MAINTENANCE MANUAL
TRANSMIT SITE
SIMULCAST SYSTEM DRAWINGS
(RS-232 DATA VERSION)

TABLE OF CONTENTS

ERICSSON

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Printed in U.S.A.

DESCRIPTION

This manual contains the configuration drawings and all interrack and interrrack cabling documentation required for installation and checkout of a typical Simulcast Transmit Site (RS-232 version). It contains a typical Floor Plan to locate the equipment at the Transmit Site and a drawing showing the location of the ductwork beneath the equipment racks. It contains cable connections lists to provide detailed intrarack cabling information for the common equipment rack 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.

The configuration drawing (*19D904564*) shows the location of each shelf and identifies its function: GETC, Test Unit, Universal Sync, Channel Banks, Reference Oscillators, etc. used in the EDAC Simulcast System. The configuration drawing also shows the rear view of the racks, showing the location of the transmit Cross Connect Panel and the AC Power Panel.

Each shelf in the simulcast system is identified by a four digit number which defines the cross connect panel to which it is connected, the shelf, and channel number, if applicable. Cross connect panels are identified by the alpha/numeric numbering sequence defined as follows:

1st Digit	**Connects To:**
A	Analog Cross Connect
C	Control Panel Cross Connect
D	Digital Cross Connect
T	Transmit Site Cross Connect

The second digit defines the shelf type while the 3rd and 4th digits define the associated channel number, if applicable.

Digit	**Shelf:**
1	Modem Shelf
2	Analog Delay Shelf
3	Digital Delay Shelf
4	Analog Processing Shelf #1 (Equalizer)
5	GETC Interface
6	Jackfield
7	Analog Processing Shelf #2
8	Universal Sync Shelf
9	Control Panel

Digit 3 & 4
01 - Channel 1
02 - Channel 2
xx - Channel xx

Example:

T602 decodes as follows:

T Transmit Site Cross Connect
6 Jackfield
02 Channel Number 2

INTERRACK CABLING

Interface panel connection diagrams (*19C852617*) show the interrack/cabinet signal cabling between the Simulcast Common Equipment Rack and the Station Repeaters.

The associated cable connection list identifies all interconnecting cables and their termination points for a Transmit Site with up to 24 channels. Each cable listed on the cable connection list must be installed and connections verified at the time of installation. However, systems equipped with less than 24 channels will not have all the signal cables listed on the connection list installed. Only those cables required to configure the system to the customer's specifications will be installed. Sheet 1 and 2 defines the EDACS Interface Panel interconnect cabling and sheets 3 and 4 define GETC and repeater interconnections with the Simulcast Common Equipment Rack.

DC POWER INTERRACK WIRING

The DC power wiring diagram (*19C37772*) shows the power distribution wiring for the Simulcast Common Equipment Rack. Power wiring is traced from the power supplies through the Fuse Panel to the individual equipment shelves. All power distribution wiring is accomplished via a single power distribution cable (*188D5910*). An assembly diagram of this cable (*located in back of this section*) identifies all cables wiring and connectors.

Repeater intrarack wiring is shown in the associated MASTR II Equipment manuals located in a separate section of this manual. Refer to the **Table of Contents**.

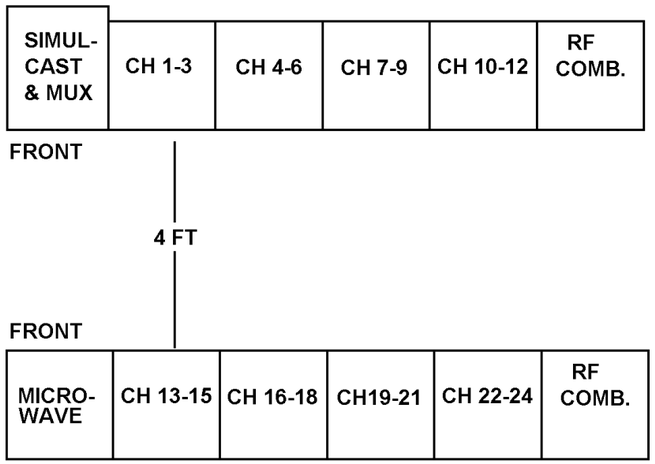
All intrarack wiring is completed and verified at the factory.

FUNCTIONAL BLOCK DIAGRAM

A site interconnection diagram (*19D903997*) provides a functional block diagram which shows how the equipment shelves and modules within the Simulcast Common Equipment Rack are functionally interconnected to each other and the transmit Cross Connect Panel. Sheet 4 shows the interconnections for a 10 channel system. Sheet 5 shows the interconnections for a 20 channel system and sheet 6 for a 24 channel system.

REMOTE ALARM SYSTEM

For Remote Alarm System information refer to Maintenance Manual LBI-38495 found in LBI-39090, Volume 2, Equipment Manuals.

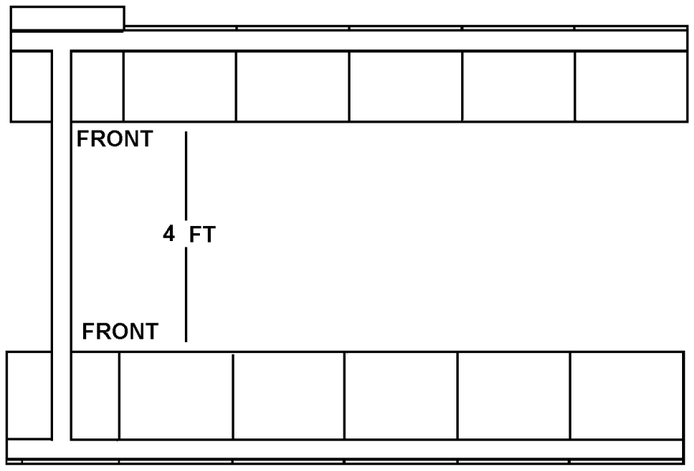


SIMULCAST TRANSMIT SITE

19C852606SH1

FLOOR PLAN

(19C852606, Sh. 1, Rev. 1)

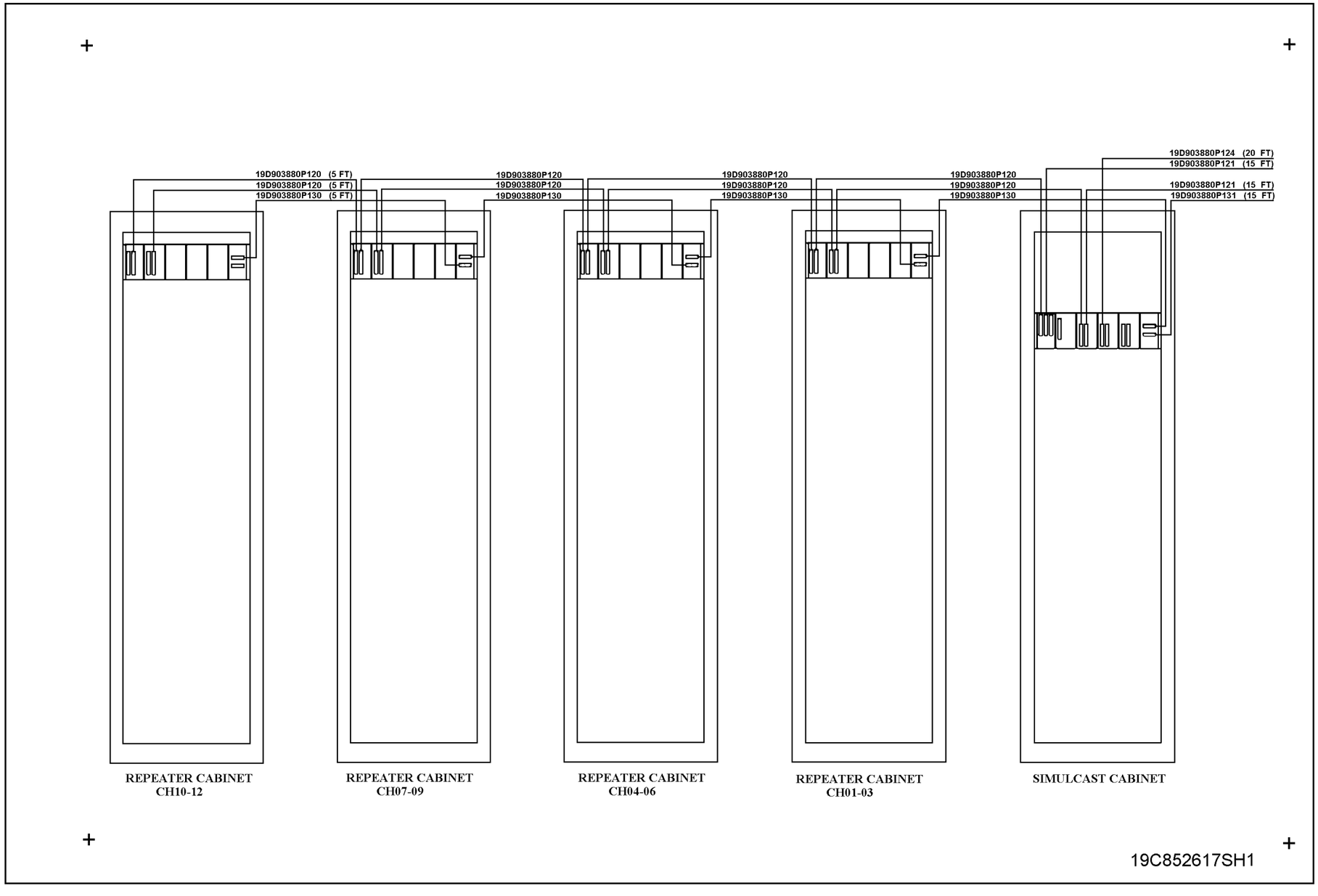


NOTES:

1. SEE LBI-38875 FOR DUCTWORK ASSEMBLY DETAILS.

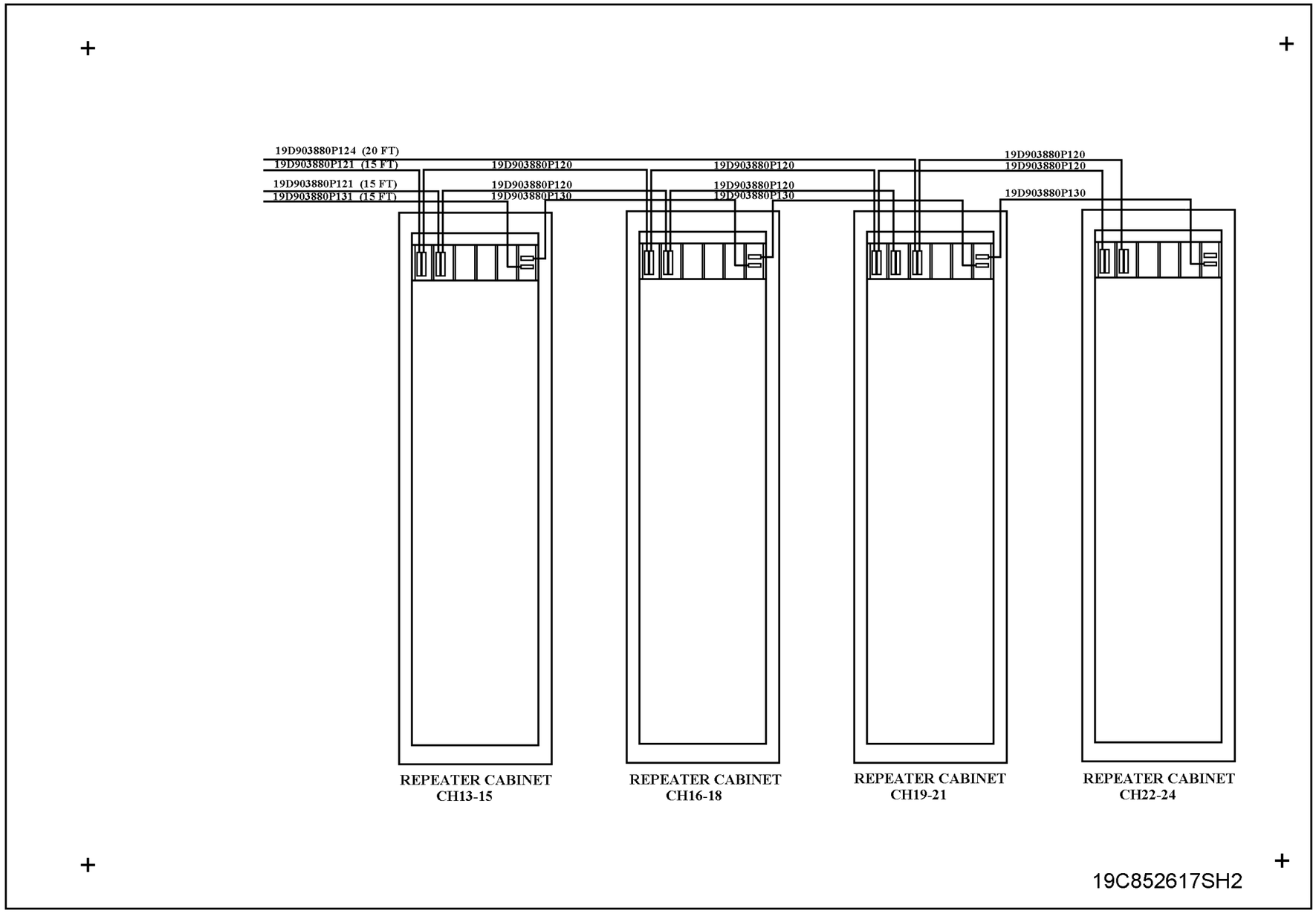
SIMULCAST TRANSMIT SITE

19C852606SH2



INTERRACK SIGNAL CABLING
SIMULCAST TRANSMIT SITE (83" CAB)

(19C852617, Sh. 1, Rev. 1)



INTERRACK SIGNAL CABLING
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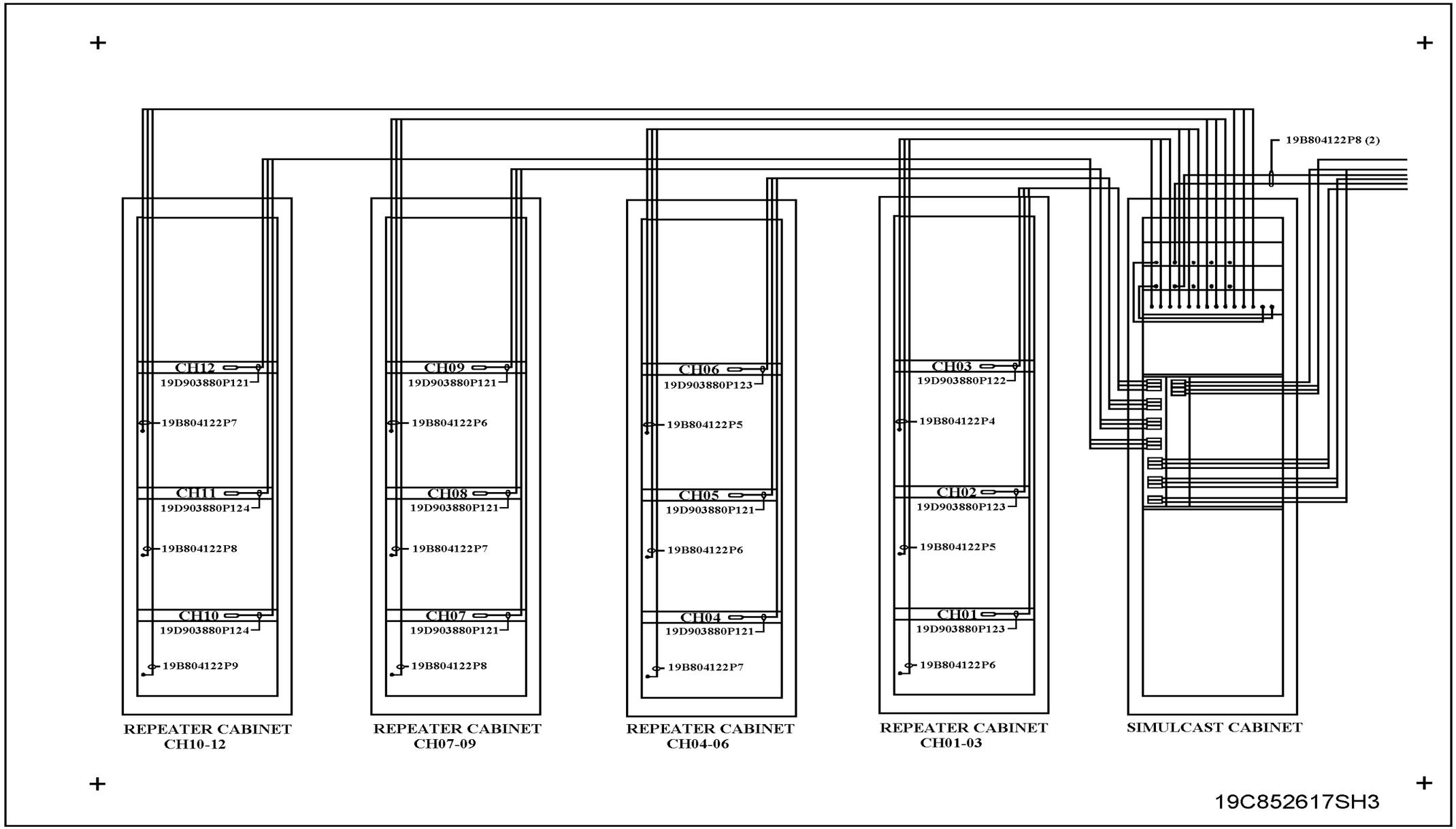
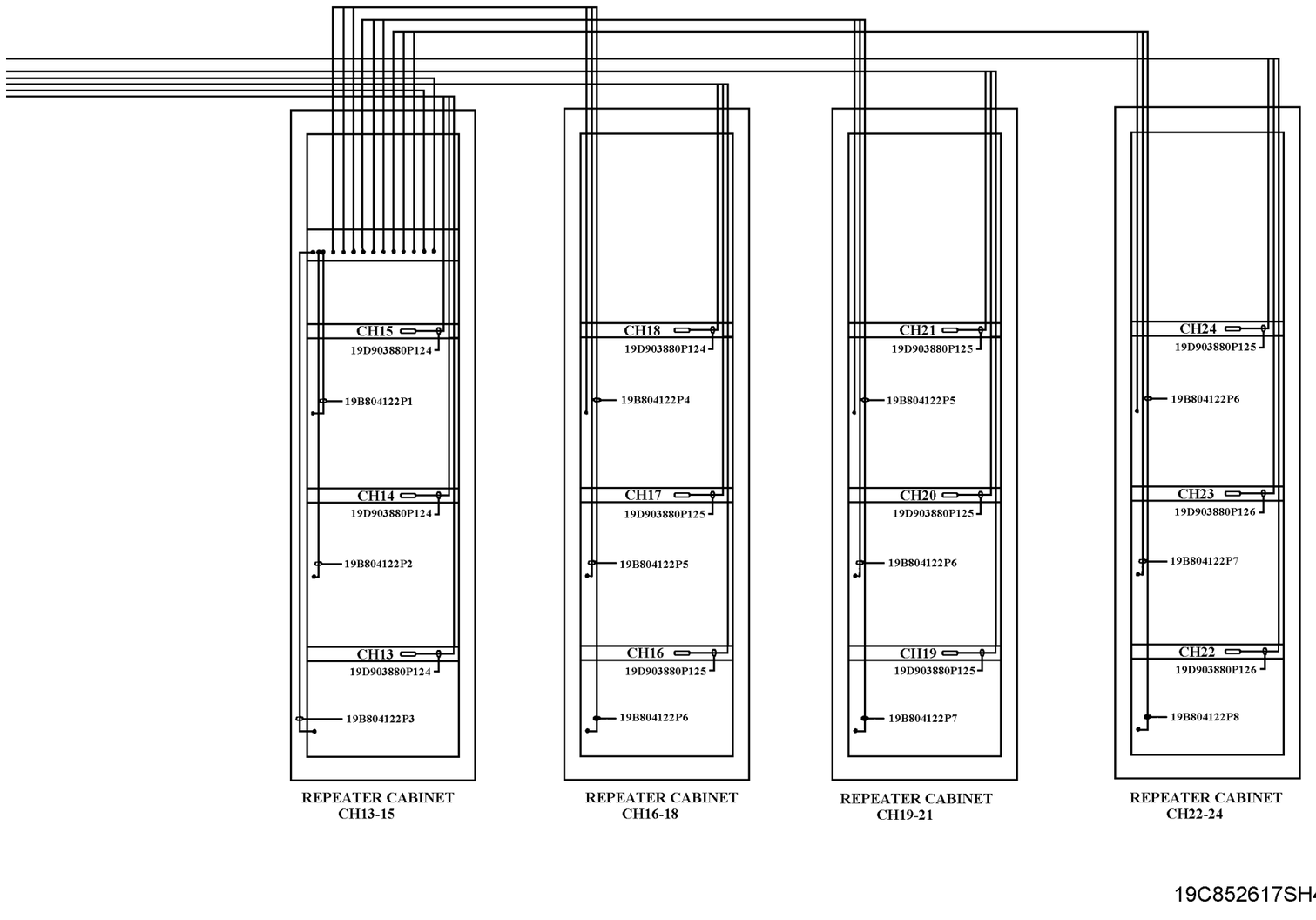
(19C852617, Sh. 2, Rev. 1)



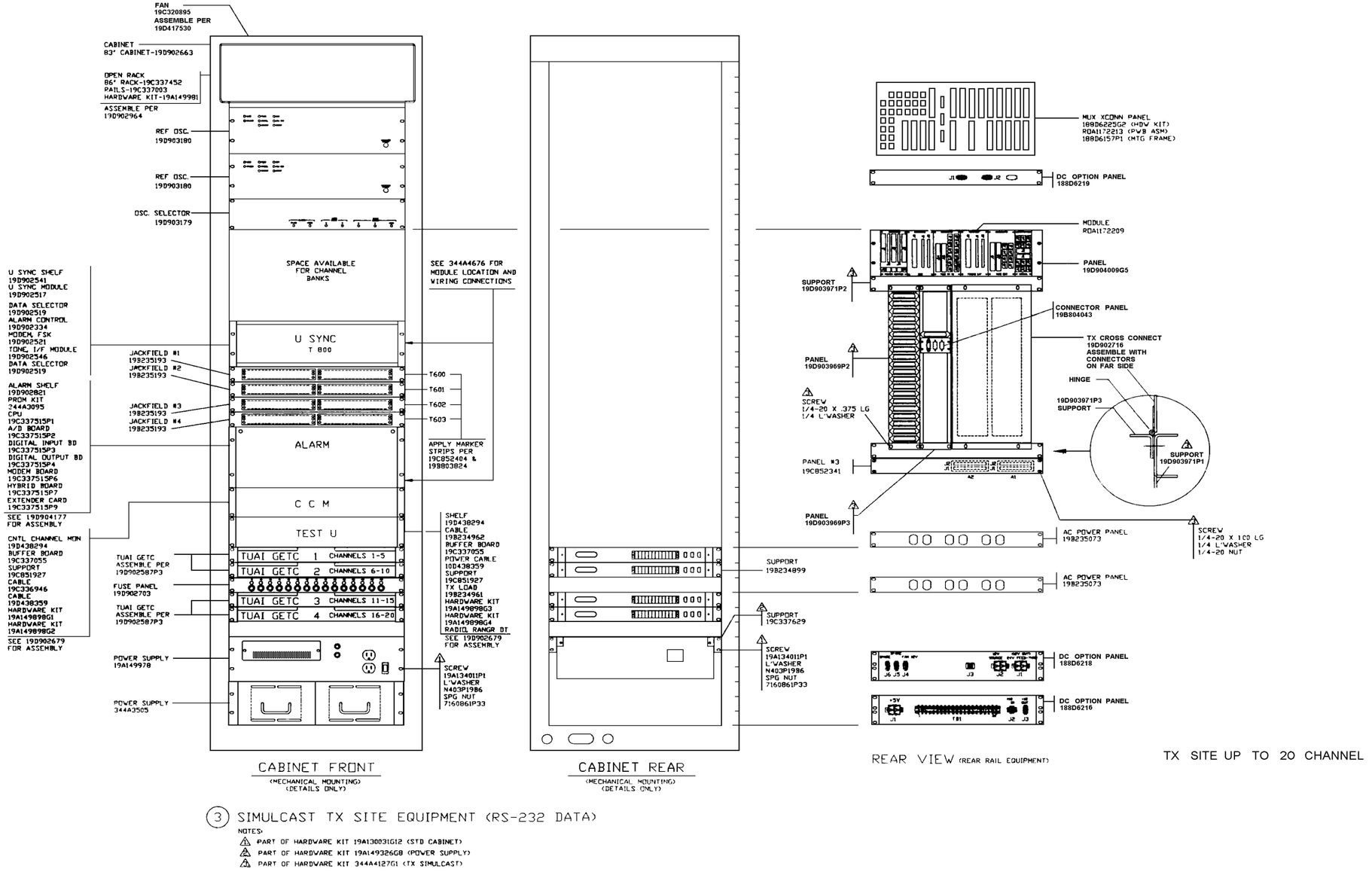
INTERRACK SIGNAL CABLING
SIMULCAST TRANSMIT SITE (83" CAB)

(19C852617, Sh. 3, Rev. 1)



INTERRACK SIGNAL CABLING
SIMULCAST TRANSMIT SITE (83" CAB)

(19C852617, Sh. 4, Rev. 1)

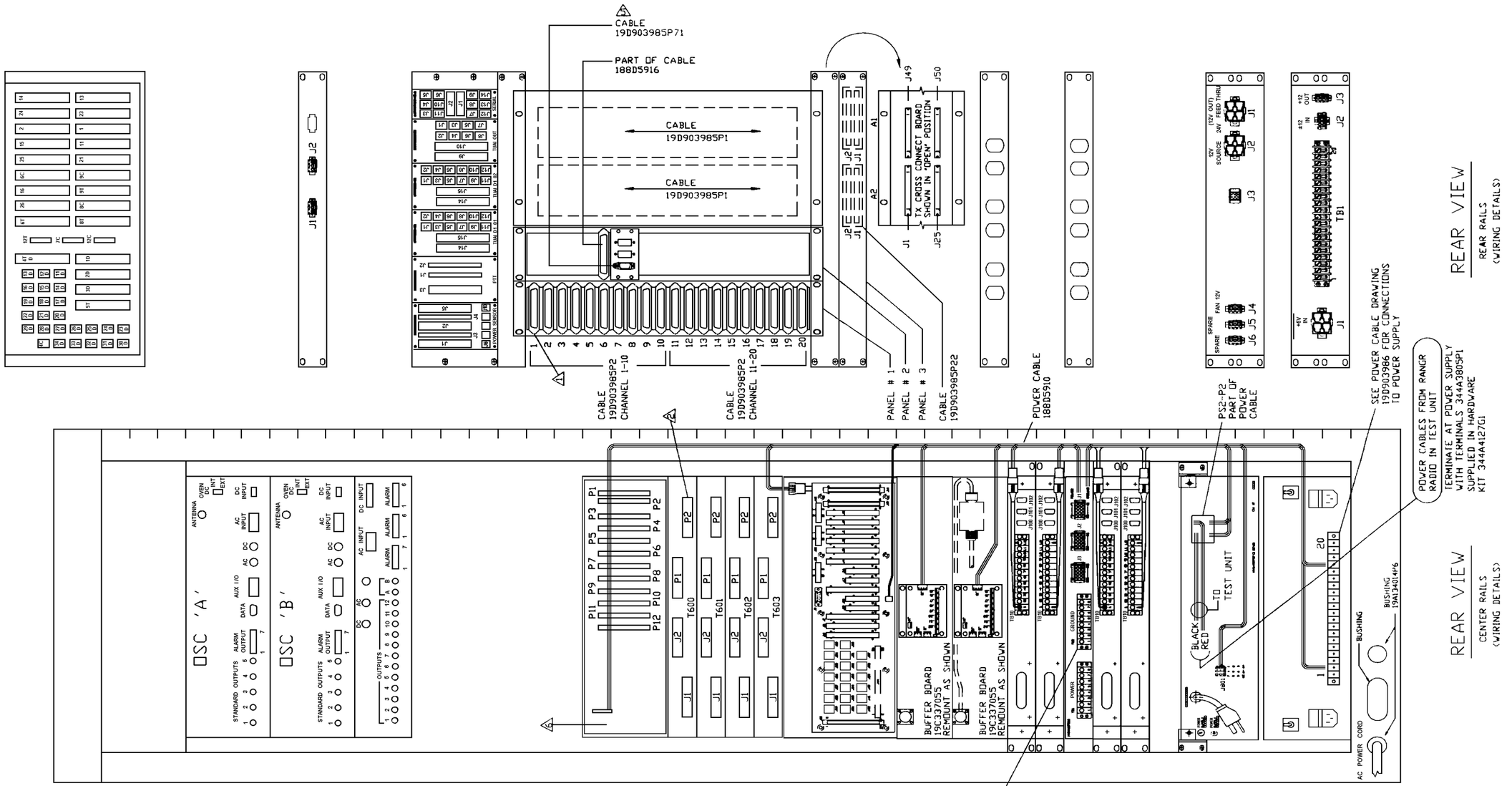


(3) SIMULCAST TX SITE EQUIPMENT (RS-232 DATA)

NOTES:
1. PART OF HARDWARE KIT 19A130031G12 (STD CABINET)
2. PART OF HARDWARE KIT 19A149326G8 (POWER SUPPLY)
3. PART OF HARDWARE KIT 344A4127G1 (TX SIMULCAST)

MOUNTING MECHANICAL DETAILS

(19D904564, Sh. 5, Rev. 2A)



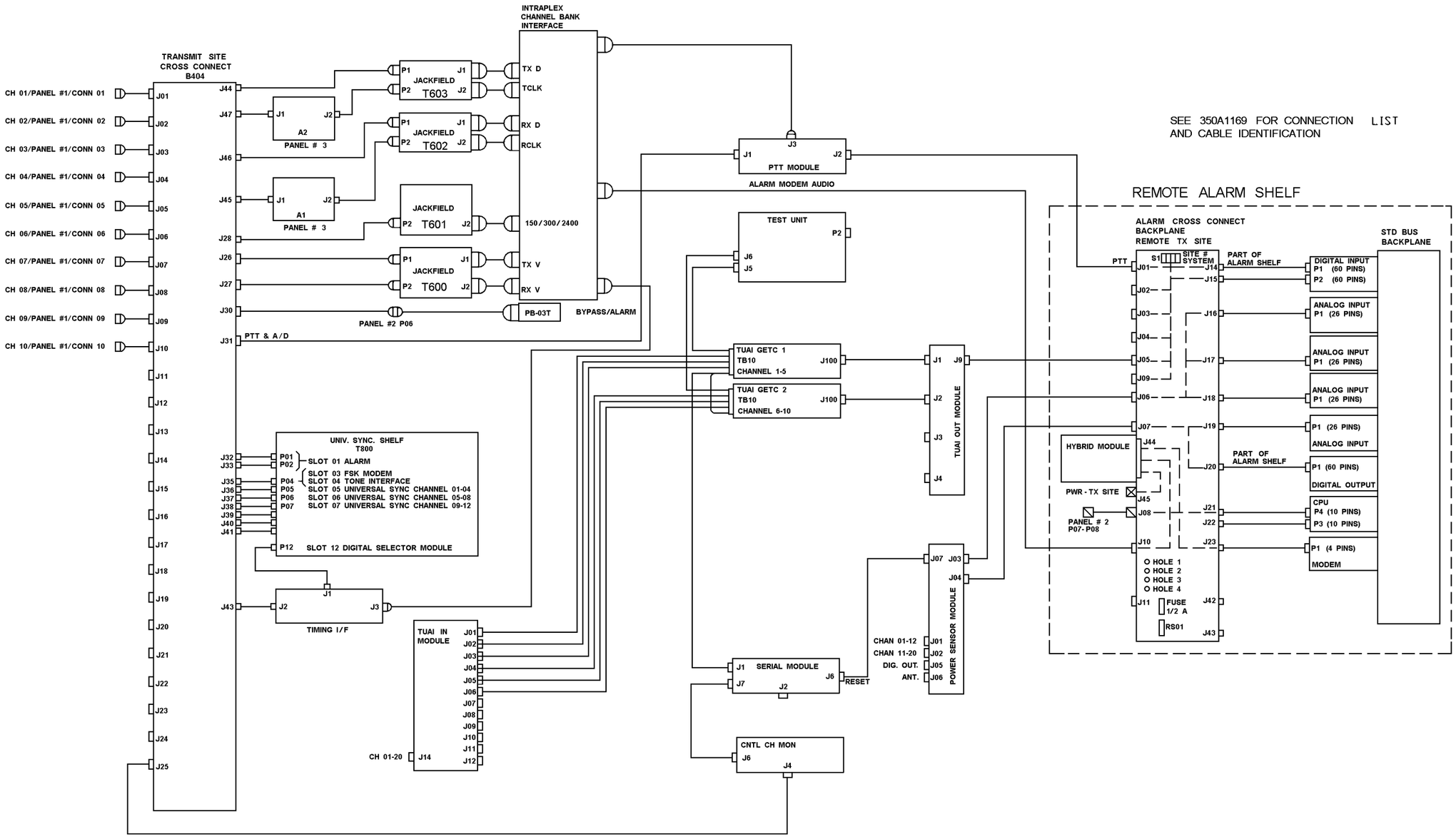
TX SITE UP TO 20 CHANNEL (RS232 DATA)

NOTES:

1. INSTALL BAIL LOCKS (19B800935P16) ON EVERY CONNECTOR ON BOTH PANELS. (USE MOUNTING HARDWARE SUPPLIED IN344A4127G1 HDWE KIT)
2. INSTALL LOCKING LATCH (19B800935P6) ON EVERY CONNECTOR OF EACH JACKFIELD.
3. SEE CONNECTION CHART 350A1169 AND INTERCONNECTION DIAGRAM 19D903997 FOR DETAILED CABLE CONNECTIONS
4. SEE 19C337772 AND 19C337773 FOR POWER WIRING DETAILS
5. INSTALL USING STANDOFFS 19B209727P42 SUPPLIED IN CABLE KIT SCCF3N
6. MODIFY UNIVERSAL SYNC BACK PLANE 19D902540G1 REV 0 PER MOD INSTRUCTIONS 19B804272P1

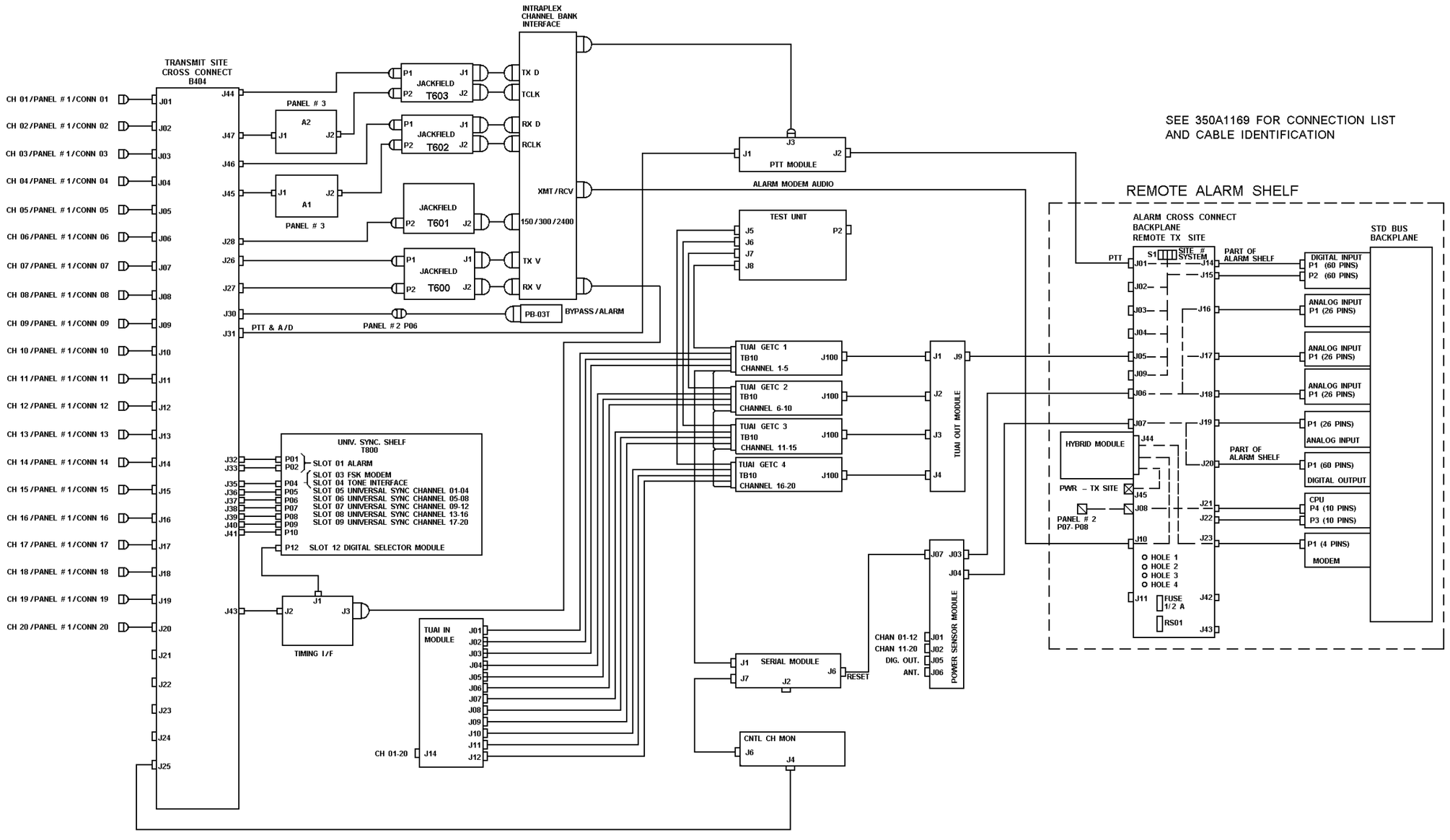
WIRING DETAILS

(19D904564, Sh. 6, Rev. 2)



10 CHANNEL CONFIGURATION

(19D903997, Sh. 4, Rev. 1)



20 CHANNEL CONFIGURATION

(19D903997, Sh. 5, Rev. 1)

PART #1
CONNECTION OF SIMULCAST TX SITE COMMON EQUIPMENT (CHANNEL 1-10)

FROM		TO		CABLE
TRANSMIT SITE CC-	J43	TIMING I/F	-J02	188D5916P1
	J36	UNIVERSAL SYN	-P05	
	J37	UNIVERSAL SYN	-P06	
	J38	UNIVERSAL SYN	-P07	
	J45	PANEL #3 A1	-J1	
	J35	UNIVERSAL SYN	-P04	
	J30	PANEL #2	-P06	
	J32	UNIVERSAL SYN	-P01	
	J26	T600 JACKFIELD	-P01	
	J31	PTT MODULE	-J01	
	J27	T600 JACKFIELD	-P02	
	J39	UNIVERSAL SYN	-P08	
	J40	UNIVERSAL SYN	-P09	
	J47	T602 JACKFIELD	-P01	
	J44	T603 JACKFIELD	-P01	
	J46	PANEL #3 A2	-J1	
	J41	UNIVERSAL SYN	-P10	
	J33	UNIVERSAL SYN	-P02	
	J28	T601 JACKFIELD	-P02	
	J01	PANEL #1	-P01	19D903985P2
	J02	PANEL #1	-P02	
	J03	PANEL #1	-P03	
	J04	PANEL #1	-P04	
	J05	PANEL #1	-P05	
	J06	PANEL #1	-P06	
	J07	PANEL #1	-P07	
	J08	PANEL #1	-P08	
	J09	PANEL #1	-P09	
	J10	PANEL #1	-P10	
PWR MODULE	J03	ALARM CC	-J06	19D903985P16
PWR MODULE	J04	ALARM CC	-J07	19D903985P16
PWR MODULE	J07	SERIAL MOD	-J06	19D903880P160
TUAI-OUT	J09	ALARM CC	-J05	19D903985P38
	J01	TUAI #1	-J100	19D903880P170
	J02	TUAI #2	-J100	19D903880P170
TUAI-IN	J01	TUAI #1	TB10-1 B/W	19D903880P13*
			TB10-6 W/B	
			TB10-2 O/W	
	J02		TB10-3 B/W	19D903880P13*
			TB10-6 W/B	
			TB10-4 O/W	
	J03		TB10-5 B/W	19D903880P13*
			TB10-6 W/B	
TUAI-IN	J04	TUAI #2	TB10-1 B/W	19D903880P13*
			TB10-6 W/B	
			TB10-2 O/W	
	J05		TB10-3 B/W	19D903880P13*
			TB10-6 W/B	
			TB10-4 O/W	
	J06		TB10-5 B/W	19D903880P13*
			TB10-6 W/B	
TEST UNIT	J5	TUAI #1	TB10-8 O	19D903880P190
			TB10-6 BK	
	J6	TUAI #2	TB10-8 O	19D903880P190
CONTROL CH MON	J6	SERIAL MOD	-J07	19D903880P200
CONTROL CH MON	J4	TRANSMIT CC	-J25	344A4677P10
ALARM CC	J10	INTRAPLEX CH BANK I/F	J9T	19D903985P38
TUAI #1 TB10-9		TUAI #2 TB10-9		19D903880P230
TUAI #1 TB10-9		SERIAL MODULE -J01		19D903880P240
TUAI #1 TB10-7 RED	TB10-6 BLACK			19B802222P1
TUAI #2 TB10-7 RED	TB10-6 BLACK			19B802222P1
PTT MODULE	J2	ALARM CC	J01	19D903985P16
PTT MODULE	J3	INTRAPLEX CH BANK I/F	J6T	19D903985P96
TIMING I/F	J1	UNIVERSAL SYN	-P12	19D903985P18
TIMING I/F	J3	INTRAPLEX CH BANK I/F	J4T	19D903985P96
T600 JACKFIELD	J1	INTRAPLEX CH BANK I/F	J2	19D903985P98
T600 JACKFIELD	J2	INTRAPLEX CH BANK I/F	J1	19D903985P98
T601 JACKFIELD	J2	INTRAPLEX CH BANK I/F	J8T	19D903985P98
T602 JACKFIELD	J1	INTRAPLEX CH BANK I/F	J2D	19D903985P98
T602 JACKFIELD	J2	INTRAPLEX CH BANK I/F	J5T	19D903985P98
T603 JACKFIELD	J1	INTRAPLEX CH BANK I/F	J1D	19D903985P98
T603 JACKFIELD	J2	INTRAPLEX CH BANK I/F	J3D	19D903985P98
PANEL #3 A1	J2	T602 JACKFIELD	-P2	19D903985P22
PANEL #3 A2	J2	T603 JACKFIELD	-P2	19D903985P22
ALARM CC	J08	PANEL #2	P07-P08	19D903985P71

(350A1169, Sh. 2, Rev. 2)

(350A1169, Sh. 3, Rev. 2)

PART #2

CONNECTION OF SIMULCAST TX SITE COMMON EQUIPMENT (CHANNEL 1-20)

TRANSMIT SITE CC-	J43	TIMING I/F	-J02	188D5916P1	TUAI-IN	J01	TUAI #1	TB10-1	B/W	19D903880P13*
	J36	UNIVERSAL SYN	-P05					TB10-6	W/B	
	J37	UNIVERSAL SYN	-P06					TB10-2	O/W	
	J38	UNIVERSAL SYN	-P07			J02		TB10-3	B/W	19D903880P13*
	J45	PANEL #3 A1	- J1					TB10-6	W/B	
	J35	UNIVERSAL SYN	-P04					TB10-4	O/W	
	J30	PANEL #2	-P06			J03		TB10-5	B/W	19D903880P13*
	J32	UNIVERSAL SYN	-P01					TB10-6	W/B	
	J26	T600 JACKFIELD	-P01		TUAI-IN	J04	TUAI #2	TB10-1	B/W	19D903880P13*
	J31	PTT MODULE	-J01					TB10-6	W/B	
	J27	T600 JACKFIELD	-P02					TB10-2	O/W	
	J39	UNIVERSAL SYN	-P08			J05		TB10-3	B/W	19D903880P13*
	J40	UNIVERSAL SYN	-P09					TB10-6	W/B	
	J47	T602 JACKFIELD	-P01					TB10-4	O/W	
	J44	T603 JACKFIELD	-P01			J06		TB10-5	B/W	19D903880P13*
	J46	PANEL #3 A2	-J1					TB10-6	W/B	
	J41	UNIVERSAL SYN	-P10		TUAI-IN	J07	TUAI #3	TB10-1	B/W	19D903880P13*
	J33	UNIVERSAL SYN	-P02					TB10-6	W/B	
	J28	T601 JACKFIELD	-P02					TB10-2	O/W	
	J01	PANEL #1	-P01	19D903985P2		J08		TB10-3	B/W	19D903880P13*
	J02	PANEL #1	-P02					TB10-6	W/B	
	J03	PANEL #1	-P03					TB10-4	O/W	
	J04	PANEL #1	-P04			J09		TB10-5	B/W	19D903880P13*
	J05	PANEL #1	-P05					TB10-6	W/B	
	J06	PANEL #1	-P06		TUAI-IN	J10	TUAI #4	TB10-1	B/W	19D903880P13*
	J07	PANEL #1	-P07					TB10-6	W/B	
	J08	PANEL #1	-P08					TB10-2	O/W	
	J09	PANEL #1	-P09			J11		TB10-3	B/W	19D903880P13*
	J10	PANEL #1	-P10					TB10-6	W/B	
	J11	PANEL #1	-P11	19D903985P2				TB10-4	O/W	
	J12	PANEL #1	-P12			J12		TB10-5	B/W	19D903880P13*
	J13	PANEL #1	-P13					TB10-6	W/B	
	J14	PANEL #1	-P14		TEST UNIT	J5	TUAI #1	TB10-8	O	19D903880P190
	J15	PANEL #1	-P15					TB10-6	BK	
	J16	PANEL #1	-P16			J6	TUAI #2	TB10-8	O	19D903880P190
	J17	PANEL #1	-P17			J7	TUAI #3	TB10-8	O	19D903880P190
	J18	PANEL #1	-P18			J8	TUAI #4	TB10-8	O	19D903880P190
	J19	PANEL #1	-P19							
	J20	PANEL #1	-P20		TUAI #1	TB10-7 RED	TB10-6 BLACK			19B802222P1
PWR MODULE	J03	ALARM CC	-J06	19D903985P16	TUAI #2	TB10-7 RED	TB10-6 BLACK			19B802222P1
PWR MODULE	J04	ALARM CC	-J07	19D903985P16	TUAI #3	TB10-7 RED	TB10-6 BLACK			19B802222P1
PWR MODULE	J07	SERIAL MOD	-J06	19D903880P160	TUAI #4	TB10-7 RED	TB10-6 BLACK			19B802222P1
TUAI-OUT	J09	ALARM CC	-J05	19D903985P38	PTT MODULE	J2	ALARM CC	J01		19D903985P16
TUAI-OUT	J01	TUAI #1	-J100	19D903880P170	PTT MODULE	J3	INTRAPLEX CH BANK I/F	J6T		19D903985P96
TUAI-OUT	J02	TUAI #2	-J100	19D903880P170						
TUAI-OUT	J03	TUAI #3	-J100	19D903880P170						
TUAI-OUT	J04	TUAI #4	-J100	19D903880P170						

(350A1169, Sh. 4, Rev. 2)

(350A1169, Sh. 5, Rev. 2)

TIMING I/F		J1	UNIVERSAL SYN P12	19D903985P18
TIMING I/F		J3	INTRAPLEX CH BANK I/F J4T	19D903985P96
T600 JACKFIELD		J1	INTRAPLEX CH BANK I/F J2	19D903985P98
T600 JACKFIELD		J2	INTRAPLEX CH BANK I/F J1	19D903985P98
T601 JACKFIELD		J2	INTRAPLEX CH BANK I/F J8T	19D903985P98
T602 JACKFIELD		J1	INTRAPLEX CH BANK I/F J2D	19D903985P98
T602 JACKFIELD		J2	INTRAPLEX CH BANK I/F J5T	19D903985P98
T603 JACKFIELD		J1	INTRAPLEX CH BANK I/F J1D	19D903985P98
T603 JACKFIELD		J2	INTRAPLEX CH BANK I/F J3D	19D903985P98
CONTROL CH MON		J6	SERIAL MOD -J07	19D903880P200
CONTROL CH MON		J4	TRANSMIT CC -J25	344A4677P10
ALARM CC		J10	INTRAPLEX CH BANK I/F J9T	19D903985P38
TUAI #1	TB10-9		TUAI #2 TB10-9	19D903880P230
TUAI #2	TB10-9		TUAI #3 TB10-9	19D903880P230
TUAI #3	TB10-9		TUAI #4 TB10-9	19D903880P230
TUAI #1	TB10-9		SERIAL MODULE -P01	19D903880P240
PANEL #3 A1		J2	T602 JACKFIELD P2	19D903985P22
PANEL #3 A2		J2	T603 JACKFIELD P2	19D903985P22
ALARM CC		J08	PANEL #2 P07-P08	19D903985P71

* CUT OFF UNUSED WIRES

(350A1169, Sh. 6, Rev. 2)

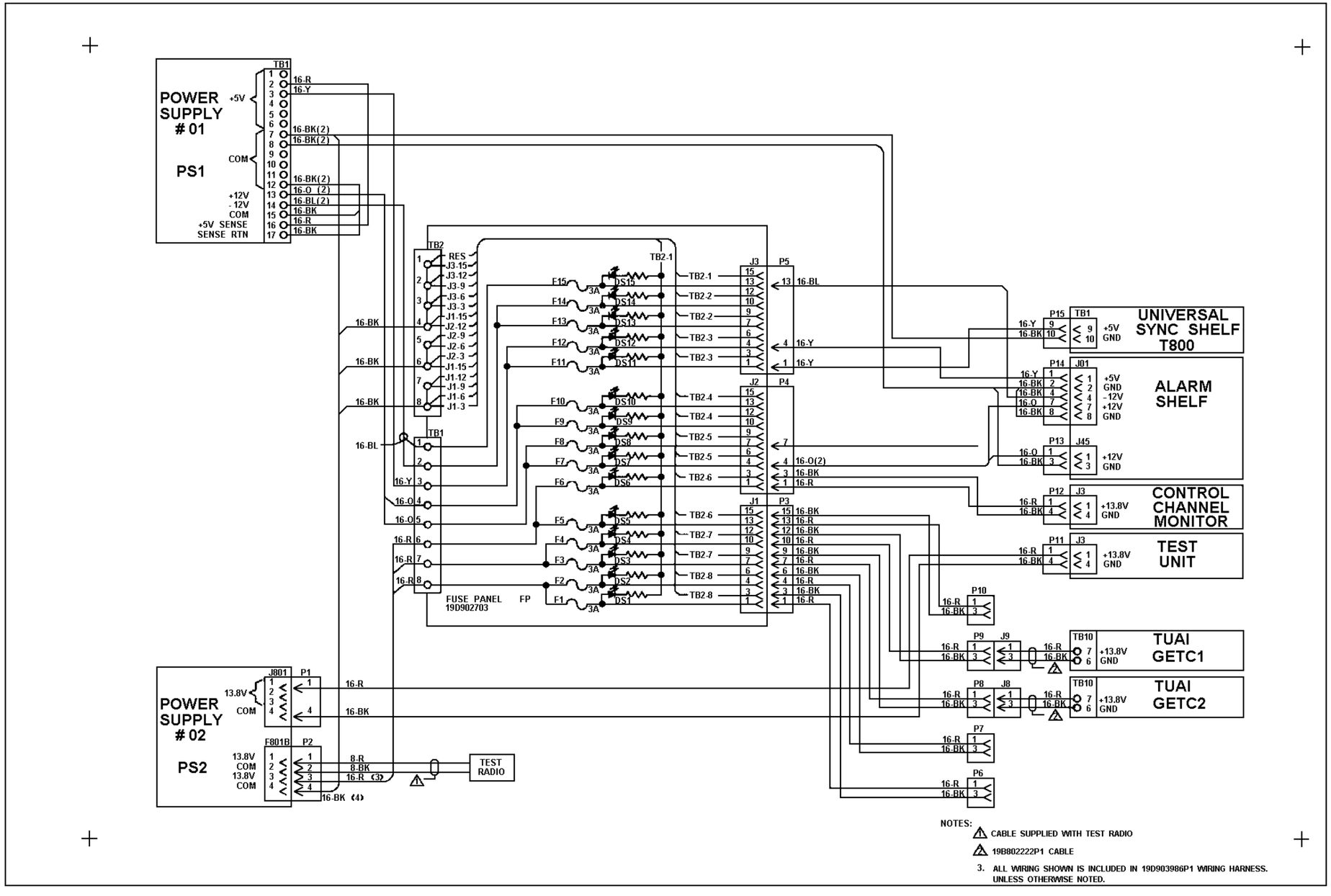
SEE APPLICATION DRAWING 19D904564

(RS232 DATA)

MODULE LOCATION IN ALARM CARD CAGE			19D902821P1
	SLOT 01	DIGITAL INPUT MODULE	19C337515P3
	SLOT 02	CPU	19C337515P1
	SLOT 03	A/D #1	19C337515P2
	SLOT 04		
	SLOT 05	A/D #2	19C337515P2
	SLOT 06		
	SLOT 07	A/D #3	19C337515P2
	SLOT 08		
	SLOT 09	A/D #4	19C337515P2
	SLOT 10		
	SLOT 11	2400 BAUD MODEM	19C337515P6
	SLOT 12	DIGITAL OUTPUT MODULE	19C337515P4
	HORZ POSITION	HYBRID	19C337515P7

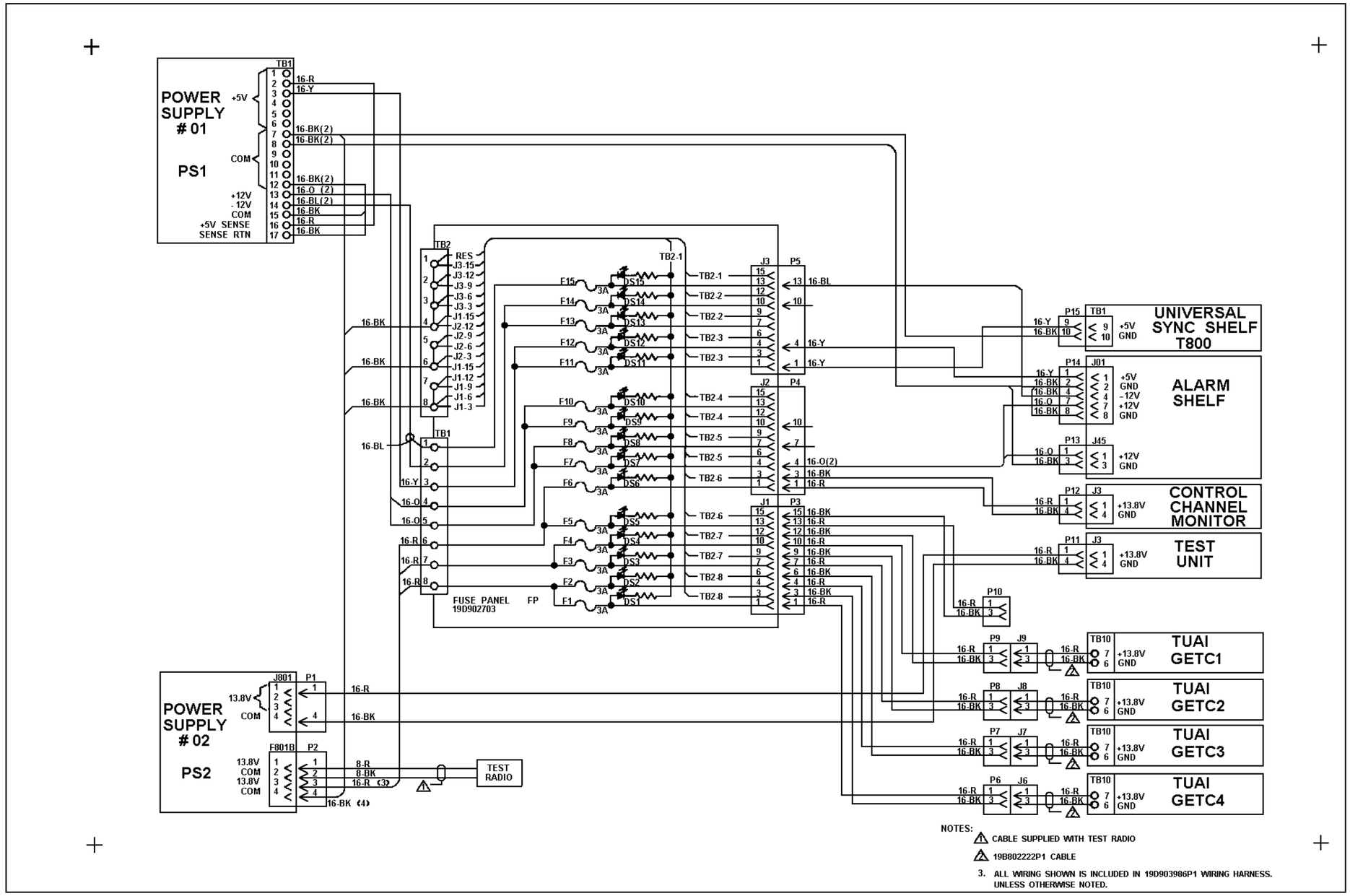
UNIVERSAL SYNC SHELF			19D902541G1
	SLOT 01	ALARM MODULE	19D902334P1
	SLOT 03	FSK MODEM	19D902521P1
	SLOT 04	TONE INTERFACE	19D902546P1
	SLOT 05	UNIVERSAL SYNC MODULE 01-04	19D902517P1
	SLOT 06	UNIVERSAL SYNC MODULE 05-08	19D902517P1
	SLOT 07	UNIVERSAL SYNC MODULE 09-12	19D902517P1
	SLOT 08	UNIVERSAL SYNC MODULE 13-16	19D902517P1
	SLOT 09	UNIVERSAL SYNC MODULE 17-20	19D902517P1
	SLOT 10	UNIVERSAL SYNC MODULE 21-24	19D902517P1
	SLOT 12	DIGITAL SELECTOR MODULE	19D902519G1

(350A1169, Sh. 1, Rev. 2)



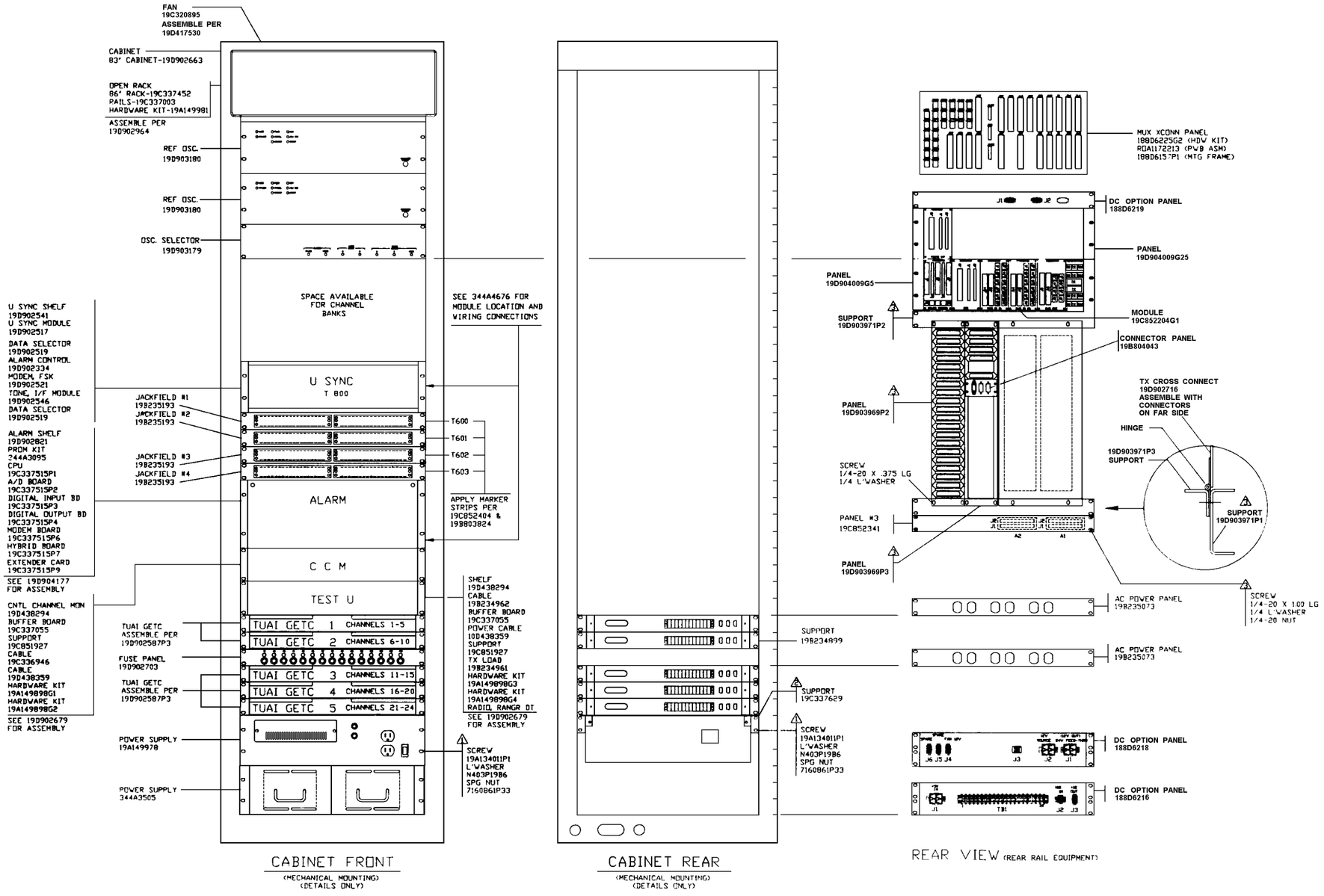
DC POWER WIRING DIAGRAM
10 CHANNEL CONFIGURATION

(19C337772, Sh. 2, Rev. 1)



DC POWER WIRING DIAGRAM
20 CHANNEL CONFIGURATION

(19C337773, Sh. 2, Rev. 1)



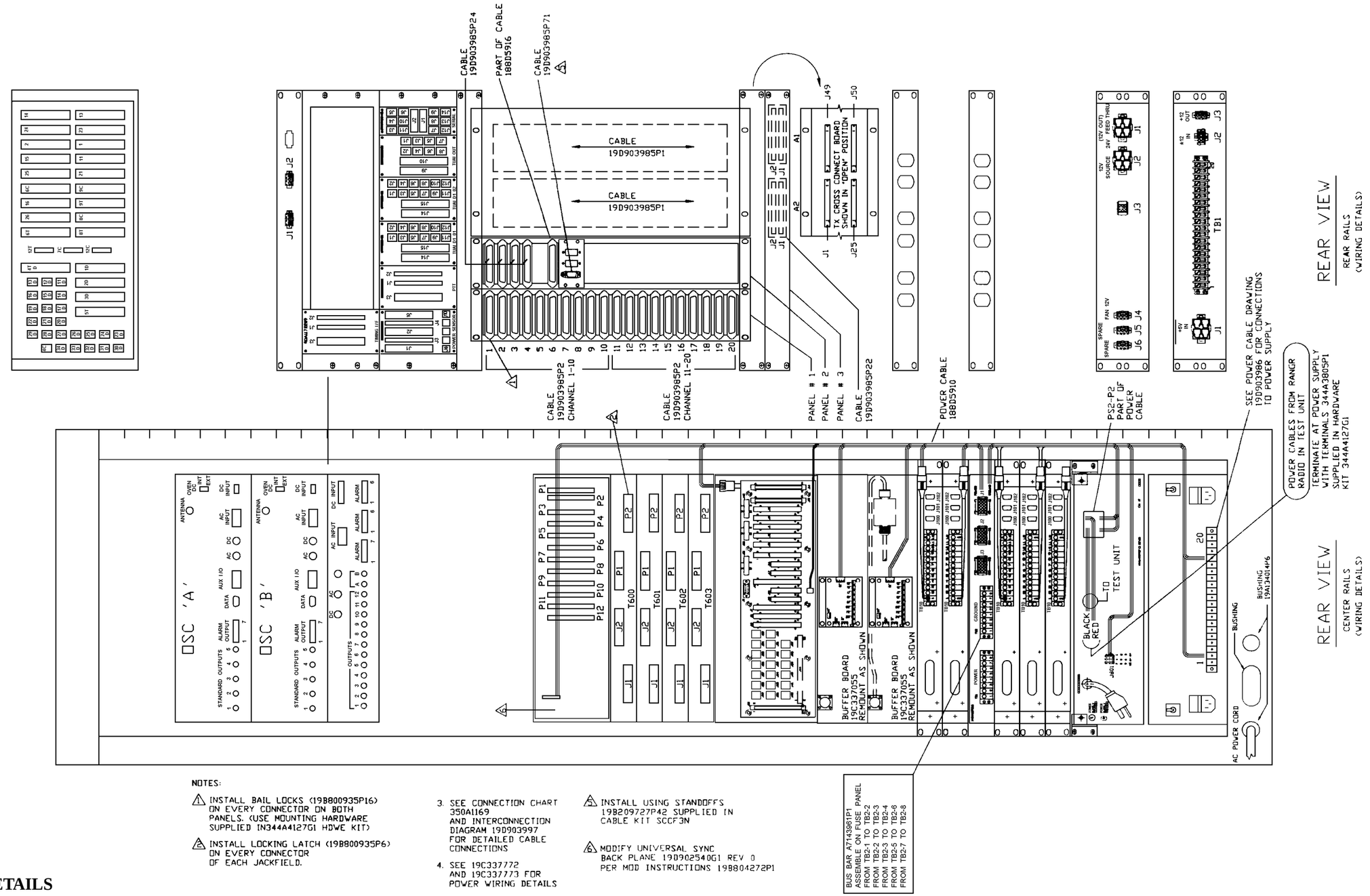
④ SIMULCAST TX SITE EQUIPMENT (RS-232 DATA)

NOTES:

1. PART OF HARDWARE KIT 19A130031G12 (STD CABINET)
2. PART OF HARDWARE KIT 19A149326G8 (POWER SUPPLY)
3. PART OF HARDWARE KIT 344A4127G1 (TX SIMULCAST)

MECHANICAL MOUNTING DETAILS

(19D904564, Sh. 7, Rev. 1B)

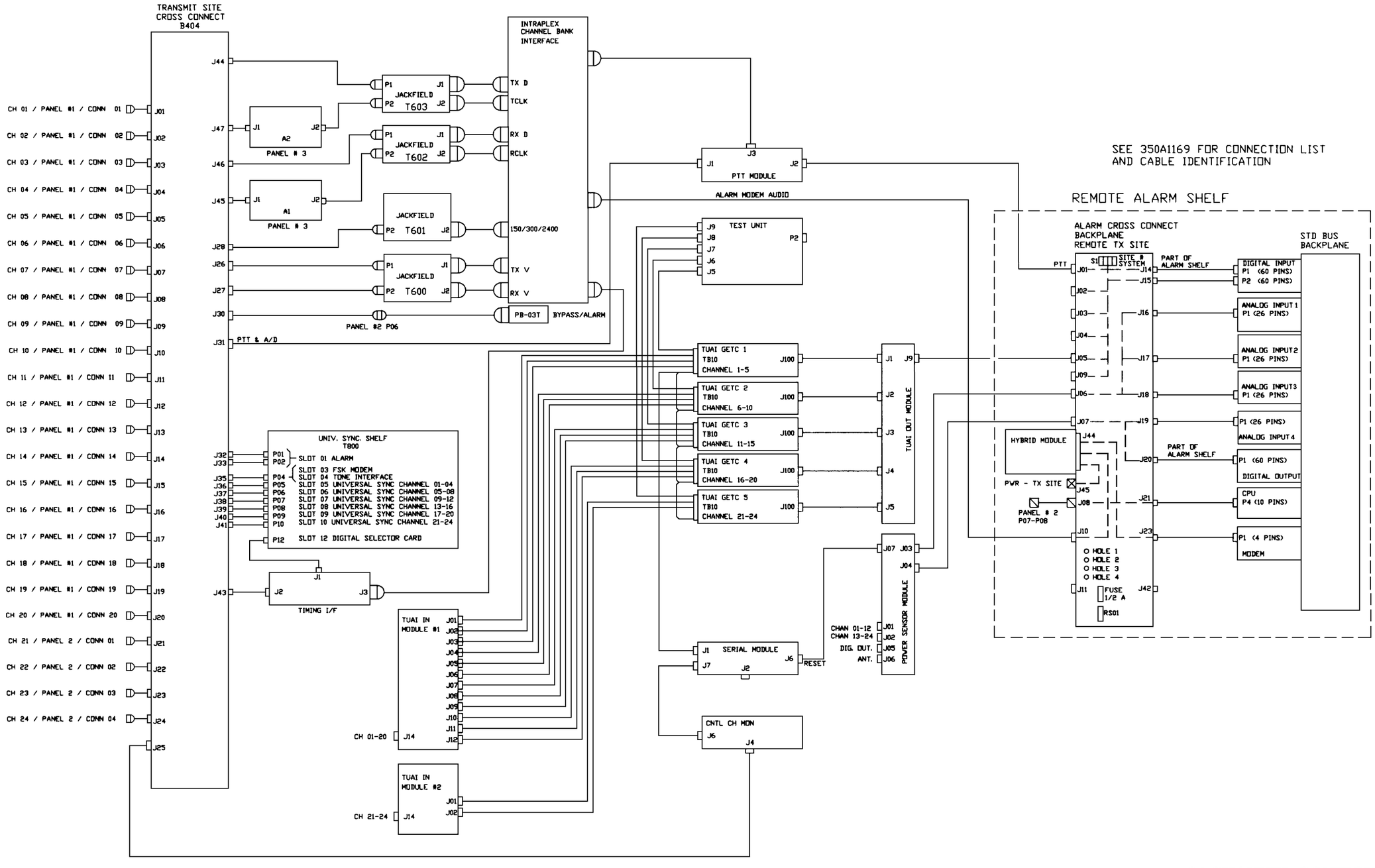


NOTES:

1. INSTALL BAIL LOCKS (19B800935P16) ON EVERY CONNECTOR ON BOTH PANELS. (USE MOUNTING HARDWARE SUPPLIED IN344A4127G1 HDWE KIT)
2. INSTALL LOCKING LATCH (19B800935P6) ON EVERY CONNECTOR OF EACH JACKFIELD.
3. SEE CONNECTION CHART 350A1169 AND INTERCONNECTION DIAGRAM 19D903997 FOR DETAILED CABLE CONNECTIONS
4. SEE 19C337772 AND 19C337773 FOR POWER WIRING DETAILS
5. INSTALL USING STANDOFFS 19B209727P42 SUPPLIED IN CABLE KIT SCCF3N
6. MODIFY UNIVERSAL SYNC BACK PLANE 19D902540G1 REV 0 PER MOD INSTRUCTIONS 19B804272P1

WIRING DETAILS

(19D904564, Sh. 8, Rev. 1A)



24 CHANNEL CONFIGURATION

(19D903997, Sh. 6, Rev. 1)

PART #3
CONNECTION OF SIMULCAST TX SITE COMMON EQUIPMENT (CHANNEL 1-24)

TRANSMIT SITE CC-	J43	TIMING I/F	-J02	188D5916P1	PWR MODULE #1	J03	ALARM CC	-J06		19D903985P34
	J36	UNIVERSAL SYN	-P05		PWR MODULE #1	J04	ALARM CC	-J07		19D903985P16
	J37	UNIVERSAL SYN	-P06		PWR MODULE #1	J07	SERIAL MOD	-J06		19D903880P160
	J38	UNIVERSAL SYN	-P07		TUAI-OUT	J09	ALARM CC	-J05		19D903985P38
	J45	PANEL #3 A1	-J1			J01	TUAI #1	-J100		19D903880P170
	J35	UNIVERSAL SYN	-P04			J02	TUAI #2	-J100		19D903880P170
	J30	PANEL #2	-P06			J03	TUAI #3	-J100		19D903880P170
	J32	UNIVERSAL SYN	-P01			J04	TUAI #4	-J100		19D903880P170
	J26	T600 JACKFIELD	-P01		TUAI-OUT	J05	TUAI #5	-J100		19D903880P170
	J31	PTT MODULE	-J01		TUAI-IN #1	J01	TUAI #1	TB10-1	B/W	19D903880P13*
	J27	T600 JACKFIELD	-P02					TB10-6	W/B	
	J39	UNIVERSAL SYN	-P08					TB10-2	O/W	
	J40	UNIVERSAL SYN	-P09			J02		TB10-3	B/W	19D903880P13*
	J47	T602 JACKFIELD	-P01					TB10-6	W/B	
	J44	T603 JACKFIELD	-P01					TB10-4	O/W	
	J46	PANEL #3 A2	-J1			J03		TB10-5	B/W	19D903880P13*
	J41	UNIVERSAL SYN	-P10					TB10-6	W/B	
	J33	UNIVERSAL SYN	-P02		TUAI-IN #1	J04	TUAI #2	TB10-1	B/W	19D903880P13*
	J28	T601 JACKFIELD	-P02					TB10-6	W/B	
	J01	PANEL #1	-P01	19D903985P2				TB10-2	O/W	
	J02	PANEL #1	-P02			J05		TB10-3	B/W	19D903880P13*
	J03	PANEL #1	-P03					TB10-6	W/B	
	J04	PANEL #1	-P04					TB10-4	O/W	
	J05	PANEL #1	-P05			J06		TB10-5	B/W	19D903880P13*
	J06	PANEL #1	-P06					TB10-6	W/B	
	J07	PANEL #1	-P07		TUAI-IN #1	J07	TUAI #3	TB10-1	B/W	19D903880P13*
	J08	PANEL #1	-P08					TB10-6	W/B	
	J09	PANEL #1	-P09					TB10-2	O/W	
	J10	PANEL #1	-P10			J08		TB10-3	B/W	19D903880P13*
	J11	PANEL #1	-P11	19D903985P2				TB10-6	W/B	
	J12	PANEL #1	-P12					TB10-4	O/W	
	J13	PANEL #1	-P13			J09		TB10-5	B/W	19D903880P13*
	J14	PANEL #1	-P14					TB10-6	W/B	
	J15	PANEL #1	-P15		TUAI-IN #1	J10	TUAI #4	TB10-1	B/W	19D903880P13*
	J16	PANEL #1	-P16					TB10-6	W/B	
	J17	PANEL #1	-P17					TB10-2	O/W	
	J18	PANEL #1	-P18			J11		TB10-3	B/W	19D903880P13*
	J19	PANEL #1	-P19					TB10-6	W/B	
	J20	PANEL #1	-P20					TB10-4	O/W	
	J21	PANEL #2	-P01	19D903985P24		J12		TB10-5	B/W	19D903880P13*
	J22	PANEL #2	-P02	19D903985P24				TB10-6	W/B	
	J23	PANEL #2	-P03	19D903985P24	TUAI-IN #2	J01	TUAI #5	TB10-1	B/W	19D903880P13*
	J24	PANEL #2	-P04	19D903985P24				TB10-6	W/B	
								TB10-2	O/W	
						J02		TB10-3	B/W	19D903880P13*
								TB10-6	W/B	
								TB10-4	O/W	

(350A1169, Sh. 7, Rev. 2)

(350A1169, Sh. 8, Rev. 2)

TEST UNIT		J5	TUAI #1	TB10-8 O TB10-6 BK	19D903880P190
		J6	TUAI #2	TB10-8 O	19D903880P190
		J7	TUAI #3	TB10-8 O	19D903880P190
		J8	TUAI #4	TB10-8 O	19D903880P190
TEST UNIT		J9	TUAI #5	TB10-8 O	19D903880P190
TUAI #1	TB10-7 RED		TB10-6 BLACK		19B802222P1
TUAI #2	TB10-7 RED		TB10-6 BLACK		19B802222P1
TUAI #3	TB10-7 RED		TB10-6 BLACK		19B802222P1
TUAI #4	TB10-7 RED		TB10-6 BLACK		19B802222P1
TUAI #5	TB10-7 RED		TB10-6 BLACK		19B802222P1
PTT MODULE		J2	ALARM CC	J01	19D902985P16
CONTROL CH MON		J6	SERIAL MOD	-J07	19D903880P200
CONTROL CH MON		J4	TRANSMIT CC	-J25	344A4677P10
ALARM CC		J10	INTRAPLEX CH BANK I/F	J9T	19D903985P38
TUAI #1	TB10-9		TUAI #2	TB10-9	19D903880P230
TUAI #2	TB10-9		TUAI #3	TB10-9	19D903880P230
TUAI #3	TB10-9		TUAI #4	TB10-9	19D903880P230
TUAI #4	TB10-9		TUAI #5	TB10-9	19D903880P230
TUAI #1	TB10-9		SERIAL MODULE	-J01	19D903880P240
PTT MODULE		J3	INTRAPLEX CH BANK I/F	J6T	19D903985P96
TIMING I/F		J1	UNIVERSAL SYN	-P12	19D903985P18
TIMING I/F		J3	INTRAPLEX CH BANK I/F	J4T	19D903985P96
T600 JACKFIELD		J1	INTRAPLEX CH BANK I/F	J2	19D903985P98
T600 JACKFIELD		J2	INTRAPLEX CH BANK I/F	J1	19D903985P98
T601 JACKFIELD		J2	INTRAPLEX CH BANK I/F	J8T	19D903985P98
T602 JACKFIELD		J1	INTRAPLEX CH BANK I/F	J2D	19D903985P98
T602 JACKFIELD		J2	INTRAPLEX CH BANK I/F	J5T	19D903985P98
T603 JACKFIELD		J1	INTRAPLEX CH BANK I/F	J1D	19D903985P98
T603 JACKFIELD		J2	INTRAPLEX CH BANK I/F	J3D	19D903985P98
PANEL #3	A1	J2	T602 JACKFIELD	-P2	19D903985P22
PANEL #3	A2	J2	T603 JACKFIELD	-P2	19D903985P22
ALARM CC		J08	PANEL #2	P07-P08	19D903985P71

* CUT OFF UNUSED WIRES

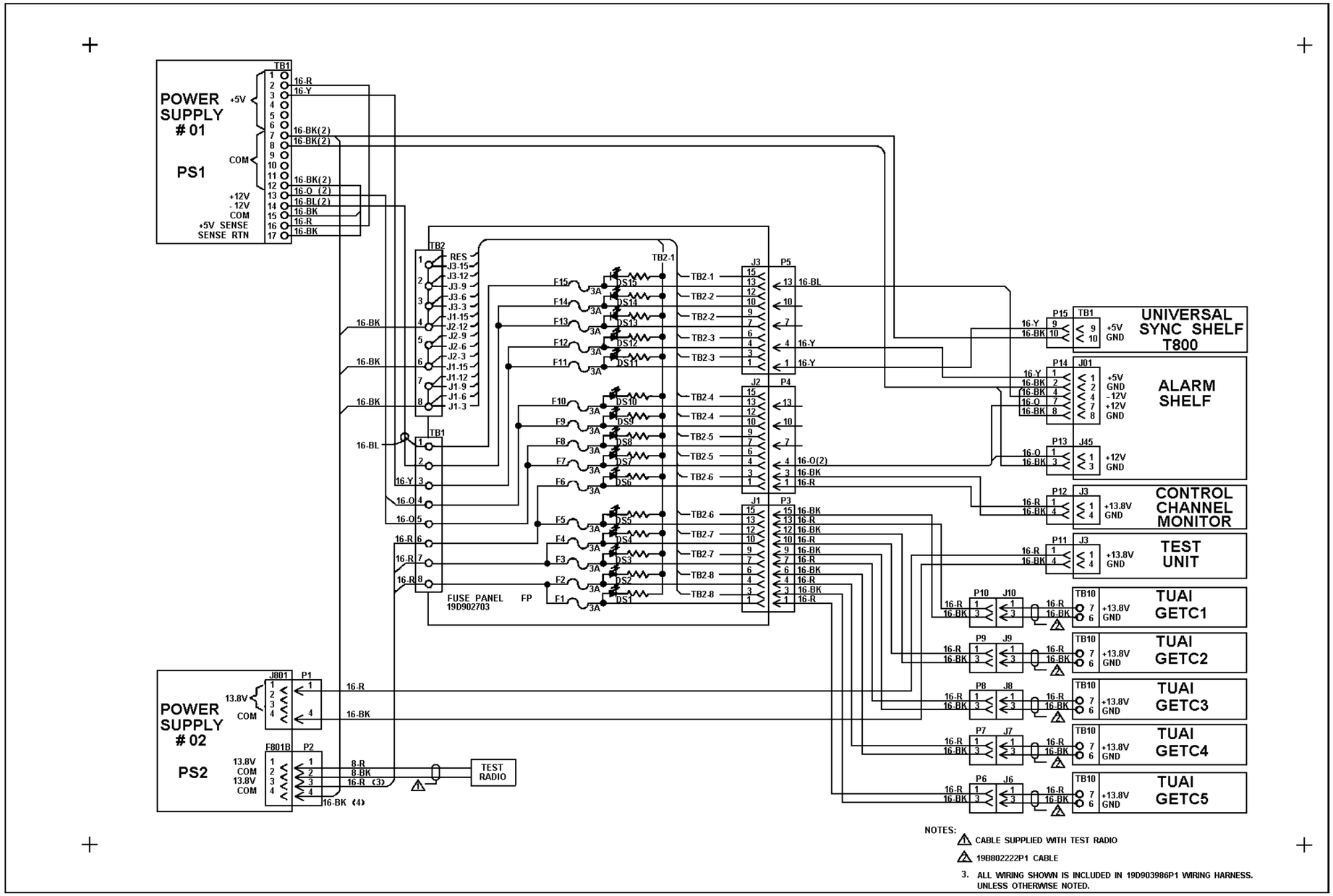
FOR CABINET TO CABINET AND EXTERNAL WIRING SEE 344A4892

SEE APPLICATION DRAWING 19D904564

(RS232 DATA)

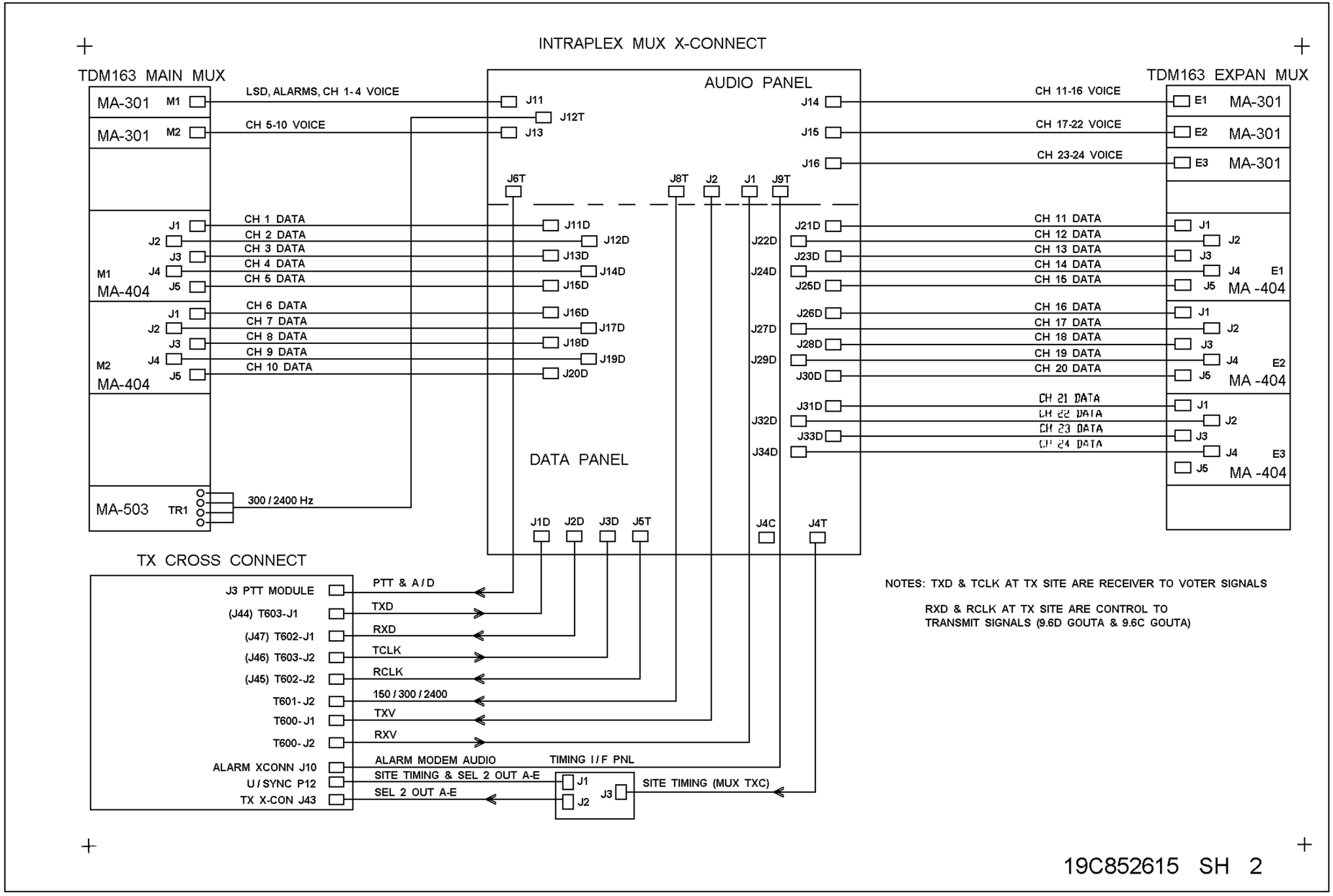
MODULE LOCATION IN ALARM CARD CAGE			19D902821P1
	SLOT 01	DIGITAL INPUT MODULE	19C337515P3
	SLOT 02	CPU	19C337515P1
	SLOT 03	A/D #1	19C337515P2
	SLOT 04		
	SLOT 05	A/D #2	19C337515P2
	SLOT 06		
	SLOT 07	A/D #3	19C337515P2
	SLOT 08		
	SLOT 09	A/D #4	19C337515P2
	SLOT 10		
	SLOT 11	2400 BAUD MODEM	19C337515P6
	SLOT 12	DIGITAL OUTPUT MODULE	19C337515P4
	HORZ POSITION	HYBRID	19C337515P7

UNIVERSAL SYNC SHELF			19D902541G1
	SLOT 01	ALARM MODULE	19D902334P1
	SLOT 03	FSK MODEM	19D902521P1
	SLOT 04	TONE INTERFACE	19D902546P1
	SLOT 05	UNIVERSAL SYNC MODULE 01-04	19D902517P1
	SLOT 06	UNIVERSAL SYNC MODULE 05-08	19D902517P1
	SLOT 07	UNIVERSAL SYNC MODULE 09-12	19D902517P1
	SLOT 08	UNIVERSAL SYNC MODULE 13-16	19D902517P1
	SLOT 09	UNIVERSAL SYNC MODULE 17-20	19D902517P1
	SLOT 10	UNIVERSAL SYNC MODULE 21-24	19D902517P1
	SLOT 12	DIGITAL SELECTOR MODULE	19D902519G1



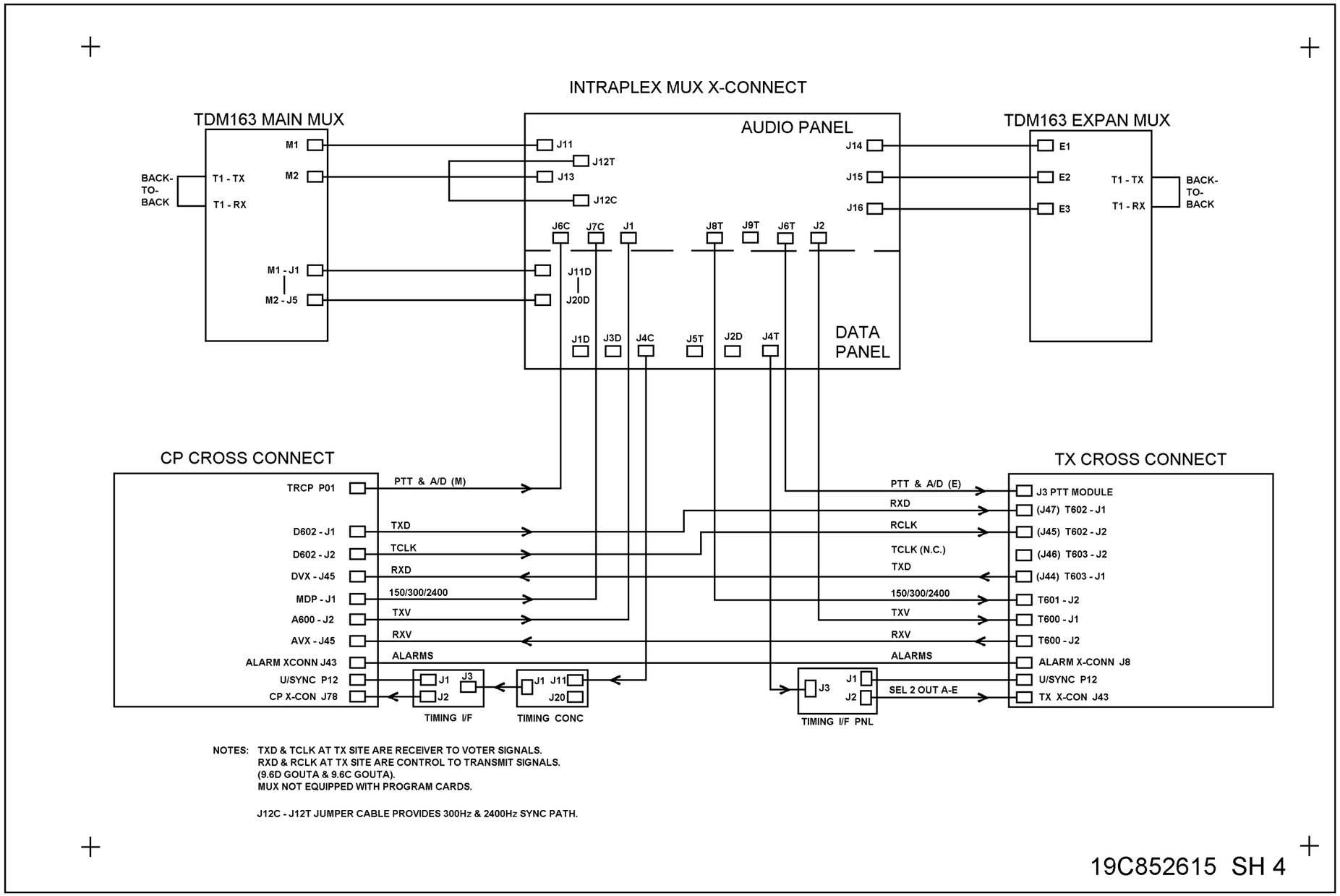
DC POWER WIRING DIAGRAM
24 CHANNEL CONFIGURATION

(19C337774, Sh. 2, Rev. 1)



INTRAPLEX MUX CROSS CONNECT - TX

(19C852615, Sh. 2, Rev. 1)



INTRAPLEX MUX CROSS CONNECT - CO-LOCATE TX SITE

(19C852615, Sh. 4, Rev. 1)

FRONT VIEW

INTRAPLEX TDM-163 SHELF (10 Chan Config.) [20 Time Slots]

IPX-160-TB1

		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	SHELF SLOT
MAIN P/S	RED. P/S	CM 3A		VF 5B	VF 5B	VF 5B	VF 5B	VF 5B	VF 5B				DS 961 △3	DS 961					PR 355	INTRAPLEX P/N
				LSD ALM	CHL 1/2	CHL 3/4	CHL 5/6	CHL 7/8	CHL 9/10				CHL 1-5	CHL 6-10					300/ 2400 △3	MODULE FUNCTION
				1/2	3/4	5/6	7/8	9/10	11/12				13	14					19-24	T1 TIME SLOT(S)

REAR VIEW

INTRAPLEX TDM-163 SHELF (10 Chan Config.) [20 Time Slots]

18	17 16 15	14	13	12	11 10 9	8 7	6	5 4	3	2	1	POWER TB
MA 503	SP3	SP1	M2 MA 404 J1 J2 J3 J4 J5	M1 MA 404 J1 J2 J3 J4 J5	SP3	SP2	M2 MA 301	SP2	M1 MA 301		M1 MA 210	P/S ALARMS
TB1												
300/ 2400 Hz			CHL 6-10 DATA	CHL 1-5 DATA			CHL 5-10 VOICE PTT A/D		CHL 1-4 VOICE PTT A/D		LSD ALM	

NOTES:

△3 IF SITE IS COLOCATED TX SITE, THIS SHELF WILL HAVE ONE DS9610 INSTALLED IN SLOT 12. PROGRAM CHANNEL IS NOT PRESENT.

MUX RJ12 CONFIGURATION

1	MUX TXC (MUX to SC REFERENCE)
2	MUX TXD (EGE EQ to MUX)
3	MUX TERM TIME (EGE EQ CLOCK to MUX)
4	MUX RXD (MUX to EGE EQ)
5	MUX GROUND
6	MUX RXC (MUX to EGE EQ)

19C852610 SH 1

INTRAPLEX EXPANSION MUX
TX SITE 10 CHANNEL

(19C852610, Sh. 1, Rev. 1)

IPX-160-TX1

FRONT VIEW

INTRAPLEX TDM-163 SHELF (Expansion Config.) [17 Time Slots]

		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	SHELF SLOT
MAIN P/S	RED. P/S	CM 3A		VF 5B	VF 5B	VF 5B	VF 5B	VF 5B	VF 5B	VF 5B			DS 961 ②	DS 961 ②	DS 961 ②					INTRAPLEX P/N
				CHL 11/12	CHL 13/14	CHL 15/16	CHL 17/18	CHL 19/20	CHL 21/22	CHL 23/24			CHL 11-15	CHL 16-20	CHL 21-24					MODULE FUNCTION
				1/2	3/4	5/6	7/8	9/10	11/12	13/14			15	16	17					T1 TIME SLOT(S)

REAR VIEW

INTRAPLEX TDM-163 SHELF (Expansion Config.) [17 Time Slots]

18	17	16	15	14 E3	13 E2	12 E1	11	10	9 E3	8	7	6 E2	5	4	3 E1	2	1 E1	POWER TB
SP3			SP1	MA 404 J1 J2 J3 J4 J5	MA 404 J1 J2 J3 J4 J5	MA 404 J1 J2 J3 J4 J5	SP2		MA 301	SP2		MA 301	SP2		MA 301		MA 210	P/S ALARMS
				CHL 21-24 DATA	CHL 16-20 DATA	CHL 11-15 DATA			CHL 23-24 VOICE PTT A/D			CHL 17-22 VOICE PTT A/D			CHL 11-16 VOICE PTT A/D			

NOTES

② IF SITE IS COLOCATED TX SITE, NO DS961Ø MODULES ARE PRESENT.

MUX RJ12 CONFIGURATION

1	MUX TXC (MUX to SC REFERENCE)
2	MUX TXD (EGE EQ to MUX)
3	MUX TERM TIME (EGE EQ CLOCK to MUX)
4	MUX RXD (MUX to EGE EQ)
5	MUX GROUND
6	MUX RXC (MUX to EGE EQ)

19C852610 SH 2

INTRAPLEX EXPANSION MUX
TX SITE 11-24 CHANNEL

(19C852610, Sh. 2, Rev. 1)

FUNCTION	MUX X-CONN ⚠1	5 CHAN	10 CHAN	15 CHAN	20/24 CHAN
TXV CH01-24	J1	T600 - J1	T600 - J1	T600 - J1	T600 - J1
RXV CH01-24	J2	T600 - J2	T600 - J2	T600 - J2	T600 - J2
PTT & A/D CH01-24	J6T	PTT MOD J3	PTT MOD J3	PTT MOD J3	PTT MOD J3
SYNC, 150D	J8T	T601 - J2	T601 - J2	T601 - J2	T601 - J2
ALARM TX & RX	J9T	PNL#2 - P07	PNL#2 - P07	PNL#2 - P07	PNL#2 - P07
TXD CH01-24	J1D	T603 - J1	T603 - J1	T603 - J1	T603 - J1
TXC CH01-24	J3D	T603 - J2	T603 - J2	T603 - J2	T603 - J2
RXD CH01-24	J2D	T602 - J1	T602 - J1	T602 - J1	T602 - J1
RXC CH01-24	J5T	J602 - J2	J602 - J2	J602 - J2	J602 - J2
TX TIME REF	J4T	TIME I/F J3	TIME I/F J3	TIME I/F J3	TIME I/F J3
150D, ALM T/R, CH01-04	J11	MA301 - M1	MA301 - M1	MA301 - M1	MA301 - M1
SYNC	J12T	MA503 - TB1	MA503 - TB1	MA503 - TB1	MA503 - TB1
TXV & RXV CH01-10	J13	MA301 - M2	MA301 - M2	MA301 - M2	MA301 - M2
TXV & RXV CH11-16	J14			MA301 - E1	MA301 - E1
TXV & RXV CH01-24	J15				MA301 - E2
TXV & RXV CH23-24	J16				MA301 - E3
CH01 DATA	J11D	MA404 M1 J1	MA404 M1 J1	MA404 M1 J1	MA404 M1 J1
CH02 DATA	J12D	MA404 M1 J2	MA404 M1 J2	MA404 M1 J2	MA404 M1 J2
CH03 DATA	J13D	MA404 M1 J3	MA404 M1 J3	MA404 M1 J3	MA404 M1 J3
CH04 DATA	J14D	MA404 M1 J4	MA404 M1 J4	MA404 M1 J4	MA404 M1 J4
CH05 DATA	J15D	MA404 M1 J5	MA404 M1 J5	MA404 M1 J5	MA404 M1 J5
CH06 DATA	J16D		MA404 M2 J1	MA404 M2 J1	MA404 M2 J1
CH07 DATA	J17D		MA404 M2 J2	MA404 M2 J2	MA404 M2 J2
CH08 DATA	J18D		MA404 M2 J3	MA404 M2 J3	MA404 M2 J3
CH09 DATA	J19D		MA404 M2 J4	MA404 M2 J4	MA404 M2 J4
CH10 DATA	J20D		MA404 M2 J5	MA404 M2 J5	MA404 M2 J5
CH11 DATA	J21D			MA404 E1 J1	MA404 E1 J1
CH12 DATA	J22D			MA404 E1 J2	MA404 E1 J2
CH13 DATA	J23D			MA404 E1 J3	MA404 E1 J3
CH14 DATA	J24D			MA404 E1 J4	MA404 E1 J4
CH15 DATA	J25D			MA404 E1 J5	MA404 E1 J5
CH16 DATA	J26D				MA404 E2 J1
CH17 DATA	J27D				MA404 E2 J2
CH18 DATA	J28D				MA404 E2 J3
CH19 DATA	J29D				MA404 E2 J4
CH20 DATA	J30D				MA404 E2 J5
CH21 DATA	J31D				MA404 E3 J1
CH22 DATA	J32D				MA404 E3 J2
CH23 DATA	J33D				MA404 E3 J3
CH24 DATA	J34D				MA404 E3 J4

NOTES:
⚠1 IF SITE IS CO-LOCATED WITH CONTROL POINT, ONLY ONE MUX X-CONNECT PANEL EXISTS FOR BOTH ENDS. CONNECT AS FOLLOWS:

FACTORY WIRING

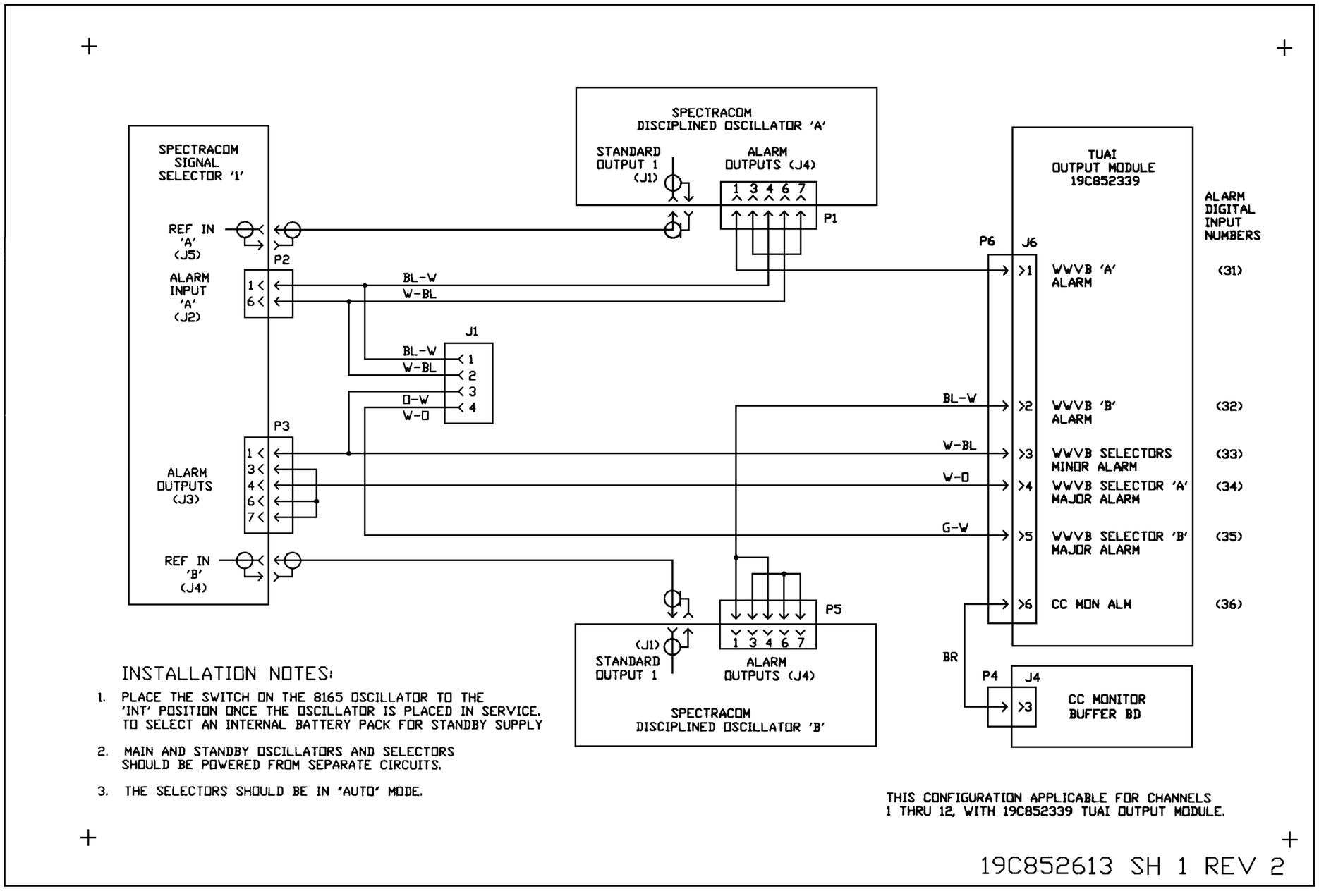
CONNECT CONTROL POINT TRCP P01 TO MUX XCONNECT J6C
CONNECT CONTROL POINT D602 - J1 TO TX SITE T602 - J1
CONNECT CONTROL POINT D602 - J2 TO TX SITE T602 - J2
CONNECT CONTROL POINT DVX - J45 TO TX SITE T603 - J1
CONNECT CONTROL POINT MDP - J1 TO MUX XCONNECT J7C
CONNECT CONTROL POINT A600 - J2 TO MUX XCONNECT J1
CONNECT CONTROL POINT AVX - J45 TO TX SITE T600 - J2
CONNECT CONTROL POINT ALARM XCONN J43 TO TX SITE ALARM XCONNECT J8
CONNECT CONTROL POINT TIMING CONCENTRATOR J11 TO MUX XCONNECT J4C
CONNECT MUX XCONNECT J8T TO TX SITE T601 - J2
CONNECT MUX XCONNECT J4T TO TX SITE TIMING I/F J3
CONNECT MUX XCONNECT J2 TO TX SITE T600 - J1
CONNECT MUX XCONNECT J12T TO MUX XCONNECT J12C

FIELD WIRING

19C852600 SH 5

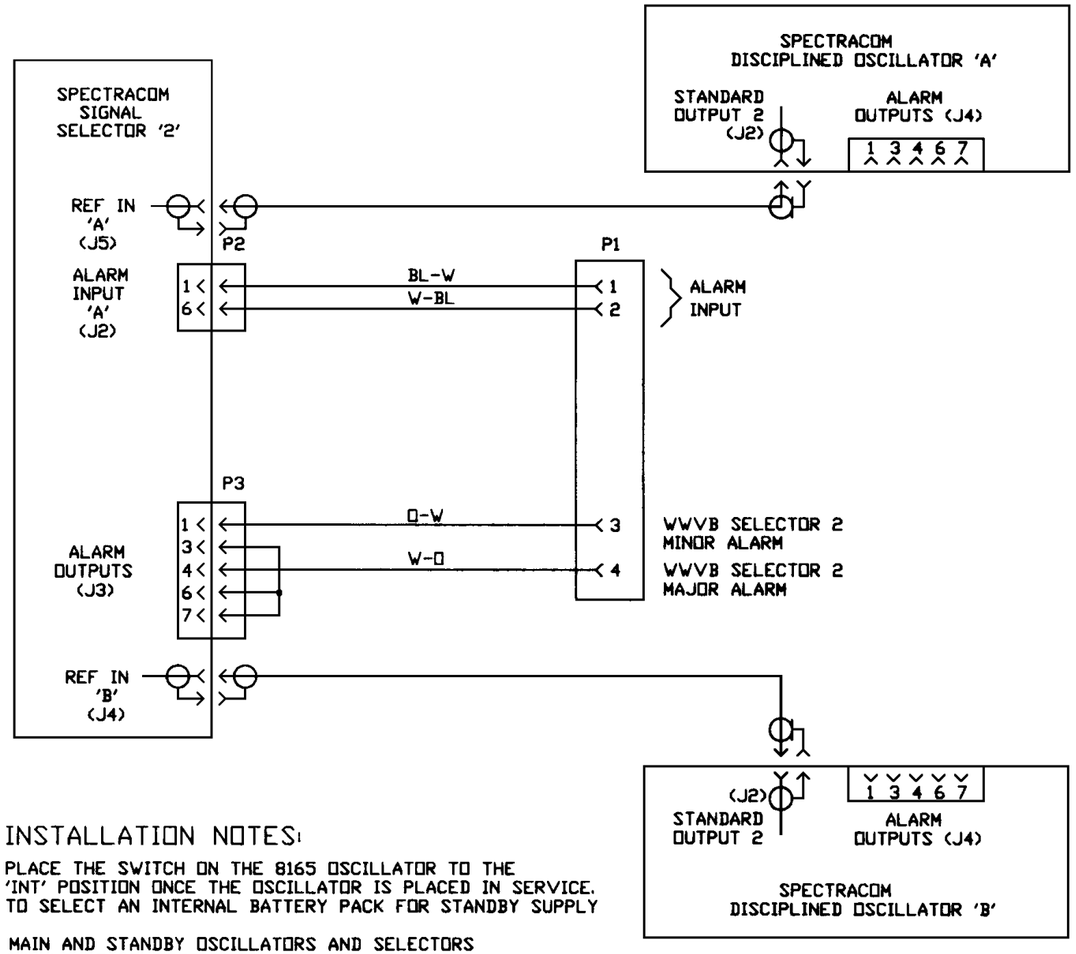
MUX CROSS CONNECT PANEL CONNECTION CHART - TRANSMIT SITE

(19C852600, Sh. 5, Rev. 0)



SIMULCAST COMMON EQUIPMENT
WWVB & CCM SIGNAL & ALARM WIRING

(19C852613, Sh. 1, Rev. 2)



INSTALLATION NOTES:

1. PLACE THE SWITCH ON THE 8165 OSCILLATOR TO THE 'INT' POSITION ONCE THE OSCILLATOR IS PLACED IN SERVICE. TO SELECT AN INTERNAL BATTERY PACK FOR STANDBY SUPPLY
2. MAIN AND STANDBY OSCILLATORS AND SELECTORS SHOULD BE POWERED FROM SEPARATE CIRCUITS.
3. THE SELECTORS SHOULD BE IN 'AUTO' MODE.

THIS CONFIGURATION APPLICABLE FOR CHANNELS 13 THRU 24, WITH 19C852339 TUAI OUTPUT MODULE.

19C852613 SH 2 REV 2

SIMULCAST COMMON EQUIPMENT
WWVB & CCM SIGNAL & ALARM WIRING

(19C852613, Sh. 2, Rev. 2)