applied by Theatre.

120 CORD. 18-2 SJ Rubber Speaker Cord on 250 Ft. Spools.

124 CORK-NEOPRENE TENSION SPACER. 7/8" x 1/4". Used in Reed Speakers. 20

131 GROMMET. Rubber grommet for speaker cord protection in old style #1234 Reed Speakers. DISCONTINUED

134 HANGER. Plastic Handle for old Simplex Speaker. DISCONTINUED

136 HANGER. (Heavy Duty) Replaces old #135 and 135N hangers. This hanger can be used to repair some other makes of speakers. Will not break when speaker is dropped or RUN OVER. 20

137/367	WRENCH ¼" Drive Flex Handle Socket (7/16" 12 Point) for installing 136 Hanger Arm on REED SPEAKERS.	13
139	WASHER - For installing #136 Hanger.	
144	WASHER - #8 Stainless Steel Washer. Used to install Reed Junction Head. Cover on SIMPLEX #PD 3004 Junction Head Base. See Photo Pg. 25. Prevents mounting screws from falling through when Cover is removed.	25-26
146	NYLON WASHER - insulating of 108 cable for 412 Shut-Off operation.	13
147	DELRIN PIN - Insulating of 108 cable for 412 Shut-Off operation.	13
149-X	RESISTOR. 5 ohm wire wound ½ watt resistor. To modify old style speakers to1 Shut-Off operation.	9
155	SCREW - ¼" 6/32 Allen Socket Head Screw. For #410, 412, and #415 Volume Control Knobs. This set screw is self threading of Volume Control shaft and #410, 412 and 415 knobs. For quick and easy driving of this set screw use #417 key wrench.	14-15 REPLACED BY # 155 PHP
155-L	SCREW - Same as #155 except is 1/16 longer.	
159	SCREW - ½" - ¼ - 20 Stainless Steel Allen Socket Head Screw for mounting 499-C REED Junction Head to post.	
159-W	Allen Wrench 6" long for #159 Allen Screw.	
160	SCREW - ¼" - 8/32 Fillister Slot Head. For installing #305 Terminal in Junction Heads having #8 Terminal Screws, such as #315 Barrier Strip.	22
162	SCREW - ¼" - 6/32 Fillister Head. For installing #305 Terminal in Junction Heads having #6 Terminal screws, such as #320 Barrier Strip.	22
163	SCREW - ¼" #6 Self-Tapping screw for mounting #505 Clip in #500-C2 Junction Head cover. Also used for #412 Shut-Off Ground wire on Cone/Mechanism inside of Speaker case.	19
165	SCREW - 5/16" - 8/32 Round Head. Used for mounting Cone/Mechanism and volume control mounting plate in RCA and SIMPLEX Speakers.	
166	SCREW - 5/16" - 8/32 Pan Head. Used same as #165.	
170	SCREW - 3/8" - #8 Pan Hd. Phillips Self-Tapping. For mounting transformer in REED Junction Head.	22
171	SCREW - 5/8" - 8/32 Self-Threading Pan Slot Head. For #108 Cable Anchor in REED #501B2 Junction Head Base. See also #181.	
172	SCREW - ¼" 6/32 Binding Head Screw for #320 Barrier (7 section) Barrier Strip.	
172A	SCREW - 5/16" 6/32 Same as above, except longer, when needed for a multiple number of Underground wire connections in Junction Head.	
172B	SCREW - 3/8" 6/32 Same as above	
173	SCREW - 3/8" 8/32 Flat Head Slot. For attaching #280, 281, 295 and 296 Tail Piece Lip to RCA, Simplex and similar Speakers. See #175.	
174	SCREW - 3/8" 8/32 Fillister Head Slot. Used in new Simplex Speakers.	

PART	DESCRIPTION	See Photo on Page
175	SCREW - ½" 8/32. Use same as #173 where longer threads are needed.	
180	SCREW - ½" 6/32 Round Head. Used in terminal strip of old style SIMPLEX Junction Head.	
181-P	SCREW - ½" 8/32 Phillips Self Tapping Anchor Screw used in Junction Head for Theft Resistant Cables.	
181-S	SCREW - ½" 8/32 Slot Head	
182	SCREW - ½" 8/32 Pan Head Phillips. Used in Old SIMPLEX 3-½" Speaker Case.	22
188	SCREW - 1" - ¼-20 Flat Head for mounting Cover old style RCA Junction Head.	
188-P	SCREW - 1" - ¼-20 Phillips Head for mounting Cover old style RCA Junction Head.	
190	SCREW - ¾" ¼-20 Hex Head MCH Screw for mounting #499-C Junction Head. Also mounting of #501-A3 Adapter. Also see #159.	
192	SCREW - 1¼" - ¼-20 sq. Head. For mounting REED Junction Head to 1½" pipe.	
195	BOLT - 5/8" ¼-20 Carriage Bolt Zinc plated for installing #136 Hanger on #2234-B Speaker Back. Use #256-U Nut & #139 Washer. REPLACED BY 195-L	22
195L	BOLT - ¾" ¼-20 Carriage Bolt for installing #136 Hanger on old style REED Zinc Speaker #1234.	
200	SCREW - ¾" Type A #8 Rd. Hd. Phillips Self Tapping. Used to mount #315 or #320 terminal strip in REED Junction Head.	
205-7/8"	SCREW - 7/8" 8/32 Self Tapping. Theft Resistant 4 slot head. Used in REED, RCA, SIMPLEX Speaker cases.	22
205-1"	SCREW - 1" 8/32. Theft Resistant 4 slot head. Used to install Reed #500 cover on Simplex and Reed Junction Heads and in speaker cases requiring 1" long screws.	DISCONTINUED REPLACED BY 215
205-1½"	Same as 205-1" except ½" longer. Used for 1 Lens Ring instead of #220 Screw. See page 25-26.	
210	SCREW - 7/8" 8/32 Fillister Slot Head. Used in Speaker case when #205 Theft Resistant is not desired.	25-26
211	SCREW - 1" 8/32 Pan slot head. Used when Theft Resistant Screws are not wanted. This is a Self Threading Screw.	
215	SCREW - 1" x 8/32 Slot Fillister Head. Used to mount REED Junction Head cover. Also to install 500C cover on SIMPLEX Junction Heads.	25-26
218	SCREW - 1¼" 8/32 Fillister Head Brass Screws.	
220	SCREW - 1½" 8/32 Fillister Head. For old style SIMPLEX case. Four required. Also for mounting #500-C Junction Head cover and one 503 Lens on REED or SIMPLEX Junction Head.	25-26

PART	DESCRIPTION	See Photo on Page
221	SCREW - 1¾" 8/32 Flat Heat used to mount cover on RCA new style Junction Head. Two required.	22
222	SCREW - 2" 8/32 Fillister Head Screws for mounting two #503 Lenses in REED Junction Head. Use #260-N Break-away Nut.	
223	SCREW - 2½" 8/32 Fillister Head. Used for stacking three #503 Lenses in REED #501B old style Junction Head. Use #224 for 3 lenses in new style. Use #260-N Break-away Nut.	
224	SCREW - 2¾" 8/32 Fillister Head. Used for stacking four #503 Lenses in #501B old style REED Junction Head. Also for 3 Lenses in REED new style #501B2 Junction Head. Also see Part #233. Use #260N Break-Away Nut.	22 25-26
225	SCREW - 2¼" 8/32 Flat Head. Used for old style RCA case screws. Four required per speaker.	
230	SCREW - 2½" 8/32 Flat Head. Same as #225 except where old threads in case are worn too much to accept #225.	
233	SCREW - 3½" 8/32 Round Head Screw. used for stacking 4 lenses in REED #501B2 new style Junction Head. use 260-N Break-Away Nut.	
235	SCREW - 4" 8/32 Round Head. Used for SIMPLEX (Plastic handle type) cases	22
240	NUT - 6/32 Hex Nut used on Old style SIMPLEX Junction Head, Terminal Board.	22
245SS	NUT - 8/32 Stainless Steel hex Nut. Used on new style SIMPLEX Junction Head terminal board.	
250	NUT - 6/32 (Small Pattern) Hex nut. For installing #305 or #206 Male Terminals in old style SIMPLEX Junction Heads.	22
255	NUT - 8/32 (Small Pattern) Hex nut. For installing #305 Terminals in new style SIMPLEX Junction Heads.	22
256U	UNITORQUE LOCK NUT. ¼-20 requires no lock washer. Use with #195 bolt and #139 flat washer to mount #136 hanger. Replaces #256W. See #137/367 Socket Wrench for this Nut. REPLACED BY 256-N	
260N	NUT - Special breakaway nut for installing REED #500C2 Junction Head cover. Two required per head. Order mounting screws #205, 205-L, 210 or 215 if needed. See 260-N information sheet, page 26-A.	25-26 26-A
261	SPEAKER CONE/MECHANISM REBUIDLING. 3" through 5" sizes. One year guarantee date stamped on each unit. For best Freight rates on Speaker cones shipped to us for re-building. See Information Rear of this catalog on pg. 38 & pg. 17.	
262	SPEAKER CONE/MECHANISM REBUILDING. 6" size. PRICE QUOTED ON REQUEST	17
271	TENSION SPRING. Flat, used in plastic handle type SIMPLEX Speaker.	

PART	DESCRIPTION	See Photo on Page
272	TENSION SPRING - Coiled spring for mounting Ceramic magnet type cone/mechanism in REED Speaker Case.	
273	SPEAKER TESTER. 60 Cycle constant frequency. Trnasformer plugs into 110/120 volts AC reduces voltage to 2 volts. For Speaker Repair Bench, NOT for Field Test.	28
277	'THE HUMMER' Audio Signal Generator - 200 Hz Sine Wave. For FIELD Testing of Speakers and Junction Head wiring. Mounts on Booth Wall - plugs into Main Amplifier System in place of Tape Player.	28-28A
277-C	CHARGER - Power Supply for Hummer	28-28A
281	TAIL PIECE - Long lip tail pice. For RCA and similar speakers with two #173 or #175 mounting screws. Replaces old #280.	20
285	TAIL PIECE - Tail piece lip for "Old Wide Lip" RCA, with two #173 or #175 mounting screws.	20
295	TAIL PIECE - Tail piece lip for old style SIMPLEX with two #173 or #175 mounting screws.	20
296	TAIL PIECE - used on new style SIMPLEX. Similar to #295 except has raised surfaces around screw holes, with two #173 or #175 mounting screws.	20
305	TERMINAL - 2-Way Male Terminal. Used in Junction Heads in conjunction with #75 Kwik-On connectors on speaker cords to enable quick connection or disconnection of speakers in Field.	19
306	TERMINAL - Taper tab 2 way Male Terminal. Used in SIMPLEX Junction Head in conjunction with #80 Female connectors on a speaker cords.	19
310	TERMINAL. Spade type terminal lug for speaker cords.	19
312	TERMINAL RING LUG - Terminal for steel cable used on #108 Theft Resistant Cable.	19
312-C	Same as above except Lug is bent cup shape.	19
315	TERMINAL STRIP. 5 section terminal barrier strip. Used in Junction Heads new style RCA. Can also be used in REED Junction Heads. May be modified to a 4 Section use.	19
320	TERMINAL STRIP. 7 section terminal barrier strip. Used in REED Junction Heads. Also fits old style RCA Junction Heads.	19
321	TERMINAL STRIP - Terminal Solder Lug Strip for KNOX Junction Heads.	19
349-C	TOOL. SKIL CORDLESS - 3/8" combination drill and screw driver-reversible Order #353 Adapter for use of #361, 362 and 363 Tool Bits.	31
350	TOOL - Skil power screwdriver and 3/8" drill-reversible-variable speed trigger switch control. Removes and drives screws and nuts with proper attachments. Order parts #353 Adapter for use of 351, 361, 362, and 363 Tool Bits.	31
351	STRAIGHT SLOT SCREWDRIVER AND FINDER. For power drivers #350 and #349-C.	31

PART	DESCRIPTION	See Photo on Page
353-2" 353-4"	ADAPTER - For tool bits used with #349 & #350 power drivers. To allow use of #351, 361, 362 and 363 tool bits.	31
353-M	ADAPTER. Same as above except is magnetic.	
353YM	ADAPTER-MAGNETIC TYPE - Tool bit adapter for #130A Yankee Spiral Screwdriver to fit #361, #362 and #363 tool bits.	31
353-Y	ADAPTER - Non Magnetic Type for #130-A Yankee Spiral Screw Driver	
360	TOOL BIT HANDLE - For use with tool bits #361, #362 and #363	21
361	TOOL BIT - For Phillips head screws.	31
362	TOOL BIT - For straight slot screws.	31
363	TOOL BIT - For 4 slot head theft resistant screws.	31
363CD	TOOL - Cobalt Drill Tool for drilling out damaged speaker case screws.	23-24 24-A
363-CDB	TOOL - Cobalt Drill Bit for 363CD	23
365	TOOL BIT - For 3 slot head theft resistant screws. DISCONTINUED	23
364-8 364-8 S	GULMITE SCREW DRIVER - For #8 Gulmite screws. #8 GULMITE SCREW	21
364-10 364-10 S	GULMITE SCREW DRIVER - For #10 Gulmite screws. #10 GULMITE SCREW	21
367	BOX WRENCH - For #256U Unitorque nut. 7/16" x 3/8" 12 Point Off-Set Box Wrench.	13
368	SOCKET WRENCH. For #245 8/32 hex. head nuts. For Simplex Junction Head Terminal Board.	21
369	SOCKET WRENCH. For #402 volume control mounting nuts.	
*370	TRANSFORMER - Impedance 7500 ohm primary 3.2 ohm secondary. Used in Motiograph REED, or RCA Junction Heads. See note below in impedance information.	18
*375	TRANSFORMER - Impedance 2000 ohm primary 3.2 ohm secondary. SIMPLEX Junction Heads. See note below.	18
*380	TRANSFORMER - Impedance 700 ohm primary 3.2 ohm secondary. Motigraph-Knox Junction Heads. DISCONTINUED	18
*385	TRANSFORMER - Impedance 2500 ohm primary 4 ohm secondary. DISCONTINUED	18

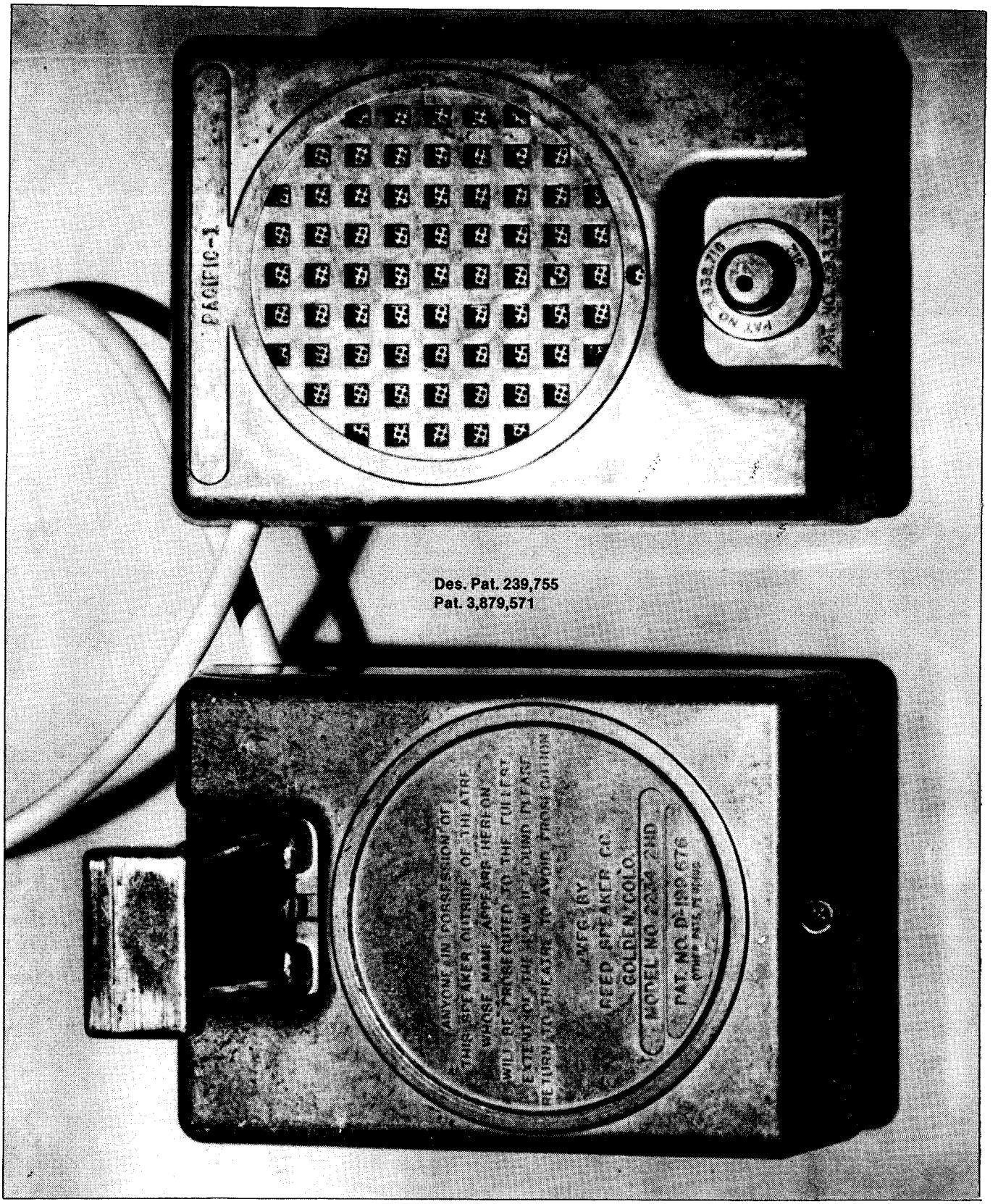
INFORMATION ON TRANSFORMERS

*Impedance can be (approximately) determined by checking transformer DC resistance with an ohm-meter. A primary DC resistance reading of 350 to 500 ohms will indicate the transformer is in the 5000 to 7500 impedance range. Approximately 100 ohms DC resistance would indicate a 1375 to 2000 impedance range. A reading of approximately 150 DC Resistance indicates an impedance in the 2500 range. Approximately 45 ohms DC would indicate a 600 to 700 impedance range. Secondary D.C. readings are approximately .05 ohm on above Transformers.

PART	DESCRIPTION	See Photo on Page
395	UNDERGROUND WIRE - Sizes 14-2 & 12-2 with or without Ground Wire. 250 Ft. packages or 1500 or 5000 ft. Reels.	
399	VOLUME CONTROL - L-PAD 4-10 Ohm for Motiograph Series wired Field.	
399-C	VOLUME CONTROL - Carbon type 50 Ohm Poteniometer. 2 or 3 wire hook-up.	
400-K	VOLUME CONTROL - 50 Poteniometer with Knurled Shaft.	
400-L	VOLUME CONTROL - 50 Ohm 2 watt wire sound. ¼" flat shaft. For 2 or 3 wire hook-up. Has 'OFF' position. Lubricated with special corrosion resistant lubricant for salt air protection and other corrosive elements. Use with #410 Control Knob and #412 'SHUT-OFF' Control Knob. Order Control Knob and #155 Set Screw if needed.	21
402	MOUNTING NUT - For volume control.	
403	MOUNTING PLATE - For volume control on RCA and SIMPLEX or similar speakers.	
404	TENSION COILED SPRING - For volume control RCA speakers.	21
410	CONTROL KNOB. Volume control knob for ¼" flat shaft. Will fit RCA and most others. Order #155 or 155L set screw if needed. Use #417 key wrench handle for easy quick driving of #155 self threading set screw.	19
412	CONTROL KNOB - For ¼" flat shaft. Special purpose control knob. Used in connection with REED #412 'SHUT-OFF' Control Circuit.	19
415	CONTROL KNOB - Volume control knob similar to #410 except for ¼" round shaft.	
416	KEY WRENCH - 1/16" size for #155 socket head screw.	
417	BAKELITE KEY WRENCH HANDLE - With 1/16" keys for #155 155L socket screw.	14-15
499-C	REED JUNCTION HEAD - Complete with transformer, terminal strip and mounting hardware. For 2" Post Pipe. 2" Pipe is actually 2-3/8" as measured on outside, it is 2" I.D. See page 8 for information on how to check your present transformers to determine the correct transformer to order to match your Sound System. Be sure to specify Impedance of Transformer required.	12-18
499CK	COMPLETE REED JUNCTION HEAD. Same as #499 C except with #502 light kit, see #502 description pg. 9-A.	12-18

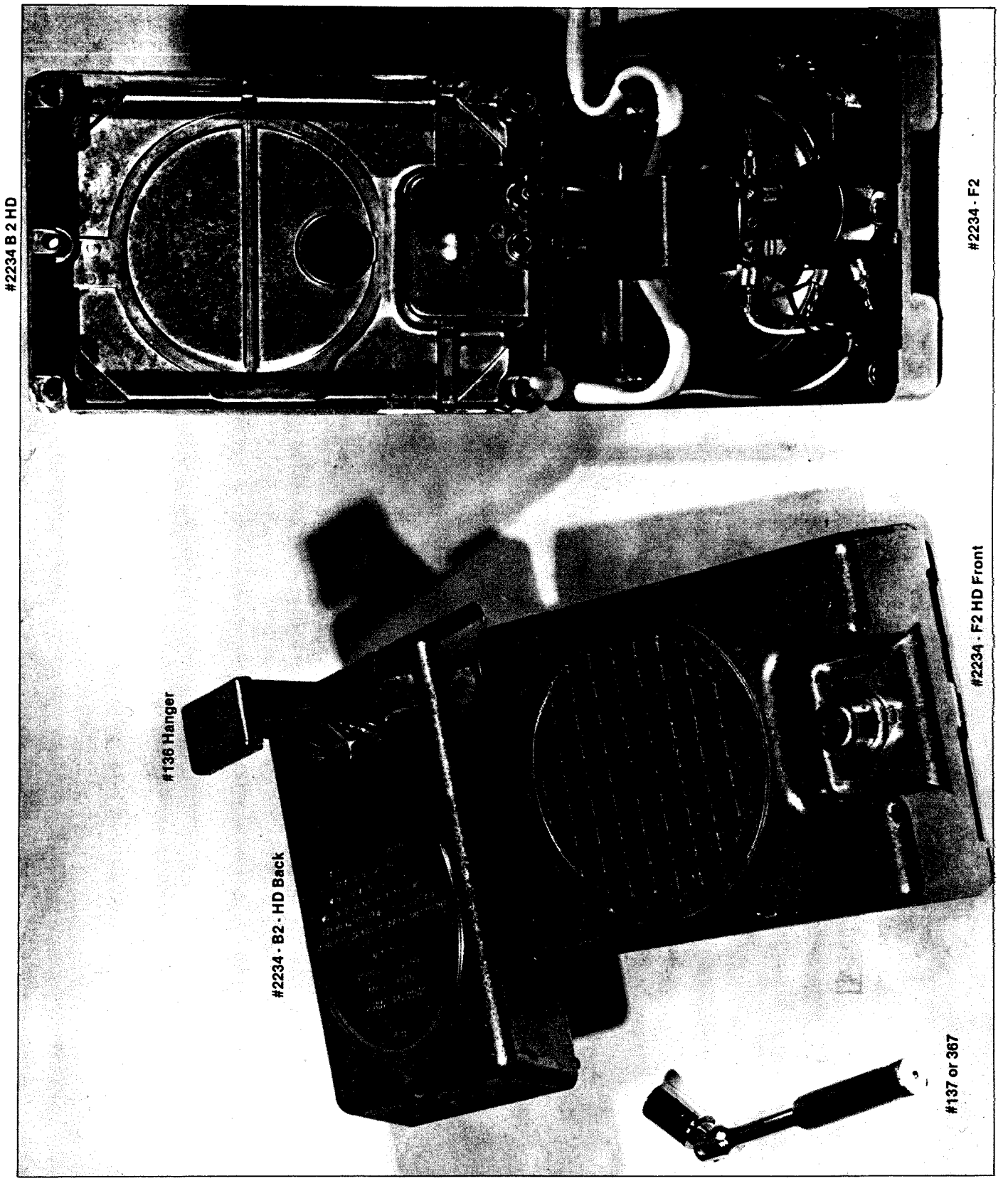
PART	DESCRIPTION	See Photo on Page
500C2	COVER - Similar to old 500C except has new design aluminum dome shape and improved mounting ears and lamp clip mounting block. This cover will also fit new style SIMPLEX Junction Head using special mounting nuts and screws #260N and 215. Order Mounting Screws and Nuts if needed.	25-26
501A	2" to 2-3/8" ADAPTER. See information listed under 499-C Junction Head. These must be made to order.	
501A3	ADAPTER CASTING - For adapting REED and other Junction Heads to 3" speaker posts. Includes 3 #159 set screws per adapter.	20
501B2	REED JUNCTION HEAD BASE CASTING. New design aluminum metal base. Has improved post mounting and cord locking feature. Faster installation and speaker changing. For 2" standard pipe (which is actually 2-3/8" outside diameter.) Order Mounting Screws if needed.	12-18
502	LIGHT KIT - For REED Junction Head. Consists of: 1-lens ring, 1-lamp socket and 1-lamp socket holder clip, 1-#163 screw required for mounting clip in new style #500C2 cover of 499C Junction Head. #245 nut is used as a spacer in mounting lamp holder clip on the #320 Terminal Strip of old or new style REED Junction Heads. See Photos 10 & 12 Pages 18 & 19. Junction Head, for method of mounting Lamp. Advise lens color. Order lamp separately. Lamps listed on Pages 10 & 19.	10-12
503	LENS RING - For REED Junction Head. This Ring also fits Simplex Junction Head. Available in RED, GREEN and WHITE.	25-26
503N	NUMERALS - Black Vinyl adhesive numerals, 1¾" high for applying to #503 white lenses (stacked three or four high). Used to designate ramps or walk aisles.	26
503L	LETTERS - Black Vinyl adhesive letter, 1¾" high for designating ramps or walk aisles. Applied same as #503N.	
504	LAMP SOCKET - D.C. Bayonet base with 10" lead wires for #506, 507, and 509 lamps.	19
504A	LAMP SOCKET - For #510 lamp (G.E. #313) Use in RCA Junction Heads. Lead wires have no terminals.	19
504B	Same as above except has no lead wires.	
504C	Same as above with lead wires and spade terminals.	
505/163	LAMP SOCKET MOUNTING - Clip and screw	

PART	DESCRIPTION	See Photo on Page
506	LAMP - 28 volt lamp for #504 socket.	
507	LAMP - 130 volt lamp, 6 watt for #504 socket.	
509	LAMP - 34 volt lamp, for #504 socket.	
510	LAMP - 30 volt miniature base single contact use in RCA Junction Heads. (G.E. 313) For lamp Sockets 504-A, B or C	19
511	LAMP - 28 volt (6S6) candelabra screw base. DISCONTINUED	
512	LAMP - 130 volt (6S6) candelabra screw base.	
601	STRAP - Kulka grounding strap for #320 barrier strip. Also see 73J.	21
602	STRAP - Kulka grounding strap for #315 barrier strip.	21
2234	REED DRIVE-IN H.D. SPEAKER - Complete with #400L Volume Control, 70-X Cone/ Mechanism, 1.47 oz. magnet 3.2 ohm Voice Coil. Your name Die stamped on front, #72 Screen, #85 Regular Straight Cord, etc. Ready for installation on post.	
2234-412	SPEAKER - Same as above except has #412 Protection and Shut-Off control features. Shuts Sound off when returned to Post. See Pages 29, 30, 30-A for Information on 'SHUT-OFF' Feature.	11
2234-TR	SPEAKER - has #108 Theft Resistant Cable.	
2234-TR-412	SPEAKER - Has #108 Theft Resistant Cable and #412 Protection Shut Off control features.	11-12 13-14
2234-B	BACK CASTING - Replacement aluminum back section. Has extra reinforcement.	13
2234-F	FRONT CASTING - Replacement aluminum front section.	13
2234-P	STEEL DOWEL PIN - Used in REED speaker fronts and backs.	
2234-D	DELRIN DOWEL PIN - Used to insultate 108TR cable inside speaker, see #146 and #147.	
2234-PB	PATIO BRACKET - For permanent mounting of two REED Speakers for Patio or other permanent location.	18
W-D40	VOLUME CONTROL CLEANER AND LUBRICANT - 15 oz. can.	A27-B27 27
GC 8666	SPRA KLEEN - Cleaner and Lubricant, 6 oz. can.	A27-B27 27



Showing Front and Back of New Reed Heavy Duty Speaker. Note deterrent message on back Casting. Your name and town may be die stamped in face of front casting, no extra charge.

Showing Reed #2234 Heavy Duty Speakers and Reed #499-CK Junction Head. Speakers have Weather Proof Cone Mechanism with 1.47 oz. Magnet, 3.2 ohm impedance aluminum formed voice coil, neoprene sealing gasket and 1 year guarantee stamped on Dust Seal. This Photo shows the #412 Shut-Off Control Knob which shuts sound off when Speaker is returned to post. See page 29 for speaker wiring photo.

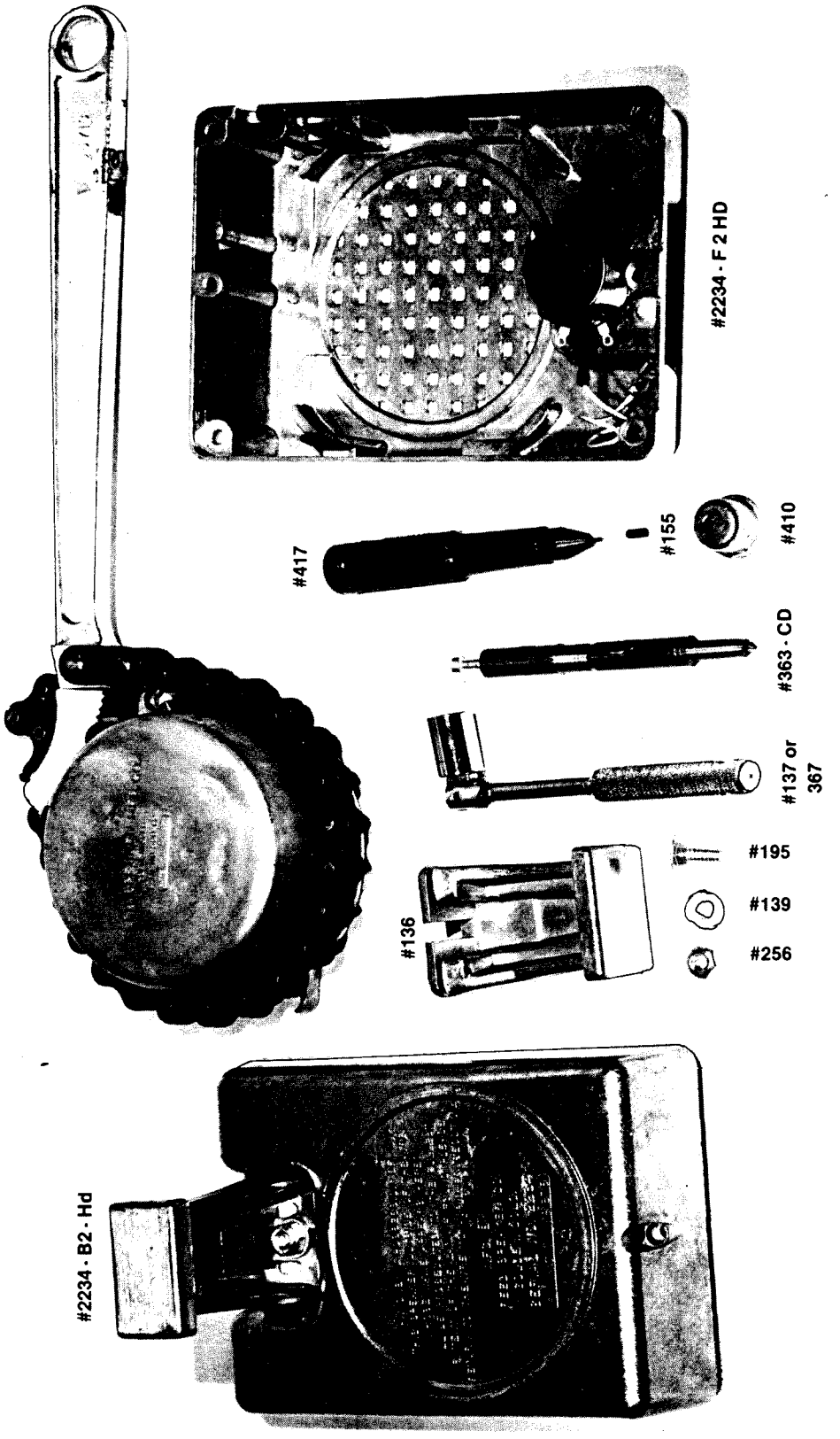


NEW H D SPEAKER

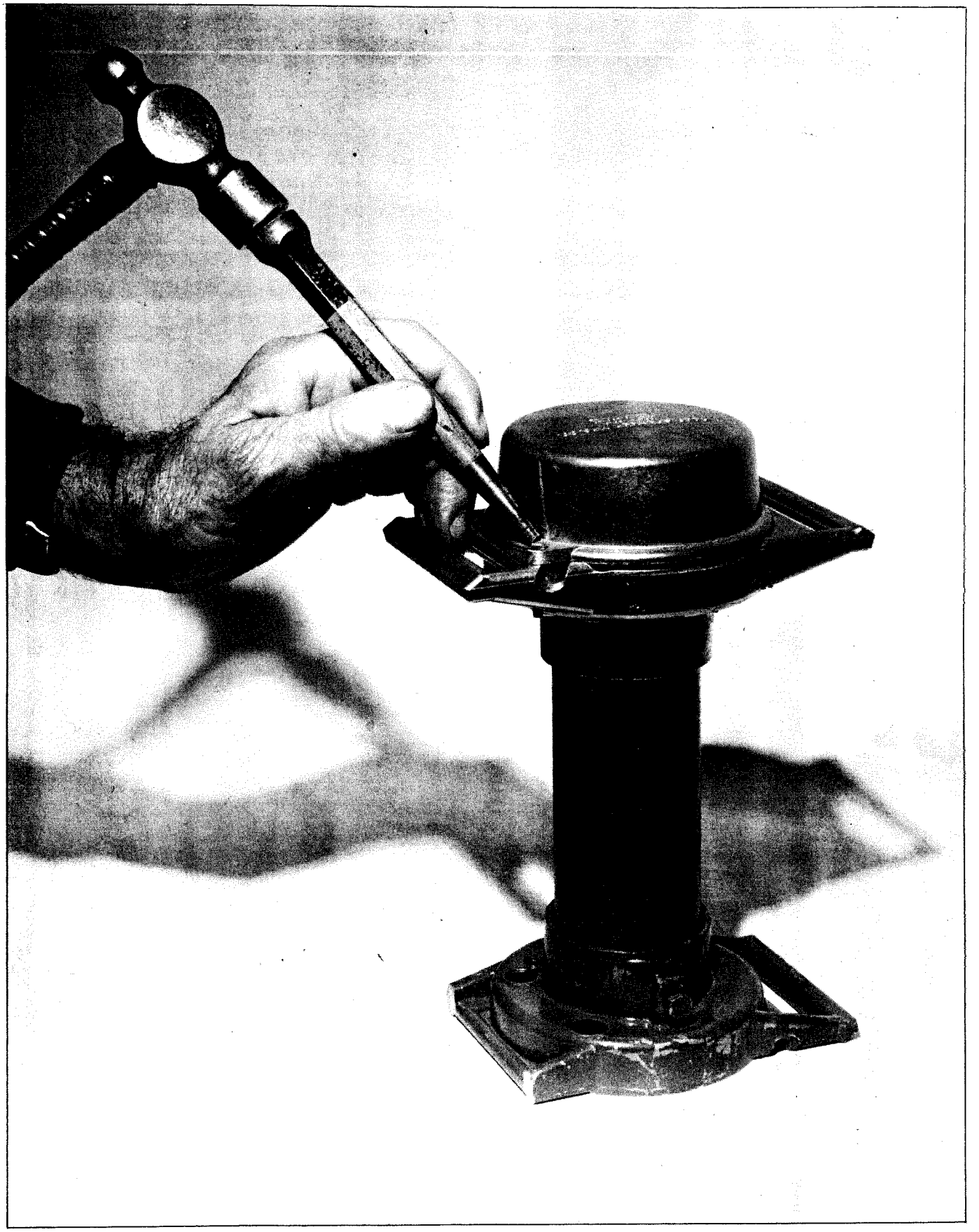
NEW #2234—B2 HD Heavy Duty Back
NEW #2234—F2 HD Heavy Duty Front and New Cable Strain Relief (Pat. 387957)
NEW #136 — Hanger Heavy Duty Hanger
NEW #137 — Hanger Socket Wrench

New Speaker showing how hanger can be mounted with nut on outside.
Showing how volume control knob is installed using #417 allen wrench plastic handle tool.
Showing how chain may be attached if desired.

Mounting Hanger with #260-U Nut on inside of Speaker prevents unauthorized removal of the Hanger.



#2234—B2—HD Back with hanger nut mounted outside.
 # 136 Heavy Duty Hanger, #256 Uni—Torque Lock Nut, #139 Washer and #195 Bolt.
 # 137 Socket wrench for installing #136 hanger.
 # 363—CD Cobalt drill tool for drilling out damaged or rusted case screws. (See pg. 24 & 24A).
 # 417 Plastic Allen Wrench toolhandle.
Chain pipe wrench for removing junction head cover when mounting screws are damaged or rusted.



Showing method of removing junction head cover when mounting screws are damaged. Tap punch evenly against each cover mounting ear — cover will slip out from screw heads - cut old screw heads off and replace with new #205-1" Theft Resistant screws and #260 Break-a-way nuts.

SHOWING PARTS USED IN REED NEW NO. 70-X CONE MECHANISM AND NO. 261 REBUILT CONE MECHANISMS.

PARTS NOT SOLD SEPARATELY, See Pages 6-17

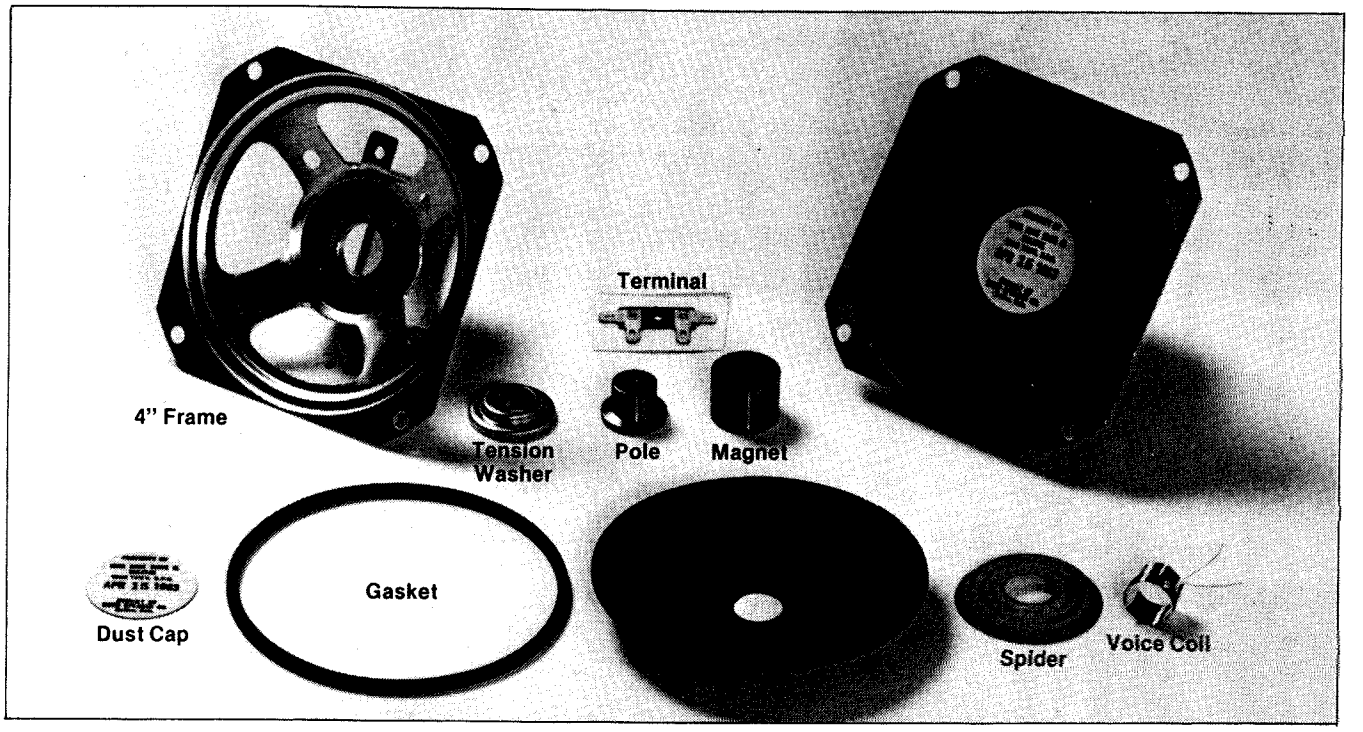
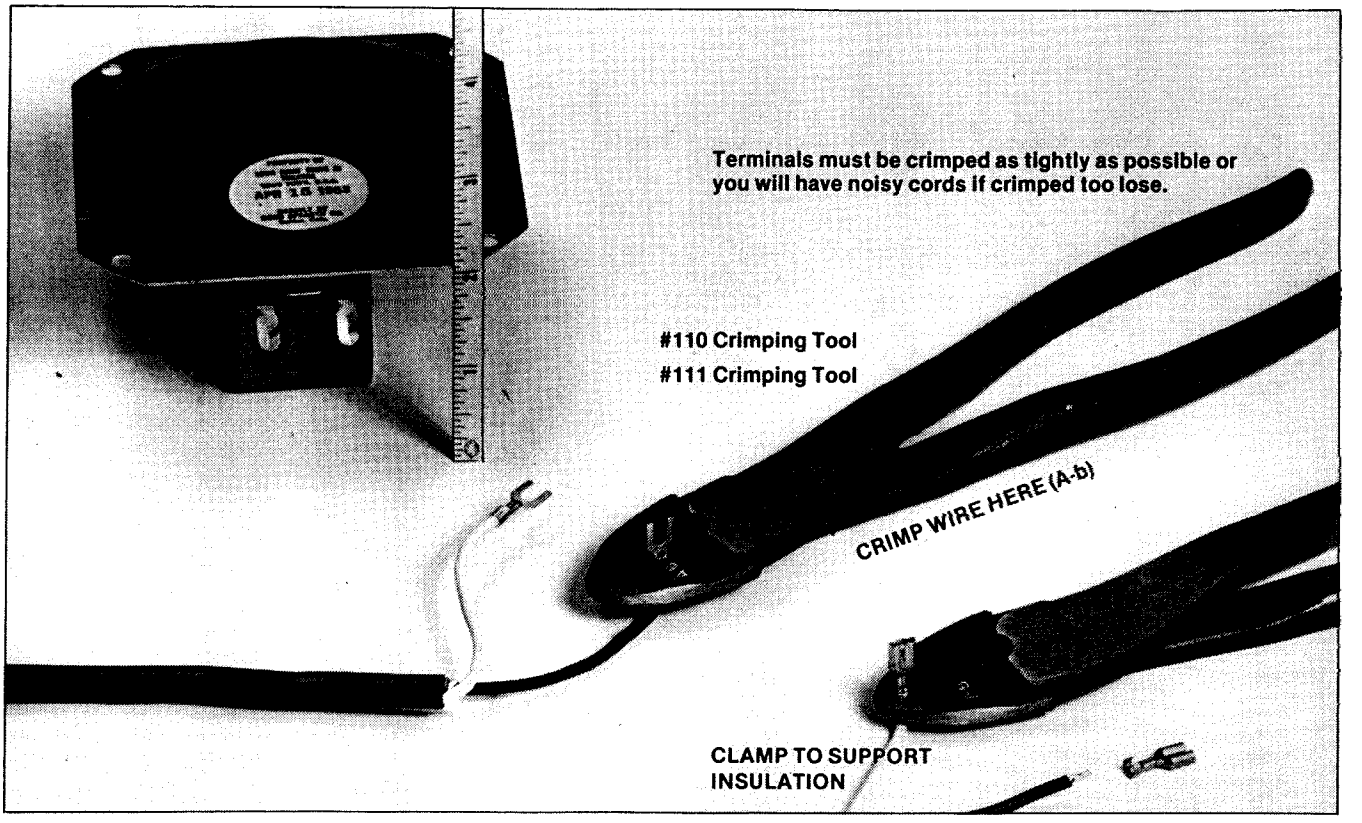


Photo 8

Proper Way to Crimp Terminal to Speaker Cords



See page 3 for descriptions of #110 and 111 Tools.

Wiring of Lamp in Old Model 499 C Junction Head

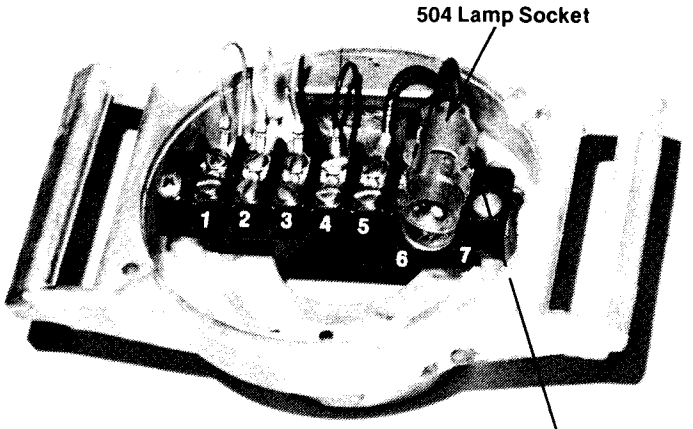
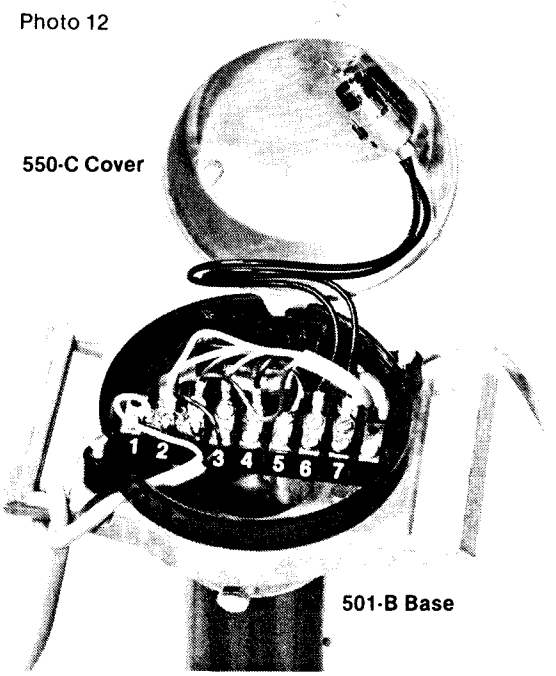


Photo 10

Wiring of Lamp and Speakers in Reed New Model 499-CK Junction Head

Photo 12



Position lamp so that it shines through down lite hole in bottom of Jct. Head to lite up base of speaker post.

No. 505 lamp clip mounted as shown in photo No. 10 should be spaced up with a 1/8" spacer (such as a No. 8 hex nut) to prevent breaking of barrier strip walls. This method may also be used on the 499 CK head if desired. Mount clip on No. 7 terminal of the No. 320 barrier strip.

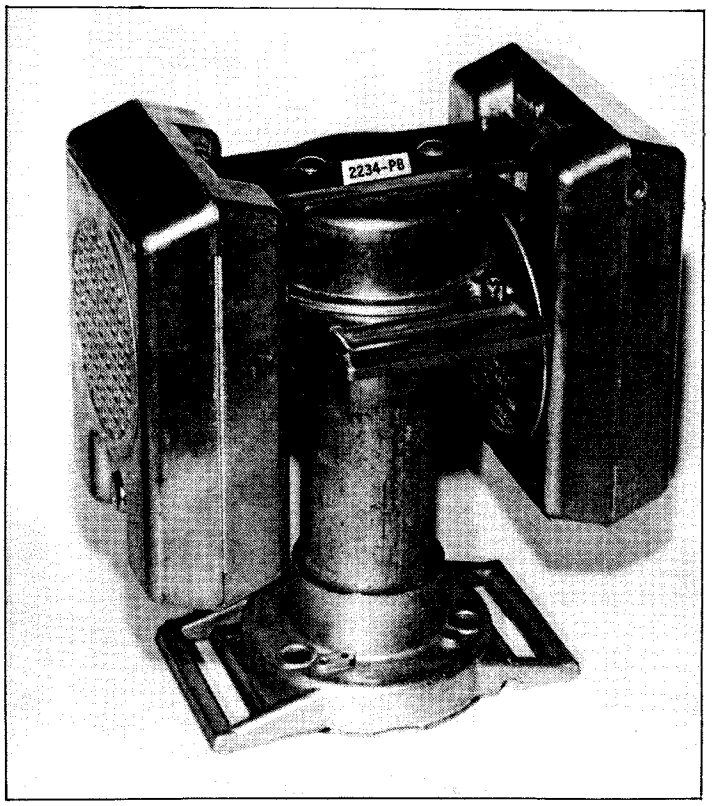
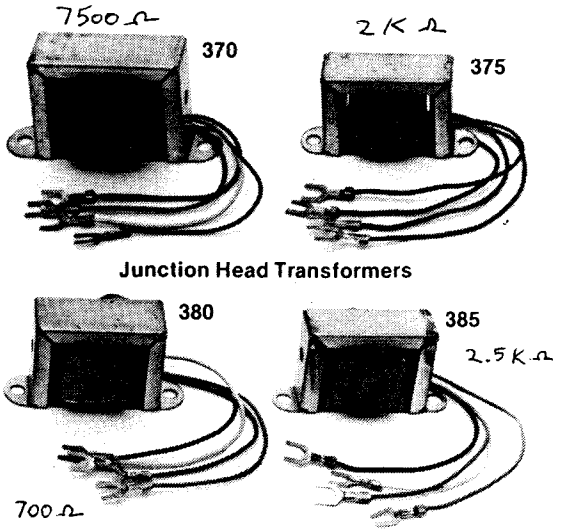


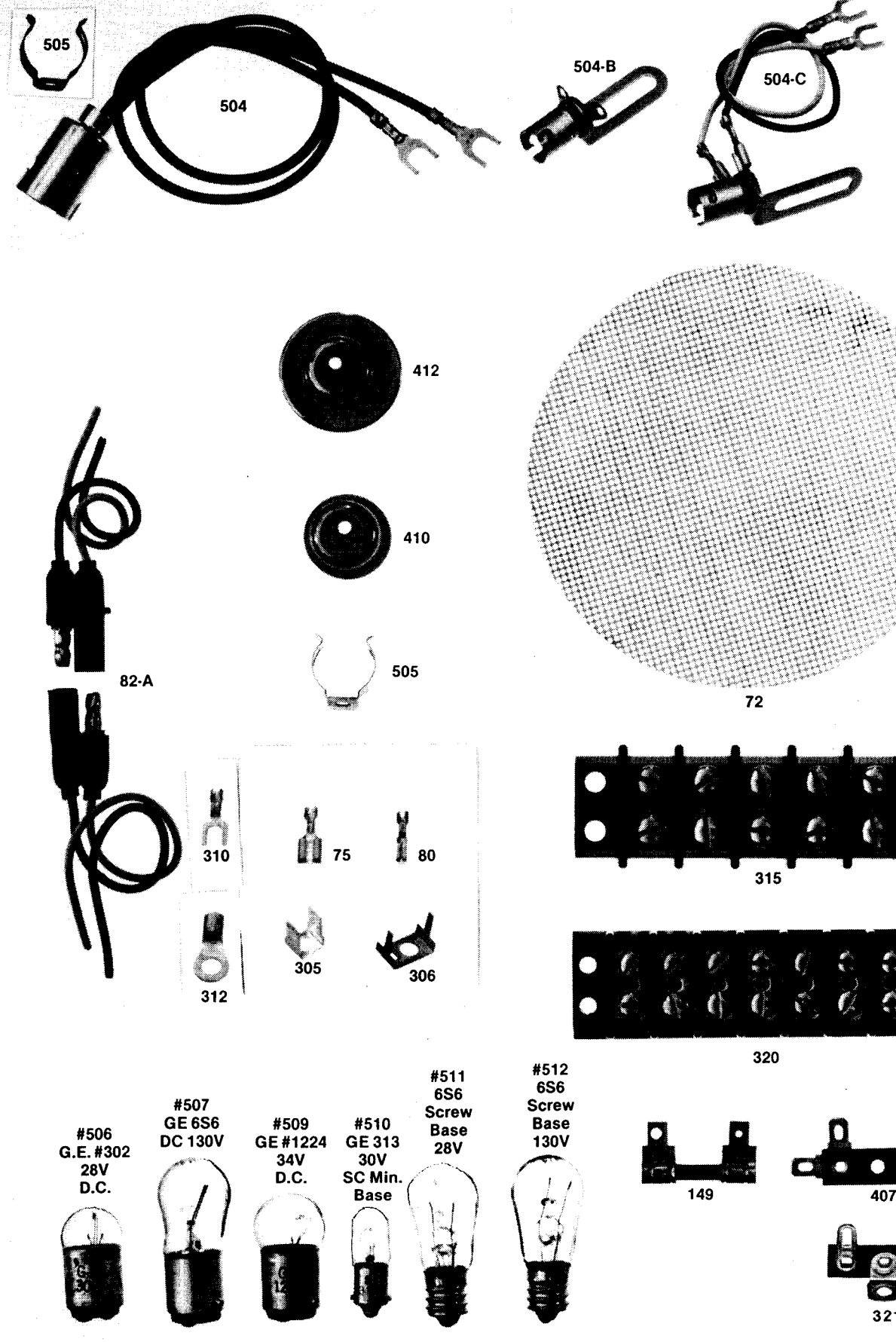
Photo 13

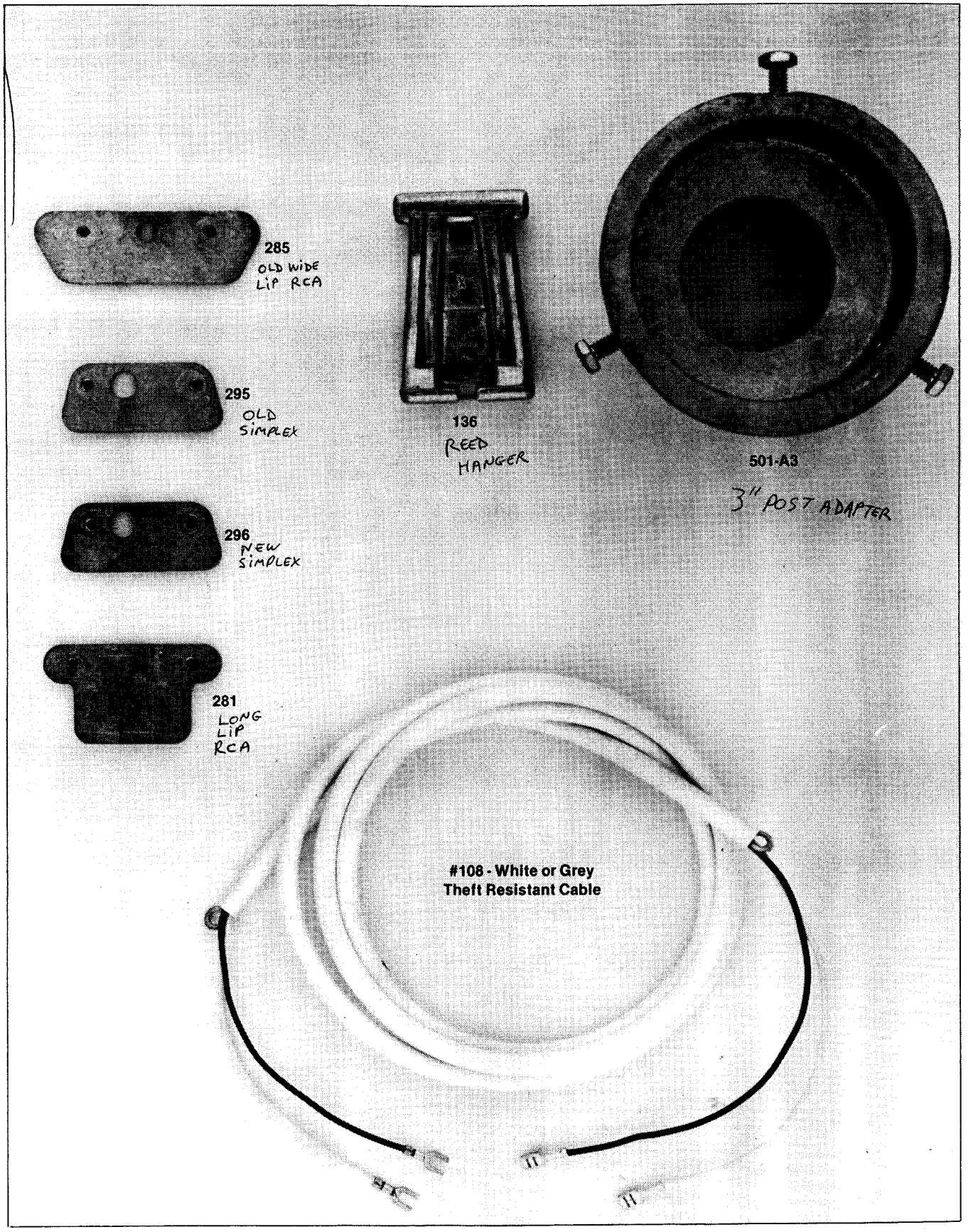
Patio Speakers

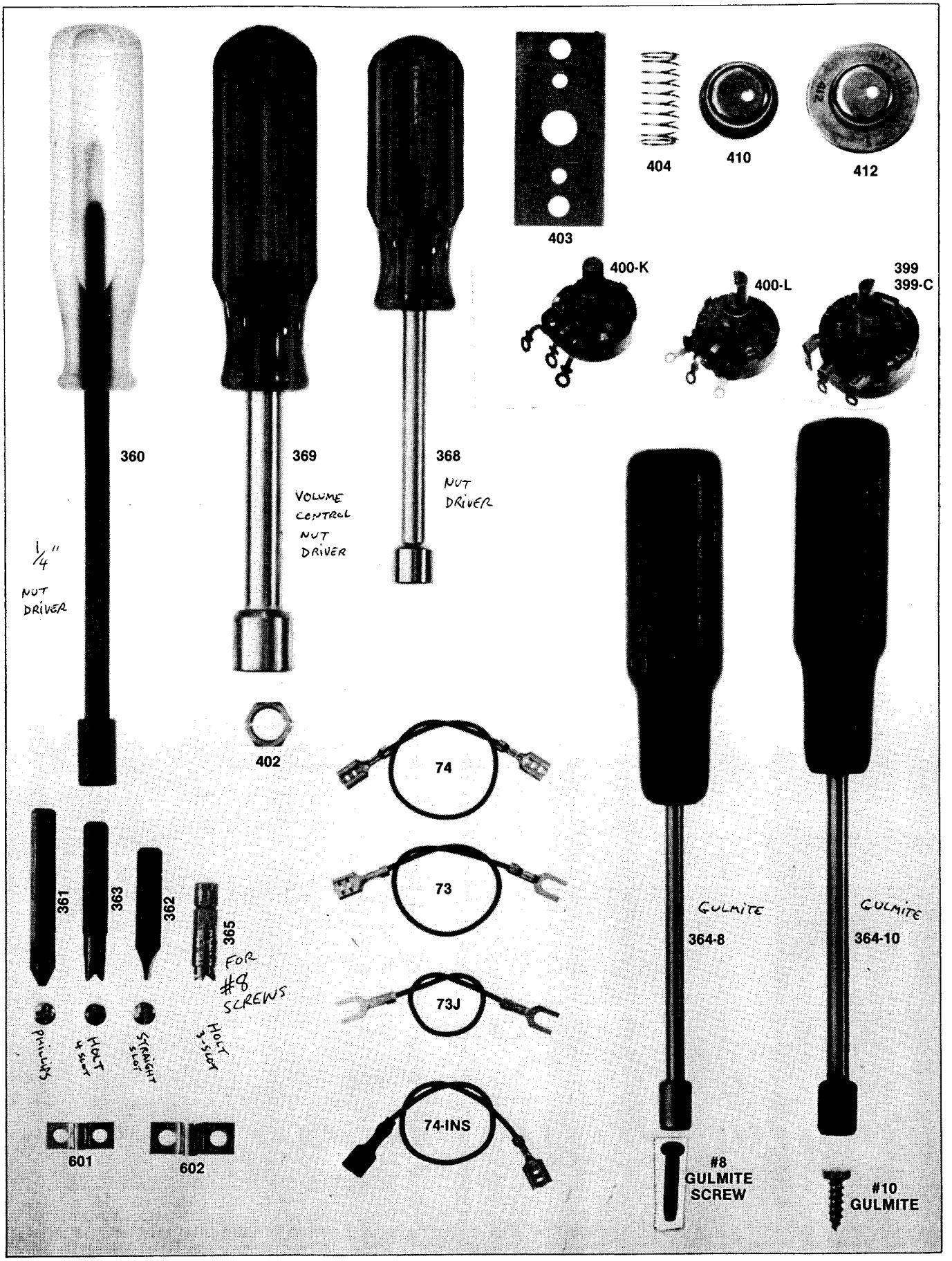
Photo 13 shows how 2 Reed Speakers may be bolted to junction head cover for permanent patio service - using #2234-PB Bracket. No exposed cords. Bracket Mfg'd. on Special Order Only.

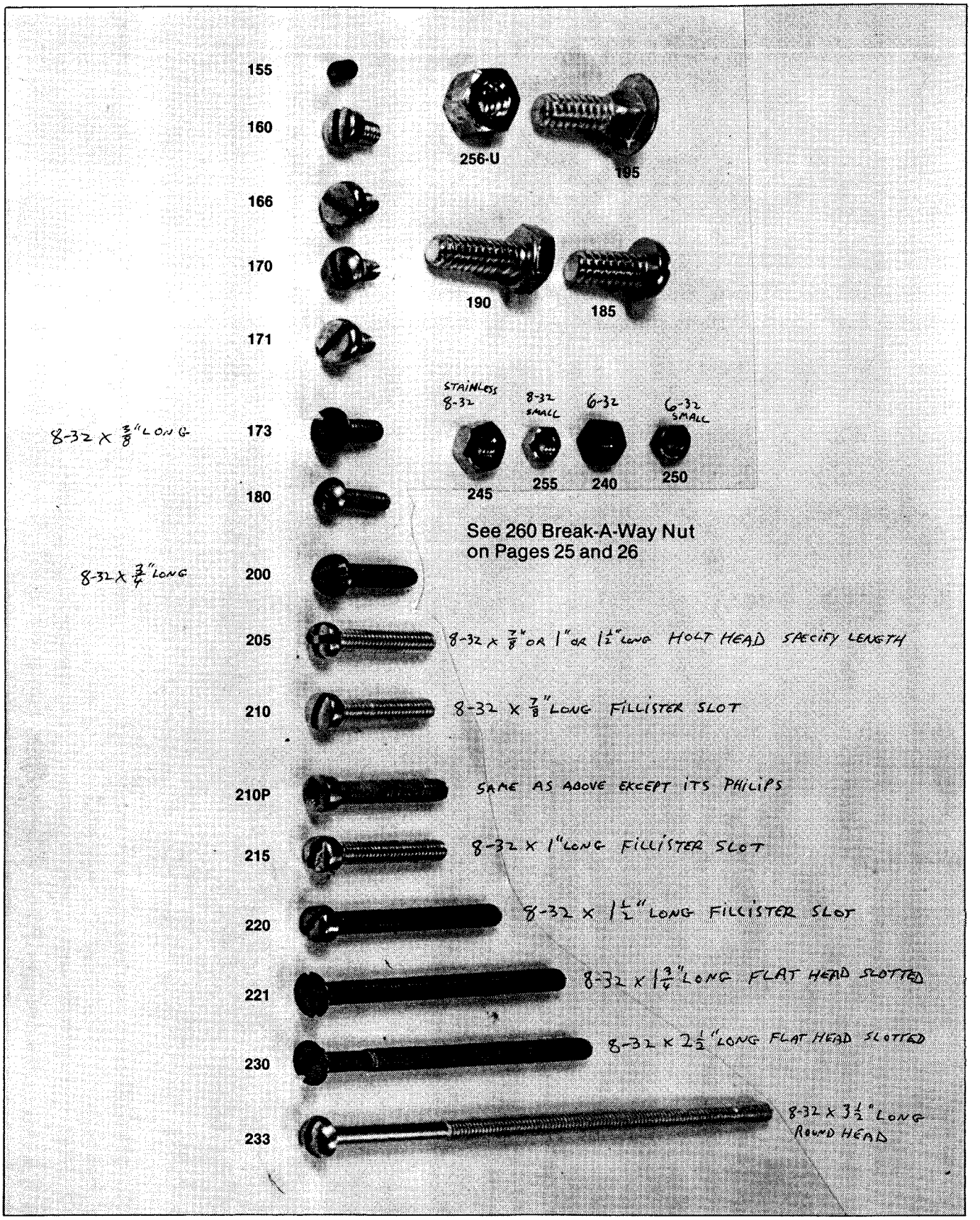


See Page 8 for
Information on Transformers
to Determine Impedance Required
to match your sound system.


505
504
504-B
504-C
412
410
505
82-A
72
310
75
80
315
312
305
306
320
#506
G.E. #302
28V
D.C.
#507
GE 6S6
DC 130V
#509
GE #1224
34V
D.C.
#510
GE 313
30V
SC Min.
Base
#511
6S6
Screw
Base
28V
#512
6S6
Screw
Base
130V
149
407
321


285
OLD WIDE LIP RCA
295
OLD SIMPLEX
296
NEW SIMPLEX
281
LONG LIP RCA
136
REED HANGER
501-A3
3" POST ADAPTER
#108 - White or Grey
Theft Resistant Cable

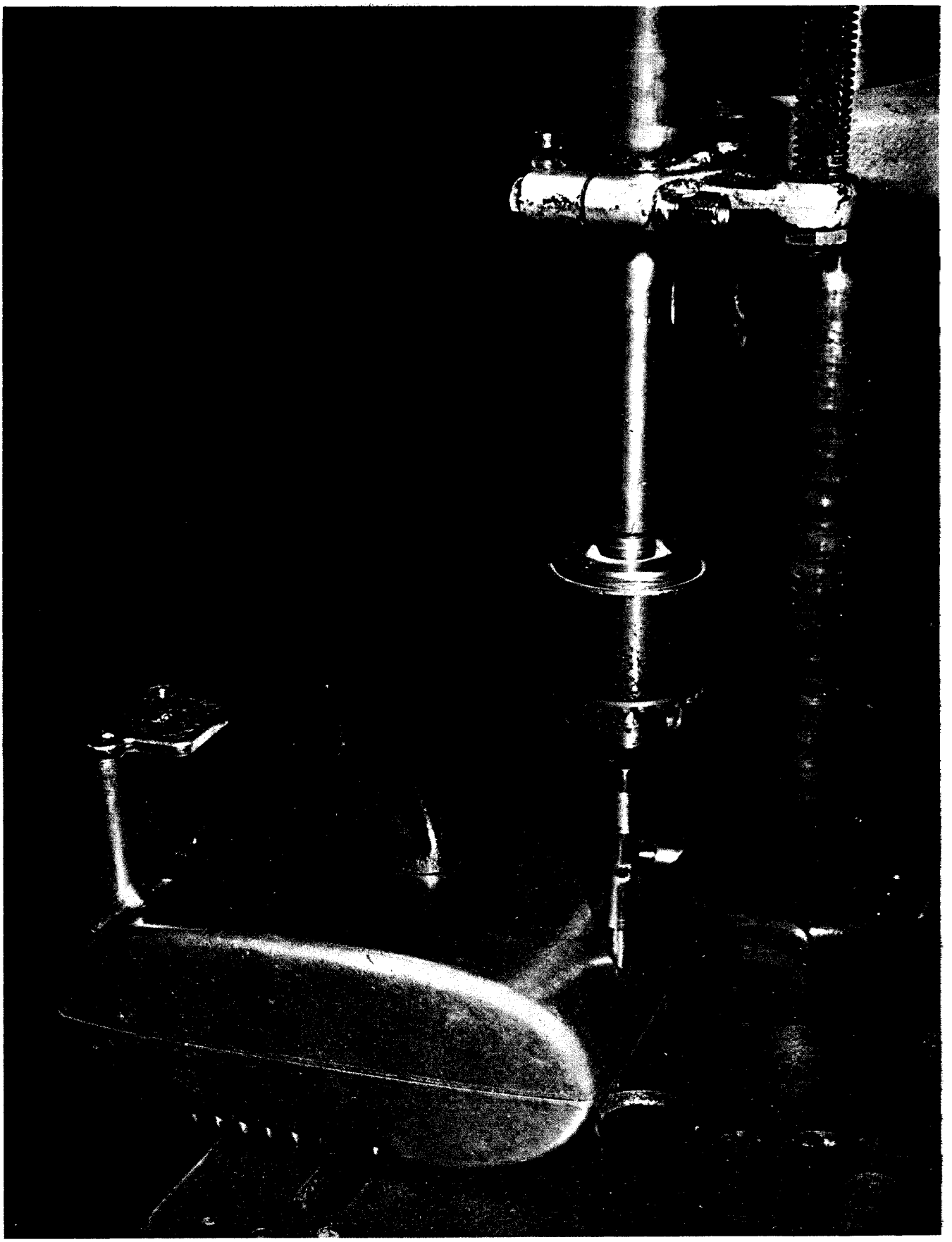

360
1/4" NUT DRIVER
369
VOLUME CONTROL NUT DRIVER
368
NUT DRIVER
403
404
410
412
400-K
400-L
399
399-C
402
74
73
73J
74-INS
361
363
362
365
FOR #8 SCREWS
PHILLIPS
HOLT 4 SLOT
STRAIGHT SLOT
HOLT 3 SLOT
601
602
364-8
GULMITE
#8 GULMITE SCREW
364-10
GULMITE
#10 GULMITE



See pages 4, 5 and 6 for description and uses. Also other sizes of these types are described on pages 4, 5 and 6.

#363—CD Cobalt Drill Tool for drilling out damaged speaker case screws. Drills screw head off - Body of screw can then be removed with pliers.

363-CDB Cobalt Drill Bit for 363-CD.



#363—CD Cobalt Drill Tool for drilling out damaged speaker case screws. Drills screw head off - Body of screw can then be removed with pliers.
Showing how speaker is clamped in drill press. See Instruction Sheet on page 24-A.

INSTRUCTIONS FOR USING #363-CD CENTER DRILL TOOL

For drilling damaged #205 Theft Resistant screws out of Reed and RCA Speakers. Also works on Phillips and Slot Head screws.

1. **Adjust the Cobalt 3/16" drill bit so that just the tip projects out of tool body. (Tool is shipped properly adjusted.)**

2. **Clamp work on to drill press after centering same. Be sure centering is correct or drill may drift off sideways.**

3. **Drill into damaged screw head, forming small drill starting cavity in the case hardened head of screw.**

4. **Readjust drill bit to about 3/16" to continue drilling head of damaged screw off. Leaving shank of screw which may then be removed with vise grip pliers.**

5. **Or, rather than readjusting tool as mentioned above (4), use a regular 3/16" drill to drill through head of screw after the Cobalt drill has formed the starting hole. Long 6" 3/16" regular drills are available. (Necessary for top screw of speakers, due to hanger arm.)**

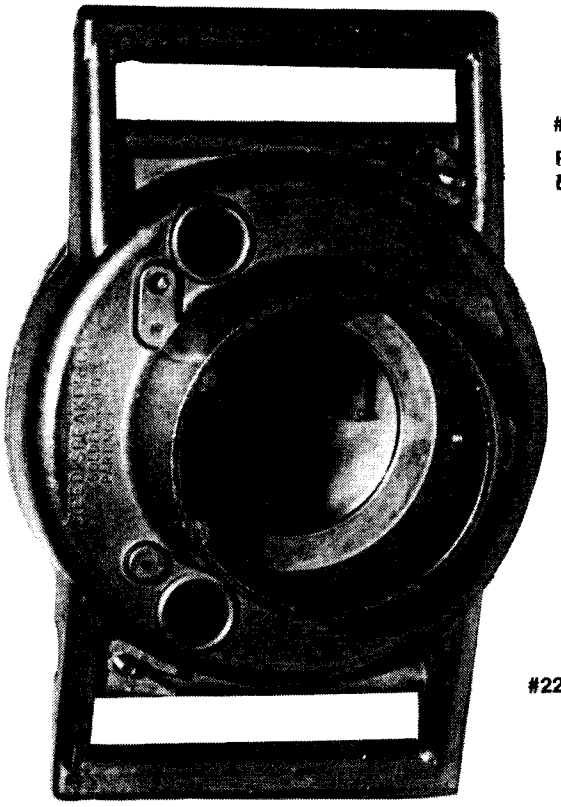
6. **The Allen Set screws must be seated into spiral flutes of the Cobalt drill. To adjust drill, loosen Allen Set screws slightly so that drill rotates when depth adjusting screw is turned down.**

7. **Brush out drill chips after every drilling so that they won't pack up and jam drill.**

8. **The rod furnished with tool is for driving Cobalt drill out of tool body. *Remove* Allen Set screws for this operation.**

9. **Drive rod and Allen wrench furnished with tool.**

Replacement Cobalt Drill Bits #363-CDB
Long 6" Regular $^{3}/_{16}$ Drill Bit #363-CDB-6"

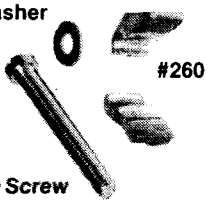


#501-B
Reed Junction Head Base
Bottom view

#220 Screw or Use #205-1½" Theft Resistant Screw

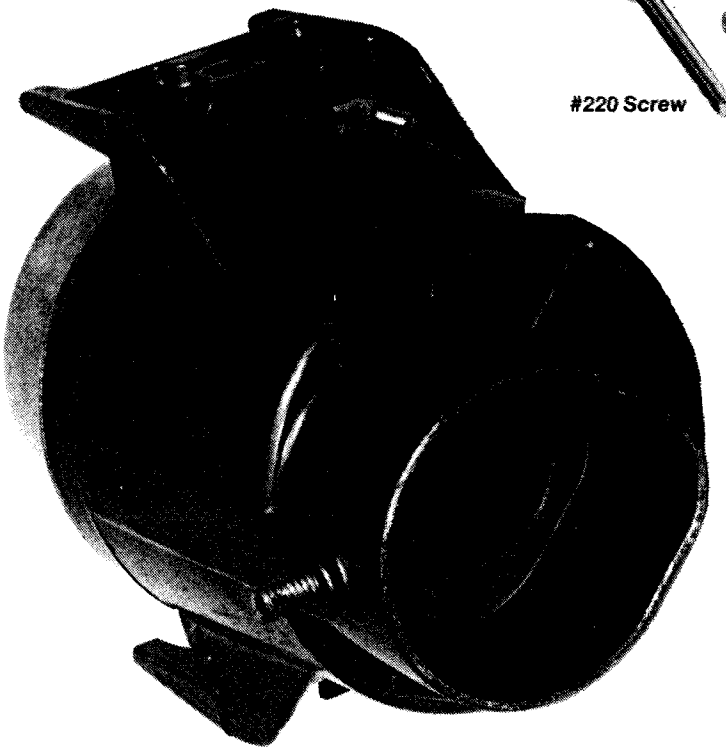
#260 Break-a-way Nut

#144 Washer



#260 Nut Broken

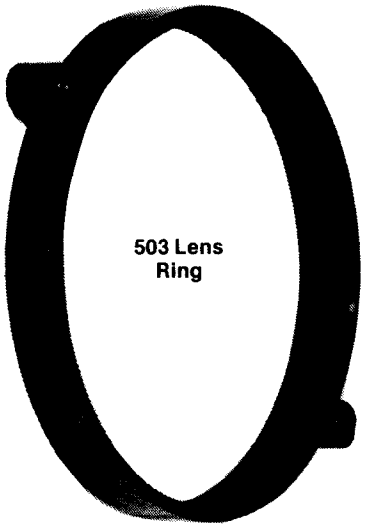
#220 Screw



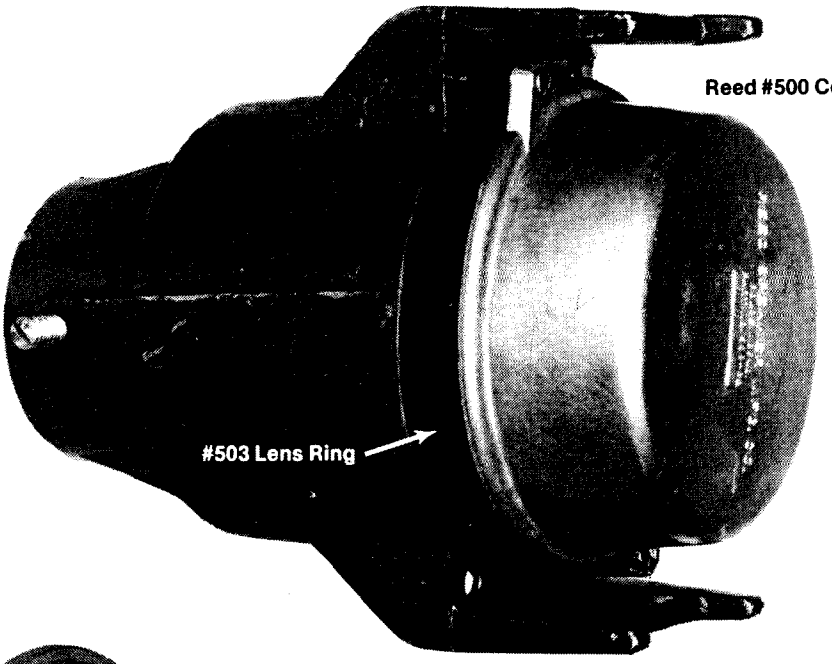
Simplex
Junction Head

Showing how #260-N Nut fits Reed and Simplex Junction Heads.
Nut guides itself up or down as mounting screws are tightened or loosened. In the event of jammed screws due to damaged heads, rust or corrosion - insert screwdriver between legs of nut, give twist, nut will break apart, releasing screw. Patent #3,878,758

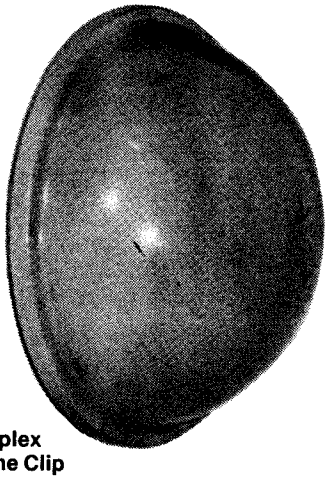
The old Style Simplex Junction Head #PD 2813 does not have the 4- Holes in Base like the New Style #PD 3004. To install Reed #500 Cover it is necessary to Drill 2 Mounting Holes using a $^{3}/_{16}$" Drill.

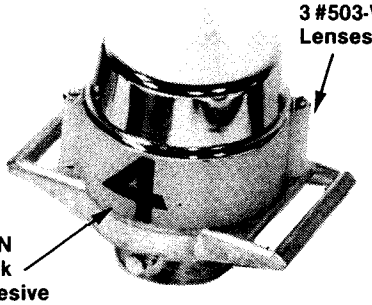


New Style Simplex Junction Head
#PD 3004
Has 4 - holes in base - Use 2 holes to mount
Reed #500-C Cover.



Use 205-1½" Theft Resistant or
220 Screw





Reed #500-C Junction Head Cover used to replace the Plastic Dome on Simplex Junction Heads. Cover is mounted with 2 #260 Break-a-way Nuts and #220 Screws. If lens is not required, place #144 washers between Simplex Base and Head of Mounting Screw to prevent Screw from falling through hole in Simplex Base when cover is removed. #205-L Theft Resistant Screws can be used if no lens ring is used.

Several #503-W Lenses may be stacked and a black Number (#503-N) stuck on to mark Ramp number. Black letters (#503-L) may be added to spell EXIT or other information.

NEW #260-N BREAK-A-WAY NUT

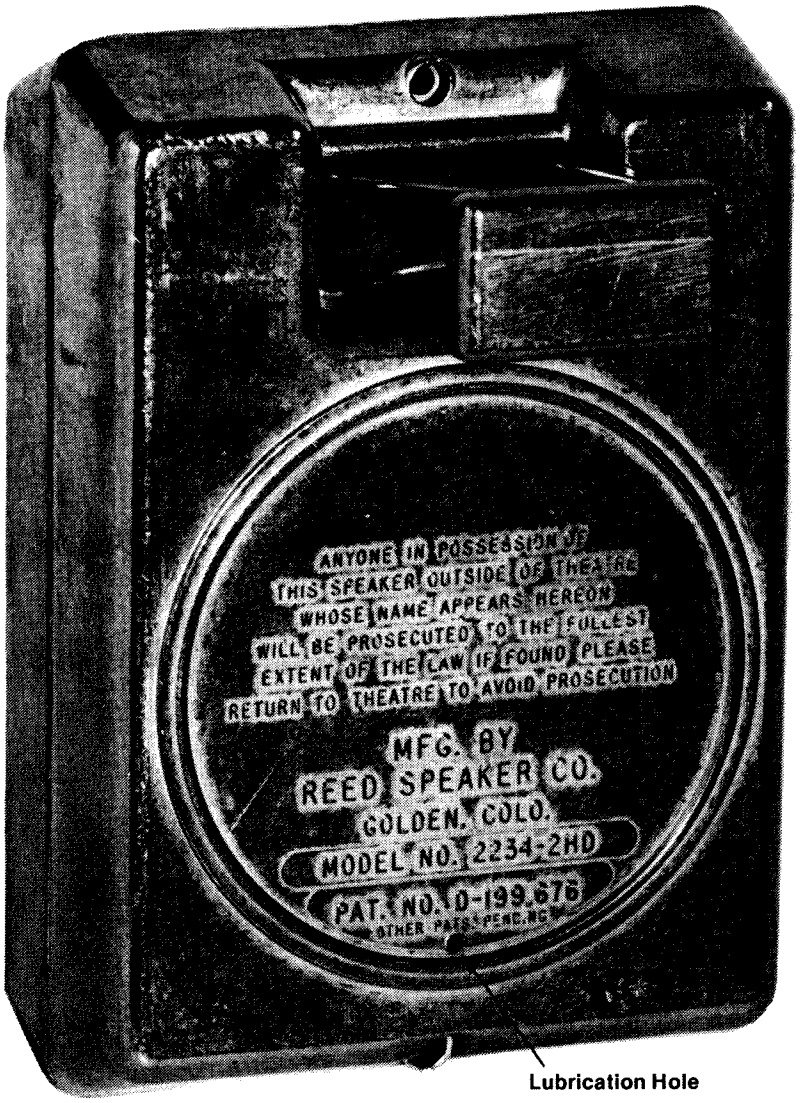
The new #260-N "Break-a-way Nut", now being supplied with Reed Junction Heads, is designed to break apart in event of seizure due to salt air or other forms of corrosion.

To break the nut it is only necessary to insert a screw driver blade in the legs of the nut and give a twist. The nut will break in half, freeing the Junction Head Cover mounting screws.

You will note one side of the nut is straight and the other side is curved. In mounting this nut on the Junction Head (Reed or Simplex) the curved surface should rest against the curved surface of the Junction Head. If the straight side of nut is placed against the Junction Head surface the nut will not line up with the screw holes of the head.

#205-1" and #205-1½" Theft Resistant Screws now available for use with above #260 Nut.

Patent No. 3,878,758



New Reed Speakers supplied after June 1, 1977 have a Lubrication Hole as shown in the above photo and on page 27-B. This allows correction of Noisy Volume Controls without having to take speaker apart.

The above Cleaner Lubrication feature may be adapted to Speakers supplied prior to June 1977.
Using a #40 Drill, drill hole at point indicated by arrow under the word "PATS".
Install new #400L Volume Control.

WD-40 or SpraKleen contact cleaner and lubricant may be sprayed into the new Reed Volume Control #400-L as shown.

Reed speakers supplied prior to June 1977, the volume controls may be cleaned and lubricated as shown in photo on page 27.

The Reed new #400L Volume Control is designed to allow Cleaner Fluid to be sprayed into the control without having to remove Speaker from Post or open up the Speaker.

To do this operation, insert a screw driver or knife blade under the rim of the Volume Control Knob. This will lift up the knob and shaft compressing the spring tension inside the Volume Control and opening the Dust Seal valve which then will allow Cleaning Fluid to enter the Control. See Photo Pg. 27-C.

Remove the blade, allowing dust valve to close. Work Control Knob back and forth to spread the Spra Kleaner over the contact surfaces.

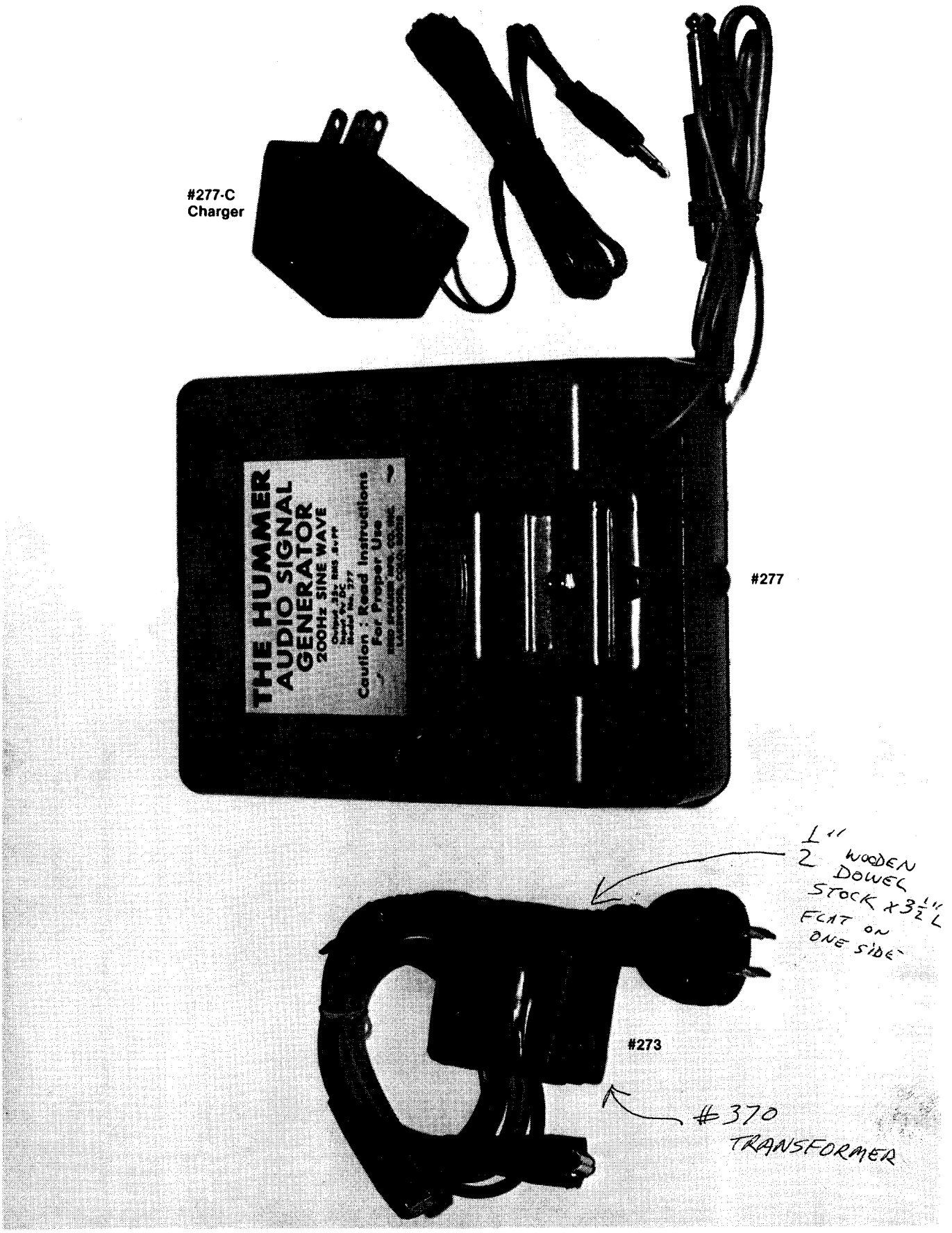
CLEANING THE NEW STYLE VOLUME CONTROL

Insert Screw Drive Blade under Volume Control Knob to open Seal in back of control. This allows the Cleaning Spray to flow inside of Control. Removing the Screw Driver the Seal closes by Spring action. Work Control Knob back and forth to spread the fluid over the contact surfaces.

The New 400-L Control may be recognized by the # AW4310 stamped on back of control.

See Page 27-A and 27-B

WD-40 and Quietrole for treating noisy Volume Controls. The tube supplied with WD-40 is positioned through the slot of Reed Speaker sot hat it is over the terminals of Volume Control. Squirt and work Control back and forth. Quietrole may be applied through the #155 hole, work control up and down and back and forth.



#273 Tester for Speaker repair bench. Not for use in field.

#277 Audio Signal generator for field testing of Speakers. See pages 28-A.

INSTRUCTION FOR THE HUMMER (#277)

The #277 Audio Signal Generator (Hummer) is especially designed for testing drive-in theatre speakers. It is to be plugged into booth amplifier system in place of the usual intermission tape player.

The Hummer is not recommended for sound systems having transistor final output stage, unless system has Automatic Short Circuit Protective Circuitry.

Voltage of 9 volts DC is supplied by the Dormeyer Charger shipped with unit. The small plug of charger is plugged into the jack on front. The Charger then plugged into 120 volt outlet. The small red indicator will light up indicating unit is ready to be plugged into booth amplifier system. Unit may also be operated with a 9 volt battery, such as a MN1604 Mallory Duracell.

To operate Hummer with Battery. Obtain a plug such as is on the Dormeyer charger. Connect Positive (+) Terminal of Battery to the Tip of the Plug, Connect Negative (—) Terminal of Battery to the Sleeve of plug.

CAUTION: The main amplifier volume control should be turned down to *lowest* setting *before* plugging in the signal generator, then gradually bring up the main amplifier volume control until a firm smooth humming sound is heard. This will usually be about the average setting of regular film or tape volume setting.

A word of CAUTION: Do not run the volume excessively loud to the point of over loading the field speakers. To do so will make all speakers sound distorted.

Proper volume level at speaker post is a smooth clean humming signal, which should be the same at all posts. Defective speakers will sound distorted or rattling or low in volume.

Shorts in wiring can be quickly traced after determining the ramp or section the short is in. Test from aisle post down the ramp as you move from post to post, the signal will become weaker and weaker as you approach the trouble. When you reach the defective post the signal will be completely dead. All posts beyond this post will be dead.

The generator signal will also show up bad volume controls, loose connections, bad cords, etc., etc.

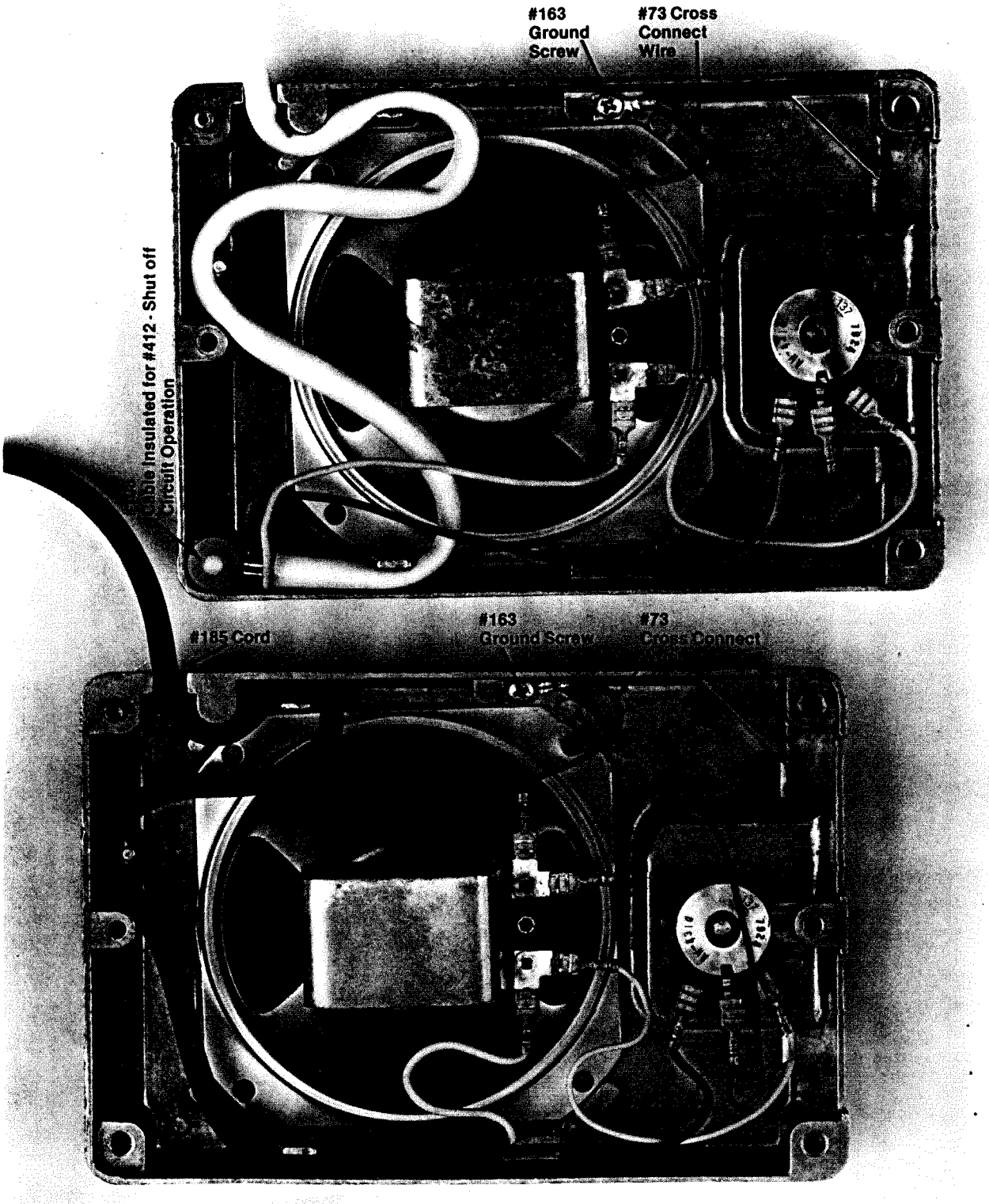
Due to the constant level of this signal, a field check can be made in much less time since there is no variation in sound level as with music which is constantly varing in loudness. Also it is not necessary to return to projection booth to rethread or change tape reels. Hissing and noise, sometimes present in tape reproduction is eliminated.

Since most drive-in tape players are plugged into main booth amplifier system, we have equpped the Hummer with a standard ¼" Phono-Plug which may be changed if required.

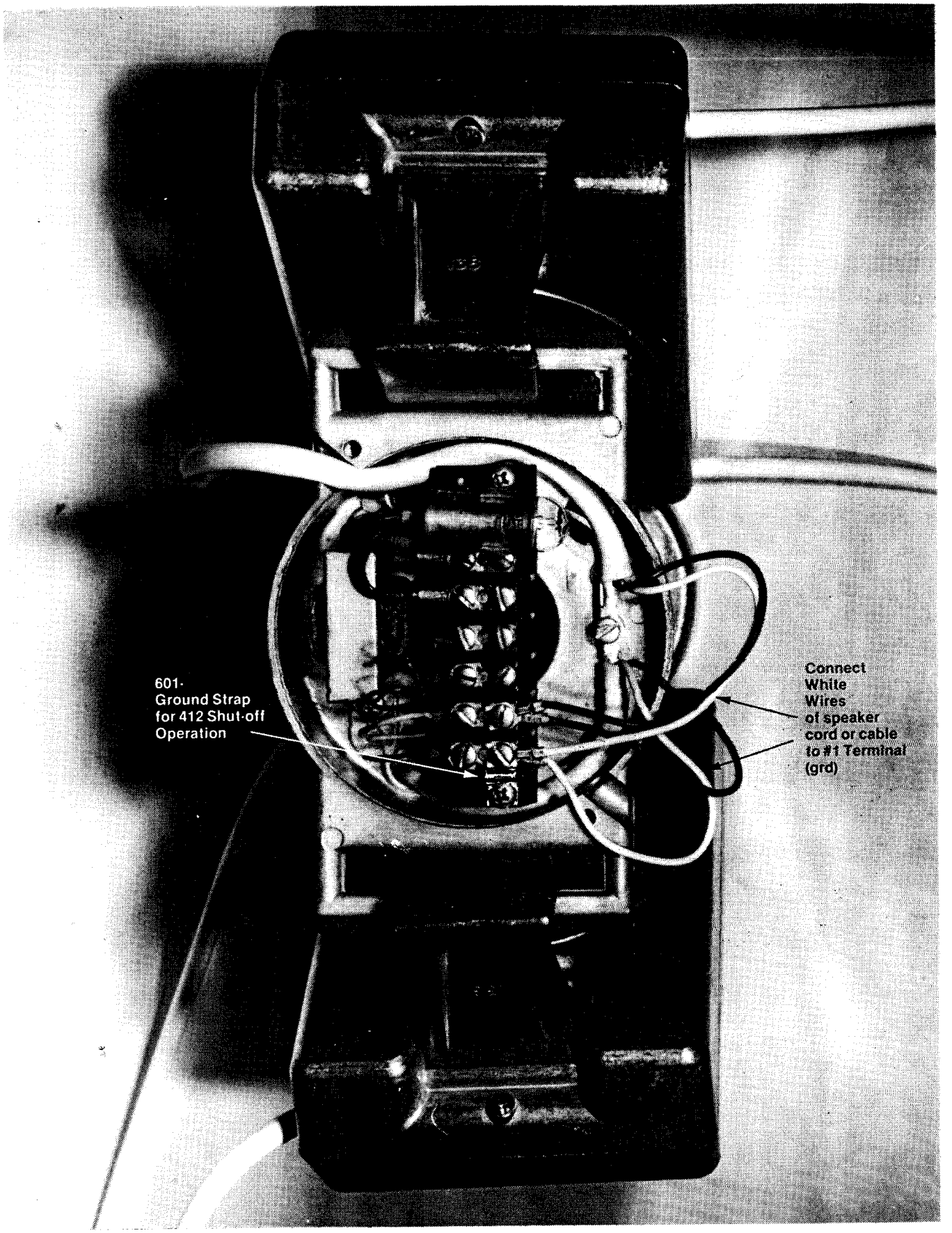
The output voltage control is set at the factory to .15 volts RMS, the frequency control is also factory set at 197HZ. These controls are marked "F" and "V". It should not be necessary to change these settings.

We recommend the unit be mounted permanently on booth wall near the tape player. Damage may result if dropped.

REED SPEAKER MFG. CO., INC.



Speaker wiring for #412 Shut-Off operation. This shows Regular #85 Cord and #108 Theft Resistant Cable. Junction Head Wiring. For 412 Shut-Off operation — see page 30.



Showing two methods of installing #108 Theft Resistant Cables in Reed #499 Junction Head. This method prevents the lug from being pulled off the steel cable. Also shows the grounding Strap #601 on terminal #1 (left side) of the #320 Terminal strip, for #412 Shut-off operation.

INSTRUCTIONS FOR OPERATION OF #412 'SHUT-OFF'

Speakers equipped with the #412 "SHUT-OFF" feature reduces volume to inaudible level when speakers are replaced on post, eliminating complaints of excessive loudness from the neighborhood.

1. **Reed speakers are connected to junction head terminal strip with the white wire of each speaker cord connected to the #1 terminal of the terminal strip. Black wire of cord is connected to #2 terminal. See Photos Page 29 and 30 of 1976-1977 Catalog.**

2. **Connect #73-J jumper wire or #601 or #602 strap from #1 terminal (to which the *WHITE* wires of the speaker cords are connected) to *ground.* Ground is one of the screws in the junction head which is driven directly into the metal housing of the junction head.**

3. **If theft resistant cables are used, it will be necessary to make sure the ring lug of the steel cable is insulated in the junciton head by taping or other means. If this lug is not insulated and comes in contact with the metal housing of the junction head, speaker will be inoperative. *REED Speakers with theft resistant cables and the #412 SHUT-OFF Circuit shipped after Jan. 1972 are insulated inside of the speaker case, therefore not necessary to insulate cable inside the junction head.***

4. **When making speaker repairs, all connections should be made inside speakers exactly as original factory wiring. Do not change order of wiring or speaker will not function properly. Also, be sure #412 knob is properly installed or speaker will not operate correctly. Proper position of #412 is, when the channel stop inside the knob hits the stop stud on face of speaker when control is turned to extreme right. *Before* installing #412 knob on control shaft, turn shaft to extreme right, then back off to left about one-quarter turn. Install #412 knob making sure it is all the way down on shaft. Speaker will not operate properly if the above positioning of knob is not correct. Use #417 tool to drive #155 Allen set screw (self threading) into place.**

5. **If junction heads are painted, paint must be removed and surfaces where speakers are hung up, cleaned down to bare metal in order for hanger arm of speaker to make good contact with the junction head. From time to time clean surfaces on junction head and speaker hanger to maintain good contact. When contact surfaces become dirty, volume reduction will not function efficiently.**

6. **When installing Reed #412 Speaker with other makes of speakers having a cut off feature, you may find Reed white wire of cord may have to be connected to terminal to which other makes may require the black wire of cord. If so then connect Reed white wire to their black cord wire.**

Reed Speakers require that the white be connected to the ground terminal of junction head.

REED SPEAKER MFG. CO., INC.
7530 W. 16th Ave.
Lakewood, Colo. 80215

PATENT #3,836,716

303-238-6534

REED SPEAKER MANUFACTURING CO., INC.
7530 W. 16th Avenue
Lakewood, Colorado 80215

Sam M. Reed, President

Tool Bits for use with
#360 — 350 — 349-C Tools

353-4"

353-M

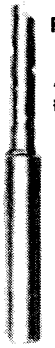
361

363

362

365

#8 SCREWS

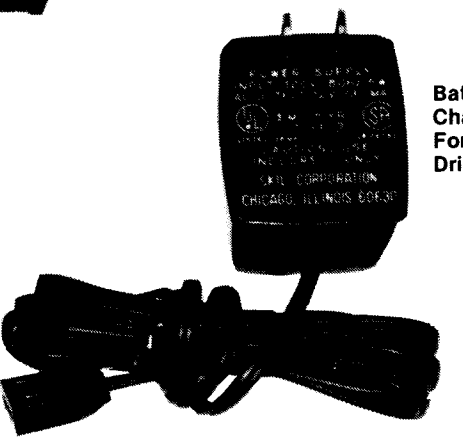


#353YM
For use in #130A Yankee
Spiral Screw Driver

Also
#353-Y Non Magnetic

350

349-C



Battery
Charger
For 349-C
Drill

CONE/MECHANISM REBUILDING - No. 261 and 262

When sending old Cone/Mechanisms (frames) in to us for rebuilding, please pack carefully so that frames will not be damaged in shipment. Mechanisms which are believed to be within guarantee period should be packed separately and carefully so that we can determine the cause of damage or failure. Please include a packing slip indicating how many mechanisms are in the shipment, number in guarantee if any, and name and address for return shipment and billing.

Small quantities usually can be sent in cheapest by UPS or Parcel Post. For larger quantities, the lowest possible truck rate can be obtained by listing material on the bill of lading as - IRON/STEEL SCRAP NOT COPPER CLAD N.O.I. Old Cone/Mechanisms are only worth their weight as junk metal until after they are rebuilt. Do not use the word 'SPEAKERS' in connection with the above IRON/STEEL classification, to do so will result in a much higher shipping cost.

In the event you should order Re-builts shipped without having previously sent in your old Frames (Cone/Mechanisms) we make a .25¢ deposit charge on the units we send which will be refunded upon receiving your old frames.

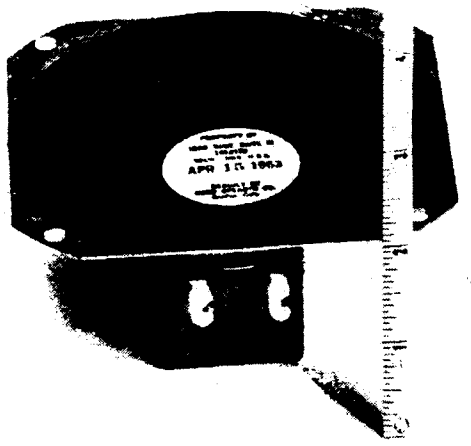
Freight and UPS and Parcel Post shipments should be addressed to:

REED SPEAKER MFG. CO. INC.
7530 W. 16th Ave.
LAKEWOOD, COLORADO 80215

When ordering material if you will advise your telephone number where the Truck Line or UPS people may contact you in case there is no one at your Theatre when delivery is attempted. This will prevent delayed delivery or returning of the shipment to us.

Please request authorization to ship old Cone mechanism for our purchase. We will then send you a Freight Line Bill of Lading marked Collect. Do not ship without our agreement to purchase, DO NOT SEND ANY WITHOUT MAGNETS.

Shipments of less than 100 pounds can be shipped via UPS in boxes of not over 50 pounds each and not over 2 boxes per shipment. Not necessary to obtain our permission to ship when sending by UPS.



WE BUY
OLD UNITS OF THE TYPE
AND SIZE AS SHOWN ABOVE
PHOTO. WRITE FOR INFORM-
ATION AND AUTHORIZATION
TO SHIP.

DONT THROW AWAY YOUR OLD SPEAKER CONES, WE CAN RE-BUILD THEM AND SAVE YOU COSTS OVER BUYING NEW UNITS. SEE PAGES 1-A, 6 & 17 PART # 261 CONE/MECHANISM REBUILDING. BE SURE TO FOLLOW SHIPPING INFORM--ATION PERTAINING TO TRUCKLINE CLASSIFICATION TO OBTAIN BEST SHIPPING RATE AS OUTLINED AT TOP OF THIS PAGE.