MOBILE RADIO

MASTR Progress Line

MOBILE CONTROL UNIT MODELS 4EC59A80 & 82

Maintenance Manual LBI-4057F

EC-59-A

SPECIFICATIONS *

MODEL NUMBERS	4EC59A80 and 4EC59A82
USED WITH	MASTR Royal Professional Mobile Combinations with Priority Search Lock Monitor
CONTROLS	VOLUME Control OFF-ON-STBY Switch SQUELCH Control F1-F2 Selector Switch Search-Off Switch Dimmer Control for Pilot Lights
INDICATORS	Transmitter filament-on light: green Transmit light: red Receive F1 light: white Receive F2 light: yellow

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

GENERAL ELECTRIC

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ILLUSTRATIONS

WARNING

No one should be permitted to handle any portion of the equipment that is supplied with voltage of RF power; or to connect any external apparatus to the units while the units are supplied with power. KEEP AWAY FROM LIVE CIRCUITS.

DESCRIPTION

MASTR Progress Line Control Units Models 4EC59A80 and 4EC59A82 are used with MASTR mobile combinations that are equipped with the Priority Search-Lock Monitor Option. They are compact, highly functional control units designed for either Trunk-Mount or Front-Mount mobile combinations.

In Trunk-Mount installations, a plate is installed on the back of the Control Unit to hold the connectors. A mounting bracket is provided for mounting the Control Unit within convenient reach of the operator. In Front-Mount installations, the Control Unit is attached to the front of the MASTR Two-Way Radio.

Cable connections are secured to the Control Unit by means of captive locking screws.

CIRCUIT ANALYSIS

CONTROLS

In addition to VOLUME and SQUELCH controls, the control units are provided with the controls described in the following paragraphs.

OFF-ON-STBY Switch (S709)

The OFF-ON-STBY (standby) switch determines whether or not the transmitter and receiver are operative. With the switch in the OFF position, all power is removed from the Two-Way Radio. Turning the switch to STBY applies power to the receiver only, and the green pilot light does not light.

Turning the switch to the ON position enables the push-to-talk (PTT) circuit, lights the green pilot light, and applies +12 volts to the receiver and power regulator.

Pushing the PTT button on the microphone lights the red pilot light, energizes the antenna changeover relay, and applies a keyed voltage to the transmitter and power regulator. The keyed voltage also mutes the receiver audio stages.

F1-F2 Frequency Selector Switch (S704)

The frequency selector switch selects the desired channel (F1 or F2) for both transmitting and receiving. However, frequency selection is affected by the position of the SEARCH-OFF switch (S708) as follows.

When the SEARCH-OFF switch is OFF, the frequency selector switch connects +10 volts to the selected receiver oscillator switching diode and connects the transmitter oscillator switching diode to ground. This permits the unit to operate on the frequency determined by each of the crystal-controlled oscillators.

When SEARCH is selected, the frequency selector switch connects the transmitter oscillator switching diode to ground and determines which receiver channel has priority. The +10 volts is applied to the receiver oscillator from the Priority Search-Lock Monitor circuits.

NOTE

In combinations equipped with transmit Channel Guard, the Channel Guard will operate only when the frequency selector switch is in the F1 position.

SEARCH-OFF Switch (S708)

When switch S708 is in the SEARCH position, Priority Search-Lock Monitor operation is selected, giving priority to the channel selected by the frequency selector switch. The OFF position of S708 disables the Priority Search-Lock. In this case, the position of the frequency selector switch determines which channel is monitored.

NOTE

The priority channel may be locked on either F1 or F2 by changing a connection to the PSLM board. When connected for this mode of operation, the priority channel can not be changed by the frequency selector switch.

Dimmer Control (R710)

The dimmer control is a rheostat in series with the power-on and frequency indicator lights. Turning the control adjusts the amount of light that is given off by the lamps.

INDICATOR LIGHT CONTROL CIRCUITS

The power-on and frequency indicator

lights are controlled by transistors Q1 thru Q4 on printed wiring board A701 (see Figure 1). Transistors Q1 thru Q4 are actually Integrated Circuit Modules, having the equivalent circuit of a Darlington Amplifier as shown in Figure 1.

Q5 is an NPN transistor for use in special Channel Guard Monitor applications and is not part of the light control circuits.

Turning the OFF-ON-STBY switch to the ON position, completes the collector circuit of Q4. This turns on Q4 and lights the green power-on light. When a signal is received, a positive voltage from the COS feed is applied to the base of Q3. Q3 conducts, grounding the emitter of Q1 & Q2 and the base of Q4.

Depending on which frequency is being received, +10 volts is applied to the base of Q1 or Q2 causing the transistor to conduct through its associated frequency indicator light and the power-on light. At the same time, Q4 is turned off to equalize the current flow through the power-on light while the series-connected frequency light is on. This keeps the light from the power-on lamp constant in both receive and non-receive conditions.

When the SEARCH-OFF switch is in the OFF position, the +10 volts is applied to Q1 or Q2 through the frequency selector switch. If the SEARCH-OFF switch is in the SEARCH position, the +10 volts is applied to Q1 or Q2 from the Priority Search-Lock Monitor circuit.

VEHICLE IGNITION SWITCH CONNECTIONS

The Control Unit may be connected for three different modes of operation, depending on the way the three ignition switch cables are connected in the vehicle system. The black ignition switch cable provides the receiver ground connection. The yellow fused lead provides the receive hot connections, and the red fused lead provides the +12 volts for the power regulator. The three types of operation are:

1. Ignition Switch Standby - For this type of operation, the red fused lead (power regulator voltage) is connected to the ACCESSORY or ON terminal of the ignition switch. The yellow fused lead (receiver hot) is connected to the hot side of the ignition switch, and the black lead connects to vehicle ground.

With the ignition switch OFF, the receiver automatically reverts to STBY, ready to receive messages. Turning the ignition switch to the ON or ACCESSORY position turns on the green pilot light and supplies power regulator voltage. Turning the OFF-ON-STBY switch to OFF removes all power to the Two-Way Radio.

2. Ignition Switch Control - For ignition switch control, the yellow and red fused leads are connected 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 to the radio.

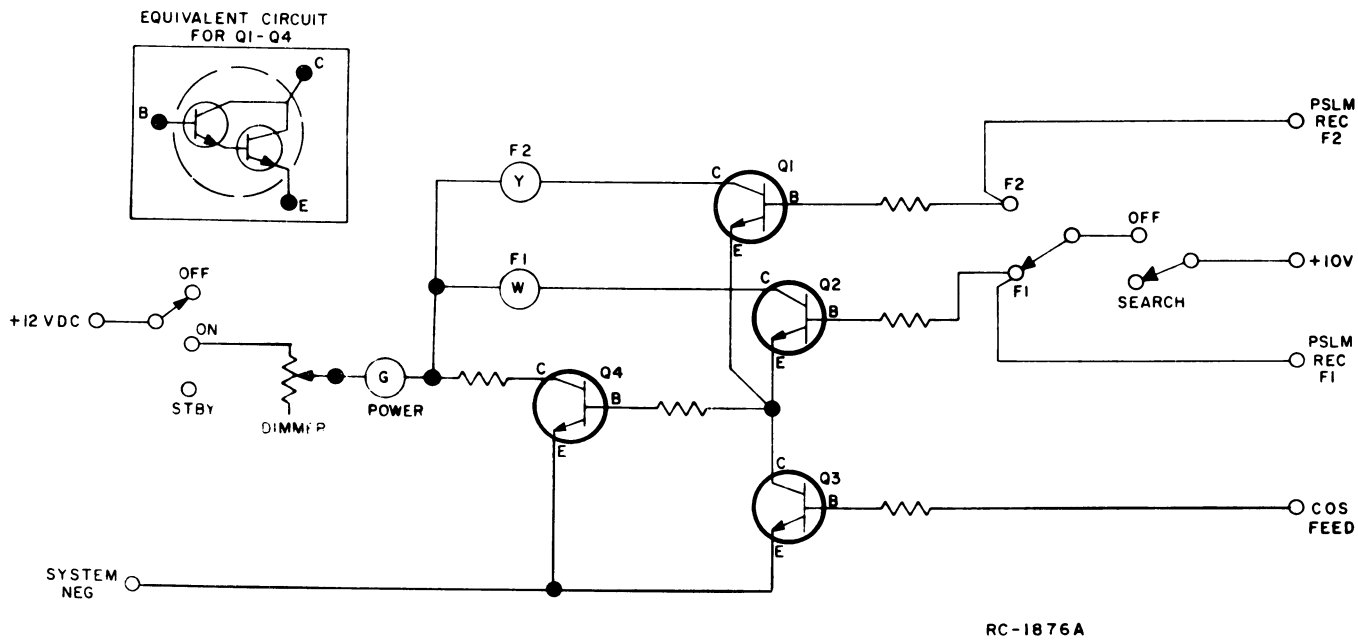


Figure 1 - Indicator Light Control Circuits

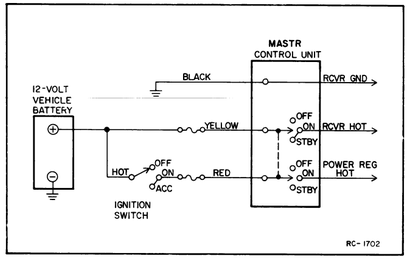


Figure 2 — 12-VDC Connections for Ignition Switch Standby

3. Ignition Switch Bypass - For ignition switch bypass, the yellow and red fused leads connect 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 can be turned on the off only by the OFF-ON-STBY switch on the MASTR Control Unit.

MAINTENANCE

DISASSEMBLY

In Trunk-Mount installations, access to the inside of the Control Unit is obtained by removing the two Phillips-head screws in the back of the unit and pulling the back panel away from the housing.

In Front-Mount installations, remove the two Phillips-head screws holding the front casting to the frame and move the casting away from the frame. Next, remove the two screws securing the control cable plug to the inside of the front casting. Then remove the two flat-head screws holding the Control Unit to the front casting.

PILOT LIGHT REPLACEMENT

The pilot lights can be easily replaced without disassembling the Control Unit. First, unscrew the colored lens. Then wrap a small piece of masking tape around the bulb, to give the fingers a firm grip, and unscrew the bulb.

REINSTALLATION

The Royal Professional mobile combination operates in 12-volt, negative ground vehicle systems only! If the radio is ever moved to a different vehicle, always check the battery polarity and voltage of the new system before using the radio.

CAUTION

Do not install the Royal Professional in a vehicle system using a circuit breaker. The radio must be operated in a system protected by a 15-amp quick blow fuse (similar to GE Fuse Assembly 19B216021-G4 and fuse 1R11-P4).

If it becomes necessary to move the Two-Way Radio andControl Unit to another vehicle, the 25-pin control cable plug may need to be disassembled. Refer to Figure 3 for disassembly of the plug.

NOTE

The plug is assembled to that the cable comes out of the top of the plug when connected to the Control Unit. To have the cable come out of the bottom of the plug, remove the remaining two screws and rotate the metal frame 180 degrees.

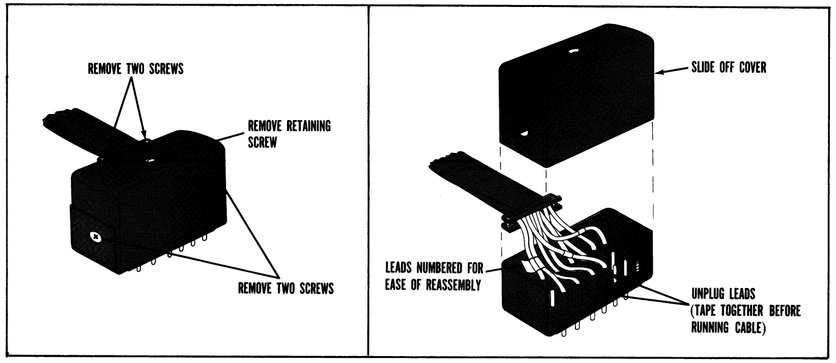
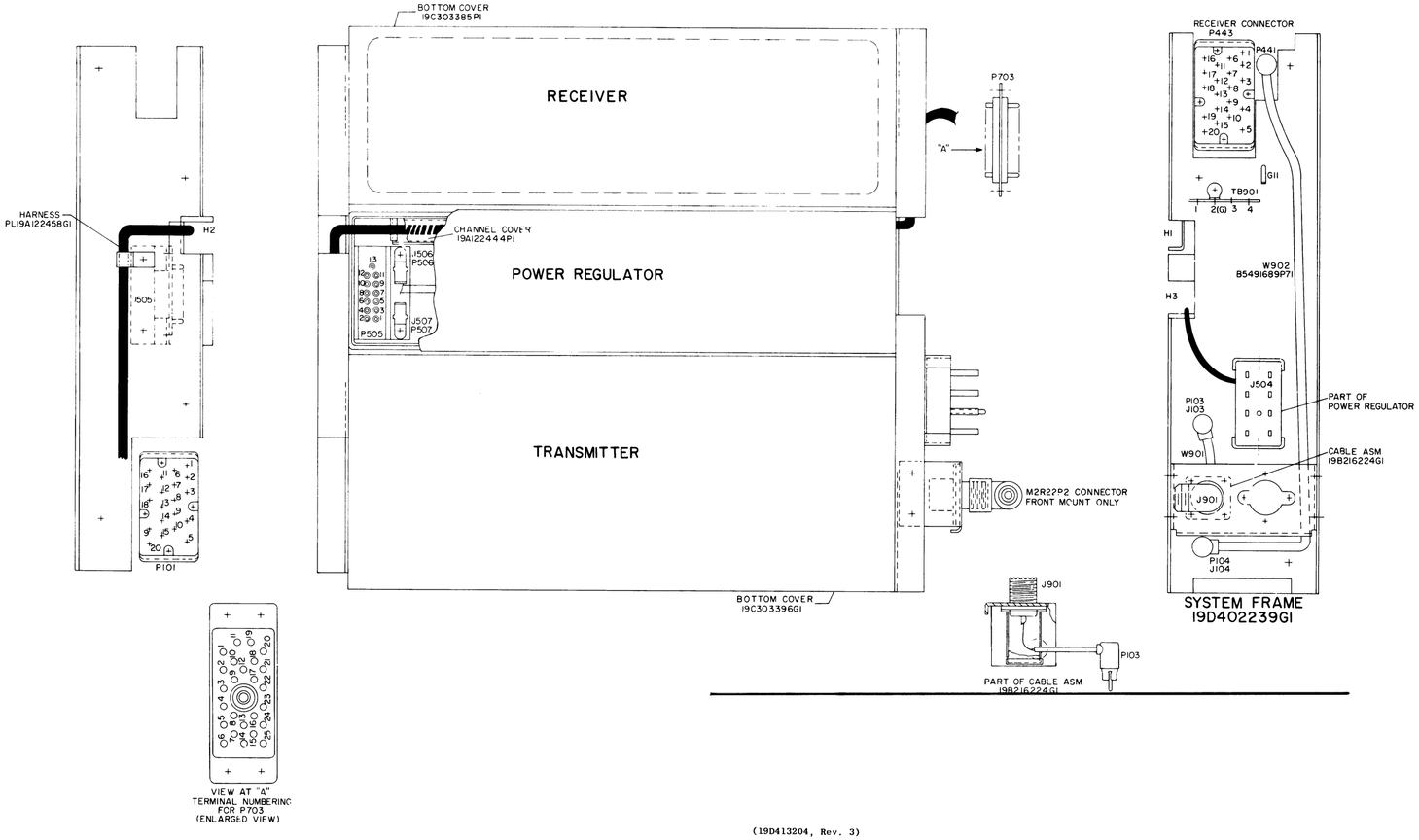


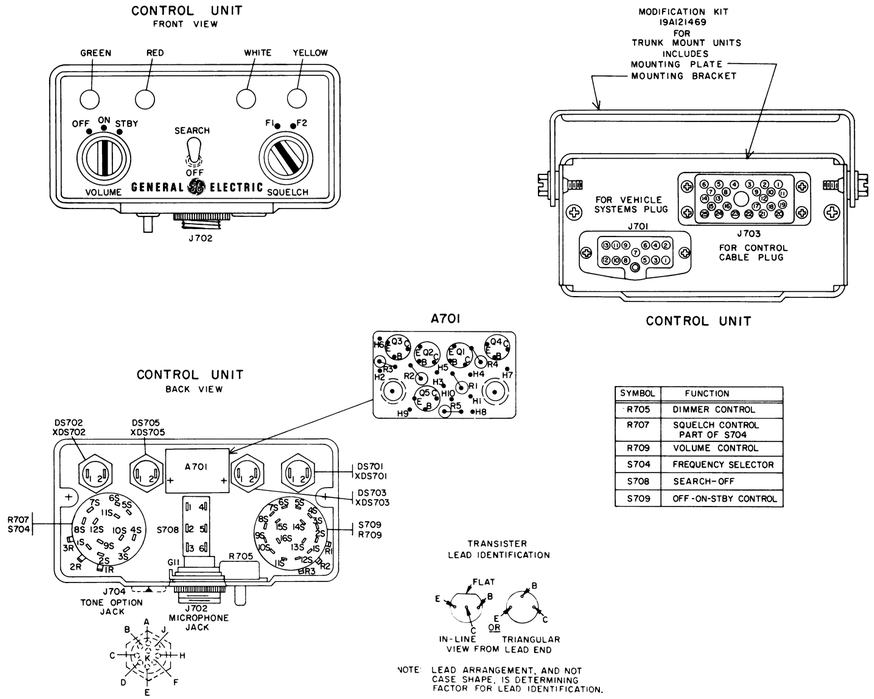
Figure 3 - Disassembly of Control Cable Plug

SYSTEM FRAME AND HARNESS



(19D413204, Rev. 3)

CONTROL UNIT



SYMBOL	FUNCTION
R705	DIMMER CONTROL
R707	SQUELCH CONTROL PART OF S704
R709	VOLUME CONTROL
S704	FREQUENCY SELECTOR
S708	SEARCH-OFF
S709	OFF-ON-STBY CONTROL

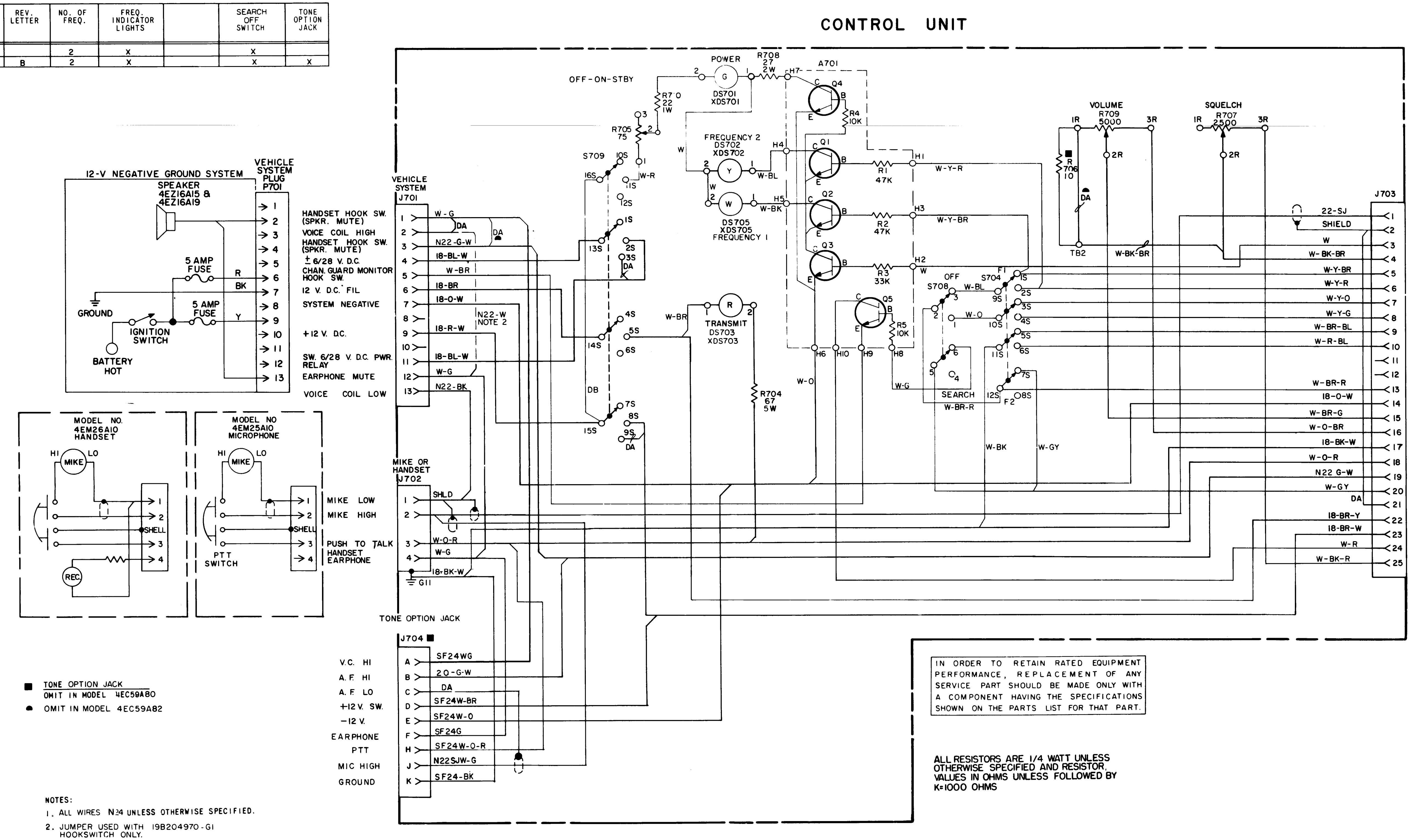
NOTE LEAD ARRANGEMENT, AND NOT CASE SHAPE, IS DETERMINING FACTOR FOR LEAD IDENTIFICATION.

(19C317318, Rev. 0)

OUTLINE DIAGRAM

MOBILE CONTROL UNIT
MODELS 4EC59A80 & 82

MODEL NUMBER	REV. LETTER	NO. OF FREQ.	FREQ. INDICATOR LIGHTS		SEARCH OFF SWITCH	TONE OPTION JACK
4EC59A80		2	X		X	
4EC59A82	B	2	X		X	X

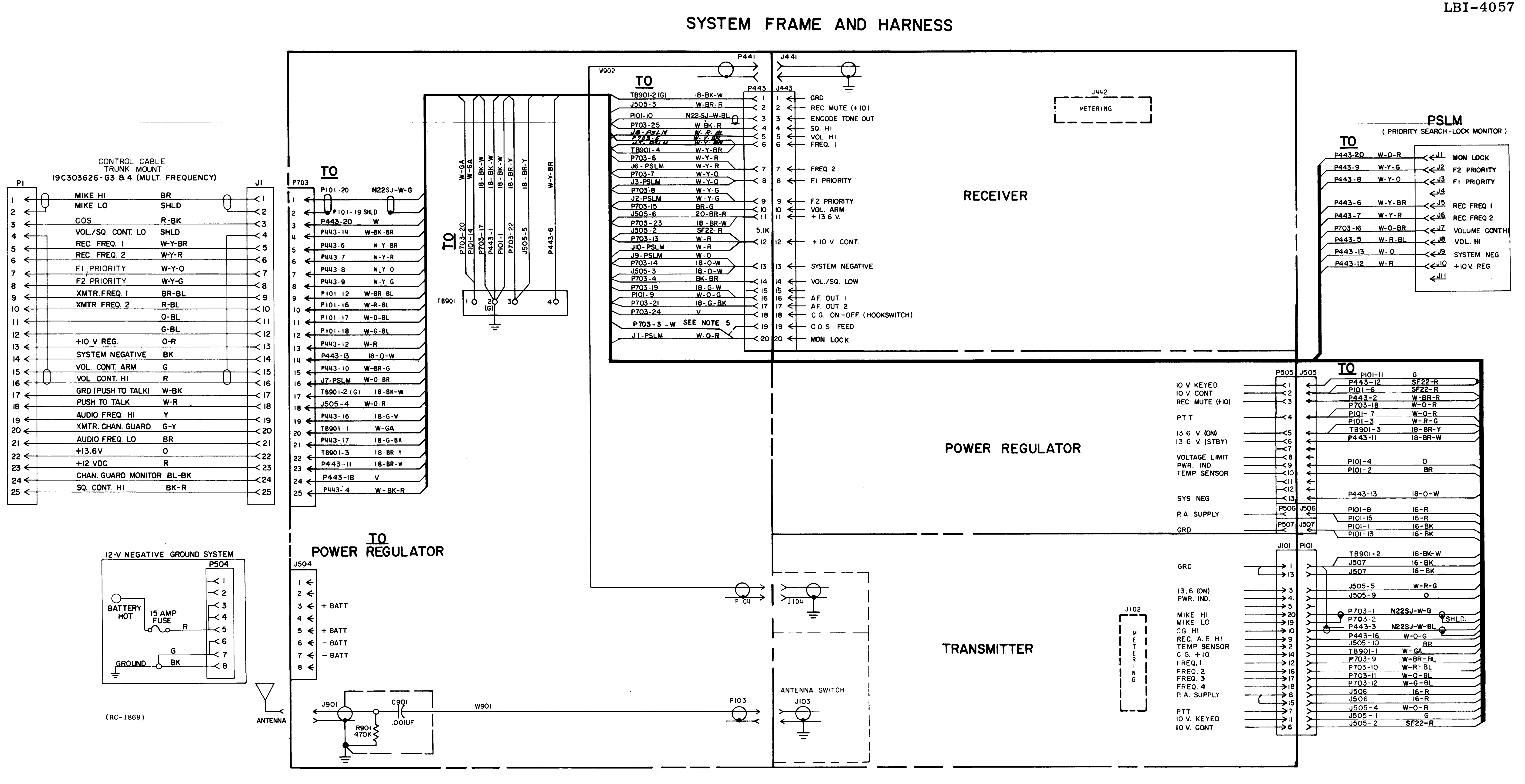


■ TONE OPTION JACK
OMIT IN MODEL 4EC59A80

● OMIT IN MODEL 4EC59A82

NOTES:
1. ALL WIRES N24 UNLESS OTHERWISE SPECIFIED.
2. JUMPER USED WITH 19B204970-G1 HOOKSWITCH ONLY.

(19D413313, Rev. 6)



(19D413466, Rev. 1)

NOTES:
1. ALL WIRES ARE SF24 EXCEPT AS OTHERWISE SHOWN.
2. SEE 19D402763 FOR ORIENTATION AND LOCATION OF COMPONENTS AND ROUTING OF CABLE.
3. N22SJ-W-G WIRE IS A7134854-P4
N22SJ-W-BL WIRE IS A7134854-P5
18-G-BK WIRE IS A4035028-P9
18-BR-Y WIRE IS A4035028-P11
4. TERMINATE WIRES AT J506 & J507 WITH A7117269-P1.
5. CONNECT WHITE WIRE FROM P703-3 TO P443-19 WHEN USING 4EC59A80 & 4EC59A82 CONTROL UNIT.

SCHEMATIC & INTERCONNECTION DIAGRAM

MOBILE CONTROL UNIT, MODELS 4EC59A80 & 82

Issue 5

PARTS LIST

LBI-4059D

CONTROL UNIT
MODELS 4EC59A0C, 82
AND
ASSOCIATED ASSEMBLIES

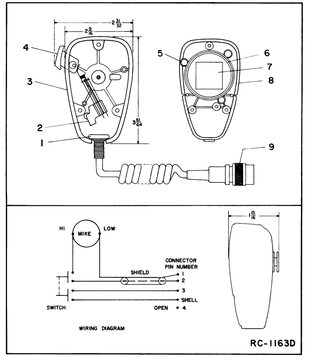
SYMBOL	GE PART NO.	DESCRIPTION
		CONTROL UNIT 19D413054G9
A701		COMPONENT BOARD 19B216719G1
		- - - - - - - - - - TRANSISTORS - - - - - - - - - -
Q1 thru Q4	19A116272P1	Integrated circuit, sim to 2N5305.
Q5	19A115123P1	Silicon, NPN; sim to Type 2N2712.
		- - - - - - - - - - RESISTORS - - - - - - - - - -
R1 and R2	3R152P473K	Composition: 47,000 ohms ±10%, 1/4 w.
R3	3R152P333K	Composition: 33,000 ohms ±10%, 1/4 w.
R4 and R5	3R152P103K	Composition: 10,000 ohms ±10%, 1/4 w.
		- - - - - - - - INDICATING DEVICES - - - - - - - -
DS701 thru DS703	19B201122P1	Lamp, incandescent: 6.0 v; sim to GE 1768.
DS705	19B201122P1	Lamp, incandescent: 6.0 v; sim to GE 1768.
		- - - - - - - JACKS AND RECEPTACLES - - - - - - -
J701	19C303576P1	Receptacle: 13 contacts rated at 5 amps.
J702		Connector, includes:
	19A116061P2	Receptacle: 4 female contacts; sim to Amphenol Type 91-PR4F-1000.
	19A116061P4	Lockwasher.
	19A116061P5	Nut, knurled.
J703	19D402408P1	Receptacle: 25 contacts rated at 5 amps.
J704	19B216279G1	Jack assembly: 9 female contacts rated at 5 amps at 900 VRMS; sim to Winchester MRS-LSN.
		- - - - - - - - - - RESISTORS - - - - - - - - - -
R704	5493035P19	Wirewound: 67 ohms ±5%, 5 w; sim to Hamilton Hall Type HH.
R705	19B209114P1	Variable, wirewound: 75 ohms ±20%, 3 w; sim to CTS Series 117.
R706	3R77P100K	Composition: 10 ohms ±10%, 1/2 w.
R707		(Part of 3704).
R708	3R79P270K	Composition: 27 ohms ±10%, 2 w.
R709		(Part of 8709).
R710	3R78P220J	Composition: 22 ohms ±5%, 1 w.
		- - - - - - - - - - SWITCHES - - - - - - - - - -
S704	19C307089P22	Switch/Resistor: included Switch, rotary, 4 poles, 2 positions, momentary shorting contacts, 250 ma at 500 VRMS; Resistor (R707), variable, 2500 ohms ±10%, 1 w max; sim to Mallory Type LC.
S708	5491899P4	Toggle: DPDT, 6 amps at 125 VAC/VDC; sim to Cutler-Hammer 8373K5.
S709	19C307089P24	Switch/Resistor: included Switch, rotary, 4 poles, 3 positions, momentary shorting contacts, 250 ma at 500 VRMS; Resistor (R709), variable, 2500 ohms ±20%, 1/2 w max; sim to Mallory Type LC.
		- - - - - - - - - - SOCKETS - - - - - - - - - -
XDS701 thru XDS703	19B301122P2	Lampholder, sim to Drake Mfg. Co. 121 Series.

SYMBOL	GE PART NO.	DESCRIPTION
XDS705	19B201122P2	Lampholder, sim to Drake Mfg. Co. 121 Series.
		MECHANICAL PARTS (SEE RC-1872)
1	8529P19C13	Plug button.
2	19A121521G1	Mounting bracket.
3	19B201122P3	Lens cap: green translucent nylon. (Used with DS701).
4	19B201122P4	Lens cap: red translucent nylon. (Used with DS703).
5	RP257933	Nameplate, etched aluminum.
6	19B201122P7	Lens cap: white translucent nylon. (Used with DS705).
7	19B201122P6	Lens cap: yellow translucent nylon. (Used with DS702).
8	19B204445G1	Knob, grey. (ON-OFF-STBY, F1-F2).
9	19C303413P1	Knob. (VOLUME - SQUELCH).
10	19D413010P1	Housing.
11	19B204523P1	Mounting Plate.
	19A116773P106	Tap screw, Phillips POZIDRIV®: Hi-low thread No. 7-19 x 3/8. (Secures back plate to housing).
		ASSOCIATED ASSEMBLIES
	19A121469G1	Control unit modification kit (trunk mount).
	19D402239G1	12 volt vehicle frame.
	19A122444P1	Cover, wire channel (on systems frame).
	19C303452G1	Front casting (Front mount).
	19C303452G2	Front casting (Trunk mount).
	403426G9	Screw: 10-32 x 1-1/8. (Secures Front casting).
	5491682P2	Lock: Yale and Towne. (Part of Front casting).
	5491682P7	Cam. (Used with lock).
		POWER CABLE ASSEMBLY 19C303601G1 (12 VOLT FRONT MOUNT) 19C303601G2 (12 VOLT TRUNK MOUNT)
	19B209189P1	Connector, phen: 8 contacts rated at 15 amps at 1100 VRMS; sim to Deuchaine and Sons S-5401-76.
	19D402438P1	Cap, connector.
	19A115313P1	Cable: 3 conductor, approx 9 feet long. (Used in 19C303601G1).
	19A115314P1	Cable: 3 conductor, approx 18 feet long. (Used in 19C303601G2).
		CONTROL CABLE ASSEMBLY 19C303626G3, G4 (MULTI-FREQ)
		- - - - - - - JACKS AND RECEPTACLES - - - - - - -
J1	19C303626G6	Plug, female, includes: connector 19D402408P1, cap 19C303299P1.
		- - - - - - - - - - PLUGS - - - - - - - - - -
P1	19C303626G5	Plug, male, includes: connector 19D402408P3, cap 19C303299P2.
		- - - - - - - - - - MISCELLANEOUS - - - - - - - - - -
	19D402408P1	Connector, female phen: 25 contacts rated at 5 amps max.
	19D402408P3	Connector, male phen: 25 contacts rated at 5 amps max.
	19C303290P1	Cap, connector. (Used with 19D402408P1 connector).
	19C303290P2	Cap, connector. (Used with 19D402408P3 connector).
	7139880P11	Cable: 23 conductors, approx 18 feet long.
	7139880P11	Cable: 23 conductors, approx 23 feet long.

SYMBOL	G-E PART NO	DESCRIPTION
		VEHICLE SYSTEM CABLE KIT 19A121454G1 (12 VOLT VEHICLES)
	19A121429P1	Pin: 1/2 inch long.
	19A121441G1	Plug: 13 contacts.
	19C303574P1	Cover.
		FUSED LEAD ASSEMBLY 19A121314G1 (19A121454G1)
	1B1429S	Fuse, cartridge, quick blowing: 5 amps at 250 v; sim to Littelfuse 312005 or Bussmann MTH-5.
	19A115779P2	Fuseholder: sim to Bussmann Type HDJ-B.
		INTERCONNECTION HARNESS ASSEMBLY 19A122458G1
		- - - - - - - JACKS AND RECEPTACLES - - - - - - -
J505	19A122683G1	Plug, male: 13 pin contacts.
		- - - - - - - - - - PLUGS - - - - - - - - - -
P101	19C303506P1	Connector, phen: 20 contacts rated at 5 amps max at 600 VDC.
P443	19C303506P1	Connector, phen: 20 contacts rated at 5 amps max at 600 VDC.
P703	19D402408P2	Connector, phen: 25 contacts rated at 5 amps max.
		- - - - - - - - TERMINAL BOARDS - - - - - - - -
TB901	7775500P10	Phen: 4 terminals.
		ANTENNA CABLE ASSEMBLY 19B211224G1 MODEL 4EM26A10 MODEL 4EM26C10 (SEE RC-1394)
		- - - - - - - JACKS AND RECEPTACLES - - - - - - -
J901	2B22P3	Receptacle, panel, coaxial: micro-filled insert, UHF contact. Signal Corps SC-239 or sim to Amphenol 83-1R.
		- - - - - - - - - - PLUGS - - - - - - - - - -
P103		(Part of W901).
		- - - - - - - - - - CABLES - - - - - - - - - -
W901	5491689P56	Cable, RF: coaxial, approx 12 inches long. Includes phono type plug (P103).
	2B22P2	Adapter, right angle, coaxial: polystyrene, UHF contact. Signal Corps M-358; sim to Amphenol 83-1AP. (Front mount only) (Connect to J901).
		RECEIVER RF CABLE ASSEMBLY
		- - - - - - - - - - PLUGS - - - - - - - - - -
P104		(Part of W902).
P441		(Part of W902).
		- - - - - - - - - - CABLES - - - - - - - - - -
W902	5491689P71	Cable, Receiver, RF: includes two phono type plugs (P104 and P441), 350 VRMS max, approx 12 inches long.
		12 VOLT FUSEHOLDER 19B216023U4 (Fuses must be ordered separately)
		- - - - - - - - - - FUSES - - - - - - - - - -
	1A11P4	Quick blowing: 15 amps, 250 v; sim to Bussmann MDM15. (transmitter).

SYMBOL	GE PART NO.	DESCRIPTION
		132-512 MHz ANTENNA 19B209368P1
		Whip assembly. 06A110-001.
		Whip nut assembly. 06A047-001.
		Base nut assembly. 06A048-001.
		"O" Ring (LARGE). 007059-122.
		Stud assembly. 06A046-001.
		RG58/U Cable, 15 feet. 06A115-001.
		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 ASP438GE.
	7102930P3	Adapter, antenna: approx 2-5/16 inches long. (Used with GE Dwg 7491074P1).
	4KY8A1	Loading coil: 25-33 MHz; sim to Antenna Specialists ASP4A7.
	19A121577G1	Antenna hook kit.
	7134724P1	Antenna hook.
	19C307172P1	Antenna Package: includes base and ball assembly, spring, bushing assembly, cable assembly, horseshoe plate, and rubber gasket.
		Base and ball assembly. Newtronics 5495.
		Adapter spring assembly. Newtronics 3327.
		Cable assembly. Newtronics 183-RAG.
		Horseshoe plate. Newtronics 3323-3.
		Rubber gasket. Newtronics 3320.
		HANDSET MODEL 4EM26A10 MODEL 4EM26C10 (SEE RC-1394)
1		Self tap screw, bind head: No. 4 x 5/16. Shure Brothers 30C540C.
2		Cable clamp. Shure Brothers 53A532.
3		Shield. Shure Brothers RP19.
4		Switch. Shure Brothers RP81.
5		Case. Shure Brothers RP49. (Used in 4EM26A10).
		Case. Shure Brothers 21RP899F. (Used in 4EM26C10).
6		Adapter. Shure Brothers 65A230.
7		Magnetic controlled cartridge. Shure Brothers RP41.
8	3R77P222K	Resistor, composition: 2200 ohms ±10%, 1/2 w.
9		Receiver cap. Shure Brothers 65A1994. (Part of RP49).
10		Washer. Shure Brothers 344331.
11		Escutcheon. Shure Brothers 53A536A.
12		Actuator. Shure Brothers 53A556.
13		Spring. Shure Brothers 44A140.
14		Plunger bar. Shure Brothers RP82.
15		Flat head screw, socket cap: No. 4-40 x 1/4. Shure Brothers 30C357B.
16		Transmitter cap. Shure Brothers 65A197A. (Part of RP49).
17		Washer. Shure Brothers 344309.
18		Magnetic controlled cartridge. Shure Brothers RP13.
19		Cable and plug. Shure Brothers RP48. (Used in 4EM26A10).
		Cable and plug. Shure Brothers 21RP738F. (Used in 4EM26C10).

SYMBOL	GE PART NO.	DESCRIPTION
		HOOKSWITCH ASSEMBLY 19B204867G1 (SEE RC-1394)
		- - - - - - - - MISCELLANEOUS - - - - - - - - -
20	4029851P4	Cable clamp; sim to WEC Kesmer 3/G-4.
21	19A121612P1	Holder and switch: thermoplastic case, contact rating 1 amp at 125 v.
22	19A121581G1	Cable: approx 8-1/2 feet long.
23	5493035P10	Resistor, wirewound, ceramic: 3.5 ohms ±5%, 5 w; sim to Hamilton Hall Type HH.
24	7775500P55	Terminal board, phen: 5 terminals.
		MILITARY MICROPHONE MODEL 4EM25A10 19D309100G1 (SEE RC-1163)
1		Cable clamp. Shure Brothers 53A532.
2		Switch. Shure Brothers RP26.
3		Case (back) and mounting button: plastic. Shure Brothers RP87.
4		Switch button: red plastic. Shure Brothers RP25.
5		Spring. Shure Brothers RP16.
6		Shield. Shure Brothers RP23.
7		Magnetic controlled cartridge. Shure Brothers RP13.
8		Case (front): plastic. Shure Brothers RP67.
9		Cable and plug: approx 6 feet long. Shure Brothers RP14.
		5 WATT SPEAKER 19C320C002G3 4EZ30A10
LS2	19A116910P1	Permanent magnet: 5 inch, 3.2 ohms ±15% imp, 5 w max operating; sim to Pioneer 002009.
W1	19A121546G1	Cable assembly: approx 48 inches long, includes (2) 19A121429P1 pins.
	19D416396P2	Speaker housing.
	19C320016P2	Mounting support.
	5490407P3	Neoprene grommet. (Upper)
	19A115470P1	Rubber grommet. (Lower)
	19B219692G3	Grille.
	19A116985P1	Screw, hex head-slotted: double lead thread, with internal tooth washer, No. 10-16 x 3/4. (Secures housing to mounting bracket).

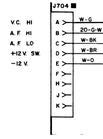


PRODUCTION CHANGES

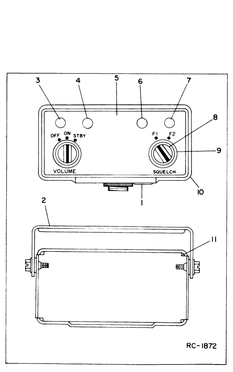
Changes in the equipment to improve performance or to simplify circuits are identified by a "Revision Letter", which is stamped after the model number of the unit. The revision stamped on the unit includes all previous revisions. Refer to the Parts List for descriptions of parts affected by these revisions.

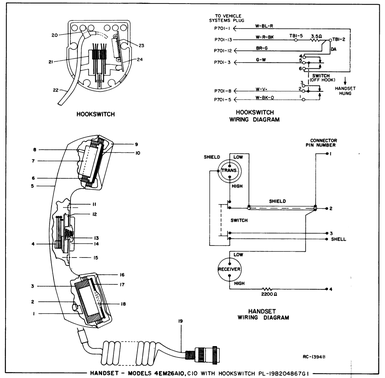
REV. A - Model 4EC59A82
To reduce audio output level at minimum volume control setting. Changed R706.

REV. B - Model 4EC59A82
To add mike hi, PTT, earphone and ground to Tone Option Jack J704, Schematic was:



REV. A - Model 4EC59A80
REV. C - Model 4EC59A82
To incorporate new housing. Changed housing from 19B216271G1 to 19D413010P1. Changed backplate retaining screw to 19A116773P120.





HANDSET - MODELS 4EM26A10,C10 WITH HOOKSWITCH PL-19B204867G1

 *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

LBI-4057

DF-4080

MOBILE RADIO DEPARTMENT
GENERAL ELECTRIC COMPANY • LYNCHBURG, VIRGINIA 24502

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