

MAINTENANCE MANUAL

POWER MONITOR MODULE

19C852213G1

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SPECIFICATIONS

FUNCTIONS:

CONNECTORS:

External Connections for Power Sensor Circuits:

- First Xmtr Group (Xmtr #1 through #12)
- Second Xmtr Group (Xmtr #11 through #20)
- Ant #1 and #2

- J1 (25-pair female Telco connector)
- J2 (25-pair female Telco connector)
- J7 (DB-9 female connector)

Internal Connections for Power Sensor Circuits:

- Xmtr #1 through #9
- Xmtr #10 through #18
- Xmtr #19 and #20
- Ant #1 and #2

- J3 (DB-37 female connector)
- J4 (DB-37 female connector)
- J5 (DB-9 female connector)
- J6 (DB-9 female connector)

## DESCRIPTION

The 19C852213G1 Power Monitor Module is used in the EDACS Interface Panel of an EDACS Site Controller cabinet. It is used as the connection point between the part of the RF power sensor circuits external to the cabinet (going to the power sensors), and the part internal to the cabinet (going to the Power Monitor Unit).

A single RF power sensor circuit is used for each repeater station transmitter output to measure forward power. Dual RF power sensor circuits are used for each transmit antenna input: one to measure forward power; the other to measure reflected power.

The 19C852213G1 Power Monitor Module can accommodate single RF power sensing circuits from up to twenty transmitter outputs and dual RF power sensing circuits from up to two antenna inputs.

## CIRCUIT ANALYSIS

The 19C852213G1 Power Monitor Module contains the cross-connects between the external connections and the internal connections, as shown in the schematic diagram. The module also contains some unused cross-connects between internal connections, as described in the note below the schematic diagram. Do not be confused by these unused cross-connects.

## EXTERNAL CONNECTIONS

The single RF power sensing circuits from each transmitter output are divided into two groups. The first group includes circuits for transmitters #1 through #12 and connects to J1. The second group includes circuits for transmitters #11 through #20 and connects to J2. Circuits for transmitters #11 and #12 can be connected to either group, and the choice will usually depend upon how many transmitters there are per cabinet. Standard configurations connect transmitters #11 and #12 to the first group when there are three transmitters per cabinet, and to the second group when there are two transmitters per cabinet.

### NOTE

Special care must be taken not to be confused by this duplicity for the circuits for transmitters #11 and #12. Be careful not to accidentally put two different RF power sensing circuits in parallel, or accidentally leave a shorting jumper across the other branch of these two circuits.

The dual RF power sensing circuits from antenna inputs #1 and #2 connect to J7.

## INTERNAL CONNECTIONS

The single RF power sensing circuits to the Power Monitor Unit for transmitters #1 through #9 connect to J3, #10 through #18 to J4, and #19 and #20 to J5. The dual RF power sensing circuits to the Power Monitor Unit for antennas #1 and #2 connect to J6.

## SHORTING JUMPERS

All unused RF power sensing circuits must be shorted with a jumper. To facilitate this, the 19C852213G1 Power Monitor Module shipped in the EDACS Interface Panel of an EDACS Site Controller cabinet may have two 19C852379G1 Power Monitor Channel/Select Modules plugged into J1 and J2. These plug-in modules contain one shorting jumper for each transmitter circuit.

### NOTE

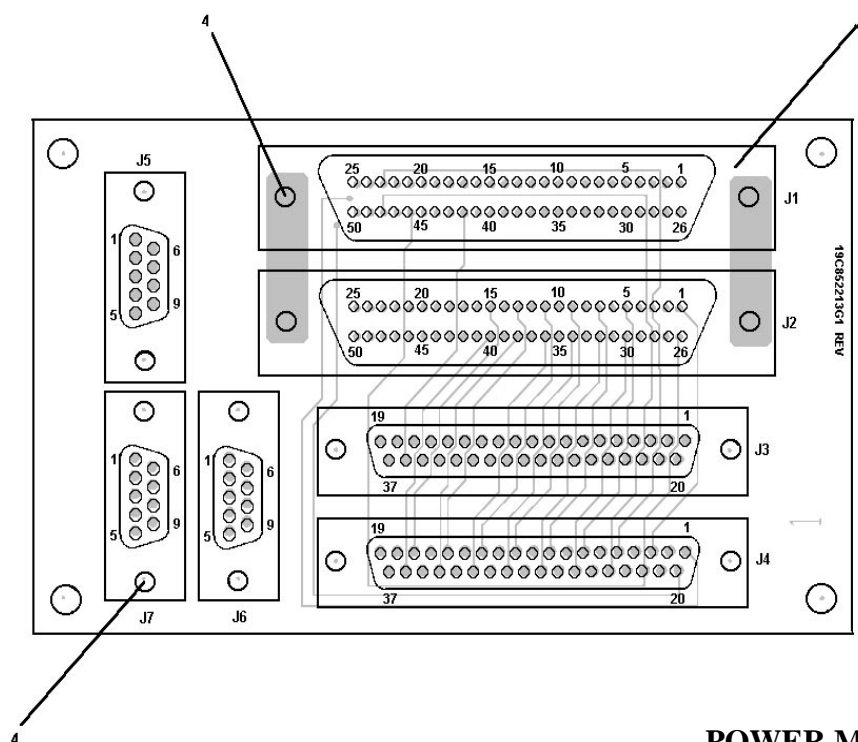
The circuits for transmitters #11 and #12 will have a shorting jumper in each of these plug-in modules. During installation, these plug-in modules are moved to the end of the respective daisy chain of inter-cabinet cables for the power sensor circuits, and the shorting jumpers removed for the individual circuits used. If the circuit for transmitter #11 or #12 is used, a shorting jumper must be removed from each of these two plug-in modules, regardless of which cabinets the modules are in. (See the system installation manual for information about daisy-chaining.)



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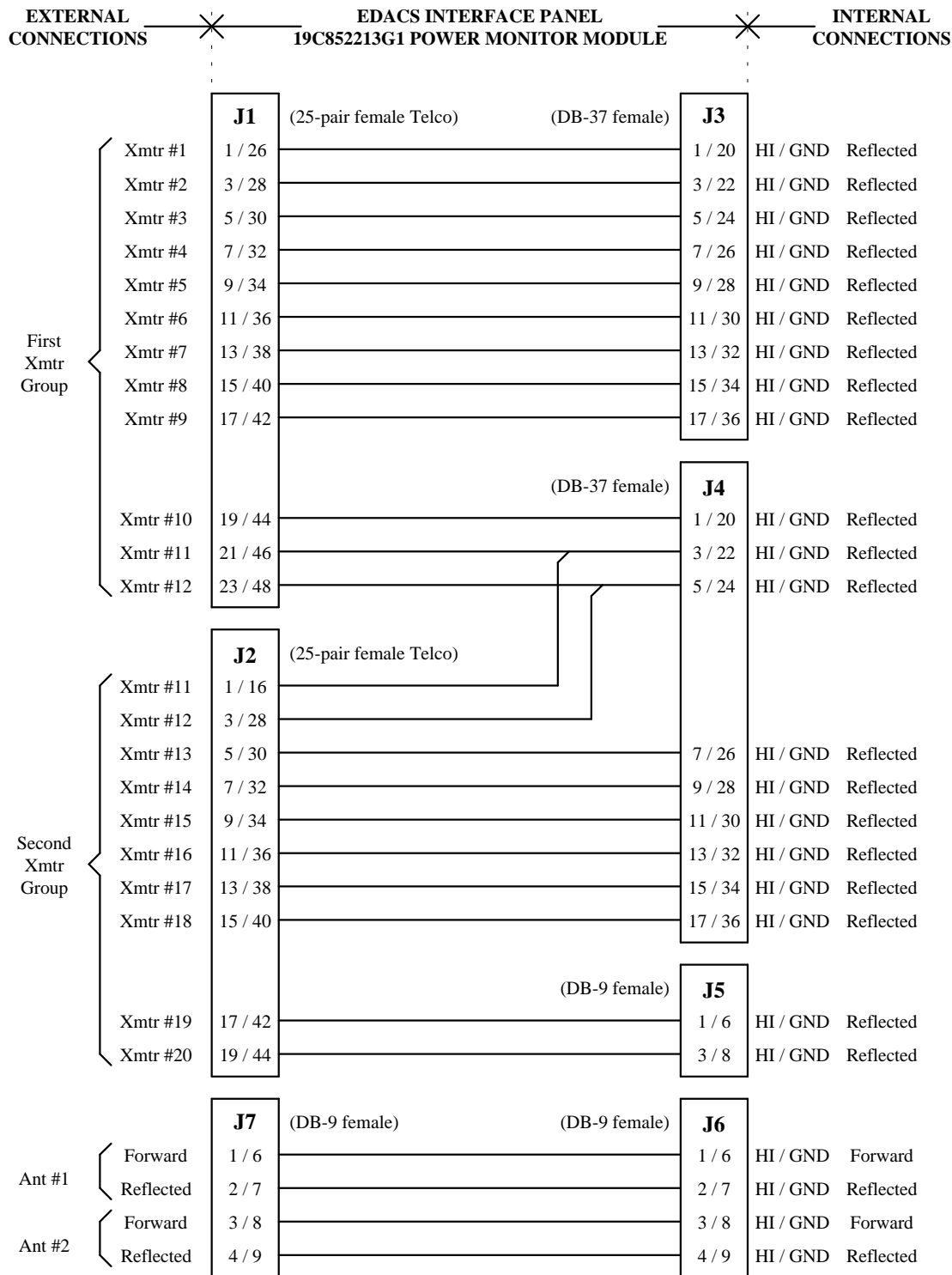
SYMBOL	PART NUMBER	DESCRIPTION
----- JACKS -----		
J1 and J2	19B800935P14	25 Pair Telco Connector with Bail Lock.
J3 and J4	19B209727P55	37 position receptacle assembly with screw-locks.
J5 thru J7	19B209727P5	29 position receptacle assembly with screw-locks.
----- MISCELLANEOUS -----		
4	N80P9004B6	Machine screw: No. 4-40 x 1/4.
5	19B800935P15	Bail Clip. (Replaces bail lock supplied with J1 & J2).

\* COMPONENTS, ADDED, DELETED OR CHANGED BY PRODUCTION CHANGES



**POWER MONITOR MODULE**

(19C852213, Rev. 0)  
(19C852212, Component Side, Rev. 0)

**NOTE:**

The following jumpers are present but not shown above. They were intended to jumper the unused reflected power monitor circuits for Xmtr #1 through #20, but are no longer needed. These circuits are now jumpered in the internal cables to the Power Monitor Unit.

Jumpers for J3 (from/to pin #s): 2/21, 4/23, 6/25, 8/27, 10/29, 12/31, 14/33, 16/35, and 18/37.

Jumpers for J4 (from/to pin #s): 2/21, 4/23, 6/25, 8/27, 10/29, 12/31, 14/33, 16/35, and 18/37.

Jumpers for J5 (from/to pin #s): 2/7 and 4/9.

The connection between J3 pin 19 and J4 pin 19, also is neither shown nor needed.