INSTALLATION MANUAL
EDACS
MASTR® II STATION COMBINATIONS

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INTRODUCTION

The MASTR II station cabinet for EDACS applications houses station transmitting and receiving equipment, along with the GE Trunking Card (GETC), and telephone interconnect equipment as required. Since system requirements depend on the particular site, one or more stations (transmitter/receiver combinations) usually are contained in an equipment cabinet. Standard EIA 69-inch equipment cabinets are used.

This manual describes installation and connections of a typical MASTR II station used as part of EDACS. Antenna, Site Controller interface, and remote audio connections are covered. Additional information can be found in the system manual and maintenance manuals for the particular equipment.

Some related documents are listed below:

LBI-31844	Telephone Interconnect Maintenance Manual
LBI-31772	MASTR II 100W Station Maintenance Manual
LBI-31778	Description and Maintenance
LBI-31800	Exciter Maintenance Manual
LBI-31777	Power Amplifier
LBI-38174	GETC Shelf Maintenance Manual
LBI-38530	GETC TSIN Configuration
LBI-38552	GETC Site Configuration

UNPACKING AND CHECKING EQUIPMENT

As you unpack the station combination, carefully inspect each item. If any damage has occurred to the equipment during shipment, file a claim with the freight carrier immediately. Antennas, transmission lines and towers are normally shipped directly from the vendor. Required ac power adequate to meet system requirements, environmental control, and digital or voice-grade lines must be available at the site prior to installation.

NOTE

Tape residue may be removed from equipment cabinets using alcohol.

CABINET INSTALLATION

Allow sufficient space in front of and behind the cabinet to permit front and rear doors to open completely. Either door may be removed or inverted and hinged on the opposite side if desired. A sample floor plan is shown in Figure 1.

Three knockouts are located along the rear bottom edge of the cabinet for cable entry. It is normally desirable to bring the cables up through the floor and situate the cabinet over power receptacles or cable holes on the floor.

Conduit may be extended into the cabinet through one of the two 7 x 7 inch base plate openings in the cabinet bottom. Holes are located on the bottom of the cabinet for bolting the cabinet securely to the floor with 1/2-inch bolts. A cable entry hole (2 x 1 inch) is located in the top rear of the cabinet to bring in the antenna cables or conduit from above the station. The front and back sides of the station must always be accessible for servicing.

POWER AND GROUND CONNECTIONS

A 15-foot power cord, equipped with a standard three-prong plug, is supplied with the station. One of the prongs grounds the station to protect personnel. Check to be sure the power outlet complies with local ordinances.

If a 242-Volt source is used for station power, the power supply must be configured properly. Refer to the power supply maintenance manual for details. The plug on the power cable must also be obtained and changed to mate with the 242 Vac outlet. A power cord plug is not supplied with the 50 Hz power supply.

The station should be connected to a good earth ground using a ground wire of adequate size. A ground stud is provided on all cabinets for a separate cabinet ground. Use No. 14 or larger wire (depending on local ordinances and system requirements) for connecting the cabinet to a good building ground. After the ground lead from the power cable is connected to the building ground, check for continuity between building ground and the cabinet.

ANTENNA AND INTERFACE CABLE INSTALLATION

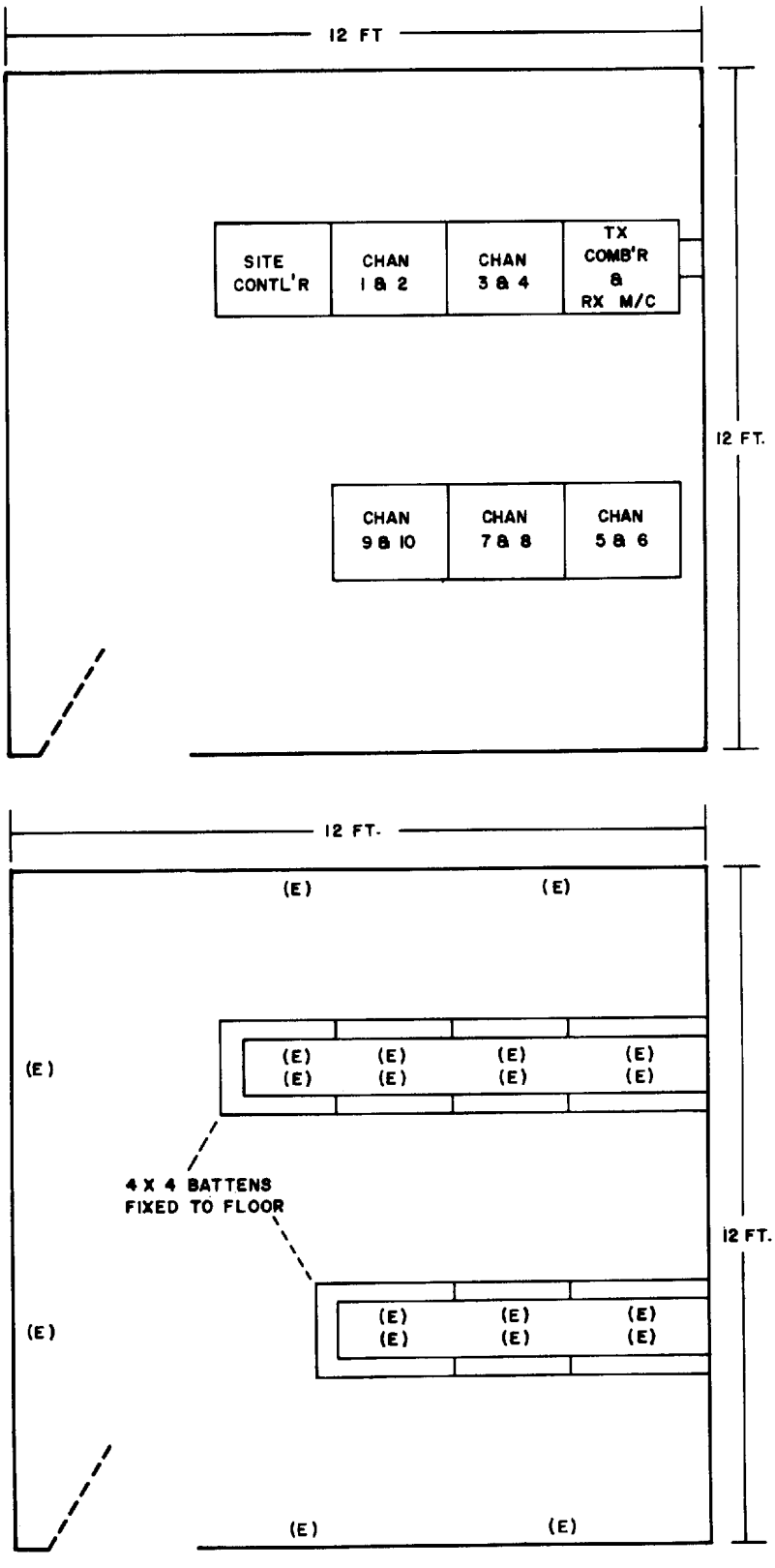
A typical installation will require connections to the receive (multicoupler) and transmit (combiner) antennas, remote audio connections, and serial interface connections to GETC shelves. Connections for your installation may differ depending on system requirements. Refer to Figure 2 and the interconnection diagram for station connection locations.

RECEIVER AND TRANSMITTER ANTENNA CONNECTIONS

Transmit and receive antenna connections are required for each channel (receiver/transmitter combination) in the equipment rack. Typically the antenna cables are routed through holes in the top of the equipment cabinet. Connect the receiver antenna for the channel to the connector (J945) typically marked RX - [frequency]. Connect the transmitter antenna for the channel to the connector typically marked TX -[frequency]. Refer to Figure 2 and the interconnection diagram for connection points.

REMOTE AUDIO INPUT

If stations are controlled from a dispatch center, remote audio input connections will be required. Connections are made at terminal block TB1201 on backplane assembly 19D417214. Receive audio connections are made to terminals 10 and 11, typically marked AUDIO. Transmit audio connections are made at terminals 17 and 18, typically marked DUPLEX AUDIO. Refer to Figure 2 and the interconnection diagram for connection points.



(E) = DUPLEX OUTLETS

Figure 1 - Sample Floor Plan

GETC CONNECTIONS

Connections to the GE Trunking Card (GETC) shelf consist of a main site controller cable, a failsoft cable, and a backup site controller (if used) cable. Refer to Figure 2 and the interconnection diagram for sample connection points. Connections are made to the GETC shelf as follows:

GETC CONNECTOR	CONNECTING CABLE
J100	Main Site Controller
J101	Backup Site Controller (if required)
J102	Failsoft

The serial interface cables going to the GETC typically are routed from a Site Controller distribution panel.

REPEATER INTERCONNECT (RIC)

Connections to the RIC are made through cable 19C320811. This cable connects to the RIC at connector TB2/P40 and TB1/P41 as shown in the Interconnection diagram. Refer to the telephone interconnect technical manual and the system manuals for information on the connection of the telephone interconnect option.

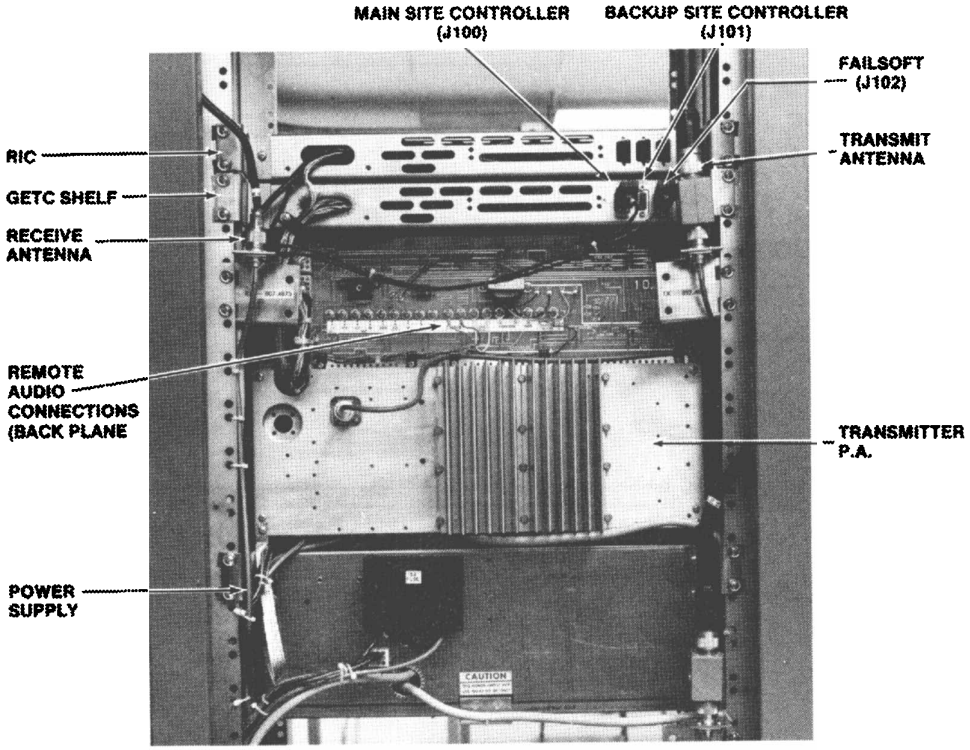


Figure 2 - Sample Station Connections

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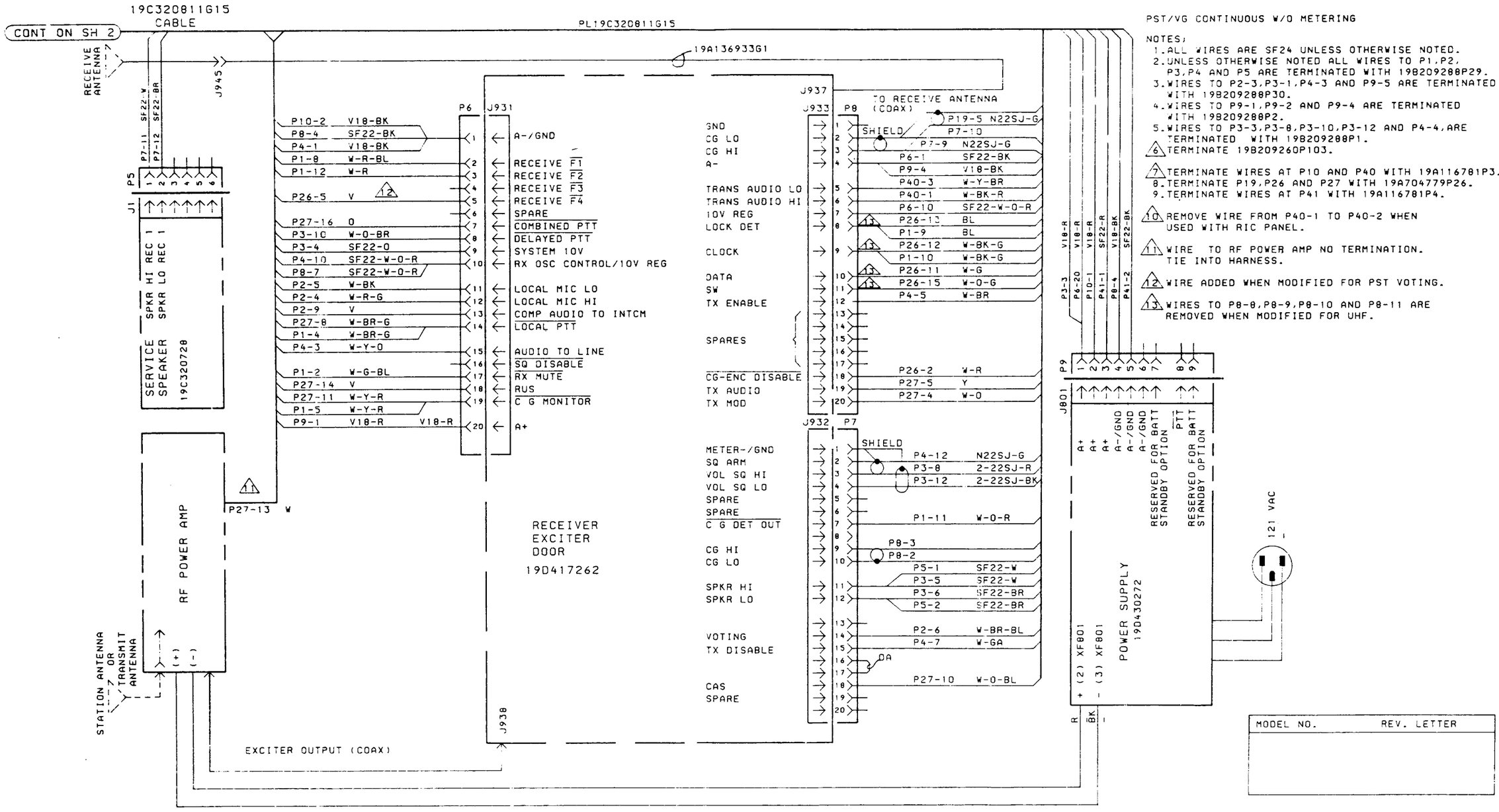
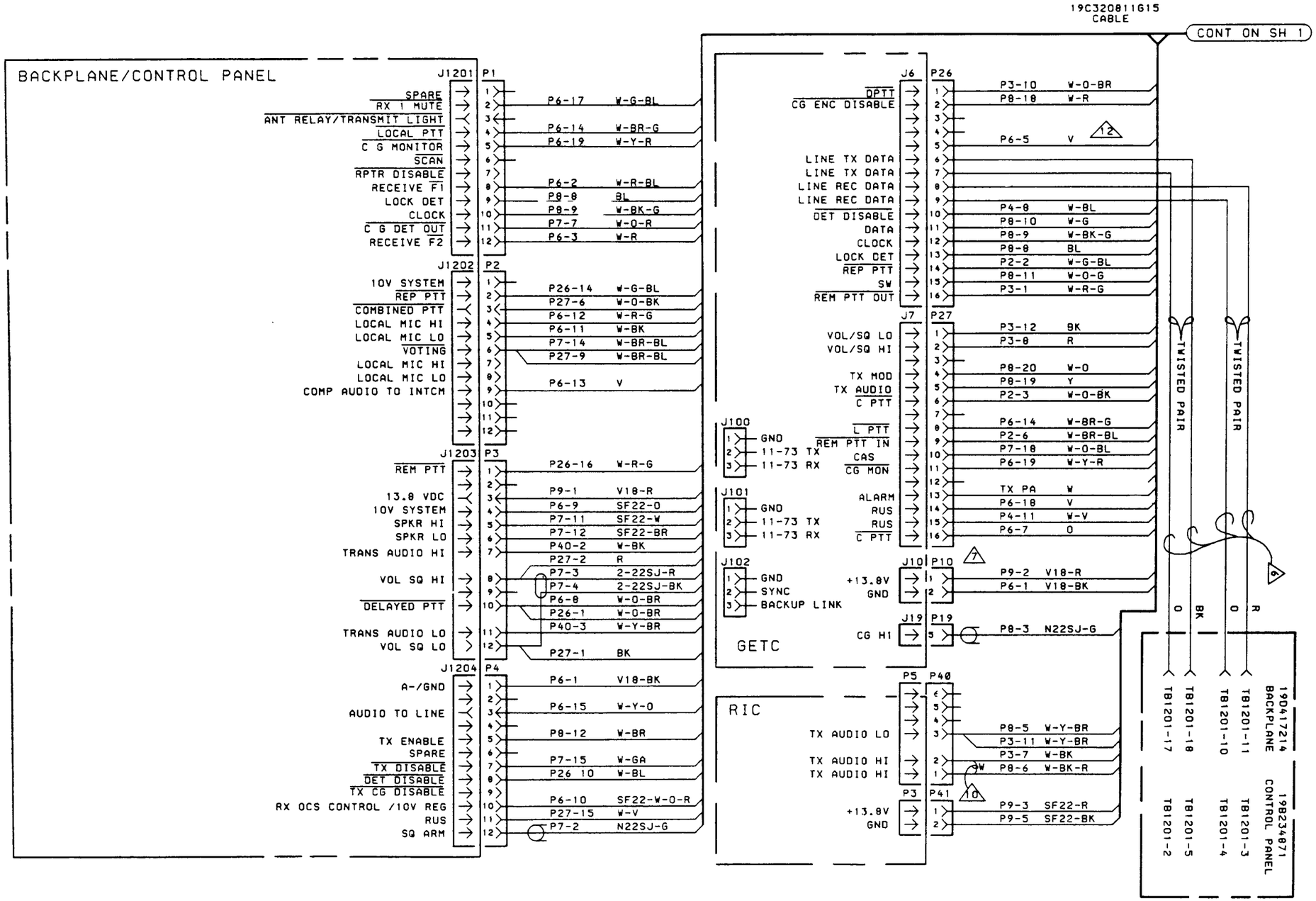


PST/VG CONTINUOUS W/O METERING

NOTES;
1. ALL WIRES ARE SF24 UNLESS OTHERWISE NOTED.
2. UNLESS OTHERWISE NOTED ALL WIRES TO P1,P2, P3,P4 AND P5 ARE TERMINATED WITH 19B209288P29.
3. WIRES TO P2-3,P3-1,P4-3 AND P9-5 ARE TERMINATED WITH 19B209288P30.
4. WIRES TO P9-1,P9-2 AND P9-4 ARE TERMINATED WITH 19B209288P2.
5. WIRES TO P3-3,P3-8,P3-10,P3-12 AND P4-4,ARE TERMINATED WITH 19B209288P1.
6. TERMINATE 19B209260P103.
7. TERMINATE WIRES AT P10 AND P40 WITH 19A116781P3.
8. TERMINATE P19,P26 AND P27 WITH 19A704779P26.
9. TERMINATE WIRES AT P41 WITH 19A116781P4.
10. REMOVE WIRE FROM P40-1 TO P40-2 WHEN USED WITH RIC PANEL.
11. WIRE TO RF POWER AMP NO TERMINATION. TIE INTO HARNESS.
12. WIRE ADDED WHEN MODIFIED FOR PST VOTING.
13. WIRES TO P8-8,P8-9,P8-10 AND P8-11 ARE REMOVED WHEN MODIFIED FOR UHF.

MODEL NO.	REV. LETTER

BACKPLANE/CONTROL PANEL
19D438278 Sh. 1, Rev. 6



BACKPLANE/CONTROL PANEL

19D438278 Sh.2, Rev. 4