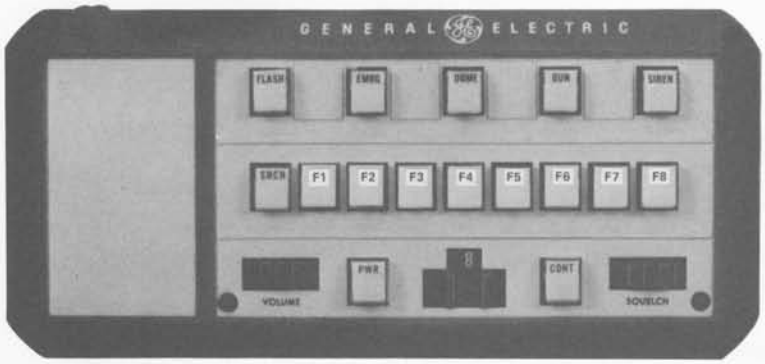
MOBILE RADIO

MAINTENANCE MANUAL

C-900 SERIES CONTROL UNIT (ROTARY CONTROL)



SPECIFICATIONS *

Rotary Control Module	19D417750G1
Number of Frequencies	1 thru 12
Supply Voltage	±13.8 VDC ±20%
Current Drain (Control Module only)	80 Milliamperes (Maximum)
Controls	Power-On Volume Squelch Channel Selector Switch Option Switch Blanker Disable Switch (Optional)
Indicators	Power On Light Transmit Light Channel Busy Light Option Light
Dimensions ins./cm (H x W x D)	4.31/10.95 x 9.31/23.65 x 7.0/17.8

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

GENERAL ELECTRIC

Maintenance Manual LBI 30204 E
DATAFILE FOLDER - DF4104

C-900 SERIES CONTROL UNIT (ROTARY CONTROL)

TABLE OF CONTENTS

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!

COMBINATION NOMENCLATURE

1st Digit	2nd Digit	3rd Digit	4th Digit	5th Digit	6th Digit	7th Digit	8th Digit	9th Digit
Mechanical Package	System Voltage	Frequency Capacity	No. of Freq.	Microphone or handset	Center Option Deck	Upper Option Deck	Option Bay	Control Unit Series
S Control Unit with Bracket, Speaker and Cables MASTR II App.	**1** ±12 VDC	**K** 8 Channel Rotary	**A** One	**1** None	**S** No Option	**S** No Option	**1** No Option	**9** C-900
E Control Unit with Brackets only	**2** ±24 to 48 VDC	**P** 12 Channel Rotary	**C** Two	**2** Std. Microphone	**A** PSLM 4 Freq.	**A** PSLM 4 Freq.	**2** DTMF Encoder	
U Control Unit with Bracket, Speaker and Cables Exec II App.	**3** +12 VDC Exec II App.		**E** Three	**3** Std. Mike w/H.S.	**B** PSLM 8 Freq.	**B** PSLM 8 Freq.		
			F Four	**4** Handset & Hookswitch	**C** T99 Decoder 2-tone	**C** T99 Decoder 2-tone		
			G Five	**5** Noise Canc. Microphone	**D** T99 Decoder 4-tone	**D** T99 Decoder 4-tone		
			H Six	**6** Noise Canc. Mike w/H.S.	**E** T90 Enc./Dec.	**E** T90 Enc./Dec.		
			J Seven	**7** Handset & Hookswitch (Duplex)	**F** T90 Decoder	**F** T90 Decoder		
			K Eight	**8** Handset (EXT. DEC Applica-tion)	**G** T90 Encoder	**G** T90 Encoder		
			L Nine		**H** Channel Guard Encode, 2-tone	**H** Channel Guard Encode, 2-tone		
			M Ten		**J** Channel Guard Encode, 8-tone	**J** Channel Guard Encode, 8-tone		
			N Eleven		**K** Public Address & Ext. Spkr.	**K** Public Address & Ext. Spkr.		
			P Twelve		**L** 5 Auxiliary Switches	**L** 5 Auxiliary Switches		
					M DTMF Decoder	**M** DTMF Decoder		

DESCRIPTION

The C-900 Control Unit (with rotary control) is an attractively styled, highly functional unit that provides maximum versatility in radio control (See Figure 1). This control unit can be used to control either the MASTR II or MASTR Executive II "S" Series radios. The C-900 series control unit may be equipped with one of three different pushbutton switch options, two of six different component board options, a Noise Blanker Disable switch, and may be modified to include the Fixed Squelch option.

The pushbutton switch options include Channel Guard Monitor (MON), Internal/External Speaker (EXT) or Dual Control (CONT) when two control units are used to control a single radio. The component board options include the following:

- Multi-tone Channel Guard Encoders (2 or 8 tones)
- Priority Search Lock Monitor (4 or 8 channels)
- Type 90 Tone Encoder/Decoder
- Type 99 Tone Decoder (Selective call)
- Public Address
- Auxiliary Switch Board

A control module occupies the control deck (lower) and provides the volume, squelch, and power on/off controls; the Channel Selector switch, and the Transmit and Channel Busy Indicators. The component board options occupy the center and upper option decks.

All pushbutton switches are backlighted with light-emitting diodes (LED's) for reliability, long life and low power consumption.

CONTROL UNIT

The control unit consists of a front panel, a sheet metal housing, a printed wire board backplane, a rear cover, associated subassemblies (Component Boards which plug into the printed wire board backplane) and mounting brackets with hardware.

The front panel is made of molded plastic and contains clearance holes for pushbutton switches and applicable indicator lights (LEDs). Slots for the thumbwheel type VOLUME and SQUELCH controls are also provided.

Mounted on the front of the plug-in modules are switches, controls, and indicators. Necessary controls and pushbutton switches protrude through holes and slots in the front panel of the control unit. Light-emitting diodes are mounted behind the pushbutton assemblies to provide illumination. Normally the indicators glow at reduced intensity until selected (depressed), then full illumination is provided. The VOLUME and SQUELCH controls are part of the control module and are mounted horizontally.

The control unit housing is divided into two separate sections. The larger section contains three sets of card guides to position the component board modules

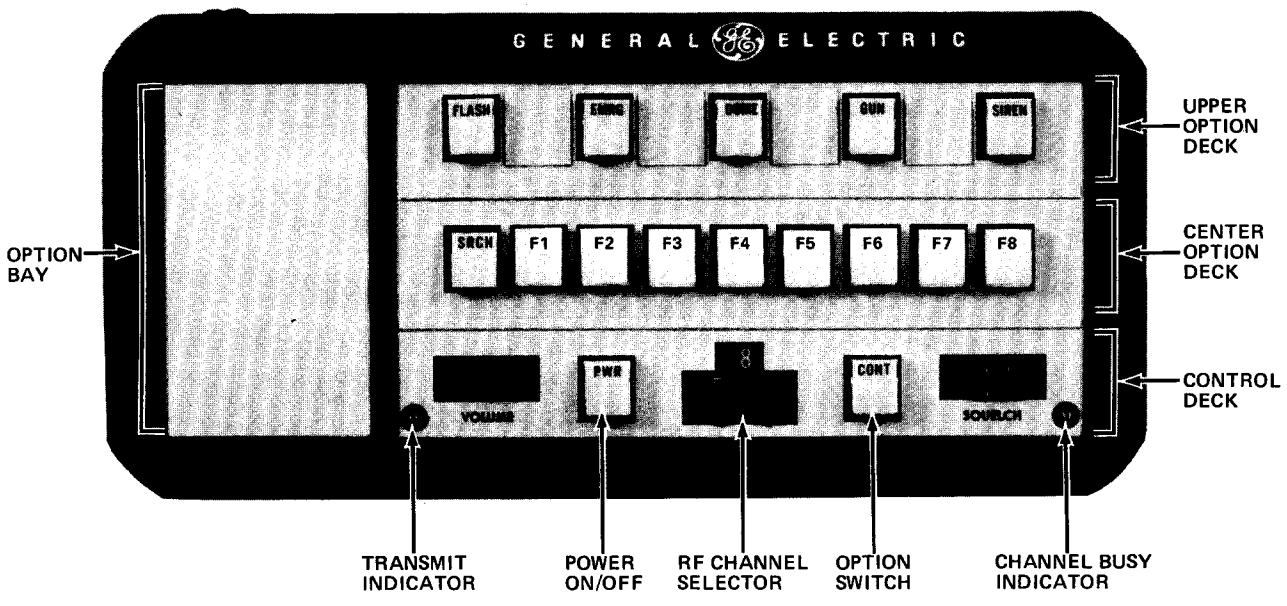


Figure 1 - C-900 Series Control Unit (Rotary Control)

horizontally for proper insertion into the connectors located on the backplane board.

The control unit rear cover/backplane assembly provides a means for connecting the Power/Control Cable, microphone connector, and universal tone connector. Cable plugs are secured to the rear cover by plastic locking clips. Plugs are equipped with indexing tabs to assure connection to the correct jack. The control cable is equipped with a strain relief hook that attaches to the flange at the bottom of the rear cover.

The microphone plug is secured to the microphone jack located on the rear cover by means of a captive locking screw. A nine pin Winchester connector (Optional) is available to permit use of external tone equipment.

The backplane board is attached to the inside of the rear cover, and interconnects the control and option modules with the control cable and microphone cable.

Power Control Cable connections are made to the connectors (J902 and J903) located along the bottom of the backplane board. Three sets of 19 feed-through posts permit connection of the control cable to the control module (plugged in from the front of the housing). These connections are shown on the backplane board and the control cable wiring diagrams.

CIRCUIT ANALYSIS

The Control Module is equipped with a VOLUME control (R701), SQUELCH control (R702), PWR ON-OFF pushbutton switch and indicator (S701 and CR704), a yellow Channel Busy Indicator (CR706), a red Transmit Indicator (CR705) and a Channel Selector switch (S702).

When the PWR ON-OFF switch 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 in to the "on" position applies power to the radio, and lights the power-on LED behind the pushbutton switch.

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

TRANSMIT INDICATOR

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 when receiving, unmutes the receiver.

CHANNEL BUSY INDICATOR

When no signal is applied to the receiver, the Carrier Activity Sensor (CAS) voltage from the receiver squelch IC is near A-. This forward biases diode CR702 in the control unit, keeping Q701 turned off. When a signal is applied to the receiver (with or without audio), the CAS voltage rises to approximately 10 Volts. This reverse biases CR702, allowing Q701 to conduct, turning on Channel Busy Indicator CR706. The indicator will remain on as long as a signal is applied to the receiver, or until the transmitter is keyed.

CHANNEL SELECTOR SWITCH

The Channel Selector switch is a 12-position rotary switch with a mechanical stop that limits rotation from one through twelve positions as required.

The Channel Selector switch selects the desired channel for both transmitting and receiving. The switch connects A- to the selected transmitter and receiver oscillator modules so that the radio operates on the selected channel.

PUSHBUTTON AND SWITCH OPTIONS

The pushbutton and switch options identified below consist of a switch and associated components.

Pushbutton options

- Channel Guard Monitor
- Internal/External speaker
- Dual Control

Switch options

- Noise Blanker Disable
- Fixed Squelch

CHANNEL GUARD MONITOR

For radios equipped with the Channel Guard monitor option, the control unit is equipped with a separate pushbutton switch (MON) located just to the right of the channel selector switch. When pressed the MON switch overides the Channel Guard and permits monitoring the selected channel. The MON pushbutton switch is paralled by an alternate channel guard monitor switch mounted on the microphone hang-up bracket which includes a micro-switch that is activated by removal of the microphone. Since these switches operate in parallel, either switch monitors the channel selected.

INTERNAL/EXTERNAL SPEAKER

In radios with the Internal/External Speaker option, the control unit is equipped with a pushbutton switch marked EXT. An external speaker is mounted outside of the vehicle passenger compartment (on the roof, under the hood, etc.).

When the pushbutton switch is not operated, all of the messages received will be heard on the internal speaker mounted within the vehicle and the pushbutton light will be off.

Pressing the switch in turns on the pushbutton light an applies approximately 90% of the receiver audio to the external speaker and 10% to the internal speaker. This allows the received messages to be heard while the operator is inside or outside of the vehicle.

Up to approximately 2 Watts of audio is dissipated internally by resistor R711. An additional 10 milliamperes is required to operate the LED. The loudspeaker is capable of 25 Watts audio power. Its impedance is 8 ohms and the voice coil resistance is 6.75 ohms ± 15%. Refer to Maintenance section for installation instructions.

DUAL CONTROL

In radios with two control units, a Dual Control pushbutton switch mounted on each control unit is used to transfer control of the radio from one control unit to another.

When the pushbutton is pressed the pushbutton light turns on to indicate control of the radio. Control remains with this control unit until the Dual Control switch on the second control unit is operated. At this time the pushbutton light will turn off on the first control unit and the second control unit will assume control.

FIXED SQUELCH

In radios with the Fixed Squelch option a two-position rotary switch replaces the standard variable squelch potentiometer. A squelch potentiometer is mounted on J904 on the system board (see Front Panel & System Board Maintenance Manual).

Turning the optional squelch switch on the control unit to the right applies A- to the squelch disable lead. A- is connected to pin 2 of the receiver audio IC (U604), disabling the squelch circuit (and Channel Guard if present). Turning the switch to the left removes A- from pin 2 of the squelch IC, enabling the squelch circuit (and Channel Guard).

NOISE BLANKER DISABLE (MASTR II only)

In radios with Noise Blanker Disable option, the Noise Blanker Disable switch is mounted on the back of the control unit (See Outline Diagram). Placing the switch in the DISABLE position applies A- to the blanker disable lead, disabling the noise blanker circuit. A- is connected to the blanker disable circuit by a jumper from H63 to H66 on the system board.

Placing the switch in the ENABLE position removes A- from the blanker disable lead, allowing the blanker to operate.

COMPONENT BOARD OPTIONS

The component board options are:

- Multi Frequency Channel Guard Encoders
- Priority Search Lock Monitor
- Type 90 Tone Encoders/Decoders
- Type 99 Tone Decoders
- Public Address
- Auxiliary Switch

PRIORITY SEARCH LOCK MONITOR (PSLM)

In radios with four or eight frequency PSLM, the PSLM component board is equipped with up to nine back lighted pushbutton switches (push-push) for control and non-priority channel selection.

The search switch (SRCH) turns the PSLM "on" or "off"; the remaining pushbutton switches (4 or 8) select the non-priority channels to be searched. The priority channel is selected by the channel selector switch or strapped to a specific channel. For complete details, refer to the PSLM Maintenance Manual.

PUBLIC ADDRESS (MASTR II only)

In radios equipped with the Public Address option, the component board is equipped with a volume control and two back lighted pushbutton switches; PA (Public Address) and EXT (External). The volume control for the external speaker is independent of the receiver volume control. A reentrant type speaker with 20-foot of speaker cable is provided with this option.

When neither pushbutton switch is pressed, the radio operates normally.

When the EXT and PA pushbutton switches are pressed, the receiver audio is split between the internal and external speakers. Pressing the PTT switch connects the microphone to the external speaker through the audio amplifier. The transmitter is not keyed.

When only the "EXT" pushbutton switch is pressed, the received audio is split (approximately 30% to internal speaker). Pressing the PTT switch keys the transmitter.

When the PA pushbutton switch is pressed, the received audio is heard only in the internal speaker. Pressing the PTT switch

connects the microphone to the external speaker through the audio amplifier. The transmitter is not keyed.

The pushbutton switches are normally backlighted at a low level. They become brighter when the pushbuttons are pressed to indicate the selected mode of operation.

For complete details, refer to the Maintenance Manual for the Public Address option.

TYPE 90 TONE ENCODERS AND DECODERS

Type 90 Tone equipment provides tone coded message transmissions to eliminate receipt of unwanted calls. A single tone burst preceeds the first transmission.

The TONE pushbutton allows the tone to be sent manually if desired. All Type 90 Tone Encoders and Decoders generate or decode a single tone, selectable from ten standard Type 90 tones.

Two pushbutton switches (CALL and TONE) are used to control the encode and decode functions. The call pushbutton is not present on encode only units. The TONE pushbutton is not included on decode only units. The CALL pushbutton light is normally off, and flashes on and off when a properly tone coded message is received. The CALL pushbutton also provides the manual reset and monitor functions. When momentarily pressed, it resets the decoder; when held in it allows the operator to monitor the receive channel(s). Automatic reset and manual monitoring functions may also be provided by a separate microphone or handset hookswitch.

Optionally, there may be two additional pushbutton switches to control the selection of the type of external alarm desired - horn or light. The TONE, HORN and LITE pushbuttons are backlighted and become brighter when selected. When the HORN pushbutton is selected and a properly tone coded message is received, the horn will sound for approximately one-second. If the LITE pushbutton is selected, the lights will come on and remain on until reset.

TYPE 99 TONE DECODERS

Type 99 Tone equipment provides individual or group call capability using either two or four Versatone networks (Versatone networks determine the tone frequencies). A CALL light, normally off, will flash on and off when a properly tone coded message is received. Momentarily pressing the CALL pushbutton switch provides the manual reset functions. When held in, it enables the user to monitor the receiver channel(s). Automatic reset and manual monitoring functions may also be provided by a separate microphone or handset hookswitch.

Optionally, there may be two additional pushbutton switches to select the type of external alarm desired - horn or light. Both switches are backlighted and become brighter when selected.

When the HORN pushbutton is selected and a properly tone coded message is received, the horn will sound for approximately one-second; if the LITE pushbutton is selected, the lights will turn on and remain on until reset.

MULTI-FREQUENCY CHANNEL GUARD ENCODERS

Channel Guard is a continuous tone-controlled squelch system that provides communications control by enabling the user to monitor or receive only the tone coded messages intended for him. One of two Channel Guard encoders may be used to provide two-tone or up to eight-tone capability.

Each Channel Guard encoder consists of a program board mounted on top of the channel selector board. The program board may be programmed for all standard CG tone frequencies in accordance with EIA standard RS-220. It may also be reprogrammed in the field as required.

The channel selector board contains a Channel Guard control and up to eight pushbutton switches to select one of the programmed Channel Guard tones for transmission.

When the CG pushbutton switch is pressed, power is applied to the component board and the CG light is at maximum brightness. The tone selector pushbuttons are backlighted at a somewhat lower level to indicate the unit is operable.

When a tone selector pushbutton switch (A-H) is pressed the selected pushbutton will light at maximum brightness to indicate the tone selected for transmission. The tone selector pushbuttons are mechanically interlocked so that only one switch may be operated at a time.

AUXILIARY SWITCH BOARD

The Auxiliary Switch option consists of a component board equipped with five pushbutton switches, an interconnecting cable harness, 20-feet of 15-conductor cable and a sheet of peel-off labels.

The five pushbutton switches, two momentary and three push-push, are all backlighted and increase to maximum brightness when depressed. This arrangement of switches allows the user to select and control external devices.

UNIVERSAL TONE CONNECTOR OPTION 9409

A nine pin jack (J750) is mounted on the rear cover to provide interface connections to external tone equipment. J750 interconnects with J910 on the

backplane board through a small cable harness. See the Backplane Schematic Diagram for connections.

DC CONVERTER MODIFICATIONS (MASTR II only)

In radios equipped with the DC converter, the POWER-ON switch is modified so that the input voltage is applied directly to the DC converter. Instructions for the modification are shown on the control unit Schematic Diagram.

12 VOLT IGNITION SWITCH CONNECTIONS

In 12-Volt vehicle systems, 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 (See Figures 2 & 3). The black cable provides the systen ground connection. The yellow fused lead provides the receiver hot connections and the transmitter PTT 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 to 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.

RE-INSTALLATION

+12-Volt Systems (MASTR II only)

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

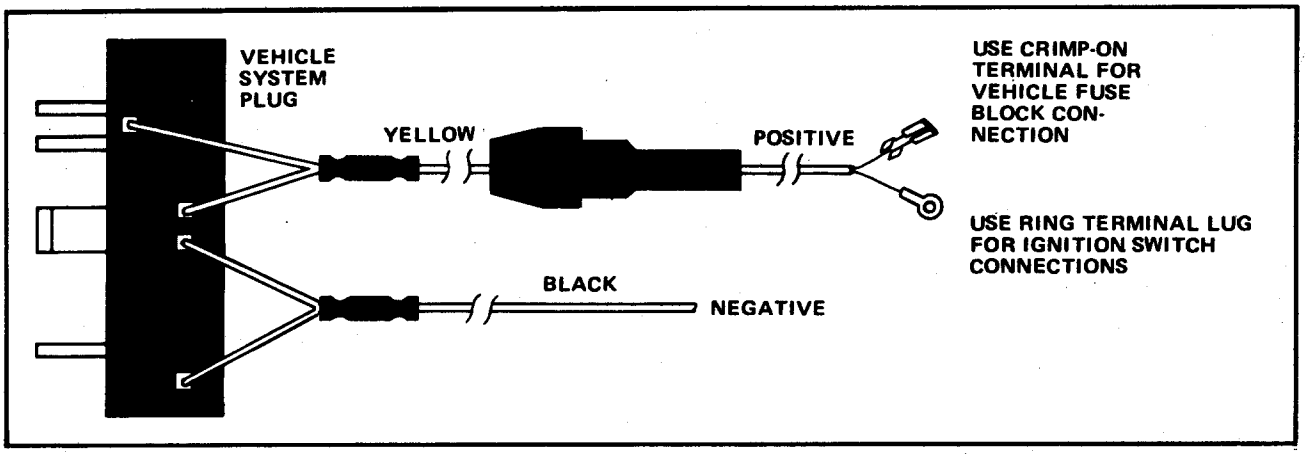


Figure 2 - 12-Volt, Negative Ground Connections

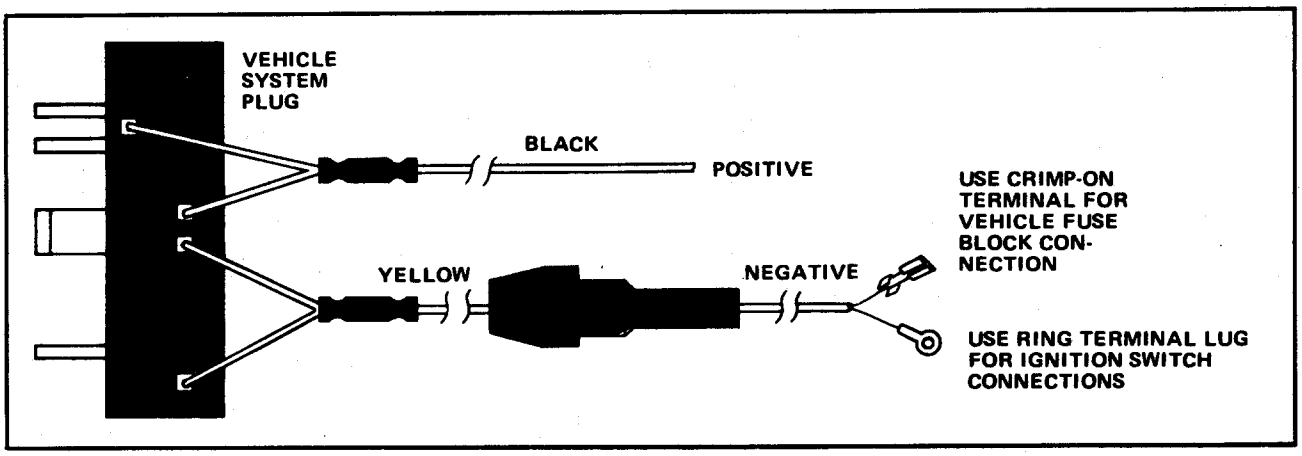


Figure 3 - 12-Volt, Positive Ground Connections

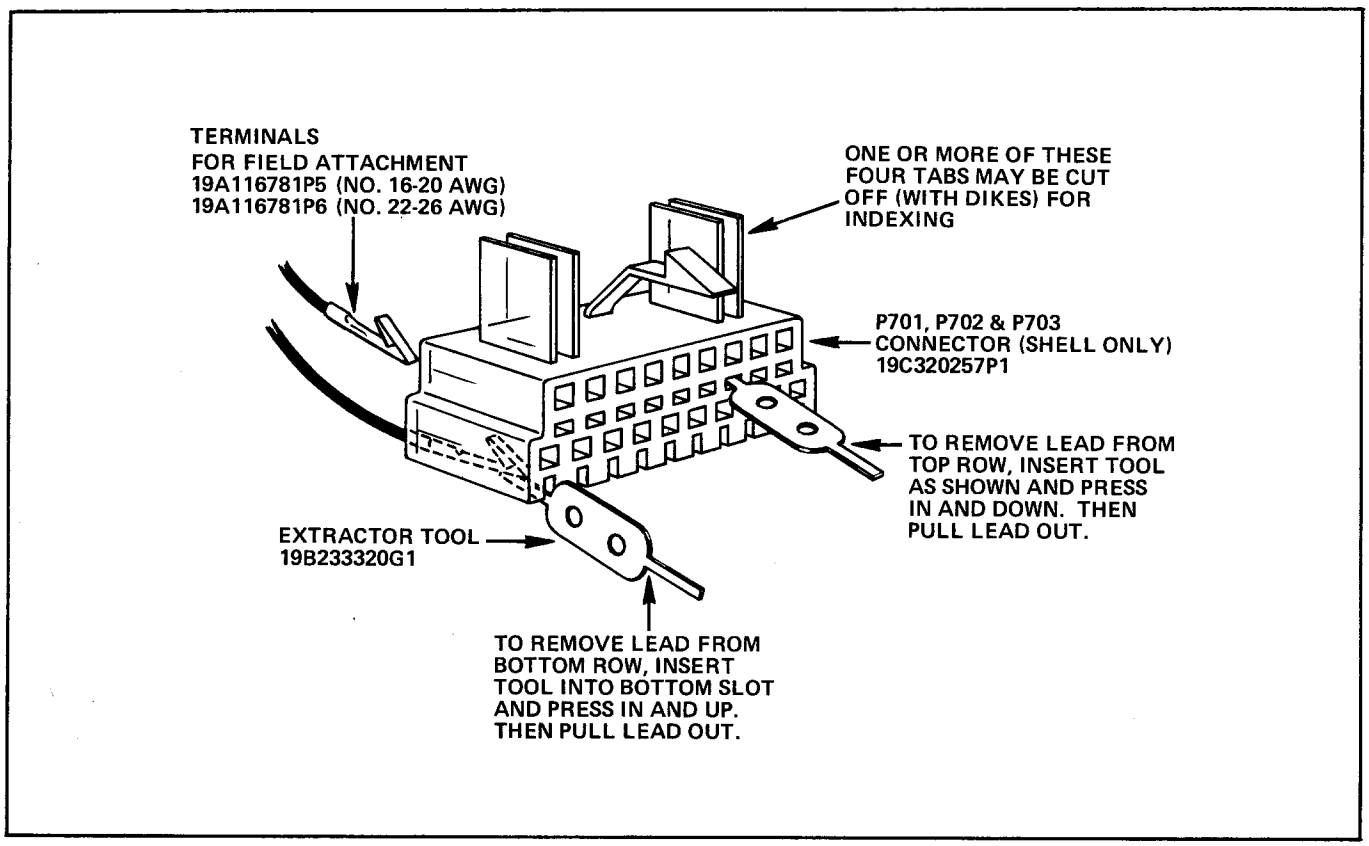


Figure 4 - Using Extraction Tool

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 system plug. Use the extraction tool as shown in the above illustration, and change the leads as required.

DC CONVERTER CONNECTIONS (MASTR II only)

For combinations equipped with the DC converter, a single red fused lead is used. The fused lead always connects to battery plus in either positive or negative ground systems. Refer to Schematic Diagram for wire connection information.

CAUTION

When using the DC Converter, do not connect battery ground to Control Unit A-. To do so may cause failure of the current limiting circuit in the converter.

MAINTENANCE

DISASSEMBLY

To disassemble the control unit, remove the four allen head screws (7/64") from the corners of the front panel and remove front panel.

REMOVAL AND REPLACEMENT OF OPTION MODULES

To remove an option module, grasp the outer corners of the printed wire board and pull firmly until loose. Slide module out of guide slots. Be careful not to grasp any components or switches when removing module.

NOTE

Each module is notched on the outer right edge. In some instances where the module is seated very tightly it may be necessary to insert a flat blade screw driver in the notch and, using the side of the control unit as a fulcrum, pry the module loose. It will now slide out easily.

To replace an option module, carefully insert module in appropriate guides slots and, with thumbs positioned on top edge of module, press firmly on the printed wire board until module seats. Be careful not to apply pressure to any components or switches.

REMOVAL AND REPLACEMENT OF CONTROL MODULE

To remove the control module (lower deck), insert a flat blade screw driver in the notch located on the outer right edge of module and, using the side of the control unit housing as a fulcrum, pry the control module loose. Considerable force may be required since there are three 21-pin connectors making contact with the backplane board.

To replace the control module, carefully insert module in guide slots and make sure connectors mate properly. Hold a dull instrument (such as a flat blade screw driver) on the edge of the control module directly below the volume and then the squelch control and using your other hand push the module into place. In some instances, it may be necessary to drive or tap the module squarely into place.

NOTE

There are two rows of contacts to be engaged. When the module is seated properly, the connectors on the control module will be flush with the backplane board.

INSTALLATION

INTERNAL/EXTERNAL SPEAKER

Control Units equipped with the factory installed Internal/External Speaker Option is supplied with an external Speaker (19B209452P2) and a Speaker Cable Assembly (19B219826G1). Mount the external Speaker in the desired location (on vehicle roof, under hood, etc.) and make the Speaker electrical connections to the Vehicle System Plug (P701) using the cable assembly in accordance with the following:

EXTERNAL SPEAKER MOUNTING

1. Using the backing plate as a template, mark and drill two 13/64-inch holes for the backing plate retaining screws, and four 9/32-inch holes for the speaker mounting screws. Next, drill a 5/8-inch hole for the Speaker Cable and insert rubber grommet in the hole.

2. Attach the backing plate to the mounting surface with two #8-32 threadforming screws and lockwashers.

3. Route cable from the Control Unit through backing plate (under mounting surface), grommet, and gasket, to the Speaker (see Figure 5).

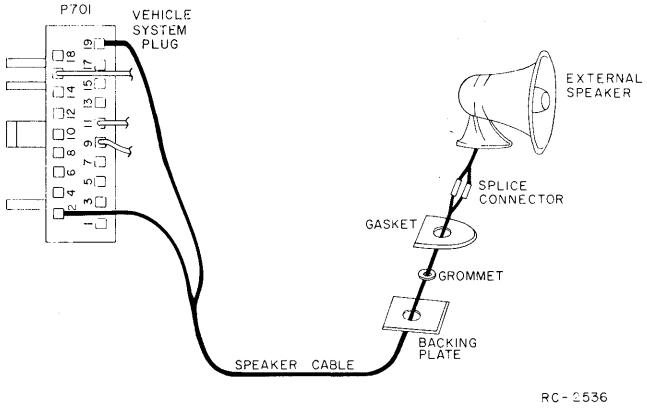


Figure 5 - External Speaker Connections

4. Connect the Speaker Cable leads and the Speaker leads using the two splice connectors furnished.

CAUTION

Do not ground either side of the External Speaker leads.

5. Mount the Speaker using four 1/4" x 7/8" screws, and lockwashers supplied.

ELECTRICAL CONNECTION TO VEHICLE SYSTEM PLUG

1. Insert one lead of the Speaker Cable assembly (19B219826G1) into P701-2 (Speaker Lo of the Vehicle System Plug).

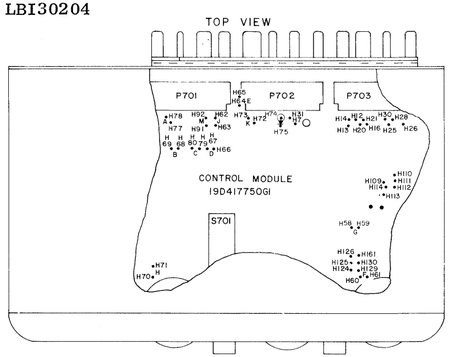
2. Insert the other lead of the Speaker Cable assembly into P701-19 (External Speaker Hi of the Vehicle System Plug).

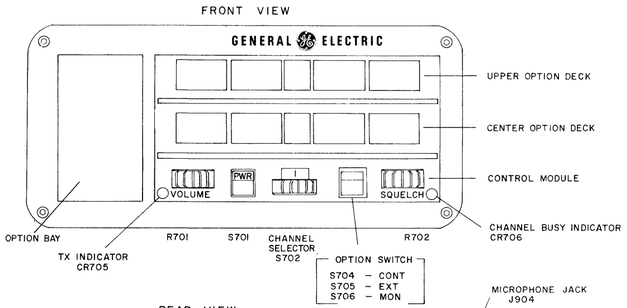
3. Strain relieve the Speaker Cable to the Control Unit using a standard cable clamp (not supplied) in order to prevent damage to P701-2 and P701-19.

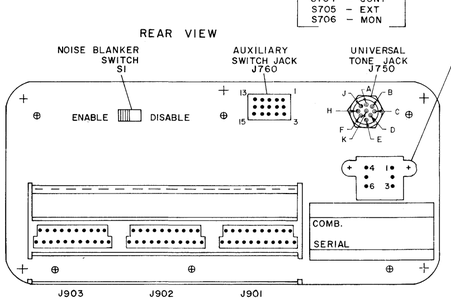
4. Connect P701 (Vehicle System Plug) to J701 on the control unit. The Internal/External Speaker Option is now ready for operation.

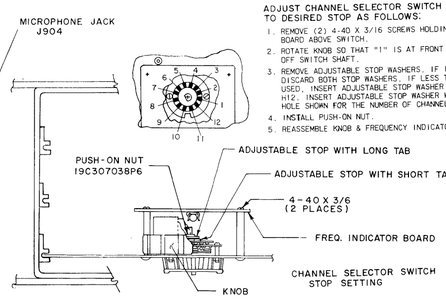
INTERNAL EXTERNAL SWITCH

Refer to Control Unit Outline Diagram and External/Internal Speaker Schematic Diagram for installation information.





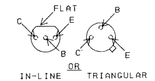




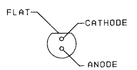
(19D424198, Rev. 3)

FOR FOLLOWING CONNECTIONS SEE WIRING DIAGRAM 19R622092			
LTR	FROM	TO	REMARKS
A	H77	H78	
B	H68	H69	
C	H79	H80	
D	H66	H67	
E	H64	H65	
H	H70	H71	
J	H62	H63	
K	H72	H73	
	H74	H75	
M	H91	H92	
	H41	H1	
	H40	H2	
G	H58	H59	
F	H60	H61	
	H171	H172	
	H170	H173	

LEAD IDENTIFICATION FOR Q1



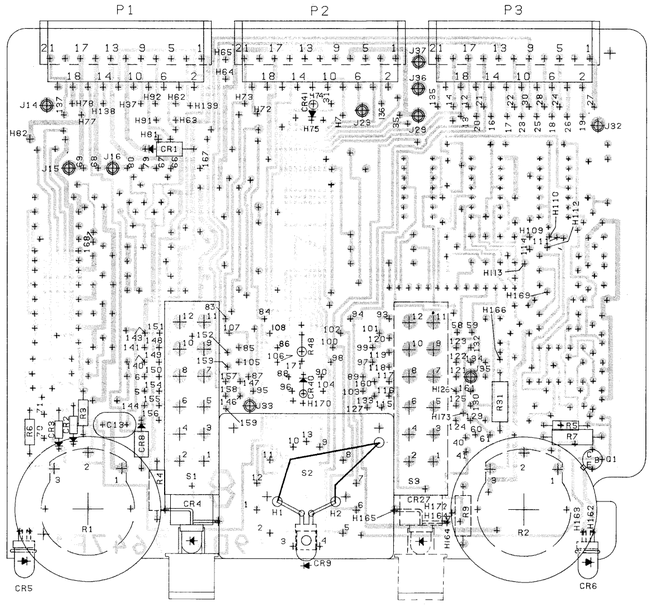
NOTE: LEAD ARRANGEMENT, AND NOT CASE SHAPE, IS DETERMINING FACTOR FOR LEAD IDENTIFICATION.



LEAD IDENTIFICATION FOR CR5,CR6,CR9,CR4,CR27

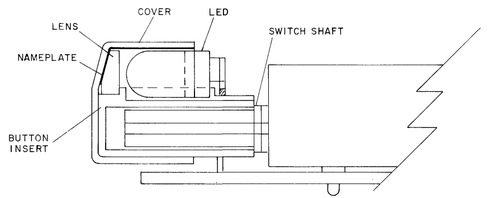
ADJUST CHANNEL SELECTOR SWITCH TO DESIRED STOP AS FOLLOWS:

1. REMOVE (2) 4-40 X 3/16 SCREWS HOLDING FREQUENCY INDICATOR BOARD ABOVE SWITCH.
2. ROTATE KNOB SO THAT "1" IS AT FRONT OF MODULE & SLIDE KNOB OFF SWITCH SHAFT.
3. REMOVE ADJUSTABLE STOP WASHERS. IF 12 CHANNELS ARE USED, DISCARD BOTH STOP WASHERS. IF LESS THAN 12 CHANNELS ARE USED, INSERT ADJUSTABLE STOP WASHER WITH SHORT TAB INTO H12. INSERT ADJUSTABLE STOP WASHER WITH LONG TAB INTO HOLE SHOWN FOR THE NUMBER OF CHANNELS USED.
4. INSTALL PUSH-ON NUT.
5. REASSEMBLE KNOB & FREQUENCY INDICATOR BOARD.



(19D424190, Rev. 5)
(19B226486, Sh. 1, Rev. 7)
(19B226486, Sh. 2, Rev. 8)

PARTIAL REFERENCE DESIGNATIONS ARE SHOWN. FOR COMPLETE DESIGNATION, PREFEX WITH 700 SERIES. EXAMPLE C1-C701, R1-R701, ETC.

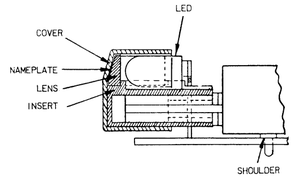


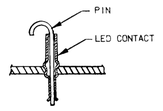
RUNS ON SOLDER SIDE
RUNS ON BOTH SIDES
RUNS ON COMPONENT SIDE

OPTION SWITCH INSTALLATION

1. UNSOLDER & DISCARD PIN FROM LED CONTACT. (IDENTIFIED BELOW) DO NOT UNSOLDER OR DAMAGE LED CONTACT. HOLE THRU LED CONTACT MUST REMAIN OPEN.
2. INSTALL & SOLDER SWITCH. SHOULDER OF SWITCH TERMINAL MUST BE TIGHT AGAINST BOARD, .010 MAX GAP AFTER SOLDER.
3. INSTALL & SOLDER LED.
4. MAKE CONNECTIONS & SOLDER PER CONNECTION CHART. INSULATE DA WIRE WITH INSULATION SLEEVING A4038593P5 SUPPLIED WITH "MON" AND "EXT" SWITCH IF REQUIRED TO PREVENT SHORTS.

OPTION SWITCH CONNECTION CHART			
OPTION	WIRE	FROM	TO
CG MONITOR OPTION 9404	SF22-BL	H117	J733
	SF22-BK	H116	J729
	DA	H132	H126
	DA	H134	H125
DUAL CONTROL OPTION 9412	SF22-R	J735	J737
	SF22-BL	H117	J736
	SF22-BK	H116	H 37
	REMOVE R748		
INT/EXT SPKR OPTION 9413	SF22-R	H117	J714
	SF22-O	H116	J716
	SF22-BL	H115	J715
	INSTALL R711	H 81	H 82
	REMOVE DA JUMPER "B"	H 68	H 69
	DA	H132	H126
	DA	H134	H125





SHOWN IN OVERTRAVEL POSITION

(RC-3011)

OUTLINE DIAGRAM

C-900 SERIES ROTARY CONTROL UNIT

PARTS LIST

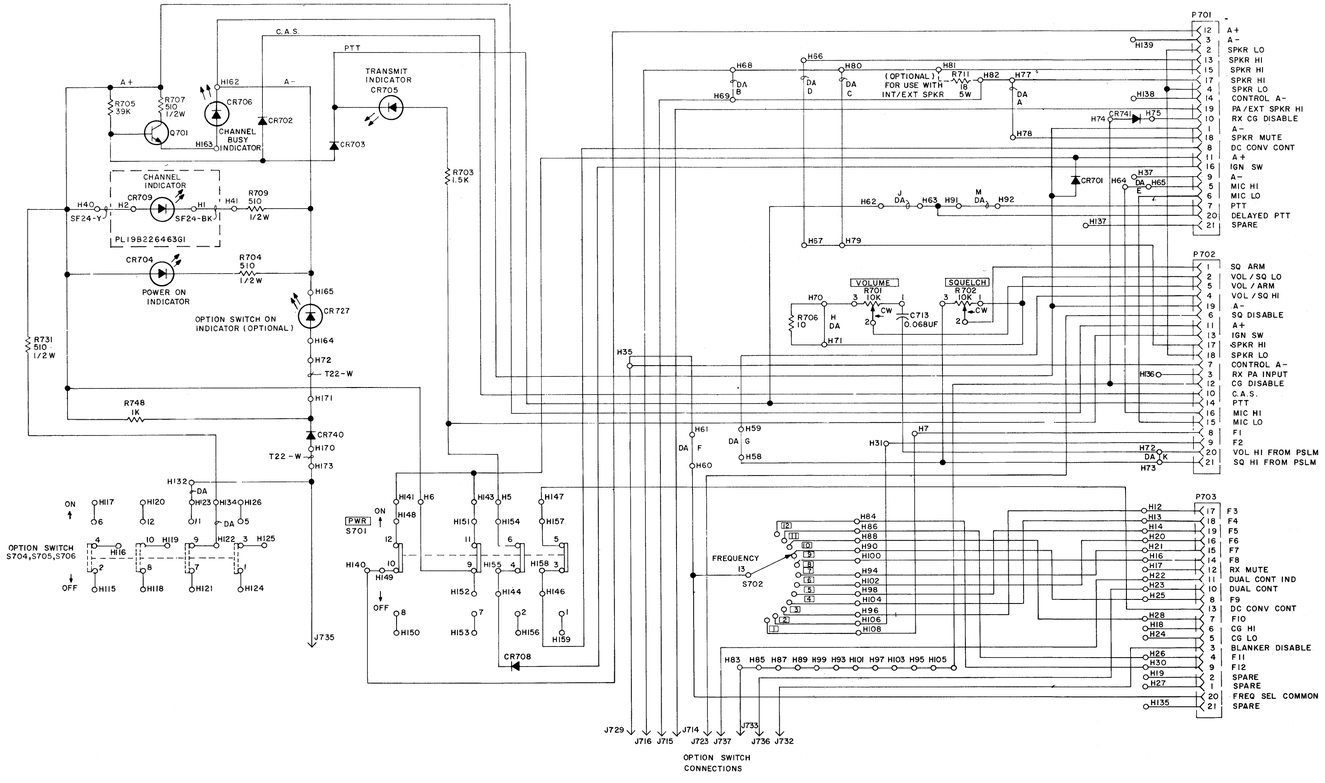
LBI30219H

C-800/C-900 SERIES CONTROL UNIT (ROTARY)
AND
ACCESSORIES

SYMBOL	GE PART NO.	DESCRIPTION
		CONTROL MODULE 19D417750G1
		- - - - - - - - - - CAPACITORS - - - - - - - - - -
C713	19A116080P106	Polyester: 0.068 uF ±10%, 50 VDCW.
		- - - - - - - - DIODES AND RECTIFIERS - - - - - - - -
CR701	403782291	Silicon, 1000 mA, 400 PIV.
CR702 and CR703	19A115250P1	Silicon, fast recovery, 225 mA, 50 PIV.
CR704	19A1343547	Diode, optoelectronic: yellow: sim to Hew. Packard 5082-4555.
CR705	19A1343547	Diode, optoelectronic: red; sim to Hew. Packard 5082-4655.
CR706	19A1343547	Diode, optoelectronic: yellow: sim to Hew. Packard 5082-4555.
CR708	403782291	Silicon, 1000 mA, 400 PIV.
CR709	19A1343547	Diode, optoelectronic: yellow: sim to Hew. Packard 5082-4555.
CR740	19A115250P1	Silicon, fast recovery, 225 mA, 50 PIV.
CR741*	19A116052P2	Silicon, fast recovery; sim to Hewlett Packard 5082-2811.
		In REV A & earlier:
	19A115250P1	Silicon, fast recovery, 225 mA, 50 PIV. Added by REV A.
		- - - - - - - JACKS AND RECEPTACLES - - - - - - -
J714 thru J716	4033513P4	Contact, electrical: sim to Bead Chain L93-3.
J723	4033513P4	Contact, electrical: sim to Bead Chain L93-3.
J729	4033513P4	Contact, electrical: sim to Bead Chain L93-3.
J732 and J733	4033513P4	Contact, electrical: sim to Bead Chain L93-3.
J735 thru J737	4033513P4	Contact, electrical: sim to Bead Chain L93-3.
		- - - - - - - - - - PLUGS - - - - - - - - - -
P701 thru P703	19C32110P1	Printed wire: 10 contacts rated @ 5 amps.
		- - - - - - - - - - TRANSISTORS - - - - - - - - - -
Q701	19A115910P1	Silicon, NPN; sim to Type 2N3904.
		- - - - - - - - - - RESISTORS - - - - - - - - - -
R701	19B209535P2	Variable: 10K ohms ±20%, 500 VDCW, 1/4 w.
R702	19B209535P1	Variable: 10K ohms ±20%, 500 VDCW, 1/2 w.
R703	19A700106P67	Composition: 1.5K ohms ±5%, 1/4 w.
R704	3R77P511J	Composition: 510 ohms ±5%, 1/2 w.
R705	19A700106P101	Composition: 39K ohms ±5%, 1/4 w.
R706	19A700106P15	Composition: 10 ohms ±5%, 1/4 w.
R707	3R77P511J	Composition: 510 ohms ±5%, 1/2 w.
R709	3R77P511J	Composition: 510 ohms ±5%, 1/2 w.
R731	3R77P511J	Composition: 510 ohms ±5%, 1/2 w.
R748	19A700106P63	Composition: 1K ohms ±5%, 1/4 w.

*COMPONENTS ADDED, DELETED OR CHANGED BY PRODUCTION CHANGES

SYMBOL	GE PART NO.	DESCRIPTION
		- - - - - - - - - - SWITCHES - - - - - - - - - -
S701	19B233625G1	Push button, 4 PDT contacts rated 1.1 amps at 14 VDC; sim to Switchcraft 14P-5323C.
S702	19B209559P1	Rotary, 13 position adjustable stops, contacts rated at 1 amp @ 110 VAC; sim to Oak S-08-511-411.
		- - - - - - - - - - MISCELLANEOUS - - - - - - - - - -
	19C321966G1	Housing. (C-800 SERIES).
	19B227016G1	Housing. (C-900 SERIES).
	19B227239G1	Rear Cover. (C-800 SERIES).
	19C321021G1	Rear Cover. (C-900 SERIES).
	19B227248G2	Front Panel. (C-800 SERIES).
	19C321085G2	Front Panel. (C-900 SERIES WITHOUT FIXED SQUELCH)
	19C321085G4	Front Panel. (C-900 SERIES WITH FIXED SQUELCH).
	19A130191P1	Option Bay Cover. (C-900 SERIES).
	19A134112P1	Cap screw. (Secures Front Panel to Housing - Part of front panel).
	19B226484G1	Frequency Indicator Knob.
	19B226463G1	Component Board. (Located CR709).
	19A121360P3	Spacer. (Located between component board and Housing at S702).
	19B226571G1	Knob. (Used with R701 and R702).
	NP276443	Nameplate, frequency. (1-12).
	19C321004P1	Lens. (S701-PWR).
	NP276459P19	Nameplate. (PWR).
	19B226331P1	Insert. (S701-PWR).
	19B226334P1	Pushbutton. (S701-PWR).
	19A130261G1	Contact. (Located between P701, P702, P703 and Control Module Board).
	19A115010P3	Contact: Brass; sim to Malco Tool Mfg 13A009-11. (Located at CR4, CR27).
	19A130553P1	Pin. (Located at CR4, CR27).
		ASSOCIATED ASSEMBLIES
		POWER/CONTROL CABLE MASTR II INTERFACE 30 CONDUCTOR 19D423426G8
		- - - - - - - - - - PLUGS - - - - - - - - - -
P702	19B226516G1	Connector. Includes:
	19A116781P5	Shell.
	19A116781P15	Contact, electrical: wire range No. 18-24 AWG; sim to Molex 08-50-0106. (P702-11, P702-17 thru P702-19).
	19A116781P6	Contact, electrical: wire range No. 22-26 AWG; sim to Molex 08-50-0108. (P702-1 thru P702-10, P702-12 thru P702-16).
P703		Connector. Includes:
	19B226516G2	Shell.
	19A116781P6	Contact, electrical: wire range No. 22-26 AWG; sim to Molex 08-50-0108. (P703-5, P703-10 thru P703-19).
		- - - - - - - - - - MISCELLANEOUS - - - - - - - - - -
	7139880P14	Cable: 27 conductor, 18 feet.
	7142878G1	Clip loop (strain relief).
	19A115799P1	Terminal, solderless: sim to AMP 33460. (Quantity 2).
P901		Connector. Includes:
	19C307162P1	Shell.
	19A703376P1	Contact, electrical rated @ 4 amps; sim to AMP 350657-1. (P901-1 thru P901-26).



(19R622092, Rev. 9)

THIS ELEM DIAG APPLIES TO

MODEL NO	REV LETTER
19D417750G1	B

ALL RESISTORS ARE 1/2 WATT UNLESS OTHERWISE SPECIFIED AND RESISTOR VALUES IN OHMS UNLESS FOLLOWED BY K=1000 OHMS OR MEG=1,000,000 OHMS; CAPACITOR VALUES IN MICROFARADS (EQUAL TO MICROMICROFARADS) UNLESS FOLLOWED BY UF= MICROFARADS, INDUCTANCE VALUES IN MICROHENRYS UNLESS FOLLOWED BY MH= MILLIHENRYS OR H=HENRYS.

IN ORDER TO RETAIN RATED EQUIPMENT PERFORMANCE, REPLACEMENT OF ANY SERVICE PART SHOULD BE MADE ONLY WITH A COMPONENT HAVING THE SPECIFICATIONS SHOWN ON THE PARTS LIST FOR THAT PART.

NOTES:

1. LETTERED DA JUMPERS ON PW BD ARE TO BE REMOVED WHEN SPECIFIED ON OPTIONS.
2. DA JUMPERS "A", "C", AND "H" ARE REMOVED WHEN THE STANDARD HANDSET AND HOOKSWITCH ARE USED.
3. DA JUMPER "H" IS REMOVED WHEN THE UNIVERSAL TONE CONNECTOR (OPTION 9405) IS PRESENT.
4. WHEN DC CONVERTER IS USED THE FOLLOWING MODIFICATIONS ARE INCORPORATED:

CUT OR REMOVE PATTERN		SOLDER DA WIRE	
FROM	TO	FROM	TO
H147	H148	H5	H6
H143	H151	H147	H154
H5	H154	H149	H152

SCHEMATIC DIAGRAM

C-900 SERIES ROTARY CONTROL MODULE

SYMBOL	GE PART NO.	DESCRIPTION
	19A701376P2	Contact, electrical rated @ 4 amps; sim to AMP 350656-1. (P901-27 thru J901-30).
	19A701376P3	Contact, electrical rated @ 35 amps; sim to AMP 350655-1. (P901-39, P901-40).
	19A134241P1	Jackscrew.
	N193P1208C6	Tap screw, phillips head: No. 6-20 x 1/2. (Quantity 5).
	19C328122P1	Adapter. (Snaps on to connector shell 19C307162P1).
		POWER/CONTROL CABLE MASTR II INTERFACE 38 CONDUCTOR 19D423424G14
		- - - - - - - - - - PLUGS - - - - - - - - - -
P702		Connector. Includes:
	19B226516G1	Shell.
	19A116781P5	Contact, electrical: wire range No. 18-24 AWG; sim to Molex 08-50-0106. (P702-11, P702-17 thru P702-19).
	19A116781P6	Contact, electrical: wire range No. 22-26 AWG; sim to Molex 08-50-0108. (J702-1 thru J702-10, J702-12 thru P702-16).
P703		Connector. Includes:
	19B226516G2	Shell.
	19A116781P6	Contact, electrical: wire range No. 22-26 AWG; sim to Molex 08-50-0108. (P703-1 thru P703-19).
		- - - - - - - - - MISCELLANEOUS - - - - - - - - -
	7139880P16	Cable: 34 conductors, 18 feet.
	7142878G1	Clip loop (strain relief).
	19A115799P1	Terminal, solderless: sim to AMP 33460. (Quantity 2).
P901		Connector. Includes:
	19C307162P1	Shell.
	19A701376P1	Contact, electrical rated @ 4 amps; sim to AMP 350657-1. (P901-1 thru P901-26, P901-31 thru P901-38).
	19A701376P2	Contact, electrical rated @ 4 amps; sim to AMP 350656-1. (P901-27 thru P901-30).
	19A701376P3	Contact, electrical rated @ 35 amps; sim to AMP 350655-1. (P901-39, P901-40).
	19A134241P1	Jackscrew.
	N193P1208C6	Tap screw, phillips head: No. 6-20 x 1/2. (Quantity 5).
	19C328122P1	Adapter. (Snaps on to connector shell 19C307162P1).
		POWER/CONTROL CABLE NEGATIVE GRD EXECUTIVE II INTERFACE 19C321890G1
		- - - - - - - - - - PLUGS - - - - - - - - - -
P1		Connector. Includes:
	19C311409P1	Shell.
	19B226473G1	Connector cover.
	19C311411G1	Thumbscrew.
	N36P920C6	Machine screw, slotted head: No. 4-40 x 1-1/4. (Secures shell).
	N210P9C6	Hex nut, steel: No. 4-40. (Secures shell).
P702		Connector. Includes:
	19B226516G1	Shell.
	19A116781P5	Contact, electrical: wire range No. 18-24 AWG; sim to Molex 08-50-0106.
	19A116781P6	Contact, electrical: wire range No. 22-26 AWG; sim to Molex 08-50-0108.

SYMBOL	GE PART NO.	DESCRIPTION
P703		Connector. Includes:
	19B226516G2	Shell.
	19A116781P5	Contact, electrical: wire range No. 18-24 AWG; sim to Molex 08-50-0106.
	19A116781P6	Contact, electrical: wire range No. 22-26 AWG; sim to Molex 08-50-0108.
	7142878G1	Clip loop. (Strain relief).
	19A115799P7	Solderless terminal: wire size No. 12-10 AWG; sim to AMP 35772.
	19B800629P4	Solderless terminal: wire size No. 12-10 AWG; sim to AMP 31828-LOOSE PC.
		12-VOLT 2-WIRE IGNITION SWITCH CABLE 19B219537G4
		- - - - - - - - - - PLUGS - - - - - - - - - -
P701		Connector. Includes:
	19B226516G3	Shell.
	19A129504G1	Y Cable. (BLACK).
		FUSED LEAD ASSEMBLY 19A129480G3 (Used with 19B219537G4)
	1R16P8	Cartridge, quick blowing: 5 amps at 250 v; sim to Littelfuse 312005 or Bussmann MTH-5.
	19A115776P6	Fuseholder: sim to Bussmann 9835.
	19A115776P5	Knob assembly: sim to Bussmann 9953 1/2.
	19A115776P7	Fuseholder, phen: sim to Bussmann 1A1853.
	19A115776P3	Contact: sim to Littelfuse 904-88. (Located inside fuseholder).
	7491823P7	Solderless terminal: Wire size No. 16-14 AWG.
	7491823P8	Solderless terminal: 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.
	19A116849P1	Insulated splice.
	19A116781P5	Contact, electrical: wire range No. 18-24 AWG; sim to Molex 08-50-0106.
		FUSED LEAD ASSEMBLY 19A129480G2 5 AMP (YELLOW) (Used with 19B219537G1)
	1R16P8	Cartridge, quick blowing: 5 amps at 250 v; sim to Littelfuse 312005 or Bussmann MTH-5.
	19A115776P6	Fuseholder: sim to Bussmann 9835. (Mates with knob).
	19A115776P5	Knob assembly: sim to Bussmann 9953 1/2.
	19A115776P7	Fuseholder, phen: sim to Bussmann 1A1853.
	19A115776P3	Contact: sim to Littelfuse 904-88. (Located inside fuseholder).
	7491823P7	Solderless terminal: wire size No. 16-14 AWG.
	7491823P8	Solderless terminal: 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.
	19A116849P1	Insulated splice.
	19A116781P5	Contact, electrical: wire range No. 18-24 AWG; sim to Molex 08-50-0106.
		DC CONVERTER IGNITION SWITCH CABLE 19B219537G3
		- - - - - - - - - - PLUGS - - - - - - - - - -
P701		Connector. Includes:
	19B226516G3	Shell.
	19A130117G1	Jumper.
		FUSED LEAD ASSEMBLY 19A129480G1 (Used with 19B219537G3)
	1R16P3	Quick blowing: 1 amp at 250 v; sim to Littelfuse 312001 or Bussmann AGC-1.
	19A115776P6	Fuseholder: sim to Bussmann 9835.
	19A115776P5	Knob assembly: sim to Bussmann 9953 1/2.
	19A115776P7	Fuseholder, phen: sim to Bussmann 1A1853.
	19A115776P3	Contact: sim to Littelfuse 904-88. (Located inside fuseholder).
	7491823P7	Solderless terminal: wire size No. 16-14 AWG.
	7491823P8	Solderless terminal: 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.
	19A116849P1	Insulated splice.
	19A116781P5	Contact, electrical: wire range No. 18-24 AWG; sim to Molex 08-50-0106.

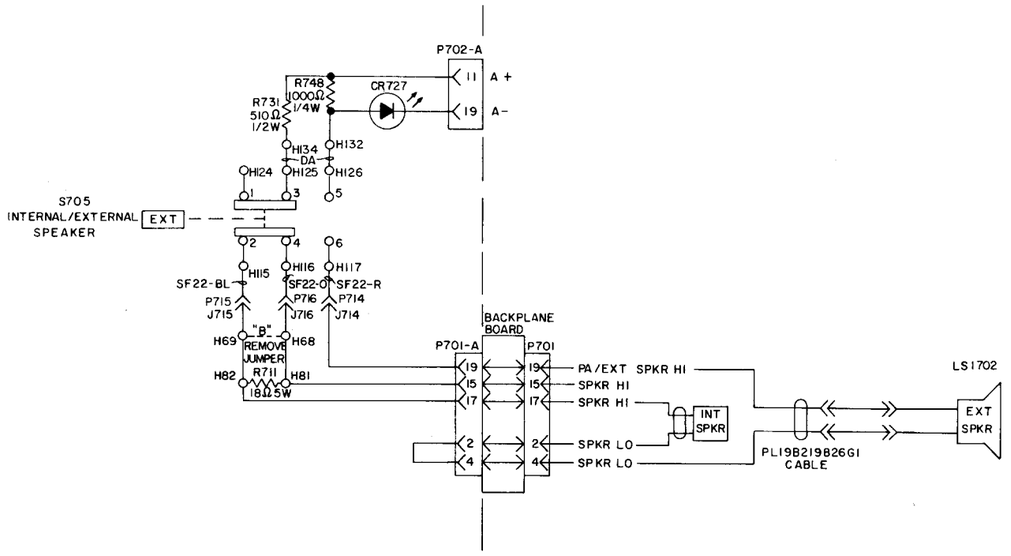
SYMBOL	GE PART NO.	DESCRIPTION
		OPTIONAL 12-VOLT 3-WIRE IGNITION SWITCH CABLE 19B219537G1
		- - - - - - - - - - PLUGS - - - - - - - - - -
P701		Connector. Includes:
	19B226516G3	Shell.
	19A129504G1	Y Cable. (BLACK).
		FUSED LEAD ASSEMBLY 19A129480G1 1 AMP (RED) (Used with 19B219537G1)
	1R16P3	Quick blowing: 1 amp at 250 v; sim to Littelfuse 312001 or Bussmann AGC-1.
	19A115776P6	Fuseholder: sim to Bussmann 9835. (Mates with knob).
	19A115776P5	Knob assembly: sim to Bussmann 9953 1/2.
	19A115776P7	Fuseholder, phen: sim to Bussmann 1A1853.
	19A115776P3	Contact: sim to Littelfuse 904-88. (Located inside fuseholder).
	7491823P7	Solderless terminal: wire size No. 16-14 AWG.
	7491823P8	Solderless terminal: 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.
	19A116849P1	Insulated splice.
	19A116781P5	Contact, electrical: wire range No. 18-24 AWG; sim to Molex 08-50-0106.
		BATTERY CABLES
	7147499G7	Battery cable. (BLACK), 3 feet.
	7147499G8	Battery cable. (RED), 3 feet.
		NOISE BLANKER DISABLE OPTION 19B227179G1
	19B209261P18	Slide: SPST, 1 pole, 2 position, 1/5 amp VDC or 3 amp VAC at 125 v; sim to Switchcraft 46205LB.
	19A703402P2	Contact, electrical; sim to AMP 42827-2.
	4032480P1	Nut, sheet spring: sim to Vector Electronic Co. No. 440.
		FIXED SQUELCH OPTION 19A130896G1
		- - - - - - - - - - PLUGS - - - - - - - - - -
P1723	4033348P1	Contact, electrical: sim to Bead Chain M12534.
P1729	4033348P1	Contact, electrical: sim to Bead Chain M12534.

SYMBOL	GE PART NO.	DESCRIPTION
		- - - - - - - - - - RESISTORS - - - - - - - - - -
R702	19A700115P87	Composition: 10K ohms ±5%, 1/2 w.
		- - - - - - - - - - SWITCHES - - - - - - - - - -
S1701	19A116906P2	Rotary: 1 section, 1 pole, 2 positions, 2 amps at 28 VDC, or 1 amp at 110 VRMS contact rating; sim to Standard Grigsby 48858-5M.
		DUAL CONTROL OPTION 19B227037G5
	19B223625G3	Switch, pushbutton: 2PDT, 1 station, momentary action, 1.1 amp at 14 VDC.
	19B226334P1	Pushbutton.
	19B226331P1	Insert. (Part of switch).
	19A134354P7	Diode, optoelectronic: yellow: sim to Hew. Packard 5082-4555.
	NP276459P22	Nameplate. (CONF).
		CHANNEL GUARD MONITOR OPTION 19B227037G4
	19B223625G2	Push: 4PDT; a station, contacts rated 1.1 amp at 14 VDC; sim to Switchcraft 14S-5321C.
	19B226334P1	Pushbutton.
	19B226331P1	Insert. (Part of switch).
	19A134354P7	Diode, optoelectronic: yellow: sim to Hew. Packard 5082-4555.
	NP276459P21	Nameplate. (NON).
		INTERNAL/EXTERNAL SPEAKER OPTION
LS1	19B209425P2	Loudspeaker, permanent magnet: 8 ohms ±10% voice coil imp, 6.75 ohms ±15% DC res., freq range 300 to 13,000 Hz; sim to Atlas SA-240 W2.
W1	19B219826G1	Speaker Cable: 2 conductor, approx 20 feet.
		SWITCH ASSEMBLY 19B227037G6
	19B223625G2	Push: 4PDT; a station, contacts rated 1.1 amp at 14 VDC; sim to Switchcraft 14S-5321C.
	19B226334P1	Pushbutton.
	19B226331P1	Insert. (Part of switch).
	19A134354P7	Diode, optoelectronic: yellow: sim to Hew. Packard 5082-4555.
	NP276459P28	Nameplate. (EXT).
R711	5493053P83	Wirewound: 18 ohms ±5%, 5 w.
		UNIVERSAL TONE CONNECTOR 19B237159G1
		- - - - - - - JACKS AND RECEPTACLES - - - - - - -
J750	7489183P5	Plug: 9 contacts rated at 7.5 amps max; sim to Winchester MRS-LRN.
		- - - - - - - - - - PLUGS - - - - - - - - - -
P910		Connector. Includes:
	19A116659P89	Connector, printed wiring: 10 contacts rated at 5 amps; sim to Molex 09-50-3101.
	19A116781P6	Contact, electrical: wire range No. 22-26 AWG; sim to Molex 08-50-0108.
		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 ASPA38GE. (30-50 MHz).

SYMBOL	GE PART NO.	DESCRIPTION
	7491074P2	Antenna: includes stainless steel rod approx 102 inches long; ball tip; No. 10-32 hex socket set screw; sim to Antenna Specialists ASPA38GE. (25-50 MHz).
	7102930P3	Adapter, antenna: approx 2-5/16 inches long. (Used with GE Dwg 7491074P1).
	4K49A1	Loading coil: 25-33 MHz; sim to Antenna Specialists ASPA87.
	19A121527G1	Antenna hook kit.
	7134724P1	Antenna hook.
	19C307172P1	Antenna Package: Includes base & ball assembly, adapter spring assembly, cable assembly, horseshoe plate, and rubber gasket.
		Base and ball assembly. Newtronic 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. 068447-001.
		Base nut assembly. 068448-001.
		"O" Ring (LARGE). 0007659-122.
		Stud assembly. 068046-001.
		RG58/U Cable, 15 feet. 068115-001.
		800-870 MHz ANTENNA 19B209568P4
		Whip assembly. 068110-001.
		Whip nut assembly. 068447-001.
		Base nut assembly. 068448-001.
		"O" Ring (LARGE). 007059-122.
		Stud assembly. 068046-001.
	19B209018P5	Plug, coaxial: sim to Automatic Metal 100-N1000A.
		Cable. (Included as part of complete antenna assembly only).
		66-88 MHz ANTENNA 19C321111P3
	19C320111P1	Antenna base: 15 ft. cable with M282PP1 connector with 7105381P1 adaptor; sim to Decibel Products DC719.
	19C320111P2	Antenna whip and spring base: sim to Decibel Products DC870A.
		12 VOLT FUSE ASSEMBLY 19B216021G4 (Fuses must be ordered separately)
		- - - - - - - - - - FUSES - - - - - - - - - -
F1	1R11P4	Quick blowing: 15 amps, 250 v; sim to Bussmann NON15.
F3	1R11P7	Quick blowing: 30 amps, 250 v; sim to Bussmann NON30.
F4	1R11P5	Quick blowing: 20 amps, 250 v; sim to Bussmann NON20.
		DASH MOUNTING KIT 19A130201G2
	19C321086P2	Mounting bracket. (Mates with dash).
	19C321089G2	Mounting bracket. (Mates with C-900 control head).
	N150P1610C6	Screw, thread forming: No. 10-16 x 5/8. (Secures mounting bracket to dash when extended length is not needed).

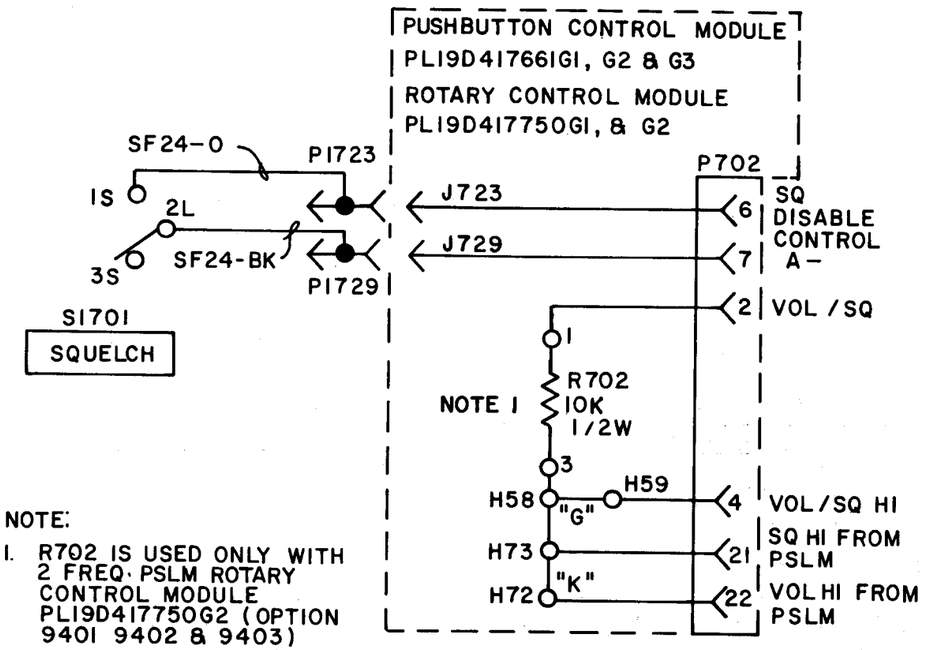
SYMBOL	GE PART NO.	DESCRIPTION
	N130P1024C6	Screw, thread forming: No. 10-16 x 1-1/2. (Secures mounting bracket to dash when extended length is needed).
	N80P16005C6	Screw, panhead: No. 10-32 x 5/16. (Secures mounting bracket to control head).
	N403P19C6	Lockwasher: No. 10. (Secures mounting bracket to control head).
	19A115495P1	Screw, hexhead: No. 1/4-20 x 5/8. (Secures the two mounting brackets together).
	N403P25C6	Lockwasher, external tooth: 1/4 inch. (Secures the two mounting brackets together).
		HUMP MOUNTING KIT 19A130201G2 19A130890G1
		19A130201G2
	19C321086P2	Mounting bracket. (Mates with hump bracket).
	19C321089C2	Mounting bracket. (Mates with control head).
	N80P16005C6	Screw, panhead: No. 10-32 x 5/16. (Secures mounting bracket to control head).
	N403P19C6	Lockwasher: No. 10. (Secures mounting bracket to control head).
	19A115495P1	Screw, hexhead: No. 1/4-20 x 5/8. (Secures 19C321086P2 bracket to 19C321089C2 bracket).
	N403P25C6	Lockwasher, external tooth: 1/4 inch. (Secures 19C321086P2 bracket to 19C321089C2 bracket).
		19A130890G1
	19B227124G1	Mounting bracket. (Mates with floor hump).
	N130P1610C6	Screw, thread forming: No. 10-16 x 5/8. (Secures mounting bracket to hump when extended length is not needed).
	N130P1624C6	Screw, thread forming: No. 10-16 x 1-1/2. (Secures mounting bracket to hump when extended length is needed).
	19B209103P506	Tap screw, hex head: No. 10-32 x 3/8. (Secures 19C321086P2 to hump bracket).
	N403P19C6	Lockwasher: No. 10. (Quantity 8).

INTERNAL/EXTERNAL SPEAKER



(19B227165, Rev. 1)

SQUELCH SWITCH

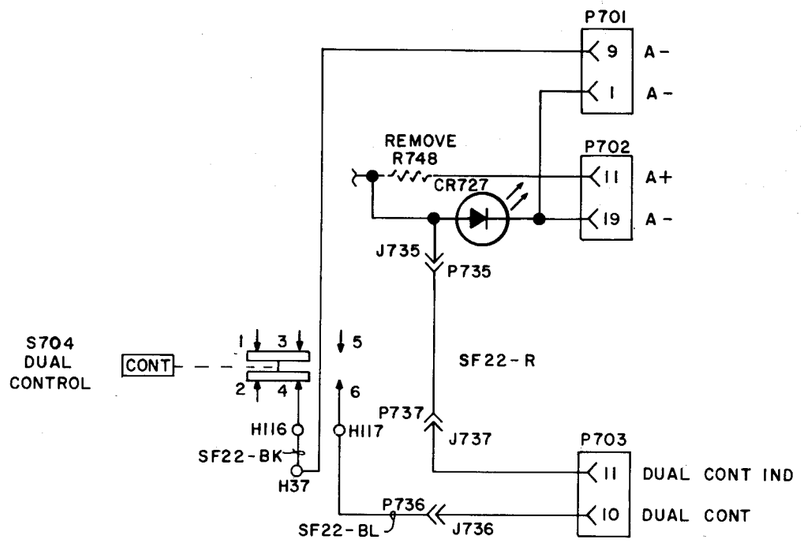


NOTE:

1. R702 IS USED ONLY WITH 2 FREQ. PSLM ROTARY CONTROL MODULE PL19D417750G2 (OPTION 9401 9402 & 9403)

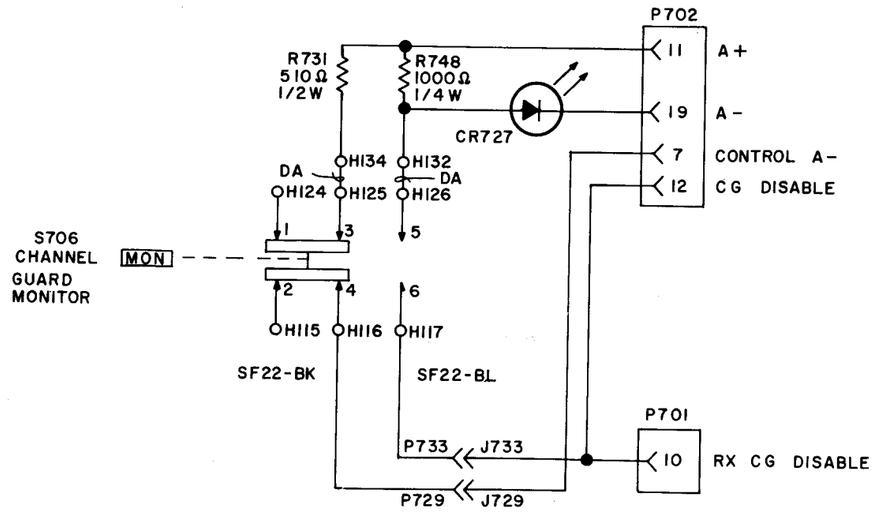
(19A130899, Rev. 1)

DUAL CONTROL OPTION



(19B227168, Rev. 1)

CHANNEL GUARD MONITOR OPTION

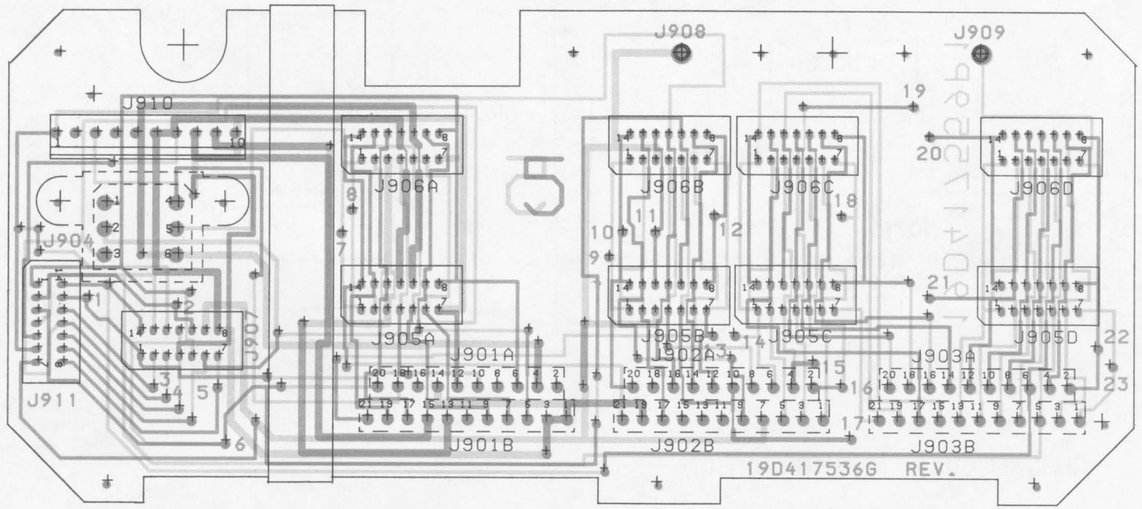


(19B227169, Rev. 1)

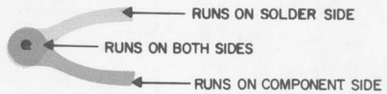
SCHEMATIC DIAGRAM

INTERNAL/EXTERNAL SPEAKER
CHANNEL GUARD MONITOR,
DUAL CONTROL AND
FIXED SQUELCH OPTIONS

CONTROL UNIT



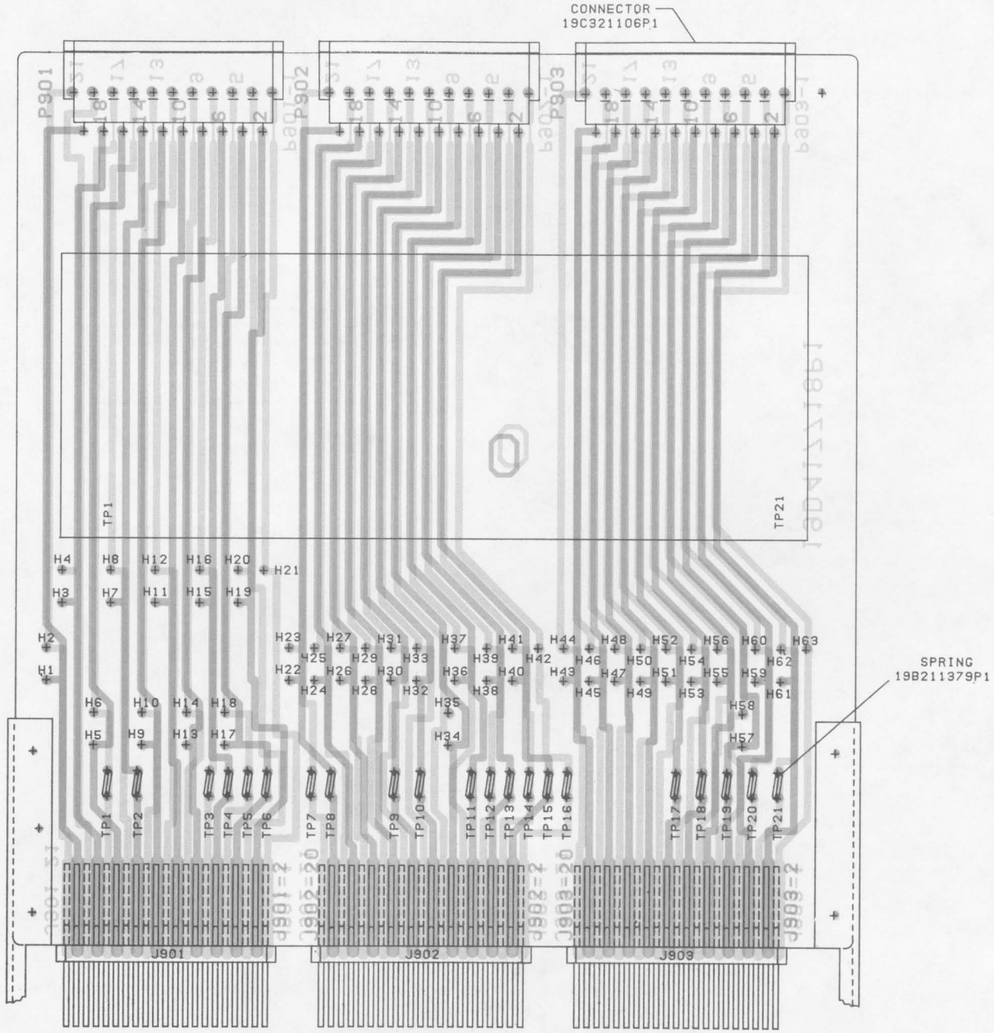
(19D424213, Rev. 1)
(19B226257, Sh. 1, Rev. 5)
(19B226257, Sh. 2, Rev. 5)

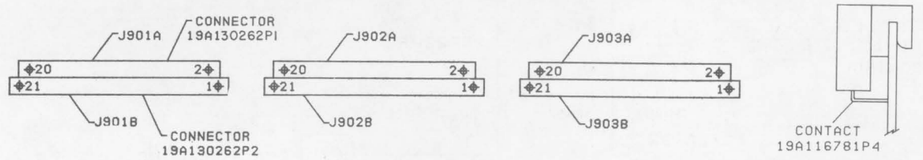


OUTLINE DIAGRAMS

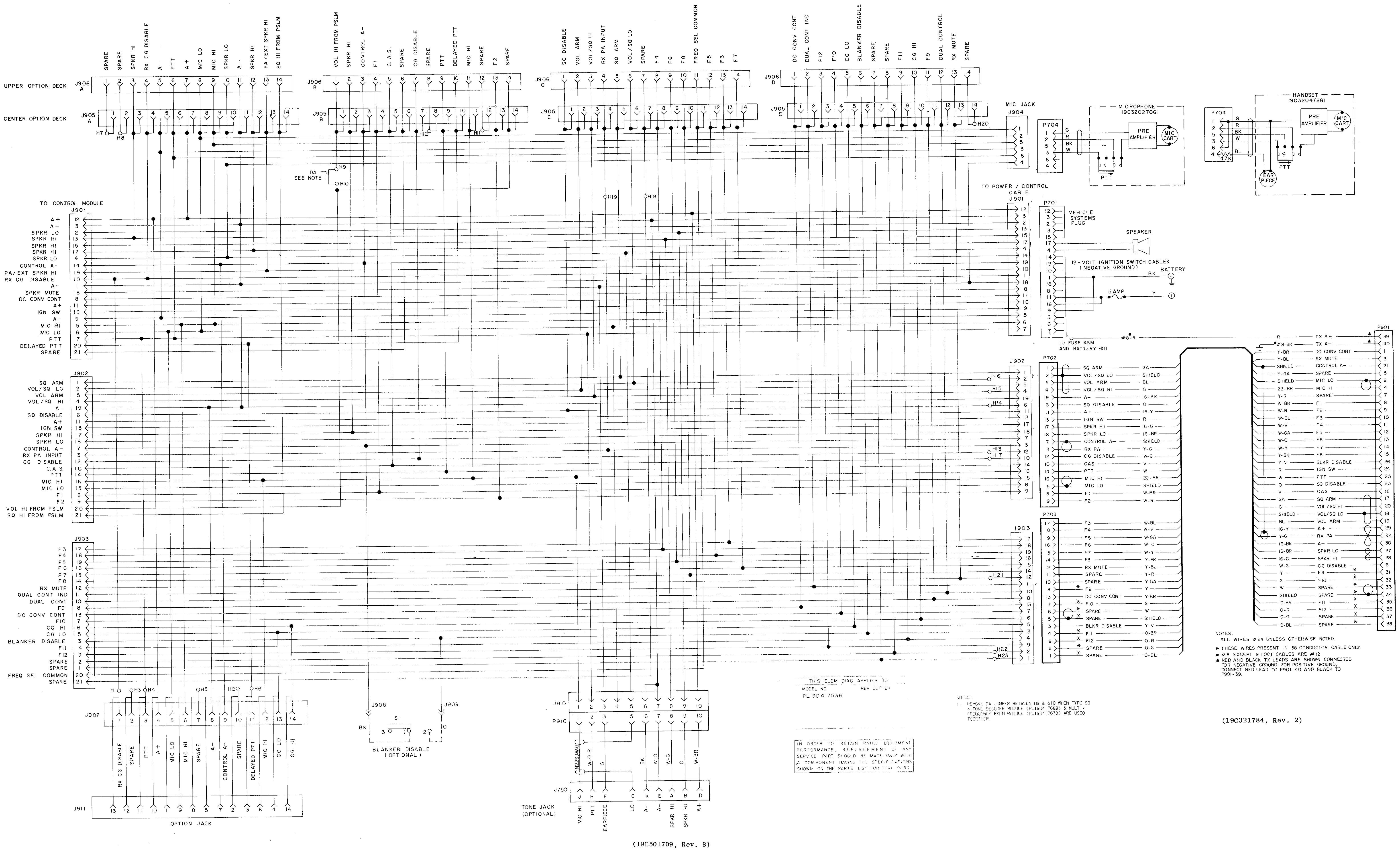
C-900 SERIES CONTROL UNIT
BACKPLANE & EXTENDER BOARD

EXTENDER BOARD





(19D424212, Rev. 0)
(19C321093, Sh. 1, Rev. 0)
(19C321093, Sh. 2, Rev. 0)

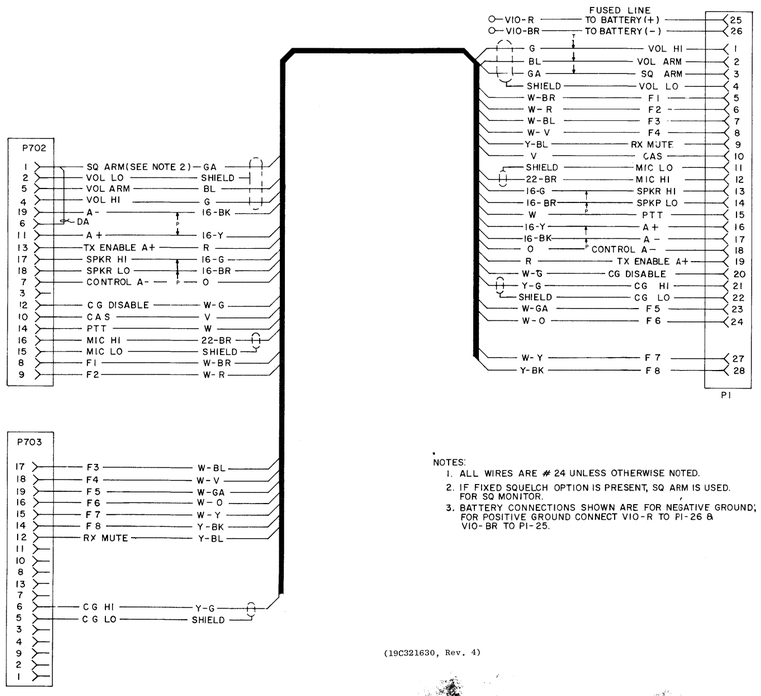


(RC-3000)

SCHEMATIC DIAGRAM

C-900 SERIES CONTROL UNIT BACKPLANE BOARD

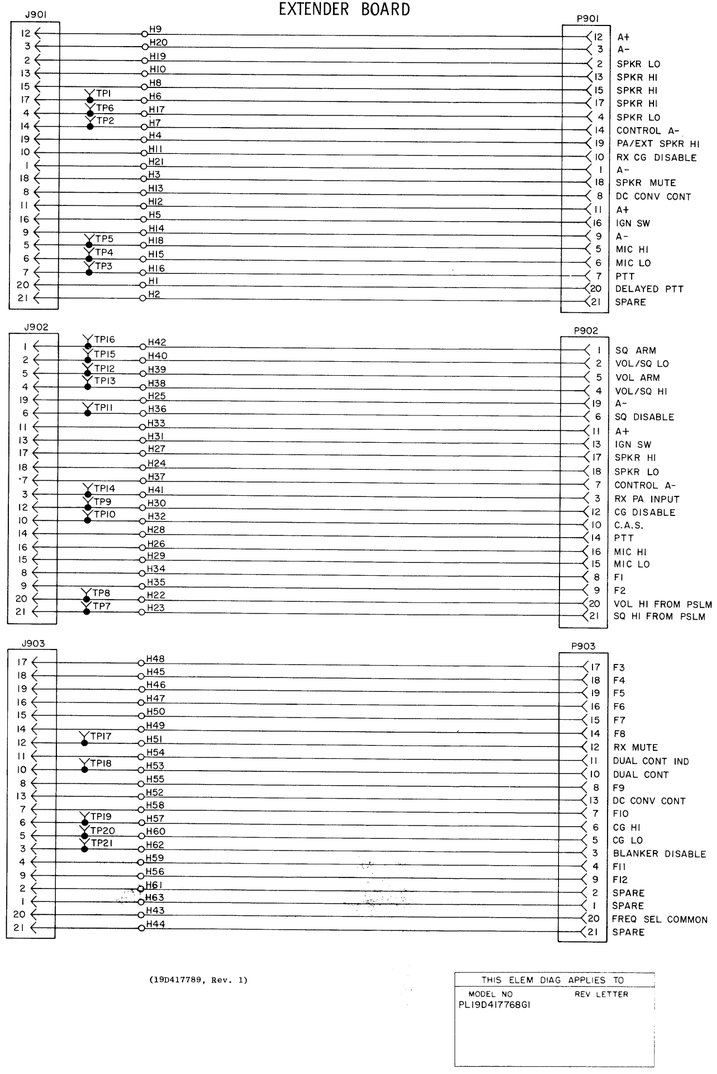
POWER CONTROL CABLE



NOTES:
1. ALL WIRES ARE # 24 UNLESS OTHERWISE NOTED.
2. IF FIXED SQUELCH OPTION IS PRESENT, SQ ARM IS USED. FOR SQ MONITOR.
3. BATTERY CONNECTIONS SHOWN ARE FOR NEGATIVE GROUND; FOR POSITIVE GROUND CONNECT VIO-R TO P1-26 & VIO-BR TO P1-25.

(19C321630, Rev. 4)

EXTENDER BOARD



(19D417789, Rev. 1)

THIS ELEM DIAG APPLIES TO	
MODEL NO	REV LETTER
PLI9D417768G1	

SCHEMATIC DIAGRAMS & PARTS LIST

POWER/CONTROL CABLE
(MASTR EXECUTIVE II INTERFACE)
CONTROL MODULE EXTENDER BOARD

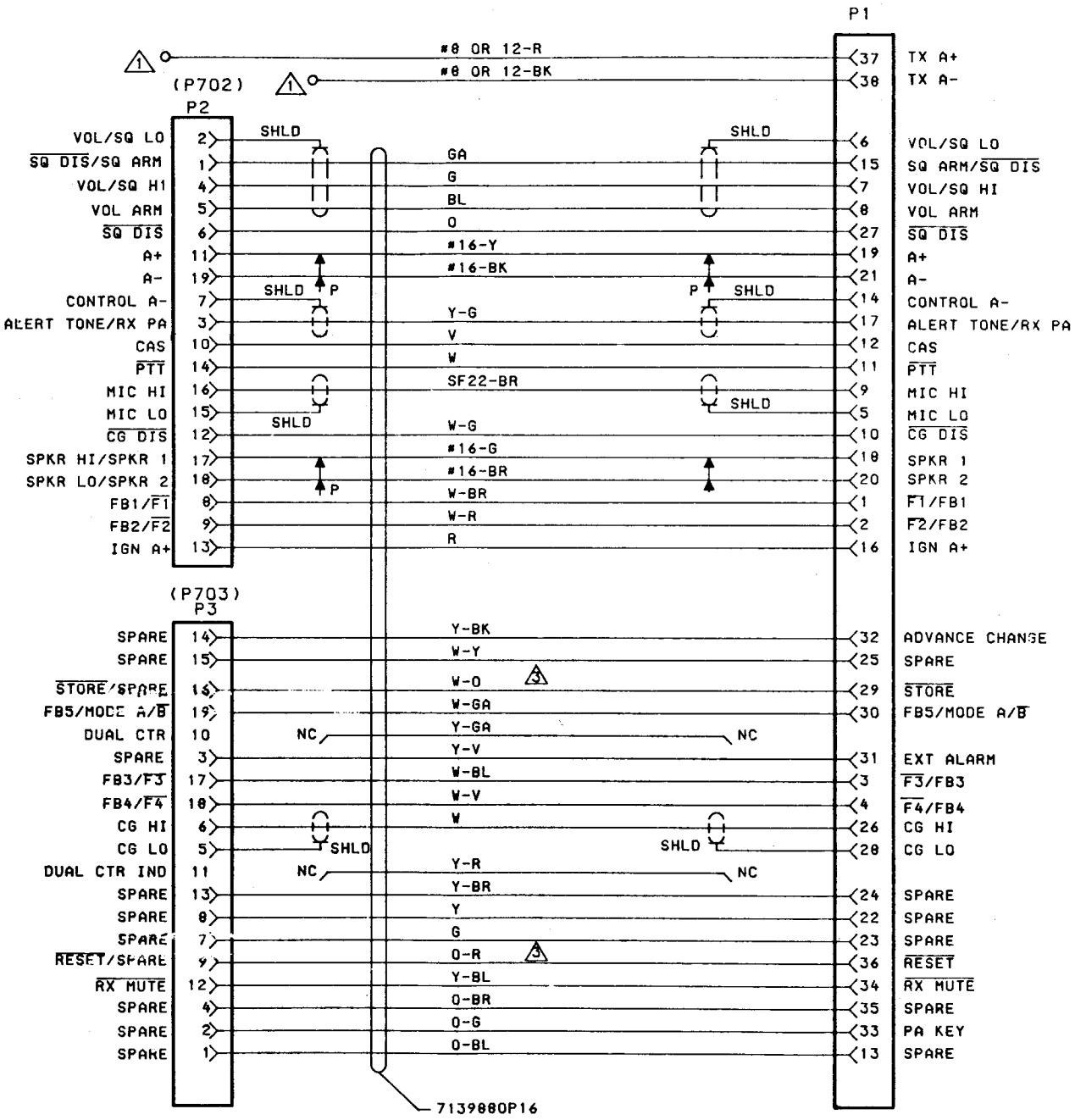
PARTS LIST

LBI30220A

C-800 SERIES BACKPLANE BOARD
19D417536G1

SYMBOL	GE PART NO.	DESCRIPTION
		- - - - - - - JACKS AND RECEPTACLES - - - - - - -
J901A	19A116659P34	Connector, printed wiring: 10 contacts rated at 5 amps; sim to Molex 09-64-2102.
J901B	19A116659P35	Connector, printed wiring: 11 contacts rated at 5 amps; sim to Molex 09-64-2113.
J902A	19A116659P34	Connector, printed wiring: 10 contacts rated at 5 amps; sim to Molex 09-64-2102.
J902B	19A116659P35	Connector, printed wiring: 11 contacts rated at 5 amps; sim to Molex 09-64-2113.
J903A	19A116659P34	Connector, printed wiring: 10 contacts rated at 5 amps; sim to Molex 09-64-2102.
J903B	19A116659P35	Connector, printed wiring: 11 contacts rated at 5 amps; sim to Molex 09-64-2113.
J904	19B219627G1	Connector: 6 contacts.
J905A	19A116446P5	Connector, printed wiring: 14 contacts rated at 3 amps.
J905B	19A116446P5	Connector, printed wiring: 14 contacts rated at 3 amps.
J905C	19A116446P5	Connector, printed wiring: 14 contacts rated at 3 amps.
J905D	19A116446P5	Connector, printed wiring: 14 contacts rated at 3 amps.
J906A	19A116446P5	Connector, printed wiring: 14 contacts rated at 3 amps.
J906B	19A116446P5	Connector, printed wiring: 14 contacts rated at 3 amps.
J906C	19A116446P5	Connector, printed wiring: 14 contacts rated at 3 amps.
J906D	19A116446P5	Connector, printed wiring: 14 contacts rated at 3 amps.
J907	19A116446P5	Connector, printed wiring: 14 contacts rated at 3 amps.
J908 and J909	4033513P4	Contact, electrical: sim to Bead Chain L93-3.
J910	19A116659P54	Connector, printed wiring: 10 contacts rated at 5 amps; sim to Molex 09-66-1101.
		- - - - - - - - - MISCELLANEOUS - - - - - - - - -
	N80P13004C6	Machine screw: No. 6-32 x 1/4. (Secures Backplane Board).
		ASSOCIATED PARTS
		- - - - - - - JACKS AND RECEPTACLES - - - - - - -
J911	19A116446P5	Connector, printed wire: 14 contacts rated at 3 amps.

*COMPONENTS ADDED, DELETED OR CHANGED BY PRODUCTION CHANGES



1. ELECTRICALLY UNCONNECTED UNTIL INSTALLED BUT TERMINATED PER ASM 19D900447.
2. ALL WIRES ARE #SF24 AWG UNLESS OTHERWISE SPECIFIED.
3. FOR GROUPS 1-6, W-O AND O-R WIRES ARE NOT CONNECTED AT EITHER END.

(19D433081, Sh. 1, Rev. 6)

SCHEMATIC DIAGRAM

MASTR DELTA POWER/CONTROL CABLE

PARTS LIST

30 CONDUCTOR CONTROL CABLES
19D900447G1 3 METER SHORT GROUND
19D900447G2 3 METER LONG GROUND
19D900447G3 6 METER SHORT GROUND
19D900447G4 6 METER LONG GROUND
19D900447G5 9 METER SHORT GROUND
19D900447G6 9 METER LONG GROUND
ISSUE 1

SYMBOL	GE PART NO.	DESCRIPTION
P1		Connector. Includes:
	19D900037P1	Shell.
	19A701376P1	Contact, electrical: wire range No. 24-20 AWG. (P1-1 thru 17, 26 thru 34)
	19A701376P2	Contact, electrical: wire range No. 20-16 AWG. (P1-18 thru 21).
	19A701376P3	Contact, electrical: wire range No. 12-8 AWG. (P1-37 & 38).
	19D900015P1	Housing.
	19C850508P1	Cover.
	19A701192P1	Thumbscrew: thd. size M4 x 0.7.
	19A701488P4	Retainer ring. (Located on thumbscrew).
	19A701312P6	Flatwasher: 1.7-1.85 ID. (Located on thumbscrew).
	19A701507P608	Screw, thd. forming: No. 3.5-1.27 x 12.7. (Secures housing to shell).
	19A701507P606	Screw, thd. forming: No. 3.5-1.27 x 9.60. (Secures cover to housing).
	19A700031P525	Machine screw: No. M3.5-0.6 x 25. (Secures cable to P1).
	19A700034P5	Hex nut: No. M3.5 x 0.6. (Secures cable to P1).
	19A700032P6	Lockwasher, internal tooth: No. 3.5 Metric. (Secures cable to P1).
P2		Connector. Includes:
	19B226516G1	Shell.
	19A116781P5	Contact, electrical: wire range No. 18-24 AWG. (P2-11, 17 thru 19).
	19A116781P6	Contact, electrical: wire range No. 22-26 AWG. (P2-1 thru 10, 12 thru 16).
P3		Connector. Includes:
	19B226516G2	Shell.
	19A116781P6	Contact, electrical: wire range No. 22-26 AWG. (P3-1 thru 3, 5, 6, 10 thru 13, 17, 18).
		- - - - - - - - - MISCELLANEOUS - - - - - - - - -
	7139880P16	Cable: 30 conductor (specify length).
	19A701503P2	Cable battery, red. (Used in G1 & G2- specify length).
	19A701503P10	Cable battery, black. (Used in G1 & G2- specify length).
	19A701460P2	Cable battery, red. (Used in G3-G6- specify length).
	19A701460P10	Cable battery, black. (Used in G3-G6- specify length).
	19B800629P1	Solderless terminal. (Located on black battery cable in G3 & G5).
	19B800629P2	Solderless terminal. (Located on black battery cable in G1).
	19B800629P3	Solderless terminal. (Located on black battery cable in G4 & G6, on red battery cable in G3-G6).
	19B800629P4	Solderless terminal. (Located on black battery cable in G2, on red battery cable in G1 & G2).
	7142878G1	Clip loop. (Secures cable at P2 & P3).

*COMPONENTS ADDED, DELETED OR CHANGED BY PRODUCTION CHANGES

PARTS LIST

3 x 5 INCH SPEAKER
19C850550G1 DASH MOUNT - 4 OHM
19C850550G2 WINDOW MOUNT - 4 OHM
19C850550G3 DASH MOUNT - 8 OHM
19C850550G4 WINDOW MOUNT - 8 OHM
ISSUE 4

SYMBOL	GE PART NO.	DESCRIPTION
		- - - - - - - - - - LOUDSPEAKERS - - - - - - - - -
LS1	19A702080P3	Permanent magnent: 3 x 5 inch, 4 ohms ±10% imp at 400 Hz, 18 w.
LS2	19A702080P4	Permanent magnent: 3 x 5 inch, 8 ohms ±10% imp at 400 Hz, 18 w.
		- - - - - - - - - - - CABLES - - - - - - - - - - -
W1	19A129414G1	2 conductor cable: approx 5 feet long, includes (2) 19A116781P5 contacts.
W2	19B226189G1	Window mount: approx. 17 inches retracted, 84 inches extended. (Includes 2 19A116781P5 contacts).
		BREAKAWAY MOUNTING KIT 19A129461G1
	19C320022P1	Retaining bracket. (With locking jaws).
	19B219578G1	Safety Release Disc. (Mates with mounting surface).
	N187P16010C6	Machine screw, hexhead, slotted: No. 10-32 x 5/8. (Quantity 1 - Used with safety release disc with retaining bracket).
	N130P1612C6	Tap screw, thd. forming: No. 10-16 x 3/4. (Quantity 3 - Used without safety release disc & retaining bracket).
	N130P1624C6	Tap screw, thd. forming: No. 10-16 x 1-1/2. (Quantity 3 - Used without safety release disc & retaining bracket - for extra thick carpet).
	N402AP9C6	Flatwasher: No. 10. (Used with 10-16 thread forming screws).
		DASH MOUNT KIT FOR WINDOW MOUNT SPEAKER OPTION 19A130023G1 & G2
	19B226192G1	Housing. (G1 only).
	19B226190P1	Backing plate.
	19B226185P1	Clip bracket.
	N193P1408C6	Tap screw, phillips head: No. 8-18 x 1/2. (Secures backing plate to mounting surface).
		- - - - - - - - - MISCELLANEOUS - - - - - - - - -
	19B800534G1	Housing. (DASH MOUNT).
	19B800534G2	Housing. (WINDOW MOUNT).
	19C850549P1	Grille.
	19A702464P3	Strain relief. (Used with W1 window mount cable at housing).
	19A701354P2	Nameplate. (GENERAL ELECTRIC).
	19C320016P1	Mounting bracket. (Secures speaker assembly to mounting surface).
	19A701631P516	Machine screw: No. 10-32 x 5/16. (Secures speaker housing to mounting support).
	19A701312P7	Lockwasher: No. 10. (Secures speaker housing to mounting support).
	19A700033P10	Lockwasher, external tooth: No. 10. (Secures speaker housing to mounting support).
	19A116986P112	Screw, thread forming, assembled washer: Phillips POZIDRIV®, HI-LO thread, No. 7-19 x 3/4. (Secures grille to housing).

*COMPONENTS ADDED, DELETED OR CHANGED BY PRODUCTION CHANGES

PARTS LIST

LBI4481D

TRANSISTORIZED DYNAMIC MICROPHONE
19C320270G1, G2
(SEE RC2454)

SYMBOL	GE PART NO.	DESCRIPTION
1	RP127	Front Case Assembly. (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 case.
6	19A129435P1	Pin contact.
7	19A701289P1	Retaining ring: 3/16 inches; sim to National Lockwasher WA 510.
8	19D416767P1	Connector Cover.
9	19B219723G1	Thumb screw: lexan.
10	N136AP905Y6	Tap screw: No. 4-24 x 5/16.
11	19A116937P1	Cable clamp: sim to Malco 21012-3.
12	19B219749P1	Flex relief.
13	RP126	Switch button kit.
14		Rear Case Assembly. (Part of item 1).
15		Tap screw, phillips. (Part of item 1).
16	19C321016G1	Cable assembly: Includes items 3-12 & cable RP129.
17	RP128	Switch assembly.
18	RP130	Grille Assembly. (Includes items 2, 19, 21).
19		"O" Ring. (Part of item 18).
20	RP117	Transistorized cartridge.
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

PARTS LIST

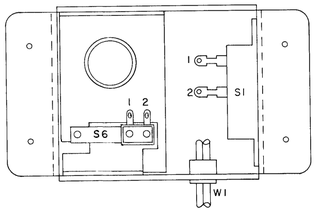
LBI30449E

MICROPHONE HOOKSWITCH
19C320318G3, G5

SYMBOL	GE PART NO.	DESCRIPTION
		- - - - - - - - - - SWITCHES - - - - - - - - - -
S1	19B209261P18	Slide: 1 pole, 2 positions, 0.5 amp VAC or 3 amp VAC at 125 v; sim to Switchcraft 46202LH. (Use in G3).
S2 and S3	19A116676P1	Sensitive: SPDT, 5 amps @ 24 VDC or 5 amps @ 250 VRMS; sim to Microswitch 111S M1-T2. (Used in G5).
S5	19A116676P1	Sensitive: SPDT, 5 amps @ 24 VDC or 5 amps @ 250 VRMS; sim to Microswitch 111S M1-T2. (Used in G5).
S6	19A134398P1	Push: sim to Chicago Switch S-1527-1. (Used in G3).
		- - - - - - - - - - CABLES - - - - - - - - - -
W1	19A129414G1	Cable: 2 conductor; approx 5 feet long, includes (2) 19A116781P5 contacts. (Used in G3).
W2	19B219779G1	Cable: approx 4 ft. long. Includes: (5) 4036634P1 & (2) 19B209288P2 contacts. (Used in G5).
		- - - - - - - - - - MISCELLANEOUS - - - - - - - - - -
	19B219698G4	Housing. (Used in G3).
	19B219698G2	Housing. (Used in G5).
	19B219694P1	Base plate.
	19A702464P2	Bushing, strain relief: sim to Heyco SR-3P-4. (Used in G3).
	N193P1410C	Tap screw: No. 8-18 x 5/8. (Secures base plate to mounting surface).
	19A134398P101	Metal plate. (Used with S6).
	19C320301P1	Support. (S1).
	19B219693P2	Spring, hookswitch. (Used with S1).
	19B800608P527	Rivet. (Secures S1 spring).
	19B800608P477	Rivet. (Secures S1).
	7147223P2	Clip loop. (Used in G5).

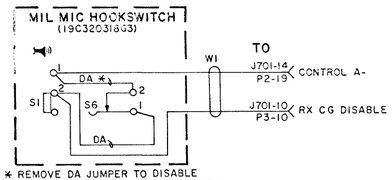
*COMPONENTS ADDED, DELETED OR CHANGED BY PRODUCTION CHANGES

OUTLINE DIAGRAM



(19B227626, Rev. 0)

SCHEMATIC DIAGRAM



* REMOVE DA JUMPER TO DISABLE AUTOMATIC CHANNEL GUARD MONITOR

S6- SHOWN OFF HOOK

S1- SHOWN OFF MONITOR

MODEL NO.	REV LETTER

(19A136836, Rev. 2)

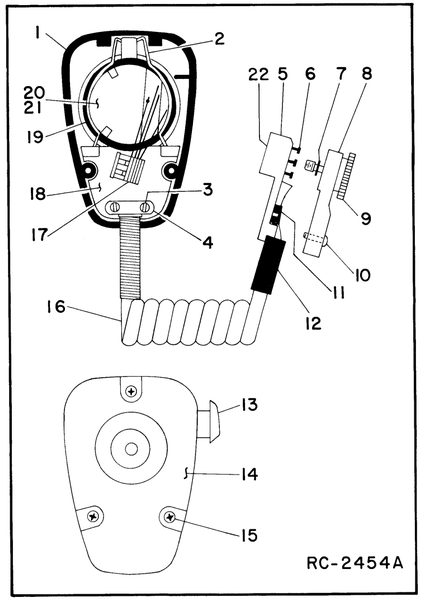
PARTS LIST

LBI4488F
SPEAKER

19C320302G1 MASTR II
19C320302G5 MASTR EXEC II
19C320302G7 CUSTOM MVP
19C320302G9 CENTURY II (BLACK/GRAY)
19C320302G10 GE MARC V MASTR EXEC
19C320302G11 CENTURY II
19C320302G12 CENTURY II (SADDLE BROWN)
19C320302G16 DELTA

SYMBOL	GE PART NO.	DESCRIPTION
		- - - - - - - - - - LOUDSPEAKERS - - - - - - - - - -
LS1	19A116694P1	Permanent magnet, 5 inch: 20 watts, 8 ohms ±10% imp, 100 to 10,000 Hz response; sim to Oaktron 5ED2189-2.
LS2	19A116910P1	Permanent magnet: 5 inch, 3.2 ohms ±15% imp, 5 w. max operating; sim to Pioneer 002009.
LS3	19A116694P3	Permanent magnet: 5 inch, 4 ohms ±10% imp, 20 watt.
		- - - - - - - - - - CABLES - - - - - - - - - -
W1	19A129414G1	2 conductor cable: approx 5 feet long, includes (2) 19A116781P5 contacts.
W2	19A122167G1	4 FOOT CABLE ASSEMBLY
P702		Connector. Includes:
	5493018P2	Shell
	433802P1	Contact, electrical. Quantity 4.
	5491563P4	Cover.
W5	19A136574G1	2 conductor. Includes: (2) 19A115884P8 Contacts.
		- - - - - - - - - - MISCELLANEOUS - - - - - - - - - -
	19B219692G1	Grille. (Used in G1, G5, G7, G10, G16).
	19B219692G2	Grille. (Used in G9).
	19B219692G4	Grille. (Used in G11).
	19B219692G5	Grille. (Used in G12).
	19B227593G1	Housing. (Used in G1, G5, G7, G10, G16).
	19B227593G2	Housing. (Used in G9).
	19B227593G4	Housing. (Used in G11).
	19B227593G5	Housing. (Used in G12).
	19C320016P1	Mounting bracket. (Located between housing & retaining bracket). (Used in G1, G5, G7, G10).
	19C320016P3	Mounting bracket. (Located between housing & retaining bracket). (Used in G11).
	19C320016P4	Mounting bracket. (Located between housing & retaining bracket). (Used in G12).
	19C320022P1	Retaining bracket. (Located between mounting bracket & safety release disc).
	19B219578G1	Safety Release Disc.
	19A116986P108	Tap screw, with lockwasher: No. 7-19 x 1/2. (Secures speaker to housing).
	19A116986P112	Tap screw, with lockwasher: No. 7-19 x 3/4. (Secures grille to housing).
	N187P16010C6	Machine screw: No. 10-32 x 5/8. (Secures mounting bracket to housing-used with safety release disc, retaining bracket).
	N710P16012C6	Screw, hexhead, slotted: No. 10-16 x 3/4. (Quantity 3- used without safety release disc & retaining bracket).
	N130P16012C6	Tap screw, thd. forming: No. 10-16 x 3/4. (When mounting to regular surface).
	N130P16024C6	Tap screw, thd. forming: No. 10-16 x 1-1/2. Slotted hex head. (When mounting to extra thick mounting surface).

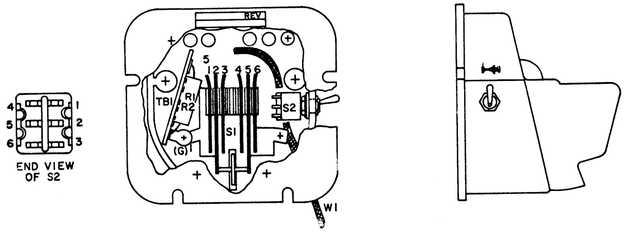
*COMPONENTS ADDED, DELETED OR CHANGED BY PRODUCTION CHANGES



SERVICE SHEET

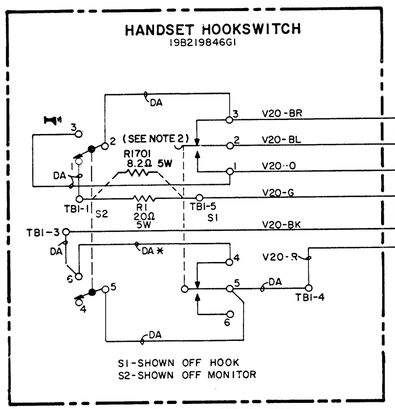
MICROPHONE & HOOKSWITCH

OUTLINE DIAGRAM



(19B226131, Rev. 3)

SCHEMATIC DIAGRAM



* REMOVE DA JUMPER TO DISABLE AUTOMATIC CHANNEL GUARD MONITOR

(19B219842, Rev. 10)

IN ORDER TO RETAIN RATED EQUIPMENT PERFORMANCE, REPLACEMENT OF ANY SERVICE PART SHOULD BE MADE ONLY WITH A COMPONENT HAVING THE SPECIFICATIONS SHOWN ON THE PARTS LIST FOR THAT PART.

W1	TO	
	J701-18 P3-18	SPKR MUTE (TO HANDSET EARPIECE)
	J701-13 P3-12	SPKR HI/SPKR 2 COM (FROM CONTROL UNIT)
	J701-15 P3-13	SPKR HI/SPKR 2 SEL (TO CONTROL UNIT)
	J701-2 P3-2	SPKR LO/SPKR I
	J701-14 P2-19	CONTROL A-/A-
	J701-10 P3-10	RX CG DISABLE/ HOOKSWITCH

NOTES:

1. CUT PRINTED WIRE BOARD JUMPERS A & C IN CONTROL UNIT.
2. WHEN APPLIED TO EXECUTIVE II MOBILE REPLACE R1 WITH R1701.
3. ON C600 CONTROL UNIT WITH NO EXTERNAL SPEAKER CUT JUMPERS W3 AND W4. ADD JUMPERS FROM HL13 TO HL11 AND HL10 TO HL15.
4. ON C600 CONTROL UNIT WITH EXTERNAL SPEAKER, CUT JUMPERS W3 AND W4. ADD JUMPERS FROM HL13 TO HL11 AND HL10 TO HL16.

SEE APPLICABLE PRODUCTION CHANGE SHEETS IN INSTRUCTION BOOK SECTION DEALING WITH THIS UNIT, FOR DESCRIPTION OF CHANGES UNDER EACH REVISION LETTER.

THIS ELEM DIAG APPLIES TO	
MODEL NO	REV LETTER
PLI19B219846G1	B

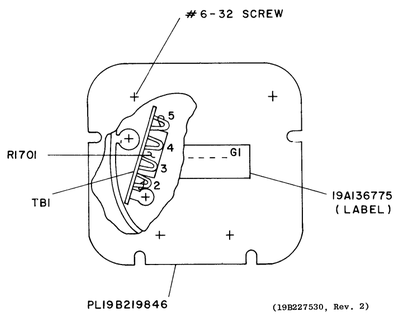
PARTS LIST

LBI4484J

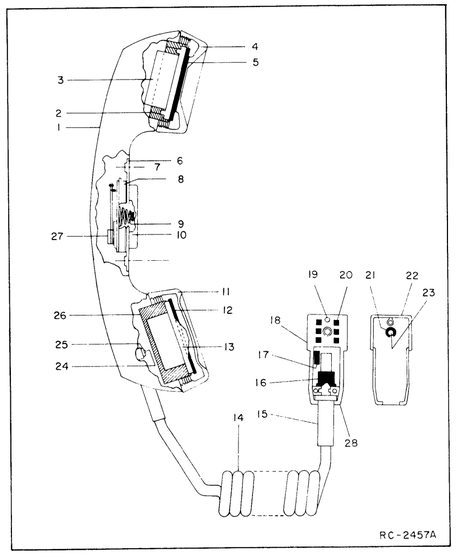
HANDSET HOOKSWITCH
19B219846G1 STANDARD
19B219846G3 DUPLEX

SYMBOL	GE PART NO.	DESCRIPTION
		---------- RESISTORS ----------
R1*	5493035P55	Wirewound: 20 ohms ±5%, 5 w; sim to Hamilton Hall Type HR.
		In REV A:
	5493035P11	Wirewound: 40 ohms ±5%, 5 w; sim to Hamilton Hall Type HR.
		Earlier than REV A:
	5493035P12	Wirewound: 60 ohms ±5%, 5 w; sim to Hamilton Hall Type HR.
		---------- SWITCHES ----------
S1	19A129585G1	Holder and switch: Thermoplastic case, contact rating 1 amp at 125 v.
S2	19A700189P6	Toggle: DPDT, 5 amps at 28 VDC or 115 VAC; sim to C & K Components 7201G. (CHANNEL GUARD DISABLE).
S4	19A700189P1	Toggle: SPDT, 5 amps at 28 VDC or 115 VAC; sim to C and K Components 7101G.
		---------- TERMINAL BOARDS ----------
TB1	7775500P203	Phen: 5 terminals.
		---------- CABLES ----------
W1	19B219841G1	Cable: 6 conductor; approx 5 feet long.
		---------- MISCELLANEOUS ----------
	N190P1312C	Tap screw, phillips: No. 6-20 x 3/4. (Secures housing to base plate).
	N101P1510P	Tap screw, phillips: No. 8-15 x 5/8. (Used for mounting base plate).
	19A129586G1	Bumper, rubber. (2).
	19B219852P1	Mounting Plate.
		EXECUTIVE II MODIFICATION KIT 19A136767G1
R1701	5493035P52	Resistor, wirewound: 8.2 ohms ±10%, 5 w; sim to Hamilton Hall Type HR.
	19A136775P1	Label.

*COMPONENTS ADDED, DELETED OR CHANGED BY PRODUCTION CHANGES



(19B227530, Rev. 2)



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, G3 & G4
To improve the operation of the audio output stage by lowering the off-hook terminating resistance. Changed R1.

REV. B - To eliminate audio oscillation in handset with speaker out of circuit. Changed R1.

REV. C - To eliminate interference between R1 and R2.

(1) THESE INSTRUCTIONS COVER THE MODIFICATION OF MASTR II HANDSET HOOKSWITCH TO BE APPLIED TO EXEC II

INSTRUCTIONS:

1. REMOVE FOUR #6-32 SCREWS AND COVER.
2. REMOVE R1 RESISTOR (40 OHM) AND DISCARD. REPLACE WITH R1701 RESISTOR (8.2 OHM) AND SOLDER TO TBI-5 AND TBI-2 AS SHOWN.
3. REPLACE COVER AND SCREWS.
4. ADD LABEL (19A136775) AS SHOWN.

PARTS LIST

LBI44R2E

TRANSISTORIZED DYNAMIC HANDSET
19C320478G5 MASTR II
19C320478G6 DELTA

SYMBOL	GE PART NO.	DESCRIPTION
1	RP142	Case Assembly. Includes items 1, 2, 4, 5, 11, 12, & 26.
2		Adapter. Part of item 1.
3	RP140	Receiver Cartridge.
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	RP139	Transmitter cartridge.
14	19C321016G2	Cable assembly: Includes items 14-25 and cable RP141.
15	19B219749P1	Flex relief.
16	19A116937P1	Cable clamp: sim to Malco 21012-3.
17	3R77P472K	Resistor, (R1) Composition: 4.7K ohms ±10%, 1/2 w. (G5 only).
	19A700019P43	Resistor, (R1) Deposited carbon: 3.3K ohms ±5%, 1/4 w. (G6 only).
18	19D416766P1	Connector case.
19	N136AP905Y6	Tap screw: No. 4-24 x 5/16.
20	19A129435P1	Pin contact.
21	19A701289P1	Retaining ring: 3/16 inches; sim to National Lockwasher WA 510.
22	19D416767P1	Connector Cover.
23	19B219723G1	Thumb screw: lexan. (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	RP143	Switch Assembly. Includes items 6-10.
28	19C321016G3	Connector Assembly: Includes items 15, 16, 18-23. Does not include resistor, item 17.

*COMPONENTS ADDED, DELETED OR CHANGED BY PRODUCTION CHANGES