

Maintenance Manual

GPS Simulcast
Control Point

Volume 1

COMMON EQUIPMENT RACK

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<u>Tab</u>	<u>Description</u>	<u>Publication</u>
1	Control Point Trunking Shelf	AE/LZB 119 1916/1
2	Synch Shelf	AE/LZB 119 1903
3	Jackfields	ADCP-80-320
4	1.544 MHz Clock Selector and Distribution Amplifier	Spectracom, Model 8144
5	GPS Receiver	Spectracom, Model 8195
6	Alarm Crossconnect B403	AE/LZB 119 2896/1
7	Test and Alarm Computer	AE/LZB 119 2898/1
8	+5/±12/ Vdc Power Supply	LBI-39038
	Power Distribution Panel	LBI-39158
	AC Power Strip	LBI-4841

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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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INTRODUCTION

This manual provides all documentation required for the GPS Simulcast Control Point Common Equipment Rack. All associated manuals collated with this manual are called for in the Table of Contents located on the front cover. This manual contains:

- Common Equipment Rack Application Assembly Diagram 193D1572
- Intrrack Wiring Diagram 19C852725
- Connection List 350A2016

Application Assembly Diagram

Application Assembly Diagram 193D1572 identifies and shows the location of all equipment used in the Control Point Common Equipment Rack. This equipment includes:

- 1.544 MHz Clock Selector and Distribution Amplifier D803
- GPS Receivers D801 and D802. Receiver D801 is GPS Receiver ‘A’ and Receiver D802 is GPS Receiver ‘B’.
- Control Point Trunking Card Shelves D501 through D504. Shelf:
 - D501 is for channels 1-6
 - D502 is for channels 7-12
 - D503 is for channels 13-18
 - D504 is for channels 19-24

Each of these shelves contain:

- ⇒ Turbo Cards ROA 117 2239
- ⇒ **Control Point Trunking Cards (CPTC)** ROA 117 2240/3
- ⇒ Interface Card ROA 117 2235

For more information concerning the Control Point Trunking Card shelf refer to Maintenance Manual AE/LZB 119 1916/1.

- Control Point Sync Shelf D800. This shelf contains:
 - ⇒ **Low Speed Data (LSD)** Selector Modules ROA 117 2262
 - ⇒ **GPS Control Point (CP)** Timing Modules ROA 117 2260/1
 - ⇒ Resync Modules ROA 117 2263
 - ⇒ Audio ALC Modules ROA 117 2261

For more information concerning the Sync Shelf refer to Maintenance Manual AE/LZB 119 1903.

- Test and Alarm Computer (IEA) D805. For more information concerning the IEA refer to Maintenance Manual AE/LZB 119 2898/1.
- Uninterruptable Power Supply (UPS) Shelf 188D5464. This shelf contains UPS 349A9866.
- +5, ±12 Vdc Power Supply. This includes chassis 350A1441P1 and two power supply modules, 350A1441P3
- Connector Panel 19D903969P2. This panel (P01) is a mounting frame only which mounts in the back of the Common Equipment rack. Connectors on the ends of cables coming from the various rack components are mounted in this frame (Refer to Intrrack Wiring Diagram 19C852725, Sheet 1).
- Rocket Port Modules M4 and M5 (Part of IEA D805)
- Alarm Crossconnect Panel B403. This crossconnect panel connects between the IEA Alarm Computer and CPTC shelves D501-D504 and Sync Shelf D800 (Refer to Intrrack Wiring Diagram 19C852725, Sheet 1).
- AC Power Strip 19B235073
- Power Distribution Panel 19C852636P1

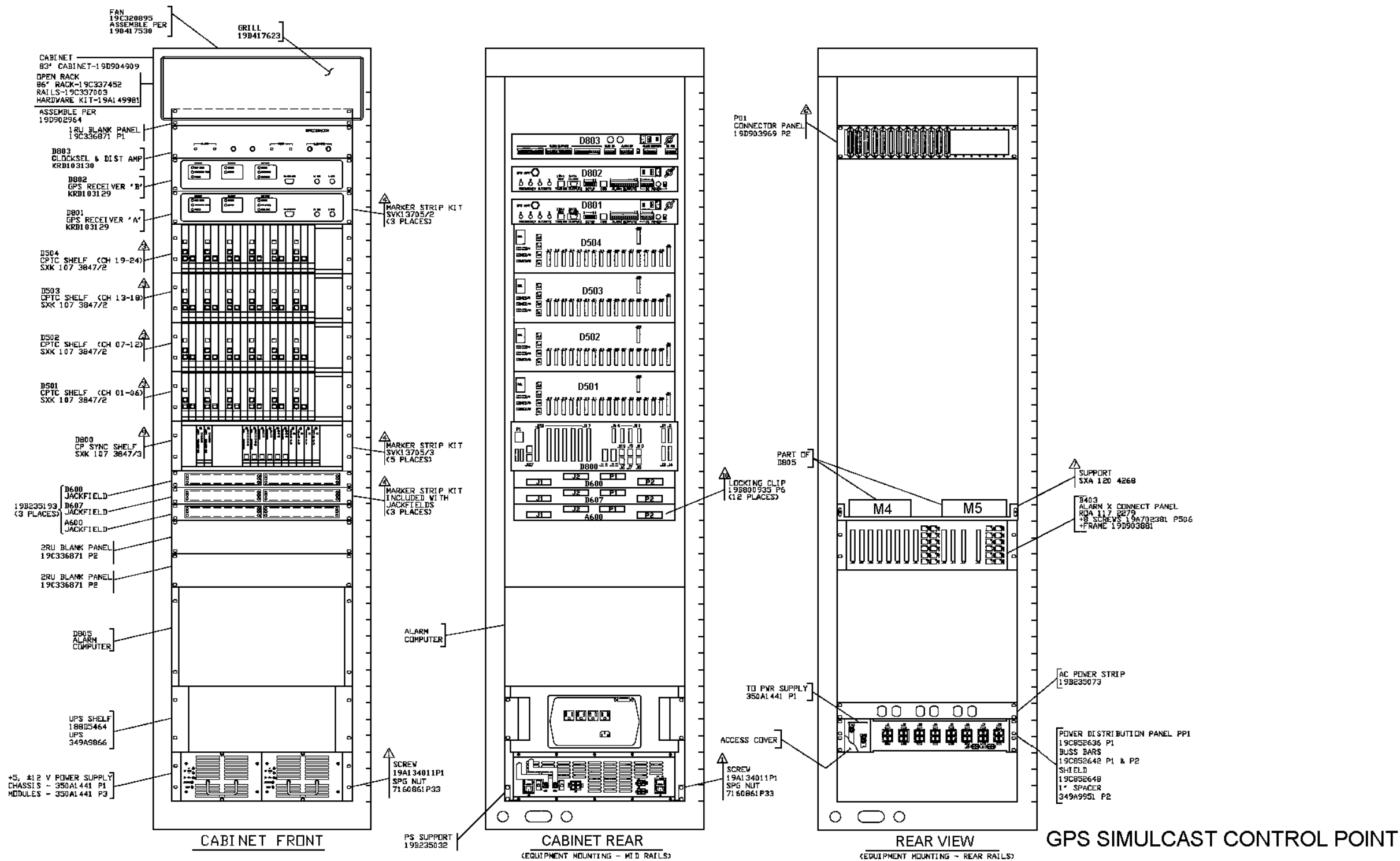
Intrrack Wiring Diagram

Intrrack Wiring Diagram 19C852725 provides intrrack wiring for the GPS Simulcast Control Point Common Equip-ment Rack.

- 19C852725, Sheet 1 shows the Common Equipment Rack Signal Wiring
- 19C852725, Sheet 2 shows the Common Equipment Rack Alarm Wiring.
- 19C852725, Sheet 3 shows the Common Equipment Rack Power Wiring

Connection List

Connection List 350A2016 provides information for Common Equipment Cabinet Intrrack Wiring. This list identifies the cables used and points of connection. Example: An RPM 113 2520/5 cable connects from Connector Panel P01-J1 (*Channels 1-12*) to CPTC Shelf D501/D502 (*Refer to Wiring diagram 19C852725, Sheet 1*).

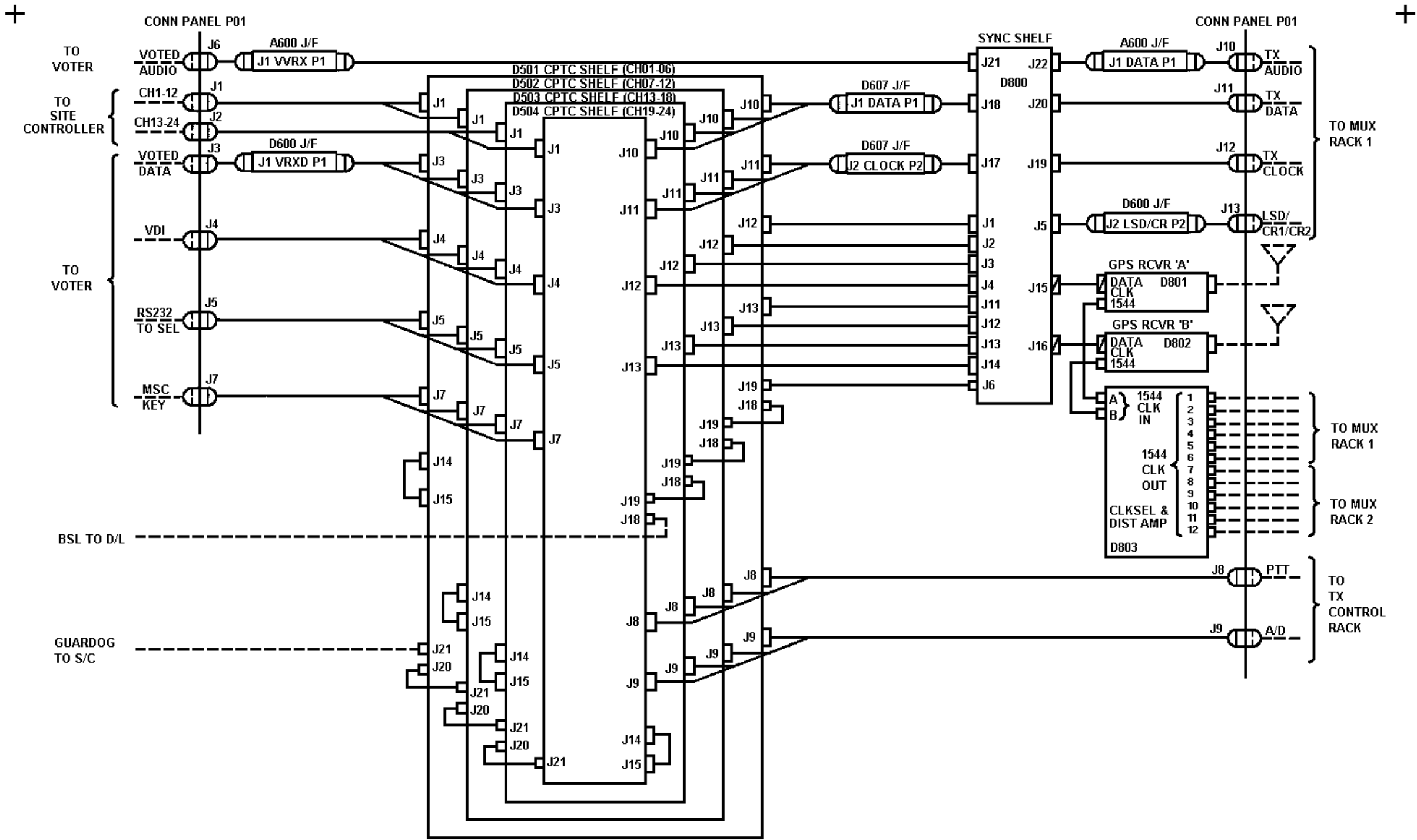


① COMMON EQUIPMENT RACK

- NOTES:
- ▲ PART OF HARDWARE KIT 19A130031G12 (STD CABINET).
 - ▲ INSTALL JACKS WITH PIN 1 AT THE TOP. INSTALL BAILLOCKS (19B800935 P16) ON ALL CONNECTORS, USING HARDWARE SUPPLIED IN KIT 344A4675 G1.
 - ▲ INSTALL MODULES IN SHELF PER 19C852736.
 - ▲ REPLACE BLANK MARKERS WITH SXA 120 4317/4.
 - 5. INSTALL INTERFACE CABLES PER 350A2016. SEE 19C852725 FOR INTERCONNECT DIAGRAM.
 - 6. INSTALL BLANK PANELS IN PLACE OF UNEQUIPPED CPTC SHELVES AND UPS.
 - ▲ MOUNT SUPPORT BETWEEN MID AND REAR RAILS AFTER INSTALLING M4 AND M5 TO SUPPORT.
 - 8. TEST RACKS PER 350A2022.
 - ▲ INSTALL MODULES IN SHELF PER 19C852738.
 - ▲ AFTER INSTALLING CABLES ON THE JACKFIELDS, INSTALL LOCKING CLIPS (19A900935 P6) ON J1, J2, P1 AND P2 OF ALL JACKFIELDS.

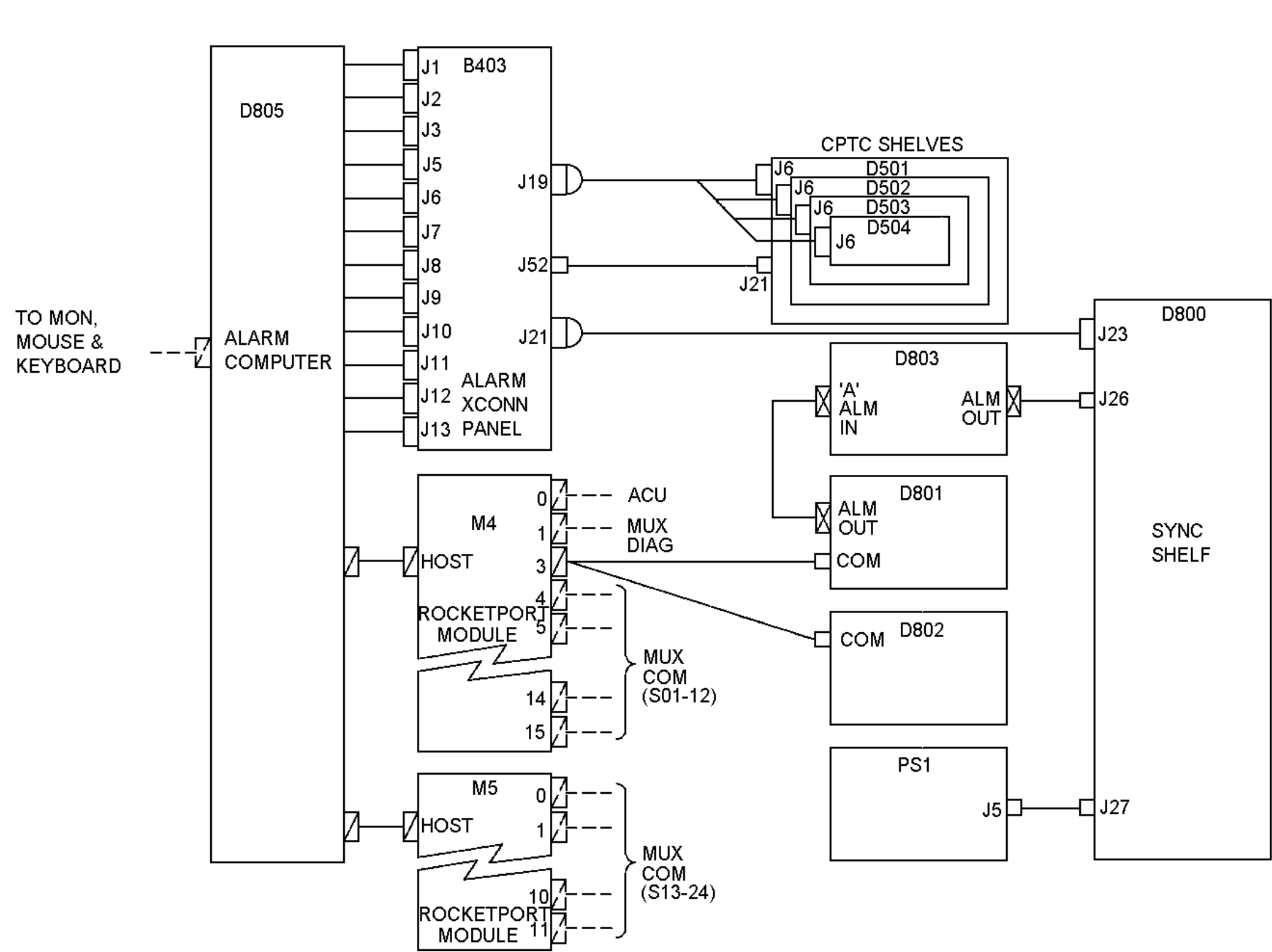
Common Equipment Rack

(193D1572, Rev. 1)



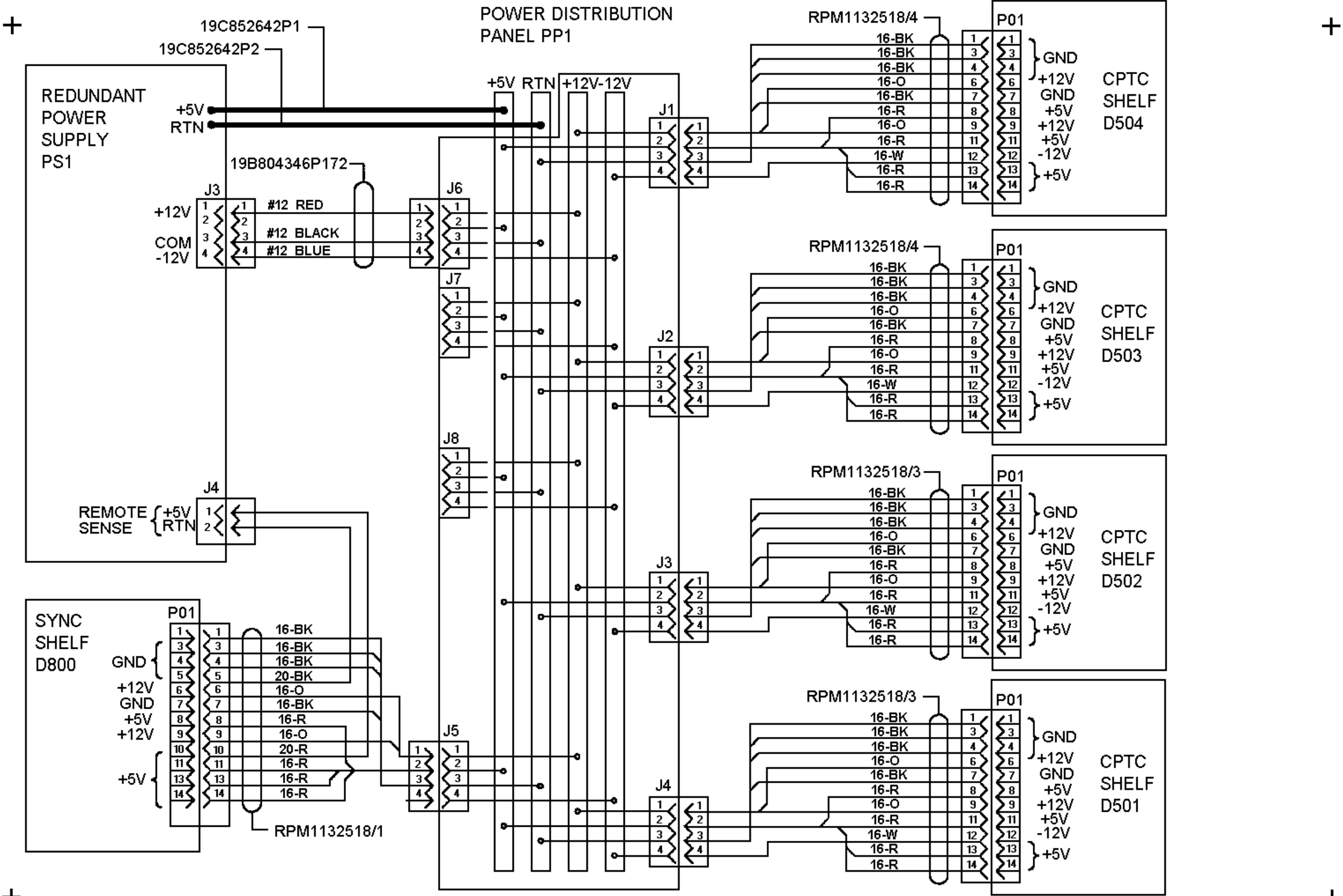
INTRARACK WIRING DIAG - - - COMMON EQUIPMENT RACK SIGNAL WIRING

19C852725SH1



COMMON EQUIPMENT RACK ALARM WIRING

19C852725SH2



COMMON EQUIPMENT RACK POWER WIRING

19C852725SH3

(19C852725, Sheet 3, Rev. 1)

COMMON EQUIPMENT CABINET INTRARACK WIRING

FROM		TO		CABLE
Connector Panel P01	-J1	D501/D502	-J1	RPM 113 2520/5
Connector Panel P01	-J2	D503/D504	-J1	RPM 113 2520/4
Connector Panel P01	-J3	D600	-J1	19D903985P58
Connector Panel P01	-J4	D501/D502/D503/D504	-J4	RPM 113 2520/1
Connector Panel P01	-J5	D501/D502/D503/D504	-J5	RPM 113 2520/1
Connector Panel P01	-J6	A600	-J1	19D903985P58
Connector Panel P01	-J7	D501/D502/D503/D504	-J7	RPM 113 2520/1
Connector Panel P01	-J8	D501/D502/D503/D504	-J8	RPM 113 2520/1
Connector Panel P01	-J9	D501/D502/D503/D504	-J9	RPM 113 2520/1
Connector Panel P01	-J10	A600	-P2	RPM 112 2817
Connector Panel P01	-J11	D800	-J20	RPM 113 2801/2
Connector Panel P01	-J12	D800	-P19	RPM 113 2801/2
Connector Panel P01	-J13	D600	-P2	RPM 113 2801/2
D800	-J1	D501	-J12	RPM 113 2801/2
D800	-J1	D502	-J12	RPM 113 2801/2
D800	-J1	D503	-J12	RPM 113 2801/2
D800	-J1	D504	-J12	RPM 113 2801/2
D800	-J1	D600	-J2	19D903985P34
D800	-J1	D501	-J19	19D903880P160
D501	-J18	D502	-J19	19D903880P160
D502	-J18	D503	-J19	19D903880P160
D503	-J18	D504	-J19	19D903880P160
D800	-J11	D501	-J13	RPM 113 2801/3
D800	-J12	D502	-J13	RPM 113 2801/4
D800	-J13	D503	-J13	RPM 113 2801/5
D800	-J14	D504	-J13	RPM 113 2801/6
D800	-J15	D801	-DATA/CLOCK	RMP 113 2516/2
D800	-J16	D802	-DATA/CLOCK	RMP 113 2516/2
D800	-J17	D607	-P2	19D903985P24

COMMON EQUIPMENT CABINET INTRARACK WIRING - Cont.

FROM		TO		CABLE
D800	-J18	D607	-P1	19D903985P24
D800	-J21	A600	-P1	19D903985P24
D800	-J22	A600	-J2	19D903985P34
D600	-P1	D501/D502/D503/D504	-J3	RPM 113 2520/2
D607	-J1	D501/D502/D503/D504	-J10	RPM 113 2520/3
D607	-J2	D501/D502/D503/D504	-J11	RPM 113 2520/3
D501	-J14	D501	-J15	RPM 113 2801/1
D502	-J14	D502	-J15	RPM 113 2801/1
D503	-J14	D503	-J15	RPM 113 2801/1
D504	-J14	D504	-J15	RPM 113 2801/1
D501	-J20	D502	-J21	19D903880P160
D502	-J20	D503	-J21	19D903880P160
D503	-J20	D504	-J21	19D903880P160
B403	-J19	D501/D502/D503/D504	-J6	RPM 113 2520/6
B403	-J21	D800	-J23	19D903985P34
D800	-J26	D803	-ALM OUT	RPM 113 2821/3
D800	-J27	PS1	-J5	RPM 113 2821/1
D801	-ALM OUT	D803	-ALM IN 'A'	See Figure 1
B403	-J1	D805		P/O D805
B403	-J2	D805		P/O D805
B403	-J3	D805		P/O D805
B403	-J4	D805		P/O D805
B403	-J5	D805		P/O D805
B403	-J6	D805		P/O D805
B403	-J7	D805		P/O D805
B403	-J8	D805		P/O D805
B403	-J9	D805		P/O D805
B403	-J10	D805		P/O D805

Continued

COMMON EQUIPMENT CABINET INTRARACK WIRING - Cont.

FROM		TO		CABLE
B403	-J11	D805		P/O D805
B403	-J12	D805		P/O D805
M4	-3	D801/D802 COM		RPM 113 2823/6
PS1	-J3	PP1	-J6	19B804346P172
PP1	-J5	D800	-P01	RPM 113 2518/1
PP1	-J4	D501	-P01	RPM 113 2518/3
PP1	-J3	D502	-P01	RPM 113 2518/3
PP1	-J2	D503	-P01	RPM 113 2518/4
PP1	-J1	D504	-P01	RPM 113 2518/4
B403	-J52	D501	-J21	19D903880P161
D801	-1544 kHz	D803A		RPM 113 2826/5
D802	-1544 kHz	D803B		RPM 113 2826/5

(350A2016, Sheet 2, Rev. 1)