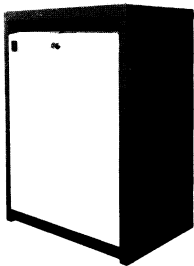


 **MOBILE RADIO**

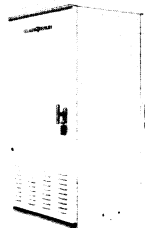
**GE-MARC VTM
TRUNKED MOBILE RADIO
REPEATER STATION
COMBINATIONS**

100 WATT 24 VOLT PA

MAINTENANCE MANUAL LBI31397B



**DESK MATE
STATION**



**POLE MOUNT
STATION**



**FLOOR MOUNT
STATION**

GENERAL  ELECTRIC

TABLE OF CONTENTS

SYSTEM SPECIFICATIONS	iii
COMBINATION NOMENCLATURE	
DESCRIPTION	1
INITIAL ADJUSTMENT	1
TEST AND TROUBLESHOOTING	3
SYSTEM DESCRIPTION	4
System Board A901	4
Busy Tone Decoder Board	4
Busy Tone Notch Filter	5
Repeater Tone Encode Board	5
STE Board	5
OUTLINE DIAGRAMS	
Busy Tone/Audio Filter 19C336562G1,2,3	7
System Board A901	8
Busy Tone Decoder Board 19D430562G1 & G2	8
Repeater Tone Encode Board 19D432023G1 & G2	8
STE Board 19C331734G1	9
Busy Tone Notch Filter 19C330978G1 & G2	8
Service Speaker 19C320728G2	8
SCHEMATIC DIAGRAMS (Includes Parts Lists & Production Changes)	
Radio Housing Front Door (19D417262G10)	10-11
Busy Tone Decoder Board(19D430562G1 & G2)	12-13
Repeater Tone Encode Board(19D432023G1 & G2)	14-16
STE Board(19C331734G1)	17-18
Busy Tone Notch Filter(19C330978G1 & G2)	19
Service Speaker(19C320728G2)	20
INTERCONNECTION DIAGRAMS	
Station Harness 19C320811G10	21
800 MHz, 90-Watt Station Harness 19C320811G13	22
MECHANICAL PARTS BREAKDOWN	
Desk Mate Stations	23
Pole Mount Stations	24
Floor Mount Stations	25
800 MHz, 90-Watt Desk Mate Stations	26-27
800 MHz, 90-Watt Pole Mount Stations	28-29
800 MHz, 90-Watt Floor Mount Stations	30
Mother Board & PA Assembly	31
Radio Housing Front Door	32
Desk Mate Cabinet	33
Pole Mount Cabinet	34
Floor Mount Cabinet	35
ILLUSTRATIONS	
Figure 1 - Radio Housing Front Door Adjustments	2
Figure 2 - Control Shelf Adjustments	3

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*

EIA DIMENSIONS (H X W X D)

DESK MATE (30-Inch)	30-1/4" X 21-1/2" X 15"
DESK MATE (44-Inch)	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 (30-Inch)	160 lbs.
DESK MATE (44-Inch)	180 lbs.
POLE MOUNT	225 lbs.
FLOOR MOUNT	290 lbs.

INPUT VOLTAGE

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

AC INPUT POWERRF OUTPUT POWERTRANSMITRECEIVE

HIGH BAND

35 Watts	270 Watts	75 Watts
65 Watts	270 Watts	75 Watts
110 Watts	560 Watts	105 Watts

UHF BAND

20 Watts	270 Watts	75 Watts
40 Watts	270 Watts	75 Watts
75 Watts	270 Watts	75 Watts
100 Watts	560 Watts	105 Watts

800 MHz BAND

35 Watts	270 Watts	75 Watts
80/90 Watts	550 Watts	75 Watts

TEMPERATURE RANGE

-30° 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

Digits 1 & 2	Digit 3	Digits 4 & 5	Digit 6	Digits 7, 8, 9
Product Code	Cabinet	Frequency Range	Radio Type	Power Output
S1	D 30-Inch Desk Mate	GG 138-155 MHz	Y Repeater	030 30 Watts (440-450 MHz)
	S 44-Inch Desk Mate	HH 150.8-174 MHz		035 35 Watts (420-440 MHz, 494-512 MHz, 851-870 MHz)
	P Pole Mount	RR 406-420 MHz		040 40 Watts (138-173 MHz, 406-420 MHz, 450-494 MHz)
	V Floor Mount	TT 420-450 MHz		045 45 Watts (851-870 MHz)
	N None	UU 450-470 MHz		080 80 Watts (440-450 MHz)
		VV 470-494 MHz		090 90 Watts (420-440 MHz, 470-512 MHz, 851-870 MHz)
		WW 494-512 MHz		100 100 Watts (138-174 MHz, 406-420 MHz, 450-470 MHz, 851-870 MHz)
		ZY 851-870 MHz Transmit 806-825 MHz Receive		

DESCRIPTION

The GE-MARC V™ Trunked Mobile Radio Repeater is housed in a desk mate, pole mount or floor mount cabinet. The repeater is a continuous duty combination, receiving and retransmitting signals simultaneously. The repeater transmitter exciter is located in a shielded compartment in the radio housing front door. The repeater receiver is also mounted in the radio housing front door along with a system board, tone encoder and tone decoder boards.

Power Amplifier

The repeater power amplifier hinges from the bottom of the radio housing. The PA assembly consists of a frame mounted to a heat sink. A cover snaps over the frame to form an RF-tight enclosure for the PA board assembly.

Repeater Control

Directly above the PA is the station control shelf. A mother board is mounted to this shelf which accommodates the 10 Volt Regulator/Control module, Audio module and Repeater Control module.

Station Power Supply

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.

INITIAL ADJUSTMENT

After the MASTR II Station has been installed, the transmitter and receiver should be adjusted by an electronics technician before the station is 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.

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.

Receiver Output

To set the receiver Audio Level 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.
2. With an audio voltmeter connected to VOL/SQ HI & LO (J905, terminals 1 & 2), adjust R608 on the IFAS board for a reading of 1.0 VRMS.

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

3. Turn service speaker switch (S1) to desired RCVR position.
4. Connect an AC VTVM across J905 terminals 1 & 2 and adjust R3 on the System Board for a reading of 6.3 Volts RMS on the meter.

CAUTION

Adjustment of VOLUME control to settings higher than instructed in the INITIAL ADJUSTMENT may result in blowing the fuse on the station service speaker.

5. Set Volume switch S2 on the service speaker to the desired listening level.

The station SQUELCH control must be precision set to 12 dB SINAD using an RF generator modulated by 1000 Hz at 3 kHz deviation and a distortion analyzer. Refer to the 12 dB SINAD sensitivity check in the receiver MAINTENANCE MANUAL and set the SQUELCH control (R901 on the Radio Panel Front Door) until the squelch just opens.

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 adjustment, refer to the ALIGNMENT PROCEDURE in the MAINTENANCE MANUAL for the transmitter.

In the following procedure the transmitter must be keyed with the REMOTE PTT switch on the front panel of the 10 Volt Regulator/Control Board.

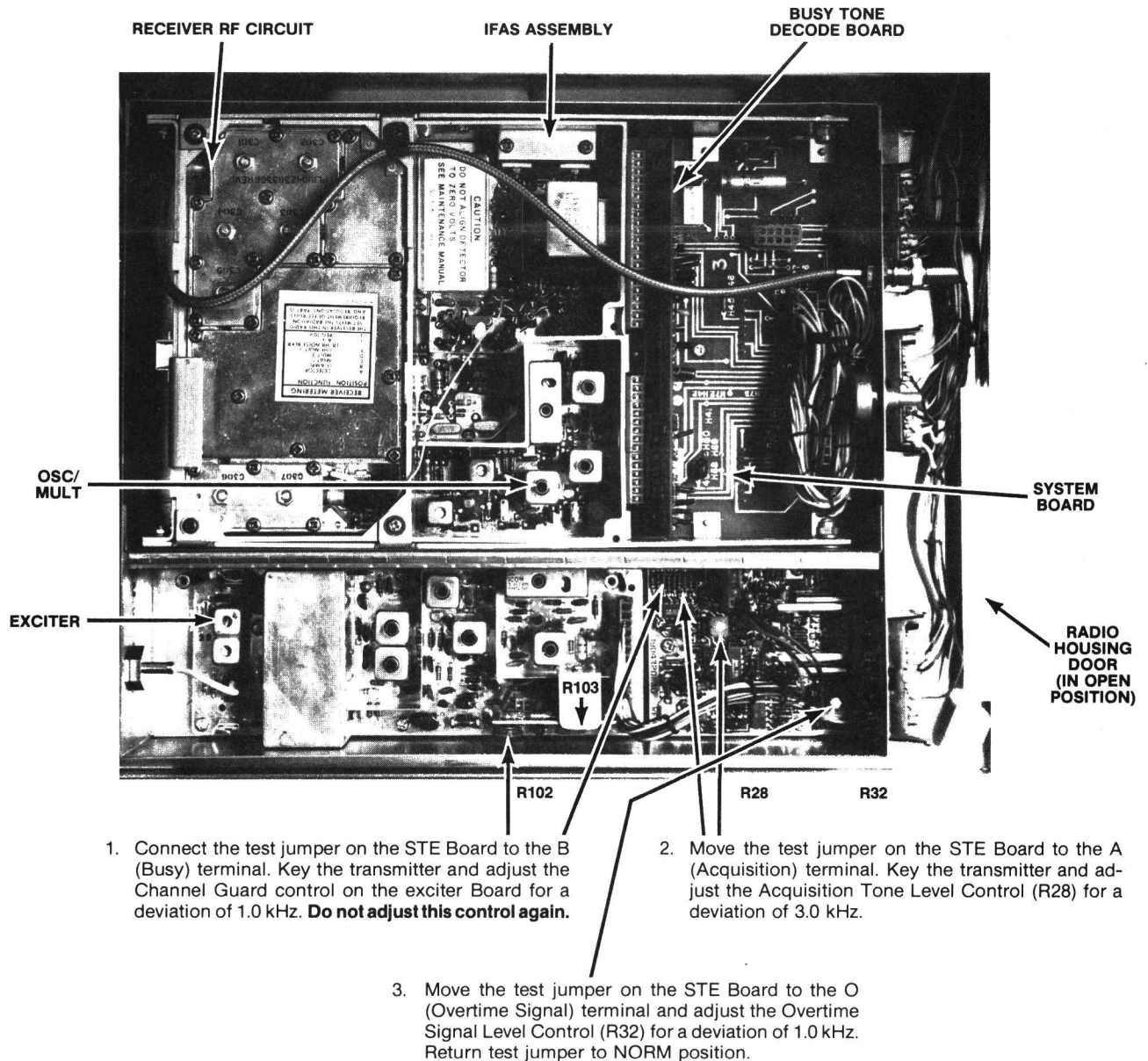
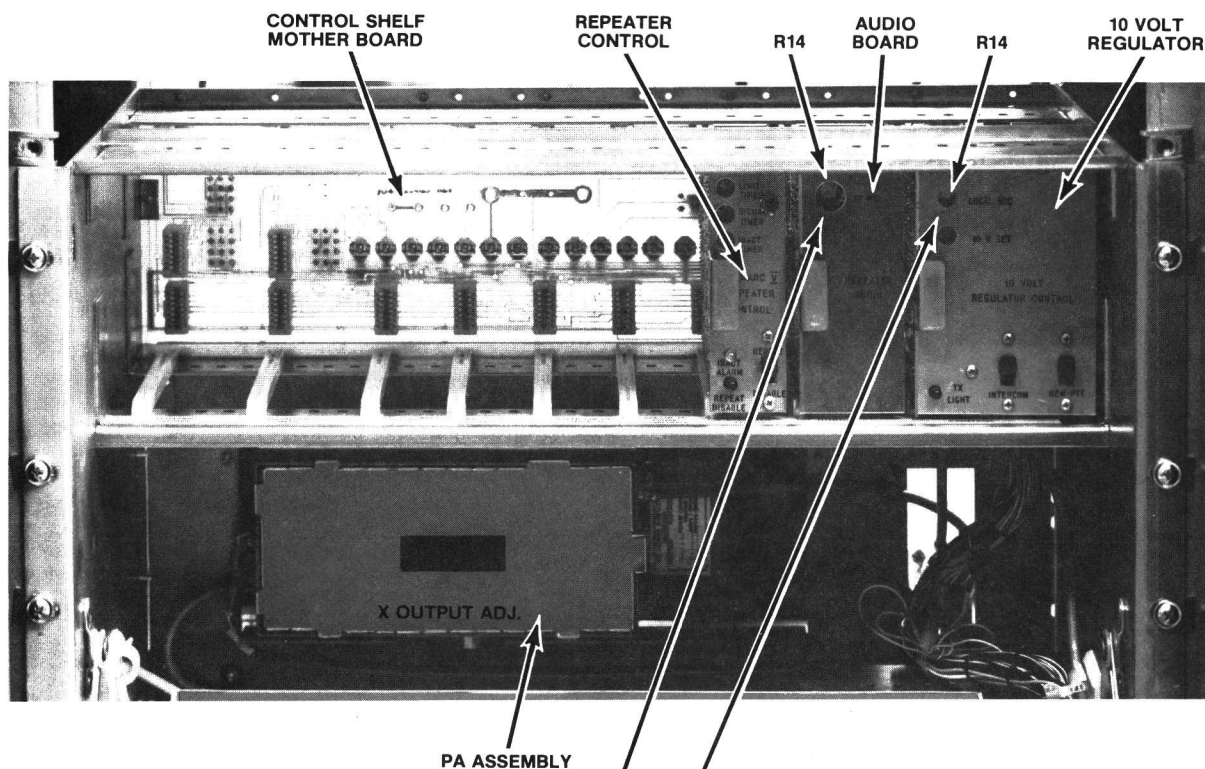


Figure 1 - Radio Housing Front Door Adjustments



1. Remove the Busy Tone Decoder Board from the System Board and unplug P453 from the Repeater Tone Encode Board.
2. Apply a 1000 microvolt on-frequency signal modulated with 1000 Hz tone at ± 3 kHz deviation to the station receiver.
3. Adjust Tx MOD control R14 on the Repeater Audio Board to its maximum clockwise position.
4. Set the MOD ADJUST control R103 on the transmitter exciter for a 3.5 kHz deviation as indicated on a frequency modulation monitor.
5. Adjust Tx MOD control R14 on the Repeater Audio Board for a 3.0 kHz deviation. Reconnect P453 to the Repeater Tone Encode Board and replace the Busy Tone Decode Board on the System Board.

Local (Test) Microphone Gain

1. Unplug P453 from the Repeater Tone Encode Board.
2. Apply a 1000 Hz, 100 mV RMS signal across B1 and B2 on the 10 Volt Regulator/Control Board.
3. Key the transmitter with the REMOTE PTT switch on the front panel of the 10 Volt Regulator/Control Board. Adjust MIC GAIN control R14 for a deviation of 3.0 kHz.
4. Reconnect P453 to the Repeater Tone Encode Board.

Figure 2 - Control Shelf Adjustments

TEST AND TROUBLESHOOTING PROCEDURES

The individual Maintenance Manual for the transmitter and receive 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 desoldering tool.

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

SYSTEM DESCRIPTION

The repeater operates in one of three modes: idle, busy or timeout. In the idle mode, the transmitter is not keyed and the receiver is waiting for busy tone. The repeater switches from idle to busy when a busy tone is received from a mobile or control station.

BUSY TONE is the first tone sent in the mobile or control station call origination sequence. Upon receiving BUSY TONE, the transmitter is keyed and ACQUISITION TONE is sent to the calling mobile or station. The COLLECTION TONE and GROUP TONE are then repeated.

The repeater requires BUSY TONE to keep it active. However, there is a period of time between one user releasing his PTT switch and another user (in the same conversation) operating his PTT switch when no BUSY TONE is sent. This period is called the "repeater hold-up time". A repeater in the busy mode will remain active for 3-10 seconds (adjustable) without receiving BUSY TONE from the mobile or control station.

A repeater in the busy mode always transmits BUSY TONE, even during the holdup time and along with the repeated audio. This tone is a signal to other user groups that the channel is busy. The repeater incorporates a filter which removes the BUSY TONE from the received signal. The repeater generates its own BUSY TONE for transmission with repeated signals.

If no BUSY TONE is received by the repeater within the hold-up period, it will shut down and revert back to the idle mode after a one-second hold-down delay. During this one-second hold-down delay period, the repeater will not respond to signals from the mobiles or control stations. The hold-down period ensures that all mobiles and stations on the channel time out and clear the channel before a new conversation can begin. After the hold-down period has elapsed, the repeater is ready to be signalled again.

The time-out mode occurs only when all the repeaters in the system are busy, provided the repeaters are linked together by a DC line called by BUSY BUS. When a repeater enters the busy mode, a timer is started. If the user vacates the channel before the timing period ends (1-10 minutes, adjustable), the time resets to zero and the repeater reverts to the idle mode. If the user exceeds the time limit and there are still empty channels in the system, the conversation time is not limited. When the time limit

has been exceeded and all channels are busy, a shutdown sequence begins in which the repeater transmits a 5-20 second (adjustable) interrupted 800 MHz warning tone. At the end of the tone the repeater shuts down and reverts to the idle mode after a one-second hold-down period. The shutdown occurs only when all channels in the system are busy and the conversation time limit is exceeded.

Another feature of the repeater is the ability to shut down after receiving uninterrupted BUSY TONE for an excessive period of time. When this condition exists, the INACTIVITY ALARM is set indicating to system operators that there is a problem.

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 with the Control Shelf and Power Supply. Plug-in Tone jacks are provided. A metering jack is provided for accommodating the General Electric Model 4EX3A11 Test Set. VOLUME Control R3 is located on the System Board. SQUELCH Control R901 is located on the Radio Panel Front Door.

A jumper is present between J933-4 and J933-8. Also, a jumper is present between H47 and H48. The jumpers between H41 and H42 as well as between H68 and H69 are not present in GE-MARC V Repeaters.

VOLUME/SQUELCH HI from the receiver audio pre-amp is connected via J904-11 to the Busy Tone Decode Board (through P908-1) and J932-16 and J932-17 to SQUELCH control R901. The SQUELCH arm is returned to the IFAS board of the receiver through P952-12. VOL/SQ HI is also connected through J932-3 to J1203-8 on the Control Shelf Mother Board and then to B11 on the Repeater Audio Board.

After removing the BUSY TONE from the audio signal (at the Busy Tone Reject Filter), the audio is returned via A10, J1201-1 and J932-19 to the VOLUME Control R3. The VOLUME 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 J904-18 and 19.

Busy Tone Decoder Board 19D430562G1 & G2

Audio applied to the Busy Tone Decoder Board on the VOL/SQ HI lead is passed through a voice rejection filter composed of AR2-A, -B, -C. The resultant

signal is limited by Q1 and passed to the Frequency Switchable Selective Amplifier (FSSA) AR1. The FSSA responds only to the BUSY TONE frequency, determined by Versatone filter FL1.

The operating frequency and Q of the FSSA circuit are controlled by the tone network. When the incoming signal matches the resonant frequency of the FSSA, sufficient tone is present to trigger the detection network consisting of Q2, Q3 and Q4. AR2-D inverts the output of the tone detector and provides the BT DETECT logic signal which is coupled through J908-5 to the Repeater Control Board.

Busy Tone Notch Filter 19C330978G1 & G2

When a BUSY TONE is received from a transceiver, the repeater enters the BUSY mode and retransmits the incoming signal. However, the incoming BUSY TONE is removed from the signal by the Busy Tone Notch Filter. A locally generated BUSY TONE is substituted in the retransmitted signal.

The Busy Tone Notch Filter plugs into the Repeater Audio Board at J3 and J4. The filter consists of a Frequency Switchable Selective Amplifier (FSSA) AR1. The FSSA responds only to the BUSY TONE frequency, determined by Versatone filter FL1. Two groups of the filter are available. 19C330978G1 has the Versatone filter tuned to the standard BUSY TONE frequency (3051.9 Hertz). 19C330978G2 has the Versatone filter tuned to an alternate BUSY TONE frequency (2918 Hertz).

The incoming audio signal, with the BUSY TONE removed, is amplified by the Preamplifier circuit Q1-Q3 and returned to the Repeater Audio Board.

Busy Tone/Audio Filter Board 19C336562G1, 2, 3

When a Busy Tone is received by a GE-MARC V mobile or station, the repeater enters the BUSY mode and re-transmits the incoming signal.

Incoming audio and Busy Tone are applied to the board through P3-3 (VOL HI IN), and is applied to the tone notch filter consisting of Frequency Switchable Selectable Amplifier (FSSA) AR1 and Versatone filter FL1. The FSSA responds only to the Busy Tone frequency which is determined by the Versatone filter, FL1. The audio output of the tone notch filter (AR1 and FL1) is applied to audio pre-amplifier U1C and applied to the repeater through P4-1 (BUSY FILTER OUT). A different repeater BUSY tone is applied to the repeater transmitted signal. Three groups of tone filter boards are

available: Busy Tone Board 19C336562G1 is for the standard tone frequency of 3051 Hz, 19C336562G2 is for the alternate tone frequency of 2918 Hz and 19C336562G3 is without filter network FL1 (filter to be ordered separately if needed). The BUSY FILTER OUT signal is also applied to high pass filter U1A and then to a low pass filter consisting of U2A through U2D and associated circuitry. The low pass/high pass filters roll off the audio response to form a bandpass and the filter output is coupled through output buffer U1B to P3-2. The filtered output at P3-2 is applied to the phone line patch.

Two potentiometers are provided for adjusting the tone notch filter, NULL ADJUST R2 and a level control R29.

With the correct Busy Tone applied to the station, R2 and R29 are adjusted for the best null.

Repeater Tone Encode Board 19D432023G1 & G2

The Repeater Tone Encode Board mounts in the Radio Housing Front Door of the repeater. The Encode Board consists of the BUSY TONE oscillator, the ACQUISITION TONE Oscillator, the OVERTIME SIGNAL oscillator and the associated control circuits.

The Frequency Switchable Selective Amplifier (FSSA) AR1 operates only at the BUSY TONE frequency determined by Versatone filter FL1. The FSSA output is amplified by Q1 and Q2 and fed back to the input of the FSSA through C19, R7 and limiter CR1 and CR2 to sustain oscillation. The output of the BUSY TONE oscillator is coupled through switch U6 to summing amplifier AR3.

The ACQUISITION TONE oscillator operates in the same way as the BUSY TONE oscillator with FSSA AR2 and Versatone filter FL2 determining the operating frequency; Q3 and Q4 provide amplification and feedback is accomplished by C29, R19 and CR3, CR4.

When the TRANSMIT OSCILLATOR CONTROL is applied to terminal J1-3 goes high, switch V6 triggers V3 which generates a 80 ms pulse. The trailing edge of the pulse from V3 triggers U4 which generates a 50 ms to allow a 50 ms burst of ACQUISITION TONE to be coupled to summing amplifier AR3. The TEST SIGNAL SELECTOR permits manual selection of each of the tones, one at a time, for system adjustment, R28 adjusts the level of the ACQUISITION TONE.

When the CONVERSATION LIMIT TIMER on the Repeater Control Board times out, an

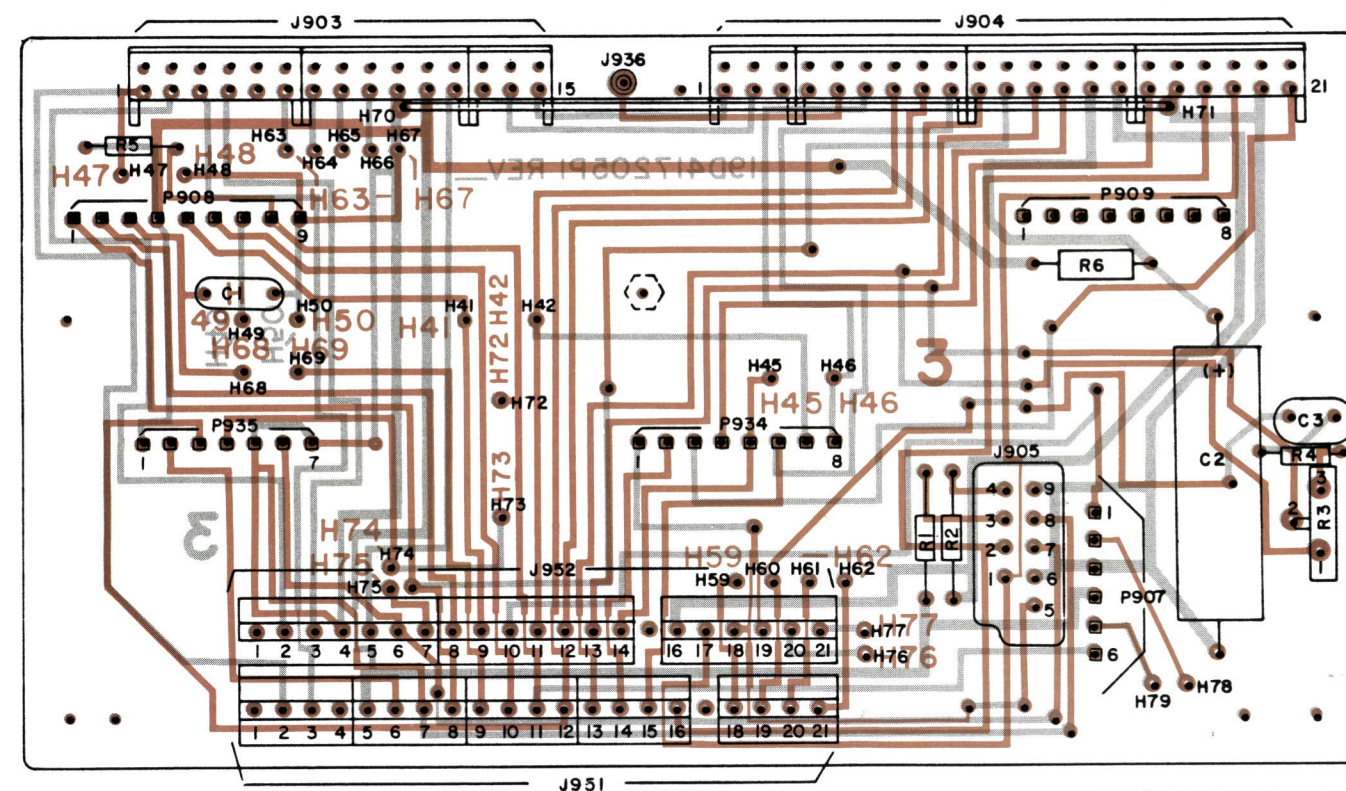
OVERTIME SIGNAL GATE voltage is applied to pin J1-6 of the Encode Board. This voltage (high) is inverted by AR3 and applied to the base of Q5, turning the transistor off. With Q5 off, timer U1 and U2 are free to oscillate, generating the OVERTIME SIGNAL. R32 adjusts the level of the OVERTIME SIGNAL. AR3 filters harmonics from the signal, after which it is applied to the summing amplifier through control switch U6 (pin 1). U6 is triggered by U2 to interrupt the OVERTIME SIGNAL periodically during normal operation. The summing amplifier adds the tones and couples them to the repeater transmitter through J1-1.

STE Board 19C331734G1

The Repeater Squelch Tail Eliminator (STE) board 19C331734G1 mounts on the Tone Encoder board. The station harness plugs into the STE board. Strapping for testing tones is part of the STE board.

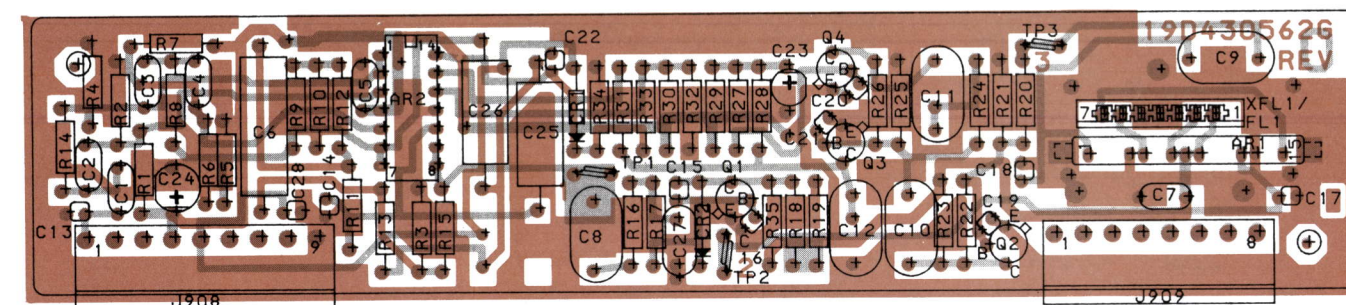
The Repeater STE Board provides approximately 900 milliseconds of carrier without BUSY TONE prior to unkeying the transmitter. As long as the TX OSC CONTROL signal is at logic 1, the low at NAND gate U2 (pin 10) holds Q1 on, keeping the transmitter keyed. When TX OSC CONTROL goes to logic 0, NAND gate U2 (pin 4) goes low, triggering the 555 timer U1. The high output of U1 at pin 3 operates Q2, muting the receiver. The logic 0 at U2 (pin 11) keeps Q1 operating for the duration of the 555 timer (approximately 900 ms) before the transmitter is unkeyed.

When the test jumper (W2) is moved from the NORM position to one of the test positions (BUSY, OT or ACQ), that particular control switch of U6 (controlled by the logic of the TEST SIGNAL SELECTOR U5) allows the tone to pass through to the tone output lead continuously while blocking the other tones.



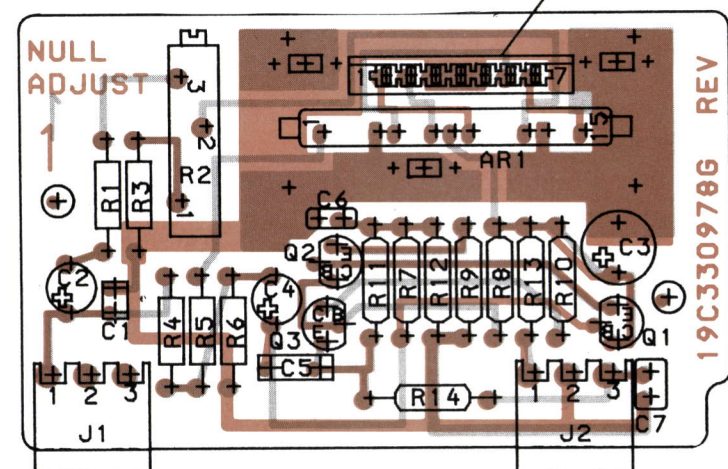
(19D423147, Rev. 2)
(19D417205, Sh. 2, Rev. 3)
(19D417205, Sh. 3, Rev. 3)

BUSY TONE DECODER BOARD 19D430562G1 & G2



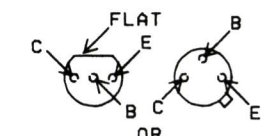
(19D430560, Rev. 1)
(19A142656, Sh. 1, Rev. 0)
(19A142656, Sh. 2, Rev. 0)

BUSY TONE NOTCH FILTER 19C330978G1 & G2



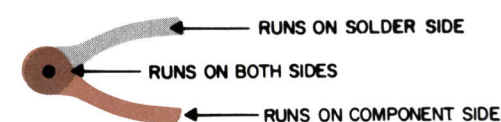
(19C331068, Rev. 1)
(19A143585, Sh. 1, Rev. 1)
(19A143585, Sh. 2, Rev. 1)

LEAD IDENTIFICATION FOR Q1-Q6



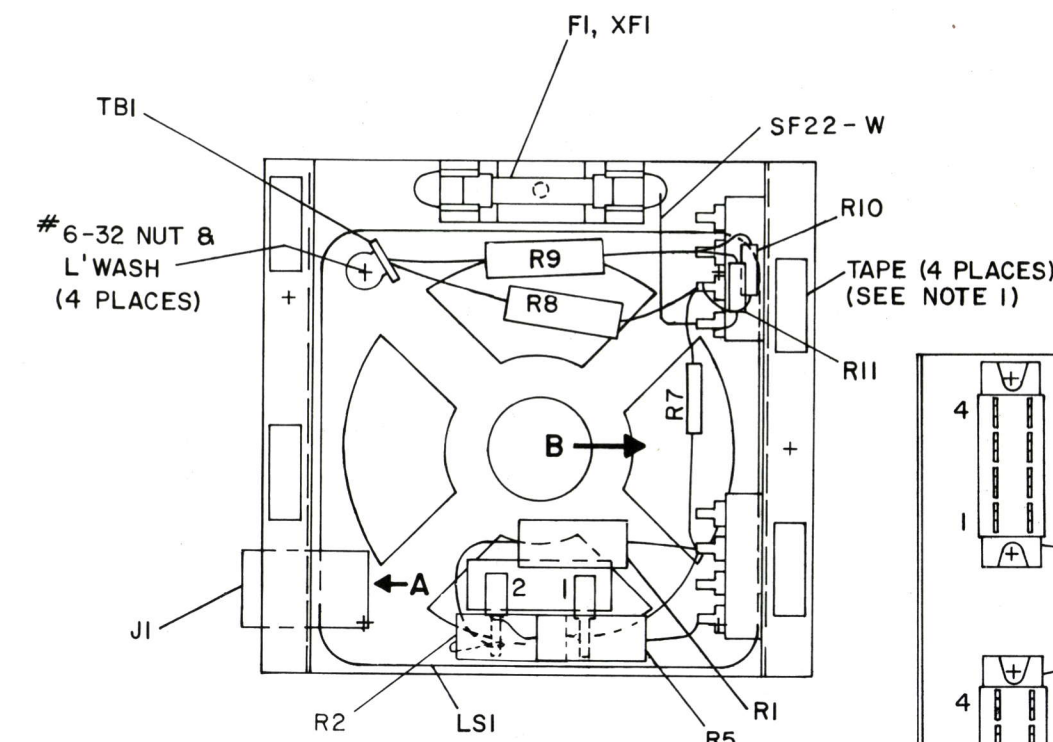
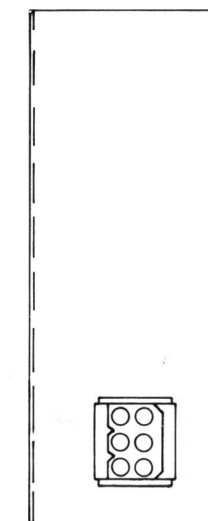
IN-LINE TRIANGULAR TOP VIEW

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



REFER TO WIRING DIAGRAM FOR THE FOLLOWING CONNECTIONS

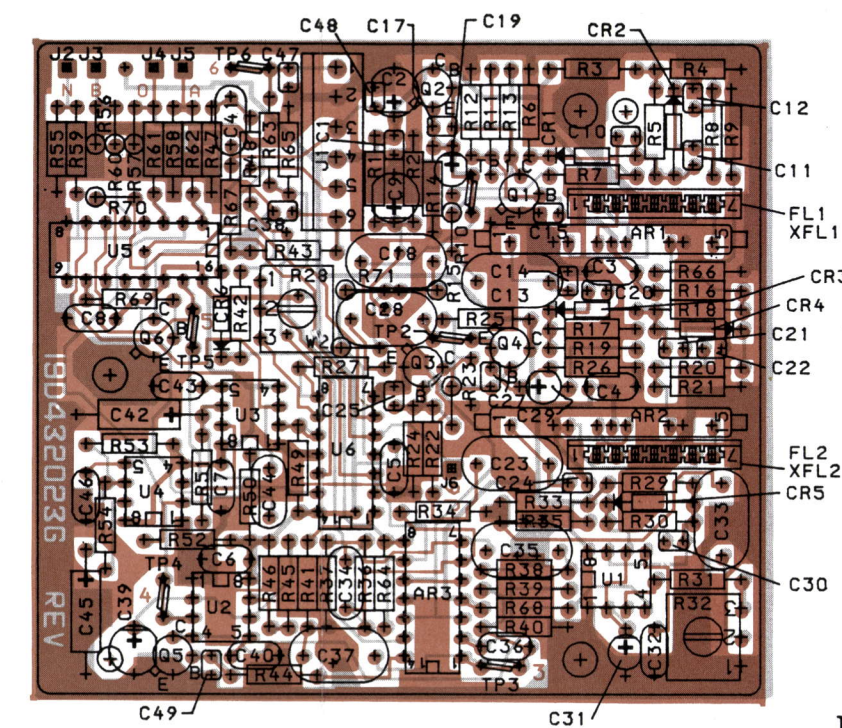
FROM	TO
H41	H42
H50	H77
H45	H46
H47	H48
H68	H69
H49	H76



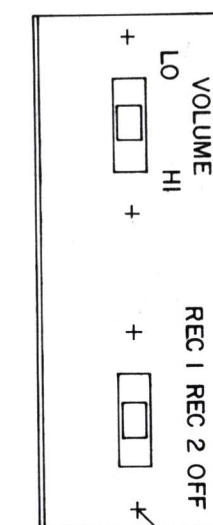
NOTES:
1. INSTALL TAPE ALONG FLANGE, ONE ON EACH SIDE OF MOUNTING HOLES.

(19C328482, Rev. 3)

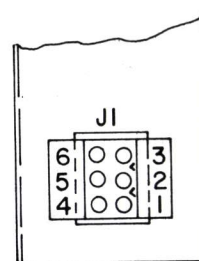
REPEATER TONE ENCODE BOARD 19D432023G1 & G2



(19D432026, Rev. 3)
(19A143141, Sh. 1, Rev. 1)
(19A143141, Sh. 2, Rev. 2)



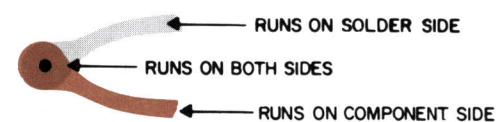
VIEW B

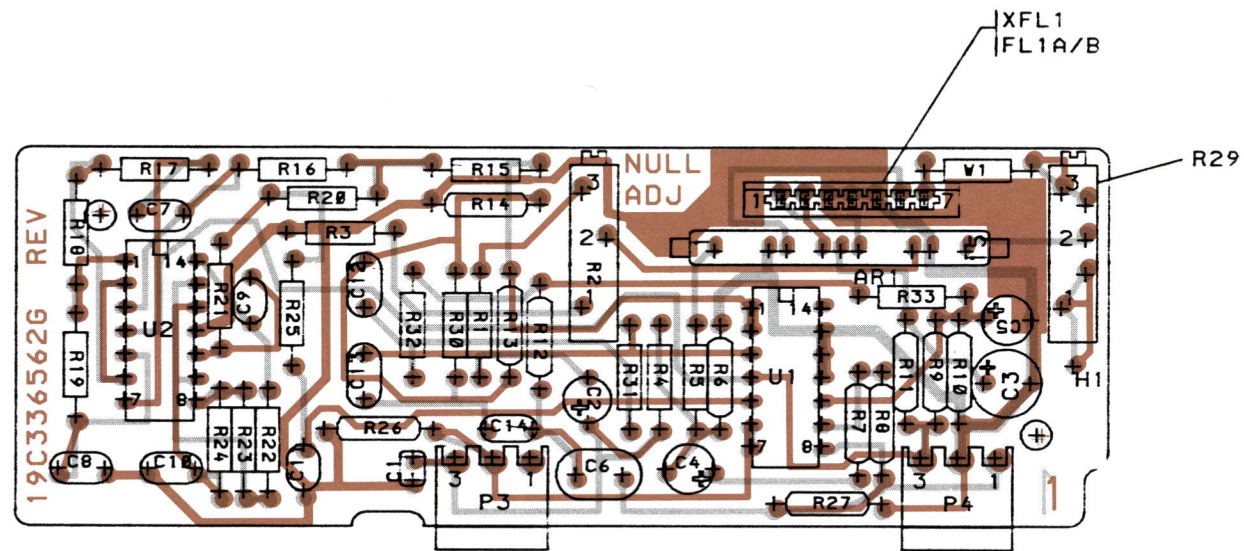


VIEW A

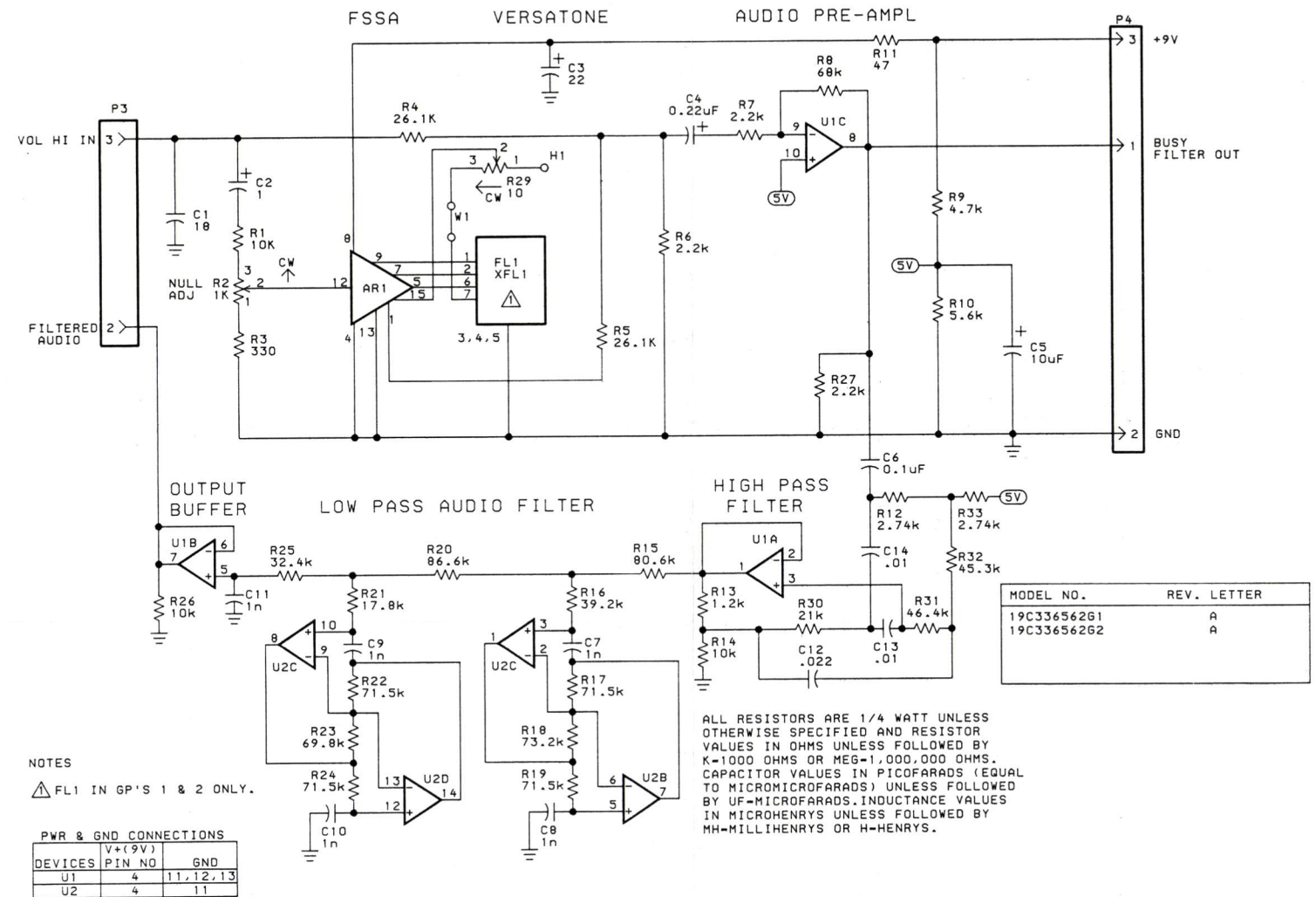
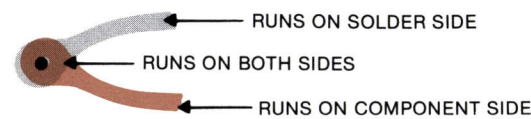
OUTLINE DIAGRAM

SYSTEM BOARD, DECODER BOARD,
ENCODE BOARD, BUSY TONE NOTCH FILTER
AND SERVICE SPEAKER





(19C336564, Rev. 1)
(19A148788, Sh. 1, Rev. 0)
(19A148788, Sh. 2, Rev. 0)



(19C336565, Sh. 1, Rev. 1)

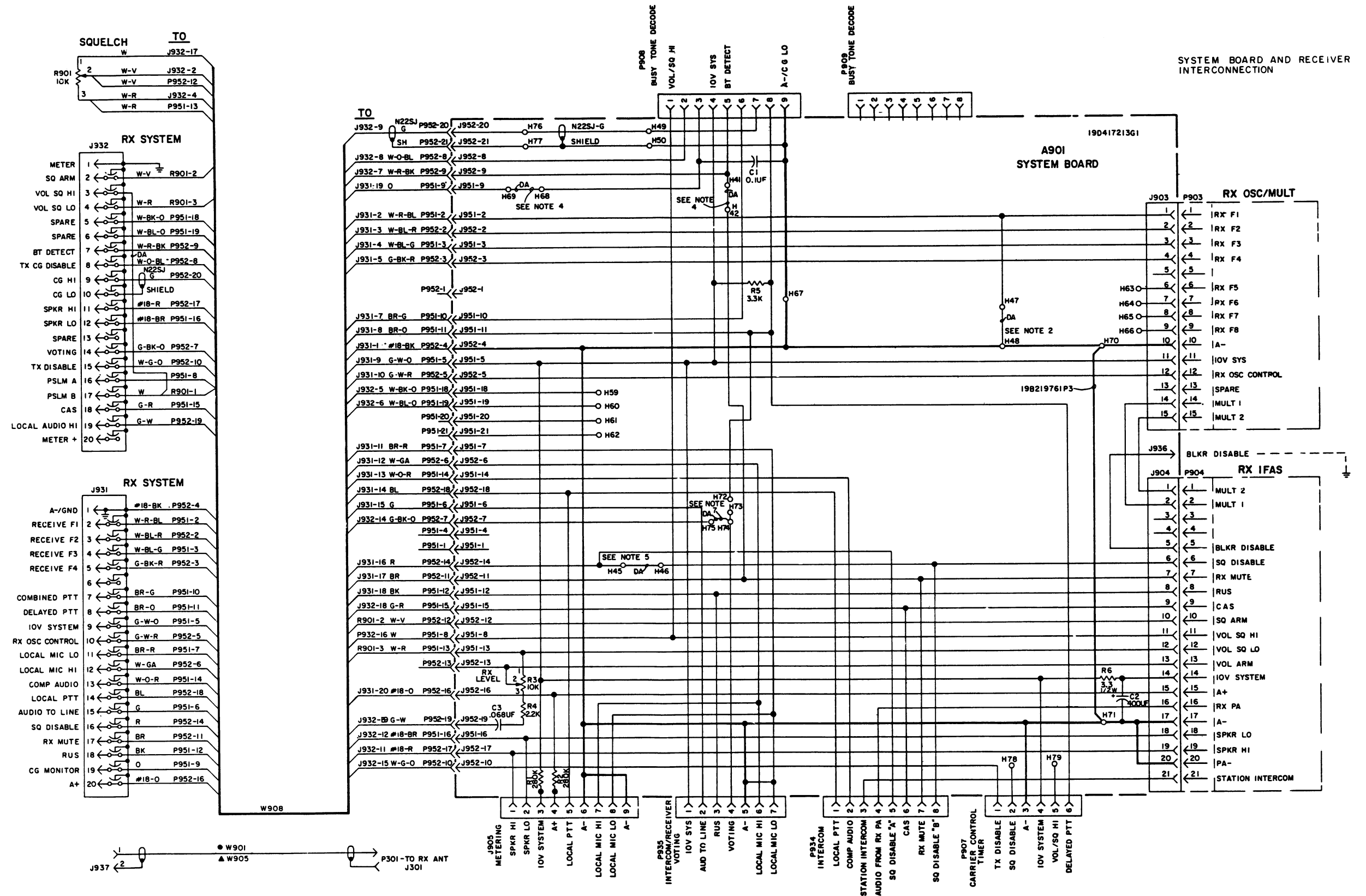
PARTS LIST

GE MARC V
BUSY TONE/AUDIO FILTER BOARD
19C336562G1 3051 Hz BUSY TONE
19C336562G2 2918 Hz ALTERNATE BUSY TONE
19C336562G3 LESS BUSY TONE NETWORK
ISSUE 3

SYMBOL	GE PART NO.	DESCRIPTION
AR1	19D417092G2	Selective Filter.
----- CAPACITORS -----		
C1	19A700219P38	Ceramic: 18 pF $\pm 10\%$, 100 VDCW, temp coef 0 PPM.
C2	19A701534P4	Tantalum: 1 uF $\pm 20\%$, 35 VDCW.
C3	19A701534P8	Tantalum: 22 uF $\pm 20\%$, 16 VDCW.
C4	19A701534P2	Tantalum: .022 uF $\pm 20\%$, 35 VDCW.
C5	19A703314P10	Electrolytic: 10 uF -10+50% tol, 50 VDCW; sim to Panasonic LS Series.
C6	19A702250P113	Polyester: 0.1 uF $\pm 10\%$, 50 VDCW.
C7 thru C11	T644ACP210J	Polyester: .0010 uF $\pm 5\%$, 50 VDCW.
C12	T644ACP322K	Polyester: .022 uF $\pm 10\%$, 50 VDCW.
C13 and C14	T644ACP310K	Polyester: .010 uF $\pm 10\%$, 50 VDCW.
----- FILTERS -----		
NOTE: When reordering give GE Part number and specify exact frequency needed.		
FL1A	19C320291G10	Hybrid filter; 2918 Hz.
FL1B	19C320291G9	Hybrid filter; 3051 Hz.
----- JACKS AND RECEPTACLES -----		
P3 and P4	19A700102P1	Printed wire: 3 contacts rated at 5 amps; sim to Molex 09-52-3031.
----- RESISTORS -----		
R1	19A701250P301	Metal film: 10K ohms $\pm 1\%$, 1/4 w.
R2	19A116430P5	Variable, cermet: 1000 ohms $\pm 10\%$, 0.75 w; sim to Helitrim Model 79P.
R3	H212CRP133C	Deposited carbon: 330 ohms $\pm 5\%$, 1/4 w.
R4 and R5	19A701250P341	Metal film: 26.1K ohms $\pm 1\%$, 1/4 w.
R6 and R7	H212CRP222C	Deposited carbon: 2.2K ohms $\pm 5\%$, 1/4 w.
R8	H212CRP368C	Deposited carbon: 68K ohms $\pm 5\%$, 1/4 w.
R9	H212CRP247C	Deposited carbon: 4.7K ohms $\pm 5\%$, 1/4 w.
R10	H212CRP256C	Deposited carbon: 5.6K ohms $\pm 5\%$, 1/4 w.
R11	H212CRP047C	Deposited carbon: 47 ohms $\pm 5\%$, 1/4 w.
R12	19A701250P243	Metal film: 2.747K ohms $\pm 1\%$, 1/4 w.
R13	19A701250P209	Metal film: 1.21K ohms $\pm 1\%$, 1/4 w.
R14	19A701250P301	Metal film: 10K ohms $\pm 1\%$, 1/4 w.
R15	19A701250P388	Metal film: 80.6K ohms $\pm 1\%$, 250 VDCW, 1/4 w.
R16	19A701250P358	Metal film: 2.7 ohms $\pm 5\%$, 1/4 w.
R17	19A701250P383	Metal film: 71.5K ohms $\pm 1\%$, 1/4 w.
R18	19A701250P384	Metal film: 73.2K ohms $\pm 1\%$, 1/4 w.
R19	19A701250P383	Metal film: 71.5K ohms $\pm 1\%$, 1/4 w.
R20	19A701250P391	Metal film: 86.6K ohms $\pm 1\%$, 1/4 w.
R21	19A701250P325	Metal film: 17.8K ohms $\pm 1\%$, 1/4 w.
R22	19A701250P383	Metal film: 71.5K ohms $\pm 1\%$, 1/4 w.
R23	19A701250P382	Metal film: 69.8K ohms $\pm 1\%$, 1/4 w.

SYMBOL	GE PART NO.	DESCRIPTION
R24	19A701250P383	Metal film: 71.5K ohms $\pm 1\%$, 1/4 w.
R25	19A701250P350	Metal film: 32.4K ohms $\pm 1\%$, 1/4 w.
R26	H212CRP310C	Deposited carbon: 10K ohms $\pm 5\%$, 1/4 w.
R27	H212CRP222C	Deposited carbon: 2.2K ohms $\pm 5\%$, 1/4 w.
R29	19A116430P1	Variable; 10 ohms $\pm 20\%$ - 250K ohms $\pm 10\%$.
R30	19A701250P332	Metal film: 21K ohms $\pm 1\%$, 1/4 w.
R31	19A701250P365	Metal film: 46.4K ohms $\pm 1\%$, 1/4 w.
R32	19A701250P364	Metal film: 45.3K ohms $\pm 1\%$, 1/4 w.
R33	19A701250P243	Metal film: 2.74K ohms $\pm 1\%$, 1/4 w.
----- INTEGRATED CIRCUITS -----		
U1 and U2	19A701789P1	Linear, Low Power OP AMP; sim to LM324N.
----- JUMPERS -----		
W1	19A700184P1	Jumper.
----- SOCKETS -----		
XPL1	19C320299G1	Connector. Includes:
	19D416714P1	Shell.
	19B219681P1	Contact, electrical.

*COMPONENTS ADDED, DELETED OR CHANGED BY PRODUCTION CHANGES.



SCHEMATIC DIAGRAM

RADIO HOUSING FRONT DOOR
19D417262G10

(19D433689, Sh. 2, Rev. 0)

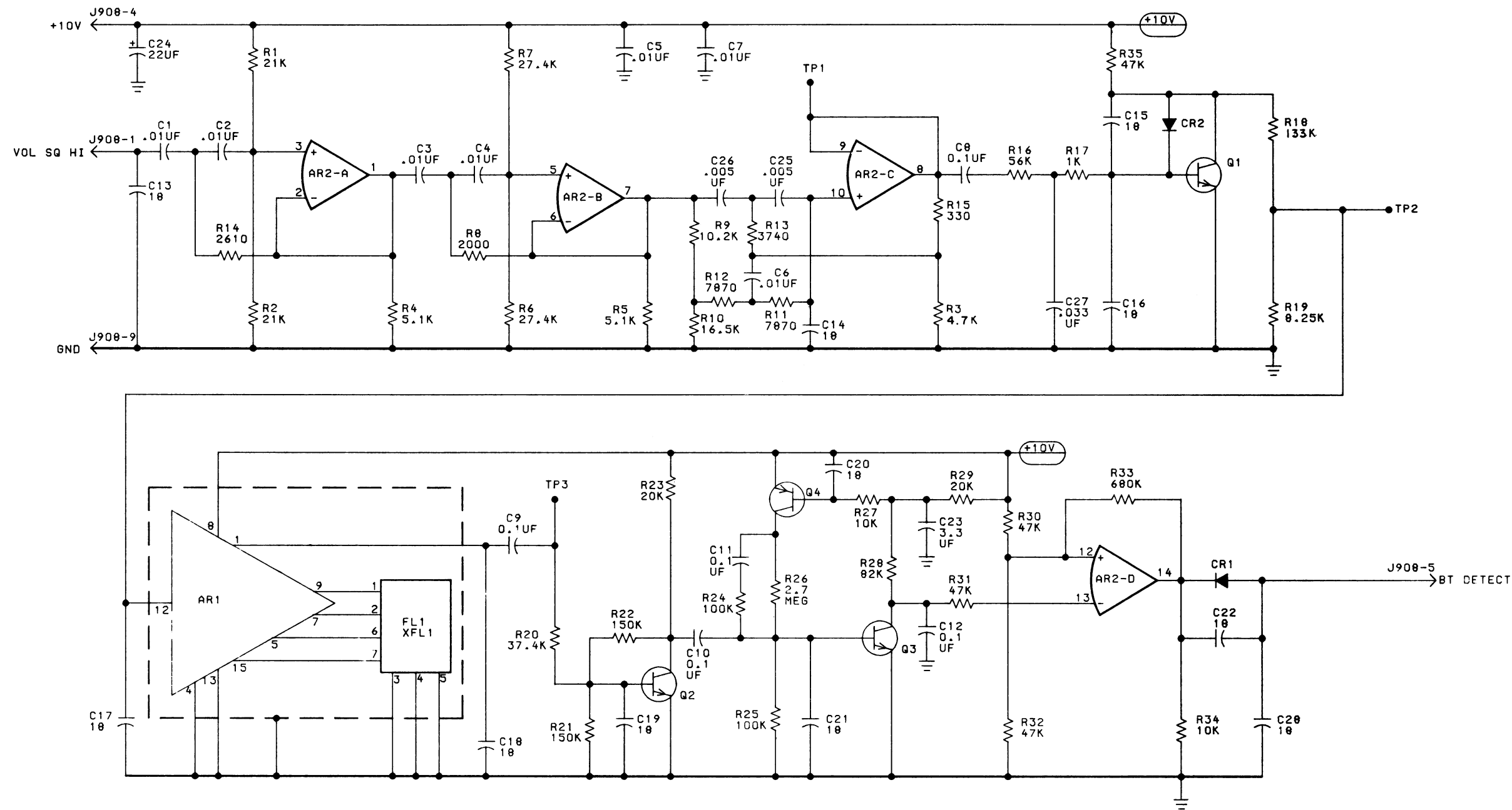
PARTS LIST

GE MARC V
RADIO HOUSING FRONT DOOR ASSEMBLY
19D417262G10
ISSUE 2

SYMBOL	GE PART NO.	DESCRIPTION
A901		COMPONENT BOARD 19D417213G1
		----- CAPACITORS -----
C1	19A116080P107	Polyester: 0.1 uF ±10%, 50 VDCW.
C2	19A115680P24	Electrolytic: 400 uF +150% -10%, 18 VDCW; sim to Mallory Type TTX.
C3	19A116080P106	Polyester: 0.068 uF ±10%, 50 VDCW.
		----- JACKS AND RECEPTACLES -----
J903		Connector. Includes:
	19A116659P1	Connector: 3 contacts; sim to Molex 09-52-3032. (Quantity 1).
	19A116659P4	Connector, printed wiring: 6 contacts rated at 5 amps; sim to Molex 09-52-3062. (Quantity 2).
J904		Connector. Includes:
	19A116659P1	Connector, printed wiring: 3 contacts rated at 5 amps; sim to Molex 09-52-3032. (Quantity 1).
	19A116659P4	Connector, printed wiring: 6 contacts rated at 5 amps; 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, printed wiring: 4 contacts rated at 5 amps; sim to Molex 09-64-1041. (Quantity 5).
J952		Connector. Includes:
	19A116659P11	Connector, printed wiring: 7 contacts rated at 5 amps; sim to Molex 09-64-1071. (Quantity 2).
	19A116659P12	Connector, printed wiring: 6 contacts rated @ 5 amps; sim to Molex 09-64-1061. (Quantity 1).
		----- PLUGS -----
P907	19A701785P1	Contact, electrical; sim to Molex 08-50-0404. (Quantity 6).
P908	19A701785P1	Contact, electrical; sim to Molex 08-50-0404. (Quantity 9).
P909	19A701785P1	Contact, electrical; sim to Molex 08-50-0404. (Quantity 8).
P934	19A701785P1	Contact, electrical; sim to Molex 08-50-0404. (Quantity 8).
P935	19A701785P1	Contact, electrical; sim to Molex 08-50-0404. (Quantity 7).
		----- RESISTORS -----
R1 and R2	19A701250P444	Metal film: 280K ohms ±1%, 1/4 w.
R3	19B209358P106	Variable, carbon film: approx 300 to 10K ohms ±10%, 1/4 w; sim to CTS Type X-201.
R4	19A700106P71	Composition: 2.2K ohms ±5%, 1/4 w.
R5	19A700106P75	Composition: 3.3K ohms ±5%, 1/4 w.
R6	19A700113P3	Composition: 3.3 ohms ±5%, 1/2 w.
		----- CABLES -----
W905		CABLE ASSEMBLY 19A136930G2
		----- JACKS AND RECEPTACLES -----
J937		Connector. Includes:
	19A115938P12	Connector, coaxial: (BNC Series); sim to Amphenol 31-342.

SYMBOL	GE PART NO.	DESCRIPTION
P301	19A134357P8	----- PLUGS ----- Cable, RF: approx 21 inches long.
W906		CABLE ASSEMBLY 19A136930G1
		----- JACKS AND RECEPTACLES -----
J938	19A115938P1	Connector, coaxial: (BNC Series); sim to Amphenol 31-318.
		----- PLUGS -----
P101	19A134357P6	Cable, RF: approx 6 inches long.
W908		CABLE ASSEMBLY 19D417262G6
		----- JACKS AND RECEPTACLES -----
J931 and J932	19C303426G1	Connector: 20 pin contacts.
		----- PLUGS -----
P951 and P952		Connector. Includes
	19A116659P25	Shell.
	19A116781P3	Contact, electrical: wire range No. 16-20 AWG; sim to Molex 08-50-0105.
	19A116781P4	Contact, electrical: wire range No. 22-26 AWG; sim to Molex 08-50-0107.
	19B209519P1	Polarity tab.
		----- RESISTORS -----
R901	5496870P31	Variable, carbon film: 10K ohms ±20%, sim to Mallory LC(25K).
W909		EXCITER CABLE 19D417262G8
		----- JACKS AND RECEPTACLES -----
J933	19C303426G1	Connector: 20 pin contacts.
		----- PLUGS -----
P901		Connector. Includes:
	19A116659P25	Shell.
	19A116781P4	Contact, electrical: wire range No. 22-26 AWG; sim to Molex 08-50-0107.
	19B209519P1	Polarity tab.
P953		Connector. Includes:
	19A116659P80	Shell.
	19A116781P4	Contact, electrical: wire range No. 22-26 AWG; sim to Molex 08-50-0107.
	19B209519P1	Polarity tab.
W910	19D417262G11	Harness.
		----- MISCELLANEOUS -----
	19C320679G1	Door.
	19B234589P1	Pawl. (Part of door latch).
	19C336435P1	Knob. (Part of door latch).
	N193P1208B6	Tap screw, phillips head: No. 6-20 x 1/2. (Part of door latch).
	5493361P8	Washer, spring tension. (Part of door latch).
	19A121676P1	Guide pin. (Used with J931-J933).
	7115130P9	Hex nut, brass: No. 3/8-32. (Used with R901 mounting).
	7165075P2	Hex nut, brass: thd. size No. 3/8-32. (Used with R901 mounting).

SYMBOL	GE PART NO.	DESCRIPTION
	19A115874P1	Catch, friction. (Latches A901).
	4037158P4	Rubber channel. (Located on edge of door).
	4035664P8	Nut, self locking. (Secures supports).
	19A115161P2	Sleeving. (Located between self locking nuts & supports).
	19A116686P2	Nut, sheet spring. (Located by J933).
	N529P11B6	Button plug.
	19A116496P1	Cable clamp. (Secures Exciter to Driver cable).
	19B226035G1	Support. (Secures door).
	19B226105G2	Support. (Secures door).
	19B226035G2	Support. (Secures door).
	N402P39B6	Flatwasher: No. 10. (Part of door hinge).
	19C320664P3	Frame.
	19A121175P10	Insulator plate. (Used at P901).



POWER & GND CONNECTIONS		
DEVICE	+10V PIN NO.	GND PIN NO.
AR2	4	11

MODEL NO	REV LETTER
19D430562 G1	A
19D430562 G2	

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. INDUCTANCE VALUES IN MICROHENRYS UNLESS FOLLOWED BY MH=MILLIHENRYS OR H=HENRYS.

SCHEMATIC DIAGRAM

BUSY TONE DECODER BOARD
19D430562G1 & G2

PARTS LIST

GE MARC V
REPEATER BUSY TONE DECODER BOARD
19D430562G1 3051.9 Hz
19D430562G2 2918.7 Hz
ISSUE 4

SYMBOL	GE PART NO.	DESCRIPTION
AR1	19D417092G2	Selective Amplifier.
AR2	19A134511P1	Linear: QUAD OP AMP; sim to LM224J.
		- - - - - CAPACITORS - - - - -
C1 thru C5	19A700005P7	Polyester: 0.01 uF $\pm$ 10%, 50 VDCW.
C6	19C307114P1002G	Polystyrene: 10,000 pF $\pm$ 2%, 100 VDCW, temp coef -120+30 PPM.
C7	19A700005P7	Polyester: 0.01 uF $\pm$ 10%, 50 VDCW.
C8 thru C12	19A116080P107	Polyester: 0.1 uF $\pm$ 10%, 50 VDCW.
C13 thru C22	19A700219P38	Ceramic: 18 pF $\pm$ 10%, 100 VDCW, temp coef 0 PPM.
C23	19A134202P5	Tantalum: 3.3 uF $\pm$ 20%, 15 VDCW.
C24	19A134202P6	Tantalum: 22 uF $\pm$ 20%, 15 VDCW.
C25 and C26	19C307114P5001G	Polystyrene: 5,000 pF $\pm$ 2%, 100 VDCW, temp. coef -120+30 PPM/oC.
C27	19A700005P10	Polyester: 0.033 uF $\pm$ 10%, 50 VDCW.
C28	19A700219P38	Ceramic: 18 pF $\pm$ 10%, 100 VDCW, temp coef 0 PPM.
		- - - - - DIODES AND RECTIFIERS - - - - -
CR1 and CR2	19A115250P1	Silicon, fast recovery, 225 mA, 50 PIV.
		- - - - - FILTERS - - - - -
		NOTE: When reordering give GE Park number and specify exact frequency needed.
FL1A	19C320291G6	Hybrid: 3051.9 Hz.
FL1B	19C320291G8	Hybrid: 2918.7 Hz.
		- - - - - JACKS AND RECEPTACLES - - - - -
J908	19A116659P76	Connector, printed wiring: 9 contacts rated at 5 amps; sim to Molex 09-52-3091.
J909	19A116659P77	Connector, printed wiring: 8 contacts rated at 5 amps; sim to Molex 09-52-3081.
		- - - - - TRANSISTORS - - - - -
Q1	19A116774P1	Silicon, NPN; sim to Type 2N5210.
Q2 and Q3	19A700023P1	Silicon, NPN; sim to Type 2N3904.
Q4	19A700022P1	Silicon, PNP; sim to Type 2N3906.
		- - - - - RESISTORS - - - - -
R1 and R2	19A701250P332	Metal film: 21K ohms $\pm$ 1%, 1/4 w.
R3	19A700106P79	Composition: 4.7K ohms $\pm$ 5%, 1/4 w.
R4 and R5	3R152P512J	Composition: 5.1K ohms $\pm$ 5%, 1/4 w.
R6 and R7	19A701250P343	Metal film: 27.4K ohms $\pm$ 1%, 1/4 w.

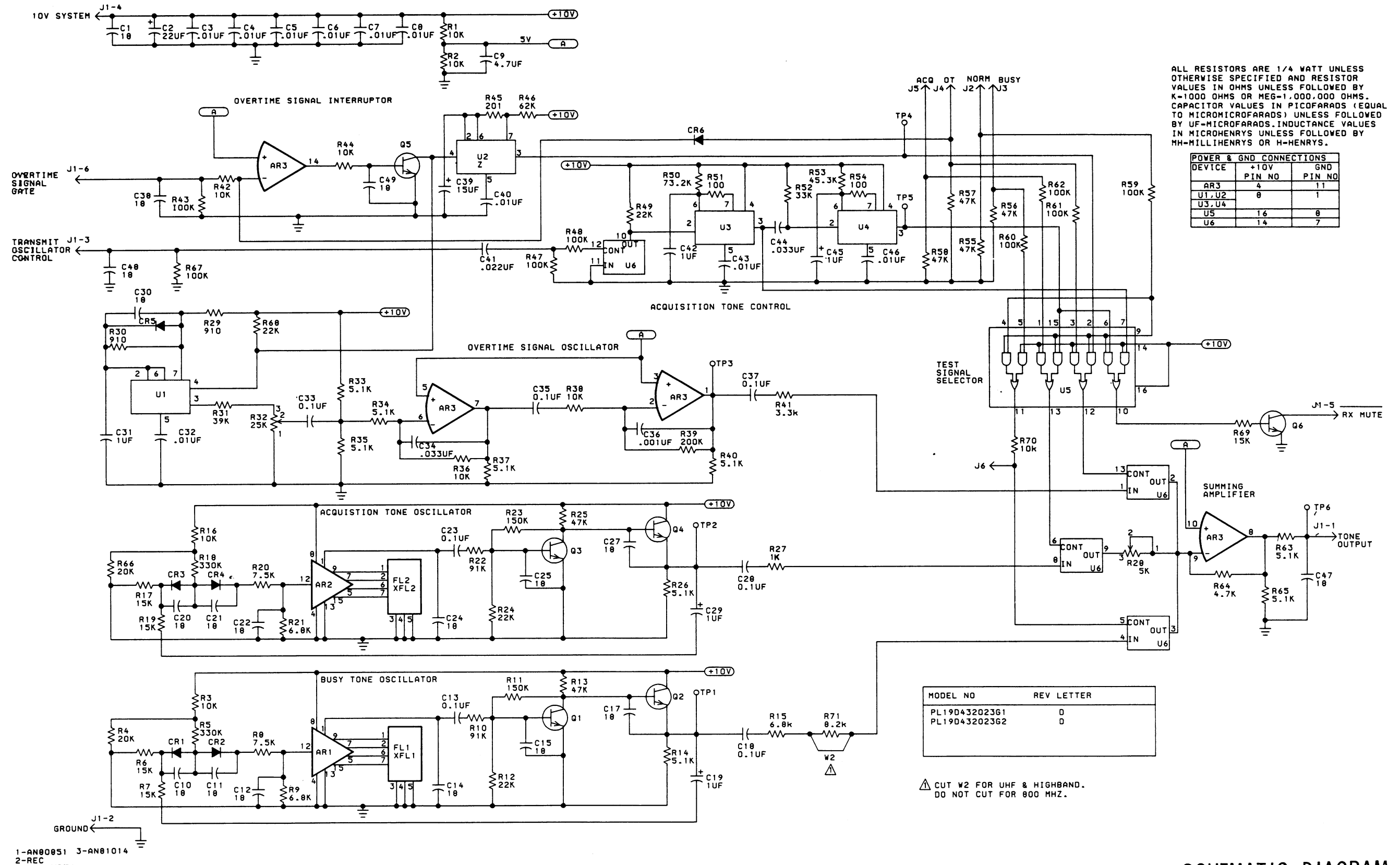
SYMBOL	GE PART NO.	DESCRIPTION
R8	19A701250P230	Metal film: 2K ohms $\pm$ 1%, 1/4 w.
R9	19A701250P302	Metal film: 70.2K ohms $\pm$ 1%, 1/4 w.
R10	19A701250P322	Metal film: 16.5K ohms $\pm$ 1%, 250 VDCW, 1/4 w.
R11 and R12	19A701250P287	Metal film: 7.87K ohms $\pm$ 1%, 250 VDCW, 1/4 w.
R13	19A701250P256	Metal film: 3.7K ohms $\pm$ 1%, 1/4 w.
R14	19A701250P241	Metal film: 2610 ohms $\pm$ 1%, 1/4 w.
R15	19A700106P51	Composition: 330 ohms $\pm$ 5%, 1/4 w.
R16	19A700106P105	Composition: 56K ohms $\pm$ 5%, 1/4 w.
R17	19A700106P63	Composition: 1K ohms $\pm$ 5%, 1/4 w.
R18	19A701250P413	Metal film: 150K ohms $\pm$ 1%, 1/4 w.
R19	19A701250P289	Metal film: 8.25K ohms $\pm$ 1%, 250 VDCW, 1/4 w.
R20	19A701250P356	Metal film: 37.4K ohms $\pm$ 1%, 1/4 w.
R21 and R22	19A701250P418	Metal film: 150K ohms $\pm$ 1%, 1/4 w.
R23	3R152P203J	Composition: 20K ohms $\pm$ 5%, 1/4 w.
R24 and R25	19A700106P111	Composition: 100K ohms $\pm$ 5%, 1/4 w.
R26	3R152P275J	Composition: 2700K ohms $\pm$ 5%, 1/4 w.
R27	19A700106P87	Composition: 10K ohms $\pm$ 5%, 1/4 w.
R28	19A700106P109	Composition: 82K ohms $\pm$ 5%, 1/4 w.
R29	3R152P203J	Composition: 20K ohms $\pm$ 5%, 1/4 w.
R30 thru R32	19A700106P103	Composition: 47K ohms $\pm$ 5%, 1/4 w.
R33	3R152P684J	Composition: 680K ohms $\pm$ 5%, 1/4 w.
R34	19A700106P87	Composition: 10K ohms $\pm$ 5%, 1/4 w.
R35	19A700106P103	Composition: 47K ohms $\pm$ 5%, 1/4 w.
		- - - - - TEST POINTS - - - - -
TP1 thru TP3	19B211379P1	Spring (Test Point).
		- - - - - SOCKETS - - - - -
XFL1	19C320299G1	Connector. Includes:
	19D416714P1	Shell.
	19B219681P1	Contact, electrical. (Quantity 7).

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 increase signaling reliability. Changed R18 to metal film: 133K ohms $\pm$ 1%, 1/4 W. (19C314256P21333). Changed R35 to composition: 47K ohms $\pm$ 5%, 1/4 W. (19A700106P103). Changed Q1 to 19A116774P1.

*COMPONENTS ADDED, DELETED OR CHANGED BY PRODUCTION CHANGES.



SCHEMATIC DIAGRAM

REPEATER TONE ENCODE BOARD
19D432023G1 & G2

PARTS LIST

GE MARC V
REPEATER TONE ENCODE BOARD
19D432023G1 3052.9 Hz BUSY TONE - REV C
19D432023G2 2918.7 Hz BUSY TONE - REV C
ISSUE 6

SYMBOL	GE PART NO.	DESCRIPTION
AR1 and AR2	19D417092G2	Selective Amplifier.
AR3	19A134511P1	Linear: QUAD OP AMP; sim to LM224J.
		----- CAPACITORS -----
C1	19A700219P38	Ceramic: 18 pF ±10%, 100 VDCW, temp coef 0 PPM.
C2	19A134202P6	Tantalum: 22 uF ±20%, 15 VDCW.
C3 thru C8	19A700005P7	Polyester: 0.01 uF ±10%, 50 VDCW.
C9	19A134202P16	Tantalum: 4.7 uF ±20%, 25 VDCW.
C10 thru C12	19A700219P38	Ceramic: 18 pF ±10%, 100 VDCW, temp coef 0 PPM.
C13	19A116080P107	Polyester: 0.1 uF ±10%, 50 VDCW.
C14 and C15	19A700219P38	Ceramic: 18 pF ±10%, 100 VDCW, temp coef 0 PPM.
C17	19A700219P38	Ceramic: 18 pF ±10%, 100 VDCW, temp coef 0 PPM.
C18	19A116080P107	Polyester: 0.1 uF ±10%, 50 VDCW.
C19	19A134202P14	Tantalum: 1 uF ±20%, 35 VDCW.
C20 thru C22	19A700219P38	Ceramic: 18 pF ±10%, 100 VDCW, temp coef 0 PPM.
C23	19A116080P107	Polyester: 0.1 uF ±10%, 50 VDCW.
C24 and C25	19A700219P38	Ceramic: 18 pF ±10%, 100 VDCW, temp coef 0 PPM.
C27	19A700219P38	Ceramic: 18 pF ±10%, 100 VDCW, temp coef 0 PPM.
C28	19A116080P107	Polyester: 0.1 uF ±10%, 50 VDCW.
C29	19A134202P14	Tantalum: 1 uF ±20%, 35 VDCW.
C30	19A700219P38	Ceramic: 18 pF ±10%, 100 VDCW, temp coef 0 PPM.
C31	19A134202P14	Tantalum: 1 uF ±20%, 35 VDCW.
C32	19A700005P7	Polyester: 0.01 uF ±10%, 50 VDCW.
C33	19A116080P107	Polyester: 0.1 uF ±10%, 50 VDCW.
C34	19A700005P10	Polyester: 0.033 uF ±10%, 50 VDCW.
C35	19A116080P107	Polyester: 0.1 uF ±10%, 50 VDCW.
C36	19A700005P1	Polyester: 1000 pF ±20%, 50 VDCW.
C37	19A116080P107	Polyester: 0.1 uF ±10%, 50 VDCW.
C38	19A700219P38	Ceramic: 18 pF ±10%, 100 VDCW, temp coef 0 PPM.
C39	19A134202P8	Tantalum: 15 uF ±20%, 20 VDCW.
C40	19A700005P7	Polyester: 0.01 uF ±10%, 50 VDCW.
C41	19A700005P9	Polyester: 0.022 uF ±10%, 50 VDCW.
C42	5496267P417	Tantalum: 1.0 uF ±5%, 35 VDCW, sim to Sprague Type 150D.
C43	19A700005P7	Polyester: 0.01 uF ±10%, 50 VDCW.
C44	19A700005P10	Polyester: 0.033 uF ±10%, 50 VDCW.
C45	5496267P417	Tantalum: 1.0 uF ±5%, 35 VDCW, sim to Sprague Type 150D.
C46	19A700005P7	Polyester: 0.01 uF ±10%, 50 VDCW.
C47 thru C49	19A700219P38	Ceramic: 18 pF ±10%, 100 VDCW, temp coef 0 PPM.

SYMBOL	GE PART NO.	DESCRIPTION
CR1 thru CR6	19A115250P1	----- DIODES AND RECTIFIERS ----- Silicon, fast recovery, 225 mA, 50 PIV.
		----- TONE NETWORKS ----- NOTE: When reordering give GE Part number and specify exact frequency needed.
FL1A	19C320291G6	Hybrid: 3051.9 Hz.
FL1B	19C320291G8	Hybrid: 2918.7 Hz.
FL2	19C320291G7	Hybrid: 1962.9 Hz.
		----- JACKS AND RECEPTACLES -----
J1	19A116659P105	Connector, printed wiring: 6 contacts rated at 5 amps; sim to Molex 09-60-1061.
J2 thru J5	19A701785P6	Contact, electrical.
		----- TRANSISTORS -----
Q1 thru Q6	19A700023P1	Silicon, NPN; sim to Type 2N3904.
		----- RESISTORS -----
R1 thru R3	19A700106P87	Composition: 10K ohms ±5%, 1/4 w.
R4	3R152P203J	Composition: 20K ohms ±5%, 1/4 w.
R5	3R152P334J	Composition: 0.33 megohms ±5%, 1/4 w.
R6 and R7	19A700106P91	Composition: 15K ohms ±5%, 1/4 w.
R8	3R152P752J	Composition: 7.5K ohms ±5%, 1/4 w.
R9	19A700106P83	Composition: 6.8K ohms ±5%, 1/4 w.
R10	3R152P913J	Composition: 91K ohms ±5%, 1/4 w.
R11	3R152P154J	Composition: 150K ohms ±5%, 1/4 w.
R12	19A700106P95	Composition: 22K ohms ±5%, 1/4 w.
R13	19A700106P103	Composition: 47K ohms ±5%, 1/4 w.
R14	3R152P512J	Composition: 5.1K ohms ±5%, 1/4 w.
R15	19A700106P83	Composition: 6.8K ohms ±5%, 1/4 w.
R16	19A700106P87	Composition: 10K ohms ±5%, 1/4 w.
R17	19A700106P91	Composition: 15K ohms ±5%, 1/4 w.
R18	3R152P334J	Composition: 0.33 megohms ±5%, 1/4 w.
R19	19A700106P91	Composition: 15K ohms ±5%, 1/4 w.
R20	3R152P752J	Composition: 7.5K ohms ±5%, 1/4 w.
R21	19A700106P83	Composition: 6.8K ohms ±5%, 1/4 w.
R22	3R152P913J	Composition: 91K ohms ±5%, 1/4 w.
R23	3R152P154J	Composition: 150K ohms ±5%, 1/4 w.
R24	19A700106P95	Composition: 22K ohms ±5%, 1/4 w.
R25	19A700106P103	Composition: 47K ohms ±5%, 1/4 w.
R26	3R152P512J	Composition: 5.1K ohms ±5%, 1/4 w.
R27	19A700106P63	Composition: 1K ohms ±5%, 1/4 w.
R28	19A116559P102	Variable cermet: 5000 ohms ±20%, 1/2 w; sim to CTS Series 360.
R29 and R30	3R152P911J	Composition: 910 ohms ±5%, 1/4 w.
R31	19A700106P101	Composition: 39K ohms ±5%, 1/4 w.
R32	19A116559P107	Variable cermet: 25K ohms ±20%, 1/2 w; sim to CTS Series 360.
R33	3R152P512J	Composition: 5.1K ohms ±5%, 1/4 w.
R34	19A700106P87	Composition: 10K ohms ±5%, 1/4 w.
R35	3R152P512J	Composition: 5.1K ohms ±5%, 1/4 w.
R36	19A700106P87	Composition: 10K ohms ±5%, 1/4 w.

SYMBOL	GE PART NO.	DESCRIPTION
R37	3R152P512J	Composition: 5.1K ohms ±5%, 1/4 w.
R38	19A700106P87	Composition: 10K ohms ±5%, 1/4 w.
R39	3R152P204J	Composition: 200K ohms ±5%, 1/4 w.
R40	3R152P512J	Composition: 5.1K ohms ±5%, 1/4 w.
R41	19A700106P75	Composition: 3.3K ohms ±5%, 1/4 w.
R42	19A700106P87	Composition: 10K ohms ±5%, 1/4 w.
R43	19A700106P111	Composition: 100K ohms ±5%, 1/4 w.
R44	19A700106P87	Composition: 10K ohms ±5%, 1/4 w.
R45	3R152P203J	Composition: 20K ohms ±5%, 1/4 w.
R46	3R152P623J	Composition: 62K ohms ±5%, 1/4 w.
R47 and R48	19A700106P111	Composition: 100K ohms ±5%, 1/4 w.
R49	19A700106P95	Composition: 22K ohms ±5%, 1/4 w.
R50	19A701250P384	Metal film: 73.2K ohms ±1%, 1/4 w.
R51	19A700106P39	Composition: 100 ohms ±5%, 1/4 w.
R52	19A700106P99	Composition: 33K ohms ±5%, 1/4 w.
R53	19A701250P364	Metal film: 45.3K ohms ±1%, 1/4 w.
R54	19A700106P39	Composition: 100 ohms ±5%, 1/4 w.
R55 thru R58	19A700106P103	Composition: 47K ohms ±5%, 1/4 w.
R59 thru R62	19A700106P111	Composition: 100K ohms ±5%, 1/4 w.
R63	3R152P512J	Composition: 5.1K ohms ±5%, 1/4 w.
R64	19A700106P79	Composition: 4.7K ohms ±5%, 1/4 w.
R65	3R152P512J	Composition: 5.1K ohms ±5%, 1/4 w.
R66	3R152P203J	Composition: 20K ohms ±5%, 1/4 w.
R67	19A700106P111	Composition: 100K ohms ±5%, 1/4 w.
R68	19A700106P95	Composition: 22K ohms ±5%, 1/4 w.
R69	19A700106P91	Composition: 15K ohms ±5%, 1/4 w.
R70	19A700106P87	Composition: 10K ohms ±5%, 1/4 w.
R71	19A700106P85	Composition: 8.2K ohms ±5%, 1/4 w.
		----- TEST POINTS -----
TP1 thru TP6	19A134552P1	Jack, tip.
		----- INTEGRATED CIRCUITS -----
U1 thru U4	19A116968P1	Linear, timer: DUAL IN-LINE 8 Pin Mini Dip Package; sim to Signetics SA555N.
U5	19A700029P13	QUAD AND-OR SELECT GATE.
U6	19A700029P44	Digital; QUAD SWITCH.
		----- SOCKETS -----
XFL1 and XFL2	19C320299G1	Connector. Includes:
	19D416714P1	Shell.
	19B219681P1	Contact, electrical. (Quantity 7).

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 - 80 msec delay increased to 95 msec; changed R50. This resistor was 19C314256P27322, 73.2 k ohms ±1%, 1/4 watt.

REV. B - Acquisition tone delay changed to 80 msec. ±10%, Changed R50 to 19C314256P27322. To change tone burst to 50 msec ±10%, changed R53. This resistor was 19C314256P23652, 38.5 K ohms ± 1%, 1/4 watt.

REV. C - Adding repeater STE board deleted cable W1 (19B233428G2) from encoder board.

REV. D - To add busy tone function and improve tone deviation performance. Added R70 & R71. Changed R15, R27, R28, and R41.

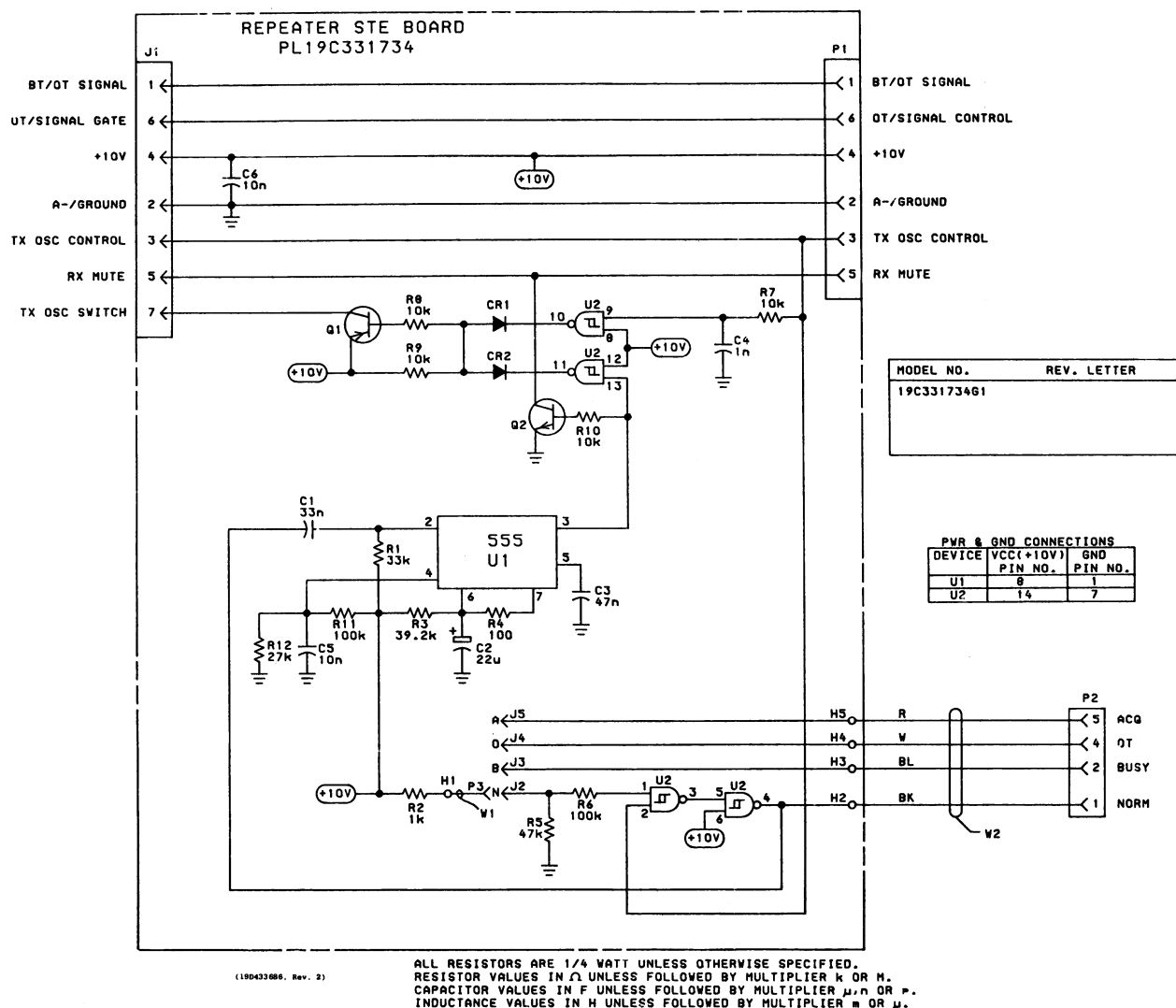
R15 was: 19A700106P87 - Composition: 10K ohms ±5%, 1/4 w.

R27 was: 19A700106P69 - Composition: 1.8K ohms ±5%, 1/4 w.

R28 was: 19A116559P104 - Variable cermet: 2500 ohms ±20%, 1/2 w; sim to CTS Series 360.

R41 was: 19A700106P79 - Composition: 4.7K ohms ±5%, 1/4 w.

*COMPONENTS ADDED, DELETED OR CHANGED BY PRODUCTION CHANGES



SCHEMATIC DIAGRAM

STE BOARD 19C331734G1

Issue 1

17

PARTS LIST

REPEATER STE BOARD
19C331734G1
ISSUE 2

SYMBOL	GE PART NO.	DESCRIPTION
----- CAPACITORS -----		
C1	19A700005P10	Polyester: 0.033 uF $\pm 10\%$, 50 VDCW.
C2	19A701534P8	Tantalum: 22 uF $\pm 20\%$, 16 VDCW.
C3	19A700005P11	Polyester: 0.047 uF $\pm 10\%$, 50 VDCW.
C4	19A700005P1	Polyester: 1000 pF $\pm 10\%$, 50 VDCW.
C5 and C6	19A700005P7	Polyester: 0.01 uF $\pm 10\%$, 50 VDCW.
----- DIODES -----		
CR1 and CR2	19A700028P1	Silicon, fast recovery: fwd current 75 mA, 75 PIV; sim to Type 1N4148.
----- JACKS -----		
J1	19A116659P106	Connector, printed wire: 7 contacts rated at 5 amps; sim to Molex 09-60-1071.
J2 thru J5	19A701785P5	Contact, electrical.
----- PLUGS -----		
P1	19A700102P26	6 contacts rated at 5 amps; sim to Methode 3000-006-2101.
P2	19A127042P2	Solderless terminal: 20-24 AWG; sim to Malco 120-93-10. (Part of W2).
P3	19A116781P6	Contact, electrical: wire range No. 22-26 AWG; sim to Molex 08-50-0108. (Part of W1 - Quantity 4).
----- TRANSISTORS -----		
Q1	19A700022P1	Silicon, PNP; sim to Type 2N3906.
Q2	19A700023P1	Silicon, NPN; sim to Type 2N3904.
----- RESISTORS -----		
R1	H212CRP333C	Deposited carbon: 33K ohms $\pm 5\%$, 1/4 w.
R2	H212CRP210C	Deposited carbon: 1K ohms $\pm 5\%$, 1/4 w.
R3	19A701250P358	Metal film: 2.7 ohms $\pm 5\%$, 1/4 w.
R4	H212CRP110C	Deposited carbon: 100 ohms $\pm 5\%$, 1/4 w.
R5	H212CRP347C	Deposited carbon: 47K ohms $\pm 5\%$, 1/4 w.
R6	H212CRP410C	Deposited carbon: 0.1M ohms $\pm 5\%$, 1/4 w.
R7 thru R10	H212CRP310C	Deposited carbon: 10K ohms $\pm 5\%$, 1/4 w.
R11	H212CRP410C	Deposited carbon: 0.1M ohms $\pm 5\%$, 1/4 w.
R12	H212CRP327C	Deposited carbon: 27K ohms $\pm 5\%$, 1/4 w.
----- INTEGRATED CIRCUITS -----		
U1	19A701865P1	Linear, 555 TIMER.
U2	19A700029P56	MOS: QUAD 2 - INPUT NAND SCHMITT TRIGGER.
----- CABLES -----		
W1	19B233428G2	Cable. (Includes P3).
W2	19B234109G1	Cable. (Includes P2).
----- MISCELLANEOUS -----		
	19A701234P4	Spacer. (Located on printed board).

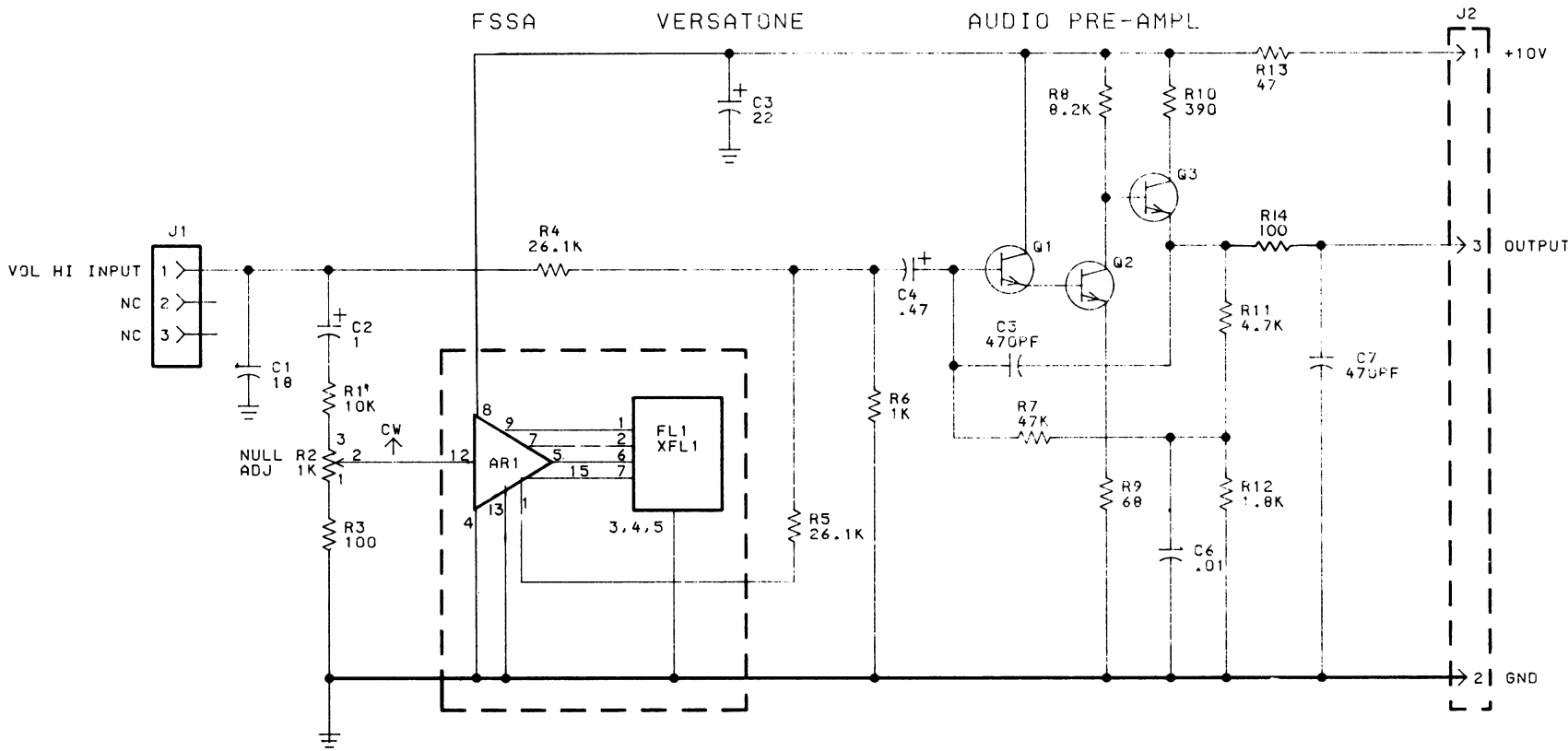
*COMPONENTS ADDED, DELETED OR CHANGED BY PRODUCTION CHANGES

PARTS LIST

BUSY TONE NOTCH FILTER
19C330978G1 3051 Hz STANDARD
19C330978G2 2918 Hz ALTERNATE
ISSUE 2

SYMBOL	GE PART NO.	DESCRIPTION
AR1	19D417092G2	Selective Amplifier.
----- CAPACITORS -----		
C1	19A700219P38	Ceramic: 18 pF $\pm 10\%$, 100 VDCW, temp coef 0 PPM.
C2	19A701534P4	Tantalum: 1 uF $\pm 20\%$, 35 VDCW.
C3	19A701534P8	Tantalum: 22 uF $\pm 20\%$, 16 VDCW.
C4	19A701534P3	Tantalum: 0.47 uF $\pm 20\%$, 35 VDCW.
C5	19A700227P89	Ceramic: 82 pF $\pm 10\%$, 100 VDCW, temp coef 0 PPM.
C6	19A116192P1	Ceramic: 0.01 uF $\pm 20\%$, 50 VDCW; sim to Erie 8121 Special.
C7	19A116192P2	Ceramic: 470 pF $\pm 20\%$, 50 VDCW; sim to Erie 811-A050-W5R-471M.
----- TONE NETWORKS -----		
FL1A	19C320291G10	Hybrid: 2918 Hz.
FL1B	19C320291G9	Hybrid: 3051 Hz.
----- JACKS AND RECEPTACLES -----		
J1 and J2	19A700102P1	Printed wire: 3 contacts rated at 5 amps; sim to Molex 09-52-3031.
----- INDUCTORS -----		
L1	19A700000P25	Coil, RF: 15 uH $\pm 10\%$; sim to Jeffers 4421-9K.
----- TRANSISTORS -----		
Q1 thru Q3	19A700023P1	Silicon, NPN; sim to Type 2N3904.
----- RESISTORS -----		
R1	19A701250P301	Metal film: 10K ohms $\pm 1\%$, 1/4 w.
R2	19A116430P5	Variable, cermet: 1000 ohms $\pm 10\%$, 0.75 w; sim to Helitrim Model 79P.
R3	19A701250P101	Metal film: 100 ohms $\pm 1\%$, 1/4 w.
R4 and R5	19A701250P341	Metal film: 26.1K ohms $\pm 1\%$, 1/4 w.
R6	19A701250P201	Metal film: 1K ohms $\pm 1\%$, 250 VDCW, 1/4 w.
R7	H212CRP347C	Deposited carbon: 47K ohms $\pm 5\%$, 1/4 w.
R8	H212CRP282C	Deposited carbon: 8.2K ohms $\pm 5\%$, 1/4 w.
R9	H212CRP068C	Deposited carbon: 68 ohms $\pm 5\%$, 1/4 w.
R10	H212CRP139C	Deposited carbon: 390 ohms $\pm 5\%$, 1/4 w.
R11	H212CRP247C	Deposited carbon: 4.7K ohms $\pm 5\%$, 1/4 w.
R12	H212CRP218C	Deposited carbon: 1.8K ohms $\pm 5\%$, 1/4 w.
R13	H212CRP047C	Deposited carbon: 47 ohms $\pm 5\%$, 1/4 w.
R14	H212CRP110C	Deposited carbon: 100 ohms $\pm 5\%$, 1/4 w.
----- SOCKETS -----		
XFL1	19C320299G1	Connector. Includes:
	19D416714P1	Shell.
	19B219681P1	Contact, electrical. (Quantity 7).

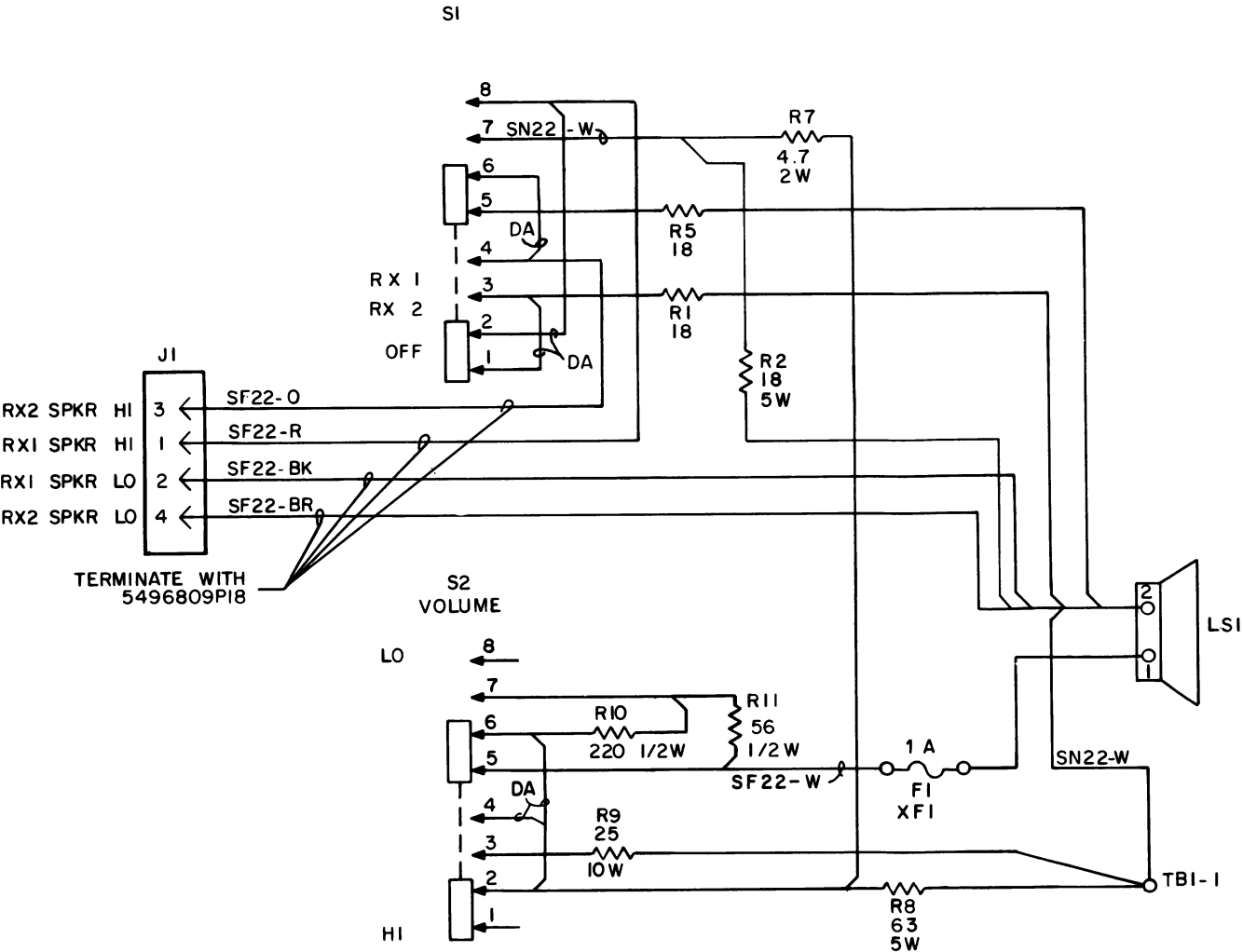
*COMPONENTS ADDED, DELETED OR CHANGED BY PRODUCTION CHANGES



(19C331070, Rev. 1)

SCHEMATIC DIAGRAM

BUSY TONE NOTCH FILTER
19C330978G1 & G2



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
----- FUSES -----		
F1*	1R16P3	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:
	3R78P620J	Composition: 62 ohms $\pm 5\%$, 1 w. Added by REV D.
R9*	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.

*COMPONENTS ADDED, DELETED OR CHANGED BY PRODUCTION CHANGES

SYMBOL	GE PART NO.	DESCRIPTION
TBI	7775500P44	----- TERMINAL BOARDS ----- Phen: 1 insulated, 1 grounded terminal. Added by REV D.
		----- SOCKETS -----
XF1*	7141008P1	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.

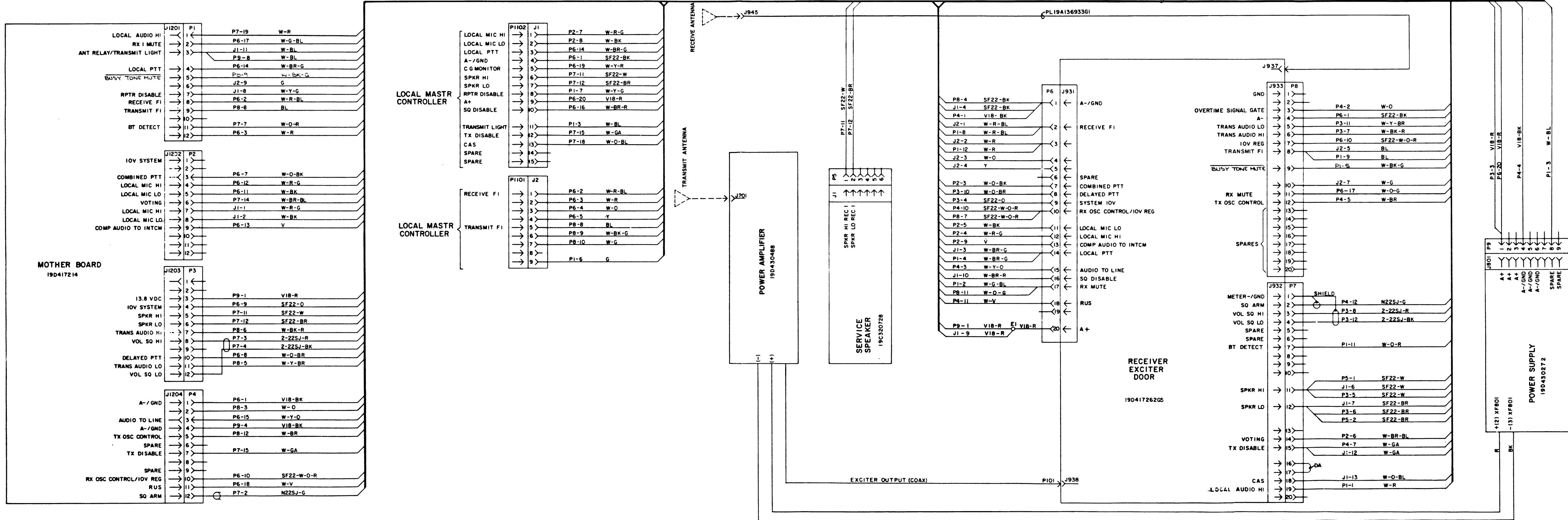
- REV. A - To eliminate factory wiring errors caused by duplication of wire colors. Changed wire colors of J1-1 from Orange to Red and J1-2 from Brown to Black.
- REV. B - To provide load for receiver when service speaker switch is in "OFF" position. Added R5 and DA Jumper between S1-1 and S1-3.
- REV. 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 TBI.
- 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.

PARTS LIST

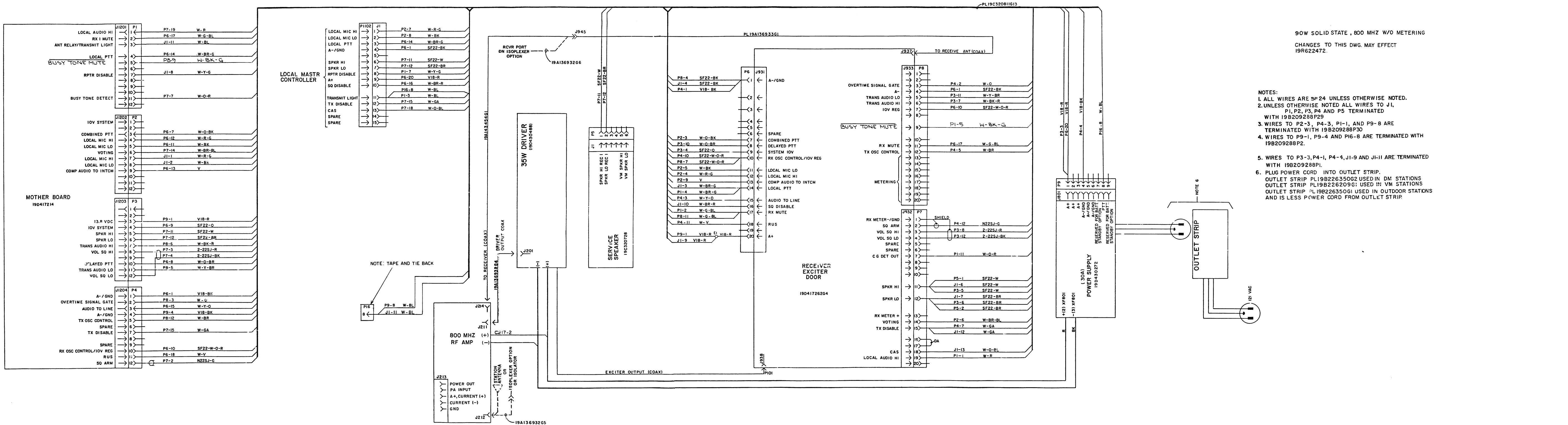
GE - MARC V
REPEATER STATION HARNESS
19C320811G10
ISSUE 2

SYMBOL	GE PART NO.	DESCRIPTION
J1	19B209288P5 19B209288P29	Connector. Includes: Shell. Contact, electrical: female; sim to Molex 02-08-1141. (J1-1 thru J1-8, J1-10 thru J1-13).
J2	19B209288P1 19B209288P29	Connector. Includes: Shell. Contact, electrical: female; sim to Molex 02-08-1101. (J1-9).
P1	19B209288P3 19B209288P29	Connector. Includes: Shell. Contact, electrical: female; sim to Molex 02-08-1141.
P2	19B209288P20 19B209288P29 19B209288P30	Connector. Includes: Shell. Contact, electrical: female; sim to Molex 02-09-1141. (P1-2 thru P1-12). Contact, electrical: male; sim to Molex 02-09-2141. (P1-1).
P3	19B209288P20 19B209288P29 19B209288P30	Connector. Includes: Shell. Contact, electrical: female; sim to Molex 02-09-1141. (P2-4 thru P2-9). Contact, electrical: male; sim to Molex 02-09-2141. (P2-3).
P4	19B209288P20 19B209288P29 19B209288P30	Connector. Includes: Shell. Contact, electrical: female; sim to Molex 02-09-1141. (P3-4 thru P3-8, P3-10 thru P3-12).
P5	19B209288P1 19B209288P29 19B209288P30	Connector. Includes: Shell. Contact, electrical: female; sim to Molex 02-09-1101. (P3-3). Contact, electrical: male; sim to Molex 02-09-2141. (P4-3).
P6 thru P8	19A143191G1	Connector includes 19C330656P1 - SHELL and 19A115793P1 - CONTACTS
P9	19B209288P4 19B209288P29 19B209288P2	Connector. Includes: Shell. Contact, electrical: female; sim to Molex 02-09-1141. (P9-8). Contact, electrical: sim to Molex 02-09-2101. (P9-1, P9-4).
P12	19A115793P1	Contact, electrical: sim to Malco 2700.
P15	19B209288P30	Contact, electrical: male; sim to Molex 02-09-2141.

*COMPONENTS ADDED, DELETED OR CHANGED BY PRODUCTION CHANGES



- NOTES:
1. ALL WIRES ARE SF24 UNLESS OTHERWISE NOTED.
 2. UNLESS OTHERWISE NOTED ALL WIRES TO J1, J2, P1, P2, P3, P4 AND P5 TERMINATED WITH 19B209288P29
 3. WIRES TO P2-3, P1-1, P9-8 AND P4-3 ARE TERMINATED WITH 19B209288P30
 4. WIRES TO P9-1 AND P9-4 ARE TERMINATED WITH 19B209288P2.
 - 5.
 6. WIRES TO P3-3, P1-1, P4-4 AND J1-9 ARE TERMINATED WITH 19B209288P1.
 7. PLUG POWER CORDS INTO OUTLET STRIP. OUTLET STRIP PL19B226209G1 USED IN ALL STATIONS EXCEPT OUTDOOR. OUTLET STRIP PL19B226350G1 USED IN OUTDOOR STATIONS AND IS LESS POWER CORD FROM OUTLET STRIP.



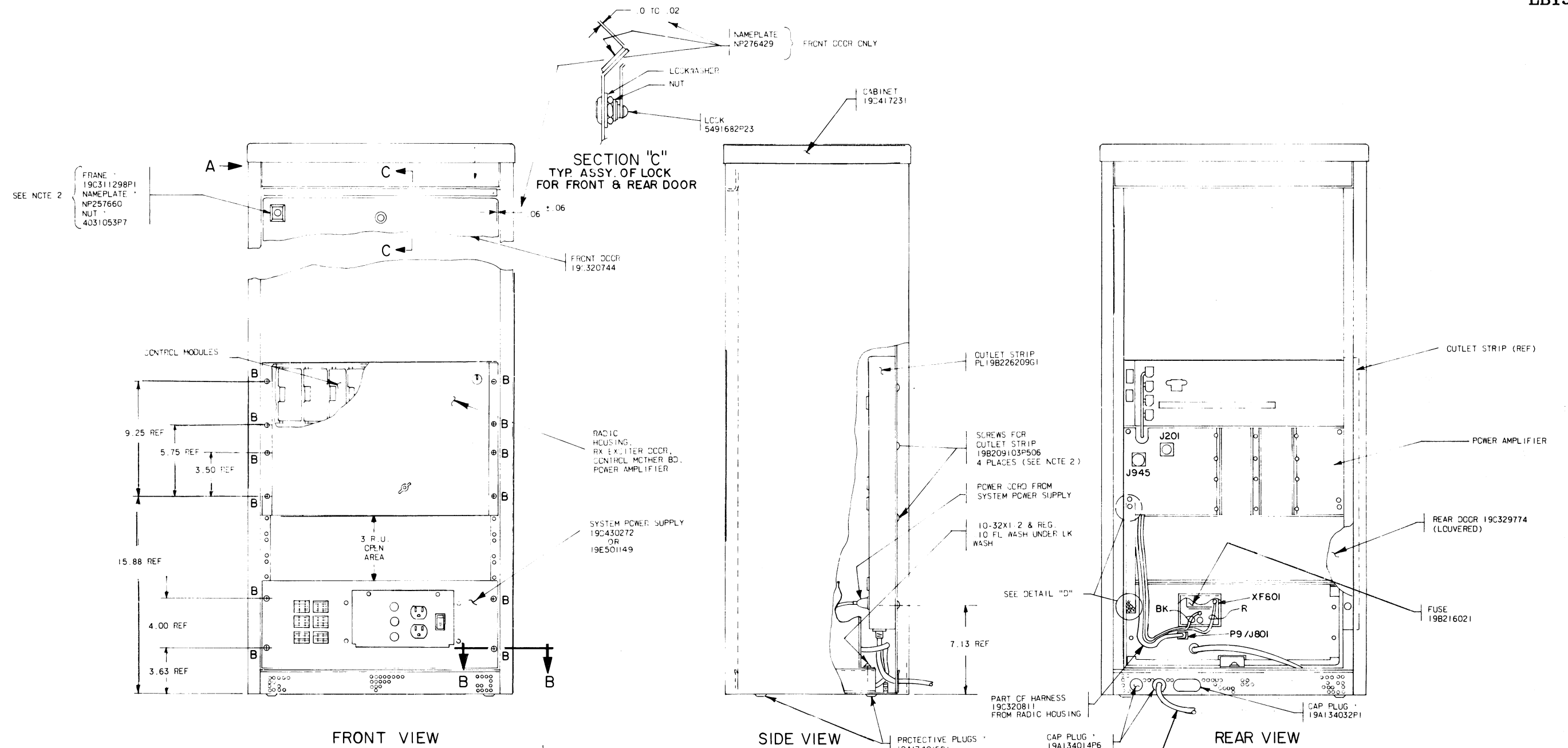
INTERCONNECTION DIAGRAM
800 MHz, 90-Watt Station Harness
19C32081G13

PARTS LIST

STATION HARNESS
19C32081G13
ISSUE 2

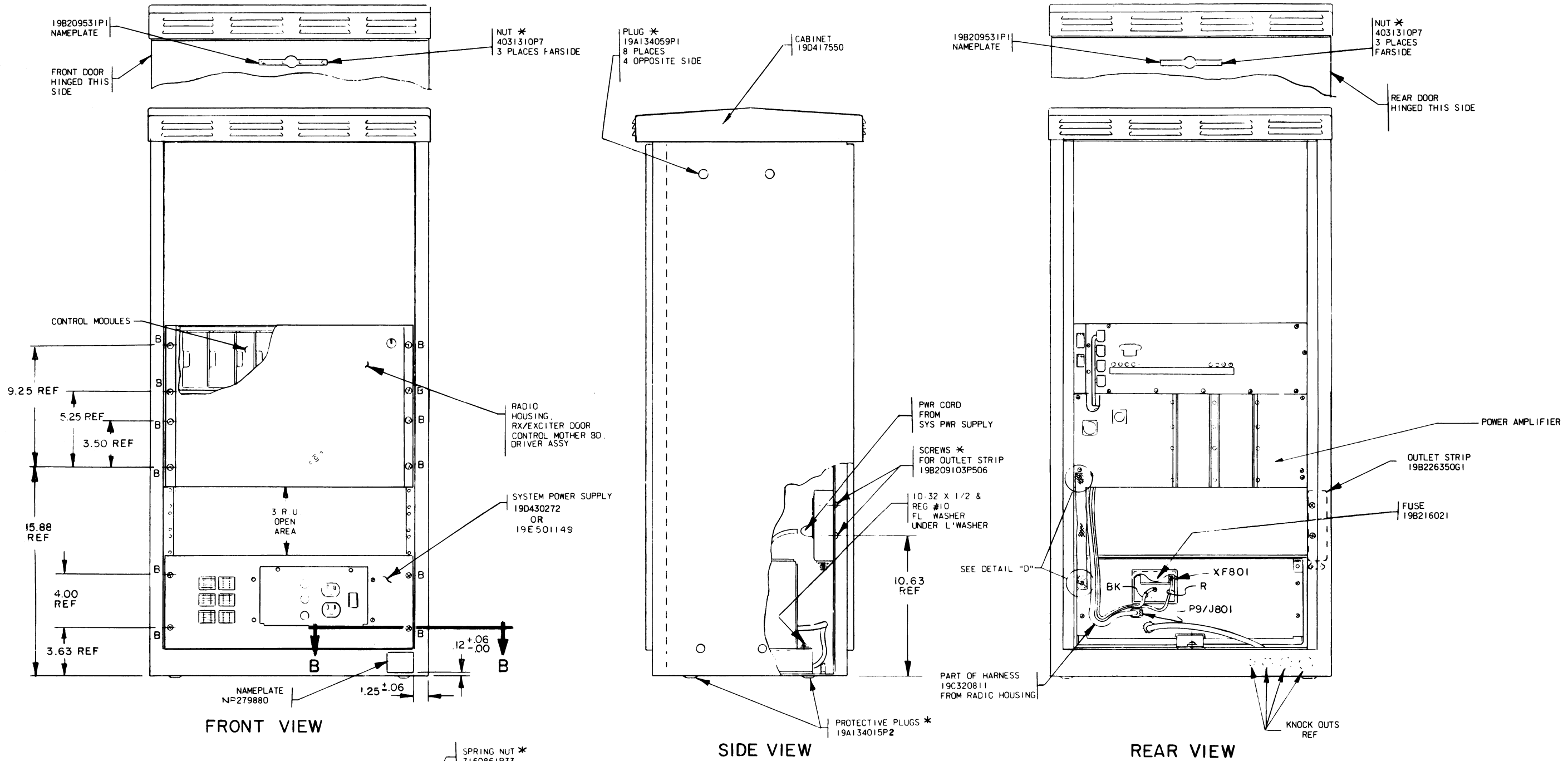
SYMBOL	GE PART NO.	DESCRIPTION
J1	19B209288P5 19B209288P29 19B209288P1	Connector. Includes: Shell. Contact, electrical: female; sim to Molex 02-09-1141. (J1-1 thru 4, 7, 8, 10, 12, 13). Contact, electrical: female; sim to Molex 02-09-1101. (J1-9 & J1-11).
P1	19B209288P20 19B209288P29 19B209288P30	Connector. Includes: Shell. Contact, electrical: female; sim to Molex 02-09-1141. (P1-2, 3, 4, 7, 11). Contact, electrical: male; sim to Molex 02-09-2141. (P1-1).
P2	19B209288P20 19B209288P29 19B209288P30	Connector. Includes: Shell. Contact, electrical: female; sim to Molex 02-09-1141. (P2-4 thru 9). Contact, electrical: male; sim to Molex 02-09-2141. (P2-3).
P3	19B209288P20 19B209288P29 19B209288P1	Connector. Includes: Shell. Contact, electrical: female; sim to Molex 02-09-1141. (P3-4 thru 8, P3-10 thru 12). Contact, electrical: female; sim to Molex 02-09-1101. (P3-3).
P4	19B209288P20 19B209288P29 19B209288P30 19B209288P1	Connector. Includes: Shell. Contact, electrical: female; sim to Molex 02-09-1141. (P4-2, 5, 7, 10, 11, 12). Contact, electrical: male; sim to Molex 02-09-2141. (P4-3).
P5	19B209288P23 19B209288P29	Connector. Includes: Shell. Contact, electrical: wire size No. 22-30 AWG; sim to Molex 02-09-1141. (P5-1, 2).
P6 thru P8	19A143191G1	Connector includes 19C330656P1 - SHELL and 19A115793P1 - CONTACTS
P9	19B209288P4 19B209288P2 19B209288P30	Connector. Includes: Shell. Contact, electrical: male; sim to Molex 02-09-2101. (P9-1, 4). Contact, electrical: male; sim to Molex 02-09-2141. (P9-8).
P16	19B209288P4 19B209288P2	Connector. Includes: Shell. Contact, electrical: male; sim to Molex 02-09-2101. (P16-8).

*COMPONENTS ADDED, DELETED OR CHANGED BY PRODUCTION CHANGES



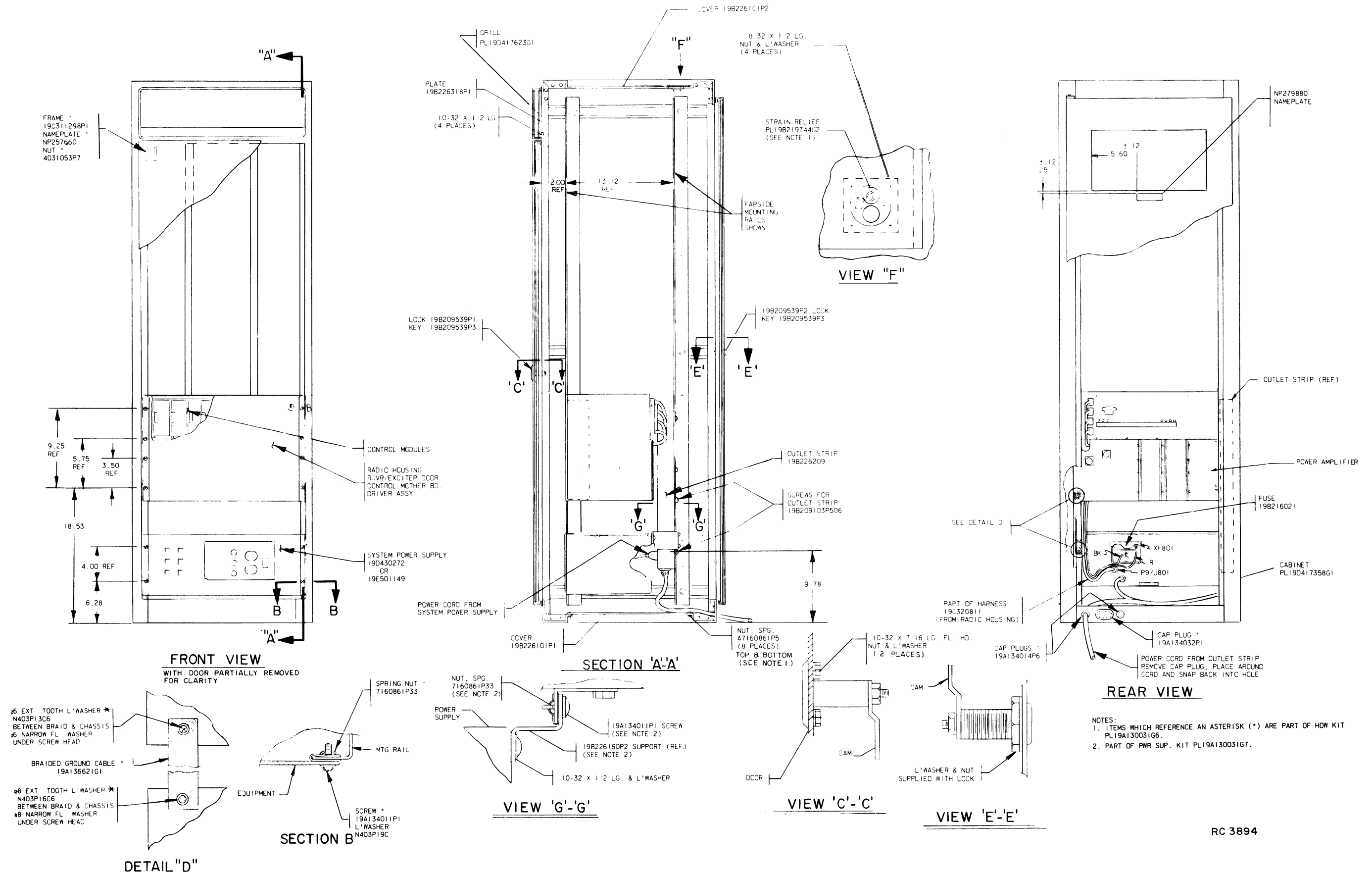
- NOTES:
1. ITEM WHICH REFERENCE AN ASTERISK (*) ARE PART OF HARDWARE KIT 19A130031G4.
 2. PART OF HARDWARE KIT 19A130031G13.

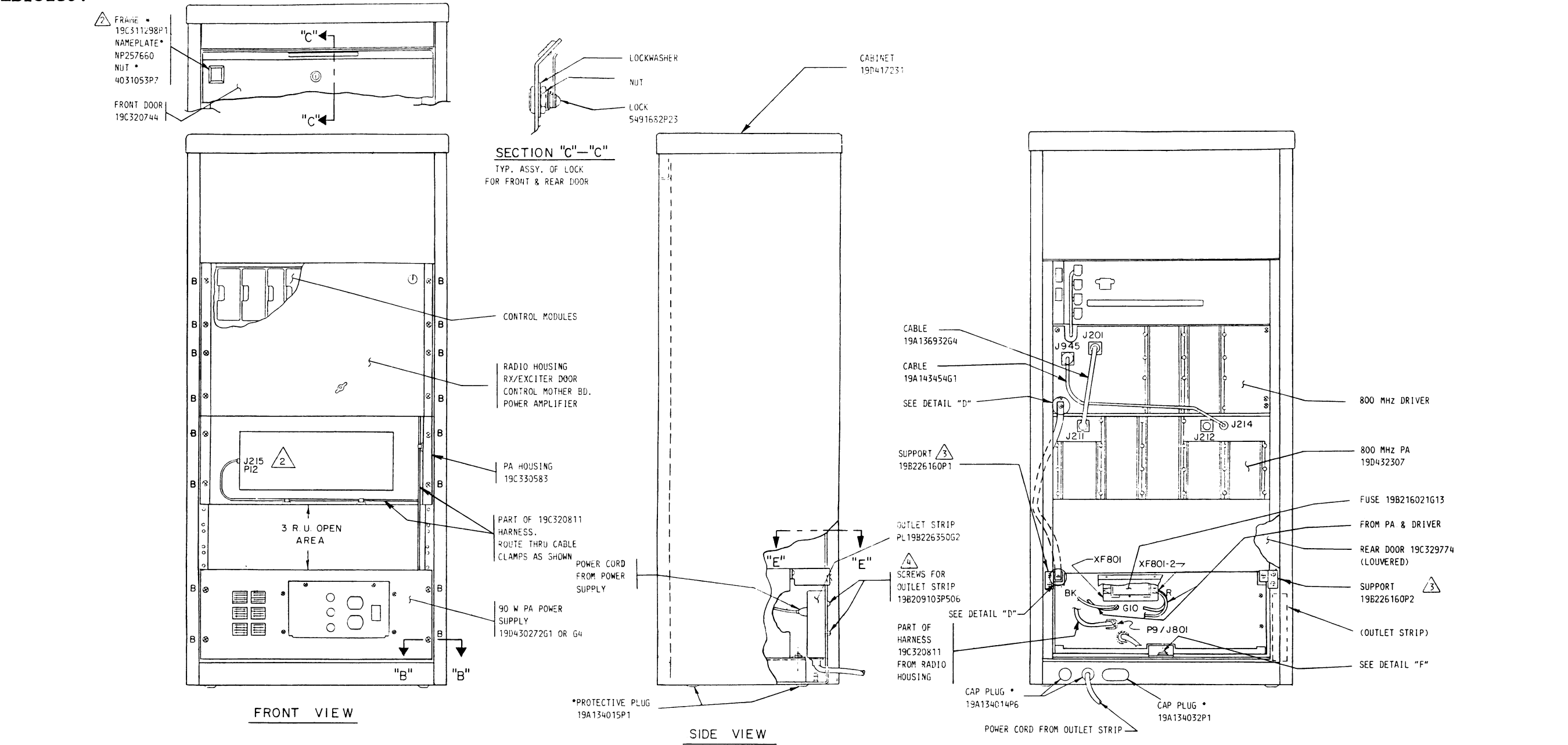
RC3892



NOTE:
ITEMS WHICH REFERENCE AN
ASTERISK (*) ARE PART OF
HDW KIT FL19A130031G8

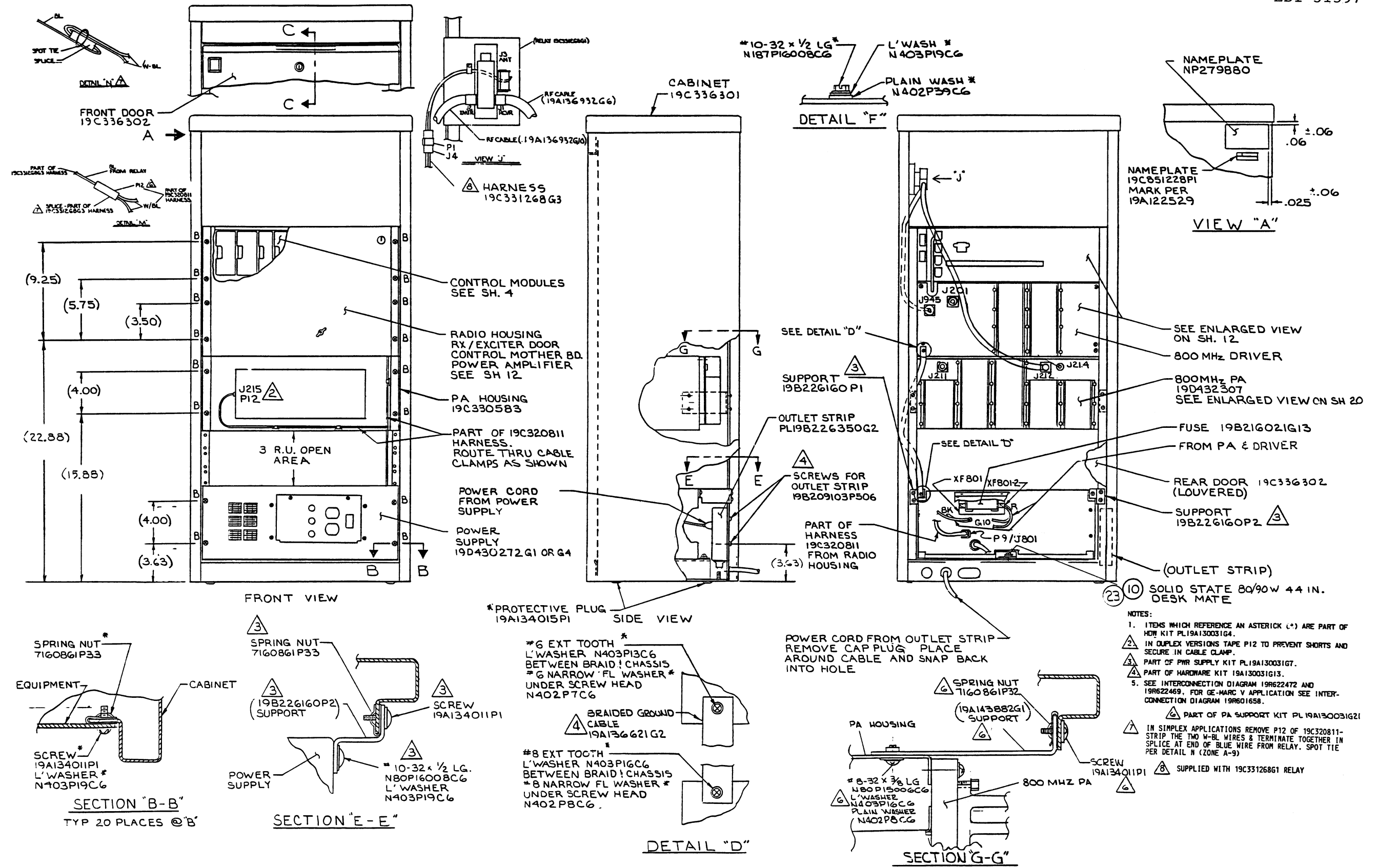
MECHANICAL PARTS BREAKDOWN SECTION 'B'
800 MHz 35 Watt Pole Mount Stations
TYP. 20 PLACES AT 'B' DESIGNATIONS



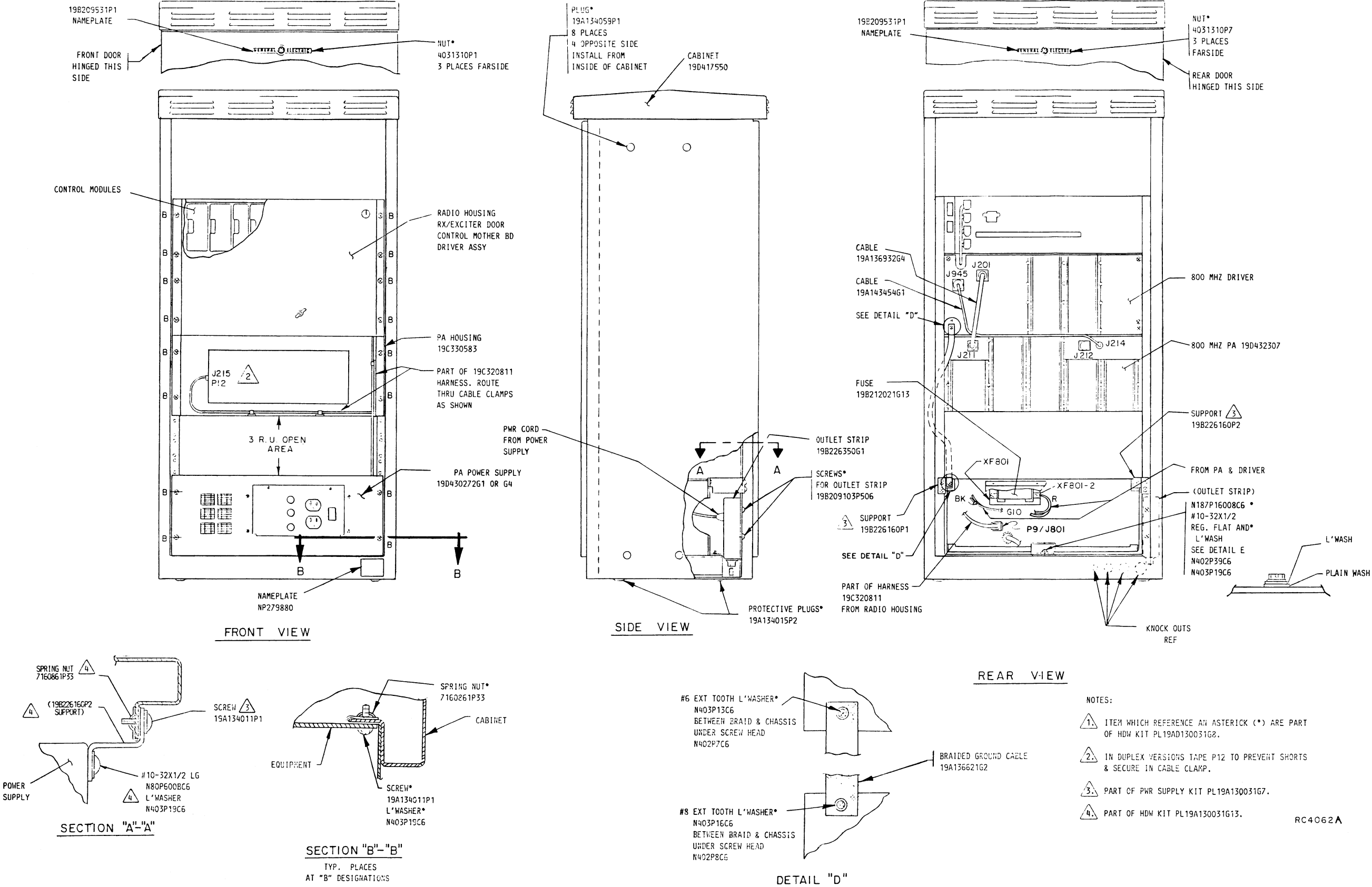


MECHANICAL PARTS BREAKDOWN

800 MHz Watt Desk Station
(Earlier Models)

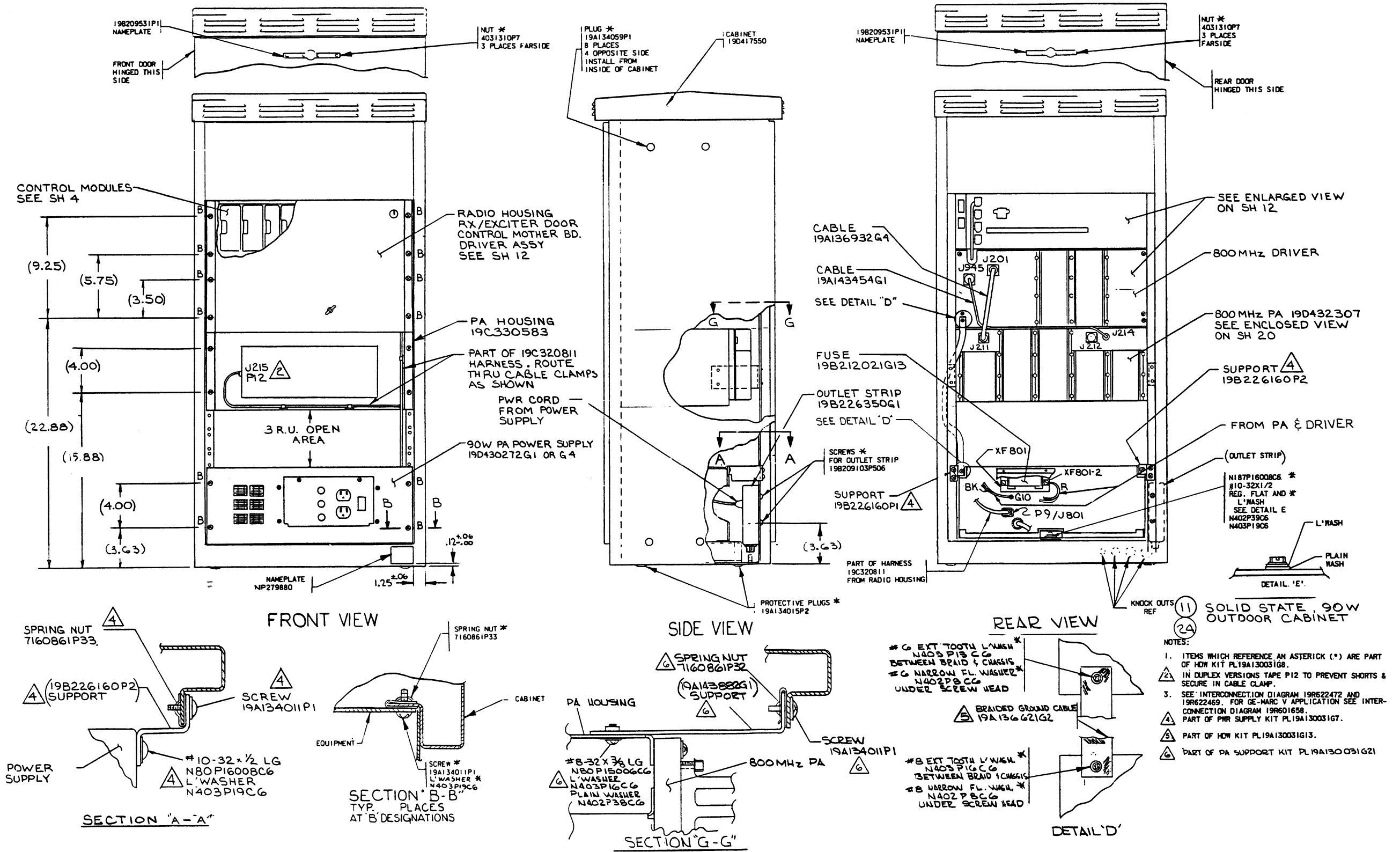


(19D424565, Sh. 17, Rev. 6)

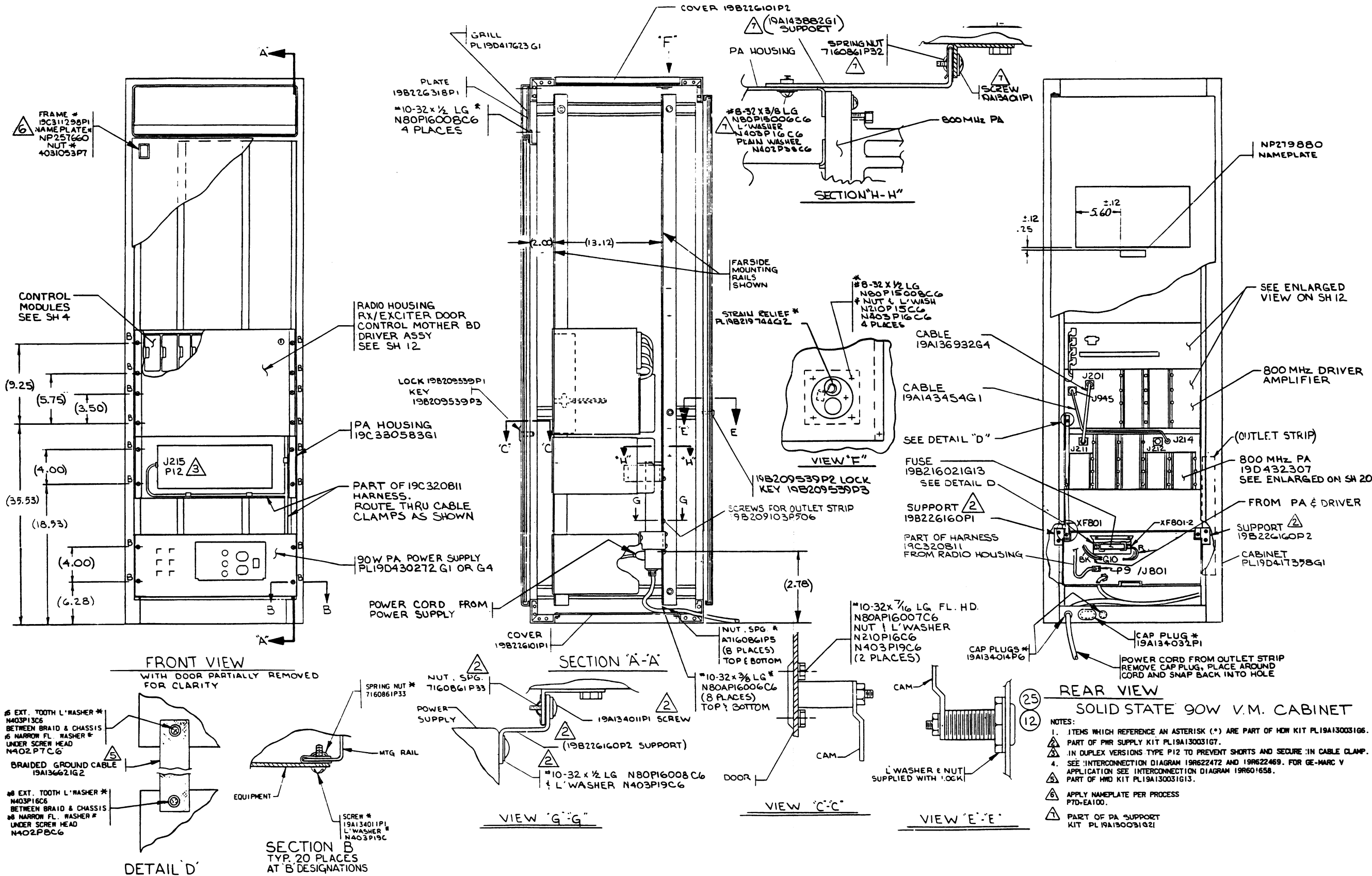


MECHANICAL PARTS BREAKDOWN

800 MHz Watt Pole Mount Station
(Earlier Models)

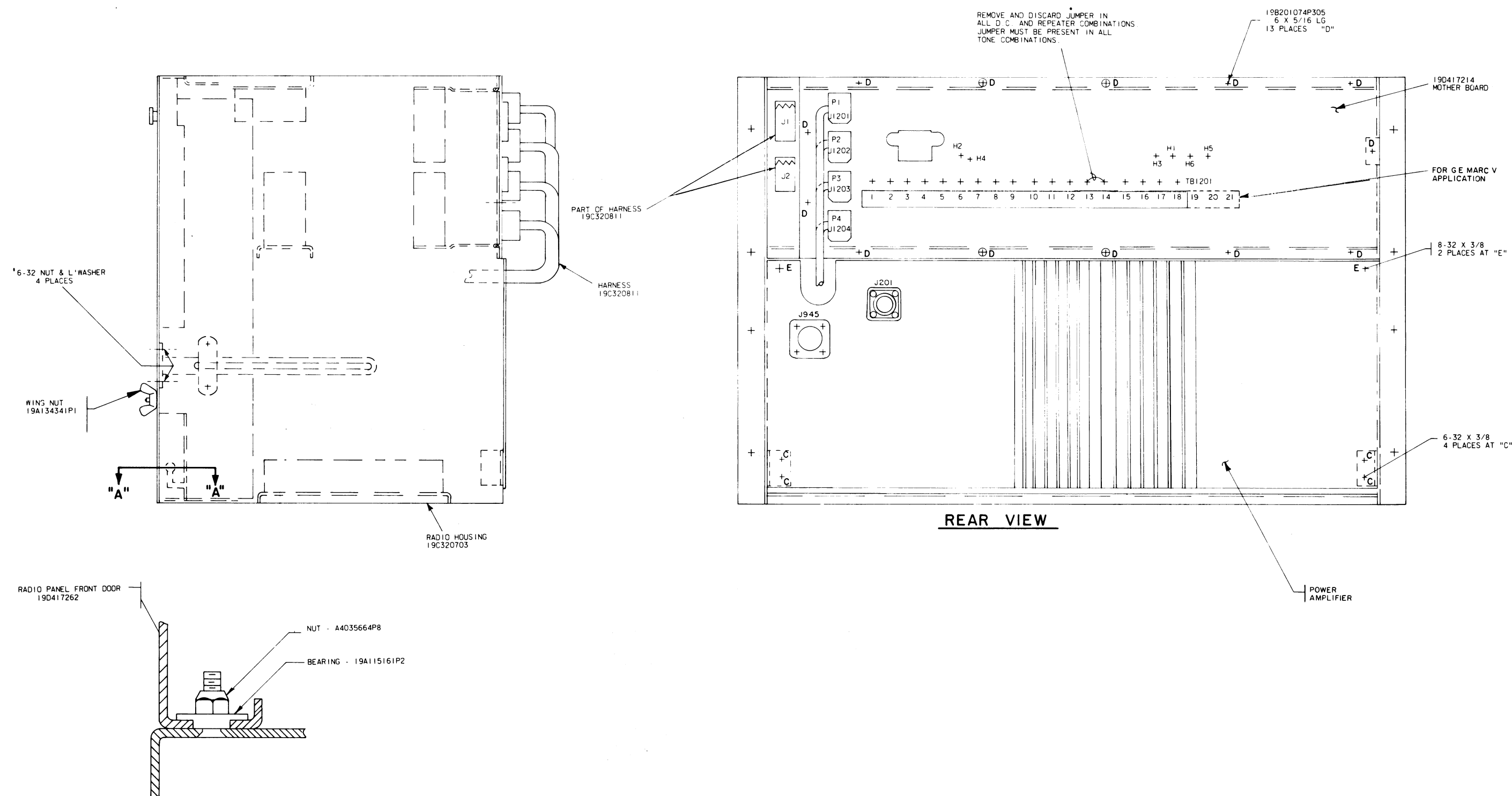


(19D424565, Sh. 18, Rev. 4)



MECHANICAL PARTS BREAKDOWN

800 MHz 80/90 Watt Floor Mount Station



ENLARGED SECTION "A" - "A" (PARTIAL)

TYPICAL OPPOSITE SIDE

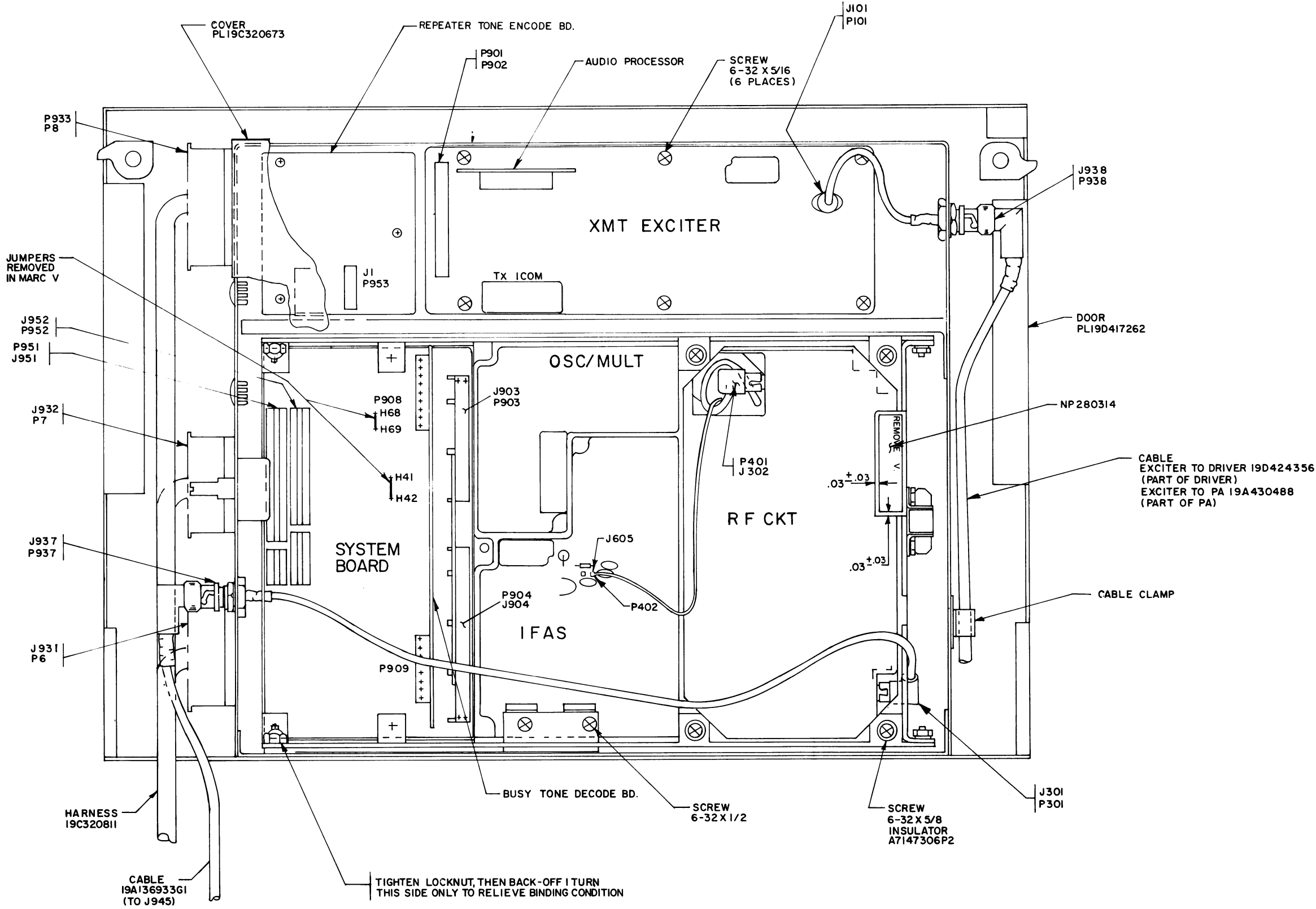
RC - 3891

MECHANICAL PARTS BREAKDOWN

MOTHER BOARD AND PA ASSEMBLY

Issue 1

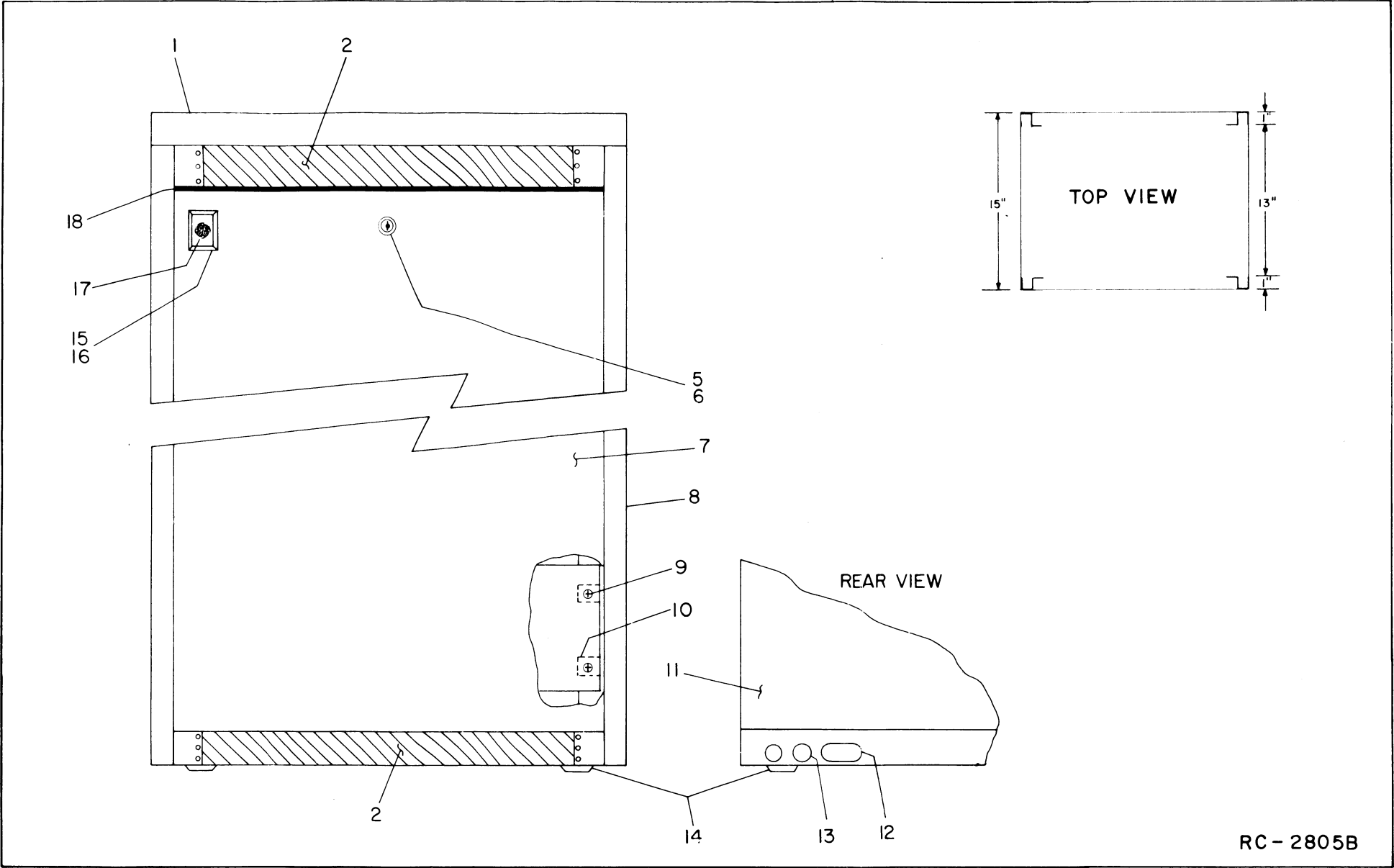
31



PARTS LIST

LBI-4975D
DESK MATE STATION CABINET
CONTINUOUS AND INTERMITTANT DUTY
(SEE RC-2805)

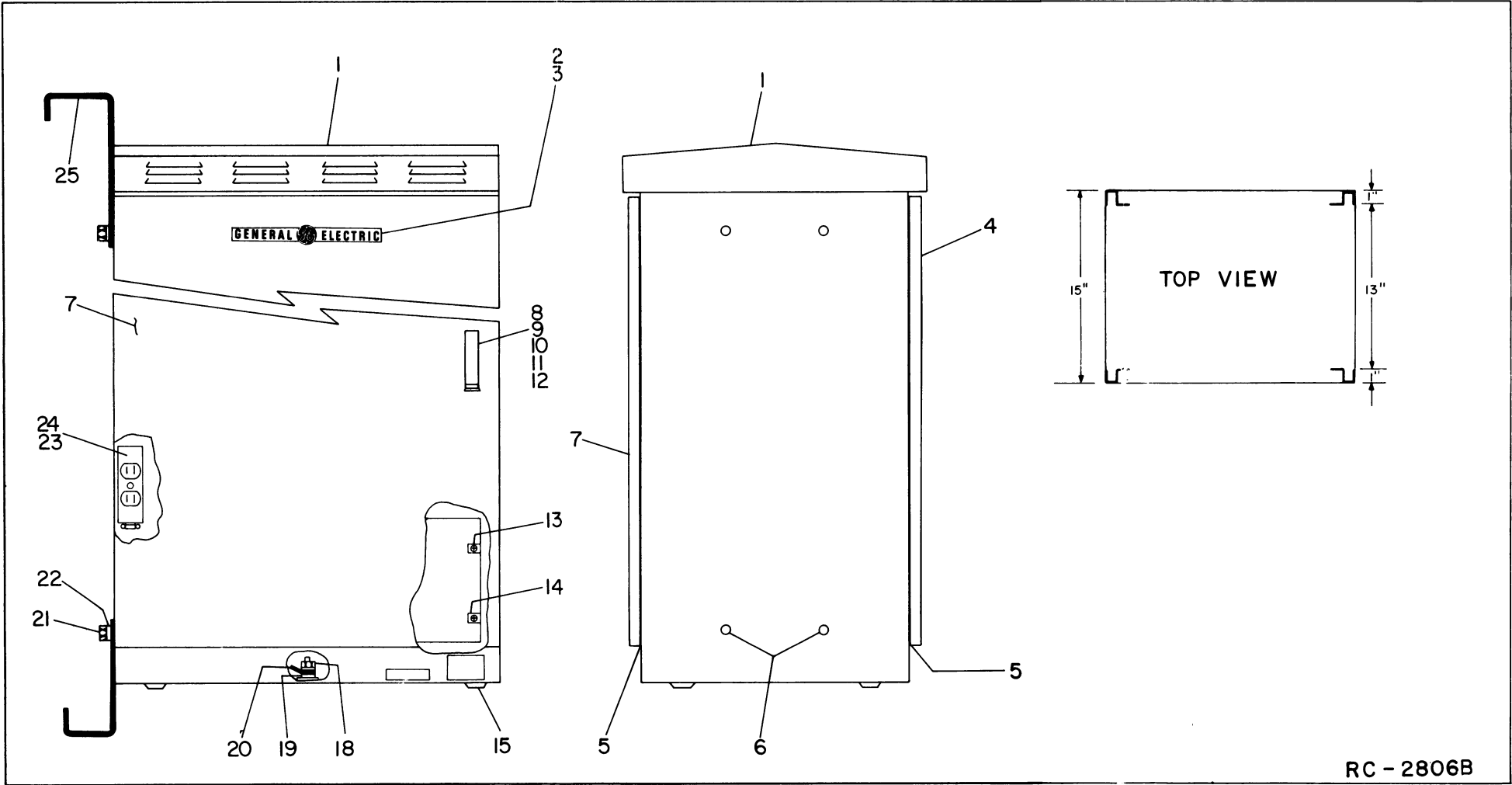
SYMBOL	GE PART NO.	DESCRIPTION
30 INCH CABINET		
1	19C320655P1	Top.
2	19C320654P1	Screen.
3		(Not Used).
4		(Not Used).
5	5491682P23	Lock. Yale and Towne F6557DX1.
6	5491682P4	Key. Yale and Towne BF-10A.
7	19C336302G3	Front door.
	19C320744G7	Front door. (Earlier Models).
8	19D417231G3	Cabinet. (LESS 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	19C336302G2	Rear door.
	19C320744G8	Rear door. (Earlier Models).
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	19C336302G3	Front door.
	19C320744G9	Front door. (Earlier Models).
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	19C336302G4	Rear door.
	19C320744G10	Rear door. (Earlier Models).
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).



RC - 2805B

MECHANICAL PARTS BREAKDOWN
DESK MATE CABINET

*COMPONENTS ADDED, DELETED OR CHANGED BY PRODUCTION CHANGES



MECHANICAL PARTS BREAKDOWN

POLE MOUNT CABINET

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.

*COMPONENTS ADDED, DELETED OR CHANGED BY PRODUCTION CHANGES

PARTS LIST

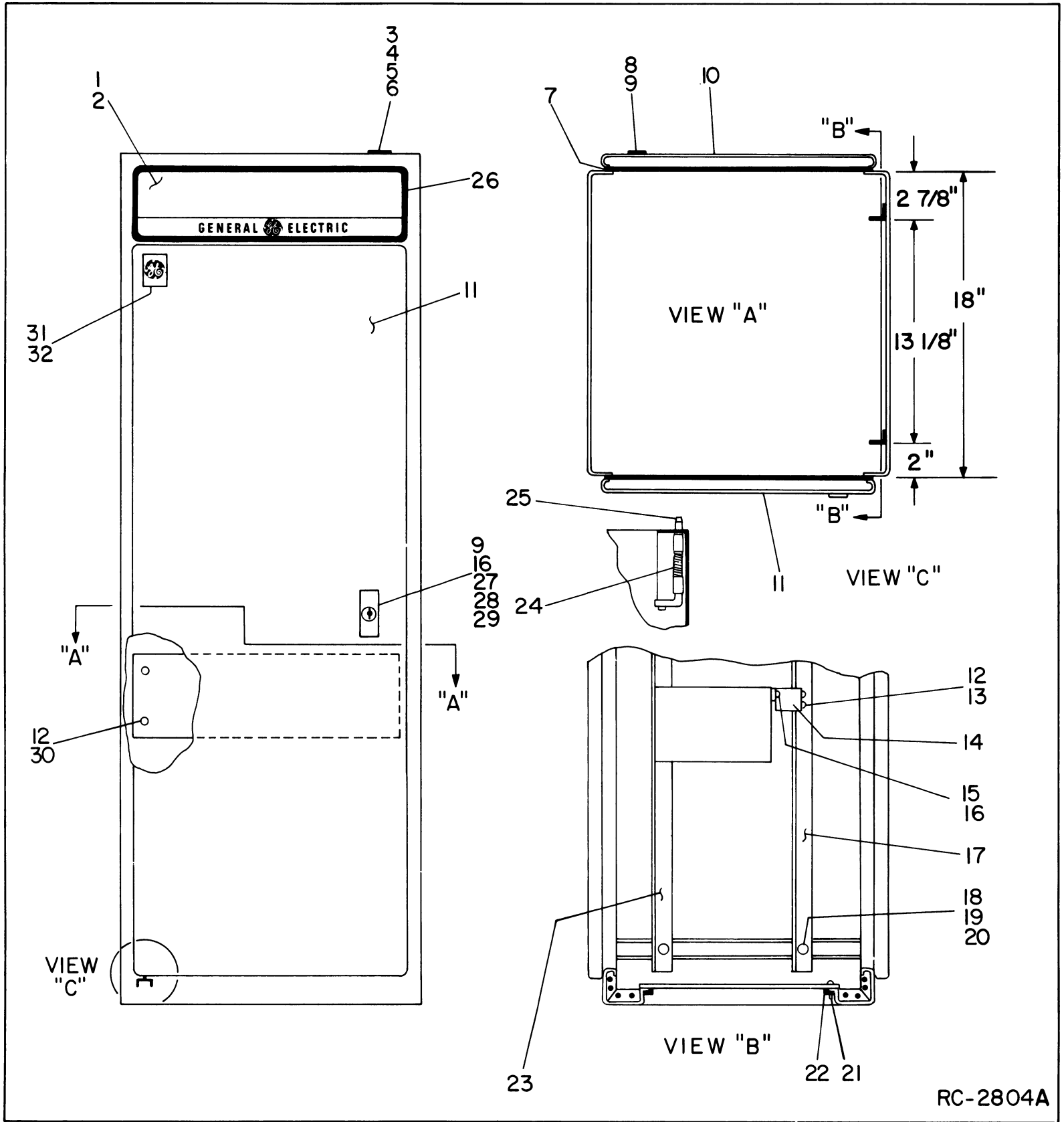
LBI4977C

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

LBI31397



MECHANICAL PARTS BREAKDOWN

FLOOR MOUNT CABINET