

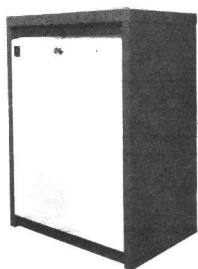
 **MOBILE RADIO**

MASTR[®] II

**806 - 870 MHz 90 WATT
STATION COMBINATION**

MAINTENANCE MANUAL LBI30490 C

DATAFILE FOLDER — DF9033



**DESK MATE
STATION**



**POLE MOUNT
STATION**



**FLOOR MOUNT
STATION**

GENERAL  ELECTRIC

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WARNING

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

SPECIFICATIONS*

DIMENSIONS (HXWXD)

Desk Mate	44-1/4" x 21-1/2" x 15"
Pole Mount	45" x 21-1/2" x 21"
Floor Mount	69" x 23" x 21"

WEIGHT

Desk Mate	280 lbs.
Pole Mount	325 lbs.
Floor Mount	388 lbs.

INPUT VOLTAGE

121/242 VAC, 60 Hertz only
(50 Hertz Optional)

AC INPUT POWER

550 Watts

TEMPERATURE RANGE

-30°C to +60°C (-22°F to +140°F)

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

COMBINATION NOMENCLATURE

1st Digit	2nd Digit	3rd Digit	4th Digit	5th Digit	6th Digit	7th Digit	8th & 9th Digits	10th Digit	11th Digit
Mechanical Package	Duty Cycle	RF Power Output Range	Channel Spacing	Control	Number of Freq.	Options	Frequency Range MHz	Oscillator Stability	PA Type
S Desk Mate Cabinet	C Continuous Duty	7 81-128 Watts	5 25 kHz	E Local	A 1 Tx 1 Rx	D Duplex	96 851-870 Tx 806-825 Rx	E ±1 PPM	V MCM PA
P Pole Mount				J Local/ Tone Remote		L CG/Duplex			
V Floor Mount				K Local/ DC Remote		S Standard			
				N Local/ Repeat		U CG			
				R DC Remote					
				T Tone Remote					
				U DC Remote/ Repeat					
				V Tone Remote/ Repeat					
				Y Repeat					

Transmitter FCC Filing No.	Power Output
KT-150-D	90 Watts

DESCRIPTION

The General Electric MASTR® II 806-870 MHz 90 Watt Station is a complete two-way radio station designed for receiving in the 806-825 MHz band and transmitting in the 851-870 MHz band. The station is a continuous duty combination capable of being operated locally or with DC or tone remote control. The station may also be operated as a repeater, receiving and retransmitting signals simultaneously. The station transmitter exciter is located in a shielded compartment in the radio housing front door. See Figure 1.

The station receiver is also mounted in a shielded compartment in the radio housing front door, along with a system board which accommodates the Channel Guard board. Jacks are provided on the system board for plug-in interface with options and control functions.

The 90 Watt Power Amplifier is mounted in 4-rack units of the station cabinet. A ceramic PA output tube and its input/output circuitry is contained in an aluminum cavity assembly. The tube is mounted to

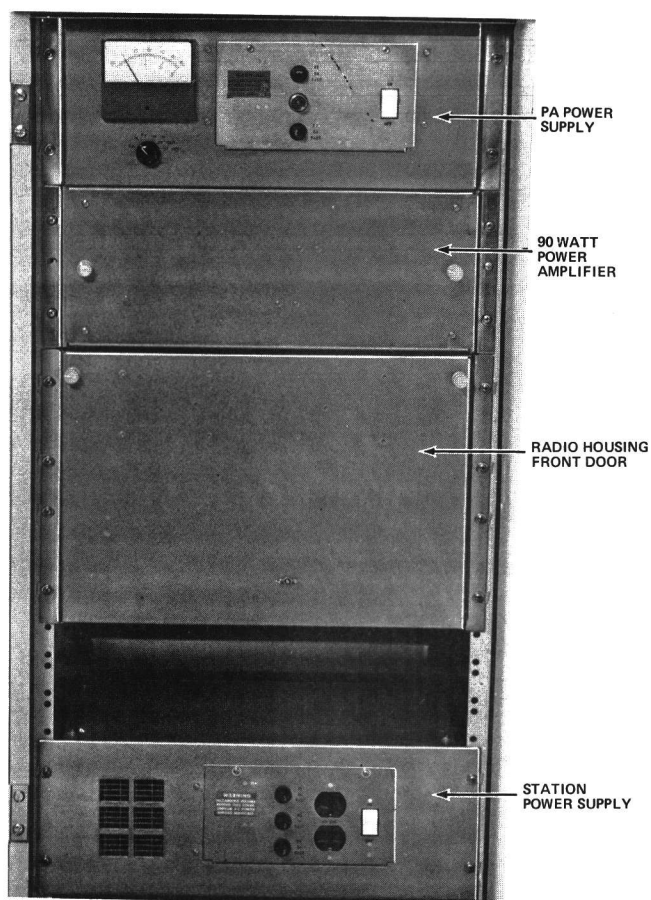


Figure 1 - Base Station, Front View

the back aluminum dissipator plate and the finned heat sink sections are bolted to this plate. The entire assembly pulls out on drawer slides for maintenance. See Figure 2.

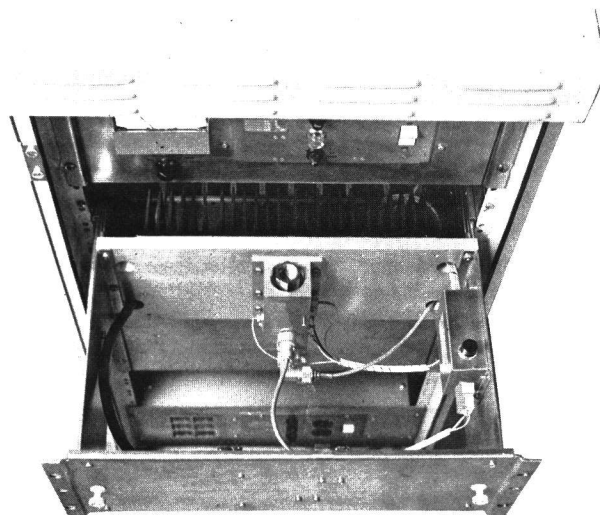


Figure 2 - 90 Watt PA Assembly

A power supply for operating the 90 Watt PA is mounted directly above the PA tube housing. A drop-down front panel is provided on the supply, allowing easy access to the AC input connections, power switch and fuses. A meter and its selector switch are also mounted on the front of the supply.

The PA driver hinges from the bottom rear of the radio housing. The driver consists of a frame mounted to a heat sink. A cover snaps into the frame to form an RF tight enclosure for the driver board assembly. See Figure 3.

Directly above the driver assembly is the station control shelf. A mother board is mounted to this shelf which accommodates the 10-Volt Regulator, Audio Control, Repeater Control and DC or Tone Remote Control modules. External connections from the remote control console are made to TB1201, located on the back of the mother board. Local control connections are made by means of a 24-conductor cable from the MASTR® Local Controller.

The station power supply is located at the bottom of the station cabinet. A power switch, primary and secondary fuses and two AC outlets are located on the front panel. A high current fuse is located on the back panel of the power supply.

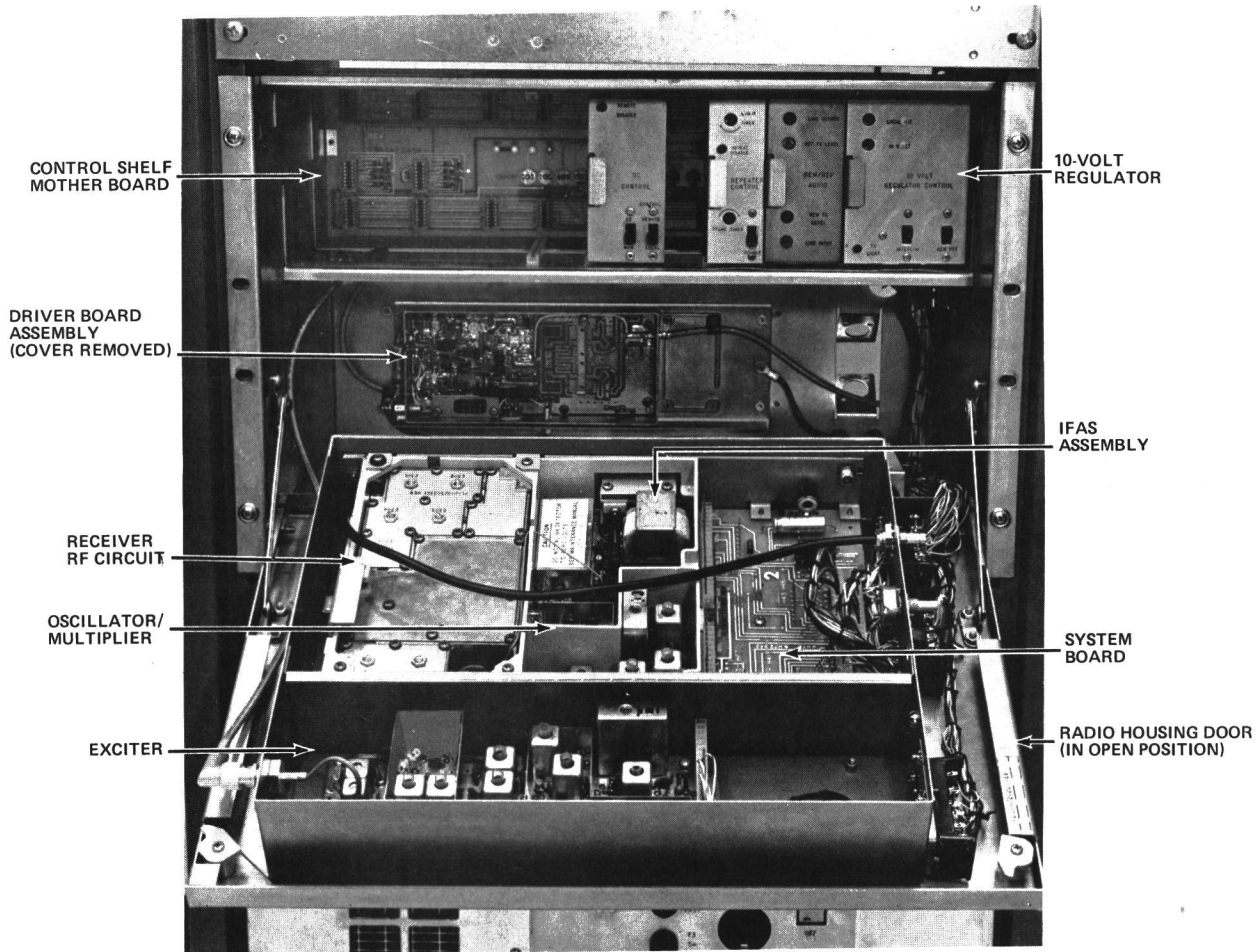


Figure 3 - Radio Housing and Control Shelf

INITIAL ADJUSTMENT

After the Station has been installed, the transmitter and receiver must be adjusted by an electronic technician who holds a First or Second Class FCC Radio-telephone or Radiotelegraph license before the station can be placed in operation.

Make sure that a RADIO TRANSMITTER IDENTIFICATION Form (FCC FORM 452-C or General Electric Form NP270303) has been filled out and attached to the transmitter.

TRANSMITTER ADJUSTMENT

The adjustment for the transmitter includes measuring the forward and reflected power and adjusting the antenna length for optimum ratio, then setting the transmitter to rated power output (or to the specific power output which may be required by the FCC station authorization). Next, measuring the frequency and modulation and entering these measurements on the FCC-required station records.

For the complete transmitter adjustments, refer to the ALIGNMENT PROCEDURE in the MAINTENANCE MANUAL for the transmitter.

RECEIVER ADJUSTMENT

The initial adjustment for the receiver includes tuning the input circuit to match the antenna. Refer to the FRONT END ALIGNMENT PROCEDURE in the MAINTENANCE MANUAL for the receiver.

To set the station VOLUME control (R3 on the System Board) use the following procedure:

1. Apply a 1000 microvolt on-frequency test signal modulated by 1,000 Hertz with ± 3 kHz deviation to the receiver antenna jack J937.
2. Connect an 8.2 ohm, 1-Watt resistor across METERING jack J905 terminals 1 and 2 on the System Board.
3. Connect an AC VTVM across the 8.2 ohm resistor and adjust R3 for a reading of 2.7 Volts RMS on the meter.

CAUTION

Adjustment of VOLUME control to settings higher than instructed in the INITIAL ADJUSTMENT may result in damage to the station service speaker or Local Controller speaker.

4. Disconnect the 8.2 ohm resistor.

To set the station SQUELCH control (R901 on the Receiver/Exciter door) use the following procedure:

1. Turn the SQUELCH control clockwise (to the right) as far as possible.
2. Adjust the VOLUME control on the service speaker (or the VOLUME control on the MASTR® Local Controller in local control installations) until the noise is easily heard in the speaker but is not annoyingly loud.
3. Turn the SQUELCH control counter-clockwise (to the left) until the noise just disappears, then advance control another 20 degrees.

REMOTE/REPEAT ADJUSTMENTS

The transmitter modulation gain, the remote audio input and line output, the drop-out delay timing and the 3-minute limit timing must be adjusted before placing the station in operation. Refer to the MASTR II Repeater Station Control Shelf MAINTENANCE MANUAL (LBI-4794) for the Repeater adjustments. Refer to the MASTR II DC Remote Control MAINTENANCE MANUAL (LBI-4792) or the Tone Remote Control MAINTENANCE MANUAL (LBI-4793) for the remote adjustments.

LOCAL MICROPHONE ADJUSTMENTS

In local control and local/remote or local/repeat applications, the local MIC GAIN control (R14) on the 10-Volt Regulator Board should be adjusted. While talking in a normal voice at four to six inches from the station microphone, adjust MIC GAIN control R14 for a deviation of ± 3 kHz as measured on the deviation monitor.

MAINTENANCE

To insure high operating efficiency and to prevent mechanical and electrical

MAINTENANCE CHECK	INTERVAL BETWEEN CHECKS	
	Every 6 Months	As Required
<u>Transmitter Alignment</u> - Compare meter readings at transmitter multiplier metering jacks with voltages read during initial tune up. Touch up multiplier tuning. Check power output. (See Alignment Procedure for Transmitter).		X
<u>Receiver</u> - While receiving an unmodulated signal on the station frequency(s), adjust OSC-1 trimmer for a zero discriminator reading. (See the Receiver Alignment Procedure MAINTENANCE Section).		X
<u>Transmission Line</u> - Check for positive indication of pressure on transmission line pressure gauge (if pressurized line is used).	X	
<u>Antenna</u> - Check antenna & mast for mechanical stability.	X	
<u>Mechanical Inspection</u> - Visually check cables, plugs, sockets, terminal boards & components for good electrical connections. Check for tightness of nuts, bolts & screws to make sure that nothing is working loose from its mounting.	X	
<u>Cleaning</u> - Use a vacuum cleaner to remove dust which has accumulated inside the cabinet.	X	
<u>Frequency Check</u> - Check transmitter frequency & deviation as required by FCC.		X

failures from interrupting system operations, routine checks should be made of all mechanical and electrical parts at regular intervals. This preventive maintenance should include the checks as listed in the table of Maintenance Checks.

Test and Troubleshooting Procedures

The individual Maintenance Manual for the transmitter and receiver describe standard test procedures which the serviceman can use to compare the actual performance of the transmitter or receiver against the specifications of the unit when shipped from the factory. In addition, specific troubleshooting procedures are available to assist the serviceman in troubleshooting the transmitter and receiver.

REMOVING IC's (and all other soldered-in components) can be easily accomplished by using a de-soldering tool such as a SOLDA-PULLT[®] or equivalent. To remove an IC, heat each lead separately on the solder side and remove the old solder with the de-soldering tool.

An alternate method is to use a special soldering tip that heats all of the pins simultaneously.

SYSTEM DESCRIPTION

Receiver

The station receiver consists of an Oscillator/Multiplier Assembly (OSC/MULT), RF Assembly, IF Detector and an IF-Audio and Squelch Assembly (IFAS). Refer to the Receiver MAINTENANCE MANUAL for a complete description of the station receiver.

Transmitter

The station transmitter consists of an exciter board assembly, a power amplifier driver and a power amplifier output tube assembly. Refer to the Transmitter MAINTENANCE MANUAL for a complete description of the station transmitter.

System Board A901

The station System Board is located on the radio panel front door and the receiver modules plug directly into the board. Along the edge of the System Board are two connectors which interconnect to the Control and Audio modules and to the power supply.

Plug-in Channel Guard and other option jacks are provided. A metering jack is provided for accommodating the General Electric 4EX3A11 Test Set. VOLUME control R3 is located on the System Board. SQUELCH control R901 is located on the receiver/exciter door.

VOLUME/SQUELCH HI from the receiver Audio Pre-Amp is connected via J904-12 to the VOLUME (R3) and SQUELCH (R901) controls. The VOLUME control arm is returned to the receiver IFAS board where the audio is amplified by the receiver Audio Power Amplifier circuit. The audio output of the PA is then connected to the speaker leads at P904-18 and -19.

DC Remote Control

In DC Remote Control systems, the control modules on the control shelf utilize DC currents selectively applied to a telephone pair at a remote control console. These DC currents activate circuits in the control modules to perform the desired functions. Refer to the MASTR II DC Remote Station Control Shelf MAINTENANCE MANUAL (LBI-4792) for a complete description of this system.

Tone Remote Control

A maximum of twelve different functions can be performed in the Tone Remote Control system. This is accomplished by applying two or three tones in sequence at the prescribed level to the transmission medium at a remote control console for detection at the control module on the control shelf. Refer to the MASTR II Tone Remote Station Control Shelf MAINTENANCE MANUAL (LBI-4793) for a complete description of this system.

10-Volt Regulator/Control Board 19D417401G1

This board consists of a 10-Volt, 1/2 Ampere regulator; a 10-Volt, 2 Ampere regulator; a 20-dB preamplifier for providing the proper audio level for the transmitter exciter when using a local desk microphone; a keying switch for sequencing the antenna relay; a receiver muting circuit.

The 13.8 Volts DC from the station power supply low current filter is applied to terminal D5 of the regulator. This current is filtered by choke L1 and applied to the 10-Volt, 1/2 Amp hybrid regulator consisting of A1-Q1 and integrated circuit U1. This regulator feeds the receiver and transmitter oscillators, providing the close tolerance ($\pm 1\%$) required by these modules.

The 13.8 VDC input is also applied to the 10-Volt, 2 Amp regulator consisting of A3-Q1, Q3, Q4 and zener diode VR1. When the output of the regulator starts to increase, Q4 conducts harder. Q3 conducts less, causing A3-Q1 to conduct less. This increases the voltage drop across A3-Q1, keeping the output voltage constant. Potentiometer R4 is used to set the base voltage of Q4 for the desired 10-Volt output. This regulator supplies the station exciter, the receiver control circuits and the station accessories.

Diodes CR2-CR5 form a PTT OR gate. Applying a ground to any one of the PTT inputs forward biases the diode connected to that

input, turning on Q5. Conduction of Q5 operates Q6, applying ground to the antenna relay lead A10. This ground is also applied to the cathode of the Light Emitting Diode (LED) CR15 (TX LIGHT) turning the light on. Pin 8 on the regulator hybrid U1 is also grounded. Capacitor C1 starts to charge. In 15 milliseconds C1 is charged to a voltage high enough to allow the time delay switch in U1 to turn on.

Operation of the time delay switch causes the transmitter oscillator control switch in U1 to turn on. +10 Volts is applied via pin 14 of U1 to the transmitter ICOM(s), keying the transmitter. The 15 millisecond delay in the transmitter oscillator keying circuit allows the antenna relay to energize before RF is applied to the relay. When the PTT is released, CR6 delays the antenna relay from de-energizing until the RF is removed from the contacts.

When one of the PTT input leads is grounded, CR8 is also forward biased, turning on Q11. Conduction of Q11 operates Q1 and Q12, applying ground to the RX 1 MUTE and RX 2 MUTE leads. If REPEATER PTT (D3) is grounded, CR9 is forward biased, preventing Q12 from conducting to allow the normal repeater system to function.

When a local desk microphone is used with the station, the microphone audio is connected via B1 to the input of the MIC PRE AMP, consisting of Q2, Q7, Q8 and Q9. The audio is amplified by Q7 and the amplified audio level is adjusted by MIC GAIN control R14. The audio is further amplified by Q2 and Q8 and applied to the source lead of FET Q9. Q10 is normally conducting, keeping the gate of Q9 grounded and preventing the audio from passing. When the LOCAL PTT switch is operated, CR7 is forward biased, turning off Q10. FET Q9 is now allowed to conduct, passing the local audio to the transmitter modulator.

Service switches provided on the Regulator include the TX DISABLE/INTERCOM switch S1 which grounds the TX DISABLE path to permit the serviceman to use the intercom without keying the transmitter; the REMOTE PTT switch S2 which allows the adjustment of remote line levels by keying the remote PTT path in remote control systems.

Channel Guard

In Local/Remote Stations equipped with Channel Guard, the 19D417261G1 Channel Guard Board is plugged into the System Board at P908 and P909. The MASTR II receiver is equipped with a tone reject filter to prevent the CG tone from being heard in the station speaker. In addition, the transmitter has a Channel Guard modulation control to adjust for proper deviation.

Channel Guard is a continuous-tone controlled squelch system that provides communications control in accordance with EIA stan-

dard RS-220. The system utilizes standard tone frequencies from 71.9 to 203.5 Hertz with both the encoder and decoder operating on the same frequency. The STE circuit (Squelch Tail Eliminator) employs a phase shift of approximately 180° in the encode function to eliminate undesirable noise bursts after each transmission.

The CG decoder operates in conjunction with the station receiver to inhibit all calls that are not tone coded with the proper Channel Guard tone frequency. The VOLUME/SQUELCH output of the receiver is applied to the Channel Guard decoder at P908-1. As long as no signal is received properly coded, a ground is supplied through P908-5 to mute the receiver. When a properly coded signal is received, the receiver is unsquelched and the desired signal is heard.

In duplex combinations, a separate encoder is used in the exciter and a separate decoder is used in the receiver. The Encoder (19C321162G1) is located in the transmitter exciter compartment and the CG Decode Board (19D417261G6) is plugged into the System Board at P908 and P909.

A Channel Guard Filter is added to the Audio Board which attenuates frequencies below 203.5 Hertz to prevent the Channel Guard tone from being applied to the transmitter modulator input or the remote audio line.

A Repeater will not key in Channel Guard systems unless the received signal is coded with the proper Channel Guard tone. The CG MON function, when selected at the Local Controller, will not allow the Repeater to key on an uncoded input signal but will allow the Remote Control operator to hear all channel activity.

Intercom Board 19C320671G2

The Intercom Board, when used, plugs into J934 on the A901 System Board. This board allows monitoring of the remote audio line and intercommunication between the base station and the remote control dispatcher. If the station receiver unsquelches, the received audio will be switched to the station speaker and the receiver audio will override the line audio.

When monitoring the line, both the INTERCOM switch S1 on the 10-Volt Regulator/Control Board and LOCAL CONTROLLER are in the OFF (UP) position. The line audio is coupled to the Intercom Board from the compressor amplifier on the Remote Audio Board. FET switch Q6 is normally conducting and the audio is passed to the station receiver audio amplifier through MONITOR LEVEL ADJUST control R15. The amplified audio from the receiver PA is then coupled to the station speaker.

To communicate with the dispatcher from the station, the INTERCOM switch on the MASTR Local Controller is depressed or, when using the station service microphone, it is necessary to depress the INTERCOM switch on the 10-Volt Regulator and key the service microphone. Depressing the INTERCOM switch on the 10-Volt Regulator disables the station transmitter.

Depressing the LOCAL PTT switch applies a ground to J934-1 on the Intercom Board. CR1 is forward biased, turning off normally-conducting Q5. This allows FET Q4 to conduct. Audio from the local microphone is coupled by means of C1 to pre-amplifier Q1. The MIC LEVEL ADJUST Control R33 is in the collector circuit of Q1. The adjusted audio is connected to amplifier Q2-Q3. The INTERCOM AUDIO SWITCH Q4 passes the local microphone audio to the line. The ground from the LPTT lead turns off LOCAL MUTE transistor Q9 to allow Q10 to conduct, grounding the gate of Q6 and disabling the line monitor.

Built-in Metering (Options 9603, 9604, 9605)

Option 9603 provides a TRANSMITTER tuning meter and a RECEIVER tuning meter on vertical mount cabinets. Option 9604 provides TRANSMITTER and RECEIVER tuning meters as well as an AC LINE meter on the vertical mount cabinet. Refer to LBI-4845 for detailed installation instructions for this option.

Option 9605 provides an internal Card Edge Metering Kit. The Card Edge Meter plugs into the Station Control Shelf. A switch assembly is also provided to allow metering the transmitter and receiver test points. LBI-4848 provides detailed installation instructions for this option.

Antenna Relay (Option 9607)

This option provides an Antenna Relay Kit for operating the station simplex. The relay is mounted inside the 90-Watt/Power Amplifier housing. Refer to the Table of Contents for Installation Instructions of this option.

Heatsink Blower Kit

A Heatsink Blower Kit 19D417521G1 is provided when the station is mounted in a Pole Mount Cabinet. The blower kit is available as an option (Options 9609, 9610, 9611) when the station is mounted in a Vertical Mount or Desk Mate cabinet or when the station is operated from a 240 VAC source. Refer to the Table of Contents for installation instructions of these options.

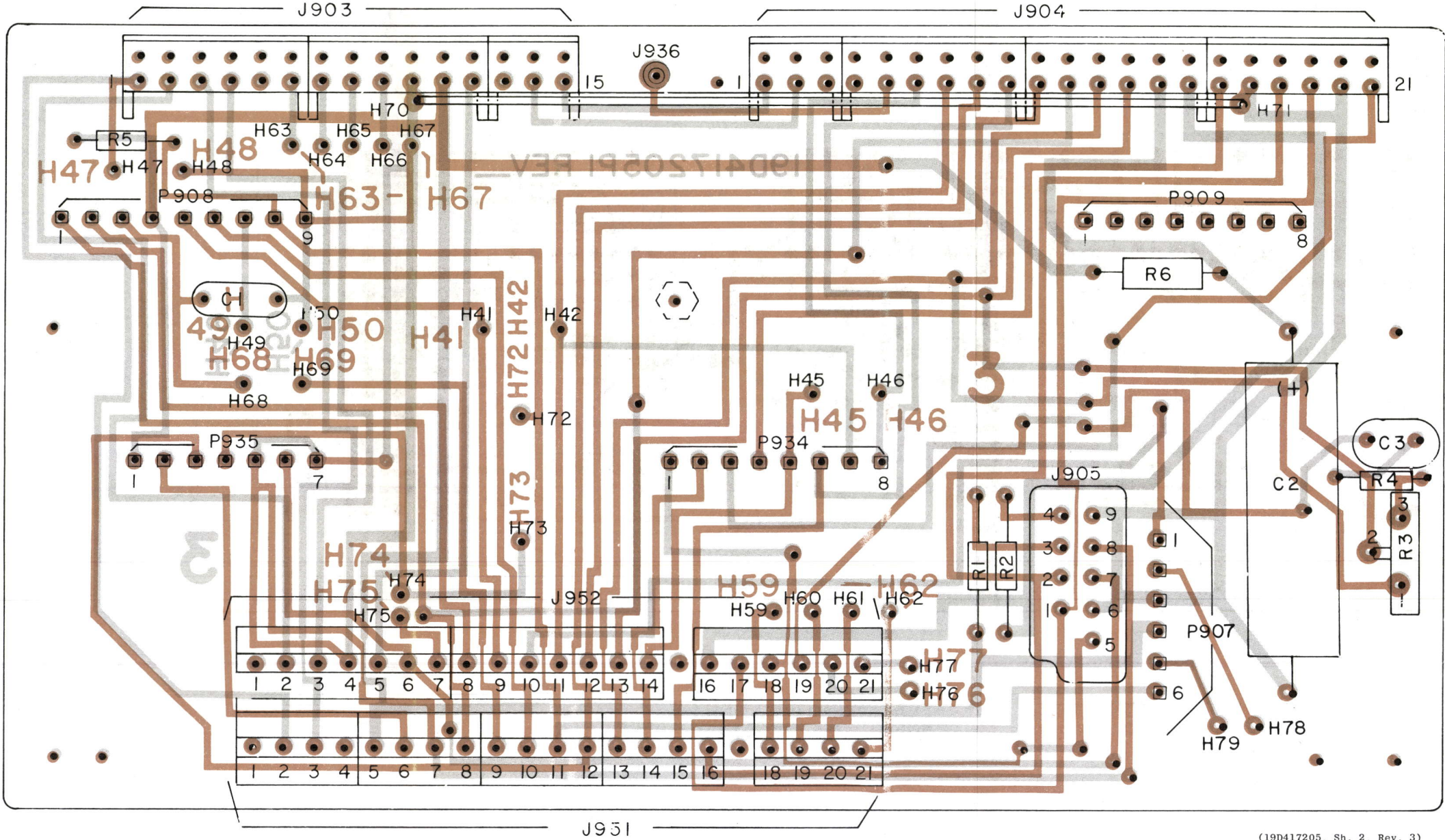
Duplexer (Option 9606)

If duplex operation of the station from a single antenna is required, Option 9606 provides a 19C307190 Duplexer and two 19A136932 coax cables for this application. Refer to the Table of Contents for Installation Instructions of this option.

GENERAL ELECTRIC COMPANY • MOBILE COMMUNICATIONS DIVISION
WORLD HEADQUARTERS • LYNCHBURG, VIRGINIA 24502 U.S.A.

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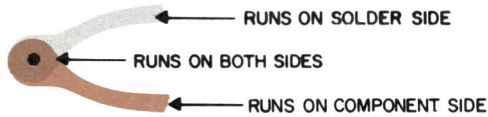


(19D417205, Sh. 2, Rev. 3)
(19D417205, Sh. 3, Rev. 3)

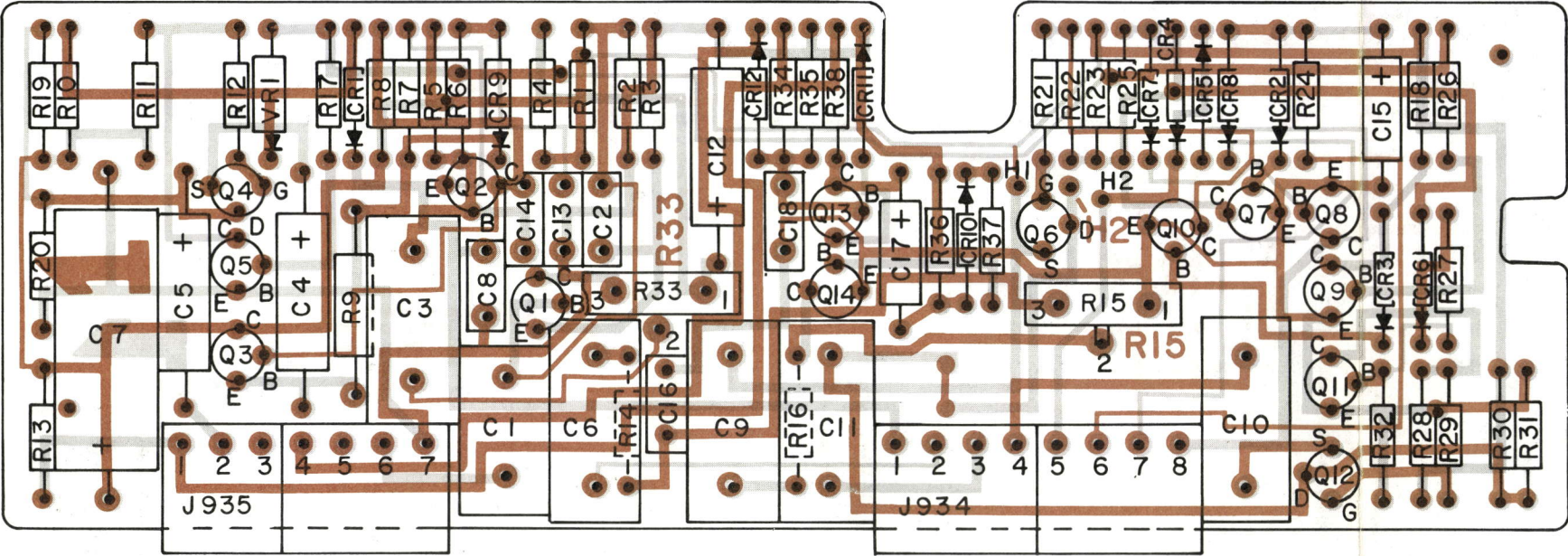
(19D423147, Rev. 1)

REFER TO WIRING DIAGRAM
FOR THE FOLLING
CONNECTIONS

FROM	TO
H41	H42
H50	H77
H45	H46
H47	H48
H68	H69
H49	H76

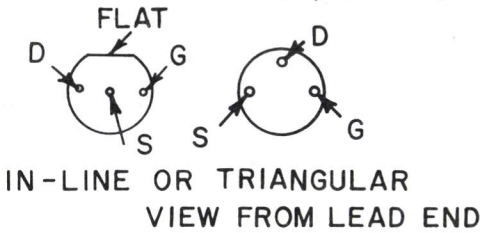


OUTLINE DIAGRAM
SYSTEM BOARD A901



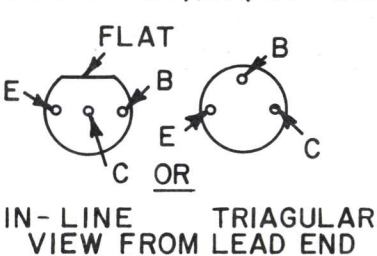
(19C321454, Rev. 3)
(19C320669, Sh. 2, Rev. 1)
(19C320669, Sh. 3, Rev. 1)

LEAD IDENTIFICATION
FOR Q4, Q6 & Q12



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

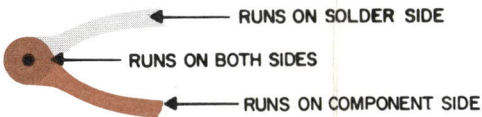
LEAD IDENTIFICATION
FOR Q1-Q3, Q5, Q7-Q11 Q13 & Q14

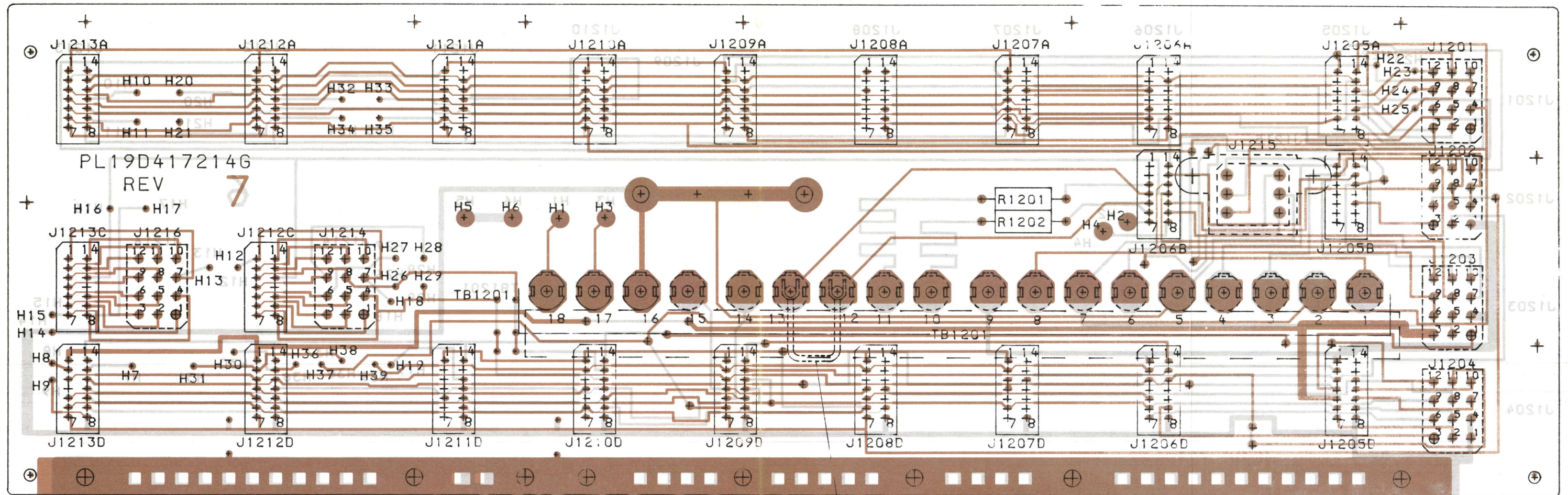


NOTE: LEAD ARRANGEMENT, AND NOT
CASE SHAPE, IS DETERMINING
FACTOR FOR LEAD IDENTIFICATION.

OUTLINE DIAGRAM

INTERCOM BOARD 19C320671G2





19A129525G3

(19D423897, Rev. 4)
(RC-2943)
(19D423597, Sh. 1, Rev. 7)
(19D423597, Sh. 2, Rev. 6)

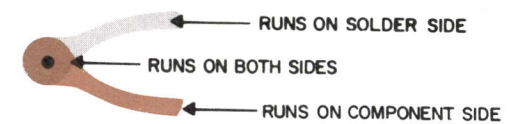
TYP. MOUNTING
FOR J1205-J1213

10 11 12
7 8 9
4 5 6
Q 2 3

DENOTES
FEMALE
PIN

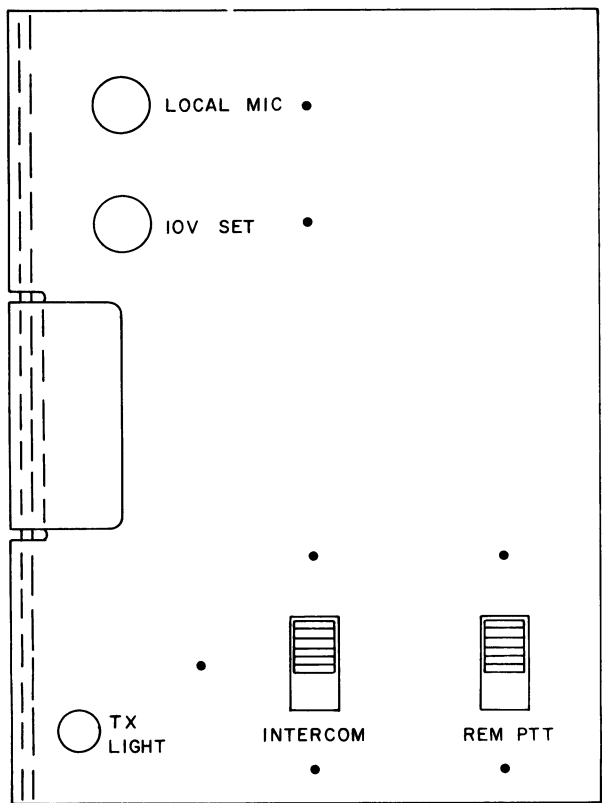
10 11 12
7 8 9
4 5 6
1 2 3

TYP. MOUNTING
FOR J1202&1204
FAR SIDE VIEW

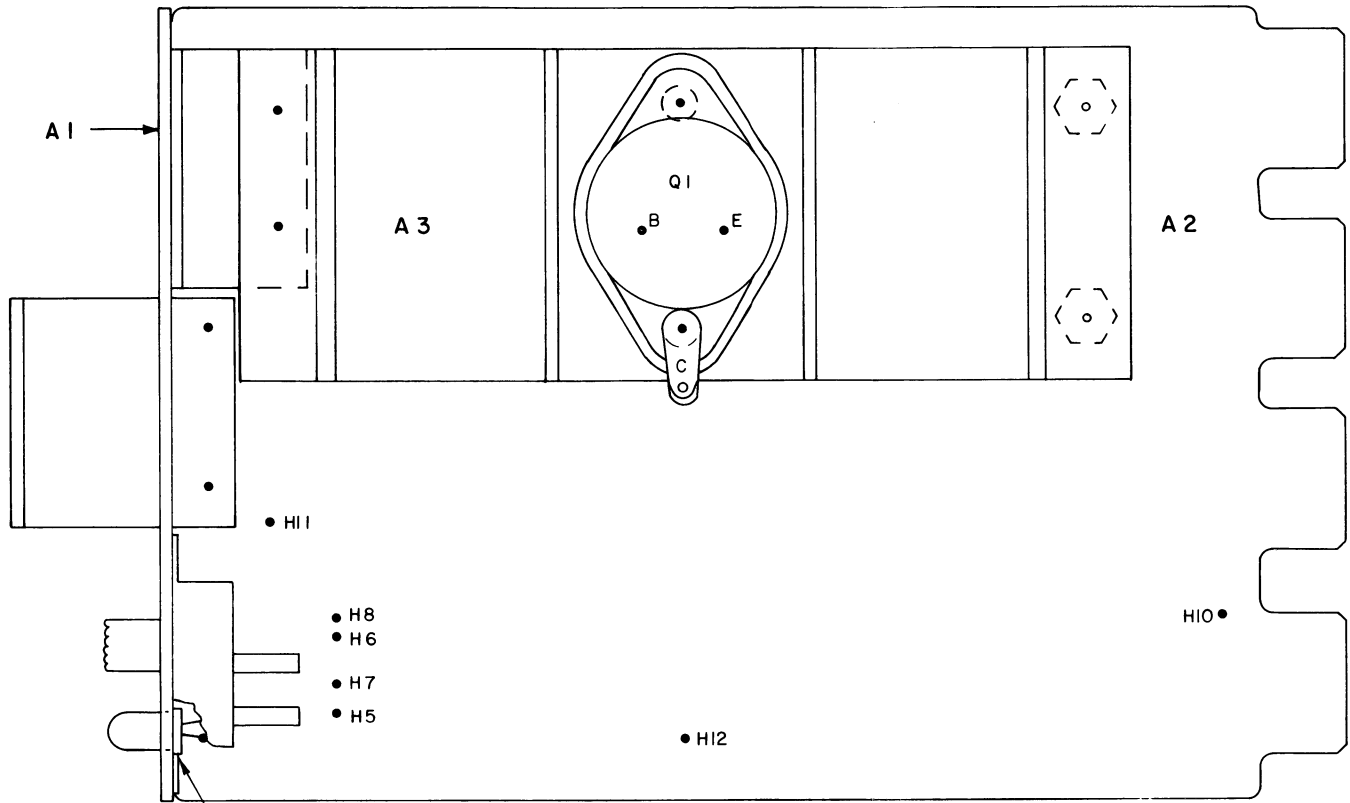


OUTLINE DIAGRAM

CONTROL SHELF MOTHER BOARDS
19D417214



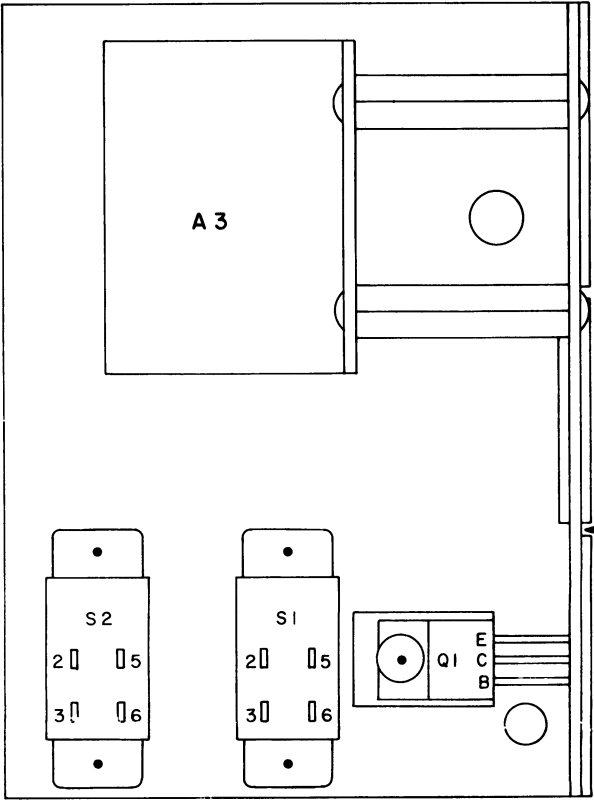
FRONT PANEL (A1)



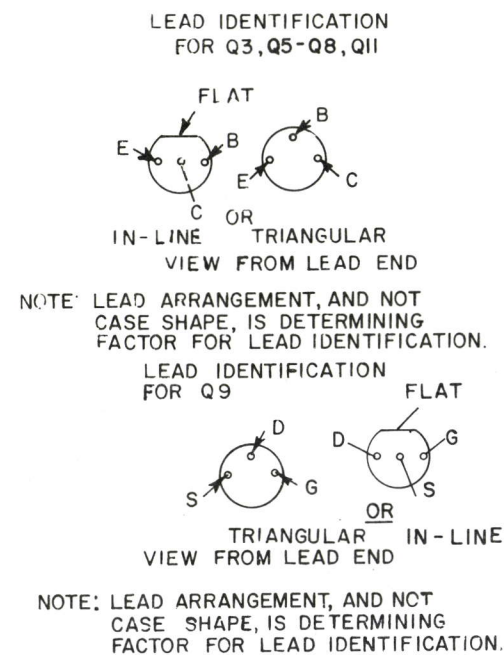
FLANGE OF DIODE MUST BE MOUNTED FLUSH AGAINST PANEL.

(19D423128, Rev. 0)

REFER TO WIRING DIAGRAM FOR THE FOLLOWING CONNECTIONS.	
FROM	TO
A3-Q1-B	A2-H11
A3-Q1-C	A2-H10
A3-Q1-E	A2-H12
A1-S1-3	A2-H5
A1-S1-2	A2-H6
A1-S2-3	A2-H7
A1-S2-2	A2-H8



FRONT PANEL (A1)
REAR VIEW

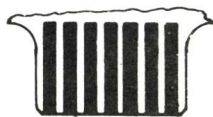
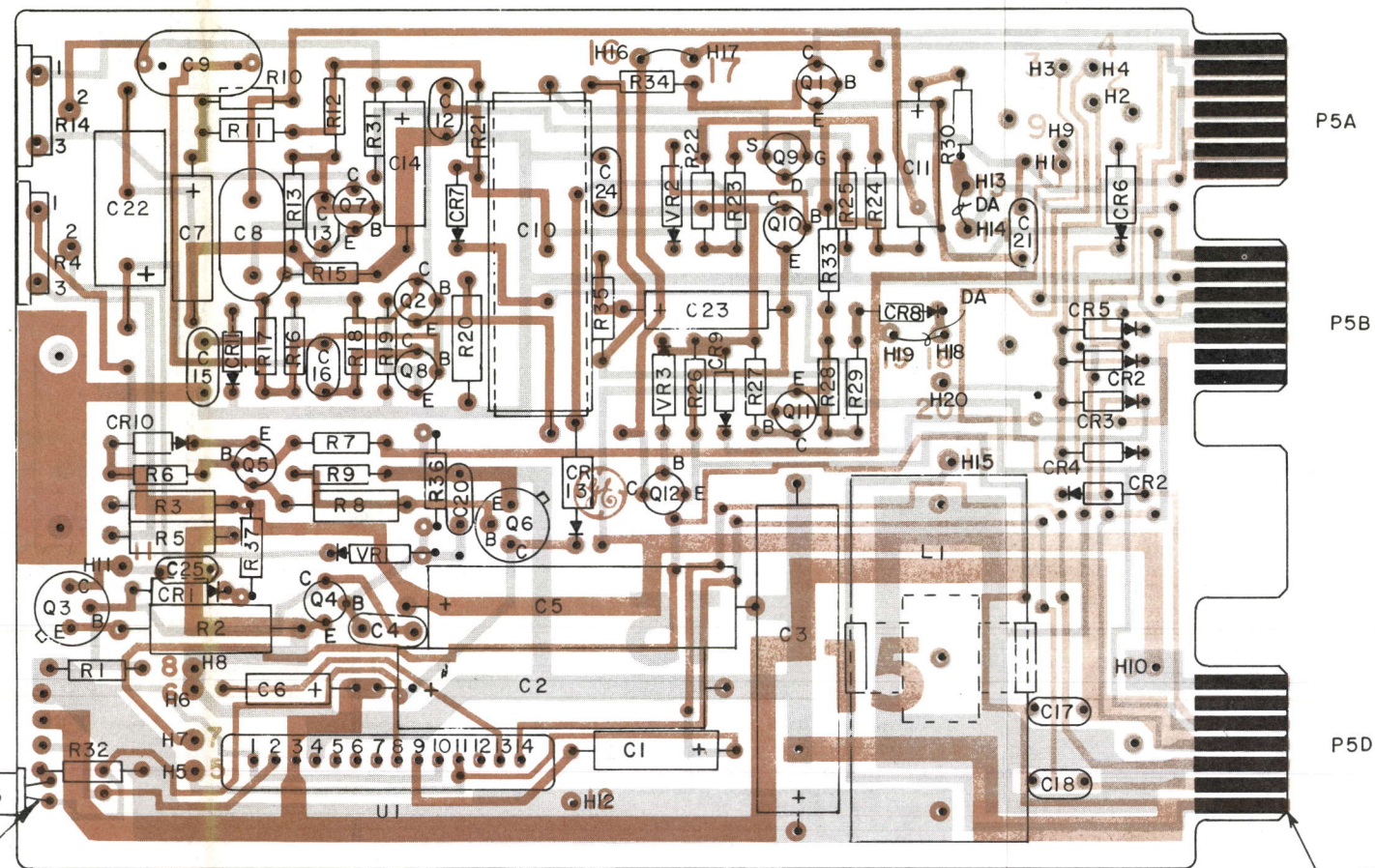


NOTCH OR FLAT
DENOTES CATHODE
LEAD

REFER TO WIRING DIAGRAM FOR
THE FOLLOWING CONNECTIONS.

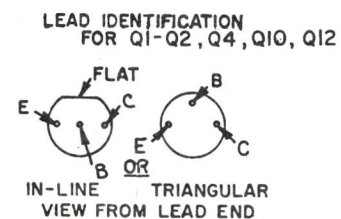
FROM	TO
H2	H1
H3	H9

COMPONENT BOARD A2

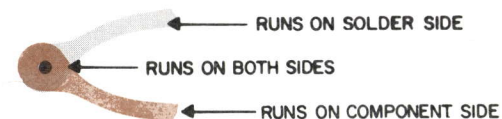


8 9 10 11 12 13 14
7 6 5 4 3 2 1
SOLDER SIDE
DETAIL "A"
TYP. NUMBERING OF CONT.
FINGERS

SEE DETAIL "A"



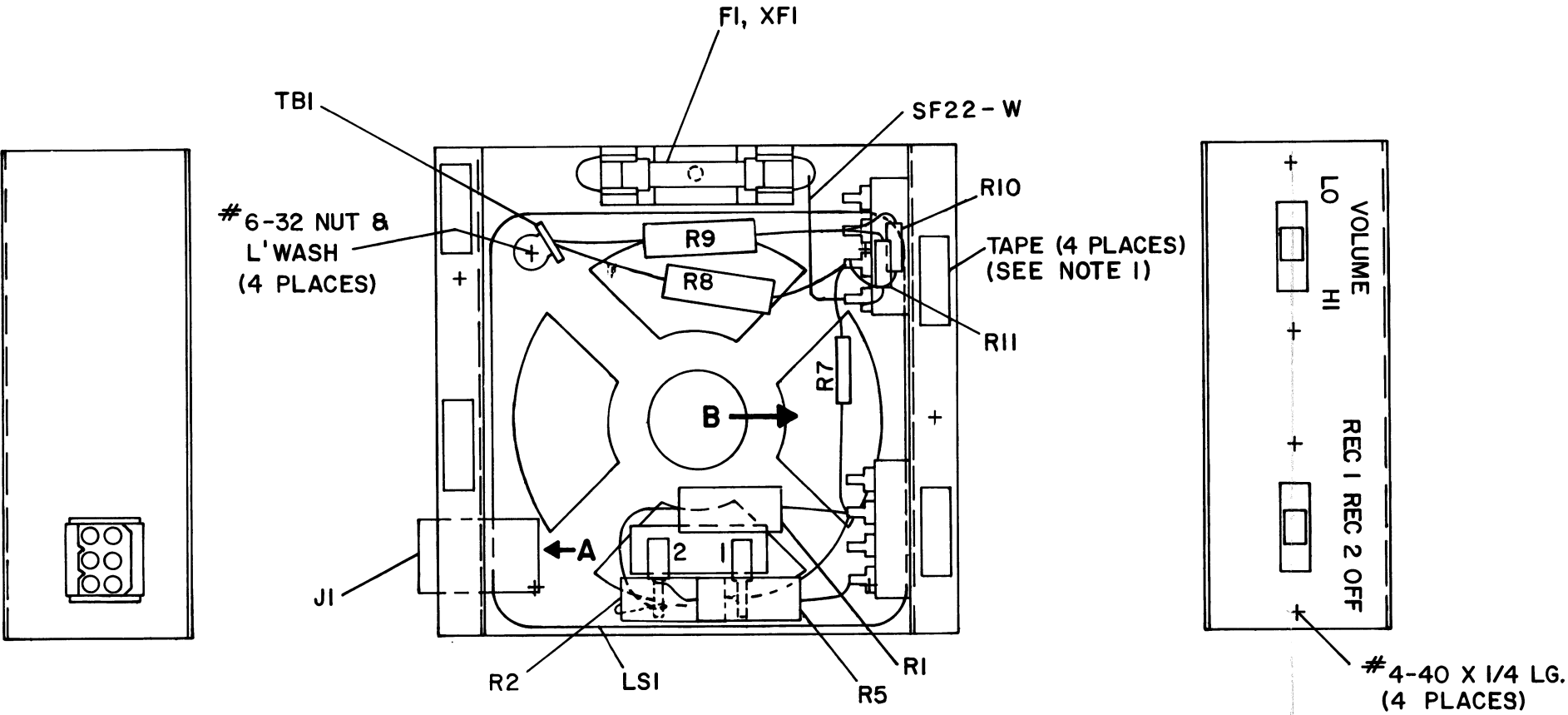
NOTE: LEAD ARRANGEMENT, AND NOT
CASE SHAPE, IS DETERMINING
FACTOR FOR LEAD IDENTIFICATION.



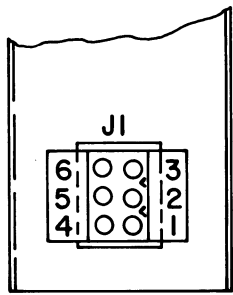
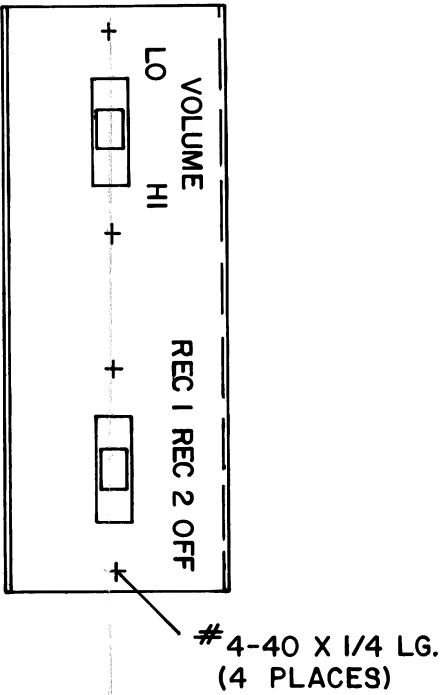
(19D423132, Rev. 13)
(19D417241, Sh. 2, Rev. 15)
(19D417241, Sh. 3, Rev. 15)

OUTLINE DIAGRAM

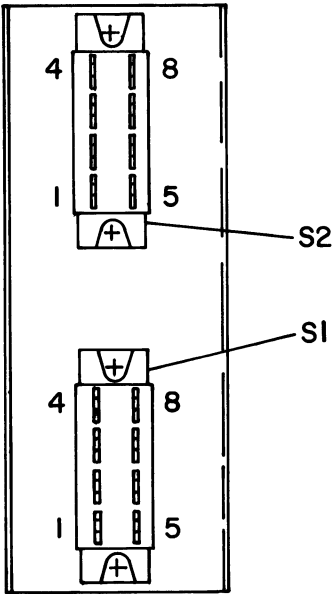
10 VOLT REGULATOR/CONTROL
COMPONENT BOARD A2



NOTES:
1. INSTALL TAPE ALONG FLANGE, ONE ON EACH SIDE OF MOUNTING HOLES.



VIEW A



VIEW B

OUTLINE DIAGRAM

SERVICE SPEAKER 19C320728G2

(19C328482, Rev. 3)

PARTS LIST

LBI-30566
MASTR II 800 MHz STATION RADIO PANEL
FRONT DOOR ASSEMBLY
19D417262G4

SYMBOL	GE PART NO.	DESCRIPTION
A901		DOOR ASSEMBLY 19D417262G4 COMPONENT BOARD 19D417213G1
		- - - - - CAPACITORS - - - - -
C1	19A116080P7	Polyester: 0.1 µf ±20%, 50 VDCW.
C2	19A115680P24	Electrolytic: 400 µf +150% -10%, 18 VDCW; sim to Mallory Type TTX.
C3	19A116080P106	Polyester: 0.068 µf ±10%, 50 VDCW.
		- - - - - JACKS AND RECEPTACLES - - - - -
J903		Connector. Includes: 19A116659P1 Connector: 3 contacts; sim to Molex 09-52-32. (Quantity 1). 19A116659P4 Connector: 6 contacts; sim to Molex 09-52-3062. (Quantity 2).
J904		Connector. Includes: 19A116659P1 Connector: 3 contacts; sim to Molex 09-52-3032. (Quantity 1). 19A116659P4 Connector: 6 contacts; sim to Molex 09-52-3062. (Quantity 3).
J905	19B219374G2	Connector: 9 contacts.
J936	4033513P4	Contact, electrical: sim to Bead Chain L93-3.
J951		Connector. Includes: 19A116659P13 Connector: 4 contacts; sim to Molex 09-64-1041. (Quantity 5).
J952		Connector. Includes: 19A116659P11 Connector: 7 contacts; sim to Molex 09-64-1071. (Quantity 2). 19A116659P12 Connector: 6 contacts; sim to Molex 09-64-1061. (Quantity 1).
		- - - - - PLUGS - - - - -
P907	19A116779P1	Contact, electrical: sim to Molex 08-50-0404. (Quantity 6).
P908	19A116779P1	Contact, electrical: sim to Molex 08-50-0404. (Quantity 9).
P909	19A116779P1	Contact, electrical: sim to Molex 08-50-0404. (Quantity 8).
P934	19A116779P1	Contact, electrical: sim to Molex 08-50-0404. (Quantity 8).
P935	19A116779P1	Contact, electrical: sim to Molex 08-50-0404. (Quantity 7).
		- - - - - RESISTORS - - - - -
R1 and R2	19C314256P22803	Metal film: 280K ohms ±1%, 1/4 w.
R3	19B209358P106	Variable, carbon film: approx 300 to 10K ohms ±10%, 0.25 w; sim to CTS Type X-201.
R4	3R152P222J	Composition: 2.2K ohms ±5%, 1/4 w.
R5	3R152P332J	Composition: 3.3K ohms ±5%, 1/4 w.
R6	7147161P15	Composition: 3.3 ohms ±5%, 1/2 w.
		- - - - - CABLES - - - - -
W903		CABLE ASSEMBLY 19D417262G2
		- - - - - JACKS AND RECEPTACLES - - - - -
J931 and J932	19C303426G1	Connector: 20 pin contacts.

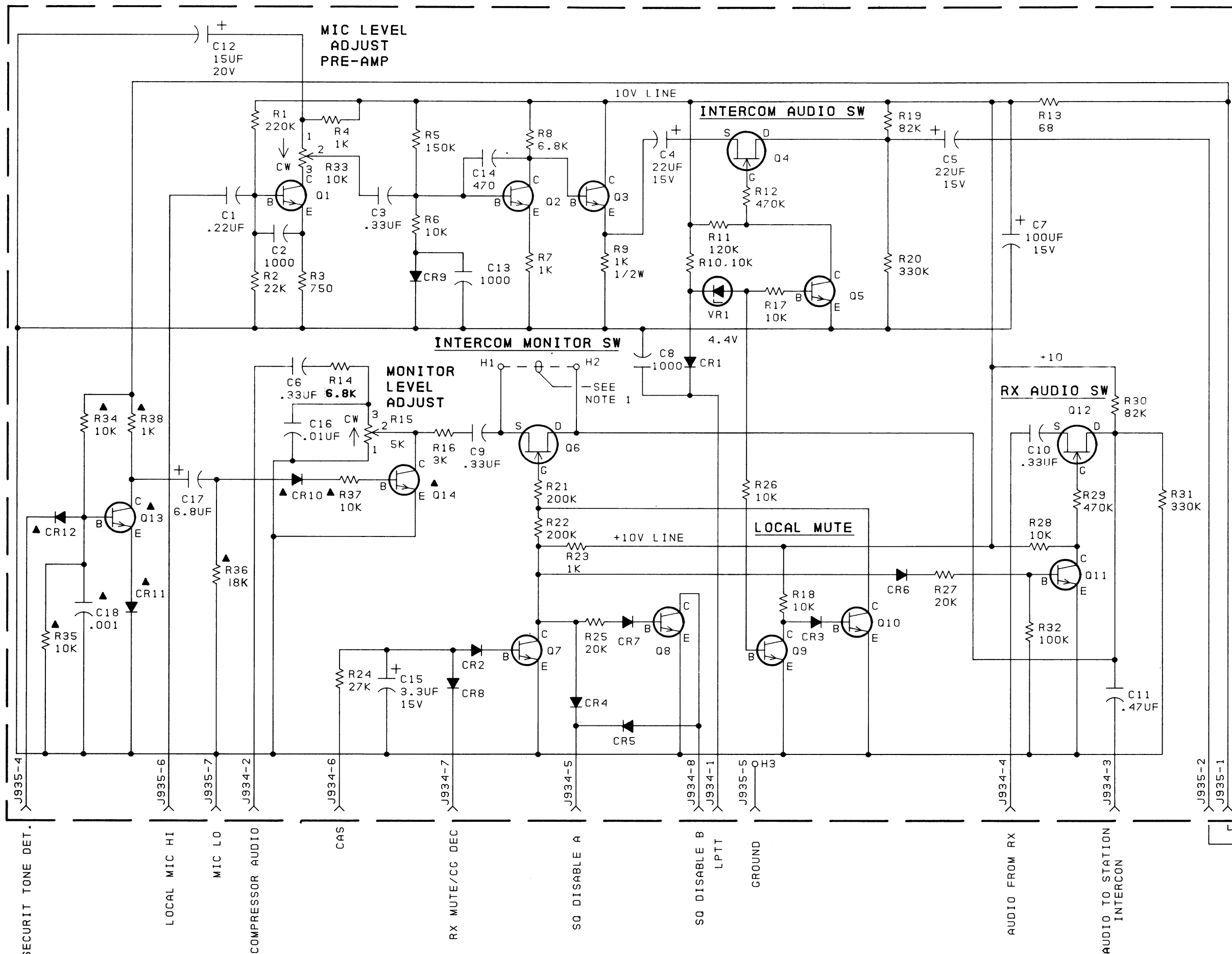
SYMBOL	GE PART NO.	DESCRIPTION
P951 and P952		- - - - - PLUGS - - - - - Connector. Includes: 19A116659P25 Shell. 19A116781P5 Contact, electrical: wire No. 16-20 AWG; sim to Molex 08-50-0106. 19A116781P6 Contact, electrical: wire No. 22-26 AWG; sim to Molex 08-50-0108.
R901	5496870P31	- - - - - RESISTORS - - - - - Variable, carbon film: 10K ohms ±20%; sim to Mallory LC(10K).
W904		EXCITER CABLE 19D417262G3
J933	19C303426G1	- - - - - JACKS AND RECEPTACLES - - - - - Connector: 20 pin contacts.
P901		- - - - - PLUGS - - - - - Connector. Includes: 19A116659P25 Shell. 19A116781P5 Contact, electrical: wire No. 16-20 AWG; sim to Molex 08-50-0106. 19A116781P6 Contact, electrical: wire No. 22-26 AWG; sim to Molex 08-50-0108.
W905		CABLE ASSEMBLY 19A136930G2
J937	19A115938P12	- - - - - JACKS AND RECEPTACLES - - - - - Connector, receptacle: (BNC Series); sim to Amphenol 31-342.
P301	19A134357P8	- - - - - PLUGS - - - - - Cable, RF: approx 21 inches long.
W906		CABLE ASSEMBLY 19A136930G1
J938	19A115938P1	- - - - - JACKS AND RECEPTACLES - - - - - Connector, receptacle: (BNC Series); sim to Amphenol 31-318.
P101	19A134357P6	- - - - - PLUGS - - - - - Cable, RF: approx 6 inches long.
		- - - - - MISCELLANEOUS - - - - - Door. Pawl. (Part of door latch). Knob. (Part of door latch). Tap screw: No. 6 x 1/2. (Part of door latch). Washer, spring tension. (Part of door latch). Guide pin. (Used with J931-J933). Polarizing tab. (Used with P901, P951, P952). Lockwasher: sim to Shakeproof 1220-2. (Used with R901 mounting). Hex nut, brass: No. 3/8-32. (Used with R901 mounting). 19A115874P1 Catch, friction. (Latches A901).

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.

19D417213G1
REV. A - To provide alarm tone capability. Added H78 and H79.

*COMPONENTS ADDED, DELETED OR CHANGED BY PRODUCTION CHANGES



NOTES:

1. D.A. WIRE FROM H1 TO H2 IS PRESENT IN 4 WIRE AUDIO APPLICATION.
2. ▲ PRESENT IN G2 ONLY.

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

PL19C320671G1
PL19C320671G2 A

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.

ALL RESISTORS ARE 1/4 WATT UNLESS OTHERWISE SPECIFIED AND RESISTOR VALUES IN OHMS UNLESS FOLLOWED BY K-1000 OHMS OR MEG-1,000,000 OHMS. CAPACITOR VALUES IN PICO FARADS (EQUAL TO MICROMICROFARADS) UNLESS FOLLOWED BY UF-MICROFARADS.

SCHEMATIC DIAGRAM

INTERCOM BOARD 19C320671G2

Issue 3

15

PARTS LIST

LBI4814C

INTERCOM BOARD
19C320671G1, G2

SYMBOL	GE PART NO.	DESCRIPTION
		- - - - - CAPACITORS - - - - -
C1	19A116080P9	Polyester: 0.22 μ f \pm 20%, 50 VDCW.
C2	5494481P111	Ceramic disc: 1000 pf \pm 20%, 1000 VDCW; sim to RMC Type JF Discap.
C3	19A116080P10	Polyester: 0.33 μ f \pm 20%, 50 VDCW.
C4 and C5	5496267P10	Tantalum: 22 μ f \pm 20%, 15 VDCW; sim to Sprague Type 150D.
C6	19A116080P10	Polyester: 0.33 μ f \pm 20%, 50 VDCW.
C7	19A115680P7	Electrolytic: 100 μ f \pm 150% -10%, 15 VDCW; sim to Mallory Type TT.
C8	5494481P111	Ceramic disc: 1000 pf \pm 20%, 1000 VDCW; sim to RMC Type JF Discap.
C9 and C10	19A116080P10	Polyester: 0.33 μ f \pm 20%, 50 VDCW.
C11	19A116080P111	Polyester: 0.47 μ f \pm 10%, 50 VDCW.
C12	5496267P14	Tantalum: 15 μ f \pm 20%, 20 VDCW; sim to Sprague Type 150D.
C13	5494481P111	Ceramic disc: 1000 pf \pm 20%, 1000 VDCW; sim to RMC Type JF Discap.
C14	5494481P107	Ceramic disc: 470 pf \pm 20%, 1000 VDCW; sim to RMC Type JF Discap.
C15	5496267P9	Tantalum: 3.3 μ f \pm 20%, 15 VDCW; sim to Sprague Type 150D.
C16	19A116080P101	Polyester: 0.01 μ f \pm 10%, 50 VDCW.
C17	5496267P1	Tantalum: 6.8 μ f \pm 20%, 6 VDCW; sim to Sprague Type 150D.
C18	5494481P111	Ceramic disc: 1000 pf \pm 20%, 1000 VDCW; sim to RMC Type JF Discap.
		- - - - - DIODES AND RECTIFIERS - - - - -
CR1 thru CR12	19A115250P1	Silicon.
		- - - - - JACKS AND RECEPTACLES - - - - -
J934	19A116659P7	Connector: 4 contacts; sim to Molex 09-52-3041. (Quantity 2).
J935		Connector. Include:
	19A116659P7	Connector: 4 contacts; sim to Molex 09-52-3041.
	19A116659P5	Connector: 3 contacts; sim to Molex 09-52-3031.
		- - - - - TRANSISTORS - - - - -
Q1 thru Q3	19A115889P1	Silicon, NPN.
Q4	19A134137P1	N Type, field effect; sim to Type 2N4416.
Q5	19A115889P1	Silicon, NPN.
Q6	19A134137P1	N Type, field effect; sim to Type 2N4416.
Q7 thru Q11	19A115889P1	Silicon, NPN.
Q12	19A134137P1	N Type, field effect; sim to Type 2N4416.
Q13 and Q14	19A115889P1	Silicon, NPN.

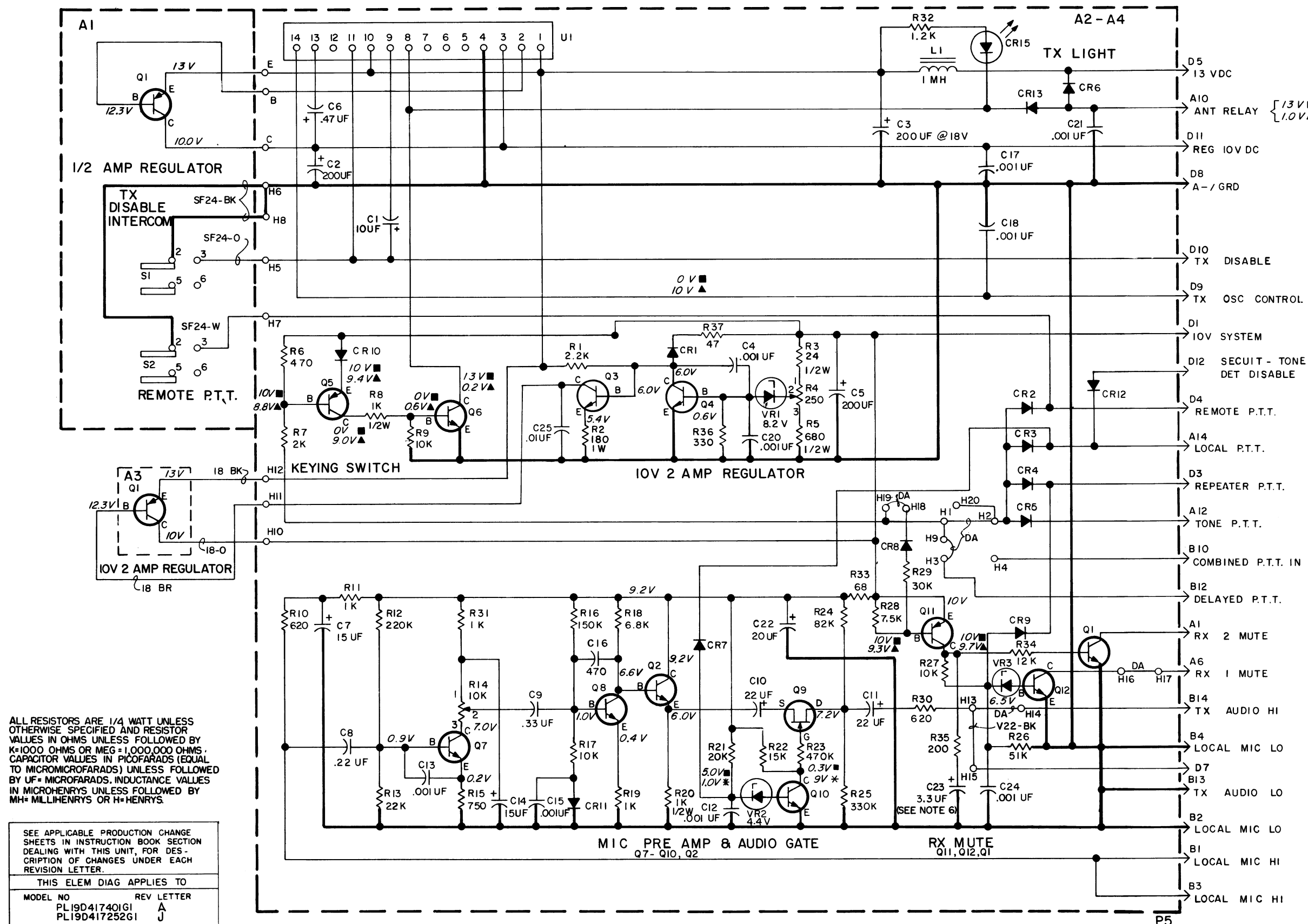
SYMBOL	GE PART NO.	DESCRIPTION
		- - - - - RESISTORS - - - - -
R1	19A700019P65	Deposited carbon: 0.22 megohm \pm 5%, 1/4 w.
R2	19A700019P53	Deposited carbon: 22K ohms \pm 5%, 1/4 w.
R3	19A143400P35	Deposited carbon: 750 ohms \pm 5%, 1/4 w.
R4	19A700019P37	Deposited carbon: 1K ohms \pm 5%, 1/4 w.
R5	19A700019P63	Deposited carbon: 150K ohms \pm 5%, 1/4 w.
R6	19A700019P49	Deposited carbon: 10K ohms \pm 5%, 1/4 w.
R7	19A700106P63	Composition: 1K ohms \pm 5%, 1/4 w.
R8	19A700019P47	Deposited carbon: 6.8K ohms \pm 5%, 1/4 w.
R9	19A700113P63	Composition: 1K ohms \pm 5%, 1/2 w.
R10	19A700019P49	Deposited carbon: 10K ohms \pm 5%, 1/4 w.
R11	19A700019P62	Deposited carbon: 120K ohms \pm 5%, 1/4 w.
R12	19A700019P69	Deposited carbon: 470K ohms \pm 5%, 1/4 w.
R13	19A143400P23	Deposited carbon: 75 ohms \pm 5%, 1/4 w.
R14	19A700019P47	Deposited carbon: 6.8K ohms \pm 5%, 1/4 w.
R15	19B209358P105	Variable, carbon film: approx 200 to 5K ohms \pm 10%, 0.25 w; sim to CTS Type X-201.
R16	19A143400P42	Deposited carbon: 3K ohms \pm 5%, 1/4 w.
R17 and R18	19A700019P49	Deposited carbon: 10K ohms \pm 5%, 1/4 w.
R19	19A700019P60	Deposited carbon: 82K ohms \pm 5%, 1/4 w.
R20	19A700019P67	Deposited carbon: 330K ohms \pm 5%, 1/4 w.
R21 and R22	19A143400P64	Deposited carbon: 200K ohms \pm 5%, 1/4 w.
R23	19A700019P37	Deposited carbon: 1K ohms \pm 5%, 1/4 w.
R24	19A700019P54	Deposited carbon: 27K ohms \pm 5%, 1/4 w.
R25	19A143400P52	Deposited carbon: 20K ohms \pm 5%, 1/4 w.
R26	19A700019P49	Deposited carbon: 10K ohms \pm 5%, 1/4 w.
R27	19A143400P52	Deposited carbon: 20K ohms \pm 5%, 1/4 w.
R28	19A700019P49	Deposited carbon: 10K ohms \pm 5%, 1/4 w.
R29	19A700019P69	Deposited carbon: 470K ohms \pm 5%, 1/4 w.
R30	19A700019P60	Deposited carbon: 82K ohms \pm 5%, 1/4 w.
R31	19A700019P67	Deposited carbon: 330K ohms \pm 5%, 1/4 w.
R32	19A700019P61	Deposited carbon: 100K ohms \pm 5%, 1/4 w.
R33	19B209358P106	Variable, carbon film: approx 300 to 10K ohms \pm 10%, 0.25 w; sim to CTS Type X-201.
R34 and R35	19A700019P49	Deposited carbon: 10K ohms \pm 5%, 1/4 w.
R36*	19A700019P52	Deposited carbon: 18K ohms \pm 5%, 1/4 w.
		In G2 earlier than REV A:
	3R152P273J	Composition: 27K ohms \pm 5%, 1/4 w.
R37	19A700019P49	Deposited carbon: 10K ohms \pm 5%, 1/4 w.
R38	19A700019P37	Deposited carbon: 1K ohms \pm 5%, 1/4 w.
		- - - - - VOLTAGE REGULATORS - - - - -
VR1	4036887P4	Zener: 500 mW, 4.4 v. nominal.

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 - 19C320671G2
To recenter timing circuit. Changed R36.

*COMPONENTS ADDED, DELETED OR CHANGED BY PRODUCTION CHANGES



- NOTES:
- FOR CARRIER SQUELCH (NON-CHANNEL GUARD) STATIONS, JUMPER H1-H2 & H3-H9 ARE PRESENT.
 - FOR CHANNEL GUARD LOCAL, REMOTE OR LOCAL/REMOTE STATIONS JUMPER H9-H3 & H2-H4 ARE PRESENT.
 - FOR CHANNEL GUARD REPEATERS USING DECODE ONLY (NO ENCODE), JUMPER H1-H2 IS PRESENT. FOR CHANNEL GUARD REPEATERS USING BOTH ENCODE AND DECODE, JUMPER H2-H4 AND H3-H9 ARE PRESENT.
 - WHEN SECOND RECEIVER MUTE ON TRANSMIT IS NOT DESIRED CUT OUT Q1.
 - IN REPEAT, REMOTE/REPEAT AND LOCAL/REPEAT STATIONS, C23 IS NOT PRESENT.
 - WHEN OPTIONS 9555, 9556, AND 9589 (BACK TO BACK REPEATERS) ARE APPLIED JUMPER FROM H13 TO H14 IS REMOVED AND A JUMPER FROM H13 TO H15 IS ADDED.
 - IN DUPLEX, DUPLEX WITH CHANNEL GUARD AND REPEATERS WITH CHANNEL GUARD, THE JUMPER FROM H16 TO H17 IS REMOVED.

VOLTAGE READINGS

ALL READINGS MADE WITH 20,000 OHMS-PER-VOLT METER. ALL READINGS TYPICAL.

- ▲ TRANSMITTER KEYED
 ■ TRANSMITTER UNKEYED
 * LPTT KEYED

SCHEMATIC DIAGRAM

10 VOLT REG/CONT BOARD
 19D417401G1

PARTS LIST

LBI4802K
10-VOLT REGULATOR/CONTROL
19D417401G1

SYMBOL	GE PART NO.	DESCRIPTION
A1		PANEL 19C320809G1
Q1	19A116375P1	----- TRANSISTORS ----- Silicon, PNP.
S1 and S2	19B209261P11	----- SWITCHES ----- Slide: (DPST, N.O., SR), 2 poles, 2 positions, 0.5 amp VDC or 3 amps VAC at 125 v; sim to Switchcraft 46204MR.
A2		REGULATOR BOARD 19D417252G1
C1	19B200240P10	----- CAPACITORS ----- Tantalum: 10 μ f \pm 5%, 15 VDCW.
C2 and C3	19A115680P10	Electrolytic: 200 μ f +150% -10%, 18 VDCW; sim to Mallory Type TTX.
C4	5494481P111	Ceramic disc: 1000 pf \pm 20%, 1000 VDCW; sim to RMC Type JF Discap.
C5	19A115680P10	Electrolytic: 200 μ f +150% -10%, 18 VDCW; sim to Mallory Type TTX.
C6	5496267P28	Tantalum: 0.47 μ f \pm 20%, 35 VDCW; sim to Sprague Type 150D.
C7	5496267P14	Tantalum: 15 μ f \pm 20%, 20 VDCW; sim to Sprague Type 150D.
C8	19A116080P9	Polyester: 0.22 μ f \pm 20%, 50 VDCW.
C9	19A116080P10	Polyester: 0.33 μ f \pm 20%, 50 VDCW.
C10	19B209233P1	Electrolytic, non-polarized: 25 μ f \pm 20%, 25 VDCW; sim to Sprague 41D.
C11	5496267P10	Tantalum: 22 μ f \pm 20%, 15 VDCW; sim to Sprague Type 150D.
C12 and C13	5494481P111	Ceramic disc: 1000 pf \pm 20%, 1000 VDCW; sim to RMC Type JF Discap.
C14	5496267P14	Tantalum: 15 μ f \pm 20%, 20 VDCW; sim to Sprague Type 150D.
C15	5494481P111	Ceramic disc: 1000 pf \pm 20%, 1000 VDCW; sim to RMC Type JF Discap.
C16	5494481P107	Ceramic disc: 470 pf \pm 20%, 1000 VDCW; sim to RMC Type JF Discap.
C17 and C18	5494481P111	Ceramic disc: 1000 pf \pm 20%, 1000 VDCW; sim to RMC Type JF Discap.
C19*	5494481P111	Ceramic disc: 1000 pf \pm 20%, 1000 VDCW; sim to RMC Type JF Discap. Deleted by REV D.
C20 and C21	5494481P111	Ceramic disc: 1000 pf \pm 20%, 1000 VDCW; sim to RMC Type JF Discap.
C22	19A115680P3	Electrolytic: 20 μ f +150% -10%, 25 VDCW; sim to Mallory Type TTX.
C23	5496267P209	Tantalum: 3.3 μ f \pm 10%, 15 VDCW; sim to Sprague Type 150D.
C24	5494481P111	Ceramic disc: 1000 pf \pm 20%, 1000 VDCW; sim to RMC Type JF Discap.
C25*	19A116080P101	Polyester: 0.01 μ f \pm 10%, 50 VDCW. Added by REV H.
CR1*	19A115775P1	----- DIODES AND RECTIFIERS ----- Silicon, fast recovery, 225 mA, 50 PIV. In REV H & earlier:
	4037822P1	Silicon, 1000 mA, 400 PIV.

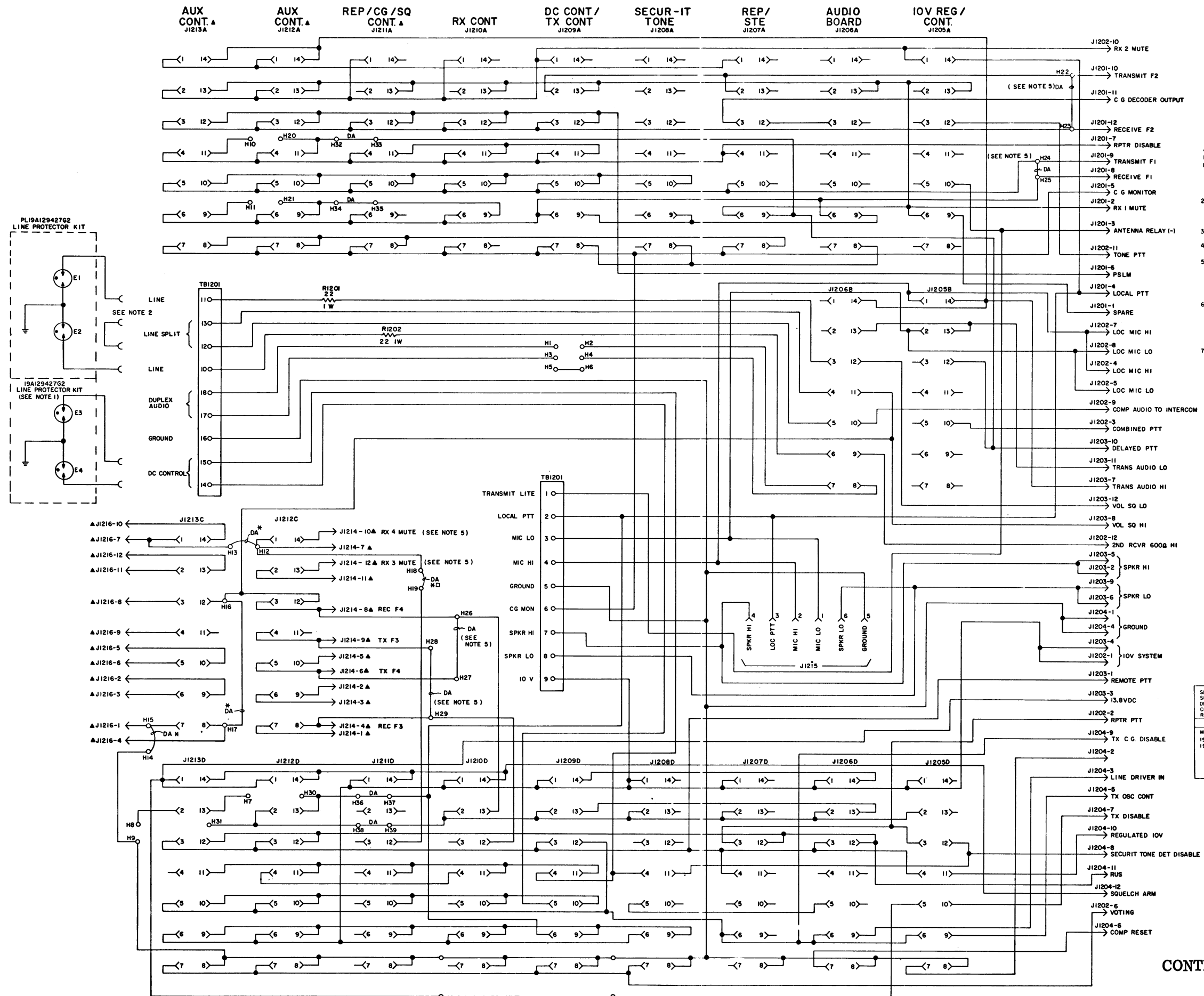
SYMBOL	GE PART NO.	DESCRIPTION
CR2 thru CR5	19A115250P1	Silicon, fast recovery, 225 mA, 50 PIV.
CR6	4037822P1	Silicon, 1000 mA, 400 PIV.
CR7 thru CR12	19A115250P1	Silicon, fast recovery, 225 mA, 50 PIV.
CR13	4037822P1	Silicon, 1000 mA, 400 PIV.
CR15	19A134354P6	Diode, optoelectronic: red; sim to Hew. Packard 5082-4655.
L1	19A115894P1	----- INDUCTORS ----- Audio freq: 1.0 mh ind., 0.35 ohms DC res.
P5		----- PLUGS ----- (Part of printed board 19D417241P1).
Q1 and Q2	19A115910P1	----- TRANSISTORS ----- Silicon, NPN; sim to Type 2N3904.
Q3	19A115300P2	Silicon, NPN; sim to Type 2N3053.
Q4	19A115910P1	Silicon, NPN; sim to Type 2N3904.
Q5	19A115768P1	Silicon, PNP; sim to Type 2N3702.
Q6	19A115300P2	Silicon, NPN; sim to Type 2N3053.
Q7 and Q8	19A116774P1	Silicon, NPN; sim to Type 2N5210.
Q9	19A134137P4	N Type, field effect.
Q10	19A115910P1	Silicon, NPN; sim to Type 2N3904.
Q11	19A115768P1	Silicon, PNP; sim to Type 2N3702.
Q12	19A115910P1	Silicon, NPN; sim to Type 2N3904.
R1	19A700019P41	----- RESISTORS ----- Deposited carbon: 2.2K ohms \pm 5%, 1/4 w.
R2*	19A700112P45	Composition: 180 ohms \pm 5%, 1 w. In REV A & earlier:
R3*	3R77P301J 3R77P240J	Composition: 300 ohms \pm 5%, 1/2 w. Composition: 24 ohms \pm 5%, 1/2 w.
	3R77P101K	Earlier than REV A: Composition: 100 ohms \pm 10%, 1/2 w.
R4	19B209358P101	Variable, carbon film: approx 25 to 250 ohms \pm 10%, 0.2 w; sim to CTS Type X-201.
R5	19A700113P59	Composition: 680 ohms \pm 5%, 1/2 w.
R6	19A700019P33	Deposited carbon: 470 ohms \pm 5%, 1/4 w.
R7	19A143400P40	Deposited carbon: 2K ohms \pm 5%, 1/4 w.
R8	3R77P102K	Composition: 1K ohms \pm 10%, 1/2 w.
R9	19A700019P49	Deposited carbon: 10K ohms \pm 5%, 1/4 w.
R10	19A143400P34	Deposited carbon: 620 ohms \pm 5%, 1/4 w.
R11	19A700019P37	Deposited carbon: 1K ohms \pm 5%, 1/4 w.
R12	19A700019P65	Deposited carbon: 220K ohms \pm 5%, 1/4 w.
R13	19A700019P53	Deposited carbon: 22K ohms \pm 5%, 1/4 w.
R14	19B209358P106	Variable, carbon film: approx 300 to 10K ohms \pm 10%, 0.25 w; sim to CTS Type X-201.
R15	19A143400P35	Deposited carbon: 750 ohms \pm 5%, 1/4 w.
R16	19A700019P63	Deposited carbon: 150K ohms \pm 5%, 1/4 w.
R17	19A700019P49	Deposited carbon: 10K ohms \pm 5%, 1/4 w.
R18	19A700019P47	Deposited carbon: 6.8K ohms \pm 5%, 1/4 w.
R19	19A700019P37	Deposited carbon: 1K ohms \pm 5%, 1/4 w.
R20	3R77P102K	Composition: 1K ohms \pm 10%, 1/2 w.
R21	19A143400P52	Deposited carbon: 20K ohms \pm 5%, 1/4 w.

SYMBOL	GE PART NO.	DESCRIPTION
R22	19A700019P51	Deposited carbon: 15K ohms \pm 5%, 1/4 w.
R23	19A700019P69	Deposited carbon: 470K ohms \pm 5%, 1/4 w.
R24	19A700019P60	Deposited carbon: 82K ohms \pm 5%, 1/4 w.
R25	19A700019P67	Deposited carbon: 330K ohms \pm 5%, 1/4 w.
R26	19A143400P57	Deposited carbon: 51K ohms \pm 5%, 1/4 w.
R27	19A700019P49	Deposited carbon: 10K ohms \pm 5%, 1/4 w.
R28	19A143400P47	Deposited carbon: 7.5K ohms \pm 5%, 1/4 w.
R29	19A143400P54	Deposited carbon: 30K ohms \pm 5%, 1/4 w.
R30	19A143400P34	Deposited carbon: 620 ohms \pm 5%, 1/4 w.
R31	19A700019P37	Deposited carbon: 1K ohms \pm 5%, 1/4 w.
R32	19A700019P38	Deposited carbon: 1.2K ohms \pm 5%, 1/4 w.
R33	19A700019P23	Deposited carbon: 68 ohms \pm 5%, 1/4 w.
R34	19A700019P50	Deposited carbon: 12K ohms \pm 5%, 1/4 w.
R35	19A143400P28	Deposited carbon: 200 ohms \pm 5%, 1/4 w.
R36*	19A700019P31	Deposited carbon: 330 ohms \pm 5%, 1/4 w. Added by REV A.
R37*	19A700019P21	Deposited carbon: 47 ohms \pm 5%, 1/4 w. Added by REV J.
U1*	19D416564G4	----- INTEGRATED CIRCUITS ----- 10-Volt Regulator. In REV D & earlier:
	19D416564G3	10-Volt Regulator.
VR1	4036887P40	----- VOLTAGE REGULATORS ----- Zener: 500 mW, 8.2 v. nominal.
VR2	4036887P4	Zener: 500 mW, 4.4 v. nominal.
VR3	4036887P6	Zener: 500 mW, 6.5 v. nominal.
A3		HEAT SINK ASSEMBLY 19B226114G2
Q1	19A116758P2	----- TRANSISTORS ----- Silicon, PNP; sim to Type 2N4399.
	19B219690G1	----- MISCELLANEOUS ----- Handle assembly.
	19A116023P1	Insulator, plate. (Used with Q1 on A1).
	19A134016P1	Insulator, bushing. (Used with Q1 on A1).
	4036555P1	Insulator, washer: nylon. (Used with Q3 & Q6 on A2).
	7118719P10	Clip, spring tension; sim to Prestole E-50019-003. (Used with L1 on A2).
	4029974P1	Insulator, plate. (Used with Q1 on A3).
	19A121882P1	Washer, shield. (Used with Q1 on A3).
	4036994P1	Terminal, solderless. (Used with Q1 on A3).
	19B226013G1	Heat sink. (Used with Q1 on A3).
	19A121175P11	Insulator. (Used with C10 on A2).
	5491541P307	Spacer, threaded. (Supports A3).
	N405P5C	Lockwasher: No. 4. (Secures S1 & S2 on A1).
	N80P9004C6	Machine screw: No. 4-40 x 1/4. (Secures S1 & S2 on A1).
	N80P9006C6	Machine screw: No. 4-40 x 3/8. (Secures Q1 on A1).

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.

- 19D417252G1
- REV. A—C - Incorporated in original shipment.
- REV. D - Deleted C19. To prevent a 150 MHz oscillation. Changed U1.
- REV. E - To prevent regulator from sending transmit signal during switch-off delay period.
- REV. F - To provide receiver muting. Added H16 and H17.
- REV. G - To correct repeater muting. Added H18 and H19.
- REV. H - To stop oscillation on the 10 Volt line. Added C25.
- REV. J - 19D417252G1
- REV. A - 19D417401G1
- To improve operation of 10 Volt Regulator. Changed CR1 and Q1; Added R37.



- ▲ PRESENT IN GROUP 1 ONLY
- NOTES:
1. THE TELEPHONE LINE PROTECTORS CONNECTED TO TB1201-H5 AND H6 ARE NEEDED ONLY WHEN SEPARATE AUDIO AND CONTROL PAIRS ARE USED.
 2. JUMPER PRESENT IN ALL TONE REMOTE SYSTEMS AND IN DC CONTROL SYSTEMS USING SEPARATE AUDIO AND CONTROL PAIRS.
 3. 0 JUMPERS PRESENT FOR LOCAL EACOM.
 4. * JUMPERS PRESENT FOR REGIONAL EACOM.
 5. JUMPERS PRESENT FOR 4 FREQ. TONE REMOTE, W/CG, 4 FREQ. TONE REMOTE/REPEAT, W/CG, 4 FREQ. TX WITH 4 RECEIVERS, W/CG, RX 3 & 4 MUTE USED WITH 4 TX WITH 4 RECEIVERS.
 6. IF OPTIONS 9504 THRU 9510 ARE APPLIED, THEN THE FOLLOWING JUMPERS ARE REMOVED:
H32 - H33
H34 - H35
H36 - H37
H38 - H39
 7. IF OPTION 9503 IS APPLIED THEN JUMPER H32-H33 IS REMOVED.

SEE APPLICABLE PRODUCTION CHANGE SHEETS IN INSTRUCTION BOOK SECTION DEALING WITH THIS UNIT, FOR DESCRIPTION OF CHANGES UNDER EACH REVISION LETTER.	
THIS ELEM. DIAG.	REV. LETTER
MODEL NO.	F
19D417214G1	
19D417214G2	

SCHEMATIC DIAGRAM
CONTROL SHELF MOTHER BOARD
19D417214G1 & G2

PARTS LIST

LBI4811B

CONTROL SHELF MOTHER BOARD
19D417214G1, G2

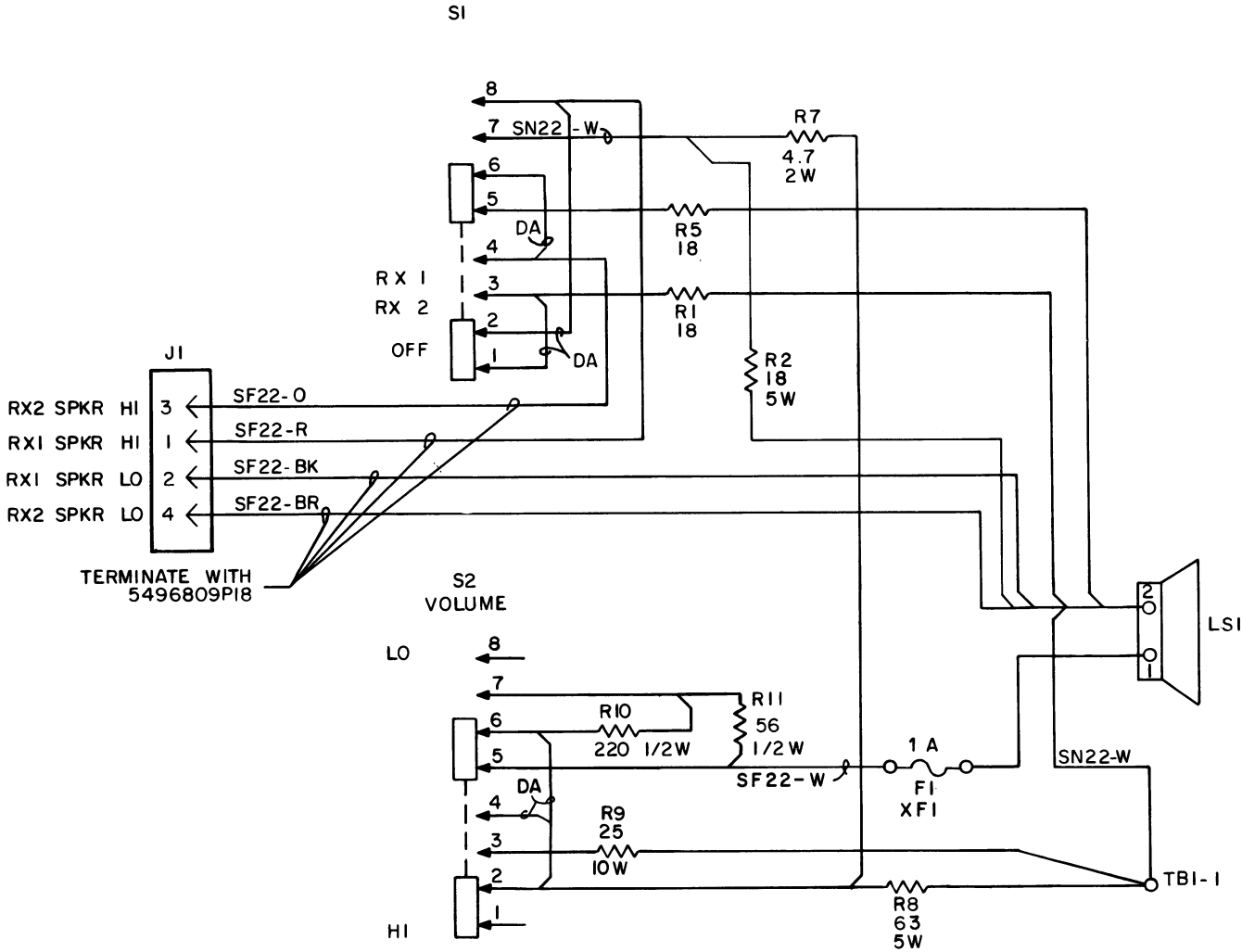
PRODUCTION CHANGES

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 - Incorporated in initial shipment.
- REV. B - Added holes and pads to provide outputs in EACOM systems.
- REV. C - Changed printed board to provide 4-frequency remote functions.
- REV. D - To reduce possibility of falsing on noise. Added a jumper from J1209-D4 to J1208-D4.
- REV. E - To make both auxiliary positions functional. Added H32 thru H39.
- REV. F - To supply 10 Volts to the 19D417214G1 & G2 boards. Changed printed pattern.

SYMBOL	GE PART NO.	DESCRIPTION
- - - - - JACKS AND RECEPTACLES - - - - -		
J1201	19A116647P4	Connector, printed wiring: 12 terminals, sim to Molex 09-18-5121.
J1202	19A116647P6	Connector, printed wiring: 12 terminals, sim to Molex 09-18-5927.
J1203	19A116647P4	Connector, printed wiring: 12 terminals, sim to Molex 09-18-5121.
J1204	19A116647P6	Connector, printed wiring: 12 terminals, sim to Molex 09-18-5927.
J1205A	19A116446P5	Connector, printed wiring: 14 contacts.
J1205B	19A116446P5	Connector, printed wiring: 14 contacts.
J1205D	19A116446P5	Connector, printed wiring: 14 contacts.
J1206A	19A116446P5	Connector, printed wiring: 14 contacts.
J1206B	19A116446P5	Connector, printed wiring: 14 contacts.
J1206D	19A116446P5	Connector, printed wiring: 14 contacts.
J1207A	19A116446P5	Connector, printed wiring: 14 contacts.
J1207D	19A116446P5	Connector, printed wiring: 14 contacts.
J1208A	19A116446P5	Connector, printed wiring: 14 contacts.
J1208D	19A116446P5	Connector, printed wiring: 14 contacts.
J1209A	19A116446P5	Connector, printed wiring: 14 contacts.
J1209D	19A116446P5	Connector, printed wiring: 14 contacts.
J1210A	19A116446P5	Connector, printed wiring: 14 contacts.
J1210D	19A116446P5	Connector, printed wiring: 14 contacts.
J1211A	19A116446P5	Connector, printed wiring: 14 contacts.
J1211D	19A116446P5	Connector, printed wiring: 14 contacts.
J1212A	19A116446P5	Connector, printed wiring: 14 contacts.
J1212C	19A116446P5	Connector, printed wiring: 14 contacts.
J1212D	19A116446P5	Connector, printed wiring: 14 contacts.
J1213A	19A116446P5	Connector, printed wiring: 14 contacts.
J1213C	19A116446P5	Connector, printed wiring: 14 contacts.
J1213D	19A116446P5	Connector, printed wiring: 14 contacts.
J1214	19A116647P4	Connector, printed wiring: 12 terminals, sim to Molex 09-18-5121.
J1215	19B219627G1	Connector: 6 contacts.
J1216	19A116647P4	Connector, printed wiring: 12 terminals, sim to Molex 08-18-5121.
- - - - - RESISTORS - - - - -		
R1201* and R1202*	19A700112P23	Composition: 22 ohms ±5%, 1 w. Added by REV A.
- - - - - TERMINAL BOARDS - - - - -		
TB1201	19A116667P3	Plate nut. (Quantity 18).
- - - - - MISCELLANEOUS - - - - -		
	19A129525G3	Cable: approx 3 inches long.

*COMPONENTS ADDED, DELETED OR CHANGED BY PRODUCTION CHANGES



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
PL19C320728G2	G

ALL RESISTORS ARE 5 WATT UNLESS OTHERWISE SPECIFIED AND RESISTOR VALUES IN OHMS UNLESS FOLLOWED BY K=1000 OHMS OR MEG=1,000,000 OHMS. CAPACITOR VALUES IN PICO FARADS (EQUAL TO MICROMICROFARADS) UNLESS FOLLOWED BY UF= MICROFARADS. INDUCTANCE VALUES IN MICROHENRYS UNLESS FOLLOWED BY MH= MILLIHENRYS OR H=HENRYS.

(19C320731, Rev. 9)

SCHEMATIC DIAGRAM

SERVICE SPEAKER 19C320728G2

PARTS LIST

LBI4816D

SERVICE SPEAKER
19C320728G2

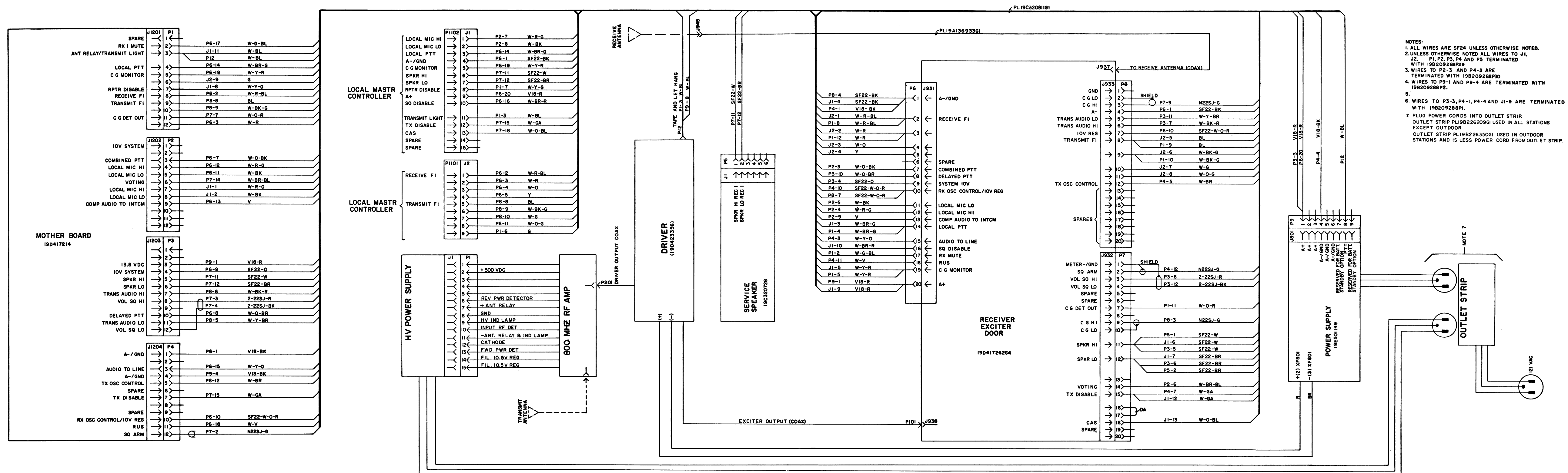
SYMBOL	GE PART NO.	DESCRIPTION
F1*	1R16P3	----- FUSES ----- Quick blowing: 1 amp at 250 v; sim to Littelfuse 312001 or Bussmann AGC-1. In REV E & earlier:
	1R16P1	Quick blowing: 1/2 amp at 250 v; sim to Littelfuse 312.500 or Bussmann AGC-1/2. In REV D:
	1R16P14	Quick blowing: 3/8 amp 250 v; sim to Littelfuse 312.375 or Bussmann AGC-3/8. Added by REV D.
		----- JACKS AND RECEPTACLES -----
J1		Connector. Includes:
	19B209288P22	Shell.
	5496809P18	Contact, electrical: male; sim to Molex 1380-T.
		----- LOUDSPEAKERS -----
LS1	19A115964P1	Permanent magnet: 3.5 inch, 18 ohms $\pm 10\%$ imp, 15 to 19 ohms $\pm 20\%$ DC res, resonant frequency 290 Hz; sim to Oaktron S-9847.
		----- RESISTORS -----
R1	5493035P53	Wirewound: 18 ohms $\pm 5\%$, 5 w; sim to Hamilton Hall Type HR.
R2*	5493035P3	Wirewound: 2 ohms $\pm 5\%$, 5 w; sim to Hamilton Hall Type HR. Added by REV F.
	5493035P53	Wirewound: 18 ohms $\pm 5\%$, 5 w; sim to Hamilton Hall Type HR. Deleted by REV D.
R3*	19B209490P1	Variable, wirewound: 35 ohms $\pm 20\%$, 2.25 w; sim to CTS Type 118. Deleted by REV D.
R4*	5493035P52	Wirewound: 8.2 ohms $\pm 10\%$, 5 w; sim to Hamilton Hall Type HR. Deleted by REV C.
R5	5493035P53	Wirewound: 18 ohms $\pm 5\%$, 5 w; sim to Hamilton Hall Type HR. Added by REV B.
R6*	5493035P27	Wirewound: 10 ohms $\pm 5\%$, 5 w; sim to Hamilton Hall Type HR. Added by REV C. Deleted by REV D.
R7*	19A700050P21	Wirewound: 4.7 ohms $\pm 10\%$, 2 w. Added by REV D.
R8*	5493035P17	Wirewound: 63 ohms $\pm 5\%$, 5 w; sim to Hamilton Hall Type HR. In REV D:
R9*	3R78P620J	Composition: 62 ohms $\pm 5\%$, 1 w. Added by REV D.
	5493035P44	Wirewound: 25 ohms $\pm 5\%$, 10 w; sim to Hamilton Hall Type HR. In REV D:
	19B209022P48	Wirewound: 24 ohms $\pm 5\%$, 2 w; sim to IRC Type BWH. Added by REV D.
R10*	19A700113P47	Composition: 220 ohms $\pm 5\%$, 1/2 w. Added by REV D.
R11*	19A700113P33	Composition: 56 ohms $\pm 5\%$, 1/2 w. Added by REV D.
		----- SWITCHES -----
S1	19B209261P5	Slide: DPTT, 2 poles, 3 positions, 0.5 amp VDC or 3 amps VAC at 125 v; sim to Switchcraft 11D1033B.
S2*	19B209261P5	Slide: DPTT, 2 poles, 3 positions, 0.5 amp VDC or 3 amps VAC at 125 v; sim to Switchcraft 11D1033B. Added by REV D.

SYMBOL	GE PART NO.	DESCRIPTION
TB1	7775500P44	----- TERMINAL BOARDS ----- Phen: 1 insulated, 1 grounded terminal. Added by REV D.
XF1*	7141008P1	----- SOCKETS ----- Fuseholder: 30 amps at 125 v; sim to Bussman 2863. Added by REV D.
		----- MISCELLANEOUS -----
	4032480P1	Nut, sheet spring: sim to Vector Electronic Co. No. 440. (Secures S1, S2).
	19B201074P204	Tap screw, Phillips POZIDRIV®: No. 4-40 x 1/4. (Secures S1, S2).
	N80P13005C6	Machine, screw: No. 6-32 x 5/16. (Secures Service Speaker).
	7141225P3	Hex nut: 6-32. (Secures Service Speaker).
	N404P13C6	Lockwasher, internal tooth: No. 6. (Secures Service Speaker).

PRODUCTION CHANGES

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

- REV. A - To eliminate factory wiring errors caused by duplication of wire colors. Changed wire colors of J1-1 from Orange to Red and J1-2 from Brown to Black.
- REV. B - To provide load for receiver when service speaker switch is in "OFF" position. Added R5 and DA Jumper between S1-1 and S1-3.
- REV. C - To prevent oscillation and to protect R3 from overload. Deleted R4 and added R6.
- REV. D - To prevent component damage due to excessive voltage. Deleted R2, R3 and R6. Added F1, XF1, R7-11, S2 and TB1.
- REV. E - To protect speaker from excessive drive. Changed F1, R8 and R9.
- REV. F - To prevent mechanical oscillation of speaker when excessive drive occurs. Changed F1 and added R12.
- REV. G - To stop audio oscillation. Relocated R2 in the circuit.



INTERCONNECTION DIAGRAM

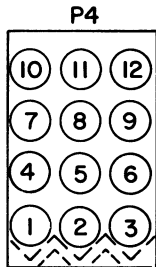
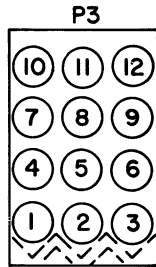
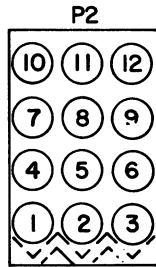
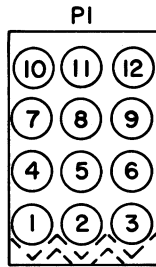
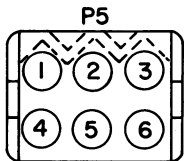
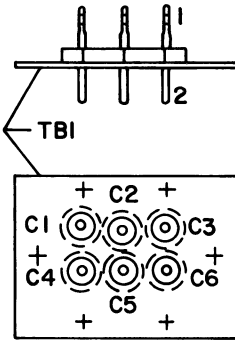
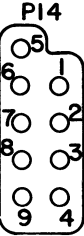
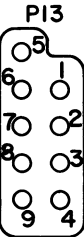
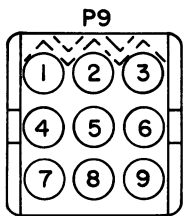
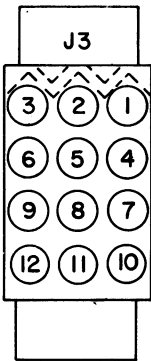
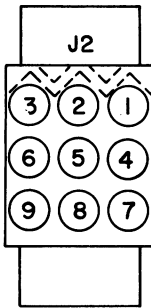
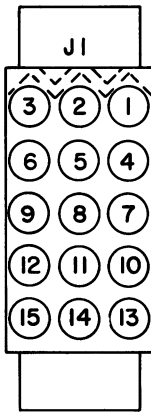
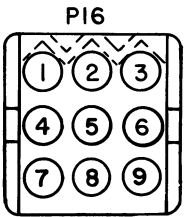
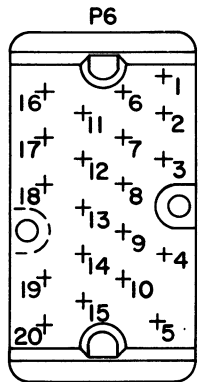
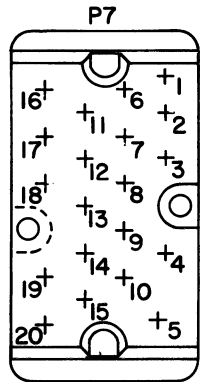
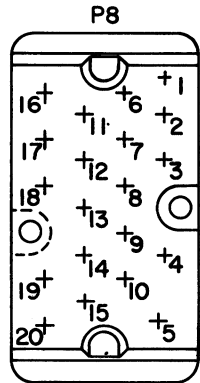
806--870 MHz, 90 WATT STATION
HARNESS WITHOUT METERING 19C320811G1

PARTS LIST

LBI4796A

MASTR II CONTINUOUS DUTY
STATION HARNESS
19C320811G1

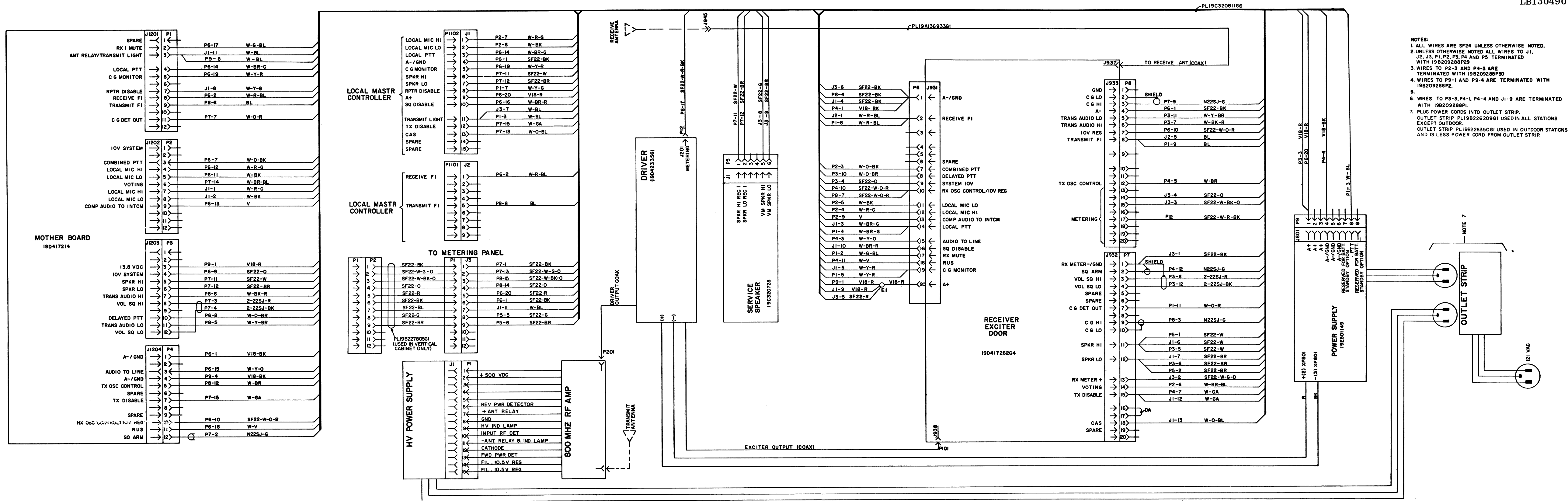
SYMBOL	GE PART NO.	DESCRIPTION
J1	19B209288P5	----- JACKS AND RECEPTACLES ----- Connector. Includes: Shell.
	19B209288P29	Contact, electrical: female; sim to Molex 02-09-1141. (Quantity 13).
J2	19B209288P3	Connector. Includes: Shell.
	19B209288P29	Contact, electrical: female; sim to Molex 02-09-1141. (Quantity 9).
P1	19B209288P20	----- PLUGS ----- Connector. Includes: Shell.
	19B209288P29	Contact, electrical: female; sim to Molex 02-09-1141. (Quantity 11).
P2	19B209288P20	Connector. Includes: Shell.
	19B209288P29	Contact, electrical: female; sim to Molex 02-09-1141. (Quantity 6).
P3	19B209288P30	Contact, electrical: male; sim to Molex 02-09-2141. (Quantity 1).
	19B209288P20	Connector. Includes: Shell.
P4	19B209288P29	Contact, electrical: female; sim to Molex 02-09-1141. (Quantity 9).
	19B209288P20	Connector. Includes: Shell.
P5	19B209288P29	Contact, electrical: female; sim to Molex 02-09-1141. (Quantity 7).
	19B209288P30	Contact, electrical: male; sim to Molex 02-09-2141. (Quantity 1).
P6 thru P8 P9	19C303506P1	Connector. Includes: Shell.
	19B209288P4	Contact, electrical: male; sim to Molex 02-09-2141. (Quantity 1).
P12	19B209288P2	Contact, electrical: sim to Molex Products 1190-T. (Quantity 1).
	19A115793P1	Contact, electrical: sim to Malco 2700.



NOTE:
1. CONNECTORS SHOWN FROM WIRING SIDE.

OUTLINE DIAGRAM
HARNESS 19C320811

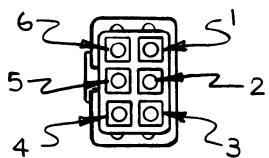
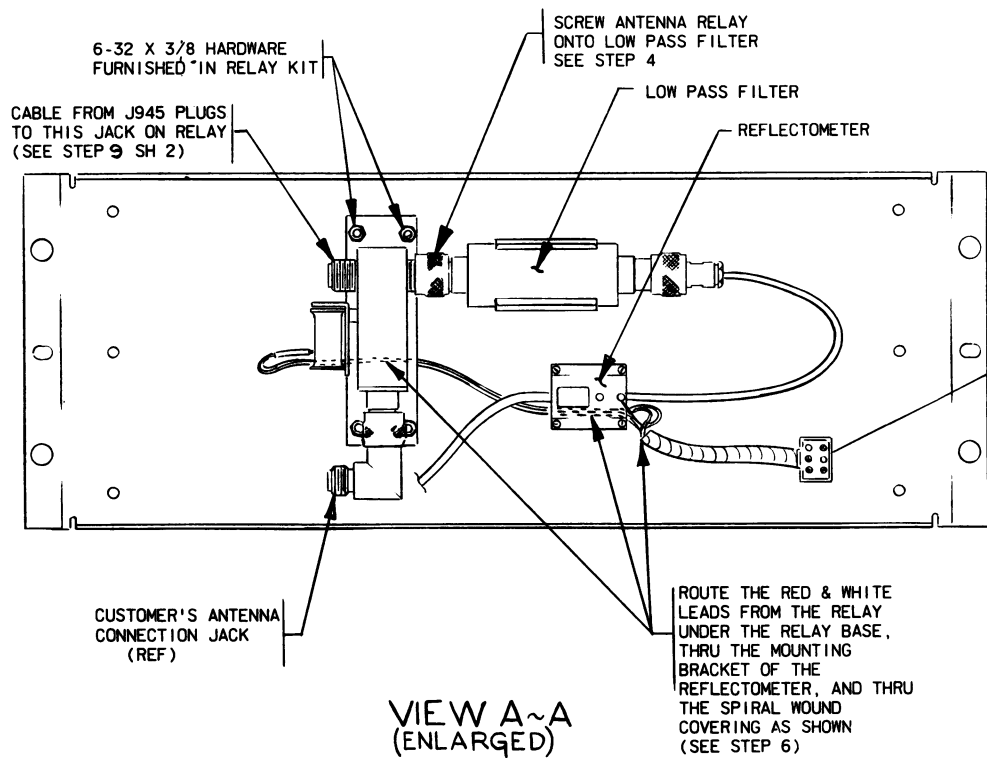
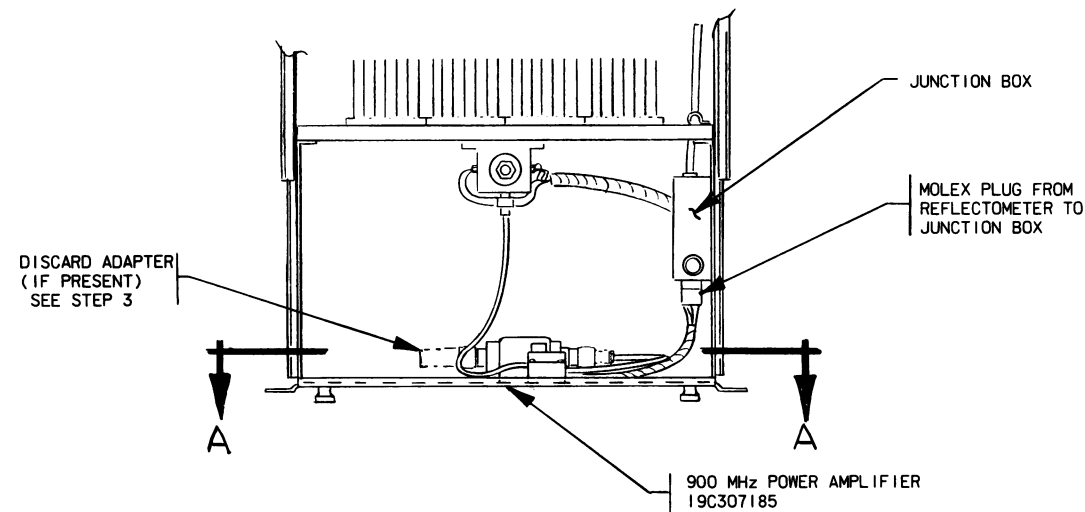
(19C328112, Rev. 1)



PARTS LIST
LBI30485A
STATION HARNESS WITH METERING
AND
EXTENSION HARNESS

SYMBOL	GE PART NO.	DESCRIPTION
		STATION HARNESS WITH METERING 19C320811G6
E1	19A115370P1	----- CONDUCTORS ----- Conductor, in line splice; sim to AMP J5653.
J1		----- JACKS AND RECEPTACLES ----- Connector. Includes: Shell. 19B209288P5 Contact, electrical: female; sim to Molex 02-09-1141. (J1-1 thru J1-8, J1-10 thru J1-12).
J2	19B209288P1	Contact, electrical. (J1-9). Connector. Includes: Shell. 19B209288P3 Contact, electrical: female; sim to Molex 02-09-1141. (Quantity 7).
J3	19B209288P29	Connector. Includes: Shell. 19B209288P25 Contact, electrical: female; sim to Molex 02-09-1141. (Quantity 9).
P1		----- PLUGS ----- Connector. Includes: Shell. 19B209288P20 Contact, electrical: female; sim to Molex 02-09-1141. (Quantity 8).
P2	19B209288P20	Connector. Includes: Shell. 19B209288P29 Contact, electrical: female; sim to Molex 02-09-1141. (P2-4 thru P2-9).
P3	19B209288P30	Contact, electrical: male; sim to Molex 02-09-2141. (P2-3). Connector. Includes: Shell. 19B209288P20 Contact, electrical: female; sim to Molex 02-09-1141. (P3-4 thru P3-8, P3-10, P3-11).
P4	19B209288P1	Contact, electrical: sim to Molex Products 1189-T. (P3-3). Connector. Includes: Shell. 19B209288P20 Contact, electrical: female; sim to Molex 02-09-1141. (P4-5, P4-7, P4-10 thru P4-12).
P5	19B209288P1	Contact, electrical: sim to Molex Products 1189-T. (P4-3). Contact, electrical: male; sim to Molex 02-09-2141. (P4-3). Connector. Includes: Shell. 19B209288P23 Contact, electrical: female; sim to Molex 02-09-1141. (Quantity 4).
P6 thru P8	19C303506P1	Connector, phen: 20 contacts.
P9		Connector. Includes: Shell. 19B209288P4 Contact, electrical: sim to Molex Poducts 1190-T. (Quantity 2).
P12	19A115793P1	Contact, electrical: sim to Malco 2700.

SYMBOL	GE PART NO.	DESCRIPTION
P1	19B209288P24 5496809P18	EXTENSION HARNESS 19B227805G1 ----- PLUGS ----- Connector. Includes: Shell. Contact, electrical: sim to Molex Products 1380-T. (Quantity 9).
P2	19B209288P31 5496809P17	Connector. Includes: Shell. Contact, electrical: sim to Molex Products 1381-T. (Quantity 9).

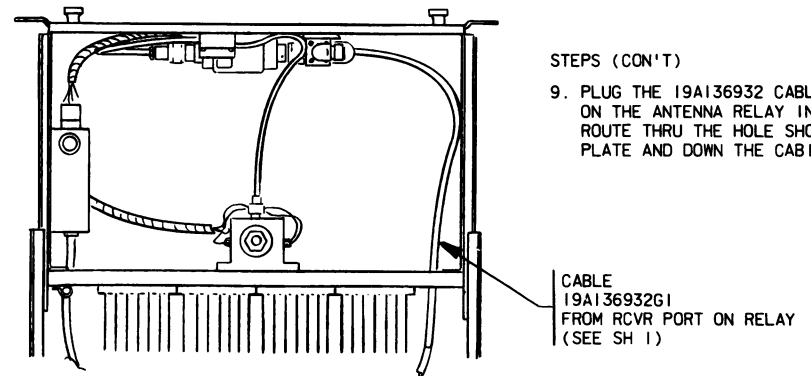


DETAIL B
VIEW OF CONNECTOR
FROM WIRING SIDE

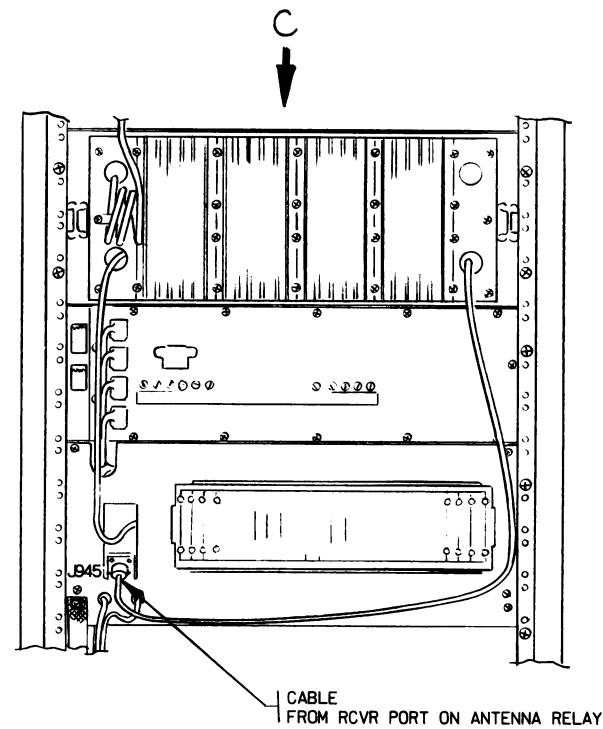
THESE INSTRUCTIONS COVER INSTALLATION OF THE ANTENNA RELAY KIT, PL19C327633G1 INTO THE 900 MHz POWER AMPLIFIER, 19C307185.

STEPS:

1. REMOVE THE 10-32 X 3/8 RETAINING SCREWS ON EACH SIDE OF THE FRONT PANEL. EXTEND THE POWER AMPLIFIER TO ITS MAX POSITION. SAVE HARDWARE.
NOTE, STEP 1 MAY BE OMITTED IF PWR AMPL IS NOT MOUNTED IN A CABINET.
2. DISCONNECT THE MOLEX PLUG ON CABLE FROM REFLECTOMETER AT THE JUNCTION BOX.
3. DISCARD THE 19A115828 ADAPTER IF PRESENT.
4. CONNECT THE ANTENNA RELAY ONTO THE PLUG ON THE END OF THE LOW PASS FILTER AS SHOWN IN VIEW A.
5. SLIDE THE RELAY/FILTER ASSY BACK AND FORTH WITHIN THE CLIP UNTIL THE MOUNTING HOLES ON THE BACK OF THE RELAY ALIGN WITH THE HOLES ON THE FRONT PANEL. MOUNT THE RELAY USING 6-32 X 3/8 SCREWS & ASSOCIATED HARDWARE FURNISHED IN THE RELAY KIT.
6. ROUTE THE RED AND WHITE LEADS FROM THE RELAY, UNDER THE BASE OF THE RELAY AND THRU THE MOUNTING BRACKET OF THE REFLECTOMETER. ROUTE THRU THE SPIRAL WOUND CABLE COVERING. INSERT THE RED LEAD INTO CAVITY 1 OF THE PLUG AND THE WHITE LEAD INTO CAVITY 3.
7. PLUG THE CABLE BACK INTO THE JACK ON THE JUNCTION BOX
8. REFER TO SH 2 FOR ANTENNA CABLE ROUTING.



VIEW @ C



(19C327574, Sh. 2, Rev. 0)

(19C327574, Sh. 1, Rev. 0)

INSTALLATION INSTRUCTIONS

ANTENNA RELAY OPTION 9607

Issue 1

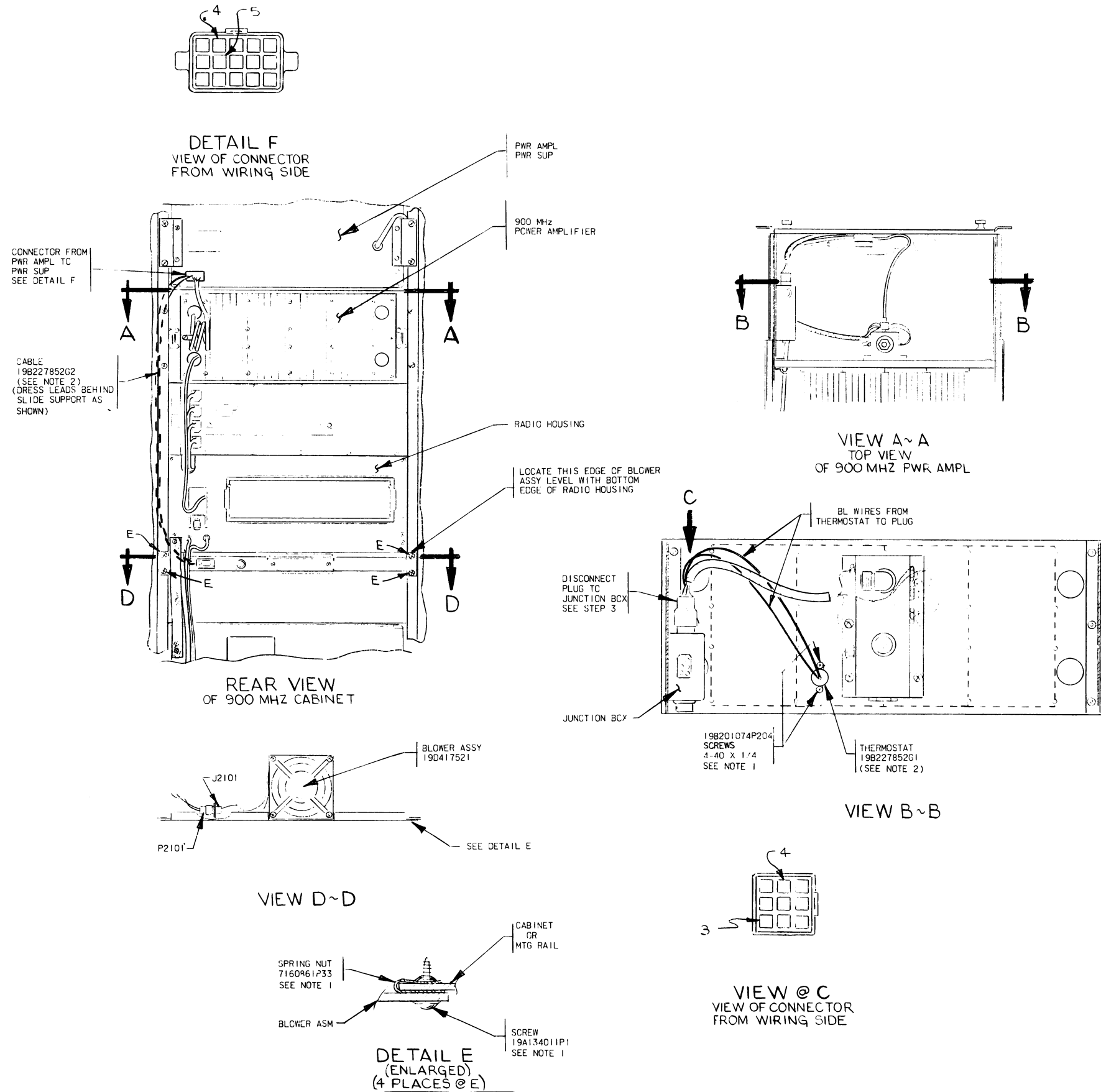
27

PARTS LIST

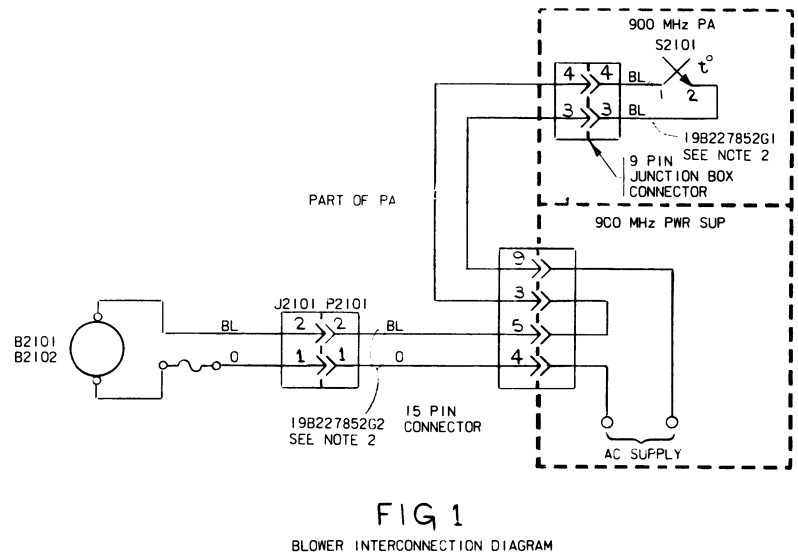
LBI-30492

ANTENNA RELAY KIT
19C327633G1

SYMBOL	GE PART NO.	DESCRIPTION
K1	7479680P3	----- RELAYS ----- Coaxial: 140 VDC nominal, 7000 ohms ±10% coil res, 1 form C contact; sim to Amphenol 300-11292.
	7777145P4	----- MISCELLANEOUS ----- Connector, plug: sim to Amphenol 82-98 or UG-27B/U.
	5496809P18	Contact, electrical: sim to Molex Products 1380-T. (Located on red and white wires- Quantity 2).
	N80P13006C6	Machine screw: No. 6-32 x 3/8. (Secures relay assembly).
	7141225P3	Hex nut: No. 6-32. (Secures relay assembly).
	N404P13C6	Lockwasher, internal tooth: No. 6. (Secures relay assembly).



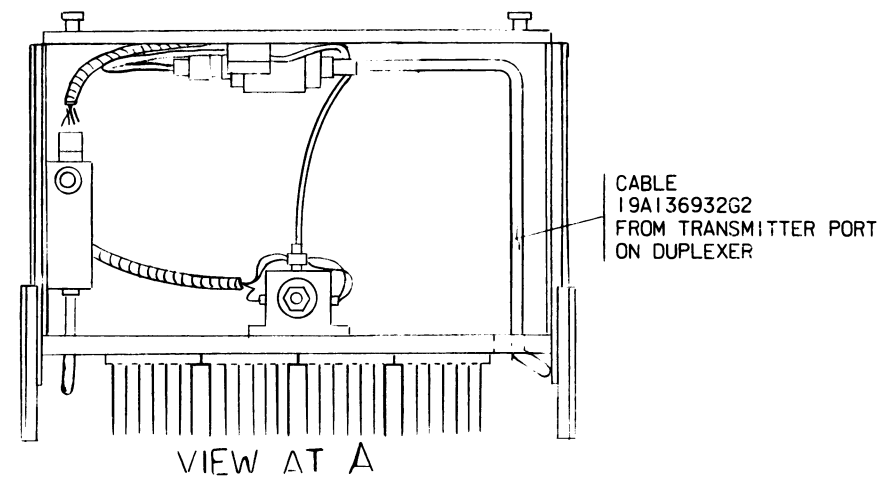
- ① THESE INSTRUCTIONS COVER THE INSTALLATION OF THE BLOWER, 19D417521 AND THE CABLE KIT 19A136978 IN 900 MHz STATIONS.
- STEPS:
1. DISCONNECT ALL POWER SOURCES TO THE 900 MHz CABINET.
 2. REMOVE THE 10-32 X 3/8 RETAINING SCREWS ON EACH SIDE OF THE POWER AMPLIFIER FRONT PANEL. EXTEND THE PWR AMPL TO ITS MAX POSITION. SAVE HARDWARE.
 3. ASSEMBLE THE THERMOSTAT, 19B227852G1 TO THE DISSIPATOR PLATE ON THE PWR AMPL, USING TWO 19B201074P204, 4-40 X 1/4 SCREWS FURNISHED WITH BLOWER. SEE VIEW B. DISCONNECT THE 9 PIN MOLEX PLUG ON THE JUNCTION BOX OF THE PWR AMPL. INSERT ONE BL WIRE FROM THE THERMOSTAT INTO CAVITY 3 OF THE MOLEX CONNECTOR AND THE OTHER INTO CAVITY 4. (NO POLARITY EXISTS) SEE VIEW C. RECONNECT THE PLUG ONTO THE JACK. SLIDE THE PWR AMPL BACK INTO THE CABINET AND REASSEMBLE THE RETAINING SCREWS.
 4. ASSEMBLE THE BLOWER, 19D417521 TO THE BACK OF THE 900 MHz CABINET AS SHOWN IN THE REAR VIEW, VIEW D-D AND DETAIL E.
 5. DISCONNECT THE POWER CABLE FROM POWER AMPL AT POWER SUPPLY. INSERT THE BL WIRE OF THE 19B227852G2 CABLE INTO CAVITY 5 AND THE G WIRE INTO CAVITY 4 OF THE CONNECTOR. SEE DETAIL F.
 6. RECONNECT POWER CABLE AND ROUTE THE 19B227852G1 CABLE DOWN CABINET AS SHOWN.
 7. CONNECT P2101 TO J2101 ON BLOWER.
- NOTES:
1. SUPPLIED WITH FAN 19D417521.
 2. SUPPLIED AS PART OF 19A136978G1 CABLE KIT.



INSTALLATION INSTRUCTIONS

HEATSINK BLOWER OPTIONS 9609, 9610 AND 9611

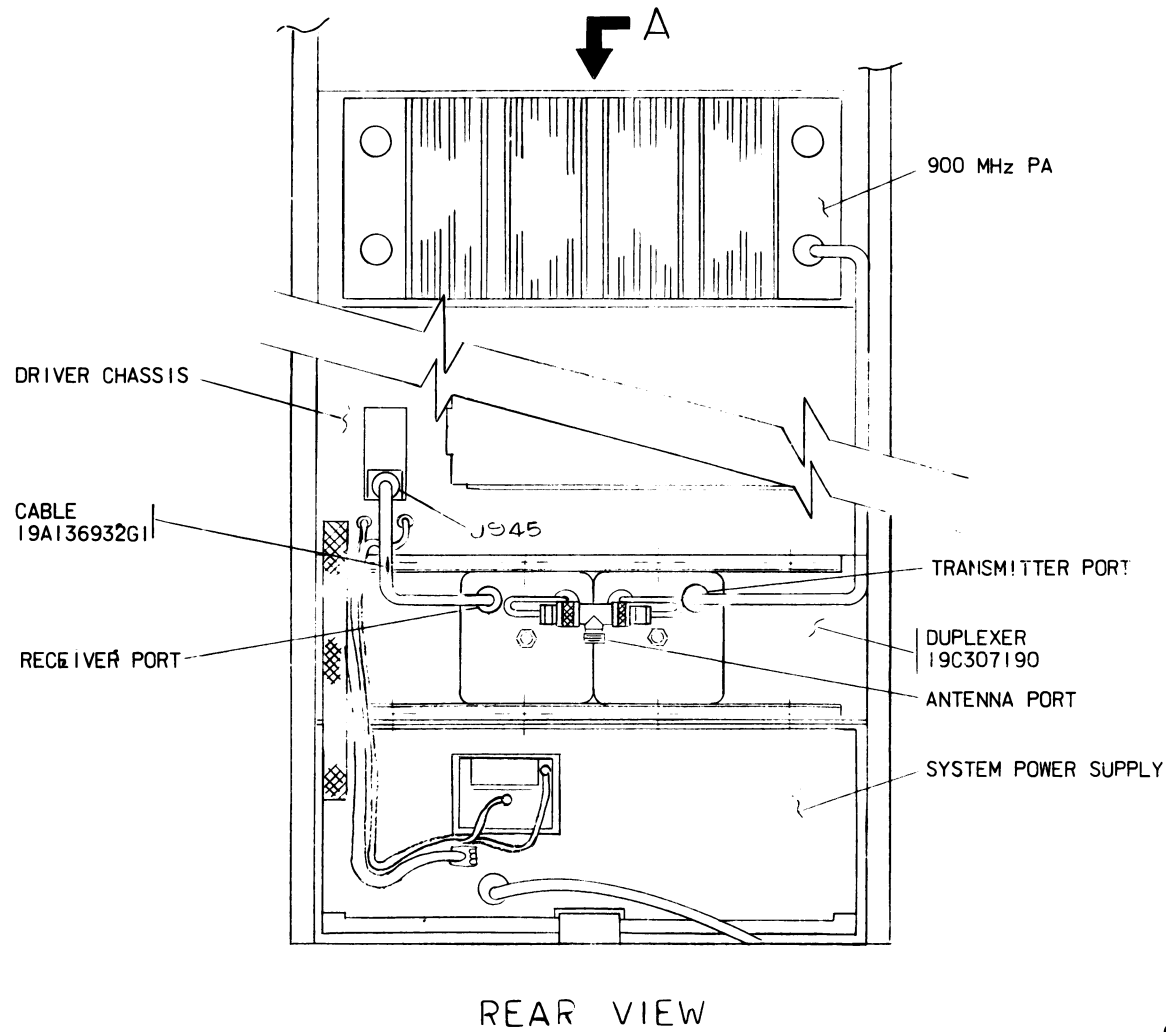
(19D424618, Rev. 1)



THESE INSTRUCTIONS COVER THE INSTALLATION OF THE 19C307190 DUPLEXER AND 19A130785G2 INSTL HARDWARE KIT IN 900 MHz STATIONS.

STEPS:

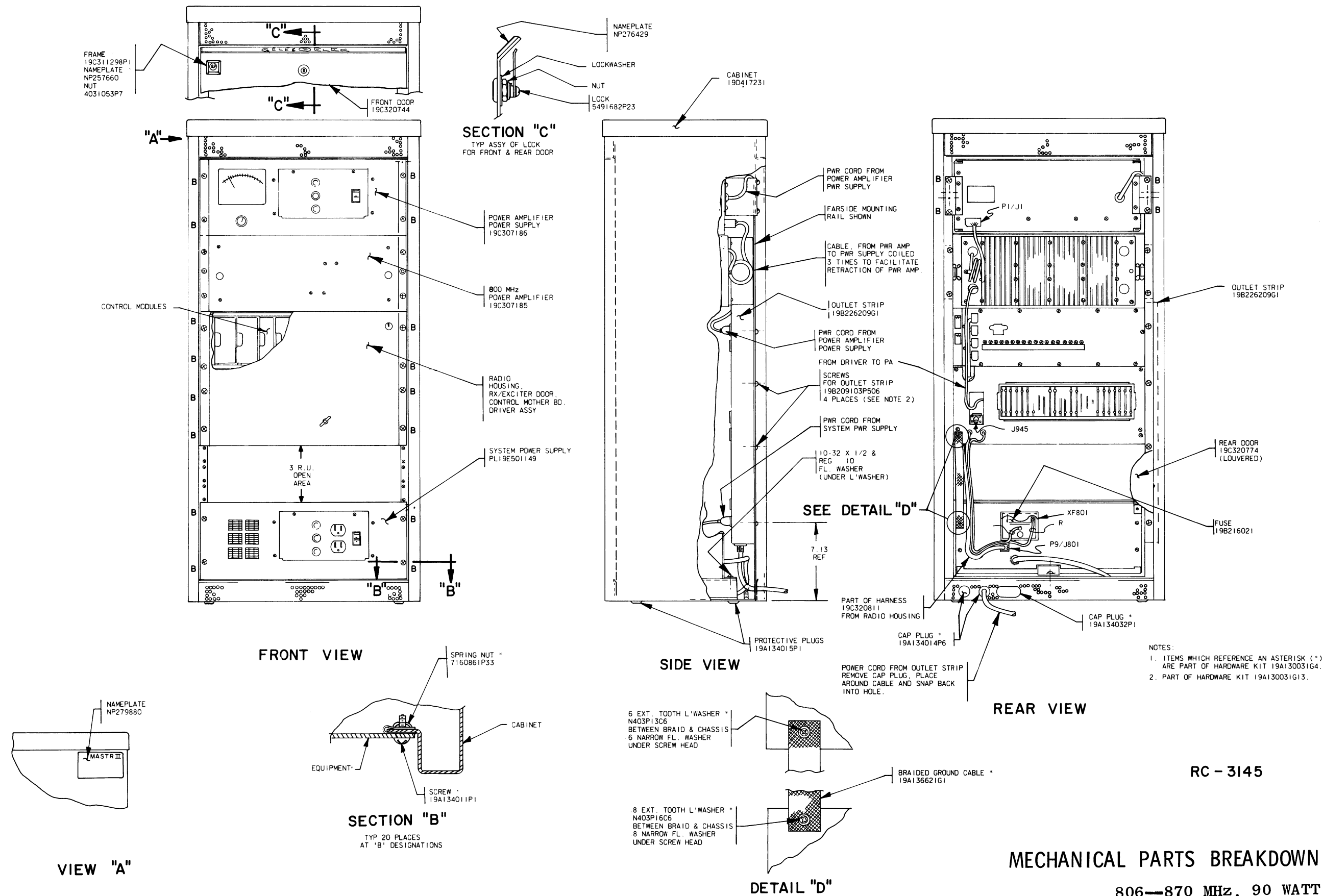
1. USING HARDWARE SUPPLIED IN INSTL KIT, MOUNT DUPLEXER FROM FRONT OF CABINET BETWEEN SYSTEM POWER SUPPLY AND RADIO HOUSING.
2. CONNECT 19A136932G1 CABLE BETWEEN RECEIVER PORT ON DUPLEXER AND J945 ON DRIVER CHASSIS.
3. CONNECT 19A136932G2 CABLE TO TRANSMITTER PORT ON DUPLEXER. ROUTE UP TO 900 MHz PA, THRU HEAT SINK AS SHOWN AND CONNECT TO OUTPUT OF LOW PASS FILTER.

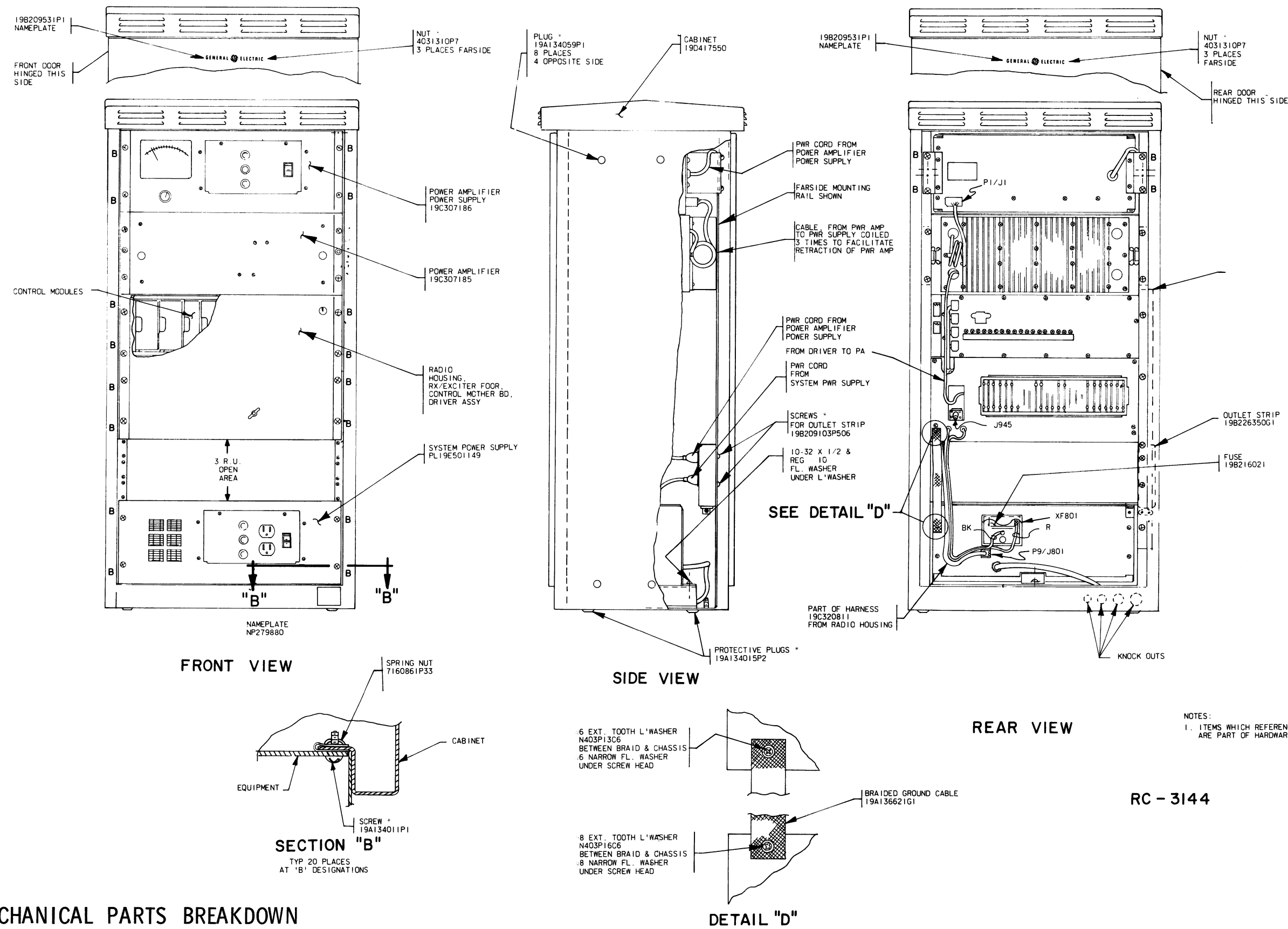


(19C327826, Rev. 0)

INSTALLATION DIAGRAM

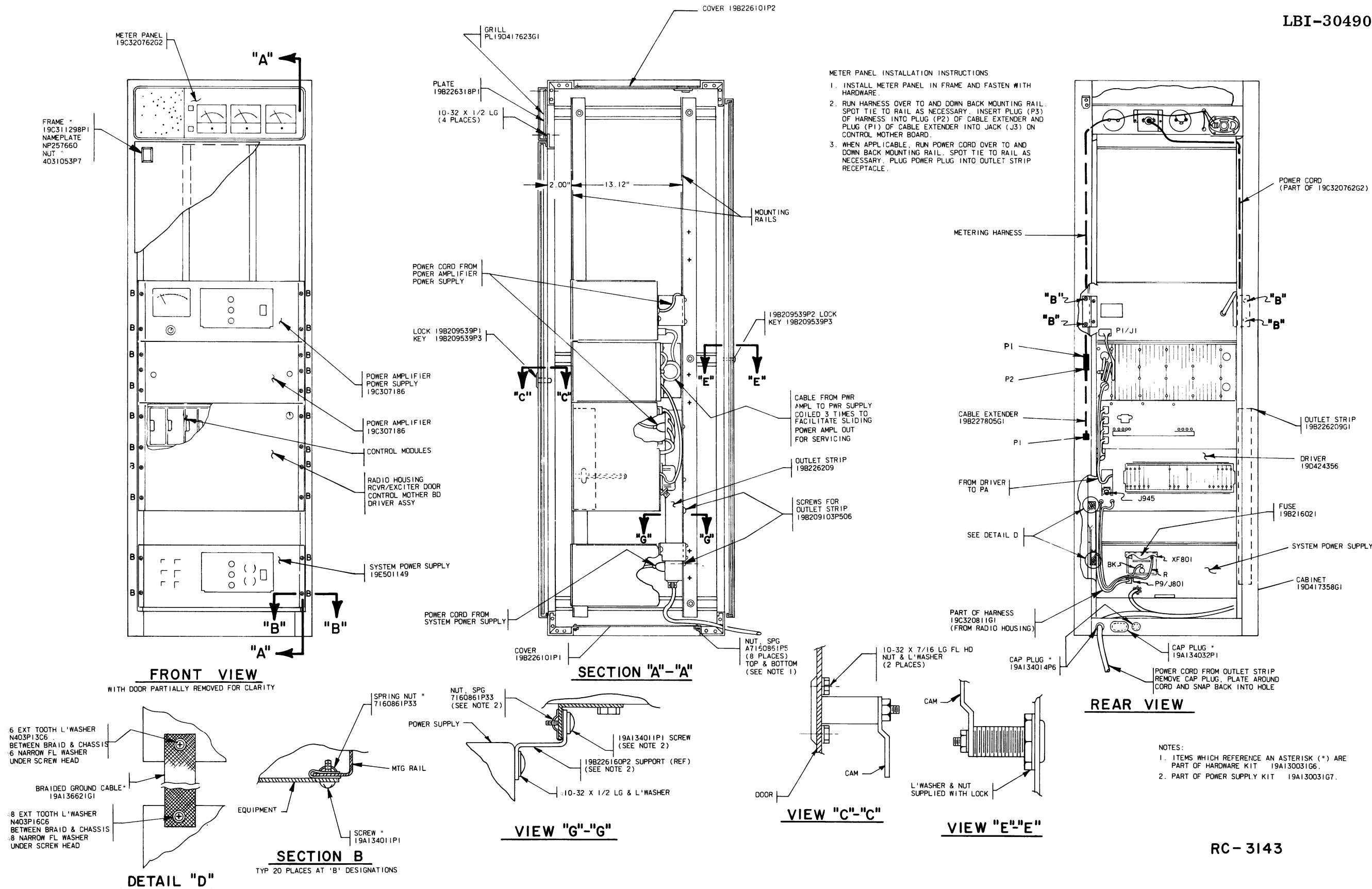
DUPLEXER OPTION 9606





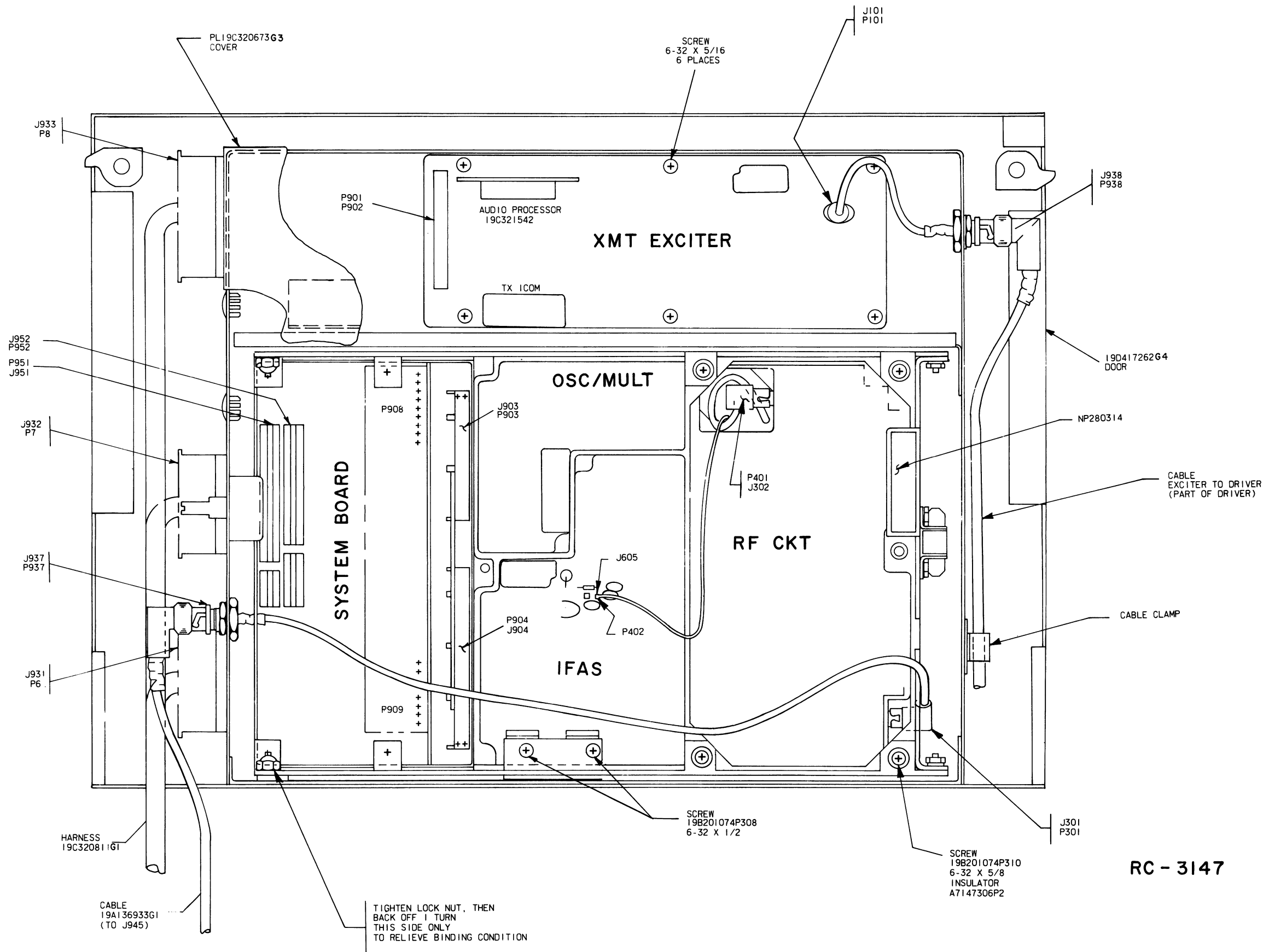
MECHANICAL PARTS BREAKDOWN

806—870 MHz, 90 WATT POLE MOUNT STATION



MECHANICAL PARTS BREAKDOWN

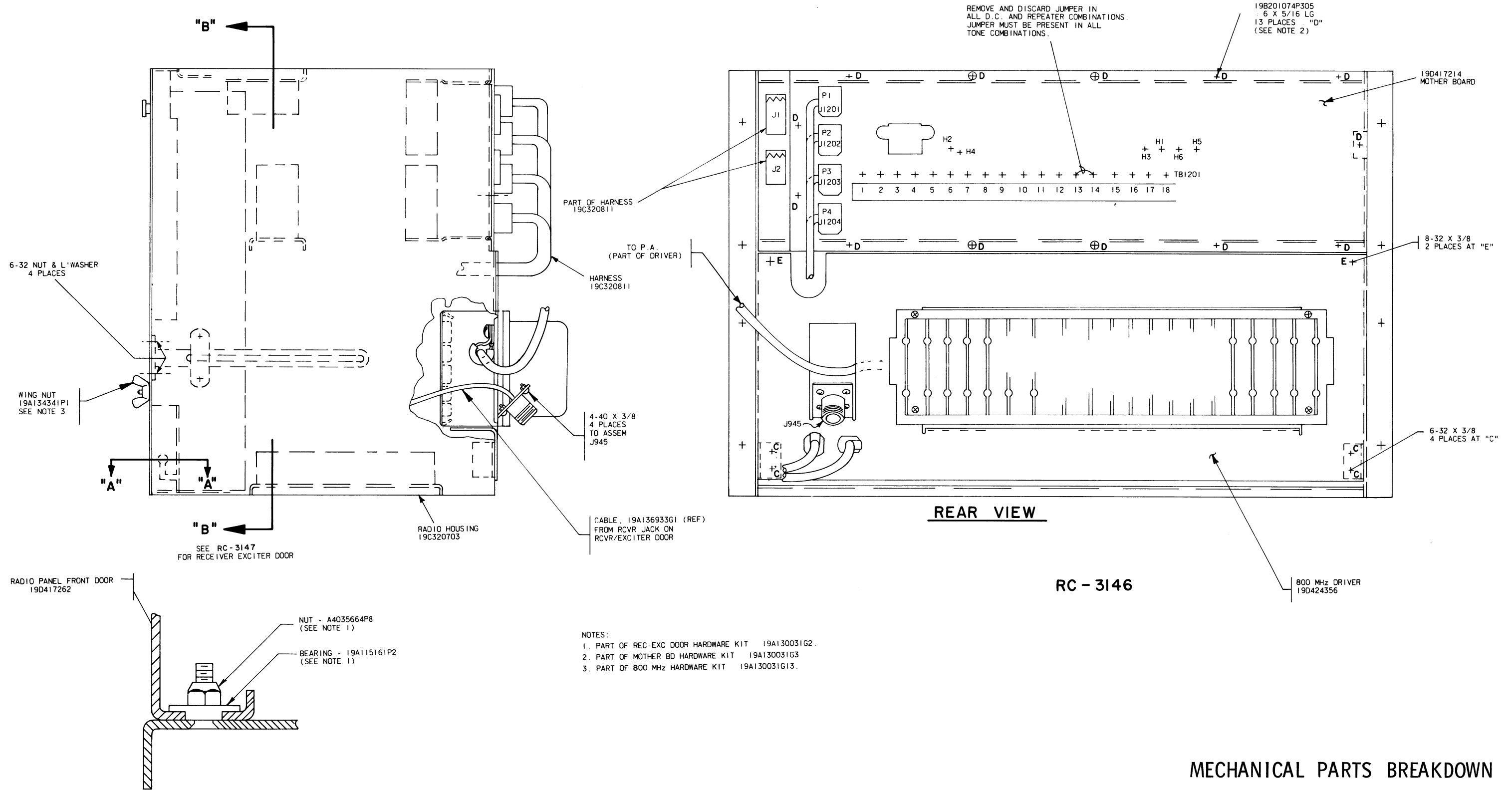
806—870 MHz, 90 WATT
FLOOR MOUNT STATION

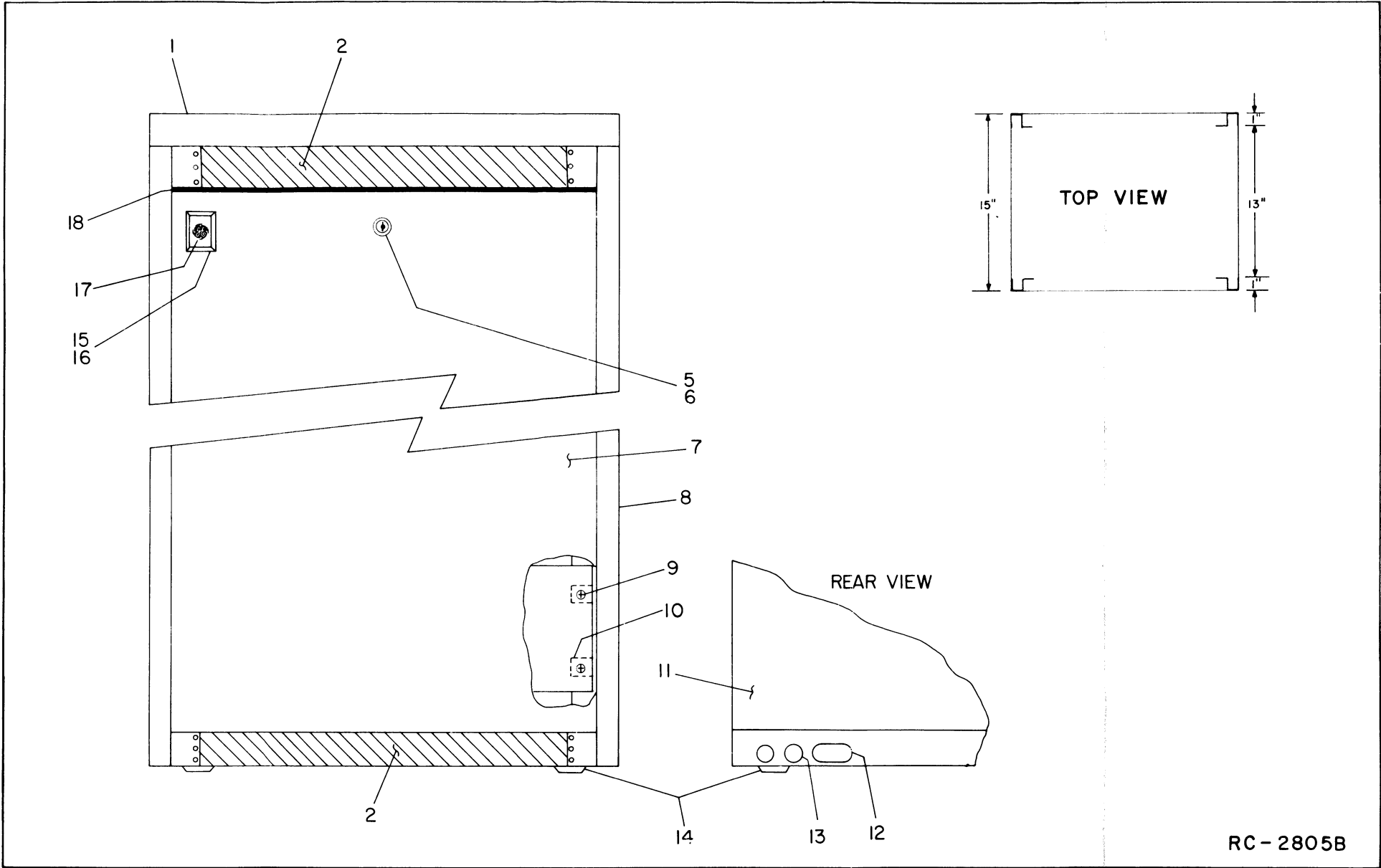


RC - 3147

MECHANICAL PARTS BREAKDOWN

806—870 MHz, 90 WATT STATION
RADIO HOUSING FRONT DOOR





MECHANICAL PARTS BREAKDOWN

DESK MATE CABINET

PARTS LIST

LBI-4975C

DESK MATE STATION CABINET
CONTINUOUS AND INTERMITTANT DUTY
(SEE RC-2805)

SYMBOL	GE PART NO.	DESCRIPTION
30 INCH CABINET		
1	19C320655P1	Top.
2	19C320654P1	Screen.
3		(Not Used).
4		(Not Used).
5	5491682P23	Lock. Yale and Towne F6557DX1.
6	5491682P4	Key. Yale and Towne BF-10A.
7	19C320744G7	Front door.
8	19D417231G3	Cabinet. (LESS DOORS). (Includes items 1 and 2).
9	19A134011P1	Tap screw: No. 10-16 x 3/4. (Quantity 52).
10	7160861P32	Nut, sheet spring; sim to Tinnerman C1794-10Z-24. (Quantity 52).
11	19C320744G8	Rear door.
12	19A134032P1	Protective plug. (Quantity 1).
13	19A134014P6	Bushing, strain relief: sim to Heyco UB-1093.
14	19A134015P1	Protective plug: sim to Caplug BPF-1/2. (Quantity 4).
15	19C311298P1	Frame. (Used with monogram).
16	4031053P7	Nut, sheet spring; sim to Tinnerman C12046-012-67. (Quantity 1).
17	NP257660	Nameplate.
18	NP276429	Nameplate. (GENERAL ELECTRIC).
44 INCH CABINET		
1	19C320655P1	Top.
2	19C320654P1	Screen.
3		(Not Used).
4		(Not Used).
5	5491682P23	Lock. Yale and Towne F6557DX1.
6	5491682P4	Key. Yale and Towne BF-10A.
7	19C320744G9	Front door.
8	19D417231G4	Cabinet. (LESS DOORS). (Includes items 1 and 2).
9	19A134011P1	Tap screw: No. 10-16 x 3/4. (Quantity 52).
10	7160861P33	Nut, sheet spring; sim to Tinnerman C19640-10AB-3B. (Quantity 52).
11	19C320744G10	Rear door.
12	19A134032P1	Protective plug. (Quantity 1).
13	19A134014P6	Bushing, strain relief: sim to Heyco UB-1093.
14	19A134015P1	Protective plug: sim to Caplug BPF-1/2. (Quantity 4).
15	19C311298P1	Frame. (Used with monogram).
16	4031053P7	Nut, sheet spring; sim to Tinnerman C12046-012-67. (Quantity 1).
17	NP257660	Nameplate.
18	NP276429	Nameplate. (GENERAL ELECTRIC).

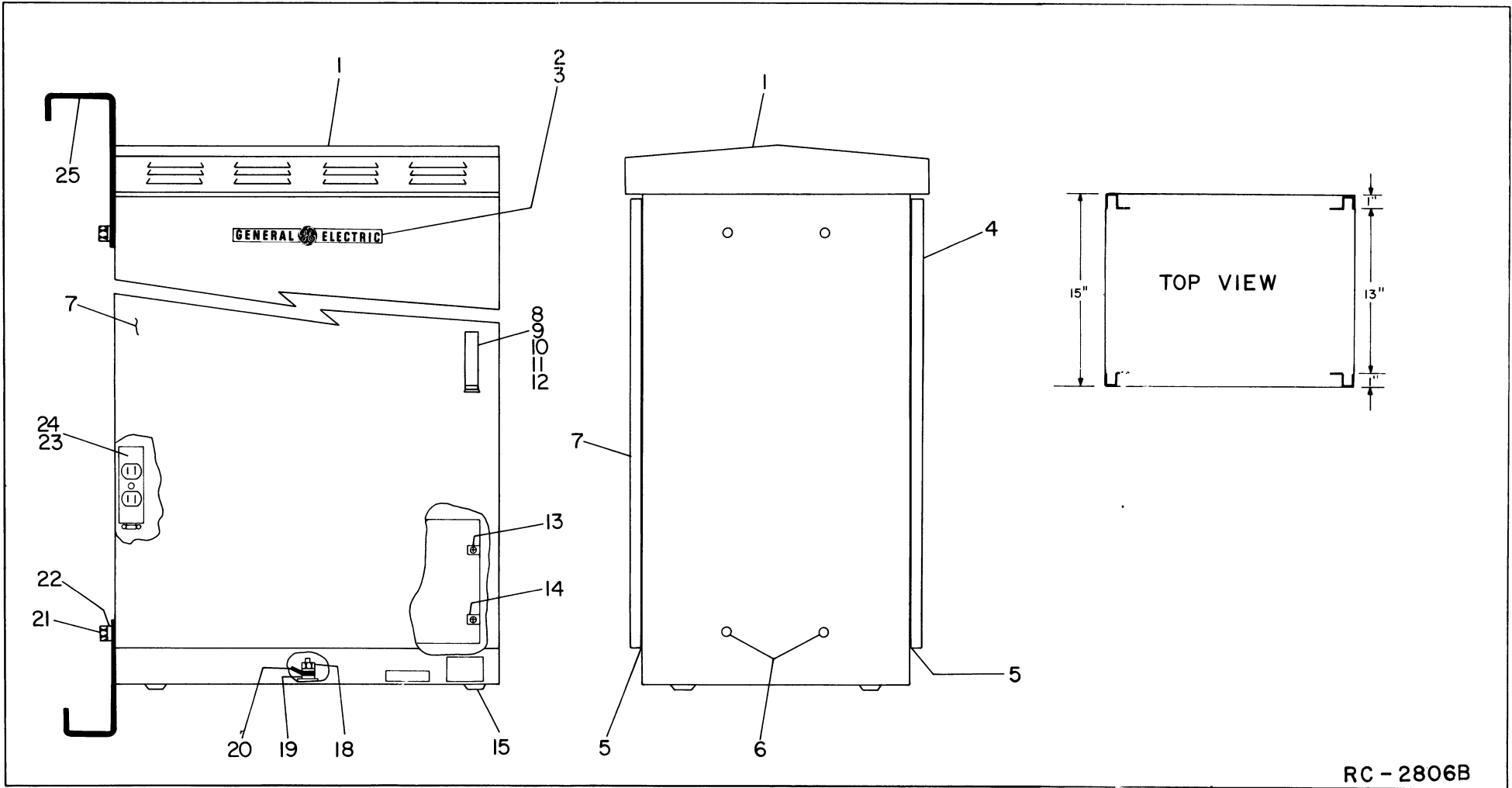
*COMPONENTS ADDED, DELETED OR CHANGED BY PRODUCTION CHANGES

PARTS LIST

LBI4976D

POLE MOUNT STATION CABINET
CONTINUOUS AND INTERMITTANT DUTY
19D417550G1
(SEE RC2806)

SYMBOL	GE PART NO.	DESCRIPTION
1	19D417550G1	Cabinet.
2	19B209531P1	Nameplate. (GENERAL ELECTRIC).
3	4031310P7	Nut, push on: sim to Tinnerman C610-012-24.
4	19D417543G2	Door, left hand.
5	19A134128P1	Door seal. (Front and rear).
6	19A134059P1	Protective plug.
7	19D417543G1	Door, right hand.
8	19A134049P3	Door handle.
9	7150752P1	Strike catch.
10	N84P15008C6	Machine screw: No. 8-32 x 1/2.
11	N403P16C6	Lockwasher, external tooth: No. 8.
12	N210P15C6	Hex nut: No. 8-32.
13	19A134011P1	Tap screw: No. 10-16 x 3/4. (Quantity 52).
14	7160861P33	Nut, sheet spring; sim to Tinnerman C19640-10AB-38. (Quantity 52).
15	19A134015P2	Protective plug.
16	NP270697	Nameplate.
17	NP196405	Nameplate.
18	N210P21C6	Hex nut: No. 1/4-20.
19	N403P25C6	Lockwasher, external tooth: 1/4 inch.
20	19A115141P2	Solderless terminal: sim to ILSCO SLU70.
21	N22P25016C6	Cap screw: No. 3/8-16 x 1.
22	N405P43C6	Lockwasher, spring type: 3/8 inch.
23	19B226350G1	Outlet strip.
24	19B209103P506	Tap screw: No. 10-32 x 3/8. (Secures outlet strip).
25	19C320942P1	Mounting bracket.

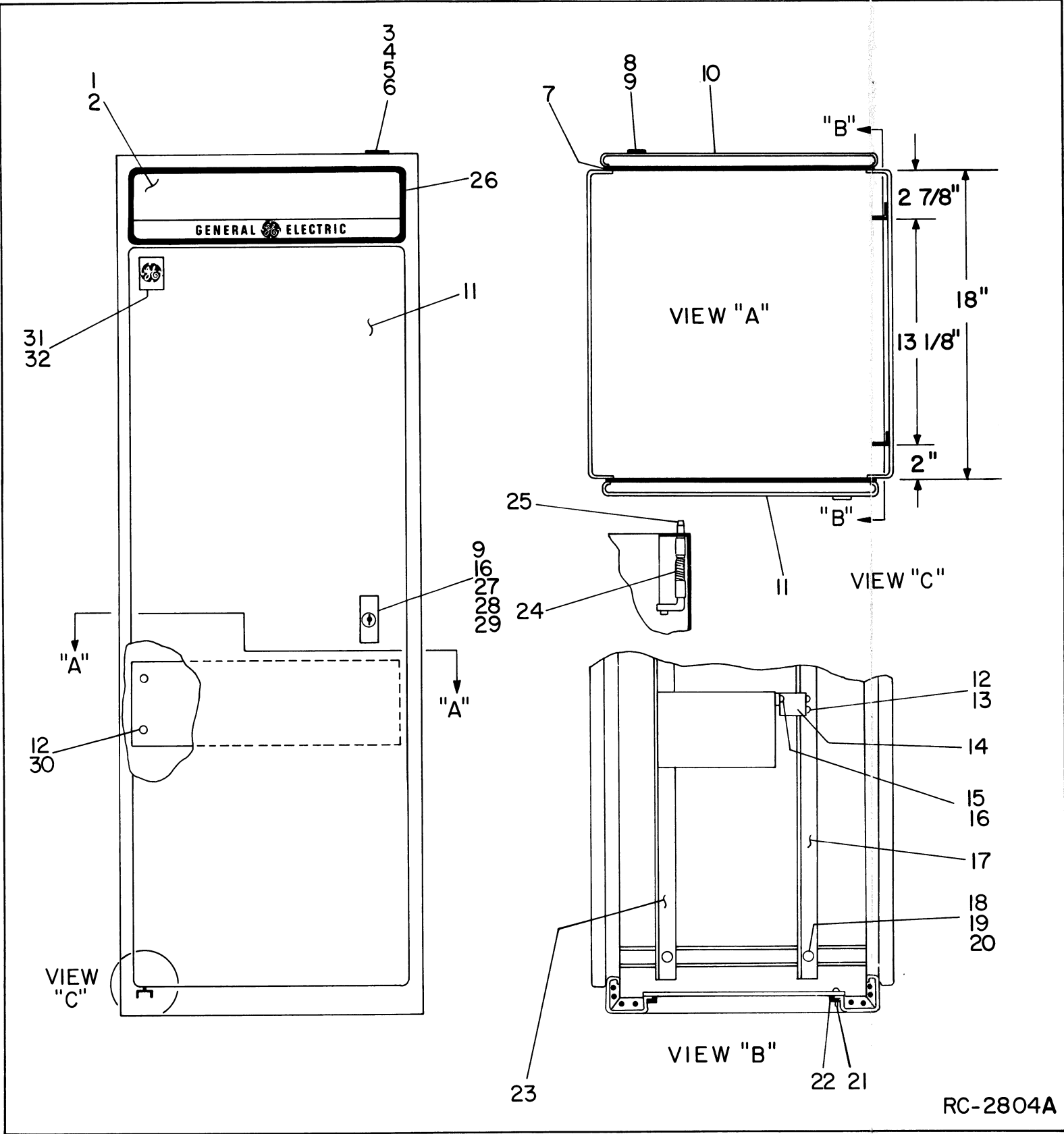


RC - 2806B

MECHANICAL PARTS BREAKDOWN

POLE MOUNT STATION CABINET

*COMPONENTS ADDED, DELETED OR CHANGED BY PRODUCTION CHANGES



PARTS LIST

LBI4977C

FLOOR MOUNT STATION CABINET
CONTINUOUS AND INTERMITTANT DUTY
19D417358G1
(SEE RC2804)

SYMBOL	GE PART NO.	DESCRIPTION
1	19D417623G1	Grille.
2	19B226318P1	Grille plate. (Located under grille).
3	19B219744G2	Strain relief.
4	N80P15008C6	Machine screw: No. 8-32 x 1/2.
5	N210P15C6	Hex nut: No. 8-32.
6	N403P16C6	Lockwasher, external tooth: No. 8.
7	19A126220P1	Gasket, door.
8	19B209539P2	Lock, rear door: sim to Chicago Lock Co. 1703-6T.
9	19B209539P3	Key. Sim to Chicago Lock Co. 1000 GE.
10	19C320756G2	Door, rear. 64 inch.
11	19C320756G1	Door, front. 59 inch.
12	19A134011P1	Tap screw: No. 10-16 x 3/4. (Quantity 52).
13	7160861P33	Nut, sheet spring; sim to Tinnerman C19640-10AB-3B. (Quantity 16).
14	19B226160P2	Support.
15	N80P16008C6	Machine screw: No. 10-32 x 1/2.
16	N403P19C6	Lockwasher, external tooth: No. 10.
17	19B226094P2	Support.
18	N80P21012C6	Machine screw: No. 1/4-20 x 3/4.
19	N403P25C6	Lockwasher, external tooth: 1/4 inch.
20	N402P41C6	Flatwasher: No. 1/4.
21	N80AP16006C6	Machine screw, panhead: No. 8-32 x 3/8.
22	7160861P5	Nut, sheet spring; sim to Tinnerman C1505-1032-157.
23	19B226094P1	Support.
24	19A129902P1	Spring.
25	19B226088P1	Pin hinge.
26	19B226092G1	Frame.
27	19B209539P1	Lock, front. Sim to Chicago Lock Co. 4260-1.
28	N80P16007C6	Machine screw: No. 10-32 x 7/16.
29	N210P16C6	Hexnut: No. 10-32.
30	7160861P33	Nut, sheet spring; sim to Tinnerman C19640-10AB-3B.
31	NP257660	Nameplate. (GE).
32	4031053P7	Nut, sheet spring; sim to Tinnerman C12046-012-67.

*COMPONENTS ADDED, DELETED OR CHANGED BY PRODUCTION CHANGES

MECHANICAL PARTS BREAKDOWN

FLOOR MOUNT STATION CABINET