

Maintenance Manual

TX SIMULCAST
EQUIPMENT RACK

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Station Cross Connect Panel AE/LZB 119 1873

Synchronizer Shelf Assembly AE/LZB 119 1903

Transmit Rack Interface Panel LBI-39205

Power Supplies:

 +13.8 Vdc LBI-38550

 +5/±12 Vdc LBI-39038

Uninterruptable Power Supply (UPS) . . Vendor Manual

Connectorized Jackfileds ADCP-80-320

GPS Receiver Model 8195

Signal Selector Model 8143

RTU/CCM AE/LZB 119 1885

Buffer Board AE/LZB 119 1877

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NOTICE!

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

This manual contains GPS Simulcast Transmit Site Rack drawings and interrack cabling documentation. It contains an Application Assembly Drawing (*193D1257*) showing how the various components are racked in the transmit cabinet. A Transmit Sync Shelf Application Drawing (*19C852737*) is provided to identify and show the locations of modules used in the Transmit Site Sync Shelf. An Interconnection Diagram (*193D1243*) is provided to show the cabling between components in the Simulcast rack. A wiring diagram (*19C852732*) shows the power distribution in the rack. This manual contains a cable connection list (*350A1857*) to provide detailed intrarack cabling information for the transmit rack and to support the intrarack wiring diagrams referenced above.

Being familiar with the information contained on each of these drawings make servicing the simulcast system easier.

Application Drawing 193D1247 shows the location of each shelf and identifies its function:

- 10 MHz Oscillator Selector & Distribution Amplifier
- GPS Receivers
- TX Sync Shelf
- MUX Shelf
- Jackfields
- Alarm Computer
- RTU/CCM
- UPS Shelf
- Power Supply
- Power Supply Shelf with Modules
- Station Crossconnect Panel
- Transmit Rack Interface Panel with Prog/Diag Modules, Bypass Mapping Module and RocketPort Modules
- Alarm Crossconnect Panel
- Power Distribution Panel

The Application Drawing also shows the rear view of the rack, showing the location of the transmit Crossconnect Panel, the AC Power Panel and all the other shelves referenced above.

INTRARACK CABLING

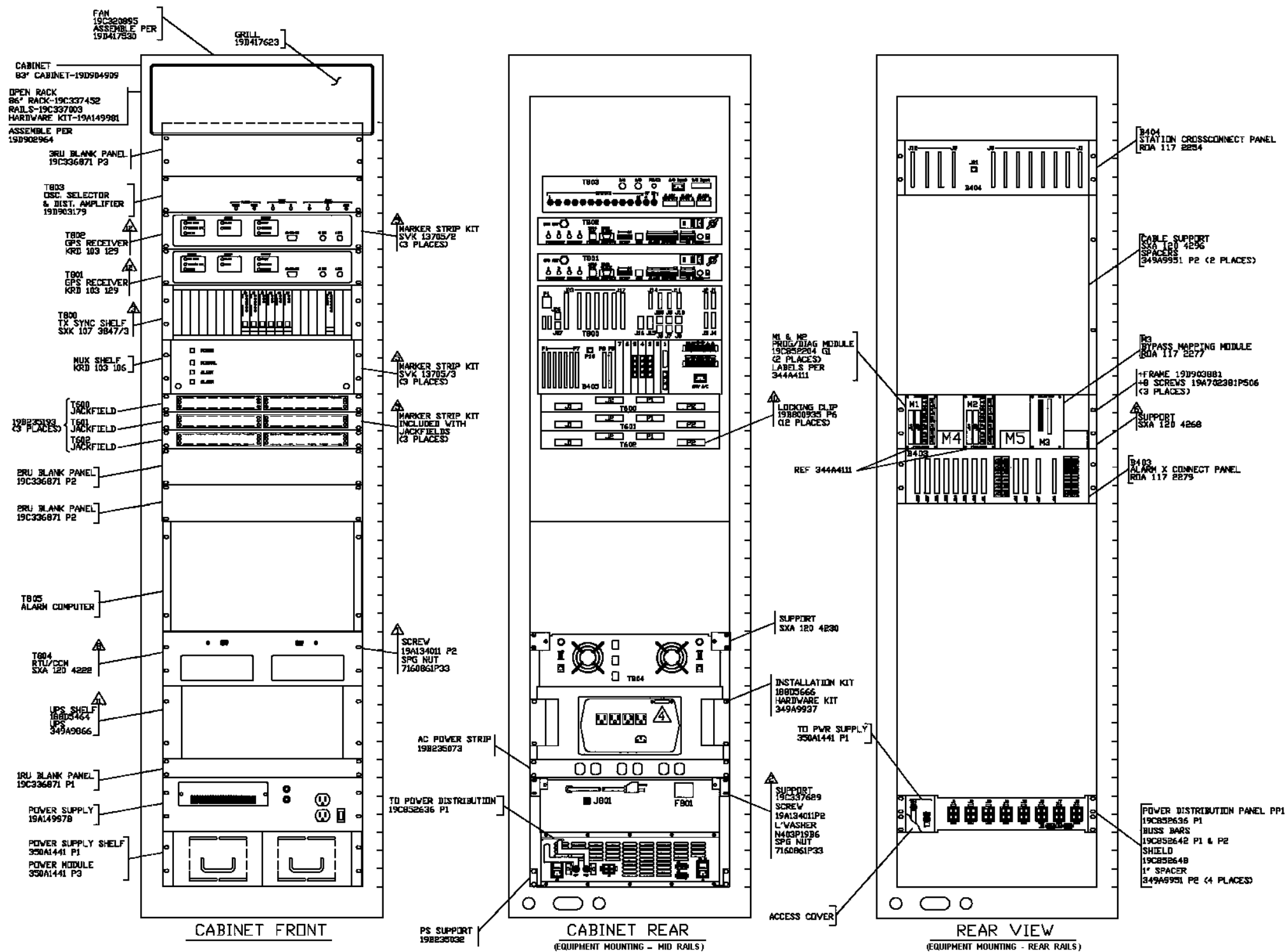
Interface panel connection diagram 193D1243 shows the intrarack/cabinet signal cabling within the Simulcast transmit rack. The associated cable connection list (350A887) identifies all internal rack cables and their termination points for a Transmit Site Rack.

DC POWER INTRARACK WIRING

DC Power Wiring Diagram 19C852732 shows the power distribution wiring for the GPS Simulcast Transmit Site equipment Rack. Power wiring is traced from the power supplies through the Fuse Panel to the Sync Shelf. All power distribution wiring is accomplished through single power distribution cable RPM 113 2518/2. All intrarack wiring is completed and verified at the factory.

INTERCONNECTION DIAGRAM

Rack Interconnection Diagram 193D1243 provides a functional block diagram showing how the equipment shelves and modules within the GPS Simulcast Transmit Site Simulcast Rack are connected.



① SIMULCAST TX SITE RACK

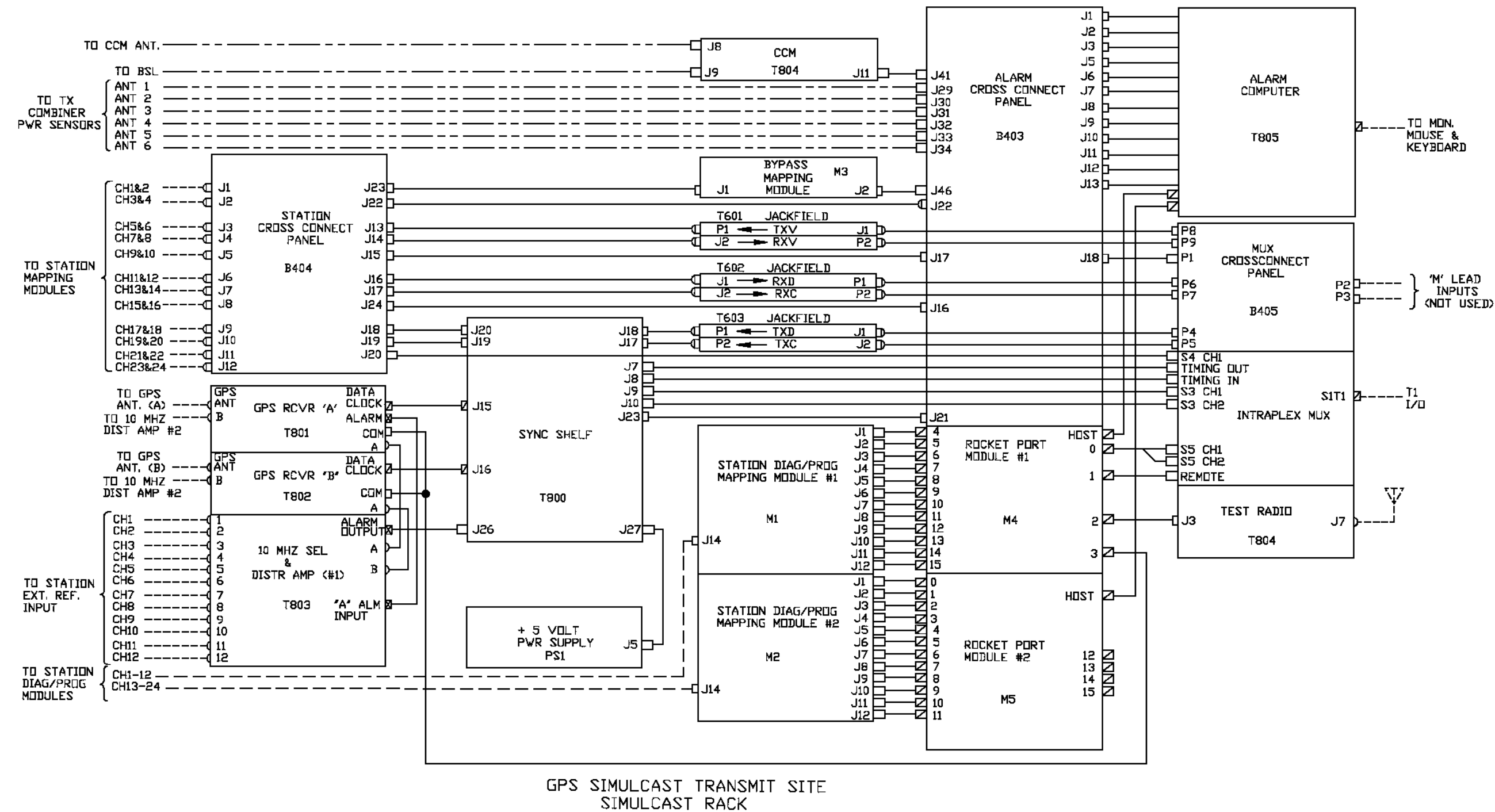
- NOTES:
- △ PART OF HARDWARE KIT 19A130031G12 (STD CABINET).
 - △ PART OF HARDWARE KIT 19A149326G8 (POWER SUPPLY).
 - △ INSTALL MODULES IN SHELF PER 19C852737.
 - △ IF UPS IS NOT INSTALLED, INSTALL ADDITIONAL 19B235073 AC STRIP ON THIS LOCATION.
 - △ REPLACE BLANK MARKERS WITH SKX 120 4317/3.

- △ MOUNT SUPPORT BETWEEN MID AND REAR RAILS AFTER INSTALLING M4 (AND M5) TO SUPPORT.
- △ INSTALL INTER RACK CABLES PER 350A1887, SEE 193D1243 FOR INTERCONNECT DIAGRAM.
- △ SEE 1988-SXK 1073828 FOR APPLICATION ASSEMBLY, SEE 193D1243 FOR INTERCONNECT DIAGRAM.
- △ TEST RACKS PER 350A2022.
- △ AFTER INSTALLING CABLES ON THE JACKFIELDS, INSTALL LOCKING CLIPS (19B800935 P6) ON J1, J2, P1 AND P2 OF ALL JACKFIELDS.

- △ IF UPS IS NOT INSTALLED, INSTALL BLANK PANELS.
- △ FOR COLOCATED TX SITE, REPLACE GPS RECEIVERS WITH BLANK PANELS.

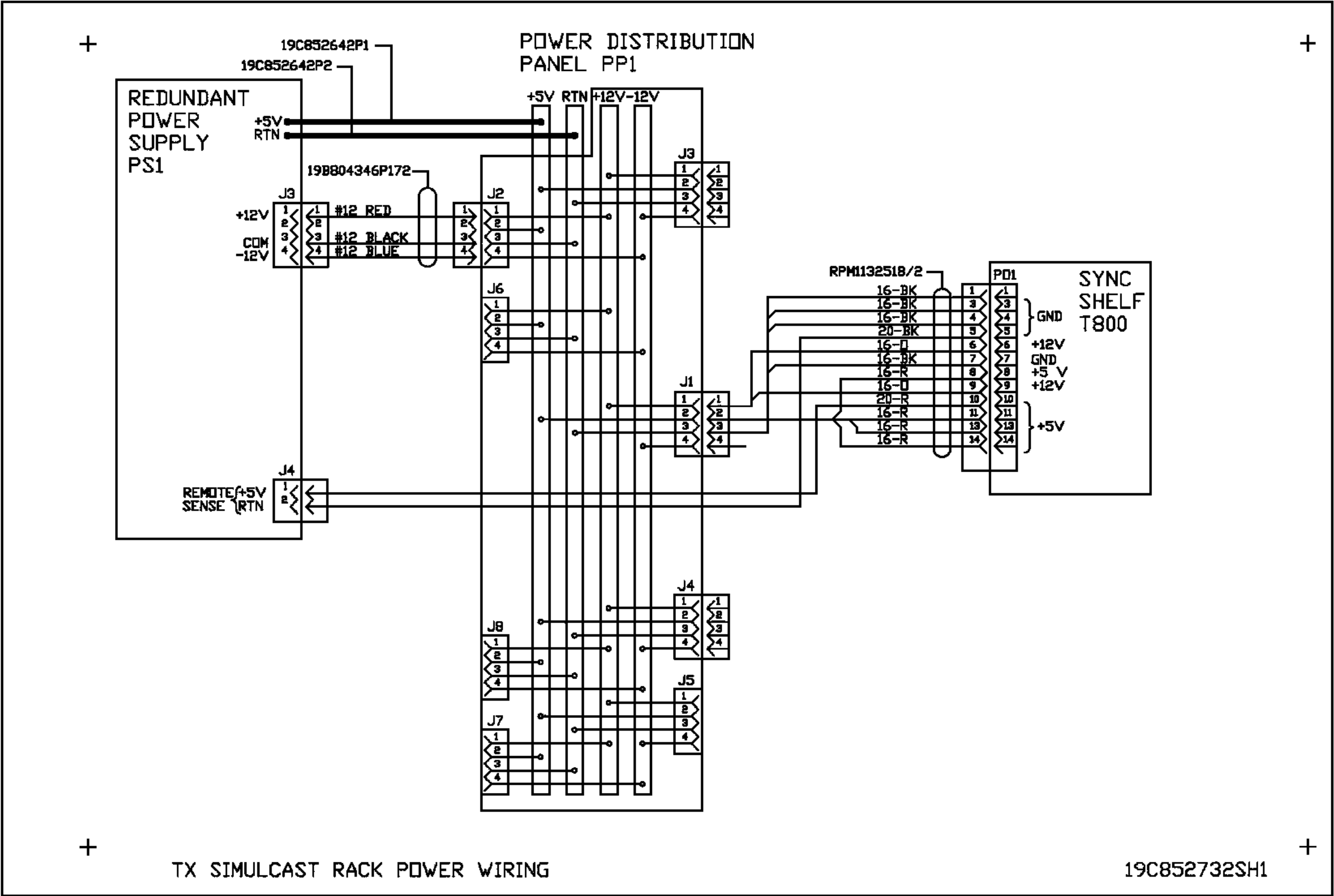
Application Assembly

(193D1572, Sh. 1, Rev. 1)



Interconnection Diagram

(193D2143, Sheet 1, Rev. 1)



Equipment Rack Power Wiring Diagram

(19C852732, Sheet 1, Rev. 0)

PART 1		83 CABINET / 86 RACK
FROM	TO	CABLE
B403-J1	T805	PART OF T805
B403-J2	T805	PART OF T805
B403-J3	T805	PART OF T805
B403-J5	T805	PART OF T805
B403-J6	T805	PART OF T805
B403-J7	T805	PART OF T805
B403-J8	T805	PART OF T805
B403-J8	T805	PART OF T805
B403-J10	T805	PART OF T805
B403-J11	T805	PART OF T805
B403-J12	T805	PART OF T805
B403-J13	T805	PART OF T805
B403-J16	B404-J24	19D903985P18
B403-J17	B404-J15	19D903985P18
B403-J18	B405-P1	19D903985P14
B403-J21	T800-J23	19D903985P36
B403-J22	T804-J22	19D903985P38
B403-J41	T804-J11	RPM 113 505/4
B403-J46	M3-J2	RPM 113 505/2

FROM	TO	CABLE
B404 J13	T601-P1	19D903985P26
B404-J14	T601-J2	19D903985P36
B404-J16	T602-J1	19D903985P36
B404-J17	T602-J2	19D903985P36
B404-J18	T800-J20	19D903985P16
B404-J19	T800-J19	19D903985P16
B404-J20	MUX-S4CH1	RPM 113 505/4
B404-J23	M3-J1	19D903985P16

FROM	TO	CABLE
B405-P4	T603-J1	19D903985P24
B405-P5	T603-J2	19D903985P24
B405-P6	T602-P1	19D903985P24
B405-P7	T602-P2	19D903985P24
B405-P8	B405-P8	19D903985P34
B409-P9	B405-P9	19D903985P24

FROM	TO	CABLE
T800-J7	MUX TIMING OUT	RPM 113 2505/1
T800-J8	MUX TIMING IN	RPM 113 2505/1
T800-J9	MUX-S3CH1	RPM 113 2505/1
T800-J10	MUX-S3CH2	RPM 113 2505/1
T800-J17	T603-P2	19D903985P24
T800-J18	T603-P1	19D903985P24
T800-J26	T803-ALARM OUT	RPM 113 821/2
T800-J27	PS1-J5	RPM 113 821/1

FROM	TO	CABLE
T800-J15	T801-DATA/CLOCK	RPM 113 2516/1
T800-J16	T802-DATA/CLOCK	RPM 113 2516/1
T801-COM/T802-COM	M4-3	RPM 113 2823/5
T801-A	T803-A	19B804122P1
T802-ALARM OUT	T803-ALARM IN 'A'	See Figure 1
T802-A	T803-B	19B804122P1

NOT USED IF TX SITE IS CO-LOCATED

FROM	TO	CABLE
M1-J1	M4-4	RPM 113 2823/1
M1-J2	M4-5	RPM 113 2823/1
M1-J3	M4-6	RPM 113 2823/1
M1-J4	M4-7	RPM 113 2823/1
M1-J5	M4-8	RPM 113 2823/1
M1-J6	M4-9	RPM 113 2823/1
M1-J7	M4-10	RPM 113 2823/1
M1-J8	M4-11	RPM 113 2823/1
M1-J9	M4-12	RPM 113 2823/1
M1-J10	M4-13	RPM 113 2823/1
M1-J11	M4-14	RPM 113 2823/1
M1-J12	M4-15	RPM 113 2823/1

Continued

Tx Site Cabinet Intrarack Wiring List

(350A1887, Sheet 1, Rev. 1A)
(350A1887, Sheet 2, Rev. 1A)

Continued

FROM	TO	CABLE
M2-J1	M5-0	RPM 113 2823/1
M2-J2	M5-1	RPM 113 2823/1
M2-J3	M5-2	RPM 113 2823/1
M2-J4	M5-3	RPM 113 2823/1
M2-J5	M5-4	RPM 113 2823/1
M2-J6	M5-5	RPM 113 2823/1
M2-J7	M5-6	RPM 113 2823/1
M2-J8	M5-7	RPM 113 2823/1
M2-J9	M5-8	RPM 113 2823/1
M2-J10	M5-9	RPM 113 2823/1
M2-J11	M5-10	RPM 113 2823/1
M2-J12	M5-11	RPM 113 2823/1

FROM	TO	CABLE
M4-HOST	T805-	PART OF T805

FROM	TO	CABLE
M4-0	MUX-S5 CH1/CH2	RPM 113 2823/12
M4-1	MUX-S1REM	RPM 113 2823/2
M4-2	T804-J3	RPM 113 2823/4
M5-HOST	T805-	PART OF T805

FROM	TO	CABLE
FROM	TO	CABLE
PS1-J3	PP1-J2	19B804346P172
PS1-J4/PP1-J1	T800-P01	RPM 113 2518/2
PS2-F801B	T804-J4/J8	RPM 113 2417

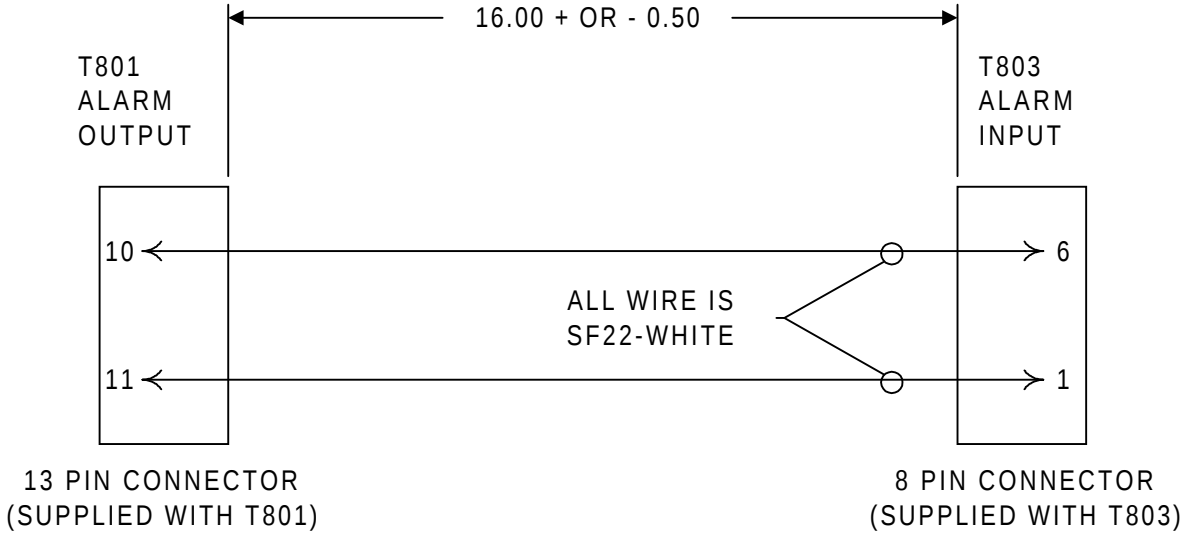


Figure 1 - Cable