

MASTR II MAINTENANCE MANUAL

1- AND 2-FREQUENCY CONTROL UNITS



SPECIFICATIONS *

Model Number

19D416781G1
19D416781G2

Single Channel
Two Channels

Controls

Power-On
Volume
Squelch
Channel Selector Switch

Indicators

Power On Light
Transmit Light

Maintenance Manual LBI-4832 B

DF-4093

CONTROL UNITS 19D416781G1, 2

These specifications are intended primarily for the use of the serviceman. Refer to the appropriate Specification Sheet for the complete specifications.

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WARNING

Although the highest DC voltage in the radio is supplied by the vehicle battery, high current may be drawn under short circuit conditions. These currents can possibly heat metal objects such as tools, rings, watchbands, etc. enough to cause burns. Be careful when working near energized circuits!

High-level RF energy in the transmitter Power Amplifier assembly can cause RF burns. KEEP AWAY FROM THESE CIRCUITS WHEN THE TRANSMITTER IS ENERGIZED!

DESCRIPTION

MASTR II Control Units are attractively styled, highly functional units that are enclosed in a two-piece molded Lexan® housing for durability and ease of disassembly. The Control Units are mounted to the vehicle with a Safety Release Lexan® mounting bracket assembly for passenger safety.

The Control Unit uses a printed wiring board to provide a minimum of wiring. The only internal wires used are on the POWER-ON switch and indicator lights.

Cable plugs are secured to the back of the Control Unit by plastic locking clips. The plugs are equipped with indexing tabs to assure connection to the correct jack. The cable is equipped with a strain relief hook that attaches to a steel plate on the bottom rear of the Control Unit.

The microphone plug is secured to a jack on the bottom of the unit by means of a captive locking screw.

All indicator lights are light-emitting diodes (LEDs) for reliability, long life, and low power consumption.

CIRCUIT ANALYSIS

The Control Units are equipped with a VOLUME control, SQUELCH control and a POWER-ON rocker switch. The two-frequency Control Unit is also equipped with a frequency selector switch.

When the POWER-ON switch (S701) is in the OFF position, power is removed from the radio except for the transmitter PA, which is connected to the vehicle battery at all times. Pushing the switch to the ON position applies power to the radio, provides power for the push-to-talk (PTT) circuit and lights the power-on LED in the Power-On/Frequency Indicator window.

Pressing the PTT switch on the microphone energizes the antenna switch, keys the transmitter, mutes the receiver, and lights the transmit indicator LED.

Releasing the PTT switch turns off the transmitter and transmit indicator, de-energizes the antenna switch and un-mutes the receiver. Refer to the Table of Contents for a simplified Transmitter Keying and Power Distribution Diagram.

CR701 and CR708 are protective diodes. CR701 will cause the fuse in the yellow lead to blow if the polarity is reversed. CR708 inhibits the PTT circuit if the polarity is reversed.

TWO-FREQUENCY SWITCH (S702)

The frequency select switch is a 12-position switch with a mechanical stop that limits rotation to two positions.

In two-frequency radios, the frequency selector switch selects the desired channel (1 or 2) for both transmitting and receiving. The switch connects A- to the selected transmitter and receiver ICOM so that the radio operates on the selected channel.

IGNITION SWITCH CONNECTIONS

The Control Unit may be connected for two different modes of operation, depending on the way the ignition switch cables are connected in the vehicle system. The black cable provides the system ground connection. The yellow fused lead provides the receiver hot connections, and the transmitter Push-To-Talk hot connection. The two types of operation are:

1. Ignition Switch Control - For ignition switch control, the yellow fused lead connects to the ACCESSORY or ON terminal of the ignition switch. The transmitter and receiver will operate only when the ignition switch is in the ACCESSORY or ON position. Turning the ignition switch OFF removes all power from the radio.
2. Ignition Switch Bypass - For ignition switch bypass, the yellow fused lead connects to the "hot" side of the ignition switch or the vehicle fuse block assembly. Both the transmitter and receiver operate independently of the ignition switch and are turned on and off only by the POWER-ON switch on the Control Unit.

MAINTENANCE

DISASSEMBLY

To gain access to the inside of the Control Unit, simply remove the two screws on the bottom of the front edge of the unit, and lift off the top cover.

To remove the printed wiring board from the control unit housing:

1. Remove the two screws holding the microphone jack.
2. Remove the screws between J701 and J702, and remove the screw between J702 and J703.
3. Remove the screw at each end of the switch and control mounting bracket.

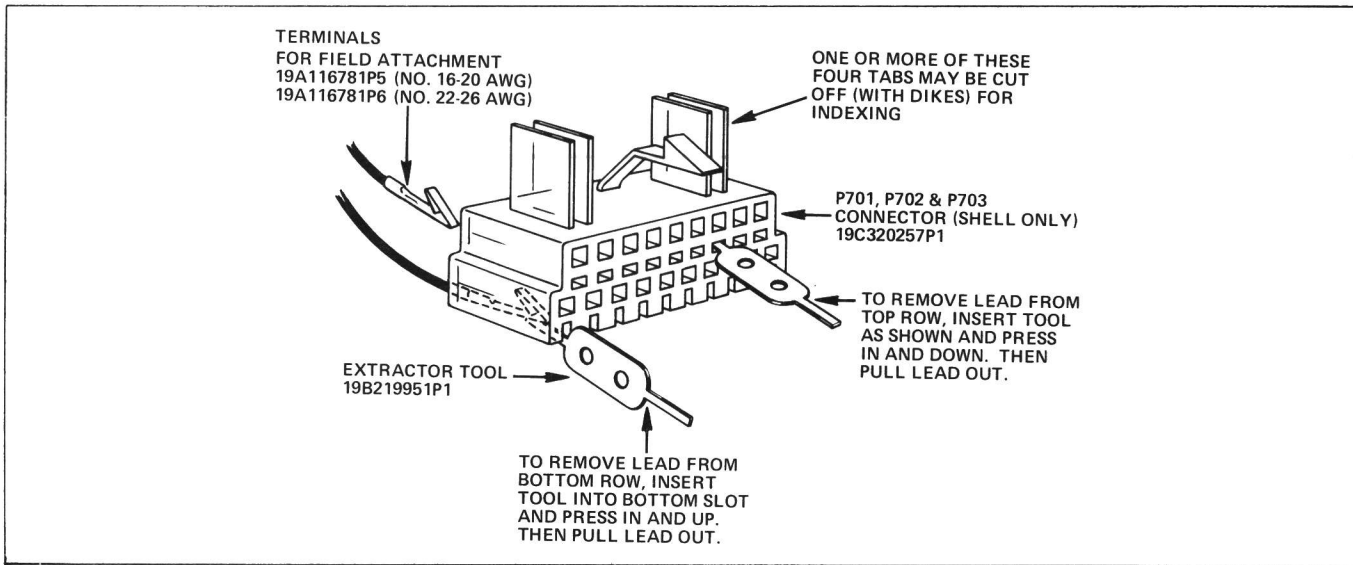


Figure 1 - Using Extraction Tool

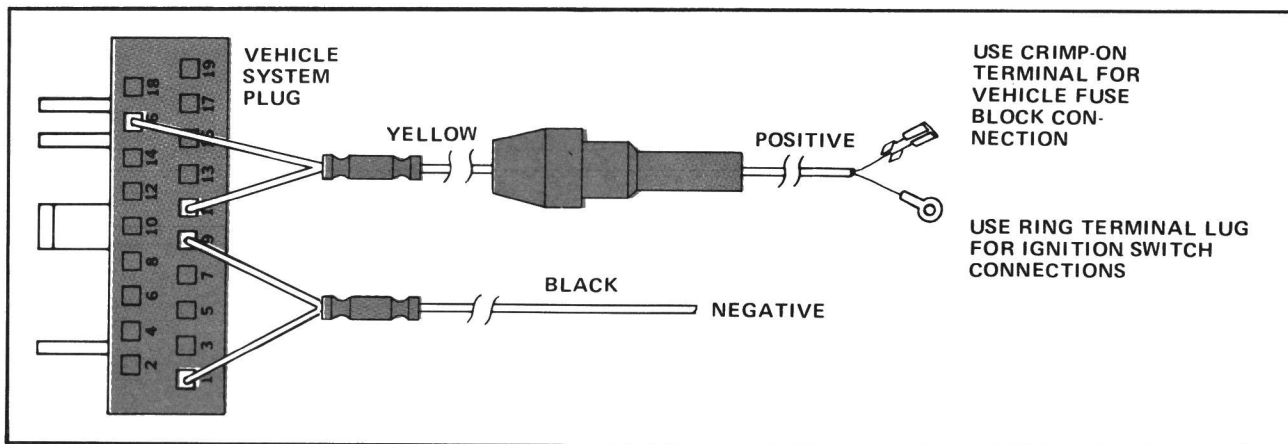


Figure 2 - 12-Volt, Negative Ground Connections

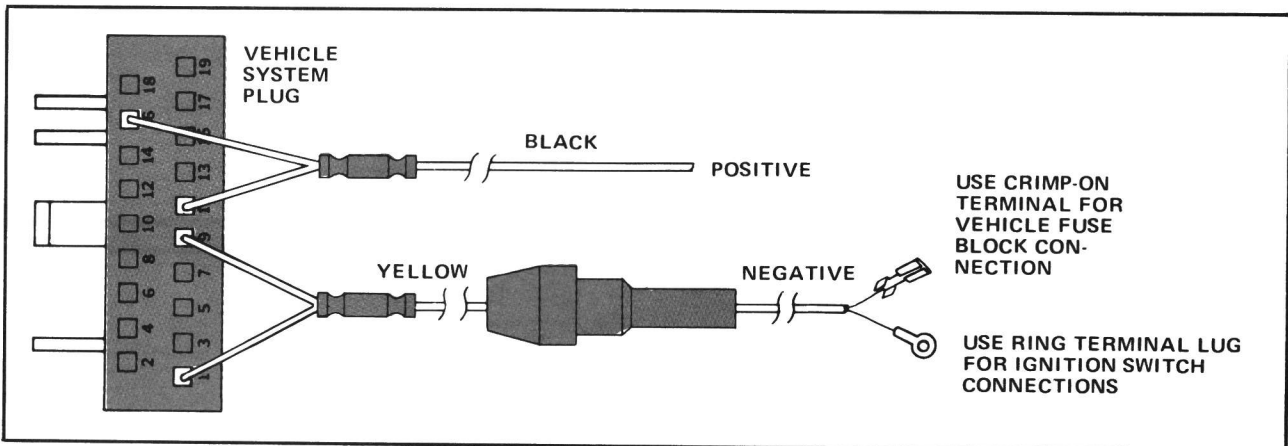


Figure 3 - 12-Volt, Positive Ground Connections

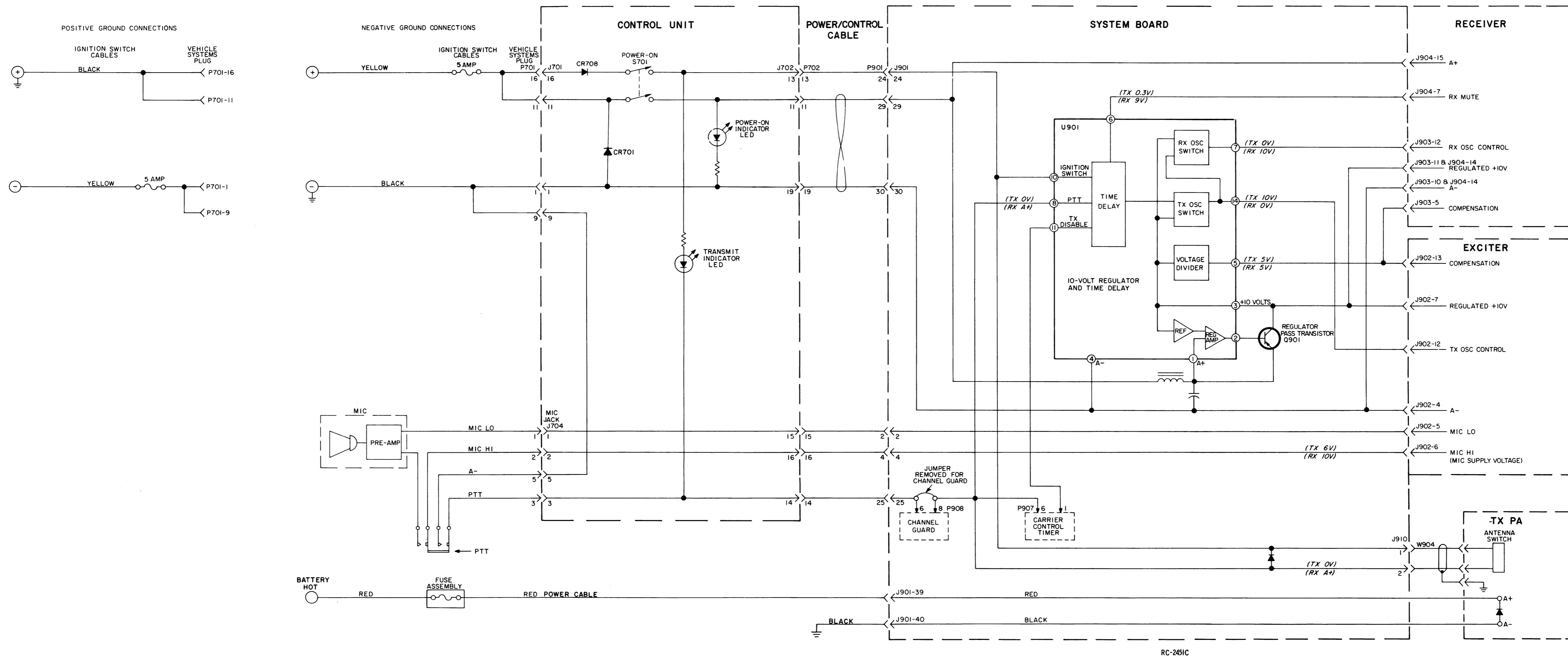
4. Remove the screw holding Power-On switch S701 to the bottom housing. Then swing the printed wiring board up from the front and lift the board out.

radio is moved to a different vehicle, always check the battery polarity and voltage of the new system before using the radio.

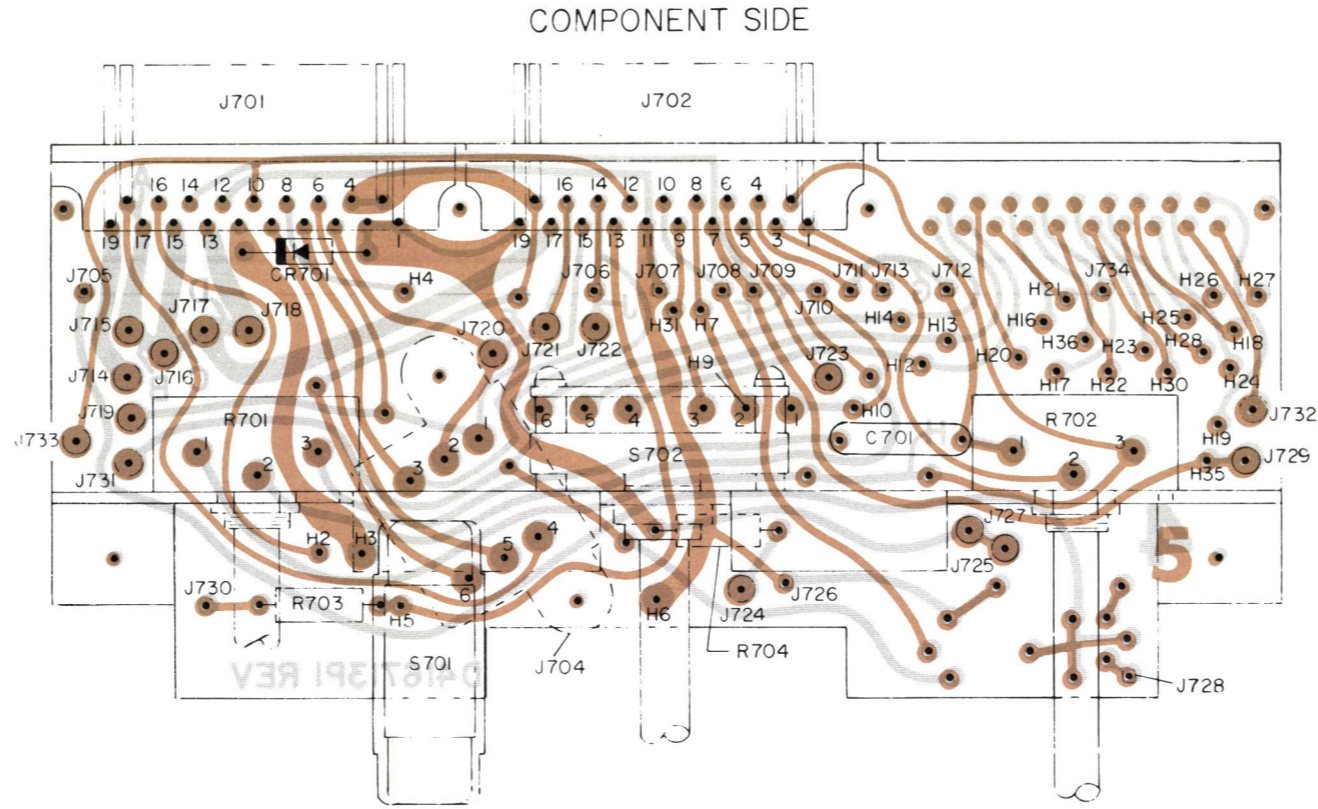
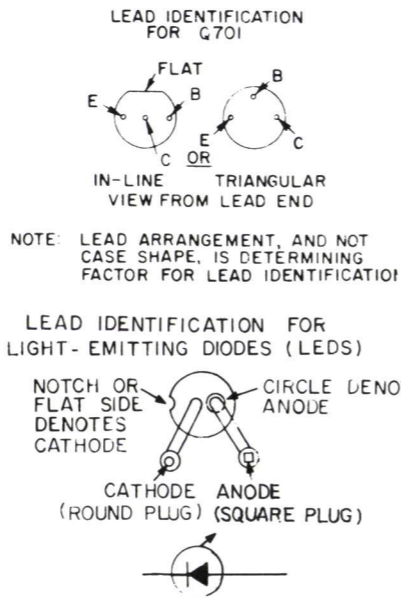
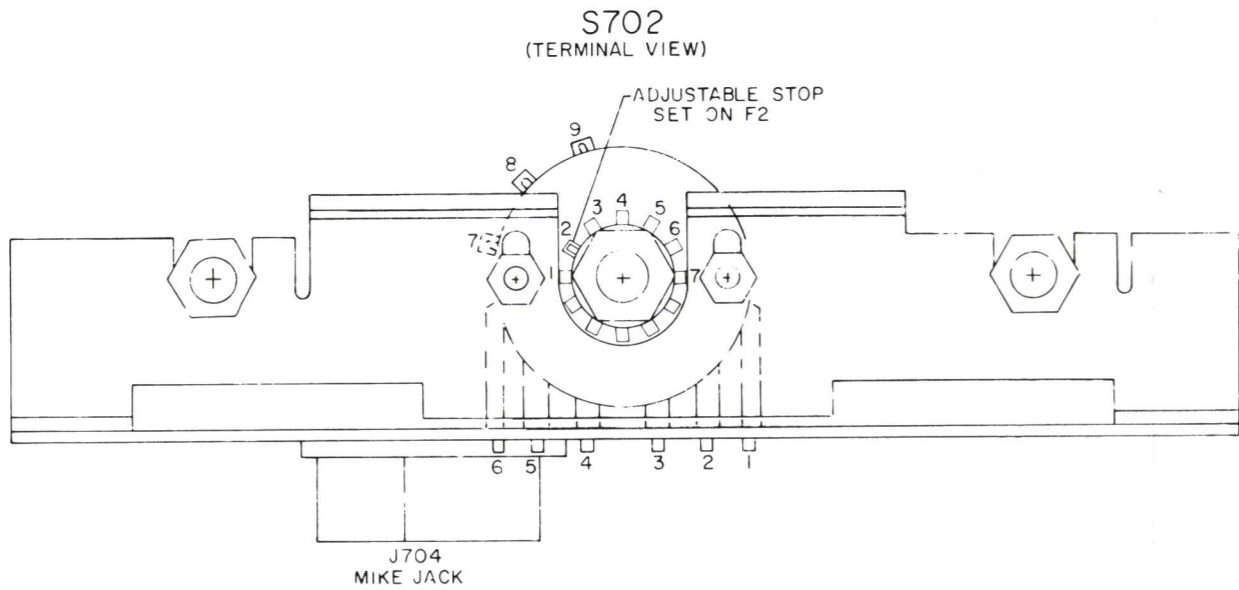
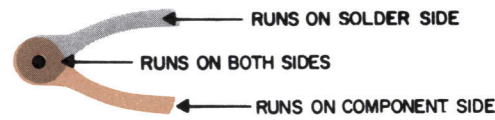
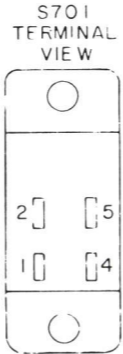
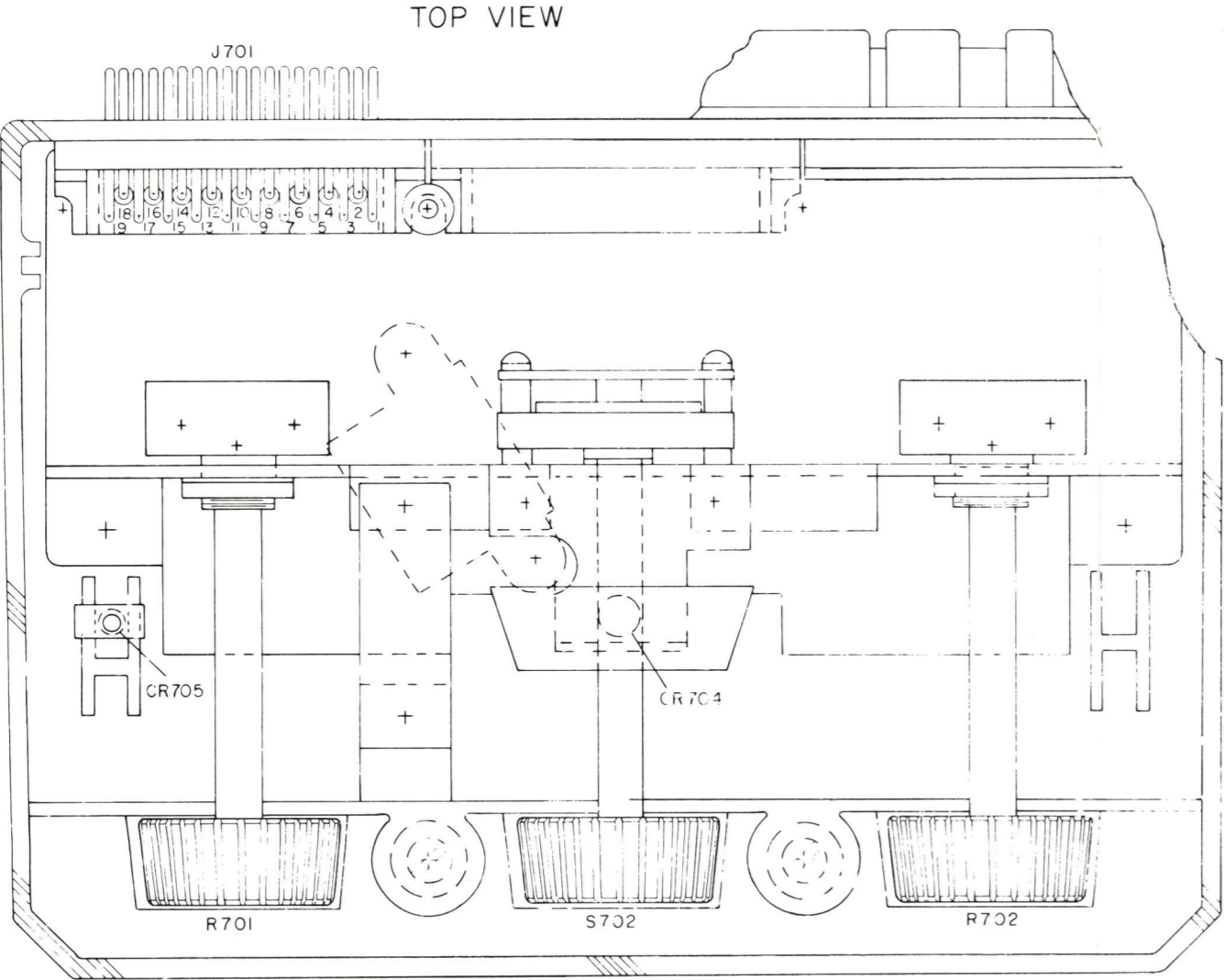
RE-INSTALLATION

Standard MASTR II mobile combinations operate in ± 12 -Volt systems only. If the

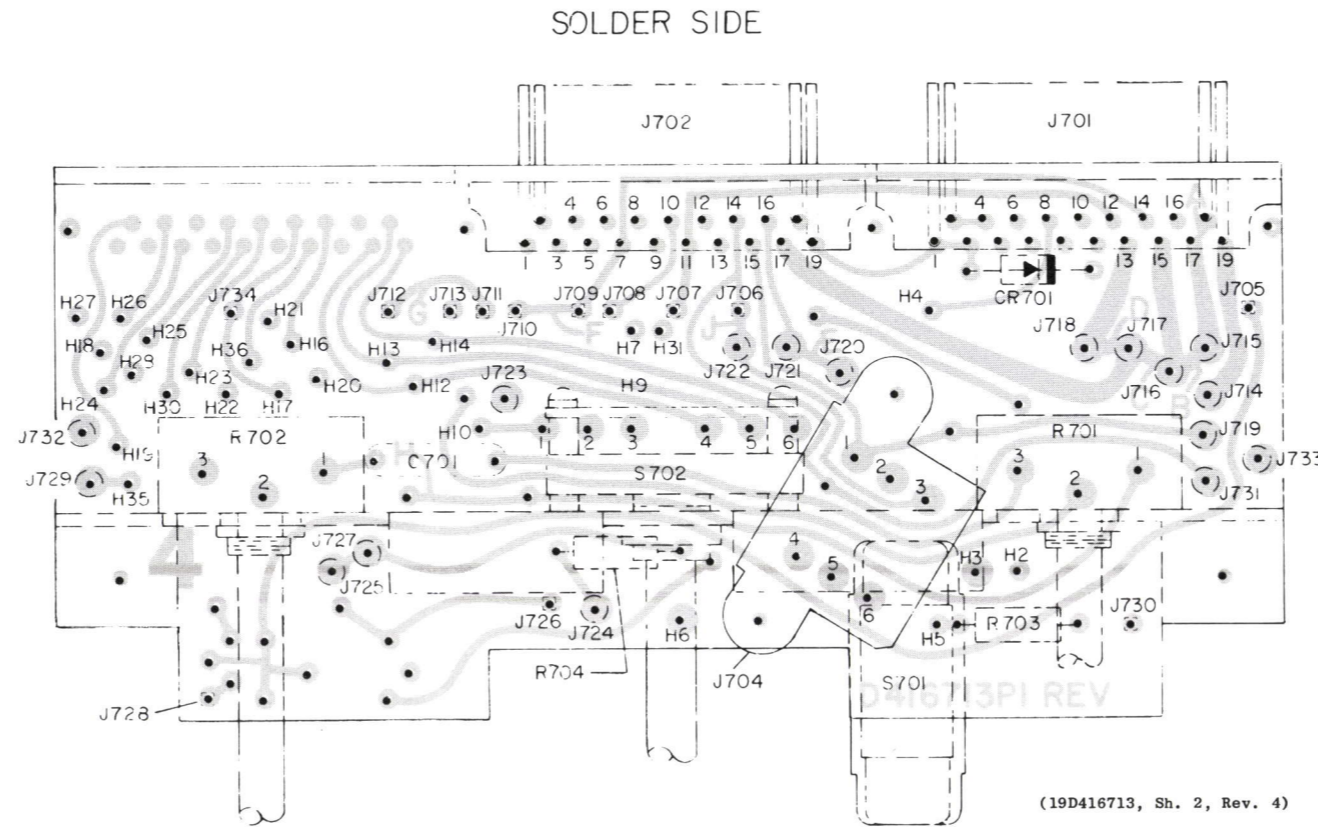
If the radio is moved to a vehicle with different battery polarity, it will be necessary to change the ignition switch leads to the vehicle systems plug. Use the extraction tool as shown in Figure 1, and change the leads as shown in Figures 2 or 3 as required.



TRANSMITTER KEYING & POWER DISTRIBUTION DIAGRAM



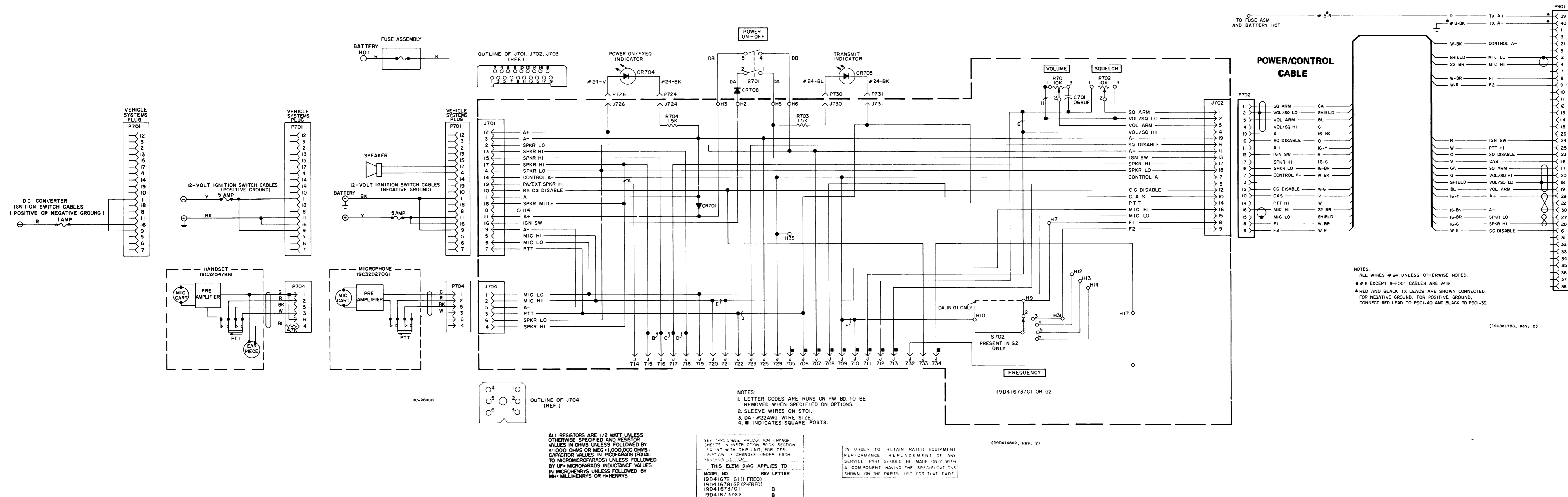
(19D416713, Sh. 2, Rev. 4)
(19D416713, Sh. 3, Rev. 5)



(19D416713, Sh. 2, Rev. 4)

OUTLINE DIAGRAM

CONTROL UNIT
19D416781G1 & G2



SYMBOL	GE PART NO.	DESCRIPTION
LBI-4833B CONTROL UNIT 19D416781G1 (1-FREQ) 19D416781G2 (2-FREQ) AND ASSOCIATED ASSEMBLIES		
CR705	19B219800G1	CONTROL UNIT 19D416781G1, G2
		----- DIODES AND RECTIFIERS -----
		Diode, light emitting.
		COMPONENT BOARD 19D416737G1, G2
C701*	19A116080P106	----- CAPACITORS -----
		Polyester: 0.068 µf ±10%, 50 VDCW. Added by REV A.
		----- DIODES AND RECTIFIERS -----
		Silicon.
CR701	4037822P1	Silicon.
CR708	4037822P1	Silicon.
J701 and J702	19C320257P2	----- JACKS AND RECEPTACLES -----
		Pin wafer assembly: 19 contacts.
J703*	19C320257P2	Pin wafer assembly: 19 contacts. Deleted by REV B.
J704	19B219627G1	Connector: 6 contacts.
J705 thru J713	19A116779P1	Contact, electrical: sim to Molex 08-50-0404.
J714 thru J725	4033513P4	Contact, electrical: sim to Bead Chain L93-3.
J726	19A116779P1	Contact, electrical: sim to Molex 08-50-0404.
J727	4033513P4	Contact, electrical: sim to Bead Chain L93-3.
J728	19A116779P1	Contact, electrical: sim to Molex 08-50-0404.
J729	4033513P4	Contact, electrical: sim to Bead Chain L93-3.
J730	19A116779P1	Contact, electrical: sim to Molex 08-50-0404.
J731 thru J733	4033513P4	Contact, electrical: sim to Bead Chain L93-3.
J734	19A116779P1	Contact, electrical: sim to Molex 08-50-0404.
R701	19A116687P2	----- RESISTORS -----
		Variable, carbon film: 10,000 ohms ±20%, 1/4 w; sim to Mallory M204.
		Variable, carbon film: 10,000 ohms ±20%, 1/2 w; sim to Mallory M101.
		Composition: 1500 ohms ±10%, 1/2 w.
R703 and R704	3R77P152K	
R708*	3R77P471K	Composition: 470 ohms ±10%, 1/2 w. Deleted by REV A.
S701	19A116622P5	----- SWITCHES -----
		Push: DPST, 0.5 amp VDC or 3.0 amps at 125 v; sim to Switchcraft 11K1040.
S702	19A116697P1	Rotary: 1 section, 1 pole, 8 positions (supplied with adj stop), non- shorting contacts, 2 amps at 28 VDC or 1 amp at 110 VRMS; sim to Oak Hfg Type "F".

SYMBOL	GE PART NO.	DESCRIPTION
FREQUENCY INDICATOR LIGHT ASSEMBLY 19B219696G1, G2		
CR704	19A129291P3	----- DIODES AND RECTIFIERS -----
		Diode, light emitting: red.
----- PLUGS -----		
P724	4029840P2	Contact, electrical: sim to Amp 42827-2.
P726	19A127042P2	Terminal, solderless: sim to Malco 12093-10.
MECHANICAL PARTS (SEE RC-2447)		
1	19A116807P1	Clip, spring tension.
2	19A116773P106	Tap screw: thd size No. 7-19 x 3/8.
3	19B201074P204	Tap screw, Phillips POZIDRIV®: No. 4-40 x 1/4.
4	N402P8C6	Washer: No. 8.
5	19C320389G1	Housing.
6	19B219825G1	Knob.
7	19B219696G1	Frequency indicator.
8	NP270754A	Nameplate. (1-12).
9	NP270754B	Nameplate. (OFF, A-H).
10	4029006P1	Retainer strap: sim to Tinnerman C2386-020-1.
11	N117P9004C13	Tap screw: No. 4-40 x 1/4.
12	7165075P2	Hex nut, brass: No. 3/8-32.
13	7115130P9	Lockwasher: sim to Shakeproof 1220-2.
14	19A134017P1	Adjustable stop.
15	19B219578G1	Safety release disc.
16	19C320022P1	Retaining bracket.
17	N187P16010C6	Screw, hexhead, slotted: No. 10-32 x 5/8. (Quantity 1, used with safely release disc and retaining bracket).
18	N710P16012C6	Screw, hexhead, slotted: No. 10-16 x 3/4. (Quantity 3, used without safely release disc and retaining bracket).
19	19D416594P1	Mounting bracket.
20	19E500988P1	Cover.
21	19A116985P1	Tap screw, assembled washer: No. 13-16 x 3/4 with No. 10 hexhead.
22	NP270753P1	Nameplate. (MASTR II SOLID STATE).
23	19B219626P1	Knob plug. (Frequency switch S702).
24	7140578P4	Nut, push on: sim to Tinnerman C1259-014-27. (Used with item 23).
25	19A130009P1	Diffuser.
26	7160815P4	Washer, spring: sim to Shakeproof 3544-14-00.

SYMBOL	GE PART NO.	DESCRIPTION
ASSOCIATED ASSEMBLIES		
POWER/CONTROL CABLE 18 CONNECTORS 19D423424G2		
----- PLUGS -----		
P702		Connector. Includes:
	19B226516G1	Shell.
	19A116781P5	Contact, electrical: wire size No. 16-20 AWG; sim to Molex 08-50-0105. (Quantity 4).
	19A116781P6	Contact, electrical: wire size No. 22-26 AWG; sim to Molex 08-50-0107. (Quantity 14).
P901		Connector. Includes:
	19C307162P1	Shell.
	19A115776P2	Contact, electrical: sim to AMP 350657-1. (Quantity 14).
	19A134240P1	Contact, electrical: sim to AMP 350656-1. (Quantity 4).
	19A134240P2	Contact, electrical: sim to AMP 350655-1. (Quantity 2).
	19A134240P3	----- MISCELLANEOUS -----
	7139880P13	Cable: 16 conductor, 20 feet.
	7142878G1	Clip loop (strain relief).
	19A134241P1	Jackscrew. (Part of P901).
	19A115799P1	Terminal, solderless: sim to AMP 33460. (Quantity 2).
12-VOLT 2-WIRE IGNITION SWITCH CABLE 19B219537G4		
----- PLUGS -----		
P701		Connector. Includes:
	19B226516P3	Shell.
	19A129504G1	Y Cable. (BLACK).
FUSED LEAD ASSEMBLY 19A129480G3 (Used with 19B219537G4)		
	1R16P8	Fuse, quick blowing: 5 amps at 250 v; sim to Littelfuse 312005 or Bussmann WTH-5.
	19A115776P2	Fuseholder, phen: sim to Bussmann Type HHJ.
	19A115776P3	Contact, electrical: sim to Littelfuse 904-83. (Located inside fuseholder).
	7491823P7	Ring terminal, solderless: wire size No. 16-14 AWG.
	7491823P8	Ring terminal, solderless: wire size No. 16-14 AWG.
	4029484P2	Terminal, quick connect: wire size 14-18 AWG, fits 1/4 x .032 tab; sim to AMP 41274.
	19A115579P1	Insulated splice.
	19A116781P5	Contact, electrical: wire size No. 16-20 AWG; sim to Molex 08-50-0106.
OPTIONAL 12-VOLT 3-WIRE IGNITION SWITCH CABLE 19B219537G1		
----- PLUGS -----		
P701		Connector. Includes:
	19B226516P3	Shell.
	19A129504G1	Y Cable. (BLACK).

SYMBOL	GE PART NO.	DESCRIPTION
FUSED LEAD ASSEMBLY 19A129480G1 1 AMP (RED) (Used with 19B219537G1)		
	1R16P3	Fuse, quick blowing: 1 amp 250 v; sim to Littelfuse 312001 or Bussmann AGC-1.
	19A115776P2	Fuseholder, phen: sim to Bussmann Type HHJ.
	19A115776P3	Contact, electrical: sim to Littelfuse 904-83. (Located inside fuseholder).
	7491823P7	Ring terminal, solderless: wire size No. 16-14 AWG.
	7491823P8	Ring terminal, solderless: wire size No. 16-14 AWG.
	4029484P2	Terminal, quick connect: wire size 14-18 AWG, fits 1/4 x .032 tab; sim to AMP 41274.
	19A115579P1	Insulated splice.
	19A116781P5	Contact, electrical: wire size No. 16-20 AWG; sim to Molex 08-50-0106.
FUSED LEAD ASSEMBLY 19A129480G2 5 AMP (YELLOW) (Used with 19B219537G1)		
	1R16P8	Fuse, quick blowing: 5 amp 250 v; sim to Littelfuse 312005 or Bussmann WTH-5.
	19A115776P2	Fuseholder, phen: sim to Bussmann Type HHJ.
	19A115776P3	Contact, electrical: sim to Littelfuse 904-83. (Located inside fuseholder).
	7491823P7	Ring terminal, solderless: wire size No. 16-14 AWG.
	7491823P8	Ring terminal, solderless: wire size No. 16-14 AWG.
	4029484P2	Terminal, quick connect: wire size 14-18 AWG, fits 1/4 x .032 tab; sim to AMP 41274.
	19A115579P1	Insulated splice.
	19A116781P5	Contact, electrical: wire size No. 16-20 AWG; sim to Molex 08-50-0106.
25 - 50 MHZ ANTENNA		
	7491074P1	Antenna: includes stainless steel rod approx 96-1/2 inches long; ball tip; lockwasher: No. 10-32 hex socket set screw; sim to Antenna Specialists ASPA3BGE.
	7102930P3	Adapter, antenna: approx 2-5/16 inches long. (Used with GE Dwg 7491074P1).
	4KY9A1	Loading coil: 25-33 MHz; sim to Antenna Specialists ASPA87.
	19A121577G1	Antenna hook kit.
	7134724P1	Antenna hook.
	19C307172P1	Antenna Package: Includes base and ball assembly, adapter spring assembly, cable assembly, horseshoe plate, and rubber gasket.
		Base and ball assembly. Newtronics 5495.
		Adapter spring assembly. Newtronics 3327.
		Cable assembly. Newtronics 183-RAO.
		Horseshoe plate. Newtronics 3323-3.
		Rubber gasket. Newtronics 3320.
132-512 MHZ ANTENNA 19B209568P1		
		Whip assembly. 068110-001.
		Whip nut assembly. 068047-001.
		Base nut assembly. 068048-001.
		"O" Ring (LARGE). 007059-122.
		Stud assembly. 068046-001.
		RG58/U Cable, 15 ft. 068115-001.

SYMBOL	GE PART NO.	DESCRIPTION
12 VOLT FUSE ASSEMBLY 19B216021G4 (Fuses must be ordered separately)		
F1	1R11P4	----- FUSES -----
		Quick blowing: 15 amps, 250 v; sim to Bussmann NON15. (Used with low power transmitters, 16-38 w).
F3	1R11P7	Quick blowing: 30 amps, 250 v; sim to Bussmann NON30. (Used with high power transmitters, 66-128 w).
F4	1R11P5	Quick blowing: 20 amps, 250 v; sim to Bussmann NON20. (Used with medium power transmitters, 38-66 w).

PRODUCTION CHANGES

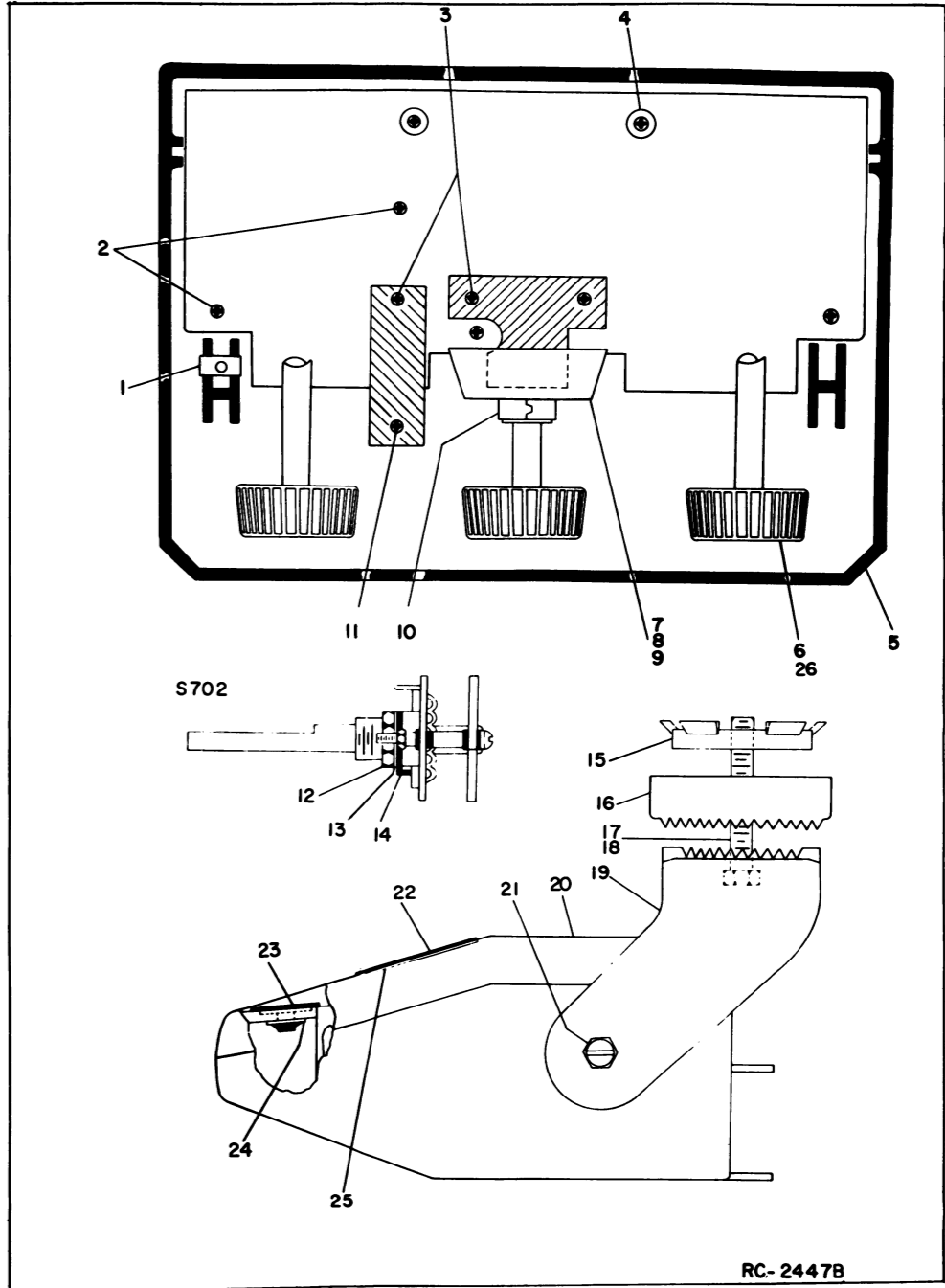
Changes in the equipment to improve performance or to simplify circuits are identified by a "Revision Letter", which is stamped after the model number of the unit. The revision stamped on the unit includes all previous revisions. Refer to the Parts List for descriptions of parts affected by these revisions.

REV. A - To improve Channel Guard tone rejection.
Replaced R708 with C701.

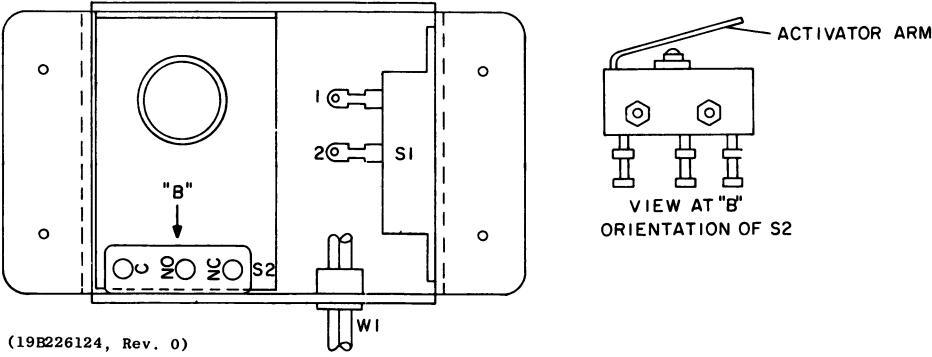
REV. B - Deleted J703.

REV. A - Control Unit 19D416781G1, G2

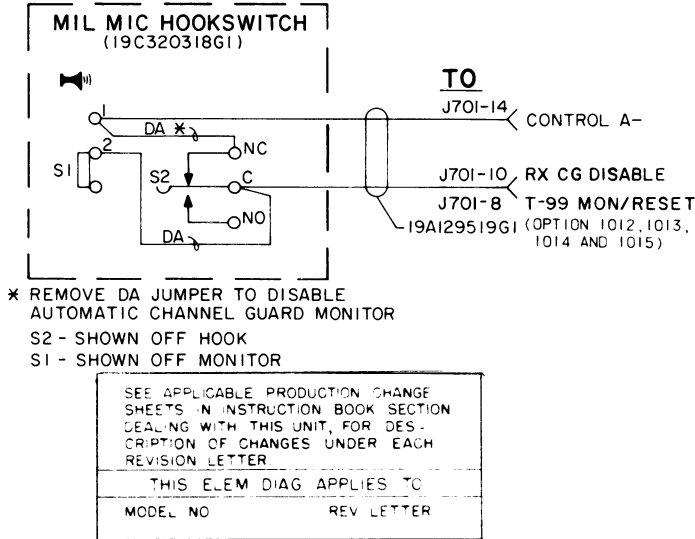
To improve connector retention:
Changed bracket at rear of control unit assembly.



OUTLINE DIAGRAM



SCHEMATIC DIAGRAM



PARTS LIST

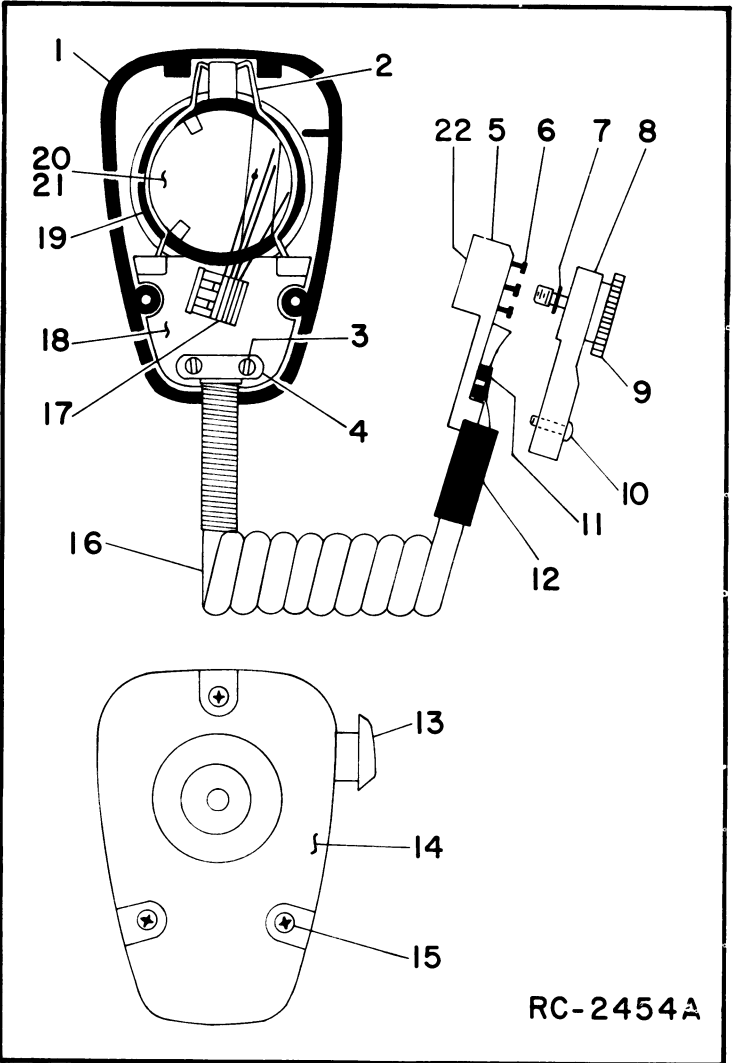
SYMBOL	GE PART NO.	DESCRIPTION
----- SWITCHES -----		
S1	19B219698G1	Slide: SPST, 3 amp at 125 VAC, 2.2 amp at 14 VAC; sim to Switchcraft 46202LH. (S1 includes switch and housing).
S2	19A116676P1	Sensitive: SPDT, 5 amp at 24 VDC or 5 amp at 250 VRMS; sim to Microswitch 111SM1-T2.
----- CABLES -----		
W1	19A129414G1	2 conductor cable: approx 5 feet long, includes (2) 19A116781P3 contacts.
----- MISCELLANEOUS -----		
	19A116768P6	Strain relief: sim to Heyco SR-3P-4. (Used with W1).
	N193P1410C	Tap screw, phillips: No. 8 x 5/8.
	N84P5008C6	Screw, phillips: No. 2-56 x 1/2. (Secures S2).
	N210P5C6	Hexnut: No. 2-56. (Secures S2).
	N404P8C6	Lockwasher, internal tooth: No. 2. (Secures S2).

*COMPONENTS ADDED, DELETED OR CHANGED BY PRODUCTION CHANGES

PARTS LIST

SYMBOL	GE PART NO.	DESCRIPTION
1		Front Case Assembly. RP127. (includes items 14, 15).
2		Retaining spring. (Part of item 18).
3		Tap screw, phillips. (Part of item 16).
4		Retaining bar. (Part of item 16).
5	19D416766P1	Connector base.
6	19A129435P1	Contact.
7	7109043P1	Retaining ring.
8	19D416767P1	Connector cover.
9	19B219723G1	Screw.
10	N136AP905C	Tap screw, phillips: No. 4 x 5/16.
11	19A116937P1	Cable clip.
12	19B219749P1	Strain relief.
13		Switch button kit. RP126.
14		Rear Case Assembly. (Part of item 1).
15		Tap screw, phillips. (Part of item 1).
16	19C321016G1	Cable assembly: Includes items 3-12 and cable RP129.
17		Switch Assembly. RP128.
18		Grille Assembly. RP130. (includes items 2, 19, 21).
19		"O" Ring. (Part of item 18).
20		Transistorized Cartridge. RP117.
21		Washer. (Located under cartridge- part of item 18).
22	19C321016G3	Connector assembly: Includes items 5-12.

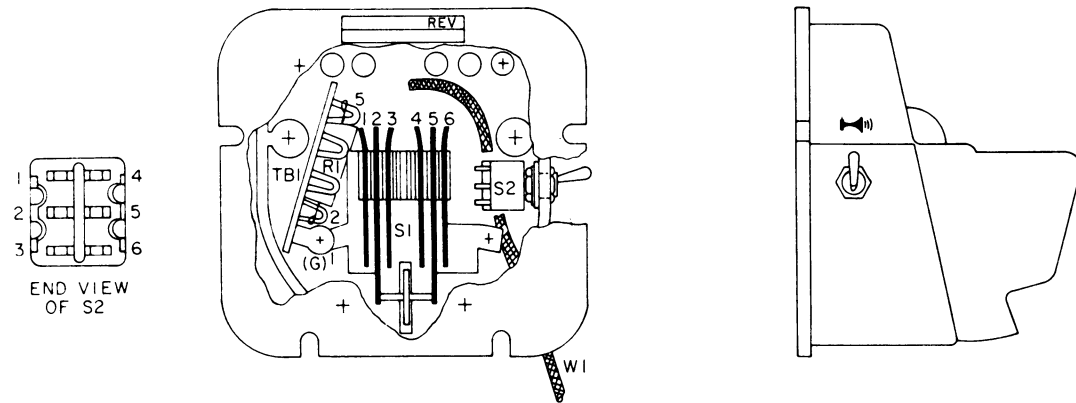
*COMPONENTS ADDED, DELETED OR CHANGED BY PRODUCTION CHANGES



SERVICE SHEET

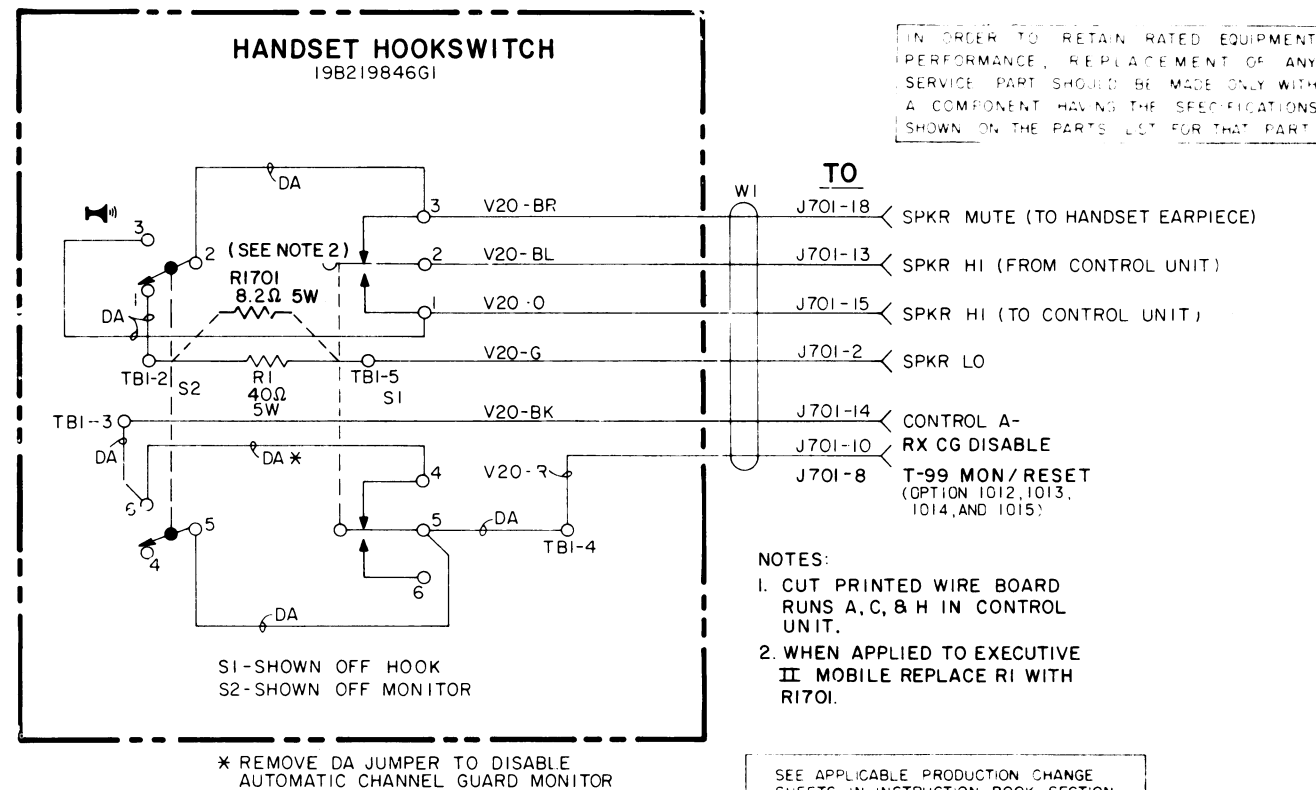
MICROPHONE & HOOKSWITCH

OUTLINE DIAGRAM



(19B226131, Rev. 0)

SCHEMATIC DIAGRAM



(19B219842, Rev. 6)

SERVICE SHEET

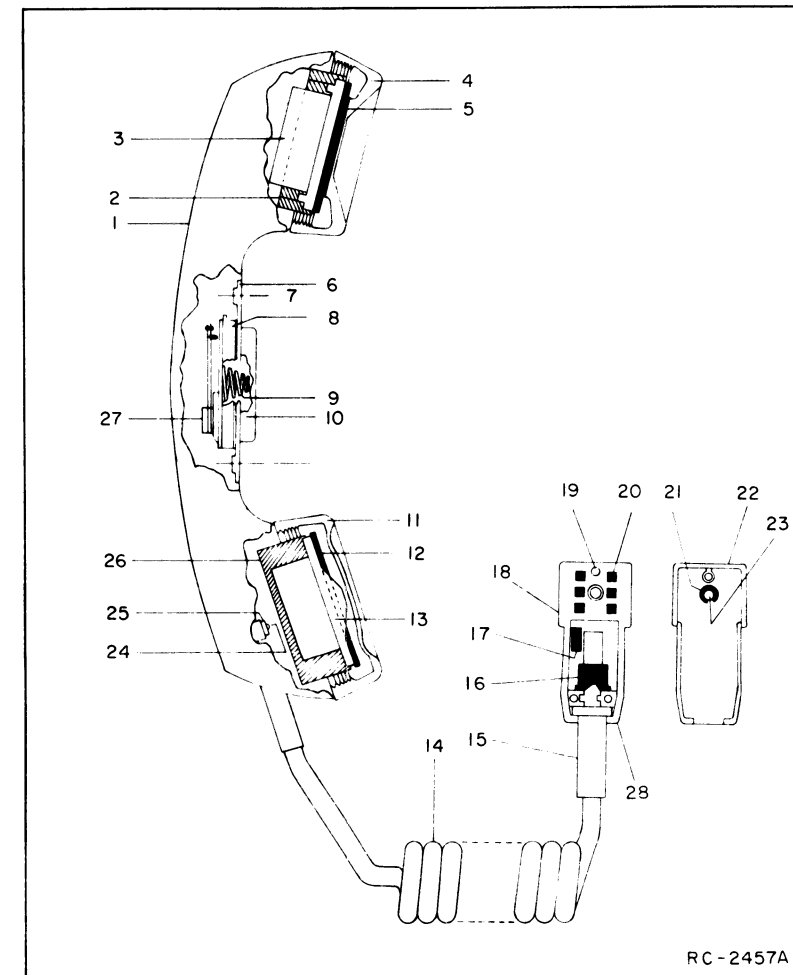
HANDSET & HOOKSWITCH

PARTS LIST

LBI-4484A
HANDSET HOOKSWITCH
19B219846G1

SYMBOL	GE PART NO.	DESCRIPTION
		- - - - - RESISTORS - - - - -
R1	5493035P11	Wirewound: 40 ohms $\pm 5\%$, 5 w; sim to Hamilton Hall Type HR. Earlier than REV A:
	5493035P12	Wirewound: 60 ohms $\pm 5\%$, 5 w; sim to Hamilton Hall Type HR.
		- - - - - SWITCHES - - - - -
S1	19A129585P1	Holder and switch: Thermoplastic case, contact rating 1 amp at 125 v.
S2	19A116877P6	Toggle: DPDT, 1 ma at 6 VDC; sim to C and K Components 7201G. (CHANNEL GUARD DISABLE).
		- - - - - TERMINAL BOARDS - - - - -
TB1	7775500P203	Phen: 5 terminals.
		- - - - - CABLES - - - - -
W1	19B219841G1	6 conductor, 5 feet long.
		- - - - - MISCELLANEOUS - - - - -
	N190AP1312C	Tap screw, phillips pozidriv: No. 6 x 3/4. (Secures housing to base plate).
	N101P1510P	Tap screw, phillips: No. 8 x 5/8. (Used for mounting base plate).
	19A129586P1	Bumper, rubber. (2).

*COMPONENTS ADDED, DELETED OR CHANGED BY PRODUCTION CHANGES



PRODUCTION CHANGES

Changes in the equipment to improve performance or to simplify circuits are identified by a "Revision Letter", which is stamped after the model number of the unit. The revision stamped on the unit includes all previous revisions. Refer to the Parts List for descriptions of parts affected by these revisions.

REV. A - Handset Hookswitch 19B219846G1
To improve the operation of the audio output stage
by lowering the off-hook terminating resistance.
Changed R1.

SYMBOL	GE PART NO.	DESCRIPTION
1		Case Assembly. Includes items 1, 2, 4, 5, 11, 12, 26. Shure Brothers RP142.
2		Adapter. Part of item 1.
3		Receiver Cartridge. Shure Brothers RP140.
4		Receiver Cap. Part of item 1.
5		Washer. Part of item 1.
6		Escutcheon. Part of item 27.
7		Flat head screw, socket cap: No. 4-40 x 1/4. Part of item 27.
8		Actuator. Part of item 27.
9		Spring. Part of item 27.
10		Plunger bar. Part of item 27.
11		Transmitter cap. Part of item 1.
12		Washer. Part of item 1.
13		Transmitter cartridge. Shure Brothers RP139.
14	19C321016G2	Cable assembly: Includes items 14-23 and cable RP141.
15	19B219749P1	Flex relief.
16	19A116937P1	Cable clamp: sim to Malco 21012-3.
17	3R77P472K	Resistor, (R1) Composition, 4700 ohms $\pm 10\%$, 1/2 w.
18	19D416766P1	Connector case.
19	N136AP905C	Screw.
20	19A129435P1	Pin contact.
21	7109043P1	Retaining ring, 3/16 inch, sim to National Lockwasher WA 510.
22	19D416767P1	Connector Cover.
23	19B219723G1	Screw. (Secures cover, item 22 to case, item 18).
24		Screw. Part of item 14.
25		Cable clamp. Part of item 14.
26		Shield. Part of item 1.
27		Switch Assembly. Includes items 6-10. Shure Brothers RP145.
28	19C321016G3	Connector assembly: Includes items 15, 16, 18-23. Does not include resistor, item 17.

*COMPONENTS ADDED, DELETED OR CHANGED BY PRODUCTION CHANGES

PARTS LIST

LBI-4832

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SPEAKER
19C320302G1

SYMBOL	GE PART NO.	DESCRIPTION
LS1	19A116694P1	----- LOUSPEAKERS ----- Permanent magnet, 5 inch: 20 watts, 8 ohms ±10% imp, 100 to 10,000 Hz response; sim to Oaktron T2877.
		----- CABLES ----- 2 conductor cable: approx 5 feet long, includes (2) 19A116781P3 contacts.
W1	19A129414G1	----- MISCELLANEOUS ----- Grille.
		Housing.
		Mounting bracket. (Located between housing and retaining bracket).
		Retaining bracket. (Located between mounting bracket and safety release disc).
		Safety Release Disc.
		Tap screw, with lockwasher: No. 7-19 x 1/2. (Secures speaker to housing).
		Tap screw, with lockwasher: No. 7-19 x 3/4. (Secures grille to housing).
		Tap screw, with lockwasher: No. 13-16 x 3/4. (Secures mounting bracket to housing).
		Screw, hexhead, slotted: No. 10-32 x 5/8. (Quantity 1- used with safety release disc and retaining bracket).
		Screw, hexhead, slotted: No. 10-16 x 3/4. (Secures mounting bracket or retaining bracket).

*COMPONENTS ADDED, DELETED OR CHANGED BY PRODUCTION CHANGES

ORDERING SERVICE PARTS

Each component appearing on the schematic diagram is identified by a symbol number, to simplify locating it in the parts list. Each component is listed by symbol number, followed by its description and GE Part Number.

Service parts may be obtained from Authorized GE Communication Equipment Service Stations or through any GE Radio Communication Equipment Sales Office. When ordering a part, be sure to give:

1. GE Part Number for component
2. Description of part
3. Model number of equipment
4. Revision letter stamped on unit

These instructions do not purport to cover all details or variations in equipment nor to provide for every possible contingency to be met in connection with installation, operation or maintenance.

Should further information be desired, or should particular problems arise which are not covered sufficiently for the purchaser's purposes, contact the nearest Radio Communication Equipment Sales Office of the General Electric Company.

MAINTENANCE MANUAL

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DF-4093

**MOBILE RADIO DEPARTMENT
GENERAL ELECTRIC COMPANY • LYNCHBURG, VIRGINIA 24502**



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