Maintenance Manual

Simulcast Interface Panel
19D904009G5 & G4

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SPECIFICATIONS

Dimensions	19” X 3RU
Mounting	Fits standard 19 inch rack (Uses standard EIA mounting)
Modules	Provides mounting for five (5) parallel interface modules and one serial interface module.

NOTE

Repairs to this equipment should be made only by an authorized service technician or facility designated by the supplier. Any repairs, alterations or substitution of recommended parts made by the user to this equipment not approved by the manufacturer could void the user’s authority to operate the equipment in addition to the manufacturer’s warranty.

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DESCRIPTION

Interface Panels 19D904009G5 & G24 (specific to RS232 simulcast) allow quick and easy interconnection of all audio and control functions in an **E**nhanced **D**igital **A**ccess **C**ommunication **S**ystem (**EDACS®**). These Interface Panels provide the ability to couple audio and control functions of multiple stations on single 25 pair cables. These Interface Panels can connect to as many as five (5) such cables plus one serial cable. These panels also provides all intra-cabinet wiring to common connector panels which is covered in other publications. Interface Panel 19D904009G5 will work with modem data.

The Interface Panel consist of multiple modules mounted to a common panel frame assembly. The modules are as follows:

Interface Module 19C852204G1 - Used to route audio/data throughout the communication system. These audio/data connections consist of Audio In, **G**eneral **E**lectric **T**elephone **C**ard (**GETC**) data, Modem Data, **R**epeater **I**nterface **C**ard (**RIC**) Audio, Station Audio and **T**est **U**nit **A**larm **I**nterface (**TUAI**) GETC data. The Interface Module also serves as a power monitor (See LBI-38813).

PTT Module 19D852215G1 - Used to connect the E&M signaling from the microwave link to the station transmitters (See LBI-38816).

TUAI Module 19C852339G1 - (Replaces module 19C852219G1) Used to connect to the Test Unit Alarm Interface ('TUAI) output through J1-J5, to the Transmit Alarm System via J9, and provides access to Digital Alarm Input DIN31 - DIN48 (See LBI-38948).

Power Monitor for Simulcast 19C852218G1 - Used to monitor the proportional DC voltage from the power sensor to produce an indication of the transmitter power output to the antenna (See LBI038819).

Serial Module 19C852323G1 - Used to route serial data throughout the communication system (LBI-38930). There are two (2) kinds of serial data:

1. Fail Soft backup serial link.
2. Radio Interface Control (RIC) serial data.

Timing Interface Module (RS232 Version) ROA 117 2209 - Used in Simulcast System to route the channel clock signals from the Channel Bank to the Digital Selector Module in the Universal Sync. Shelf and from there to the Digital Cross Connect at the Control Point or to the Transmit Cross Connect at the Transmit Site (See LBI-39099).

Each EDACS trunked repeater and site controller cabinet includes an Interface Panel. This panel mounts on the rear rails near the top of the cabinet. Control and audio is routed through the Interface Panel and connected to a point within the repeater or site controller cabinet.

Each EDACS Interface Panel accommodates up to five (5) parallel interface modules and one (1) serial interface module. The modules included with each repeater cabinet consist of **POWER MONITOR**, **STATION AUDIO**, **RIC AUDIO**, **MODEM DATA**, **GETC DATA** and **SERIAL DATA** functions. These modules are included even when the function is not required for a particular system.

The site controller Interface Panel interconnects **POWER MONITOR**, **RIC AUDIO**, **GETC DATA** and **SERIAL DATA** functions with the repeater cabinets.

Cabinet to cabinet connection requires only that cables be connected from a module on the Interface Panel in one cabinet to the same module on an Interface Panel in a neighboring cabinet (Refer to EDACS Installation Manual LBI-38762 or LBI-39074).

The common cables required for external connections to the various EDACS elements (station functions) are the 19D903880P120/121 and the 19D903880P130/131 cables.

The 19D903880P120/121 cables connect the parallel connections cabinet to cabinet and consist of twenty five (25) twisted pair shielded cables with right angle male connectors P01 and P02. These cables have straight through connections 1-1, 2-2, etc.

19D903880P120 is 5 feet long.
19D903880P121 is 15 feet long.

The 19D903880P130/131 cables connect the serial data link cabinet to cabinet and consist of DB-15 male connectors P01 and P02. They have straight through connections 1-1, 2-2, etc.

19D903880P130 is 5 feet long.
19D903880P131 is 15 feet long.

The groups and applications of the EDACS Interface Panels for each Group are described below. This information is presented in tabular form in Table 1, preceding the drawings.

Interface Panels 19D904009G5 & G24:

- **Group 5 (G5)** - Panel Assembly includes one (1) 19C852204G1 Interface Module, one (1) 10C852215G1 PTT Module, One 19C852339G1

TUAI Module, one (1) 19C852218G1 Power Monitor Module for Simulcast and one (1) 19C8523234G1 Serial Module (Application part number P14, **SIMULCAST TX COMMON EQUIPMENT**. Refer to Assembly Diagram 19D904009, Sheet 5).

- **Group 24 (G24)** - Panel Assembly includes one (1) Timing Interface Module to route channel clock signals between the Channel Bank, the Universal Sync. Shelf and the Digital Cross Connect Panel at the Control Point or the Transmit Cross Connect Panel at the Transmit Site (Application part number 55, **Simulcast TX Site RS-232 Data**. Refer to Assembly Diagram 19D904009, Sheet 24).

INSTALLATION

To Install The EDACS Interface Panel:

1. Install the required panel modules into the (Interconnection Panel. Be careful to conform with the cabinet configuration requirements (Refer to Assembly Diagram 19D904009, Sheets 5 and 24). Mount each panel assembly in the location shown by the Assembly Diagram, even though all panels are not included.
2. Apply the appropriate label.
3. Install the Interconnection Panel in the rear of the cabinet or open rack using four (4) spring nuts and screws (Refer to the Parts List for numbers).

   In the cabinet, mount the interconnection panel two rack units from the top. In the open rack, mount the interconnecting panel three rack units from the top.

To Connect Cables:

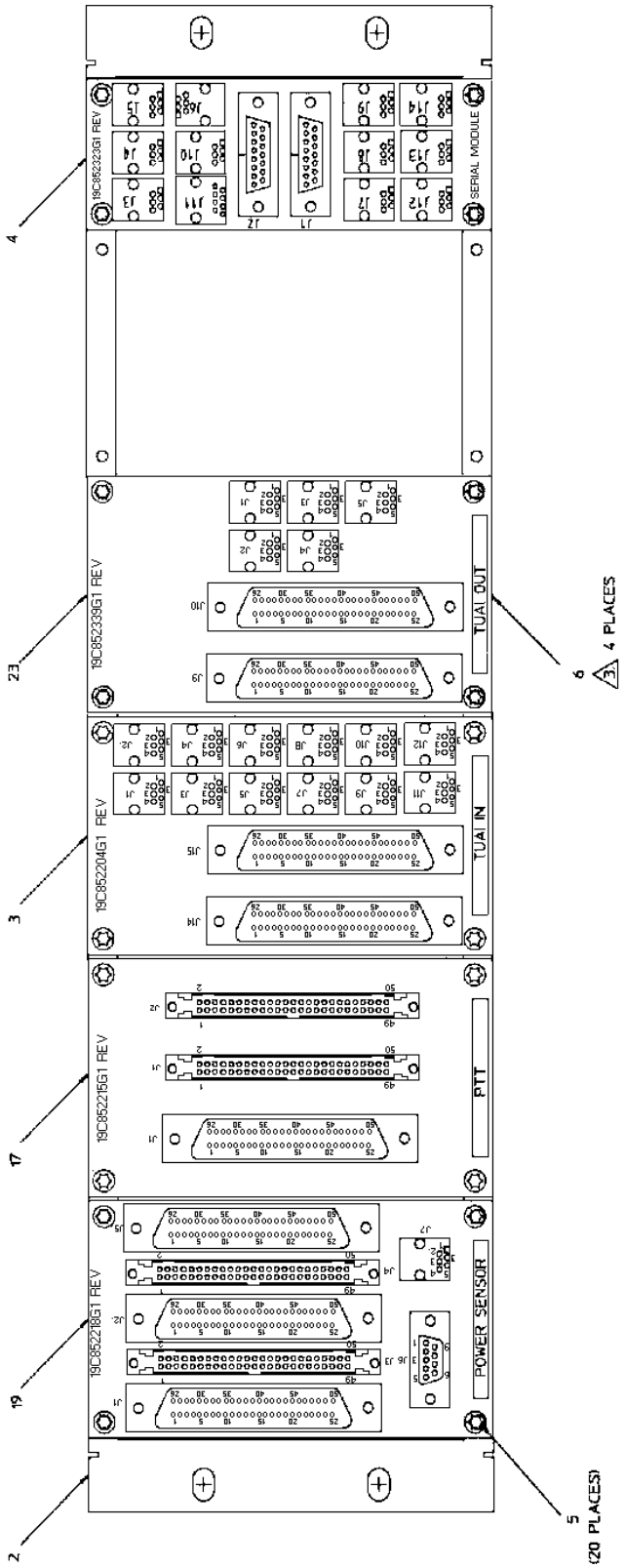
Interconnecting cables, connecting control and audio circuits from one Interface Panel to the next, are provided in lengths that are based on standard floor plans (Refer to the floor plans in Installation Manual LBI-38762 or LBI-39074).

To complete cabinet to cabinet interconnection, cable from the Interface Panel in one cabinet to the same panel in neighboring cabinets.

PARTS LIST

INTERCONNECTION PANEL
19D904009G5 & G24

SYMBOL	PART NUMBER	DESCRIPTION
2	19D903881P1	FRAME
3	19C852204G1	Interface Module (Used in G5).
4	19C852323G1	Serial Module (Used in G5).
5	19A702381P506	Screw, thread forming: TORX , No. M3.5-.6 x 6.
6	344A4111P1	Nameplate
17	19C852215G1	PTT Module (Used in G5).
18	19C852339G1	TUAI Module (Used in G5).
19	19C852218G1	Power Monitor Module for SIMULCAST (Used in G5).
	ROA 117 2209	Timing Interface Module (Used in G24).
		- - -ASSOCIATED PARTS- - -
	19D903880P120/ 19D903880P130	Telco Connector 25 twisted pair. Shielded AMP #5-555012-1 or #5-555012-2 (Right angle case, with bail lock mating cable to exit on Pin 1/26 end) P01 and P02 male connector straight through connection 1-1, 2-2, etc. Shield connected to case both ends. Cable marked with number 19D903880P120 for a 5 foot cable and 19D903880P121 for a 15 foot cable.
	19D903880P130/ 19D9032880P131	Serial link cabinet to cabinet P01 and P02 DB-15 male connector straight through connection 1-1, 2-2, etc. Shield connected to case both ends. Cable marked with number 19D903880P130 for a 5 foot cable and 19D903880P131 for a 15 foot cable.



14 SIMULCAST TX COMMON EQUIPMENT

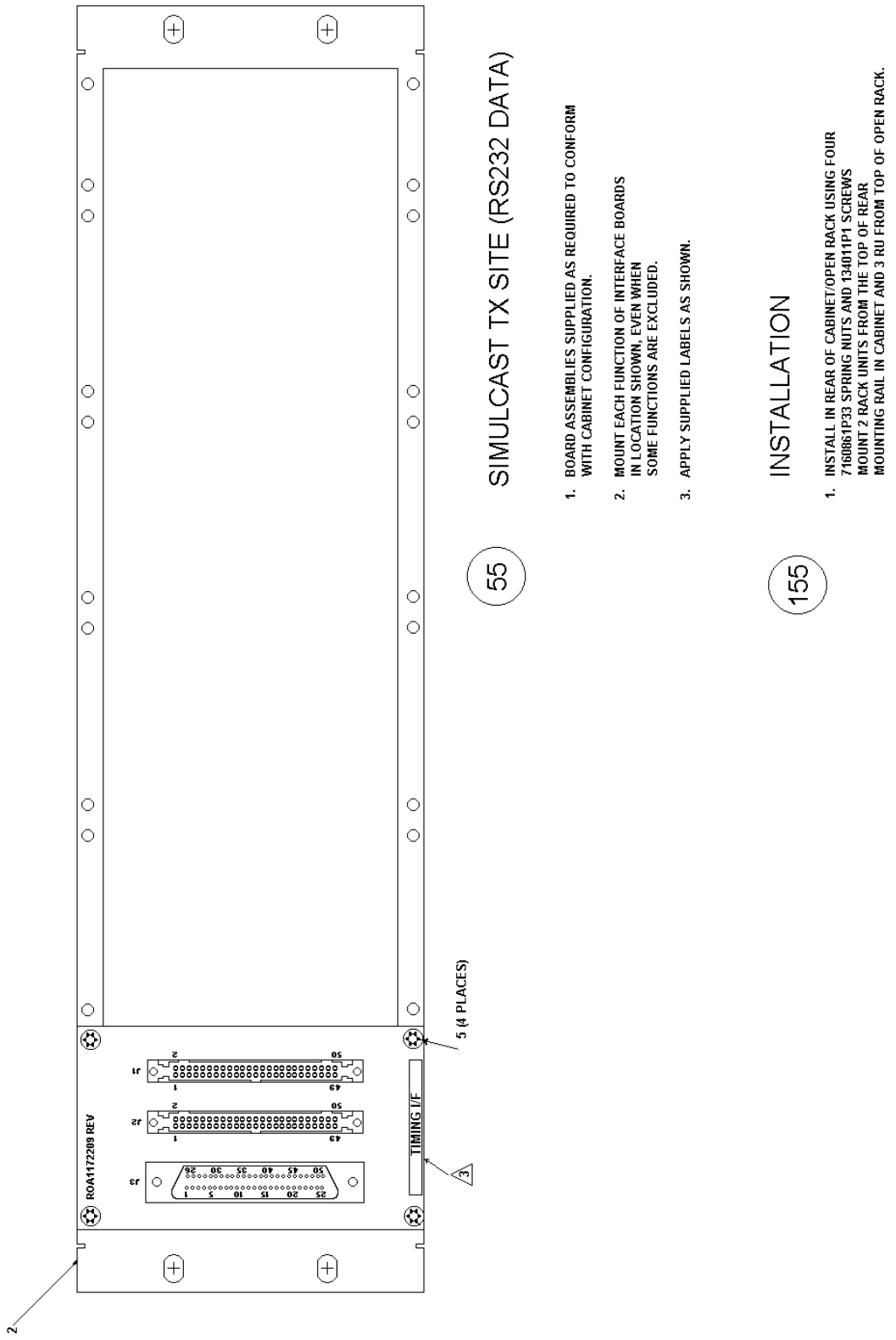
1. BOARD ASSEMBLIES SUPPLIED AS REQUIRED TO CONFORM WITH CABINET CONFIGURATION.
2. MOUNT EACH FUNCTION OF INTERFACE BOARDS IN LOCATION SHOWN, EVEN WHEN SOME FUNCTIONS ARE EXCLUDED.
3. APPLY SUPPLIED LABELS AS SHOWN.

114 INSTALLATION

1. INSTALL IN REAR OF CABINET/OPEN RACK USING FOUR 7160861P33 SPRING NUTS AND 1340111P1 SCREWS. MOUNT 2 RACK UNITS FROM THE TOP OF REAR MOUNTING RAIL IN CABINET AND 3 RU FROM TOP OF OPEN RACK.

EDACS INTERCONNECTION PANEL
Simulcast TX Common Equipment

(19D904009, Sh. 5, Rev. 3)



EDACS INTERCONNECTION PANEL
Timing Interface Module (RS-232 Version)

(19D904009, Sh. 24, Rev. 1)

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