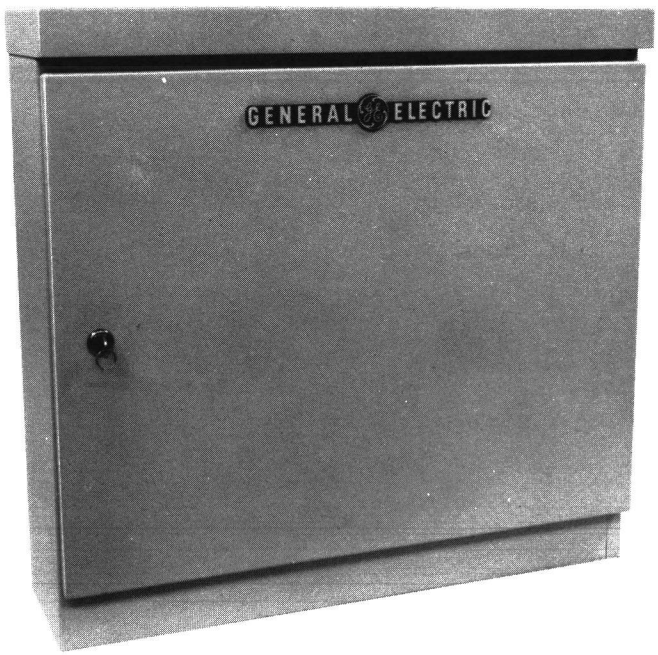
MOBILE RADIO

MASTR® II MAINTENANCE MANUAL

AUXILIARY RECEIVER IN WALL-MOUNT CABINET 19D417546G9 & G10

Maintenance Manual LBI30773B
(Supersedes LBI30588)
DATAFILE FOLDER - DF9035



SPECIFICATIONS *

DIMENSIONS (HXWXD)	21-1/4" X 22-1/2" x 6-7/8"
WEIGHT	57.5 lbs.
TEMPERATURE RANGE	-30°C to +60°C
AC POWER INPUT	121 VAC ±20%, 50/60 Hertz
AUDIO OUTPUT (LINE)	2.7 Volts RMS (+11 dBm)

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

AUXILIARY RECEIVER IN WALL-MOUNT CABINET

GENERAL ELECTRIC

TABLE OF CONTENTS

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!

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EQUIPMENT INDEX

EQUIPMENT	MODEL OR TYPE NUMBER
POWER SUPPLY	19D423500G1
SYSTEM BOARD	19D429764G1
REGULATOR BOARD	19C320918G1
CABINET	19D402658G2
LOCK	5491682P14
KEY	5491682P8

COMBINATION NOMENCLATURE

1st Digit	2nd Digit	3rd Digit	4th Digit	5th Digit	6th & 7th Digits	8th Digit
Package	Options	Channel Spacing	Number of Freq.	Options	Frequency Range	Oscillator Stability
W 121 VAC Rec. in Wall Mount Cabinet	**1** Standard	**4** 20 kHz	**A** 1 Freq.	**S** Standard	**12** 25-30 MHz	**A** ±5 PPM
	2 Secur-it Tone Notch Filter	**5** 25 kHz		**N** Noise Blanker	**13** 30-36 MHz	**B** ±2 PPM
	3 Voting Tone Board	**6** 30 kHz		**P** Preampli-fier	**23** 36-42 MHz	**E** ±1 PPM
	4 Squelch Operated Relay			**U** Channel Guard	**33** 42-50 MHz	
	5 Notch Filter & Voting Board			**W** CG & NB	**44** 66-78 MHz	
	6 Notch Filter & SOR			**G** CG & Preamp	**45** 77-88 MHz	
	7 Line Response Compensator				**56** 138-150.8 MHz	
	8 Tone Notch Filter & Compensator				**66** 150.8-174 MHz	
	9 Compensator & Voting Tone Board				**77** 406-420 MHz	
	A Compensator & Squelch Operated Relay				**88** 450-470 MHz	
	B Compensator & Notch Filter & Voting Tone Board				**89** 470-494 MHz	
	C Compensator & Notch Filter & Squelch Operated Relay				**91** 494-512 MHz	
					96 806-825 MHz	

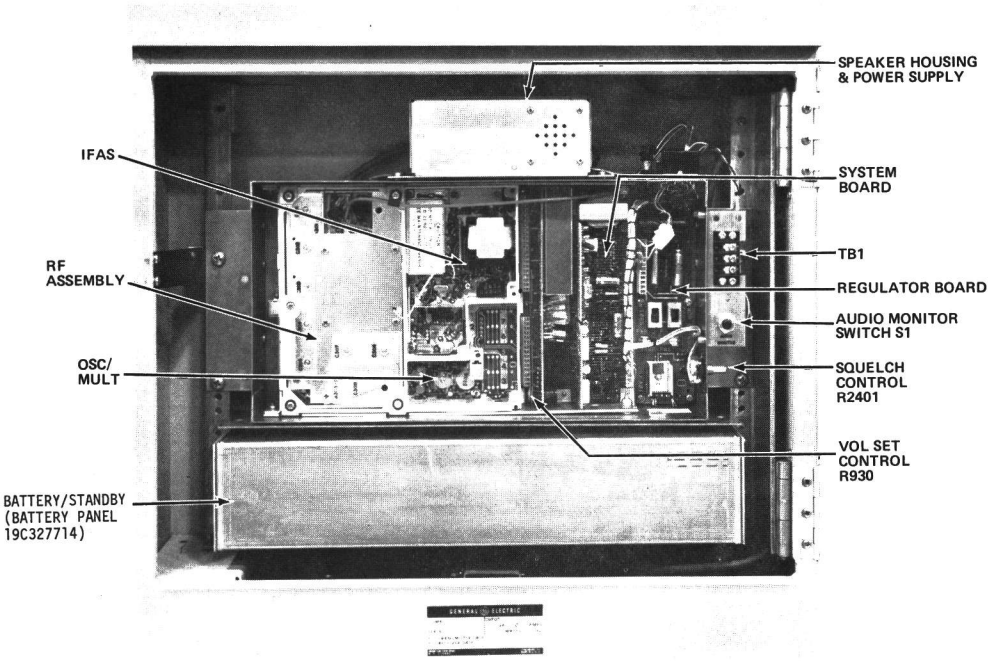

Figure 1 - Auxiliary Receiver in Wall Mount Cabinet

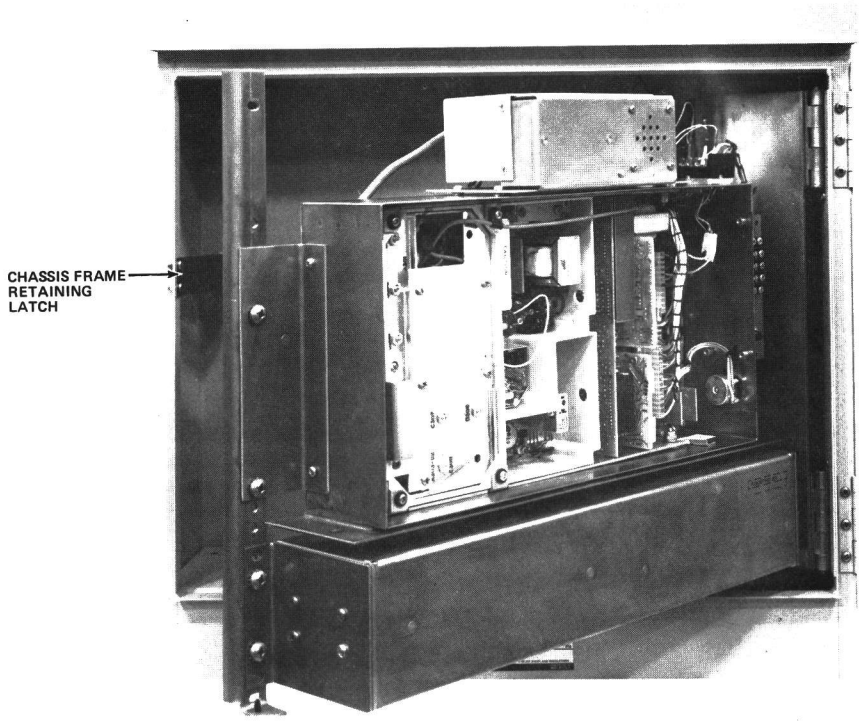

Figure 2 - Receiver Chassis Swung Out for Servicing

DESCRIPTION

The General Electric MASTR® II Auxiliary Receiver mounted in a Wall Mount Cabinet consists of the receiver RF circuits, the oscillator/multiplier, the IFAS and MIF assemblies together with a System Board and a 10-Volt Regulator Board. 13 VDC is required to power the receiver. This is supplied by a 19C311855G1 Power Supply mounted to the rear panel of the Auxiliary Receiver Chassis. A 19B227932G1 Speaker Housing Assembly is also mounted to the rear of the Chassis. Optional battery and charger as well as a blower and heater are available for mounting in the cabinet.

The Auxiliary Receiver System Board accomodates several option boards either individually or in combination. Option boards that plug into jacks on the System Board include the Voting Tone Board (19C320880G1) used in Receiver Voting Systems or the Squelch Operated Relay (SOR) 19C320913G1, used in external control applications.

A Secur-it Tone Notch Filter (19C328328G3), used in Tone Remote Systems, mounts on the side of the receiver system board chassis. A Line Response Compensator Board (19C328328G2) is available for use in Voting Tone Systems. This compensator provides means for adjusting the audio response at the receiver end of a telephone line. A third version of this board (19C328328G1) includes both the Tone Notch Filter and the Line Response Compensator.

A 19D417261G6 Channel Guard Decode Board may be plugged into the System Board at P908 and P909. A Tone Reject Filter (19C320627G1) is used with the Channel Guard Board to prevent the CG tone from being fed into the telephone line. The filter attenuates below 203.5 Hertz.

The 13-Volt DC input to the 10-Volt Regulator is fused. A Light Emitting Diode (LED) is provided on the bottom panel of the Auxiliary Receiver chassis to indicate when power is applied. A power ON-OFF switch is provided on the Regulator Board. Another LED on the bottom panel indicates carrier activity. A MONITOR switch is located on a panel adjacent to the Regulator Board for allowing monitoring of the receiver PA output. The receiver chassis swings out for servicing.

ADJUSTMENT

The initial adjustment of 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 adjust the LINE LEVEL Control R936 located on the System Board, use the following procedure.

1. Connect a signal generator to the Auxiliary Receiver antenna jack J2402. Set the generator to the receiver frequency, modulated at 3 kHz deviation by a 1000 Hz signal. Disable Channel Guard (if present) by opening switch S802 on the Regulator Board.

2. Adjust the LINE LEVEL control R936 on the System Board for a reading of 2.7 Volts RMS as measured at the audio line pair TB1-1 and TB1-2.

To adjust the VOL SET control R930 and the SQUELCH control R2401, use the following procedure.

1. Connect an AC VTVM across J2401-9 and -10. Turn the SQUELCH control R2401 clockwise (to the right) as far as possible.

2. Connect a signal generator to the Auxiliary Receiver antenna jack J2402. Set the generator to the receiver frequency, modulated at 3 kHz deviation by a 1000 Hertz signal. Disable Channel Guard (if present) by opening switch S802 on the Regulator Board.

3. Press in the MONITOR switch S1 and adjust the VOL SET control R930 for a reading of 1.0 Volt RMS on the AC VTVM.

4. Turn the SQUELCH control counterclockwise (to the left) until noise just disappears, then advance the control another 20 degrees.

CIRCUIT ANALYSIS

System Board 19D429764G1

The Auxiliary Receiver System Board contains the VOL SET control R930, the deemphasis and line driver circuits, and jacks which accommodate the various options available. The System Board also mates directly with the receiver modules through J903 and J904.

VOLUME/SQUELCH HI from the receiver audio pre-amp is connected via J904-11 to the VOL SET control R930 and SQUELCH Control R2401. The VOL SET control arm is returned to the receiver IFAS board where the audio is amplified by the receiver audio power amplifier circuit. The audio PA A+ circuit is normally open through MONITOR switch S1. Closing this switch applies A+ to the circuit to allow the PA to operate and connect the audio output to the speaker leads at J2401-9 and -10. The VOL SET control is normally adjusted for 100 milliwatts output.

The VOLUME/SQUELCH HI is coupled through the LINE DRIVER circuits to the

receiver audio pair. The audio is connected through the high-pass filter consisting of C907-C908 and R901-R902. This filter attenuates 60 and 120 Hertz to reduce hum and noise. The output of the emitter-follower Q901 is passed through a de-emphasis network C909 and R906. This network provides a 6 dB/Octave rolloff. The signal is then amplified by Q902 and fed to another emitter follower Q903.

The audio is coupled to the line driver through C914. Q904 amplifies the signal. The LINE LEVEL control R936 is connected in the collector of Q904 and allows feeding the audio to the line driver Q907. Q906 serves as an audio switch controlled by the RUS circuit. As long as the RUS switch Q909 is turned off (receiver squelched), CR905 is forward biased allowing Q906 to conduct. Conduction of Q906 grounds the audio path between Q904 and Q907, preventing the audio from being passed to the line. When the receiver unsquelches, the RUS lead goes high. This turns Q909 on, turning off CR905 and Q906. The audio is now allowed to pass to the output amplifier Q908 and to the line transformer T901. CR902, CR903 and VR901 are provided for line surge protection.

When the 19D417261G6 Channel Guard Board is used, the RX MUTE lead is controlled by the Channel Guard Board. When no CG tone of the proper frequency is present in the received signal, the board holds the RX MUTE lead at ground potential. This holds the RUS lead at ground potential (0.2 VDC). When a CG tone of the proper frequency is detected at the CG board, the ground on the RX MUTE lead is removed and the RUS lead will then go high when the receiver squelch opens. Opening the CG DISABLE switch S802 on the 10-Volt Regulator Board causes the Channel Guard board to remove ground from the RX MUTE lead and allows the receiver to operate on noise squelch.

10-Volt Regulator Board 19C320918G1

The hybrid integrated circuit U801 includes the 10-Volt Regulator and regulator amplifier. Regulator pass transistor Q801 is mounted to the heat sink located on the printed board. The regulator circuit provides a closely controlled supply voltage for the receiver, Channel Guard and other options when used. Input voltage (A+) for the regulator is supplied from the receiver power supply via J2401-2.

Closing the ON/OFF switch S801 applies A+ voltage through input filter C801-L801 to pin 1 of the regulator hybrid U801. The input A+ is fused by F801 & F802. The A+ voltage is also connected through in-line connectors J2404 and P2404 to MONITOR switch S1. After passing through S1, the A+ voltage is connected via J2404 and P2404 to P2402-19 at the receiver IFAS board.

The regulator output at pin 2 of U801 is applied to the base of Q801, causing Q801 to conduct. The voltage at pin 3 of U801 is the regulated 10-Volts output. A high-impedance source at pin 5 of U801 provides a stable 5-Volt compensation input to the receiver ICOM.

Two Light Emitting Diodes are provided on the bottom panel of the receiver. LED CR801 (POWER ON indicator) is illuminated when power is applied to the regulator and S801 is in the ON position. When a signal is received, the received unsquelch sensor (RUS) voltage developed by the receiver operates the RUS switch Q909 on the System Board. Conduction of Q909 operates Q802 on the Regulator Board. Conduction of Q802 turns on LED CR802 (CARRIER ACTIVITY).

Power Supply 19C311855G1

The 120-VAC, 50/60 Hertz supply provides the required +13 Volts for operating the receiver. Connecting P501 to the convenience outlet J501 applies the 120 VAC to the primary of stepdown transformer T501. The AC voltage developed across the secondary of T501 is rectified by full-wave bridge CR501-CR504. The rectified output is filtered by C501 and regulated by VR501 and Q501. The +13 VDC output is connected through P502 and P503 to P1-1 and P1-2 of the 19B226440 harness.

Battery Standby/Charger (Option 9620)

A Battery Standby/Charger option may be added to the Wall-Mount Auxiliary Receiver cabinet. The battery, a 12-Volt lead storage battery 19A116574P1, is mounted on the 19C327714G1 Battery Panel. The charger Board (19B227928G1) is located in the Speaker Housing. Refer to the Table of Contents for the Installation Instructions.

As long as the power source and power supply are operating properly, CR1 on the Charger Board is reverse biased and the battery is on charge. A positive supply voltage is connected via TB1-4 of the power supply to the Charger. A variable voltage, adjusted by R1, sets the bias on the base of Q2 which in turn controls the conduction of Q1. If the charge on the battery is low, Q3 supplies the required charge current. When the charge on the battery rises, zener diode VR2 breaks down and Q2 starts conducting. This causes Q1 and Q3 to conduct less, limiting the amount of charge current to the battery.

If the power source or power supply fails, CR1 is forward biased connecting the battery directly to the A+ input of the Regulator. C1 provides filtering of the battery voltage.

Channel Guard Filter 19C320627G1

The Channel Guard Filter attenuates frequencies below 203.5 Hertz to prevent the Channel Guard tone from being applied to the line. The filter board is plugged into the System Board at P906 and P907.

Audio and tone is applied to the filter input (J1-1) from the pre-amp. The audio is coupled to the 187 Hertz Notch Filter composed of Q1, Q2 and associated circuitry. Negative feedback for the filter is connected from the collector of Q2 to the junction of C2-R2.

The Notch Filter output is applied to a Low-Pass Filter consisting of Q3 and Q4. Negative feedback is developed across R12. The output of Q4 is coupled to the output lead J2-3 through C9 and returned to the pre-amp circuit.

Tone Notch Filter 19C328328G3

In Tone Remote Systems the 19C328328G3 Tone Notch Filter is used for removing the 2175 Hertz Secur-it tone from the audio path. The audio is connected to the filter at J907 on the System Board. The filter is composed of series-resonant shunts L1-C1 and L3-C3 along with parallel resonant trap L2-C2. The filter notches out the 2175 Hz component from the audio and returns the audio to the System Board via J905. Resistor R937 is removed in Tone Remote Systems.

Line Response Compensator 19C328328G2

A telephone line usually introduces attenuation as a function of frequency to the audio signal. The Line Response Compensator introduces gain at the appropriate frequencies with the net effect being a flat frequency response.

Audio applied to the compensator input at J908 on the System Board is amplified by buffer amplifier AR1-D and applied to the two active bandpass filters AR1-A and AR1-B. The 300 Hz and 3000 Hz filters boost the audio at these frequencies and the result is summed by the low-Q 1000 Hz filter AR1-C. This 1000 Hz filter provides the required attenuation for a resultant response control from -1 to +10 dB at 300 Hz, 3000 Hz referenced to the 1000 Hz level. Gain control R12 is adjusted at the factory and should require no further adjustment. The compensator output is applied to J909 on the System Board. The +10 VDC for operating the compensator circuits is applied via J910 on the System Board.

Tone Notch Filter/Line Response Compensator 19C328328G1

The 19C328328G1 board combines the Tone Notch Filter and Line Response Compensator in systems requiring both functions.

Squelch Operated Relay Board 19C320913G1

The Squelch Operated Relay (SOR) Board plugs into the Auxiliary Receiver System Board at the P902 position. The SOR provides four sets of Form "C" relay contacts. A harness (19A122717G5) is provided for connecting any two sets of the Form "C" contact pins. The contacts of the relay are rated at 2 Amperes, for either 24 VDC or 121 VAC application.

When a signal is received and the receiver unsquelches, a positive voltage appears on the RUS line at P904-8. This positive voltage is applied to the base of Q1, turning the transistor on. Conduction of Q1 operates Q2. Conduction of Q2 turns on Q3 which, in turn, energizes relay K1.

Voting Tone Board 19C320879G1

The Voting Tone Board is used in Voting Selector Systems and is plugged into the same plug (P902) which accomodates the SOR Board. Thus both of these options cannot be used simultaneously. Refer to LBI4913 for a description of the Voting Tone Board.

Voting Tone Board 19C328276G2 (Option 9656)

The 19C328276G2 Voting Tone Board is used in Voting Systems when test tones are desired for line response adjustment. The test tones are normally 400, 1000 and 2500 Hz with optional status tones of 1600, 2175 and 2400 Hz available. Three momentary pushbutton switches are provided for enabling each of the test tones. The 19C328276G2 Voting Tone Board is described in LBI30767.

Fan and Heater (Options 9621, 9622, 9623)

Three options are available for providing either a fan (Option 9621), a heater (Option 9622) or both fan and heater (Option 9623). The following chart indicates which assembly kit is used with each of the options.

OPTION 9621	OPTION 9622	OPTION 9623
Fan Only Kit 19A137089G2	Heater Only Kit 19A137089G1	Fan and Heater Kit 19A137089G3

Refer to the Table of Contents for Installation Instructions for these options.

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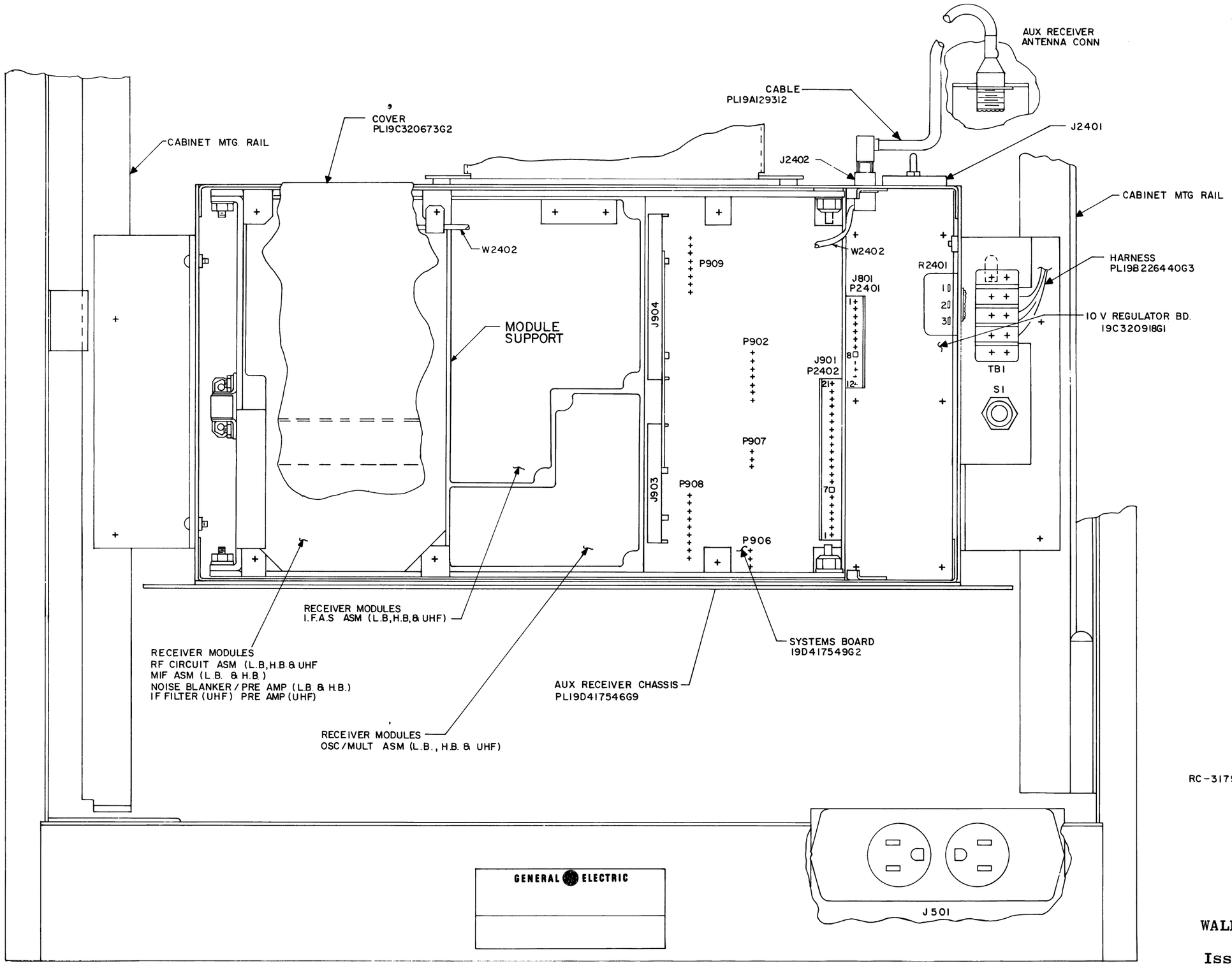
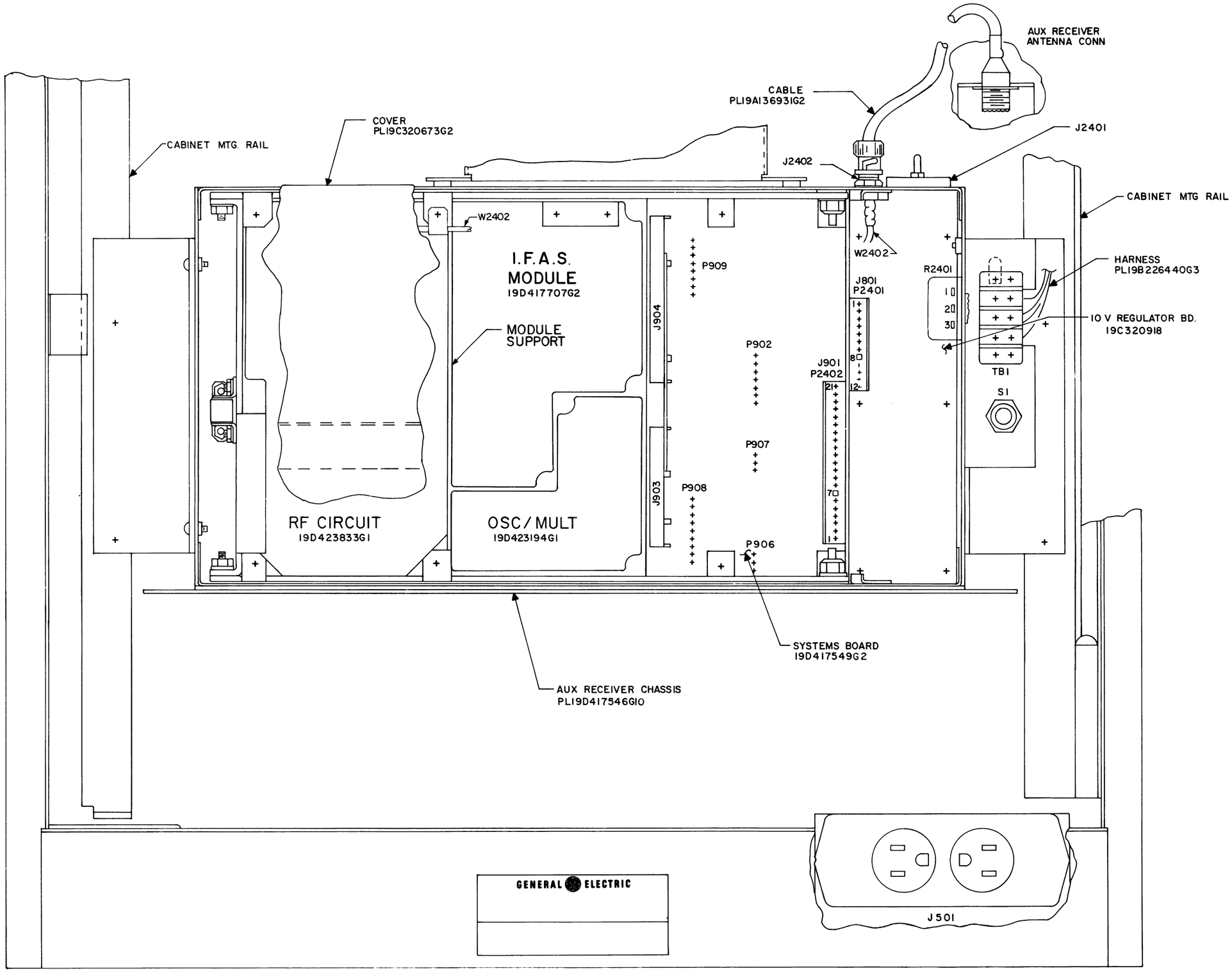


RC-3179A

OUTLINE DIAGRAM

LO BAND, HI BAND & UHF
AUXILIARY RECEIVER IN
WALL MOUNT CABINET 19D417546G9



RC-3180A

OUTLINE DIAGRAM

800 MHz AUXILIARY RECEIVER IN WALL MOUNT CABINET 19D417546G10

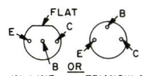
AUXILIARY RECEIVER SOR BOARD 19C320913G1

LEAD IDENTIFICATION FOR Q3

TRIANGULAR
VIEW FROM LEAD END

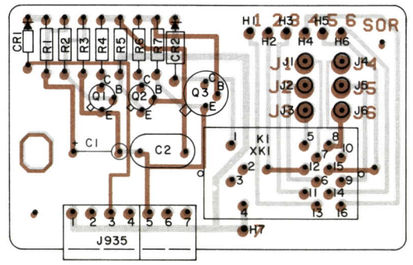
NOTE: LEAD ARRANGEMENT, AND NOT CASE SHAPE, IS DETERMINING FACTOR FOR LEAD IDENTIFICATION.

LEAD IDENTIFICATION FOR Q1 & Q2



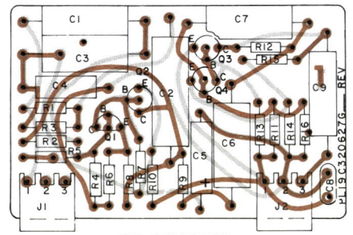
IN-LINE TRIANGULAR
VIEW FROM LEAD END

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

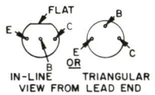


(19C321796, Rev. 1)
(19A130059, Sh. 1, Rev. 0)
(19A130059, Sh. 2, Rev. 0)

CHANNEL GUARD FILTER 19C320627G1



LEAD IDENTIFICATION FOR Q1 — Q4

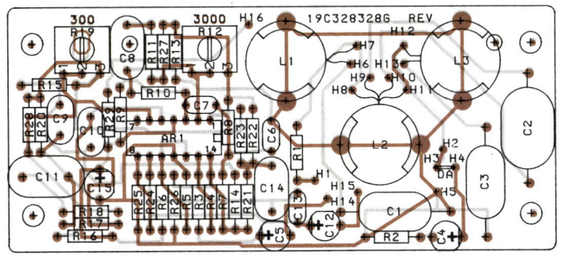


IN-LINE TRIANGULAR
VIEW FROM LEAD END

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

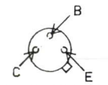
(19C321338, Rev. 1)
(19C320625, Sh. 2, Rev. 1)
(19C320625, Sh. 3, Rev. 1)

TONE NOTCH FILTER/LINE RESPONSE COMPENSATOR 19C328328G1-G3



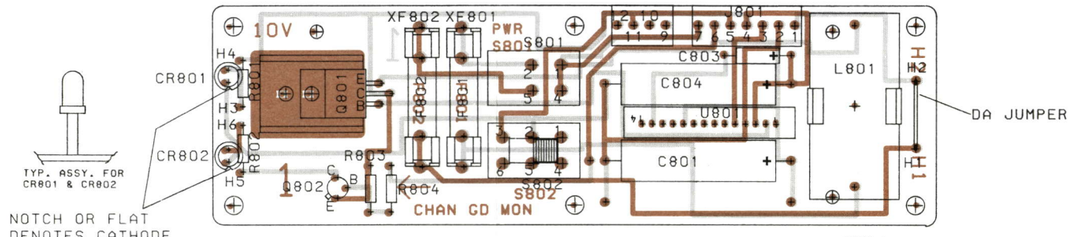
(19C328331, Rev. 0)
(19B232614, Sh. 1, Rev. 0)
(19B232614, Sh. 2, Rev. 0)

LEAD IDENTIFICATION FOR Q908



TRIANGULAR
TOP VIEW

10-VOLT REGULATOR 19C320918G1



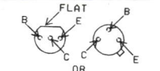
TYP. ASSY. FOR CR801 & CR802

NOTCH OR FLAT DENOTES CATHODE

(19C321792, Rev. 4)
(19B226221, Sh. 1, Rev. 1)
(19B226221, Sh. 2, Rev. 1)

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

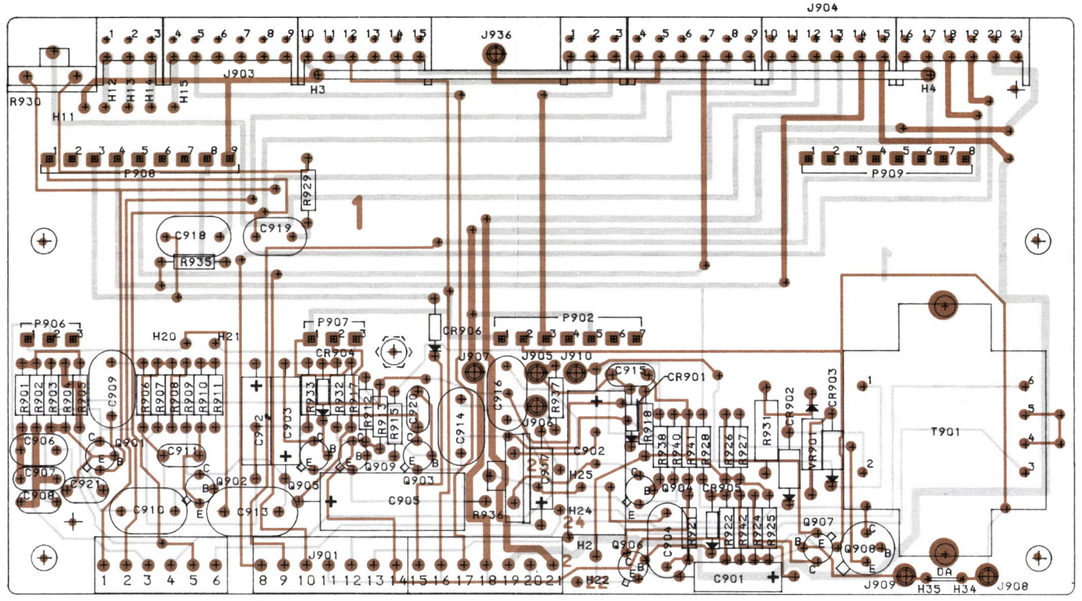
LEAD IDENTIFICATION FOR Q802



IN-LINE TRIANGULAR
TOP VIEW

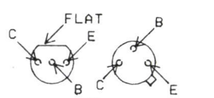
NOTE: LEAD ARRANGEMENT, AND NOT CASE SHAPE, IS DETERMINING FACTOR FOR LEAD IDENTIFICATION.

AUXILIARY RECEIVER SYSTEM BOARD 19D429764G1



(19D429765, Rev. 1)
(19B232874, Sh. 1, Rev. 1)
(19B232874, Sh. 2, Rev. 1)

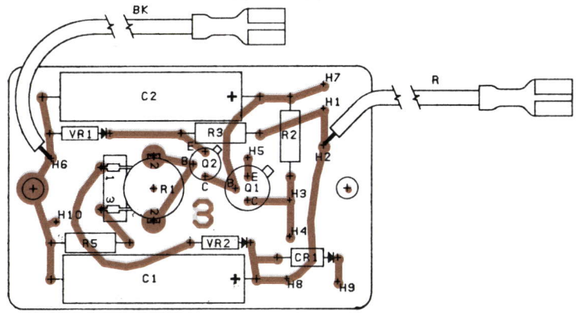
LEAD IDENTIFICATION FOR Q901-Q907, Q909



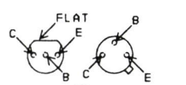
IN-LINE TRIANGULAR
TOP VIEW

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

CHARGER BOARD 19B227928G1



LEAD IDENTIFICATION FOR Q1 AND Q2



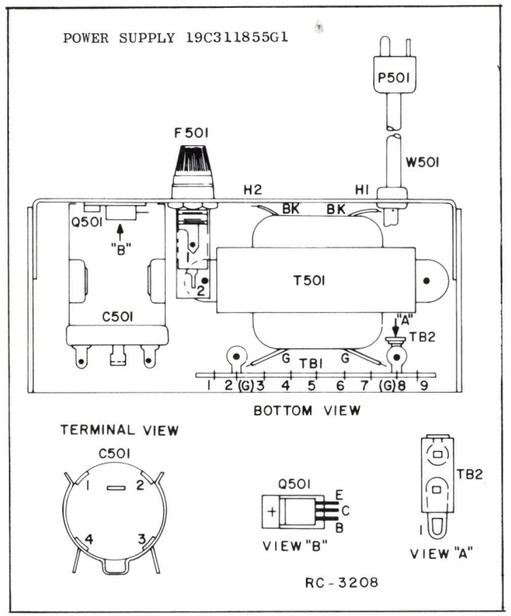
IN-LINE TRIANGULAR
TOP VIEW

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

NOTES:
1. PARTIAL REFERENCE DESIGNATIONS ARE SHOWN. FOR COMPLETE DESIGNATION, PREFIX WITH 2600 SERIES.
   EXAMPLE: C1= C2601, R1= R2601, ETC...

(19B232110, Rev. 0)
(19B219158, Sh. 1, Rev. 3)
(19B219158, Sh. 2, Rev. 3)

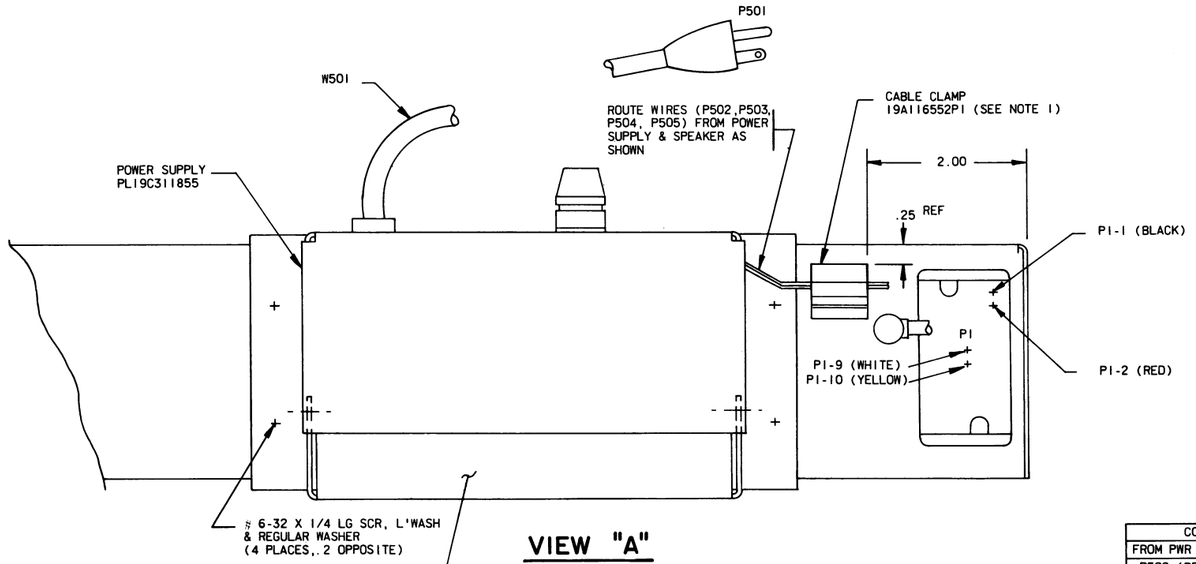
POWER SUPPLY 19C311855G1



RC-3208

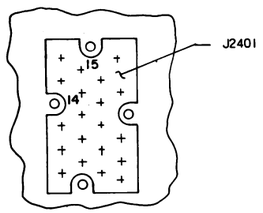
OUTLINE DIAGRAMS

SOR, CHANNEL GUARD & REGULATOR BOARD, TONE NOTCH FILTER, POWER SUPPLY, CHARGER AND SYSTEM BOARD

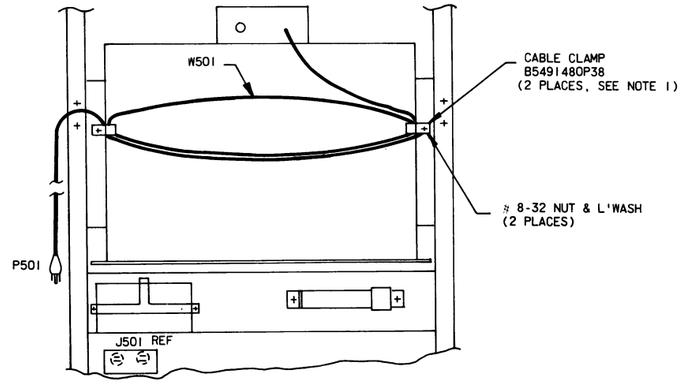


VIEW "A"

(PARTIAL)



VIEW "B"



REAR VIEW OF RCVR CHASSIS SHOWING CABLE ROUTING & APPLICATION OF CABLE CLAMPS, CONNECT P501 TO J501

CONNECTIONS CHART	
FROM PWR SUPPLY	TO
P502 (RED)	P1-2 (RED)
P503 (BLACK)	P1-1 (BLACK)
P504 (WHITE)	P1-4 (WHITE)
P505 (YELLOW)	P1-10(YELLOW)

NOTES:

1. PART OF HARDWARE KIT PL19A130031G15.
2. THE FOLLOWING INSTRUCTIONS MUST BE FOLLOWED TO INSTALL CABLE 19B227932G1 IN HARNESS 19D417546G2.
   A. REMOVE CONTACT FROM POSITION 1 OF P2401
   B. INSERT CONTACT JUST REMOVED (STEP A) INTO J2404-1.
   C. INSERT CONTACT ON WIRE FROM J2404-2 INTO P2401-1.
   D. CONNECT (SOLDER) THE WIRE FROM P2404-1 TO J2401-14 AND THE WIRE FROM P2404-2 TO J2401-15.

OUTLINE DIAGRAM

POWER SUPPLY & SPEAKER HOUSINGS

RC-3181

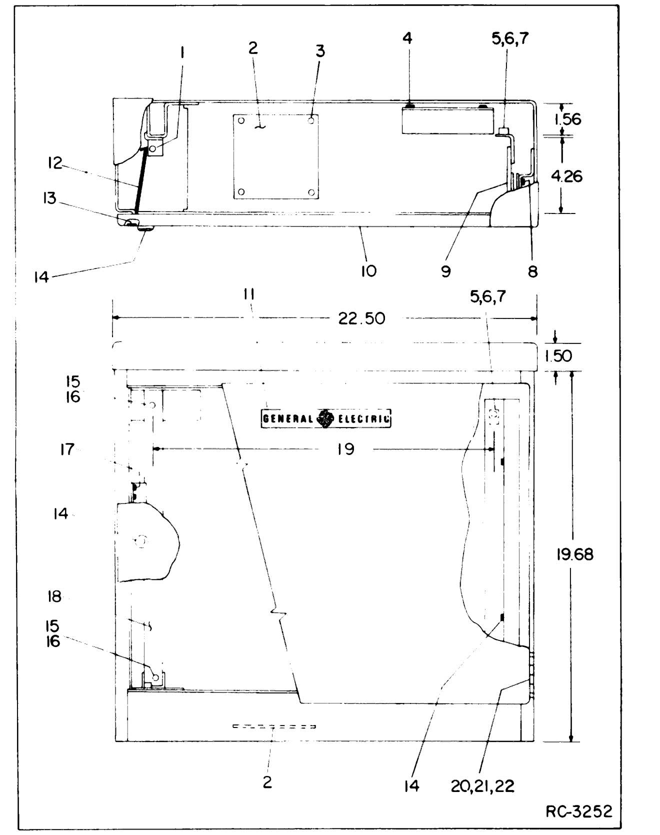
PARTS LIST

LBI-30615

WALL MOUNT CABINET
19D402658G2

SYMBOL	GE PART NO.	DESCRIPTION
		- - - - - - - - - JACKS AND RECEPTACLES - - - - - -
J501	19B209343P1	Receptacle, power: 15 amps at 125 v; sim to GE 7503-1.
		MECHANICAL PARTS (SEE RC-3252)
1	4035267P1	Plug button.
2	19A122184P1	Grille.
3	N80P13004C6	Machine screw: No. 6-32 x 1/4.
4	N84P9008C6	Machine screw: No. 4-40 x 1/2.
5	7763541P6	Retainer strap.
6	4029851P19	Clip loop: sim to Weckesser 3/8-6.
7	N80P15007C6	Machine screw: No 8-32 x 7/16.
8	19B201074P306	Tap screw, Phillips POZIDRIV®: No. 6-32 x 3/8.
9	19B205318G1	Hinged support.
10	19D402644P4	Door. (Less Hinges and Lock).
11	19B209531P2	Nameplate. (GENERAL ELECTRIC).
12	19B205409P1	Spring latch.
13	19A122059P4	Pad. (Quantity 2).
14	5491682P14	Rim lock: sim to Yale and Towne DF76288UX1, includes BF-10A Key.
15	N130P1410C6	Tap screw: No. 8-18 x 5/8.
16	N402P38C13	Flatwasher: No. 8.
17	N80P16006C6	Machine screw: No. 10-32 x 3/8.
18	19B205311P1	Angle.
19	19B201074P306	Tap screw, Phillips POZIDRIV®: No. 6-32 x 3/8. (Retain hinge pins on item 9).
20	19D402644P15	Hinge.
21	19B201074P403	Tap screw, Phillips POZIDRIV®: No. 8-32 x 3/8.
22	7160523P3	Weld nut: No. 8-32.

*COMPONENTS ADDED, DELETED OR CHANGED BY PRODUCTION CHANGES



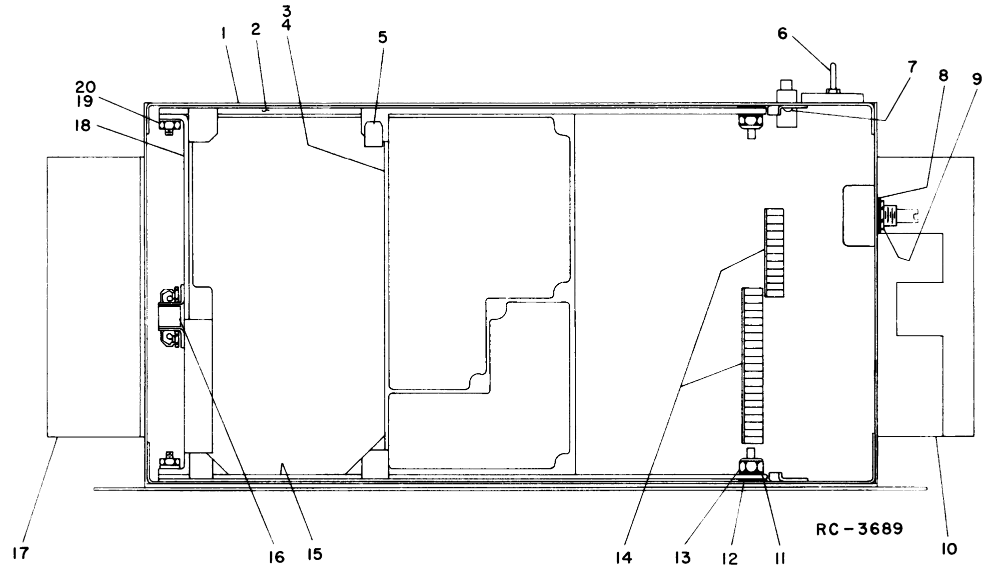
PARTS LIST

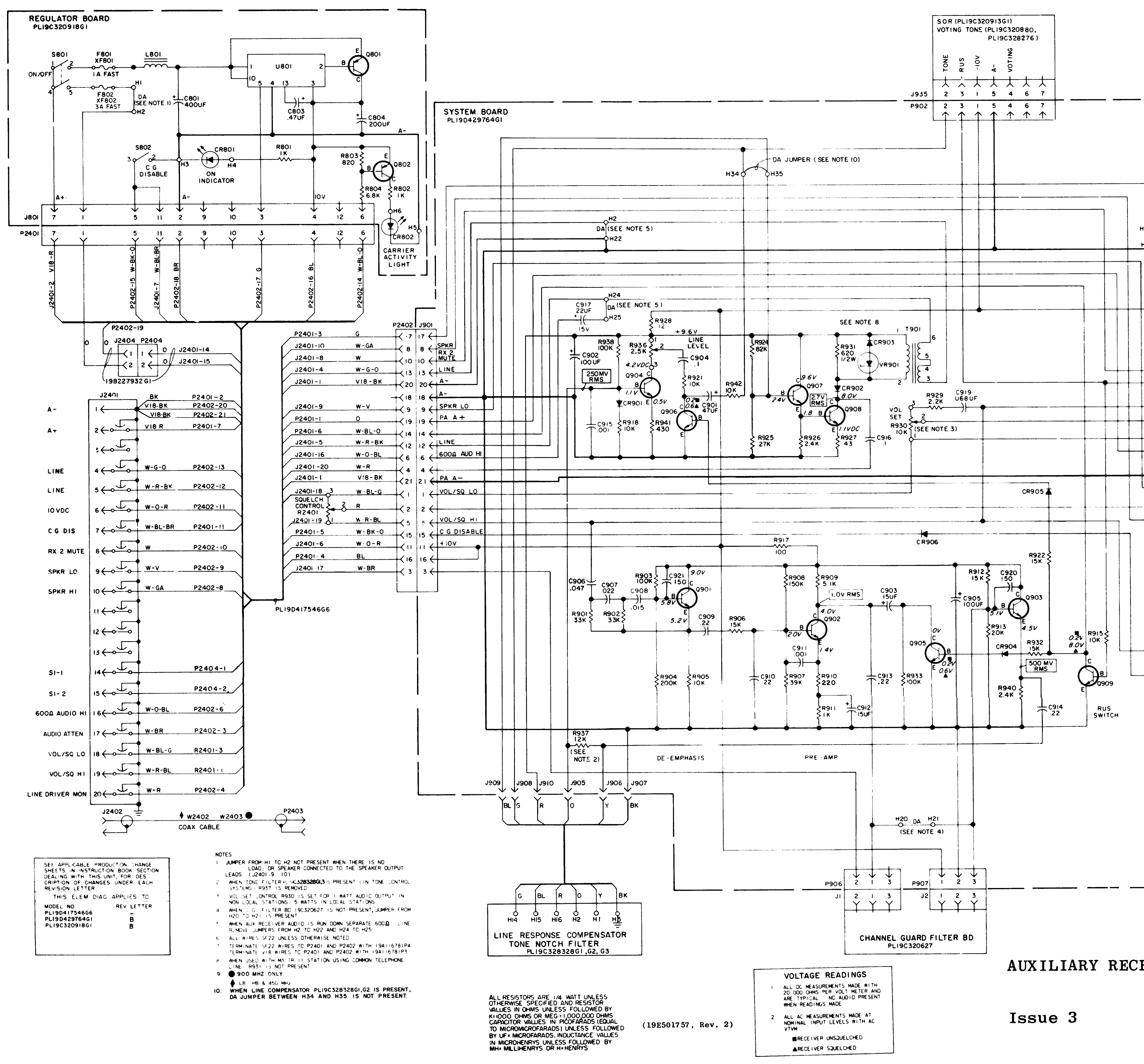
AUXILIARY RECEIVER CHASSIS
19D417546G9 LOW, HIGH, UHF BAND
19D417546G10 900 BAND

SYMBOL	GE PART NO.	DESCRIPTION
		- - - - - - - - - - - CABLES - - - - - - - - - - -
W2402	5491689P105	Cable, RF: approx 14 inches long. Includes J2402 and P2403.
W2403	19A136930G2	Cable, RF: approx 21 inches long. Includes J2402 (19A115938P12), and P2403 (7104941P17).
W2404		HARNESS ASSEMBLY 19D417546G6
		- - - - - - - JACKS AND RECEPTACLES - - - - - -
J2401	19C303426G1	Connector: 20 pin contacts.
		- - - - - - - - - - - - PLUGS - - - - - - - - - - -
P2401		Includes:
	19A116659P21	Shell.
	19A116781P5	Contact, electrical: wire range No. 18-24 AWG; sim to Molex 08-50-0106. (terminal 7).
	19A116781P6	Contact, electrical: wire range No. 22-26 AWG; sim to Molex 08-50-0108. (terminals 2-6, 11).
	19B209519P1	Polarity tab. (terminal 8).
P2402		Includes:
	19A116659P25	Shell.
	19A116781P5	Contact, electrical: wire range No. 18-24 AWG; sim to Molex 08-50-0106. (terminals 20, 21).
	19A116781P6	Contact, electrical: wire range No. 22-26 AWG; sim to Molex 08-50-0108. (terminals 1-6, 8-17, and 19).
	19B209519P1	Polarity tab. (terminal 7).
		HARDWARE KIT 19A130031G5
	19A116773P108	Tap screw, Phillips POZIDRIV®: No. 7-19 x 1/2. (Quantity 5).
	19B209209P304	Tap screw, Phillips Pozidriv®: No. 6-32 x 1/4. (Quantity 5).
	19B209209P307	Tap screw, Phillips Pozidriv®: No. 6-32 x 7/16. (Quantity 7).
	19B201074P304	Tap screw, Phillips POZIDRIV®: No. 6-32 x 1/4. (Quantity 5).
	19B201074P305	Tap screw, Phillips POZIDRIV®: No. 6-32 x 5/16. (Quantity 14).
	19B201074P306	Tap screw, Phillips POZIDRIV®: No. 6-32 x 3/8. (Quantity 17).
	19B201074P310	Tap screw, Phillips POZIDRIV®: No. 6-32 x 5/8. (Quantity 4).
	7147306P2	Insulator, bushing. (Quantity 4).
		ASSOCIATED ITEMS
		CABLE ASSEMBLY 19B227932G1
		- - - - - - - JACKS AND RECEPTACLES - - - - - -
J2404		Connector. Includes printed wire connector (19A116659P14) & electrical contact (19A116781P6).
		- - - - - - - - - - - - PLUGS - - - - - - - - - - -
P2404	19A116659P55	Connector, printed wiring: 3 contacts; sim to Molex 09-65-1031.

*COMPONENTS ADDED, DELETED OR CHANGED BY PRODUCTION CHANGES

SYMBOL	GE PART NO.	DESCRIPTION
		MECHANICAL PARTS (SEE RC3689)
1	19C320899G1	Can.
2	19B226035G2	Support.
3	19C320664G1	Frame. (LOW-HIGH-UHF BAND).
4	19C320664G2	Frame. (900 MHz BAND).
5	4029851P11	Clip loop.
6	19A121676P1	Guide pin.
7	19B201074P204	Tap screw, Phillips POZIDRIV®: No. 4-40 x 1/4. (Secures J2402).
8	7115130P9	Lockwasher, internal tooth: No. 3/8; sim to Shakeproof 1220-2.
9	7165075P2	Hex nut, brass: thd. size No. 3/8-32.
10	19A137104G1	Support.
11	19A115161P2	Bearing, sleeve.
12	N402P39C6	Flatwasher: No. 10.
13	4035664P8	Nut, self locking: thd. size No. 10-32.
14	19B209519P1	Polarity tab.
15	19B226035G1	Support.
16	19A115874P1	Catch, friction.
17	19A137103G1	Support.
18	19B226105G2	Support.
19	7141225P3	Hex nut: No. 6-32.
20	N404P13C6	Lockwasher, internal tooth: No. 6.





SCHEMATIC DIAGRAM

AUXILIARY RECEIVER 19D417546G9 & G10

Issue 3

PARTS LIST

AUXILIARY RECEIVER SYSTEM BOARD
19D629784G1
ISSUE 3

SYMBOL	GE PART NO.	DESCRIPTION
		- - - - - - - - - - CAPACITORS - - - - - - - - - -
C901	5496267P2	Tantalum: 47 µF ±20%, 6 VDCW; sim to Sprague Type 150D.
C902	19A115680P7	Electrolytic: 100 µF +150% -10%, 15 VDCW; sim to Mallory Type TTX.
C903	5496267P14	Tantalum: 15 µF ±20%, 20 VDCW; sim to Sprague Type 150D.
C904	19A115080P7	Polyester: 0.1 µF ±20%, 50 VDCW.
C905	19A115680P7	Electrolytic: 100 µF +150% -10%, 15 VDCW; sim to Mallory Type TTX.
C906	19A115080P205	Polyester: 0.047 µF ±5%, 50 VDCW.
C907	19A115080P303	Polyester: 0.022 µF ±5%, 50 VDCW.
C908	19A115080P302	Polyester: 0.015 µF ±5%, 50 VDCW.
C909 and C910	19A115080P109	Polyester: 0.22 µF ±10%, 50 VDCW.
C911	5494481P111	Ceramic disc: 1000 pF ±20%, 1000 VDCW; sim to RMC Type JF Discap.
C912	5496267P14	Tantalum: 15 µF ±20%, 20 VDCW; sim to Sprague Type 150D.
C913 and C914	19A115080P9	Polyester: 0.22 µF ±20%, 50 VDCW.
C915	5494481P111	Ceramic disc: 1000 pF ±20%, 1000 VDCW; sim to RMC Type JF Discap.
C916	19A115080P7	Polyester: 0.1 µF ±20%, 50 VDCW.
C917	5496267P10	Tantalum: 22 µF ±20%, 15 VDCW; sim to Sprague Type 150D.
C918	19A115080P7	Polyester: 0.1 µF ±20%, 50 VDCW.
C919	19A115080P103	Polyester: 0.068 µF ±10%, 50 VDCW.
C920 and C921	5494481P1	Ceramic disc: 150 pF ±20%, 1000 VDCW; sim to RMC Type JF Discap.
		- - - - - - - DIODES AND RECTIFIERS - - - - - - -
CR901	19A115250P1	Silicon, fast recovery, 225 mA, 50 PIV.
CR902 and CR903	4037822P7	Silicon, 1000 mA, 800 PIV.
CR903 thru CR906	19A115250P1	Silicon, fast recovery, 225 mA, 50 PIV.
		- - - - - - - JACKS AND RECEPTACLES - - - - - - -
J901		Connector. Includes:
	19A116659P11	Connector, printed wire: sim to Molex 09-64-1071. (Quantity 2).
	19A116659P12	Connector, printed wire: sim to Molex 09-64-1061.
J903		Connector. Includes:
	19A116659P1	Connector, printed wire: sim to Molex 09-52-3032.
	19A116659P4	Connector, printed wire: sim to Molex 09-52-3062. (Quantity 2).
J904		Connector. Includes:
	19A116659P1	Connector, printed wire: sim to Molex 09-52-3032.
	19A116659P4	Connector, printed wire: sim to Molex 09-52-3062. (Quantity 2).
J905 thru P910	4035313P4	Contact, electrical: sim to Bead Chain LB3-3.

SYMBOL	GE PART NO.	DESCRIPTION
J936	4033513P4	Contact, electrical: sim to Bead Chain LB3-3.
		- - - - - - - - - - PLUGS - - - - - - - - - -
P902	19A116779P1	Contact, electrical: sim to Molex 08-50-0404. (Quantity 7).
P906	19A116779P1	Contact, electrical: sim to Molex 08-50-0404. (Quantity 3).
P907	19A116779P1	Contact, electrical: sim to Molex 08-50-0404. (Quantity 3).
P938	19A116779P1	Contact, electrical: sim to Molex 08-50-0404. (Quantity 9).
P909	19A116779P1	Contact, electrical: sim to Molex 08-50-0404. (Quantity 8).
		- - - - - - - - TRANSISTORS - - - - - - - -
Q901 and Q902	19A116774P1	Silicon, NPN; sim to Type 2N5210.
Q903	19A115910P1	Silicon, NPN; sim to Type 2N3904.
Q904	19A116774P1	Silicon, NPN; sim to Type 2N5210.
Q905 and Q906	19A115910P1	Silicon, NPN; sim to Type 2N3904.
Q907	19A116774P1	Silicon, NPN; sim to Type 2N5210.
Q908	19A115300P4	Silicon, NPN.
Q909	19A115910P1	Silicon, NPN; sim to Type 2N3904.
		- - - - - - - - - - RESISTORS - - - - - - - - - -
R901 and R902	3R152P333J	Composition: 33K ohms ±5%, 1/4 w.
R903	3R152P104J	Composition: 100K ohms ±5%, 1/4 w.
R904	3R153P204J	Composition: 200K ohms ±5%, 1/4 w.
R905	3R152P103J	Composition: 10K ohms ±5%, 1/4 w.
R906	3R152P153J	Composition: 15K ohms ±5%, 1/4 w.
R907	3R152P393J	Composition: 39K ohms ±5%, 1/4 w.
R908	3R152P154J	Composition: 150K ohms ±5%, 1/4 w.
R909	3R152P512J	Composition: 5.1K ohms ±5%, 1/4 w.
R910*	3R153P221J	Composition: 220 ohms ±5%, 1/4 w. In REV A:
	3R152P161J	Composition: 160 ohms ±5%, 1/4 w. Earlier than REV A:
	3R152P241J	Composition: 240 ohms ±5%, 1/4 w.
R911	3R152P102J	Composition: 1K ohms ±5%, 1/4 w.
R912	3R152P153J	Composition: 15K ohms ±5%, 1/4 w.
R913	3R153P203J	Composition: 20K ohms ±5%, 1/4 w.
R915	3R152P103J	Composition: 10K ohms ±5%, 1/4 w.
R917	3R152P101J	Composition: 100 ohms ±5%, 1/4 w.
R918	3R152P103J	Composition: 10K ohms ±5%, 1/4 w.
R921	3R152P103J	Composition: 10K ohms ±5%, 1/4 w.
R922	3R152P153J	Composition: 15K ohms ±5%, 1/4 w.
R924	3R152P823J	Composition: 82K ohms ±5%, 1/4 w.
R925	3R152P273J	Composition: 27K ohms ±5%, 1/4 w.
R926	3R152P242J	Composition: 2.4K ohms ±5%, 1/4 w.
R927	3R152P430J	Composition: 43 ohms ±5%, 1/4 w.
R928	3R152P120J	Composition: 12 ohms ±5%, 1/4 w.
R929	3R152P222K	Composition: 2.2K ohms ±10%, 1/4 w.
R930	19B209338P106	Variable, carbon film: approx 300 to 10,000 ohms ±10%, 0.25 w; sim to CTS Type A-201.
R931	3R77P621J	Composition: 620 ohms ±5%, 1/2 w.

SYMBOL	GE PART NO.	DESCRIPTION
R932	3R152P153J	Composition: 15K ohms ±5%, 1/4 w.
R933	3R152P106K	Composition: 100K ohms ±10%, 1/4 w.
R935	3R152P332K	Composition: 3.3K ohms ±10%, 1/4 w.
R936	19B209358P116	Variable, carbon film: approx 25 to 2500 ohms ±10%, 0.2 w; sim to Stackpole RJ1-44462.
R937	3R152P123J	Composition: 12K ohms ±5%, 1/4 w.
R938*	3R152P106J	Composition: 100K ohms ±5%, 1/4 w. Earlier than REV A:
	3R152P106J	Composition: 100K ohms ±5%, 1/4 w.
R940	3R152P242J	Composition: 2.4K ohms ±5%, 1/4 w.
R941	3R152P431J	Composition: 430 ohms ±5%, 1/4 w.
R942	3R152P103J	Composition: 10K ohms ±5%, 1/4 w.
		- - - - - - - - - TRANSFORMERS - - - - - - - - -
T901	19A116736P1	Audio freq: 300-6000 Hz, +0.7dB -0.5dB. Power: +12dBm max DC, 45 mA, combined. Pri 1: 600 ohms. Sec 2 & 3: 600 ohms split.
		- - - - - - - - VOLTAGE REGULATORS - - - - - - -
VR901	19A116235P4	Zener: 5.0 w, 12 v. nominal.
		- - - - - - - - - MISCELLANEOUS - - - - - - - - -
	5491541P302	Spacer, hex: 6-32 x 1/2 thread.
	N80P13006C6	Machine screw: No. 6-32 x 3/8. (Secures spacer to board).
	19B219761P3	Jumper. (Located between J903 & J904).
	4036535P1	Insulator, washer: nylon. (Used with Q908).

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.

10-Volt Regulator 19C329918G1

REV. A - To correct distortion at the 600 ohm output. Changed F801 fuse and added XF802 fuse and socket.

REV. B - To improve transmitter operation. Changed U801.

Auxiliary Receiver System Board 19D429784G1

REV. A - To increase output. Changed R910 and R938.

REV. B - To reduce distortion due to audio clipping when Channel Guard filter is used. R910 was changed to 3R152P221J, Composition: 220 ohms ±5%, 1/4 Watt.

*COMPONENTS ADDED, DELETED OR CHANGED BY PRODUCTION CHANGES

PARTS LIST

LBI4921B

AUXILIARY RECEIVER 10-VOLT REGULATOR BOARD
19C329918G1

SYMBOL	GE PART NO.	DESCRIPTION
		- - - - - - - - - - CAPACITORS - - - - - - - - - -
C801	19A115680P24	Electrolytic: 400 µF +150% -10%, 18 VDCW; sim to Mallory Type TTA.
C803	5496267P28	Tantalum: 0.47 µF ±20%, 35 VDCW; sim to Sprague Type 150D.
C804	19A115680P10	Electrolytic: 200 µF +150% -10%, 18 VDCW; sim to Mallory Type TTA.
		- - - - - - - - DIODES AND RECTIFIERS - - - - - -
CR801 and CR803	19A134146P4	Diode, optoelectronic: red; sim to Opcos LSK-6L.
		- - - - - - - - - FUSES - - - - - - - - -
F801*	1R16P3	Quick blowing: 1 amps at 250 v; sim to Littelfuse 312001 or Bussmann AGC-1. Earlier than REV A:
	1R16P6	Quick blowing: 3 amps at 250 v; sim to Littelfuse 312003 or Bussmann AGC-3.
F802*	1R16P6	Quick blowing: 3 amps at 250 v; sim to Littelfuse 312003 or Bussmann AGC-3. Added by REV A.
		- - - - - - - - JACKS AND RECEPTACLES - - - - - - - -
J801		Includes:
	19A116559P11	Connector, printed wiring: 7 contacts; sim to Molex 09-64-1071. (Quantity 1).
	19A116559P13	Connector, printed wiring: 4 contacts; sim to Molex 09-64-1061. (Quantity 3).
		- - - - - - - - - - INDUCTORS - - - - - - - - - -
L801	19A115894P1	Audio freq: 1.0 mh ind., 0.35 ohms DC res.
		- - - - - - - - - TRANSISTORS - - - - - - - - -
Q801	19A116375P1	Silicon, PNP.
Q803	19A115768P1	Silicon, PNP; sim to Type 2N3702.
		- - - - - - - - - - RESISTORS - - - - - - - - - -
R801 and R802	3R152P102J	Composition: 1K ohms ±5%, 1/4 w.
R803	3R152P821K	Composition: 820 ohms ±10%, 1/4 w.
R834	3R152P682K	Composition: 6.8K ohms ±10%, 1/4 w.
		- - - - - - - - - - SWITCHES - - - - - - - - - -
S801	19B209261P9	Slide: DPDT, 2 poles, 2 positions, .5 amp VDC or 3 amps VAC at 125 v; sim to Switchcraft 11A1204.
S802	19B209321P13	Slide: DPDT, 8X, 2 poles, 2 positions, .5 amp VDC or 3 amps VAC at 125 v; sim to Switchcraft 11B-1017B.
		- - - - - - - - INTEGRATED CIRCUITS - - - - - - - -
U801*	19D416564G4	Regulator, 10 volt. In REV. A and earlier:
	19D416564G3	Regulator, 10 volt.
		- - - - - - - - - SOCKETS - - - - - - - - -
XF801	19A116688P1	Fuse, clip. (Quantity 2).
XF802*	19A116688P1	Fuse, clip. Added by REV A.
		- - - - - - - - MISCELLANEOUS - - - - - - - -
	7118719P10	Clip, spring tension: sim to Prestole E-50019-003.
	19A130037P1	Heat sink.

*COMPONENTS ADDED, DELETED OR CHANGED BY PRODUCTION CHANGES

PARTS LIST

LBI-4813

CHANNEL GUARD FILTER BOARD
19C329672G1

SYMBOL	GE PART NO.	DESCRIPTION
		- - - - - - - - - - CAPACITORS - - - - - - - - - -
C1	19C300075P47001G	Polyester: 47,000 pF ±2%, 100 VDCW; sim to GE Type 61F.
C2	19C300075P10002G	Polyester: 100,000 pF ±2%, 100 VDCW; sim to GE Type 61F.
C3	19C300075P47001G	Polyester: 47,000 pF ±2%, 100 VDCW; sim to GE Type 61F.
C4	19C300075P10001G	Polyester: 10,000 pF ±2%, 100 VDCW; sim to GE Type 61F.
C5	5496267P14	Tantalum: 15 µF ±20%, 20 VDCW; sim to Sprague Type 150D.
C6 and C7	19C300075P47901G	Polyester: 47,000 pF ±2%, 100 VDCW; sim to GE Type 61F.
C8	19A116080P4	Polyester: 0.033 µF ±20%, 50 VDCW.
C9	19C300075P47001G	Polyester: 47,000 pF ±2%, 100 VDCW; sim to GE Type 61F.
		- - - - - - - - JACKS AND RECEPTACLES - - - - - - - -
J1 and J2	19A116659P5	Connector, printed wiring: 3 contacts; sim to Molex 09-52-3031.
		- - - - - - - - - TRANSISTORS - - - - - - - - -
Q1	19A116774P1	Silicon, NPN; sim to Type 2N5210.
Q2 and Q3	19A115768P1	Silicon, PNP; sim to Type 2N3702.
Q4	19A116774P1	Silicon, NPN; sim to Type 2N5210.
		- - - - - - - - - RESISTORS - - - - - - - - -
R1	19C314256P1782	Metal film: 17,800 ohms ±1%, 1/4 w.
R2	19C314256P9091	Metal film: 9090 ohms ±1%, 1/4 w.
R3	19C314256P1782	Metal film: 17,800 ohms ±1%, 1/4 w.
R4	19C314256P21472	Metal film: 14,700 ohms ±1%, 1/4 w.
R5	19C314256P22152	Metal film: 21,500 ohms ±1%, 1/4 w.
R6	19C314256P23481	Metal film: 3480 ohms ±1%, 1/4 w.
R7	3R152P103J	Composition: 10,000 ohms ±5%, 1/4 w.
R8	19C314256P21621	Metal film: 1620 ohms ±1%, 1/4 w.
R9	19C314256P21001	Metal film: 1000 ohms ±1%, 1/4 w.
R10	3R152P751J	Composition: 750 ohms ±5%, 1/4 w.
R11	19C314256P21303	Metal film: 130,000 ohms ±1%, 1/4 w.
R12	19C314256P22151	Metal film: 2150 ohms ±1%, 1/4 w.
R13	3R152P103J	Composition: 10,000 ohms ±5%, 1/4 w.
R14	19C314256P24641	Metal film: 6640 ohms ±1%, 1/4 w.
R15	19C314256P22100	Metal film: 210 ohms ±1%, 1/4 w.
R16	19C314256P21543	Metal film: 154,000 ohms ±1%, 1/4 w.

*COMPONENTS ADDED, DELETED OR CHANGED BY PRODUCTION CHANGES

PARTS LIST

TONE NOTCH FILTER/LINE RESPONSE COMPENSATOR BOARD
19C329828G1

SYMBOL	GE PART NO.	DESCRIPTION
AR1	19A134511P1	Integrated circuit, linear: Quad OP AMP; sim to NSCLM 224N or MLM 224P.
		- - - - - - - - - - CAPACITORS - - - - - - - - - -
C1	19A116738P2	Polystyrene: 6800 pF ±2.5%, 33 VDCW; sim to Mial Series 617.
C2	19A116738P3	Polystyrene: 0.010 µF ±2.5%, 33 VDCW; sim to Mial Series 617.
C3	19A116738P2	Polystyrene: 6800 pF ±2.5%, 33 VDCW; sim to Mial Series 617.
C4	19A134203P15	Tantalum: 6.8 µF ±20%, 35 VDCW.
C5	19A134203P6	Tantalum: 22 µF ±20%, 15 VDCW.
C6 and C7	19A116080P215	Polyester: 0.0047 µF ±5%, 50 VDCW.
C8	19A116080P107	Polyester: 0.1 µF ±10%, 50 VDCW.
C9 and C10	19A116080P205	Polyester: 0.047 µF ±5%, 50 VDCW.
C11	19A116080P109	Polyester: 0.22 µF ±10%, 50 VDCW.
C12	19A134203P6	Tantalum: 22 µF ±20%, 15 VDCW.
C13	19A116080P213	Polyester: 0.0022 µF ±5%, 50 VDCW.
C14	19A116080P207	Polyester: 0.1 µF ±5%, 50 VDCW.
C15	19A134203P6	Tantalum: 22 µF ±20%, 15 VDCW.
		- - - - - - - - - - INDUCTORS - - - - - - - - - -
L1	19B209334G5	Coil.
L2	19B209334G4	Coil.
L3	19B209334G5	Coil.
		- - - - - - - - - - RESISTORS - - - - - - - - - -
R1 and R2	3R152P202J	Composition: 2K ohms ±5%, 1/4 w.
R3	19C314256P23013	Metal film: 301K ohms ±1%, 1/4 w.
R4	19C314256P24752	Metal film: 47.5K ohms ±1%, 1/4 w.
R5	19C314256P26651	Metal film: 6.65K ohms ±1%, 1/4 w.
R6	19C314256P27501	Metal film: 7.5K ohms ±1%, 1/4 w.
R7 and R8	19C314256P21502	Metal film: 15K ohms ±1%, 1/4 w.
R9 and R10	19C314256P23012	Metal film: 30.1K ohms ±1%, 1/4 w.
R11	19C314256P27501	Metal film: 7.5K ohms ±1%, 1/4 w.
R12	19A116559P112	Variable, cermet: 500K ohms ±20%, 0.18 w; sim to CTS Series 360.
R13	3R152P103J	Composition: 10K ohms ±5%, 1/4 w.
R14 and R15	19C314256P21742	Metal film: 17.4K ohms ±1%, 1/4 w.
R16 and R17	19C314256P23482	Metal film: 34.8K ohms ±1%, 1/4 w.
R18	19C314256P22002	Metal film: 220K ohms ±1%, 1/4 w.
R19	19A116559P112	Variable, cermet: 500K ohms ±20%, 0.18 w; sim to CTS Series 360.

SYMBOL	GE PART NO.	DESCRIPTION
R20	3R152P103J	Composition: 10K ohms ±5%, 1/4 w.
R21 thru R23	19C314256P21102	Metal film: 11K ohms ±1%, 1/4 w.
R24	19C314256P23482	Metal film: 34.8K ohms ±1%, 1/4 w.
R25 and R26	3R152P103J	Composition: 10K ohms ±5%, 1/4 w.
R27 and R28	19C314256P23492	Metal film: 54.9K ohms ±1%, 1/4 w.
R29	3R152P331J	Composition: 330 ohms ±5%, 1/4 w.
		- - - - - - - - - - MISCELLANEOUS - - - - - - - - - -
	4029884P2	Contact, electrical: sim to Amp 42827-2. (Hung in wiring on wires from R1, R2, R3, R14-R16).
	N80P13005C6	Machine screw: No. 6-32 x 5/16. (Secures component board).
	N404P13C6	Lockwasher, internal tooth: No. 6. (Secures component board).

*COMPONENTS ADDED, DELETED OR CHANGED BY PRODUCTION CHANGES

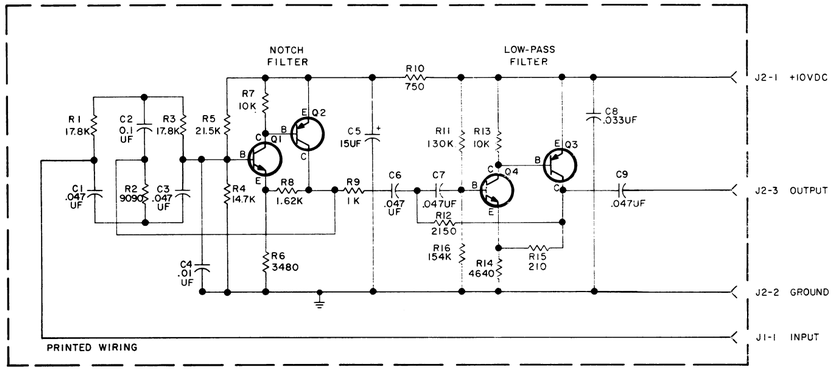
PARTS LIST

LINE RESPONSE COMPENSATOR BOARD
19C329833G2

SYMBOL	GE PART NO.	DESCRIPTION
AR1	19A134511P1	Integrated circuit, linear: Quad OP AMP; sim to NSCLM 224N or MLM 224P.
		- - - - - - - - - - CAPACITORS - - - - - - - - - -
C5	19A134203P6	Tantalum: 22 µF ±20%, 15 VDCW.
C6 and C7	19A116080P215	Polyester: 0.0047 µF ±5%, 50 VDCW.
C8	19A116080P107	Polyester: 0.1 µF ±10%, 50 VDCW.
C9 and C10	19A116080P207	Polyester: 0.1 µF ±5%, 50 VDCW.
C11	19A116080P109	Polyester: 0.22 µF ±10%, 50 VDCW.
C12	19A134203P6	Tantalum: 22 µF ±20%, 15 VDCW.
C13	19A116080P213	Polyester: 0.0022 µF ±5%, 50 VDCW.
C14	19A116080P207	Polyester: 0.1 µF ±5%, 50 VDCW.
C15	19A134203P6	Tantalum: 22 µF ±20%, 15 VDCW.
		- - - - - - - - - - RESISTORS - - - - - - - - - -
R3	19C314256P23013	Metal film: 301K ohms ±1%, 1/4 w.
R4	19C314256P24752	Metal film: 47.5K ohms ±1%, 1/4 w.
R5	19C314256P26651	Metal film: 6.65K ohms ±1%, 1/4 w.
R6	19C314256P27501	Metal film: 7.5K ohms ±1%, 1/4 w.
R7 and R8	19C314256P21502	Metal film: 15K ohms ±1%, 1/4 w.
R9 and R10	19C314256P22002	Metal film: 20K ohms ±1%, 1/4 w.
R12	19A116559P112	Variable, cermet: 500K ohms ±20%, 0.18 w; sim to CTS Series 360.
R13	3R152P103J	Composition: 10K ohms ±5%, 1/4 w.
R14 and R15	19C314256P21742	Metal film: 17.4K ohms ±1%, 1/4 w.
R16 and R17	19C314256P23482	Metal film: 34.8K ohms ±1%, 1/4 w.
R18	19C314256P22002	Metal film: 220K ohms ±1%, 1/4 w.
R19	19A116559P112	Variable, cermet: 500K ohms ±20%, 0.18 w; sim to CTS Series 360.
R20	3R152P103J	Composition: 10K ohms ±5%, 1/4 w.
R21 thru R23	19C314256P21102	Metal film: 11K ohms ±1%, 1/4 w.
R24	19C314256P23482	Metal film: 34.8K ohms ±1%, 1/4 w.
R25 and R26	3R152P103J	Composition: 10K ohms ±5%, 1/4 w.
R27 and R28	19C314256P25492	Metal film: 54.9K ohms ±1%, 1/4 w.
R29	3R152P331J	Composition: 330 ohms ±5%, 1/4 w.
		- - - - - - - - - - MISCELLANEOUS - - - - - - - - - -
	4029884P2	Contact, electrical: sim to Amp 42827-2. (Hung in wiring on wires from R5, R14-R16).
	N80P13005C6	Machine screw: No. 6-32 x 5/16. (Secures component board).
	N404P13C6	Lockwasher, internal tooth: No. 6. (Secures component board).

*COMPONENTS ADDED, DELETED OR CHANGED BY PRODUCTION CHANGES

CHANNEL GUARD FILTER 19C320627G1



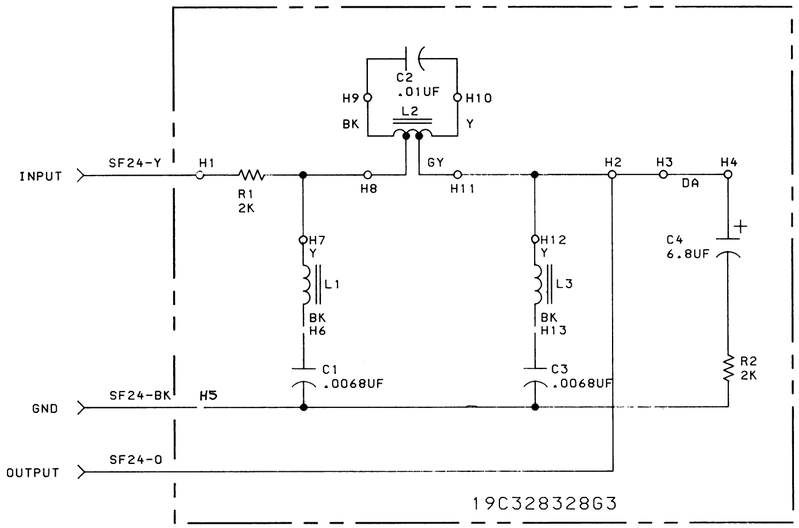
(19C320628, Rev. 0)

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
PLI9C320627G1	

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.

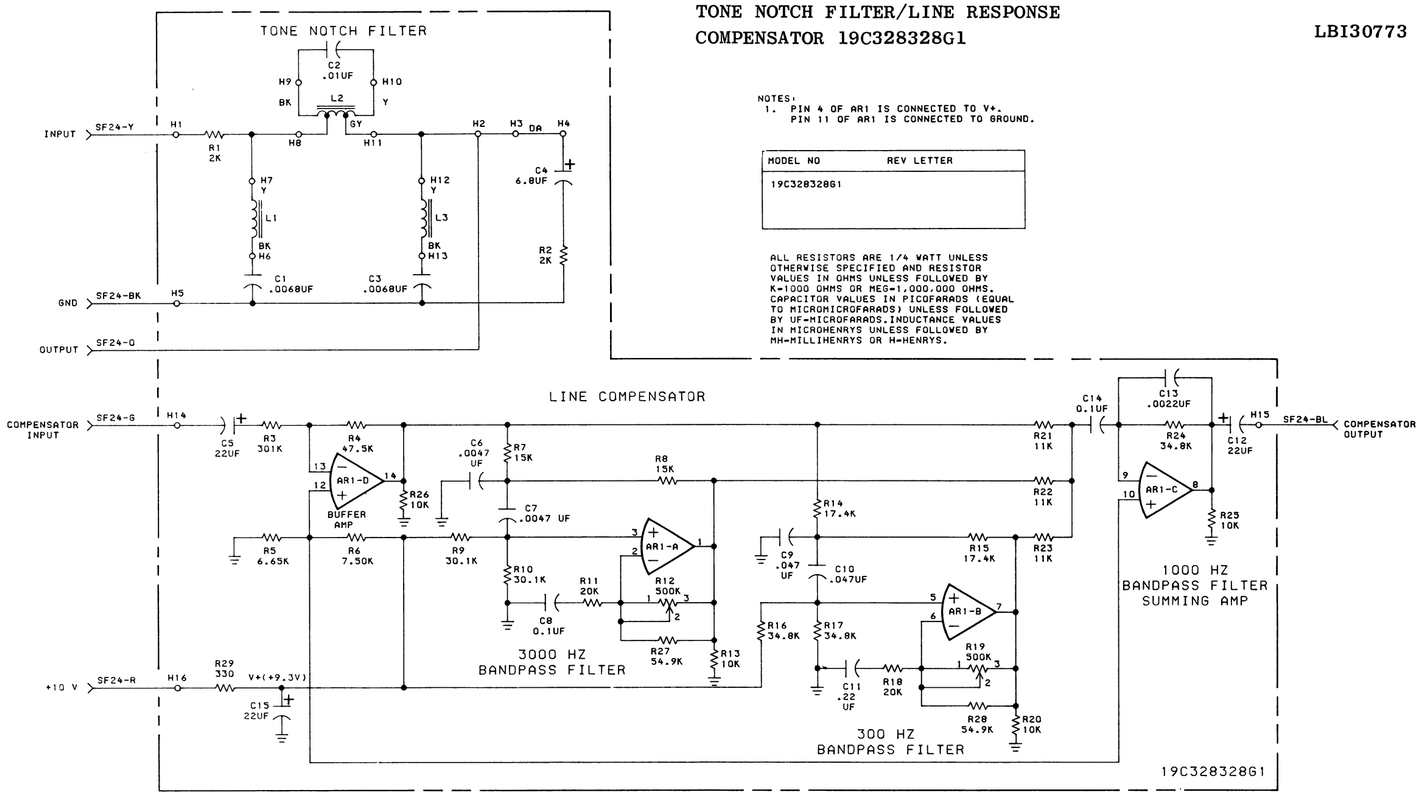
TONE NOTCH FILTER 19C328328G3



(19C328343, Rev. 1)

MODEL NO	REV LETTER
PL19C328328G3	

TONE NOTCH FILTER/LINE RESPONSE COMPENSATOR 19C328328G1



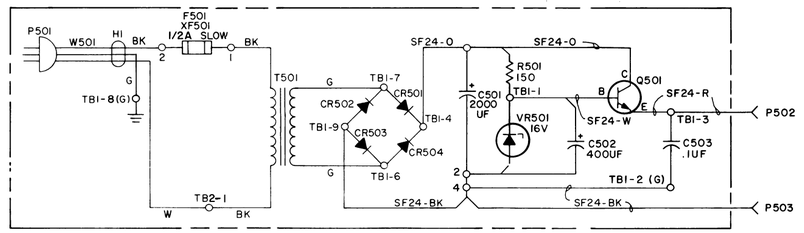
NOTES:
1. PIN 4 OF AR1 IS CONNECTED TO V+.
   PIN 11 OF AR1 IS CONNECTED TO GROUND.

MODEL NO	REV LETTER
19C328328G1	

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 PICOFARADS (EQUAL TO MICROMICROFARADS) UNLESS FOLLOWED BY UF=MICROFARADS. INDUCTANCE VALUES IN MICROHENRYS UNLESS FOLLOWED BY MH=MILLIHENRYS OR H=HENRYS.

(19D429483, Rev. 1)

POWER SUPPLY 19C311855G1



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
19C311855G1	C

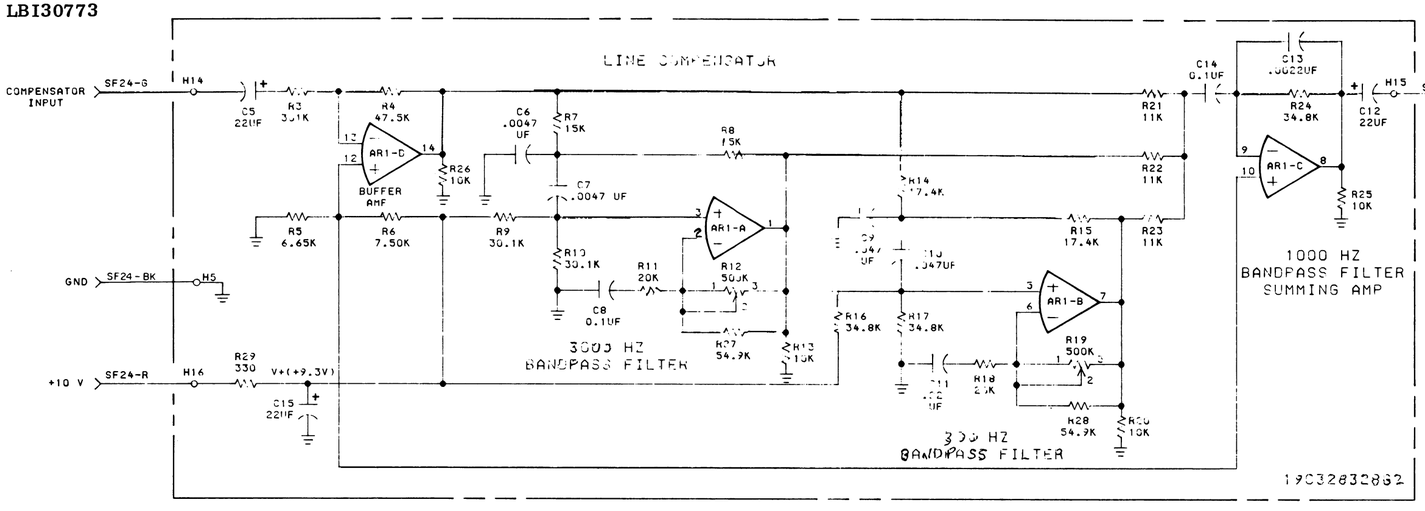
ALL RESISTORS ARE 1/2 WATT UNLESS OTHERWISE SPECIFIED AND RESISTOR VALUES IN OHMS UNLESS FOLLOWED BY K=1000 OHMS OR MEG=1,000,000 OHMS. CAPACITOR VALUES IN PICOFARADS (EQUAL TO MICROMICROFARADS) UNLESS FOLLOWED BY UF= MICROFARADS. INDUCTANCE VALUES IN MICROHENRYS UNLESS FOLLOWED BY MH= MILLIHENRYS OR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

(19B216280, Rev. 5)

SCHEMATIC DIAGRAMS

CHANNEL GUARD FILTER,
POWER SUPPLY, TONE NOTCH FILTERS
AND LINE COMPENSATOR

LINE RESPONSE COMPENSATOR 19C328328G2

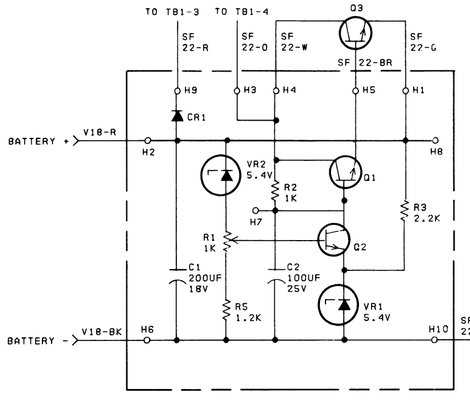


(19D429481, Rev. 2)

NOTES:
1. PIN 4 OF AR1 IS CONNECTED TO V+.
   PIN 11 OF AR1 IS CONNECTED TO GROUND.

MODEL NO	REV LETTER
19C328328G2	

BATTERY STANDBY/CHARGER KIT 19B227928G1



MODEL NO	REV LETTER
19B227928G1	

NOTES:
1. PARTIAL REFERENCE DESIGNATIONS ARE SHOWN. FOR COMPLETE DESIGNATIONS. PREFIX WITH 2600 SERIES. EXAMPLE: C1-C2601, R1-R2601, ETC.

(19C327719, Rev. 1)

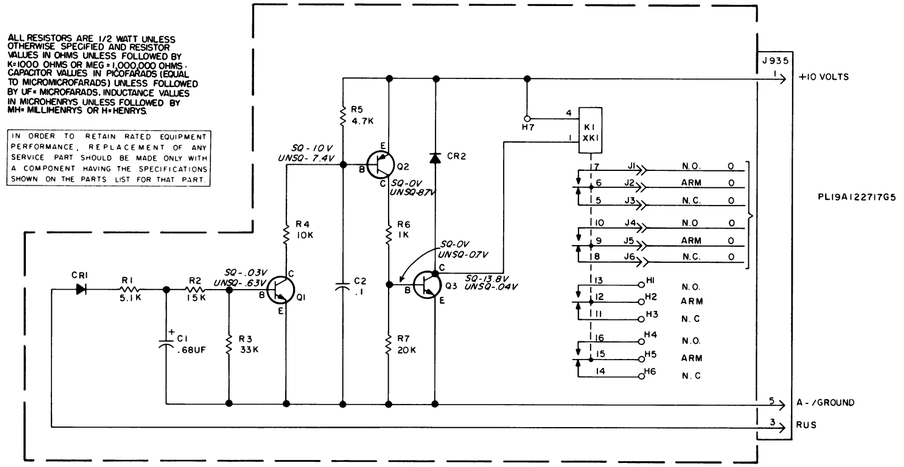
SQUELCH OPERATED RELAY 19C320913G1

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
PL19C320913G1	A

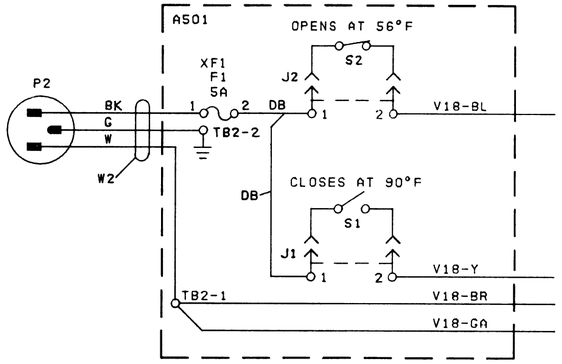
ALL RESISTORS ARE 1/2 WATT UNLESS OTHERWISE SPECIFIED AND RESISTOR VALUES IN OHMS UNLESS FOLLOWED BY K=1000 OHMS OR MEG=1,000,000 OHMS. CAPACITOR VALUES IN PICOFARADS (EQUAL TO MICROMICROFARADS) UNLESS FOLLOWED BY UF= MICROFARADS. INDUCTANCE VALUES IN MICROHENRYS UNLESS FOLLOWED BY MH= MILLIHENRYS OR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



(19C320915, Rev. 3)

FAN & HEATER KITS 19A137089G1-G3



NOTE:
1. S1 AND S2 ARE PART OF KIT PL19A137089.

(19B227991, Rev. 2)

SCHEMATIC DIAGRAMS

LINE RESPONSE COMPENSATOR,
SQUELCH OPERATED RELAY,
BATTERY STANDBY CHARGER KIT
AND FAN & HEATER KITS

PARTS LIST

TONE NOTCH FILTER BOARD
19C328328G3

SYMBOL	GE PART NO.	DESCRIPTION
		- - - - - - - - - - CAPACITORS - - - - - - - - -
C1	19A116738P2	Polystyrene: 6800 pf ±2.5%, 33 VDCW; sim to Mial Series 617.
C2	19A116738P3	Polystyrene: 0.010 µf ±2.5%, 33 VDCW; sim to Mial Series 617.
C3	19A116738P2	Polystyrene: 6800 pf ±2.5%, 33 VDCW; sim to Mial Series 617.
C4	19A134202P15	Tantalum: 6.8 µf ±20%, 35 VDCW.
		- - - - - - - - - - INDUCTORS - - - - - - - - - -
L1	19B205354G5	Coil.
L2	19B205354G4	Coil.
L3	19B205354G5	Coil.
		- - - - - - - - - - RESISTORS - - - - - - - - - -
R1 and R2	3R152P202J	Composition: 2K ohms ±5%, 1/4 w.
		- - - - - - - - - - MISCELLANEOUS - - - - - - - - -
	4029840P2	Contact, electrical: sim to Amp 42827-2. (Hung in wiring on wires from H1, H2, H5).
	N80P13005C6	Machine screw: No. 6-32 x 5/16. (Secures component board).
	N404P13C6	Lockwasher, internal tooth: No. 6. (Secures component board).

PARTS LIST

LBI4924A

AUXILIARY RECEIVER SOR BOARD
19C320913G1

SYMBOL	GE PART NO.	DESCRIPTION
		- - - - - - - - - - CAPACITORS - - - - - - - - -
C1*	5496267P29	Tantalum: 0.68 µf ±20%, 35 VDCW; sim to Sprague Type 150D.
		Earlier than REV A:
	19A116080P7	Polyester: 0.1 µf ±20%, 50 VDCW.
C2	19A116080P7	Polyester: 0.1 µf ±20%, 50 VDCW.
		- - - - - - - - DIODES AND RECTIFIERS - - - - - - -
CR1	19A115250P1	Silicon, fast recovery, 225 mA, 50 PIV.
CR2	4037822P1	Silicon, 1000 mA, 400 PIV.
		- - - - - - - - JACKS AND RECEPTACLES - - - - - -
J1 thru J6	4033513P4	Contact, electrical: sim to Bead Chain L93-3.
J935		Includes:
	19A116659P5	Connector, printed wiring: 3 contacts; sim to Molex 09-52-3031. (Quantity 1).
	19A116659P7	Connector, printed wiring: 4 contacts; sim to Molex 09-52-3041. (Quantity 1).
		- - - - - - - - - - - RELAYS - - - - - - - - - -
K1	19C300957P2	Armature: 12 VDC nominal, 1.5 w max operating, 185 ohms ±10% coil res, 4 form C contacts; sim to Allied Control T154X-316.
		- - - - - - - - - - TRANSISTORS - - - - - - - - -
Q1	19A115910P1	Silicon, NPN; sim to Type 2N3904.
Q2	19A115852P1	Silicon, PNP; sim to Type 2N3906.
Q3	19A115300P2	Silicon, NPN; sim to Type 2N3053.
		- - - - - - - - - - RESISTORS - - - - - - - - - -
R1	3R152P512J	Composition: 5.1K ohms ±5%, 1/4 w.
R2	3R152P153J	Composition: 15K ohms ±5%, 1/4 w.
R3	3R152P333J	Composition: 33K ohms ±5%, 1/4 w.
R4	3R152P103J	Composition: 10K ohms ±5%, 1/4 w.
R5	3R152P472J	Composition: 4.7K ohms ±5%, 1/4 w.
R6	3R152P102J	Composition: 1K ohms ±5%, 1/4 w.
R7	3R152P203J	Composition: 20K ohms ±5%, 1/4 w.
		- - - - - - - - - - SOCKETS - - - - - - - - - -
XK1	5491595P7	Relay: 10 contacts; sim to Allied Control 30054-4.
		- - - - - - - - - - MISCELLANEOUS - - - - - - -
	5491595P9	Retainer: spring; sim to Allied Control 30040-2. (Used with K1).
	4036555P1	Insulator, washer: nylon. (Used with Q3).

*COMPONENTS ADDED, DELETED OR CHANGED BY PRODUCTION CHANGES

PRODUCTION CHANGES

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

REV. A - To improve operation of SOR board. Changed C1 to 549267P2, Capacitor, Tantalum, 0.68 µF ±20%, 50 VDCW.

PARTS LIST

LBI-30580

BATTERY STANDBY/CHARGER KIT
19B227928G1

SYMBOL	GE PART NO.	DESCRIPTION
		- - - - - - - - - - CAPACITORS - - - - - - - - -
C2601	19A115680P10	Electrolytic: 200 µf +150% -10%, 18 VDCW; sim to Mallory Type TTX.
C2602	19A115680P5	Electrolytic: 100 µf +150% -10%, 25 VDCW; sim to Mallory Type TTX.
		- - - - - - - - DIODES AND RECTIFIERS - - - - - -
CR2601	4037822P1	Silicon.
		- - - - - - - - - - TRANSISTORS - - - - - - - - -
Q2601	19A115300P4	Silicon, NPN.
Q2602	19A116755P1	Silicon, NPN; sim to Type 2N3947.
Q2603	19A116742P1	Silicon, NPN.
		- - - - - - - - - - RESISTORS - - - - - - - - - -
R2601	19B209358P3	Variable, carbon film: approx 50 to 1K ohms ±20%, 0.2 w; sim to CTS Type U-201.
R2602	3R77P102J	Composition: 1K ohms ±5%, 1/2 w.
R2603	3R77P222J	Composition: 2.2K ohms ±5%, 1/2 w.
R2605	3R77P122K	Composition: 1.2K ohms ±10%, 1/2 w.
		- - - - - - - - VOLTAGE REGULATORS - - - - - - -
VR2601 and VR2602	4036887P5	Silicon, Zener.
		- - - - - - - - - MISCELLANEOUS - - - - - - - - -
	4036555P1	Insulator, washer: nylon. (Used with Q2601).
	4029484P2	Contact, electrical: sim to AMP 41274. (Hung in wiring- Quantity 2).
	19A134016P1	Insulator, bushing. (Used with Q2603).
	19A116023P3	Insulator, plate. (Used with Q2603).
	19A116552P3	Cable clip: sim to Richco KKC-4.

*COMPONENTS ADDED, DELETED OR CHANGED BY PRODUCTION CHANGES

PARTS LIST

LBI30206A

AUXILIARY RECEIVER POWER SUPPLY
19C311855G1

SYMBOL	GE PART NO.	DESCRIPTION
		STATION POWER SUPPLY 19C311855G1
		- - - - - - - - - - CAPACITORS - - - - - - - - - -
C501	7476442P23	Electrolytic, twist-prong: 2000 µf +250-10%, 50 VDCW; sim to PR Mallory FP070A.
C502	19A115680P24	Electrolytic: 400 µf +150% -10%, 18 VDCW; sim to Mallory Type TTX.
C503	19A116080P7	Polyester: 0.1 µf ±20%, 50 VDCW.
		- - - - - - - - DIODES AND RECTIFIERS - - - - - - - -
CR501 thru CR504	4037822P1	Silicon, 1000 mA, 400 PIV.
		- - - - - - - - - - - FUSES - - - - - - - - - - -
F501	7487942P3	Slow blowing: 1/2 amp at 250 v; sim to Bussmann MDL-1/2.
		- - - - - - - - - - PLUGS - - - - - - - - - -
P501		(Part of W501).
P502 and P503	4036634P1	Contact, electrical; sim to AMP 42428-2.
		- - - - - - - - - TRANSISTORS - - - - - - - - -
Q501*	19A116742P1	Silicon, NPN.
		In REV B and earlier:
	19A116118P1	Silicon, NPN.
		- - - - - - - - - - RESISTORS - - - - - - - - - -
R501*	3R152P151J	Composition: 150 ohms ±5%, 1/4 w.
		In REV B and earlier:
	3R77P221K	Composition: 220 ohms ±10%, 1/2 w.
		- - - - - - - - - TRANSFORMERS - - - - - - - - - -
T501	5493743P1	Power: step down: Pri: 117 v, 50/60 Hz, Sec 1: 12.6 v ±3%, 2 amps.
		- - - - - - - - TERMINAL BOARDS - - - - - - - -
TB1	7775500P25	Phen: 7 insulated, 2 grounded terminals.
TB2	7775500P44	Phen: 1 insulated, 1 grounded terminal.
		- - - - - - - - VOLTAGE REGULATORS - - - - - - -
VR1	19A115528P6	Zener: 1 w, 6.6 MW.
		- - - - - - - - - - CABLES - - - - - - - - - -
W501	19A134567P1	Power: 3 conductor, approx 6 feet long.
		- - - - - - - - - - SOCKETS - - - - - - - - - -
XF501	19B209005P1	Fuseholder, post type, phen: 15 amps at 250 v; sim to Littelfuse 342012.
		HARNESS ASSEMBLY 19B226440G2
		- - - - - - - - - - - PLUGS - - - - - - - - - - -
P1	19C303506P1	Connector, phen: 20 contacts.
TB1	19C301086P1	- - - - - - - - TERMINAL BOARDS - - - - - - - - - Feed-thru, phen: 3 terminals; sim to GE CR151D.
		- - - - - - - - - - MISCELLANEOUS - - - - - - - - - -
	4029851P14	Clip loop: 1/4 inch. (Used with Harness).
	4029851P12	Clip loop: 1/8 inch. (Used with Harness).
	19A116768P9	Bushing, strain relief: sim to Heyco SR-6P3-4.
	19A134016P1	Insulator, bushing. (Used with Q501).
	19A116023P1	Insulator, plate. (Used with Q501).

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 comply with OSHA safety standards. Changed W501.

REV. B - To improve regulation. Changed C501, F501 and R501; added C502, C503, Q501 and VR501.

REV. C - To improve performance. Changed Q501 and R501.

*COMPONENTS ADDED, DELETED OR CHANGED BY PRODUCTION CHANGES.

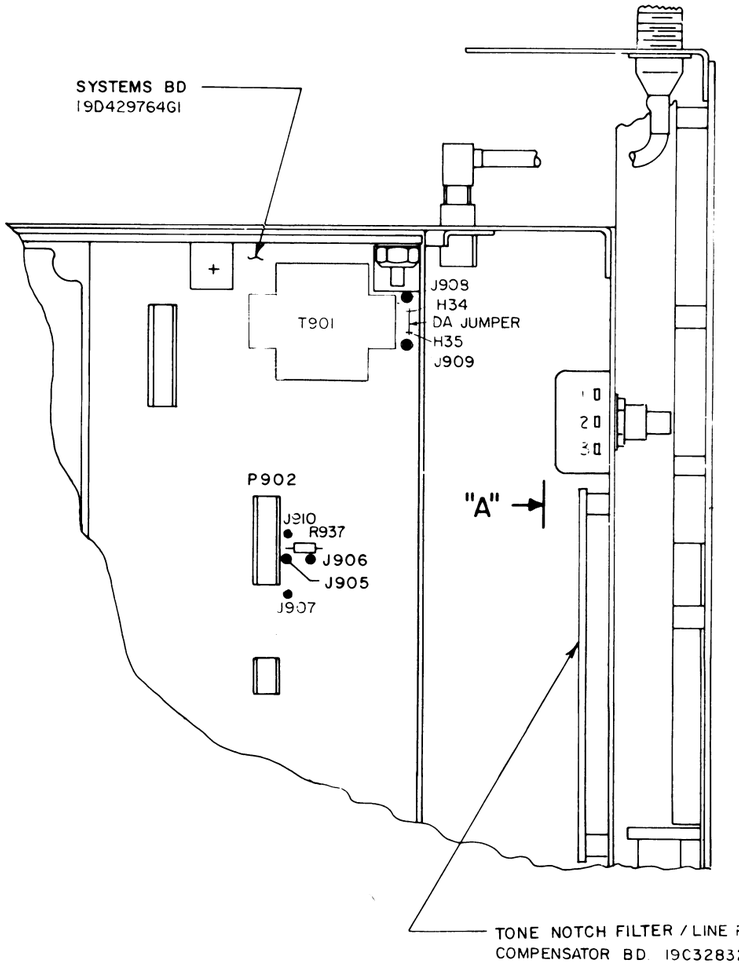
PARTS LIST

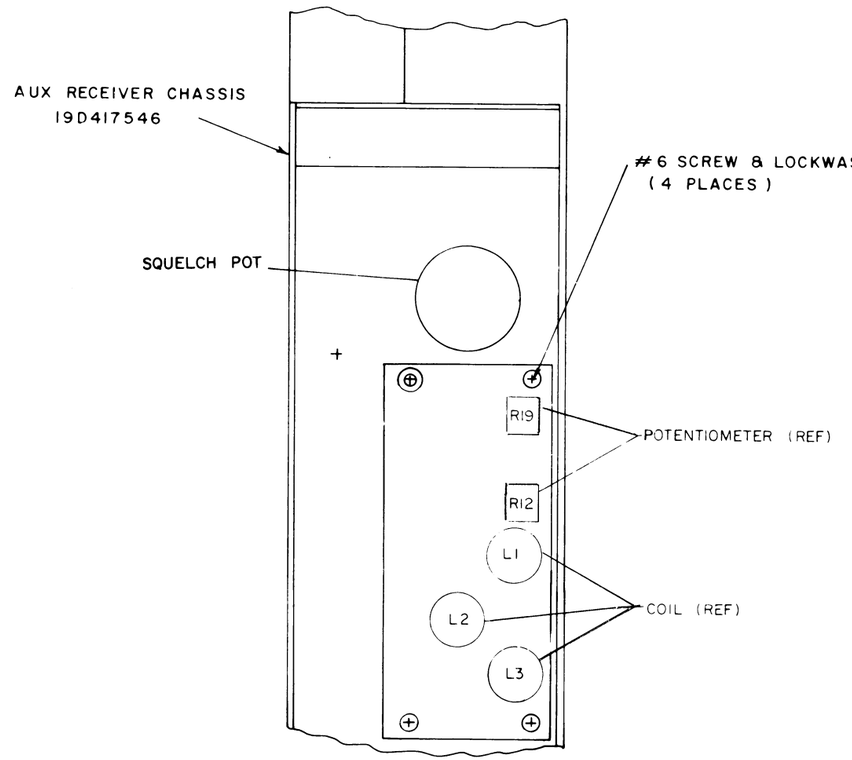
LBI-30581

FAN AND HEATER KITS
19A137089G1 HEATER
19A137089G2 FAN
19A137089G3 HEATER/FAN

SYMBOL	GE PART NO.	DESCRIPTION
A501		CAB TEMPERATURE CONTROL 19C327788G1
		- - - - - - - - - - - FUSES - - - - - - - - - - -
F1	1R16P8	Quick blowing: 5 amps at 250 v; sim to Littelfuse 312005 or Bussmann MTH-5.
		- - - - - - - - JACKS AND RECEPTACLES - - - - - -
J1 and J2	19A122288G2	Connector.
		- - - - - - - - - - - PLUGS - - - - - - - - - - -
P2		(Part of W2).
		- - - - - - - - TERMINAL BOARDS - - - - - - - -
TB2	7775500P44	Phen: 2 terminals.
		- - - - - - - - - - CABLES - - - - - - - - - -
W2	5490059P7	Cable, RF: 3 conductor, approx 2 feet long. (Includes P2).
		- - - - - - - - - - SOCKETS - - - - - - - - - -
XF1	19B209005P1	Fuseholder: 15 amps at 250 v; sim to Littelfuse 342012.
		- - - - - - - - - - - FANS - - - - - - - - - - -
B1	5493477P1	Fan, axial, single phase: 115 VAC, 60 Hz; sim to Rotron "Mark 4" Muffin Venturi Fan with Motor Series M747.
		- - - - - - - - - - HEATERS - - - - - - - - - -
HR1	4034002P1	Heater, space, electric: 150 nominal watt, 120 VAC; sim to GE 2A807A102.
		- - - - - - - - - - SWITCHES - - - - - - - - -
S1	4029615P4	Thermostat, disc type, non-adjustable: temp range 75°F ±5° open, 90°F ±6°close; rated 15 amp at 120 VAC, 60 Hz; sim to Consumer Controls Dept. of Texas Instruments 20700L Series.
S2	4029615P5	Thermostat, disc type, non-adjustable: temp range 56°F ±5° open, 32°F ±6°close; rated 15 amp at 120 VAC, 60 Hz; sim to Consumer Controls Dept. of Texas Instruments 20700L Series.
		- - - - - - - - - MISCELLANEOUS - - - - - - - -
	19B209260P4	Terminal, solderless: sim to AMP 41330. (Hung in wiring at TB2-2).
	19B209260P9	Terminal, solderless: sim to AMP 41333. (Hung in wiring at J2-2 and TB2-1).
	N80P13008C6	Machine screw: No. 6-32 x 1/2. (Secures TB2).
	7141225P3	Hex nut: No. 6-32. (Secures TB2).
	N404P11C6	Lockwasher, internal tooth: No. 4. (Secures TB2).
	19A116552P3	Cable clamp. (Located over B1, HR1, and W2).
	7142162P121	Spacer. (Used with HR1 assembly).
	NP276466	Nameplate. (WARNING- Located on HR1).
	19B232105P1	Cover. (Located on HR1).

*COMPONENTS ADDED, DELETED OR CHANGED BY PRODUCTION CHANGES.





VIEW "A"

(19D417634, Sh. 3, Rev. 0)

INSTRUCTIONS FOR INSTALLING THE TONE NOTCH FILTER/LINE RESPONSE COMPENSATOR BD 19C328328G1.

1. REMOVE COVER (IF PRESENT).
2. ON SYSTEM BD 19D429764G1
   2.1 REMOVE R937
   2.2 CUT CUT DA JUMPER BETWEEN H34 AND H35.
3. ASM FILTER/COMPENSATOR BD TO INSIDE OF AUX RECEIVER CHASSIS USING 6 SCREWS AND LOCKWASHERS (FURNISHED). ORIENT BD AS SHOWN IN VIEW A.
4. CONNECT GREEN WIRE FROM FILTER/COMPENSATOR BD TO J908; BLUE WIRE TO J909, RED WIRE TO J910, ORANGE WIRE TO J905; YELLOW WIRE TO J906; BLACK WIRE TO J907.
5. REPLACE COVER.

INSTRUCTIONS FOR INSTALLING LINE RESPONSE COMPENSATOR BD 19C328328G2.

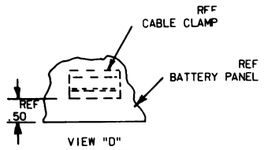
1. REMOVE COVER (IF PRESENT).
2. CUT CUT DA JUMPER BETWEEN H34 AND H35 ON SYSTEM BD 19D429764G1.
3. ASM COMPENSATOR BD TO INSIDE OF AUX RECEIVER CHASSIS USING 6 SCREWS AND LOCKWASHERS (FURNISHED). ORIENT POTENTIOMETERS AS SHOWN IN VIEW A. (COILS NOT PRESENT)
4. CONNECT GREEN WIRE FROM COMPENSATOR BD TO J908; BLUE WIRE TO J909, RED WIRE TO J910, BLACK WIRE TO J907.
5. REPLACE COVER.

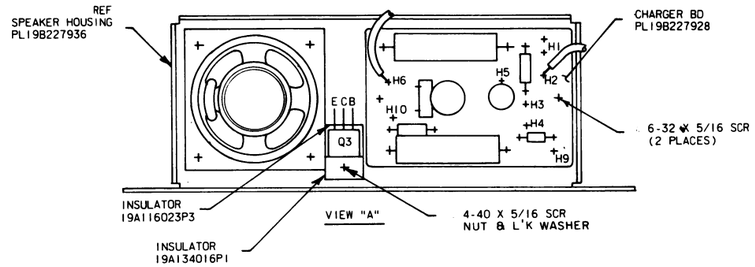
INSTRUCTIONS FOR INSTALLING TONE NOTCH FILTER BD 19C328328G3.

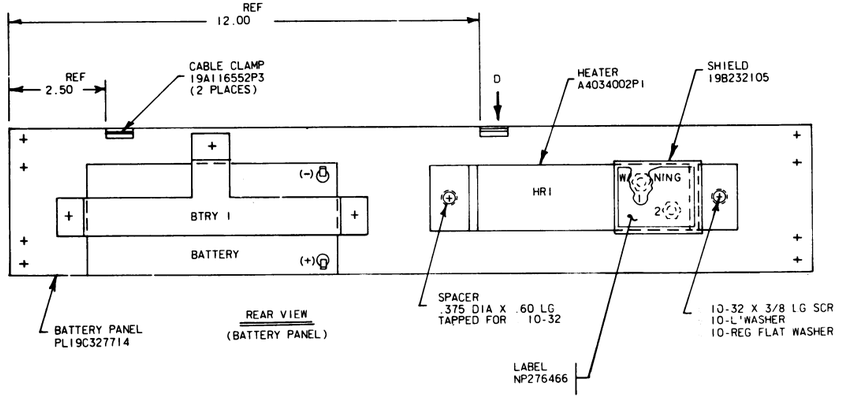
1. REMOVE COVER (IF PRESENT).
2. REMOVE R937 FROM SYSTEM BD 19D429764G1.
3. ASSEMBLE FILTER BD TO INSIDE OF AUX RECEIVER CHASSIS USING 6 SCREWS AND LOCKWASHERS (FURNISHED). ORIENT COILS AS SHOWN IN VIEW A. (POTENTIOMETERS NOT PRESENT)
4. CONNECT ORANGE WIRE FROM FILTER BD TO J905; YELLOW WIRE TO J906; BLACK WIRE TO J907.

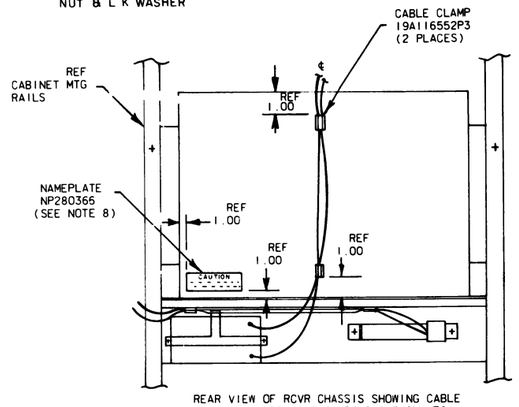
INSTALLATION INSTRUCTIONS

TONE NOTCH FILTER/LINE RESPONSE COMPENSATOR 19C328328G1-G3

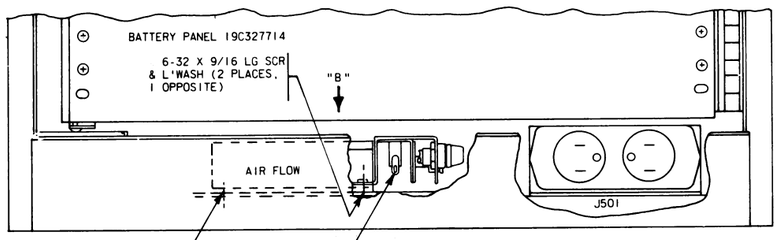


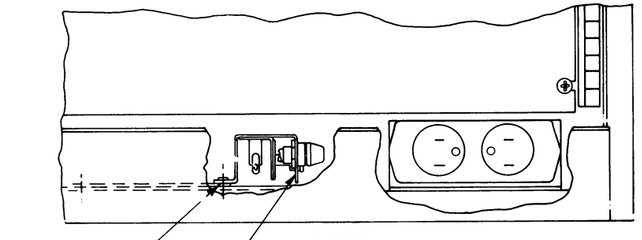


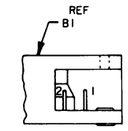


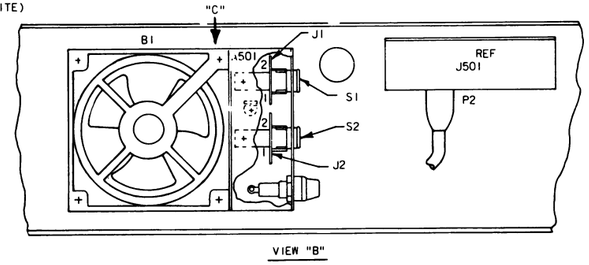


REAR VIEW OF RCVR CHASSIS SHOWING CABLE ROUTING & APPLICATION OF CABLE CLAMPS









INSTALLATION INSTRUCTIONS FOR HEATER/FAN OPTIONS FOR MII AUXILIARY RECEIVER.

HEATER ONLY

1. CONNECT THE V18 BL WIRE HANGING FROM J2-2 TO HR1-1 AND THE V18 GA WIRE, HANGING FROM A501-TB2-1 TO HR1-2.
2. MOUNT HR1, WITH THE HDW PROVIDED, WITHIN THE BATTERY COMPARTMENT AS SHOWN, AND MOUNT A501 TO THE BOTTOM OF CABINET AS SHOWN. (KIT PL19A137089G1).
3. PLUG THE THERMOSTAT S2 (4029615P5) INTO J2.
4. CLIP OFF THE YELLOW WIRE HANGING FROM J1-2 AND THE BROWN WIRE HANGING FROM TB2-1 ON A501. DISCARD BOTH WIRES.
5. PLUG THE THREE PRONGED PLUG (P2) INTO J501.

FAN ONLY

1. CONNECT THE V18 Y WIRE HANGING FROM J1-2 TO TERMINAL 1 ON THE FAN, AND THE V18 BR WIRE HANGING FROM TB2-1 ON THE BOARD TO TERMINAL 2 ON THE FAN (SEE DETAIL "C")
2. ASSEMBLE THE FAN AND A501 ON THE BOTTOM OF THE CABINET AS SHOWN. (SEE VIEW "B") DISCARD HDW USED WITH GRILLE.
3. PLUG THE THERMOSTAT S1 (4029615P4) INTO J1.
4. CLIP OFF THE V18 BL WIRE HANGING FROM J2-2, AND THE V18 GA WIRE HANGING FROM TB2-1 ON A501. DISCARD BOTH WIRES.
5. PLUG THE THREE PRONGED PLUG (P2) INTO J501.

FAN/HEATER

1. FOLLOW ABOVE INSTRUCTIONS EXCEPT OMIT STEP 4 ON BOTH.

INSTALLATION INSTRUCTIONS - BATTERY STANDBY OPTION - AUXILIARY RECEIVER

1. MOUNT TRANSISTOR Q3 AND CHARGER BOARD 19B227928G1 ON THE POWER SUPPLY SUPPORT AS SHOWN, USING HARDWARE PROVIDED. SEE VIEW "A". APPLY SILICONE GREASE PER CSD PROCESS P6A-EA111 ON BOTH SIDES OF INSULATOR 19A116023P3.
2. MAKE THE FOLLOWING CONNECTIONS AND SOLDER:

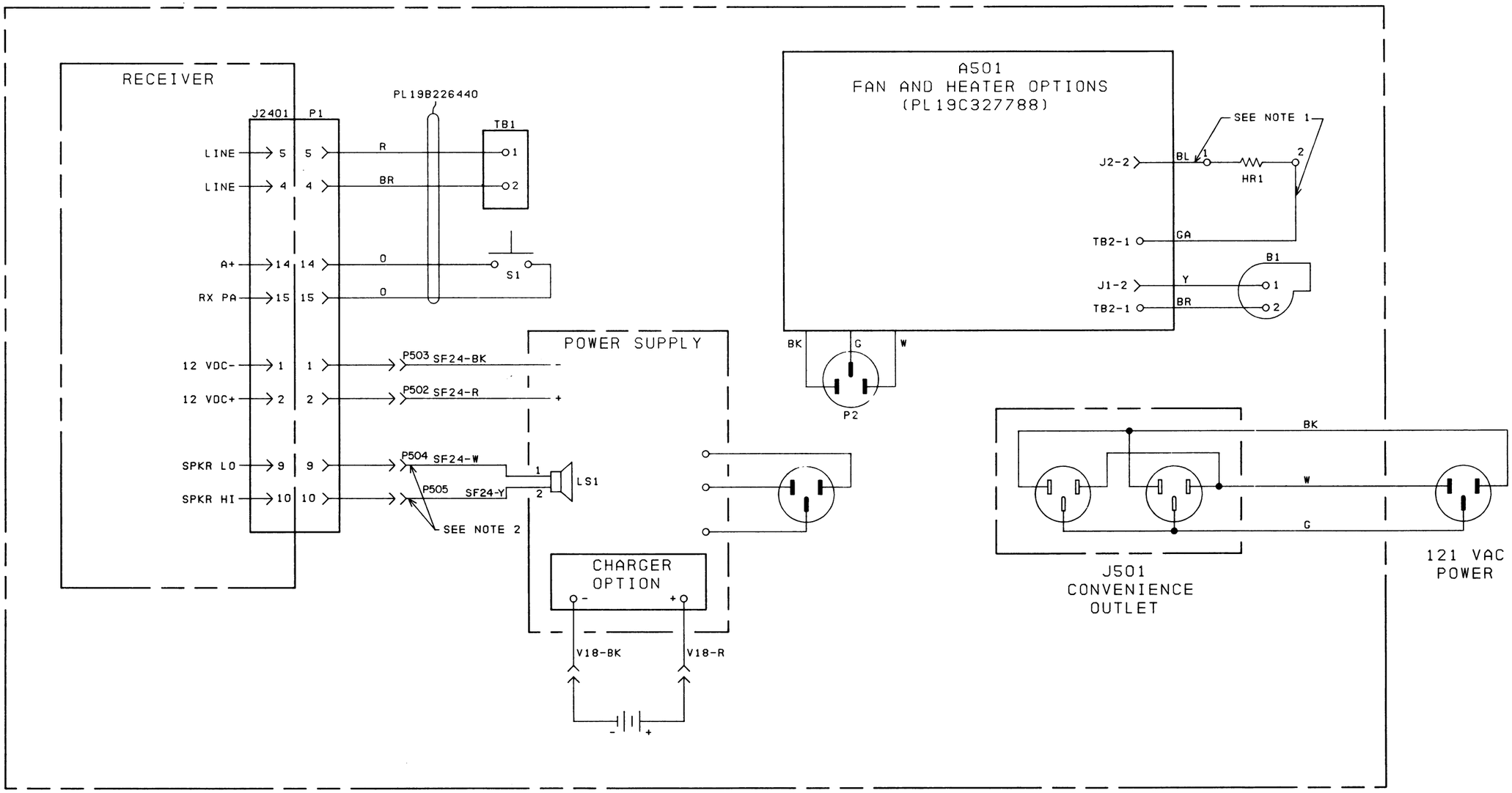
WIRE	FROM	TO	
SF22-R	H9	TB1-3 ON POWER SUPPLY	
SF22-O	H3	TB1-4 ON POWER SUPPLY	
SF22-BK	H10	TB1-9 ON POWER SUPPLY	
SF22-W	H4	Q3	COLLECTOR
SF22-BR	H5	Q3	BASE
SF22-G	H1	Q3	EMITTER

3. INSTALL THE BATTERY AS SHOWN.
4. MOUNT BATTERY PANEL TO CABINET MOUNTING RAILS AS SHOWN.
7. DRESS WIRES IN CABLE CLAMPS AS SHOWN.
8. APPLY NAMEPLATE AS SHOWN.
9. CONNECT THE V18 RED LEAD HANGING FROM H2 ON THE CHARGER BOARD TO THE POSITIVE TERMINAL OF THE BATTERY AND THE V18 BLACK LEAD HANGING FROM H6 ON THE CHARGER BOARD TO THE NEGATIVE TERMINAL OF THE BATTERY. FOR TESTING THE BATTERY. AFTER FINAL TEST IS COMPLETE, THE RED AND BLACK WIRES ARE TO BE REMOVED FROM THE BATTERY TERMINALS AND TAPED SO THAT NO METAL IS EXPOSED.

INSTALLATION INSTRUCTIONS

STANDBY BATTERY/CHARGER AND FAN HEATER OPTIONS

(19D424729, Rev. 2)



THIS ELEM DIAG APPLIES TO	
MODEL NO	REV LETTER

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. TERMINATE WITH 19B209260P9
2. TERMINATE WITH A4036634P1

(19D424725, Rev. 2)

INTERCONNECTION DIAGRAM

POWER SUPPLY SPEAKER & OPTIONS

PARTS LIST

LBI-30582

SPEAKER HOUSING
19B227936G1

SYMBOL	GE PART NO.	DESCRIPTION
		- - - - - - - - - LOUDSPEAKERS - - - - - - - - -
LS1	19A116090P1	Permanent magnet: 2.00 inch, 8 ohms ±10% voice coil imp, 450 Hz ±112 Hz resonant; freq range 400 to 3000 Hz.
		- - - - - - - - - MISCELLANEOUS - - - - - - - -
	19A137019G1	Support.
	19A137015P1	Plate.
	4036634P1	Contact, electrical; sim to AMP 42428-2. (Quantity 2).
	19B201074P205	Tap screw, Phillips POZIDRIV®: No. 4-40 x 5/16.