

# Maintenance Manual

## ALARM SHELF

### 19D902821P1 & P2

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## SPECIFICATIONS

DIMENSIONS(H X W X D).....	6.970" X 19.00" X 11.938"
INPUT VOLTAGE .....	+ 5 Vdc, +12 Vdc, -12 Vdc
NUMBER OF SLOTS .....	21(P2) 13 (P1)

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### NOTICE!

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## DESCRIPTION

EGE Alarm Shelf 19D902821 is a four rack unit shelf used in the Simulcast Alarm System, alarm station. Alarm Shelf 19D902821P1 is used at the Transmit Site (Collocated or Remote) and Alarm Shelf 19D902821P2 is used at the Control Point (Master and Slave). Both Alarm Shelves (Parts 1 and 2) provide a standard bus backplane (MB12 (WinSystem)) mounted to a standard bus card cage (CCK15F (Vector)) and slots for plug-in modules. Cross Connect Backplane 19D902792G2 is also provided as part of the Alarm Shelf (refer to the Assembly Diagram and Outline Diagram listed in the Table of Contents).

Application diagrams show the alarm shelf configurations for the Control Point and Transmit Sites, the Alarm System interconnections, and identify the jumper configurations used in simulcast systems. Jumper configuration diagrams show the location and position of all required jumpers on each card (Modem, A/D, CPU, Digital Input, and Digital Output).

Proper switch settings for S1 on the Alarm Shelf and S1-S3 on the Hybrid card are also shown on the application diagrams for the Control Point and Transmit Sites.

The Analog Threshold Table provides data for the alarm threshold settings for various dc voltage levels relative to output power level from 0 to 277 watts.

### TRANSMIT SITE

Alarm Shelf 19D902821P1 is used at the Transmit Site and provides a standard bus backplane (MB12) and slots for modules as follows:

#### Co-located

- 1 - Digital Input Card (339C-1 (Enlode))
- 1 - Central Processing Unit (CPU) card (LPM-S/BC5-6 (WinSystem))
- 4 - Analog/Digital (A/D) Cards (LPM-A/D-12M (WinSystem))
- 1 - Digital Output Card (338C-1 (Enlode))

#### Remote

- 1 - Digital Input Card (339C-1 (Enlode))
- 1 - Central Processing Unit (CPU) card (LPM-S/BC5-6 (WinSystem))
- 4 - Analog/Digital (A/D) Cards (LPM-A/D-12M (WinSystem))
- 1 - Modem Card (ZT8940 (Ziatech))
- 1 - Digital Output Card (338C-1 (Enlode))
- 1 - Hybrid Card (4201 (Tellabs))

### CONTROL POINT

Alarm Shelf 19D902821P2 is used at the Control Point and provides a standard bus backplane (MB12) and slots for modules as follows:

#### 1 To 10 Sites

- 1 - Digital Input Card (339C-1 (Enlode))
- 1 - Central Processing Unit (CPU) card (LPM-S/BC5-6 (WinSystem))
- 1 to 10 - Modem Cards (ZT8940 (Ziatech))
- 2 to 3 - Digital Output Cards (338C-1 (Enlode))

### VENDOR EQUIPMENT

**LPM-SBC5 CPU:** The CPU is a very powerful multi-function STD BUS computer using the HD64180 CMOS microprocessor. It is equipped with 512K bytes of memory addressing, 2 DMA channels, 2 28-pin JEDEC memory sockets, 4 serial I/O channels, two 16-bit timers, a watchdog timer, precision voltage reset circuit, and the STD BUS. The custom software (344A3095) is used at both the Master and Remote Alarm Shelves.

**LPM-A/D12M:** - The LPM-A/D12M is an analog to digital converter designed for use with the STD BUS. The A/D converter is very versatile, providing 16 single ended or 8 differential channels with five jumper selectable input voltage ranges. For the simulcast system, the A/D converter is configured for 8 differential channels with a voltage range of 2.5 Vdc.

**STD-EXT:** - The STD-EXT Extender board provides straight through connections to facilitate servicing the equipment by extending the card out from the rack. A RESET button is also provided.

**112 CIRCUIT INPUT SYSTEM:** The 112 Circuit Input Cards provide large quantity digital signal input capability for the STD BUS. One 56 Circuit Input processes the 25 PTT inputs, the site ID inputs, and Digital Alarm inputs 47 and 48. The other 56 Circuit Input processes Digital Alarm inputs 01-46.

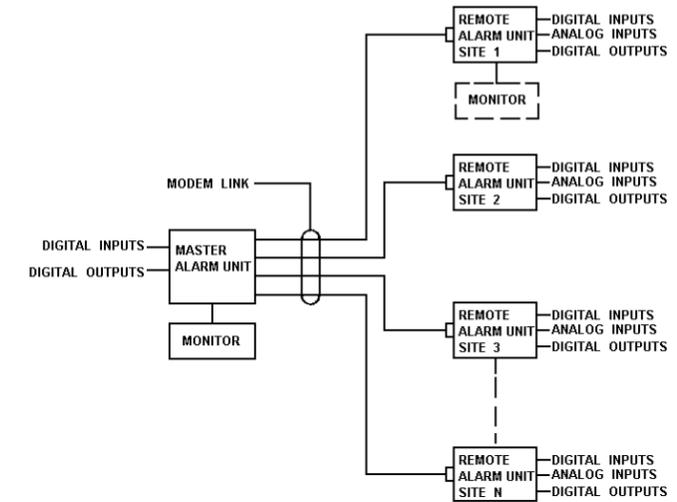
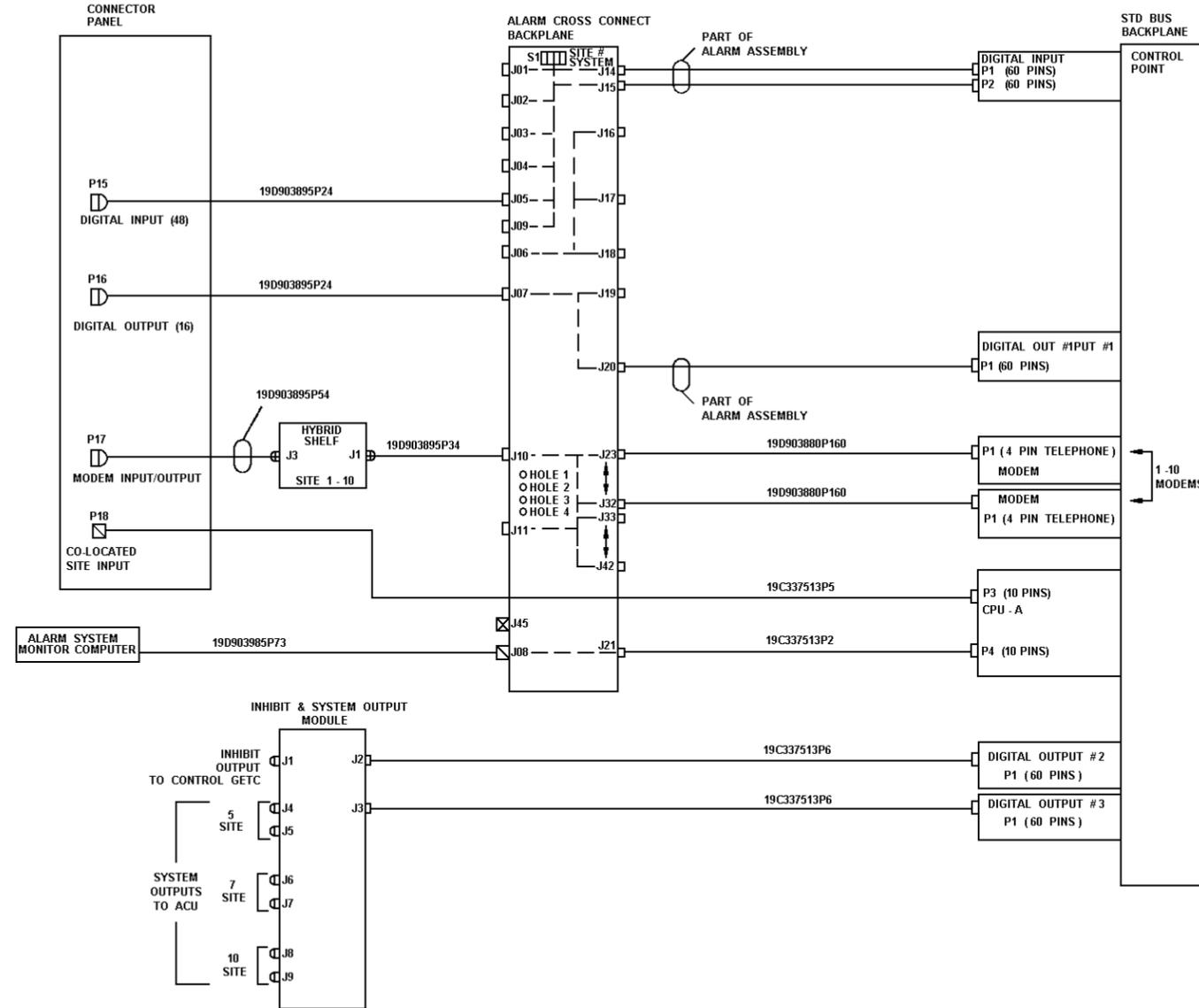
**238 LATCHED OUTPUT:** - The 238 Latched Output card provides a convenient method to interface and control medium power, direct current loads from a STD BUS computer system. A maximum of 56 load devices can be controlled by each card. In simulcast systems, only 32 outputs are used.

**STD BUS MODEM CARD:** - The modem card is used to transfer data between the Remote Alarm System and the Master Alarm System. CPU (LPM-S/BC5) software group 9 or higher must be used when a ZT8940 modem is present in the Alarm Shelf.

**4201 AND 4203 TERMINATING SETS:** - The 4201 and 4203 Terminating Sets provide toll grade interfacing between the 2-wire STD BUS Modem card and the 4-wire voice-frequency transmission facilities. The 4201 is the basic 600/900 ohm-term set. The 4203 adds A- and B- lead isolation and an optional filter. Both provide lightning protection for the 4-wire side ports.

CONTROL POINT MASTER ALARM

ALSO SEE APPLICATION ASSEMBLY 19D904013  
AND CONNECTION LIST 344A4244



POWER CONNECTION CHART	+12	-12	+5	GND
HYBRID SHELF				
STD BACKPLANE	PWR PIN 7	PIN4	PIN 1	GND PIN 2, 8

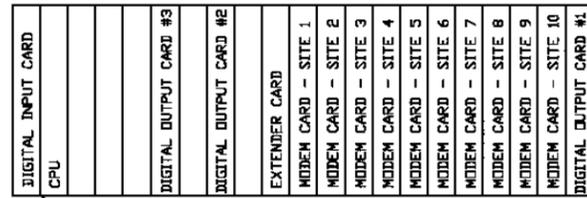
CONNECTOR STYLE IDENTIFICATION	STD BACKPLANE POWER CONNECTIONS
DB - 9 <input type="checkbox"/>	<b>STD BACKPLANE POWER CONNECTOR</b> SUPPLIED PREWIRED AS PART OF ALARM CARD CAGE ASSEMBLY 
4 PIN .156 CTR. <input checked="" type="checkbox"/>	
10, 26, 50 OR 60 PIN HEADER <input type="checkbox"/>	<b>POWER CABLE CONNECTOR</b> (GE 19B209288P21) (MOLEX 03-09-1093) 
25 PR TELCO <input type="checkbox"/>	

ALARM SYSTEM INTERCONNECTION DIAGRAM

CONTROL POINT & TRANSMIT SITE  
ALARM SHELF SYSTEM INTERCONNECTION DIAGRAM

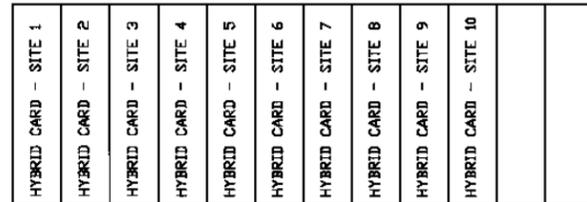
(19D904177 Sh. 2, Rev. 3)

CONTROL POINT 1 TO 10 SITES



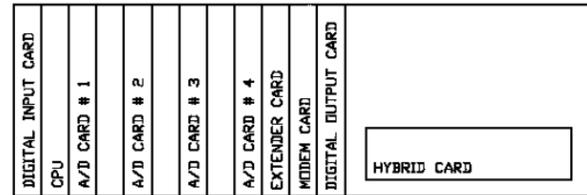
ALARM SYSTEM CARD CAGE 19D902821P2

HYBRID SHELF - SITES 1 TO 10



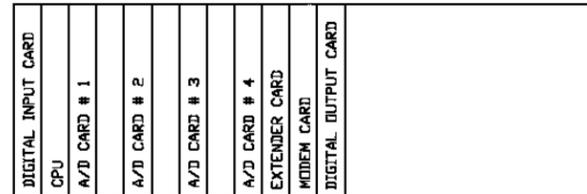
HYBRID SHELF CARD CAGE 19D902544P2

TX SITE - REMOTE



ALARM SYSTEM CARD CAGE 19D902821P1

TX SITE - COLOCATED



ALARM SYSTEM CARD CAGE 19D902821P1

MODULE NAME	MODULE IDENTIFICATION	SIMILAR TO
CPU	19C337510P1	VINSYSTEMS, INC. LPM-8105-6
A/D CARD	19C337510P2	VINSYSTEMS, INC. LPM-A/DUM
DIGITAL INPUT CARD	19C337510P3	ENLIDE, INC. 1 399C-1
DIGITAL OUTPUT CARD	19C337510P4	ENLIDE, INC. 338C-1
EXTENDER CARD	19C337510P9	VINSYSTEMS, INC. STD-EXT
MODEM CARD (2400 BAUD)	19C337510P6	ZIATECH CORP. ZT8849
HYBRID CARD	19C337510P7	TELLABS 4831
MODEM CARD (ZT 8940)	19C337510P12	ZIATECH CORP. ZT8940

① PST SIMULCAST ALARM SYSTEM

NOTES:

1. MODULE JUMPERS TO BE POSITIONED PER JUMPER TABLES

A/D CARD

JUMPER	PINS	REMARKS
J6	1-2 3-4	CARD MUST BE JUMPED EXACTLY AS SHOWN FOR OPERATION IN PST SIMULCAST SYSTEM. NO ADDITIONAL JUMPERS PERMISSIBLE.
J6	1-2 3-4	
J6	1-2 3-4	WIRE WRAP SOLDERED WIRE JUMPER
J6	1-2 3-4	FOR A/D # 1 ONLY
J6	1-2 3-4	FOR A/D # 2 ONLY
J6	1-2 3-4	FOR A/D # 3 ONLY
J6	1-2 3-4	FOR A/D # 4 ONLY

CARD MODIFICATIONS:  
INSTALL R15 HELICORP510C  
INSTALL R16 HELICORP510C

CPU CARD

JUMPER	PINS	REMARKS
J7	5-6	CARD MUST BE JUMPED EXACTLY AS SHOWN FOR OPERATION IN PST SIMULCAST SYSTEM. NO ADDITIONAL JUMPERS PERMISSIBLE.
J7	7-8	
J8	1-2	
J8	3-4	
J8	3-4	
J8	1-2	
J8	3-4	
J8	5-6	
J8	7-8	
J8	9-10	
J8	11-12	
J8	13-14	
J8	15-16	
J8	1-2	
J8	1-2	
J8	5-6	
J8	9-10	
J8	3-4	
J8	7-8	
J8	9-10	
J8	1-2	

CARD MODIFICATIONS:  
INSTALL U11 P-344A3095 EPRDM  
INSTALL U12 19A703961P2 32K X 8 RAM HM62256-12

MODEM CARD (2400 BAUD)

JUMPER	REMARKS
V8	CARD MUST BE JUMPED EXACTLY AS SHOWN FOR OPERATION IN PST SIMULCAST SYSTEM. NO ADDITIONAL JUMPERS PERMISSIBLE.
V9	
V12	
V13	
V14	
V16	
V18	
V20	
V21	
V22	
V23	
V24	
V25	
V26	
V27	
V31 (LSB)	1% POSITION: BINARY SUM MUST EQUAL
V29	2% POSITION: MODEM NUMBER PLUS 3
V28	4% POSITION: (MODEM NO. 3 = BINARY SUM 6)
V27 (MSB)	8% POSITION: VALID RANGE 4 TO 23 FOR MODEMS 1 THRU 20
	16% POSITION: (OPEN JUMPER = BINARY 1)

CARD MODIFICATIONS:  
REMOVE 4C (SOCKETED IC)  
REPLACE 4C WITH PL 344A3096G2

JUMPER TABLE - (MODEM NUMBER)

JUMPER NUMBERS	V27	V28	V29	V30	V31
BINARY VALUE	16 (MSB)	8	4	2	1 (LSB)
FOR MODEM 1	JUMPER	JUMPER	DMIT	JUMPER	JUMPER
FOR MODEM 2	JUMPER	JUMPER	DMIT	JUMPER	DMIT
FOR MODEM 3	JUMPER	JUMPER	DMIT	DMIT	JUMPER
FOR MODEM 4	JUMPER	JUMPER	DMIT	DMIT	DMIT
FOR MODEM 5	JUMPER	DMIT	JUMPER	JUMPER	JUMPER
FOR MODEM 6	JUMPER	DMIT	JUMPER	JUMPER	DMIT
FOR MODEM 7	JUMPER	DMIT	JUMPER	DMIT	JUMPER
FOR MODEM 8	JUMPER	DMIT	JUMPER	DMIT	DMIT
FOR MODEM 9	JUMPER	DMIT	DMIT	JUMPER	JUMPER
FOR MODEM 10	JUMPER	DMIT	DMIT	JUMPER	DMIT

MODEM CARD (ZT 8940)

JUMPER	REMARKS
V1	CARD MUST BE JUMPED EXACTLY AS SHOWN FOR OPERATION IN PST SIMULCAST SYSTEM. NO ADDITIONAL JUMPERS PERMISSIBLE.
V2	
V3	
V4	
V5	
V6	
V8	
V14	
V32	
V33	
V13 (LSB)	1% POSITION: BINARY SUM MUST EQUAL
V12	2% POSITION: MODEM NUMBER PLUS 3
V11	4% POSITION: (MODEM NO. 3 = BINARY SUM 6)
V10	8% POSITION: VALID RANGE 4 TO 23 FOR MODEMS 1 THRU 20
V9 (MSB)	16% POSITION: (OPEN JUMPER = BINARY 1)

NOTE: WHEN ZT 8940 IS USED IN ALARM SHELF, CPU CLPM-8105D SOFTWARE GROUP 9 OR HIGHER MUST BE USED

JUMPER TABLE - (MODEM NUMBER)

JUMPER NUMBERS	V9	V10	V11	V12	V13
BINARY VALUE	16 (MSB)	8	4	2	1 (LSB)
FOR MODEM 1	JUMPER	JUMPER	DMIT	JUMPER	JUMPER
FOR MODEM 2	JUMPER	JUMPER	DMIT	JUMPER	DMIT
FOR MODEM 3	JUMPER	JUMPER	DMIT	DMIT	JUMPER
FOR MODEM 4	JUMPER	JUMPER	DMIT	DMIT	DMIT
FOR MODEM 5	JUMPER	DMIT	JUMPER	JUMPER	JUMPER
FOR MODEM 6	JUMPER	DMIT	JUMPER	JUMPER	DMIT
FOR MODEM 7	JUMPER	DMIT	JUMPER	DMIT	JUMPER
FOR MODEM 8	JUMPER	DMIT	JUMPER	DMIT	DMIT
FOR MODEM 9	JUMPER	DMIT	DMIT	JUMPER	JUMPER
FOR MODEM 10	JUMPER	DMIT	DMIT	JUMPER	DMIT

NOTES:

1. REFER TO SH 3 & 4 FOR JUMPER LOCATIONS

DIGITAL INPUT CARD

JUMPER	PINS	REMARKS
JS1	I/O	CARD MUST BE JUMPED EXACTLY AS SHOWN FOR OPERATION IN PST SIMULCAST SYSTEM. NO ADDITIONAL JUMPERS PERMISSIBLE.
JS2	NON EXP	
JS4	A4	
JS5	A5	
JS5	EXP	

DIGITAL OUTPUT CARD #1

JUMPER	PINS	REMARKS
JS1	C TO A	(NON EXP) CARD MUST BE JUMPED EXACTLY AS SHOWN FOR OPERATION IN PST SIMULCAST SYSTEM. NO ADDITIONAL JUMPERS PERMISSIBLE.
BLOCK X	6	
BLOCK Y	5	

DIGITAL OUTPUT CARD #2

JUMPER	PINS	REMARKS
JS1	C TO A	(NON EXP) CARD MUST BE JUMPED EXACTLY AS SHOWN FOR OPERATION IN PST SIMULCAST SYSTEM. NO ADDITIONAL JUMPERS PERMISSIBLE.
BLOCK X	6	
BLOCK Y	6	

DIGITAL OUTPUT CARD #3

JUMPER	PINS	REMARKS
JS1	C TO A	(NON EXP) CARD MUST BE JUMPED EXACTLY AS SHOWN FOR OPERATION IN PST SIMULCAST SYSTEM. NO ADDITIONAL JUMPERS PERMISSIBLE.
BLOCK X	6	
BLOCK Y	7	

ALARM SHELF

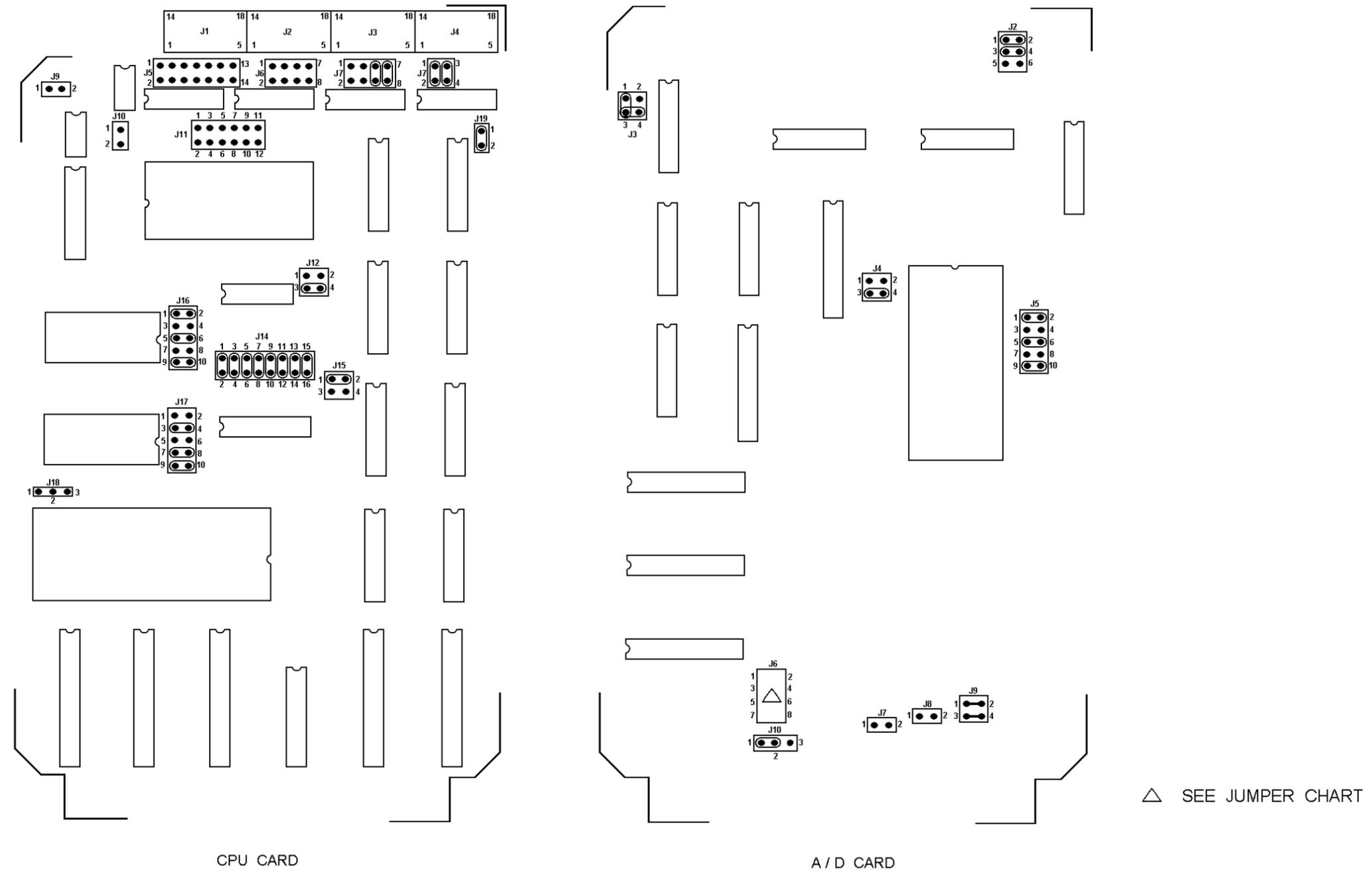
APPLICATION	S1 SETTING							
	1	2	3	4	5	6	7	8
CONTROL POINT	ON	ON	ON	ON	ON	ON	ON	ON
TX SITE # 01	OFF	ON	ON	ON	ON	ON	ON	ON
TX SITE # 02	ON	OFF	ON	ON	ON	ON	ON	ON
TX SITE # 03	OFF	OFF	ON	ON	ON	ON	ON	ON
TX SITE # 04	ON	ON	OFF	ON	ON	ON	ON	ON
TX SITE # 05	OFF	ON	OFF	ON	ON	ON	ON	ON
TX SITE # 06	ON	OFF	OFF	ON	ON	ON	ON	ON
TX SITE # 07	OFF	OFF	OFF	ON	ON	ON	ON	ON
TX SITE # 08	ON	ON	ON	OFF	ON	ON	ON	ON
TX SITE # 09	OFF	ON	ON	OFF	ON	ON	ON	ON
TX SITE # 10	ON	OFF	ON	OFF	ON	ON	ON	ON

SHELF MODIFICATION:  
AT CONTROL POINT ONLY-INSTALL JUMPER WIRE FROM S1-6 TO HOLE H02

HYBRID CARD 4201

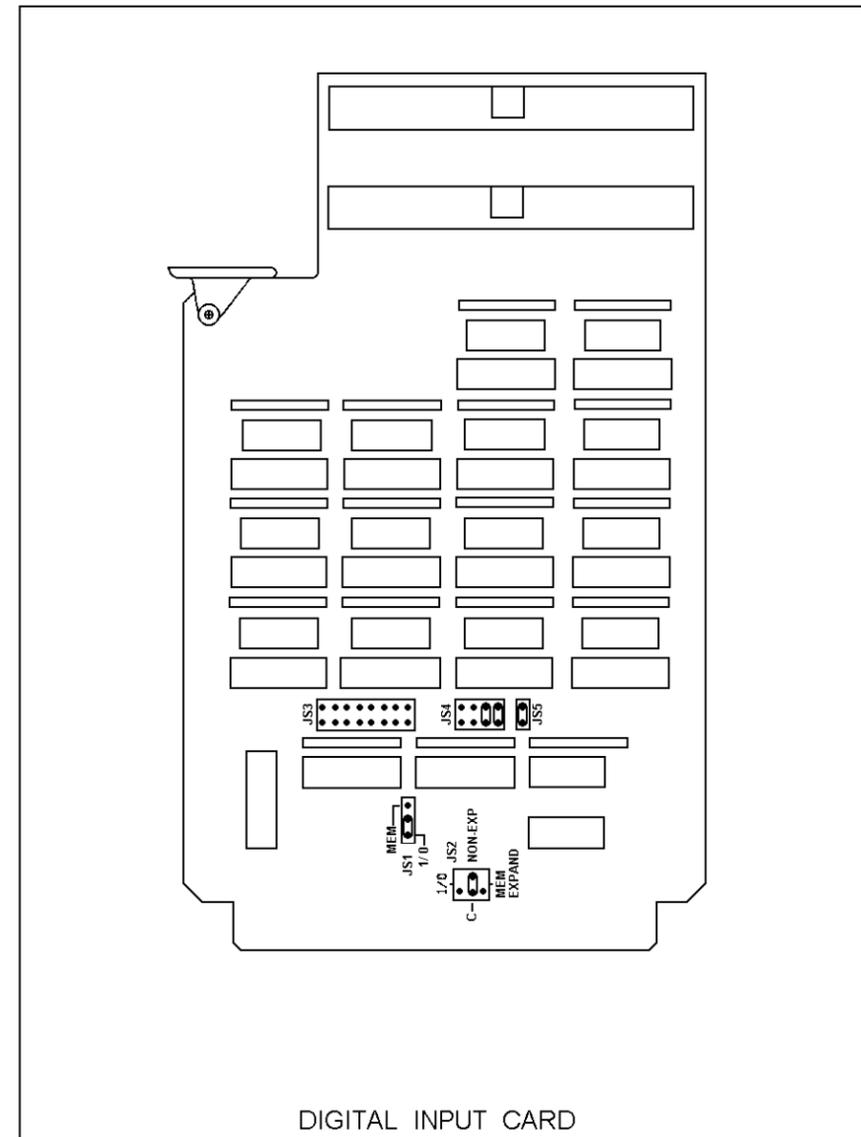
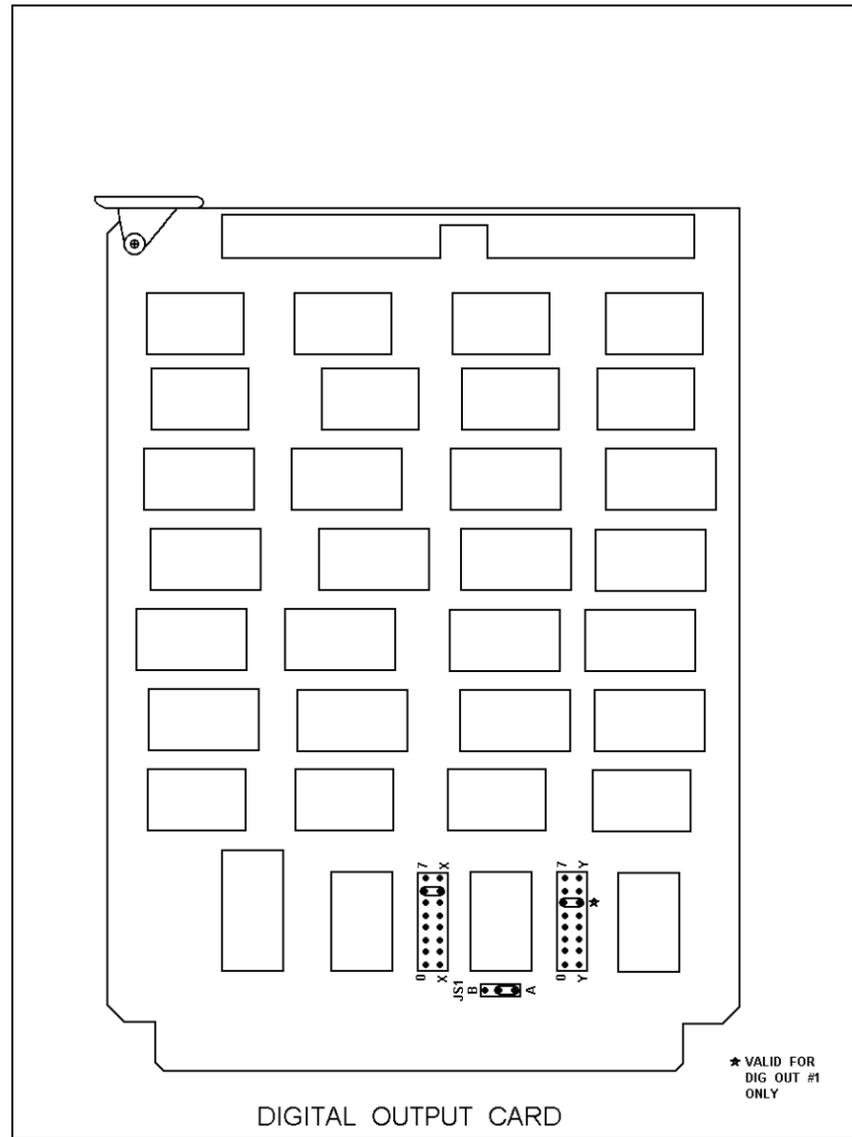
SWITCH	SETTINGS
S1	600 OHMS
S2	600 OHMS
S3-1	OFF
S3-2	OFF
S3-3	OFF
S3-4	OFF
S3-5	OFF
S3-6	ON
S3-7	ON
S3-8	ON

ALARM SHELF CONFIGURATION  
19D902821P1, 2



**ALARM SHELF JUMPER LOCATIONS, (CPU & A/D Cards)**  
**19D902821P1, 2**

(19D904177 Sh. 3, Rev. 1)



**ALARM SHELF JUMPER LOCATIONS (Digital I/O Cards)**  
**19D902821P1, 2**

(19F904177 Sh. 4, Rev. 1)

Vs (DC) (NOTE 3)	ALARM THRESHOLD SETTING	Watts (NOTE 1)	Vs (DC) (NOTE 3)	ALARM THRESHOLD SETTING	Watts (NOTE 1)	Vs (DC) (NOTE 3)	ALARM THRESHOLD SETTING	Watts (NOTE 1)	Vs (DC) (NOTE 3)	ALARM THRESHOLD SETTING	Watts (NOTE 1)
0.0	5.00	0.0	0.67	6.36	29.5	1.36	7.72	94.1	2.05	9.10	193
0.01	5.02	0.6	0.70	6.40	30.8	1.38	7.76	96.5	2.07	9.14	195
0.03	5.06	1.0	0.72	6.44	32.2	1.40	7.80	98.8	2.09	9.18	200
0.05	5.10	1.4	0.74	6.48	33.6	1.42	7.84	101	2.11	9.22	203
0.07	5.14	1.8	0.76	6.52	35.1	1.44	7.88	103	2.13	9.26	206
0.09	5.18	2.2	0.77	6.54	36.6	1.46	7.92	106	2.15	9.30	210
0.11	5.22	2.7	0.79	6.58	38.1	1.48	7.96	109	2.17	9.34	213
0.13	5.26	3.2	0.81	6.62	39.6	1.50	8.00	111	2.19	9.38	217
0.15	5.30	3.7	0.83	6.66	41.2	1.52	8.04	113	2.21	9.42	220
0.17	5.34	4.3	0.85	6.70	42.8	1.54	8.08	116	2.23	9.46	224
0.19	5.38	4.9	0.87	6.74	44.4	1.56	8.12	119	2.25	9.50	228
0.21	5.42	5.5	0.89	6.78	46.0	1.58	8.16	121	2.27	9.54	231
0.23	5.46	6.1	0.91	6.82	47.7	1.60	8.20	124	2.28	9.56	235
0.25	5.50	6.7	0.93	6.86	49.4	1.62	8.24	127	2.30	9.60	238
0.27	5.54	7.5	0.95	6.90	51.2	1.64	8.28	129	2.32	9.64	242
0.28	5.56	8.3	0.97	6.94	52.9	1.66	8.32	132	2.34	9.68	245
0.30	5.60	9.1	0.99	6.98	54.7	1.68	8.36	135	2.36	9.72	249
0.32	5.64	9.9	1.01	7.02	56.5	1.70	8.40	138	2.38	9.76	253
0.34	5.68	10.7	1.03	7.06	58.4	1.72	8.44	141	2.40	9.80	257
0.36	5.72	11.6	1.05	7.10	60.3	1.74	8.48	143	2.42	9.84	261
0.38	5.76	12.5	1.07	7.14	62.2	1.76	8.52	146	2.44	9.88	265
0.40	5.80	13.4	1.09	7.18	64.1	1.77	8.54	149	2.46	9.92	269
0.42	5.84	14.4	1.11	7.22	66.1	1.79	8.58	152	2.48	9.96	273
0.44	5.88	15.3	1.13	7.26	68.0	1.81	8.62	155	2.50	10.0	277
0.46	5.92	16.4	1.15	7.30	70.1	1.83	8.66	158			
0.48	5.96	17.4	1.17	7.34	72.1	1.85	8.70	161			
0.50	6.00	18.5	1.19	7.38	74.2	1.87	8.74	164			
0.52	6.04	19.6	1.21	7.42	76.3	1.89	7.78	167			
0.54	6.08	20.7	1.23	7.46	78.4	1.91	8.82	170			
0.56	6.12	21.9	1.25	7.50	80.6	1.93	8.86	174			
0.58	6.16	23.1	1.27	7.54	82.8	1.95	8.90	177			
0.60	6.20	24.3	1.28	7.56	85.0	1.97	8.94	180			
0.62	6.24	25.5	1.30	7.60	87.2	1.99	8.98	183			
0.64	6.28	26.8	1.32	7.64	89.5	2.01	9.02	186			
0.66	6.32	28.1	1.34	7.68	91.8	2.03	9.06	190			

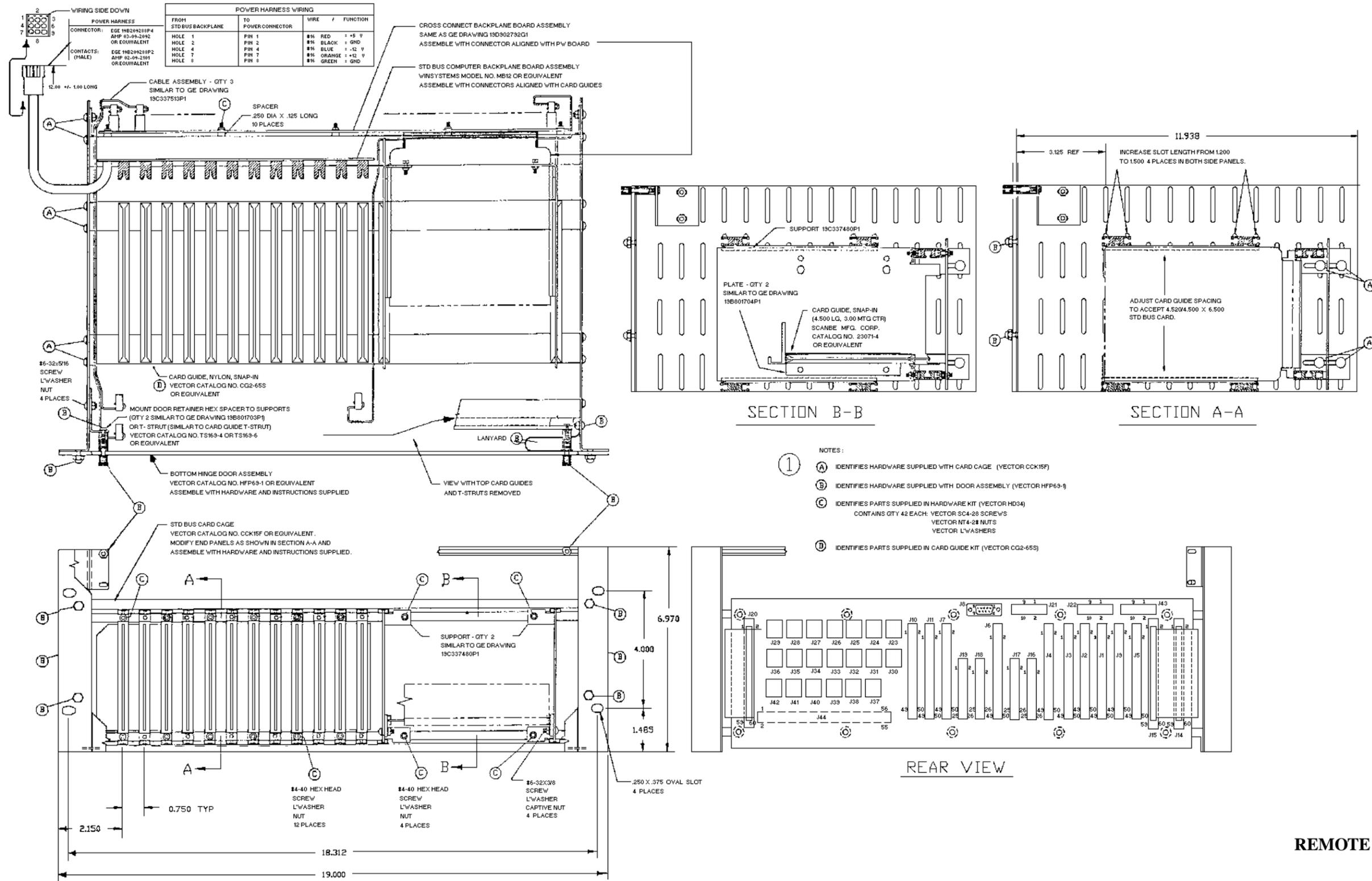
- NOTES:
- 'WATTS' COLUMN VALID ONLY FOR PROPERLY CALIBRATED 1000 WATT POWER SENSOR.
  - THIS DATA EXTRACTED FROM DB PRODUCTS DOCUMENT 'SENTRY 8830 APPL'.
  - Vs (DC) IS THE SNIFFER VOLTAGE PRODUCED AT PHONO CONNECTOR.

ANALOG ALARM THRESHOLD TABLE

ANALOG ALARM THRESHOLD TABLE

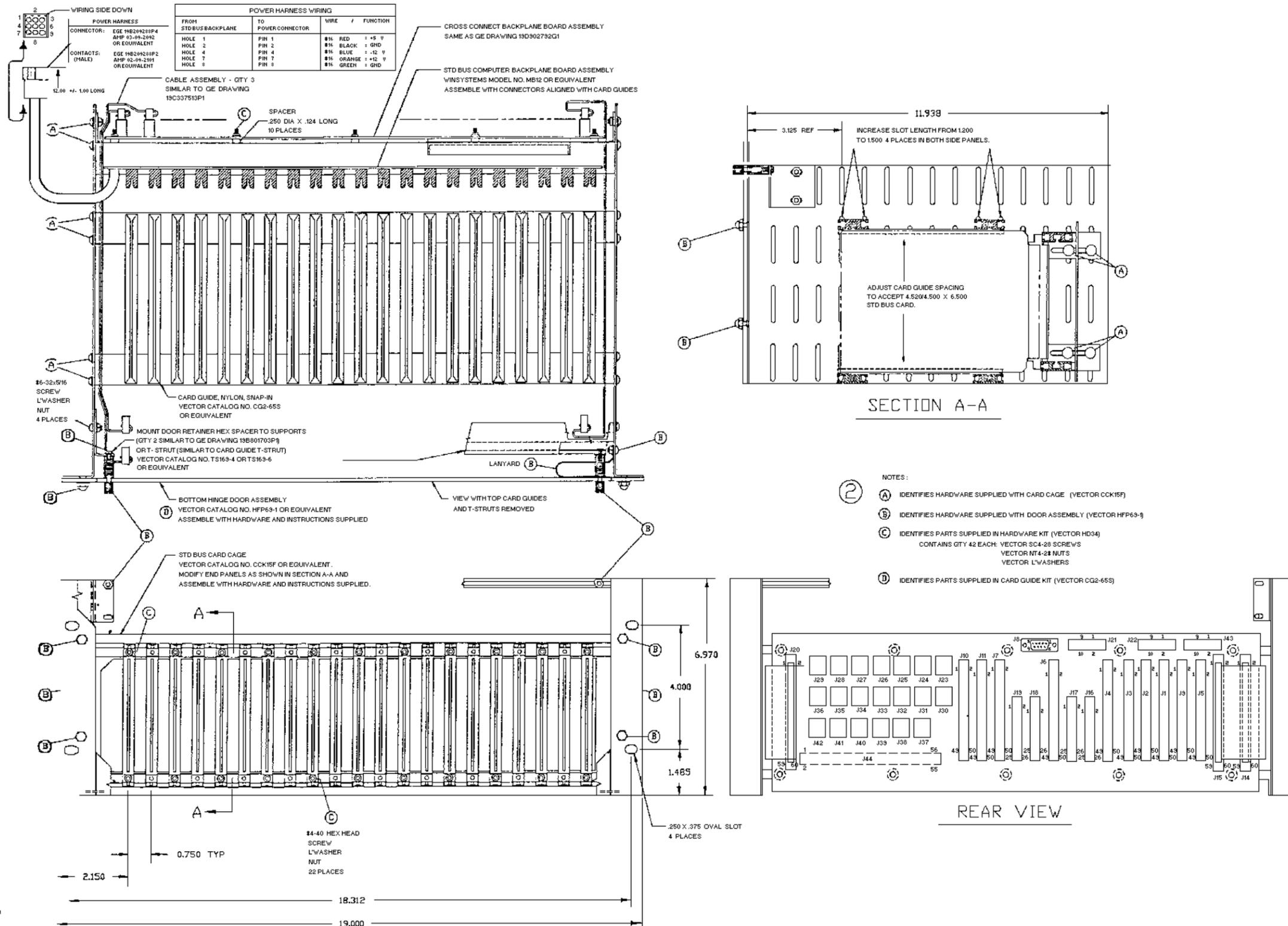
ALARM SHELF ANALOG THRESHOLD TABLES  
19D902821P1, 2

(19D904177 Sh. 5, Rev. 1)



**REMOTE ALARM SHELF  
19D902821A1**

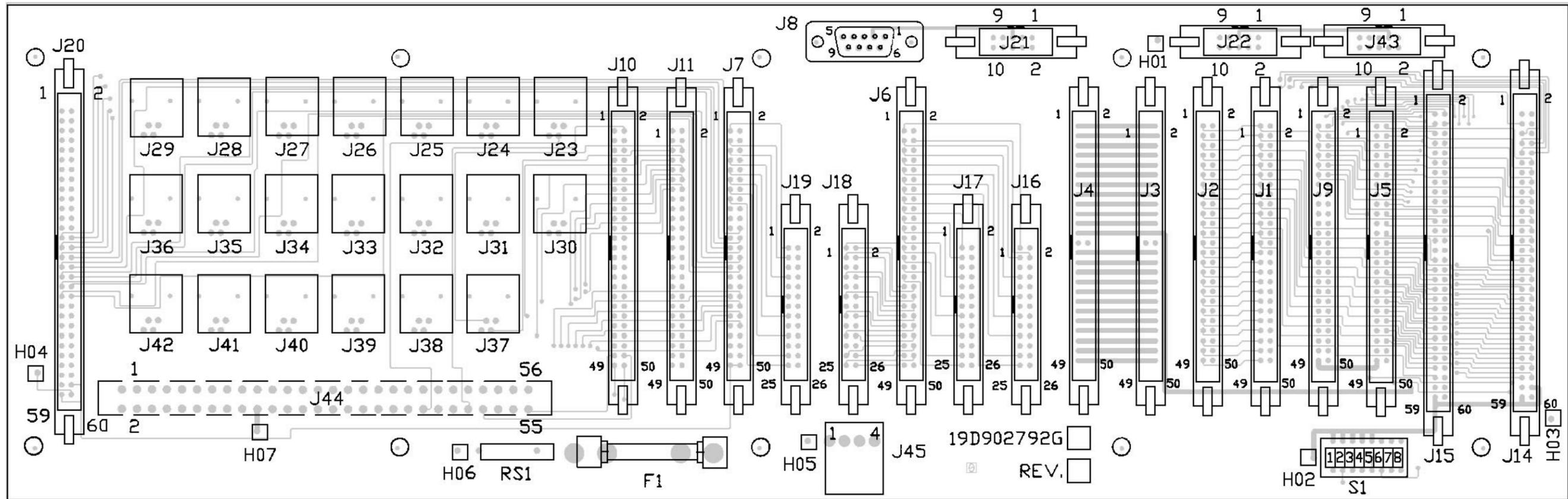
(19D902821, Sh. 1, Rev. 2)



**MASTER ALARM SHELF  
 19D902821P2**

(19D902821, Sh. 2, Rev. 2)

COMPONENT SIDE



CROSS CONNECT BACKPLANE  
19D902792G

(19D902791, Mark Component Side, Rev. 1A)  
(19D902791, Component Side, Rev. 0)

CROSS CONNECT BACKPLANE

19D902792G2

SYMBOL	PART NO.	DESCRIPTION
----- FUSES -----		
F1	19A701881P18	Fuse: 0.5A, 250V.
----- CONNECTORS -----		
J1 thru J7		50-Pin; sim to Amp 1-499582-0
J8		9-Pin; sim to Amp 747090-2.
J9 thru J11		50-Pin; sim to Amp 1-499582-0
J12/J13		NOT USED
J14/J15		60-Pin; sim to Amp 1-499582-1
J16-J19		26-Pin; sim to Amp 1-499582-6
J20		60-Pin; sim to Amp 1-499582-1
J21/J22		10-Pin; sim to Amp 1-499582-1.
J23-J42		Modular telephone connector; sim to Steward SS-6546-NF
J43		10-Pin; sim to Amp 499582-1
J44		56-pin printed wire board edge connector; sim to EDAC 737-056-525-206.
J45	19A116659P57	4-Pin
----- RESISTORS -----		
R1	19A700113P53	390 ohms, 1/2 w.
----- SWITCHES -----		
S1	19B800010P2	8-position, Dip.
----- MISCELLANEOUS -----		
		Fuse Clip: sim to Bussman 1A1119-05.
		Latch; sim to Amp 102320-1.

ALARM CROSS-CONNECT PANEL

FROM	TO	FUNCTION
H01 - 01	J15 - 58	PTT RTN
H02 - 01	J05 - 49	GNDDIN
	J05 - 50	
	J09 - 49	
	J14 - 58	
	J14 - 59	
	J15 - 59	
	S01 - 11	
	S01 - 12	
	S01 - 13	
	S01 - 14	
	S01 - 15	
	S01 - 16	
H03 - 01	J14 - 60	+5 DIN
H04 - 01	J20 - 60	+5 DOUT
H05 - 01	J45 - 01	+12 F01-1
	J45 - 02	
H06 - 01	H06 - 02	+12 F01-2 / RS01-2
	H06 - 03	
H06 - 02	H06 - 01	+12 F01-2 / RS01-2
	H06 - 03	
H06 - 03	H06 - 01	+12 F01-2 / RS01-2
	H06 - 02	
H07 - 01	J44 - 19	RS01-1
J01 - 01	J02 - 01	PTT CH01
J01 - 02	J02 - 02	PTT CH02
	J15 - 32	
J01 - 03	J02 - 03	PTT CH03
	J15 - 33	
J01 - 04	J02 - 04	PTT CH04
	J15 - 34	
J01 - 05	J02 - 05	PTT CH05
	J15 - 35	
J01 - 06	J02 - 06	PTT CH06
	J15 - 36	
J01 - 07	J02 - 07	PTT CH07
	J15 - 37	
J01 - 08	J02 - 08	PTT CH08
	J15 - 38	
J01 - 09	J02 - 09	PTT CH09
	J15 - 39	
J01 - 10	J02 - 10	PTT CH10
	J15 - 40	
J01 - 11	J02 - 11	PTT CH11
	J15 - 41	
J01 - 12	J02 - 12	PTT CH12
	J15 - 42	
J01 - 13	J02 - 13	PTT CH13
	J15 - 43	
J01 - 14	J02 - 14	PTT CH14

FROM	TO	FUNCTION
J01 - 15	J15 - 44	
	J02 - 15	PTT CH15
J01 - 16	J15 - 45	
	J02 - 16	PTT CH16
J01 - 17	J15 - 46	
	J02 - 17	PTT CH17
J01 - 18	J15 - 47	
	J02 - 18	PTT CH18
J01 - 19	J15 - 48	
	J02 - 19	PTT CH19
J01 - 20	J15 - 49	
	J02 - 20	PTT CH20
J01 - 21	J15 - 50	
	J02 - 21	PTT CH21
J01 - 22	J15 - 51	
	J02 - 22	PTT CH22
J01 - 23	J15 - 52	
	J02 - 23	PTT CH23
J01 - 24	J15 - 53	
	J02 - 24	PTT CH24
J01 - 25	J15 - 54	
	J02 - 25	PTT CH25
	J15 - 55	
J02 - 01	J01 - 01	PTT CH01
J02 - 02	J15 - 31	
	J01 - 02	PTT CH02
J02 - 03	J15 - 32	
	J01 - 03	PTT CH03
J02 - 04	J15 - 33	
	J01 - 04	PTT CH04
J02 - 05	J15 - 34	
	J01 - 05	PTT CH05
J02 - 06	J15 - 35	
	J01 - 06	PTT CH06
J02 - 07	J15 - 36	
	J01 - 07	PTT CH07
J02 - 08	J15 - 37	
	J01 - 08	PTT CH08
J02 - 09	J15 - 38	
	J01 - 09	PTT CH09
J02 - 10	J15 - 39	
	J01 - 10	PTT CH10
J02 - 11	J15 - 40	
	J01 - 11	PTT CH11
J02 - 12	J15 - 41	
	J01 - 12	PTT CH12
J02 - 13	J15 - 42	
	J01 - 13	PTT CH13
J02 - 14	J15 - 43	
	J01 - 14	PTT CH14
J02 - 15	J15 - 44	
	J01 - 15	PTT CH15

**WIRING LIST**

**LBI-38496D**

<u>FROM</u>	<u>TO</u>	<u>FUNCTION</u>									
	J15 - 45		J05 - 32	J14 - 42	DIN32	J06 - 11	J16 - 19	AIN+06	J07 - 13	J19 - 23	AIN+31
J02 - 16	J01 - 16	PTT CH16	J05 - 33	J14 - 43	DIN33	J06 - 12	J16 - 20	AIN-06	J07 - 14	J19 - 24	AIN-31
	J15 - 46		J05 - 34	J14 - 44	DIN34	J06 - 13	J16 - 23	AIN+07	J07 - 15	J19 - 25	AIN+32
J02 - 17	J01 - 17	PTT CH17	J05 - 35	J14 - 45	DIN35	J06 - 14	J16 - 24	AIN-07	J07 - 16	J19 - 26	AIN-32
	J15 - 47		J05 - 36	J14 - 46	DIN36	J06 - 15	J16 - 25	AIN+08	J07 - 17	J20 - 27	DOUT17
J02 - 18	J01 - 18	PTT CH18	J05 - 37	J14 - 47	DIN37	J06 - 16	J16 - 26	AIN-08	J07 - 18	J20 - 28	DOUT18
	J15 - 48		J05 - 38	J14 - 48	DIN38	J06 - 17	J17 - 01	AIN+09	J07 - 19	J20 - 29	DOUT19
J02 - 19	J01 - 19	PTT CH19	J05 - 39	J14 - 49	DIN39	J06 - 18	J17 - 02	AIN-09	J07 - 20	J20 - 30	DOUT20
	J15 - 49		J05 - 40	J14 - 50	DIN40	J06 - 19	J17 - 03	AIN+10	J07 - 21	J20 - 31	DOUT21
J02 - 20	J01 - 20	PTT CH20	J05 - 41	J14 - 51	DIN41	J06 - 20	J17 - 04	AIN-10	J07 - 22	J20 - 32	DOUT22
	J15 - 50		J05 - 42	J14 - 52	DIN42	J06 - 21	J17 - 07	AIN+11	J07 - 23	J20 - 33	DOUT23
J02 - 21	J01 - 21	PTT CH21	J05 - 43	J14 - 53	DIN43	J06 - 22	J17 - 08	AIN-11	J07 - 24	J20 - 34	DOUT24
	J15 - 51		J05 - 44	J14 - 54	DIN44	J06 - 23	J17 - 11	AIN+12	J07 - 25	J20 - 35	DOUT25
J02 - 22	J01 - 22	PTT CH22	J05 - 45	J14 - 55	DIN45	J06 - 24	J17 - 12	AIN-12	J07 - 26	J20 - 36	DOUT26
	J15 - 52		J05 - 46	J14 - 56	DIN46	J06 - 25	J17 - 15	AIN+13	J07 - 27	J20 - 37	DOUT27
J02 - 23	J01 - 23	PTT CH23	J05 - 47	J15 - 11	DIN47	J06 - 26	J17 - 16	AIN-13	J07 - 28	J20 - 38	DOUT28
	J15 - 53		J05 - 48	J15 - 12	DIN48	J06 - 27	J17 - 19	AIN+14	J07 - 29	J20 - 39	DOUT29
J02 - 24	J01 - 24	PTT CH24	J05 - 49	H02 - 01	GNDDIN	J06 - 28	J17 - 20	AIN-14	J07 - 30	J20 - 40	DOUT30
	J15 - 54			J05 - 50		J06 - 29	J17 - 23	AIN+15	J07 - 31	J20 - 11	DOUT01
J02 - 25	J01 - 25	PTT CH25		J09 - 49		J06 - 30	J17 - 24	AIN-15	J07 - 32	J20 - 12	DOUT02
	J15 - 55			J14 - 58		J06 - 31	J17 - 25	AIN+16	J07 - 33	J20 - 13	DOUT03
				J14 - 59		J06 - 32	J17 - 26	AIN-16	J07 - 34	J20 - 14	DOUT04
J05 - 01	J14 - 11	DIN01		J15 - 59		J06 - 33	J18 - 01	AIN+17	J07 - 35	J20 - 15	DOUT05
J05 - 02	J14 - 12	DIN02		S01 - 11		J06 - 34	J18 - 02	AIN-17	J07 - 36	J20 - 16	DOUT06
J05 - 03	J14 - 13	DIN03		S01 - 12		J06 - 35	J18 - 03	AIN+18	J07 - 37	J20 - 17	DOUT07
J05 - 04	J14 - 14	DIN04		S01 - 13		J06 - 36	J18 - 04	AIN-18	J07 - 38	J20 - 18	DOUT08
J05 - 05	J14 - 15	DIN05		S01 - 14		J06 - 37	J18 - 07	AIN+19	J07 - 39	J20 - 19	DOUT09
J05 - 06	J14 - 16	DIN06		S01 - 15		J06 - 38	J18 - 08	AIN-19	J07 - 40	J20 - 20	DOUT10
J05 - 07	J14 - 17	DIN07		S01 - 16		J06 - 39	J18 - 11	AIN+20	J07 - 41	J20 - 21	DOUT11
J05 - 08	J14 - 18	DIN08	J05 - 50	H02 - 01	GNDDIN	J06 - 40	J18 - 12	AIN-20	J07 - 42	J20 - 22	DOUT12
J05 - 09	J14 - 19	DIN09		J05 - 49		J06 - 41	J18 - 15	AIN+21	J07 - 43	J20 - 23	DOUT13
J05 - 10	J14 - 20	DIN10		J09 - 49		J06 - 42	J18 - 16	AIN-21	J07 - 44	J20 - 24	DOUT14
J05 - 11	J14 - 21	DIN11		J14 - 58		J06 - 43	J18 - 19	AIN+22	J07 - 45	J20 - 25	DOUT15
J05 - 12	J14 - 22	DIN12		J14 - 59		J06 - 44	J18 - 20	AIN-22	J07 - 46	J20 - 26	DOUT16
J05 - 13	J14 - 23	DIN13		J15 - 59		J06 - 45	J18 - 23	AIN+23	J07 - 47	J20 - 41	DOUT31
J05 - 14	J14 - 24	DIN14		S01 - 11		J06 - 46	J18 - 24	AIN-23	J07 - 48	J20 - 42	DOUT32
J05 - 15	J14 - 25	DIN15		S01 - 12		J06 - 47	J18 - 25	AIN+24	J07 - 49	J07 - 50	GNDDOUT
J05 - 16	J14 - 26	DIN16		S01 - 13		J06 - 48	J18 - 26	AIN-24		J20 - 58	
J05 - 17	J14 - 27	DIN17		S01 - 14		J06 - 49		n/c		J20 - 59	
J05 - 18	J14 - 28	DIN18		S01 - 15		J06 - 50		n/c	J07 - 50	J07 - 49	GNDDOUT
J05 - 19	J14 - 29	DIN19		S01 - 16						J20 - 58	
J05 - 20	J14 - 30	DIN20								J20 - 59	
J05 - 21	J14 - 31	DIN21	J06 - 01	J16 - 01	AIN+01	J07 - 01	J19 - 01	AIN+25			
J05 - 22	J14 - 32	DIN22	J06 - 02	J16 - 02	AIN-01	J07 - 02	J19 - 02	AIN-25			
J05 - 23	J14 - 33	DIN23	J06 - 03	J16 - 03	AIN+02	J07 - 03	J19 - 03	AIN+26	J08 - 01		n/c
J05 - 24	J14 - 34	DIN24	J06 - 04	J16 - 04	AIN-02	J07 - 04	J19 - 04	AIN-26	J08 - 02	J21 - 05	TXDA
J05 - 25	J14 - 35	DIN25				J07 - 05	J19 - 07	AIN+27	J08 - 03	J21 - 03	RXDA
J05 - 26	J14 - 36	DIN26	J06 - 05	J16 - 07	AIN+03	J07 - 06	J19 - 08	AIN-27	J08 - 04		n/c
J05 - 27	J14 - 37	DIN27	J06 - 06	J16 - 08	AIN-03	J07 - 07	J19 - 11	AIN+28	J08 - 05	J21 - 01	GNDCPUA
J05 - 28	J14 - 38	DIN28	J06 - 07	J16 - 11	AIN+04	J07 - 08	J19 - 12	AIN-28	J08 - 06		n/c
J05 - 29	J14 - 39	DIN29	J06 - 08	J16 - 12	AIN-04	J07 - 09	J19 - 15	AIN+29	J08 - 07		n/c
J05 - 30	J14 - 40	DIN30	J06 - 09	J16 - 15	AIN+05	J07 - 10	J19 - 16	AIN-29	J08 - 08		n/c
J05 - 31	J14 - 41	DIN31	J06 - 10	J16 - 16	AIN-05	J07 - 11	J19 - 19	AIN+30	J08 - 09		n/c
						J07 - 12	J19 - 20	AIN-30			

<u>FROM</u>	<u>TO</u>	<u>FUNCTION</u>									
J09 - 01	J15 - 13	DIN49*		J14 - 59		J10 - 43		n/c	J11 - 44		n/c
J09 - 02	J15 - 14	DIN50*		J15 - 59		J10 - 44		n/c	J11 - 45		n/c
J09 - 03	J15 - 15	DIN51*		S01 - 11		J10 - 45		n/c	J11 - 46		n/c
J09 - 04	J15 - 16	DIN52*		S01 - 12		J10 - 46		n/c	J11 - 47		n/c
J09 - 05	J15 - 17	DIN53*		S01 - 13		J10 - 47	J44 - 55	XMT T S01	J11 - 48		n/c
J09 - 06	J15 - 18	DIN54*		S01 - 14		J10 - 48	J44 - 49	XMT R S01	J11 - 49		n/c
J09 - 07	J15 - 19	DIN55*		S01 - 15		J10 - 49	J44 - 05	RCV T S01	J11 - 50		n/c
J09 - 08	J15 - 20	DIN56*		S01 - 16		J10 - 50	J44 - 15	RCV R S01			
J09 - 09	J15 - 21	DIN57*	J09 - 50		n/c				J14 - 01	J09 - 13	DIN61*
J09 - 10	J15 - 22	DIN58*				J11 - 01	J35 - 02	M TIP S13*	J14 - 02	J09 - 14	DIN62*
J09 - 11	J15 - 23	DIN59*	J10 - 01	J23 - 02	M TIP S01	J11 - 02	J35 - 03	M RING S3*	J14 - 03	J09 - 15	DIN63*
J09 - 12	J15 - 24	DIN60*		J44 - 41		J11 - 03	J36 - 02	M TIP S14*	J14 - 04	J09 - 16	DIN64*
J09 - 13	J14 - 01	DIN61*	J10 - 02	J23 - 03	M RING S01	J11 - 04	J36 - 03	M RING S14*	J14 - 05	J09 - 17	DIN65*
J09 - 14	J14 - 02	DIN62*		J44 - 47		J11 - 05	J37 - 02	M TIP S15*	J14 - 06	J09 - 18	DIN66*
J09 - 15	J14 - 03	DIN63*	J10 - 03	J24 - 02	M TIP S02	J11 - 06	J37 - 03	M RING S15*	J14 - 07	J09 - 19	DIN67*
J09 - 16	J14 - 04	DIN64*	J10 - 04	J24 - 03	M RING S02	J11 - 07	J38 - 02	M TIP S16*	J14 - 08	J09 - 20	DIN68*
J09 - 17	J14 - 05	DIN65*	J10 - 05	J25 - 02	M TIP S03	J11 - 08	J38 - 03	M RING S16*	J14 - 09	J09 - 21	DIN69*
J09 - 18	J14 - 06	DIN66*	J10 - 06	J25 - 03	M RING S03	J11 - 09	J39 - 02	M TIP S17*	J14 - 10	J09 - 22	DIN70*
J09 - 19	J14 - 07	DIN67*	J10 - 07	J26 - 02	M TIP S04	J11 - 10	J39 - 03	M RING S17*	J14 - 11	J05 - 01	DIN01
J09 - 20	J14 - 08	DIN68*	J10 - 08	J26 - 03	M RING S04	J11 - 11	J40 - 02	M TIP S18*	J14 - 12	J05 - 02	DIN02
J09 - 21	J14 - 09	DIN69*	J10 - 09	J27 - 02	M TIP S05	J11 - 12	J40 - 03	M RING S18*	J14 - 13	J05 - 03	DIN03
J09 - 22	J14 - 10	DIN70*	J10 - 10	J27 - 03	M RING S05	J11 - 13	J41 - 02	M TIP S19*	J14 - 14	J05 - 04	DIN04
J09 - 23	J15 - 01	DIN71*	J10 - 11	J28 - 02	M TIP S06	J11 - 14	J41 - 03	M RING S19*	J14 - 15	J05 - 05	DIN05
J09 - 24	J15 - 02	DIN72*	J10 - 12	J28 - 03	M RING S06	J11 - 15	J42 - 02	M TIP S20*	J14 - 16	J05 - 06	DIN06
J09 - 25	J15 - 03	DIN73*	J10 - 13	J29 - 02	M TIP S07	J11 - 16	J42 - 03	M RING S20*	J14 - 17	J05 - 07	DIN07
J09 - 26	J15 - 04	DIN74*	J10 - 14	J29 - 03	M RING S07	J11 - 17		n/c	J14 - 18	J05 - 08	DIN08
J09 - 27	J15 - 05	DIN75*	J10 - 15	J30 - 02	M TIP S08	J11 - 18		n/c	J14 - 19	J05 - 09	DIN09
J09 - 28	J15 - 06	DIN76*	J10 - 16	J30 - 03	M RING S08	J11 - 19		n/c	J14 - 20	J05 - 10	DIN10
J09 - 29	J15 - 07	DIN77*	J10 - 17	J31 - 02	M TIP S09	J11 - 20		n/c	J14 - 21	J05 - 11	DIN11
J09 - 30	J15 - 08	DIN78*	J10 - 18	J31 - 03	M RING S09	J11 - 21		n/c	J14 - 22	J05 - 12	DIN12
J09 - 31	J15 - 09	DIN79*	J10 - 19	J32 - 02	M TIP S10	J11 - 22		n/c	J14 - 23	J05 - 13	DIN13
J09 - 32	J15 - 10	DIN80*	J10 - 20	J32 - 03	M RING S10	J11 - 23		n/c	J14 - 24	J05 - 14	DIN14
J09 - 33		n/c	J10 - 21	J33 - 02	M TIP S11	J11 - 24		n/c	J14 - 25	J05 - 15	DIN15
J09 - 34		n/c	J10 - 22	J33 - 03	M RING S11	J11 - 25		n/c	J14 - 26	J05 - 16	DIN16
J09 - 35		n/c	J10 - 23	J34 - 02	M TIP S12	J11 - 26		n/c	J14 - 27	J05 - 17	DIN17
J09 - 36		n/c	J10 - 24	J34 - 03	M RING S12	J11 - 27		n/c	J14 - 28	J05 - 18	DIN18
J09 - 37		n/c	J10 - 25		n/c	J11 - 28		n/c	J14 - 29	J05 - 19	DIN19
J09 - 38		n/c	J10 - 26		n/c	J11 - 29		n/c	J14 - 30	J05 - 20	DIN20
J09 - 39		n/c	J10 - 27		n/c	J11 - 30		n/c	J14 - 31	J05 - 21	DIN21
J09 - 40		n/c	J10 - 28		n/c	J11 - 31		n/c	J14 - 32	J05 - 22	DIN22
J09 - 41		n/c	J10 - 29		n/c	J11 - 32		n/c	J14 - 33	J05 - 23	DIN23
J09 - 42		n/c	J10 - 30		n/c	* NOT USED			J14 - 34	J05 - 24	DIN24
J09 - 43		n/c	J10 - 31		n/c	J11 - 33		n/c	J14 - 35	J05 - 25	DIN25
* NOT USED			J10 - 32		n/c	J11 - 34		n/c	J14 - 36	J05 - 26	DIN26
J09 - 44		n/c	J10 - 33		n/c	J11 - 35		n/c	J14 - 37	J05 - 27	DIN27
J09 - 45		n/c	J10 - 35		n/c	J11 - 36		n/c	J14 - 38	J05 - 28	DIN28
J09 - 46		n/c	J10 - 36		n/c	J11 - 37		n/c	J14 - 39	J05 - 29	DIN29
J09 - 47		n/c	J10 - 37		n/c	J11 - 38		n/c	J14 - 40	J05 - 30	DIN30
J09 - 48		n/c	J10 - 38		n/c	J11 - 39		n/c	J14 - 41	J05 - 31	DIN31
J09 - 49	H02 - 01	GNDDIN	J10 - 39		n/c	J11 - 40		n/c	J14 - 42	J05 - 32	DIN32
	J05 - 49		J10 - 40		n/c	J11 - 41		n/c	J14 - 43	J05 - 33	DIN33
	J05 - 50		J10 - 41		n/c	J11 - 42		n/c	J14 - 44	J05 - 34	DIN34
	J14 - 58		J10 - 42		n/c	J11 - 43		n/c	J14 - 45	J05 - 35	DIN35

**WIRING LIST**

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<u>FROM</u>	<u>TO</u>	<u>FUNCTION</u>									
J14 - 46	J05 - 36	DIN36	J15 - 14	J09 - 02	DIN50*	J15 - 49	J01 - 19	PTT CH19	J16 - 23	J06 - 13	AIN+07
J14 - 47	J05 - 37	DIN37	J15 - 15	J09 - 03	DIN51*		J02 - 19		J16 - 24	J06 - 14	AIN-07
J14 - 48	J05 - 38	DIN38	J15 - 16	J09 - 04	DIN52*	J15 - 50	J01 - 20	PTT CH20	J16 - 25	J06 - 15	AIN+08
J14 - 49	J05 - 39	DIN39	J15 - 17	J09 - 05	DIN53*		J02 - 20		J16 - 26	J06 - 16	AIN-08
J14 - 50	J05 - 40	DIN40	J15 - 18	J09 - 06	DIN54*	J15 - 51	J01 - 21	PTT CH21			
J14 - 51	J05 - 41	DIN41	J15 - 19	J09 - 07	DIN55*		J02 - 21		J17 - 01	J06 - 17	AIN+09
J14 - 52	J05 - 42	DIN42	J15 - 20	J09 - 08	DIN56*	J15 - 52	J01 - 22	PTT CH22	J17 - 02	J06 - 18	AIN-09
J14 - 53	J05 - 43	DIN43	J15 - 21	J09 - 09	DIN57*		J02 - 22		J17 - 03	J06 - 19	AIN+10
J14 - 54	J05 - 44	DIN44	J15 - 22	J09 - 10	DIN58*	J15 - 53	J01 - 23	PTT CH23	J17 - 04	J06 - 20	AIN-10
J14 - 55	J05 - 45	DIN45	J15 - 23	J09 - 11	DIN59*		J02 - 23		J17 - 05		n/c
J14 - 56	J05 - 46	DIN46	J15 - 24	J09 - 12	DIN60*	J15 - 54	J01 - 24	PTT CH24	J17 - 06		n/c
J14 - 57		n/c	J15 - 25	S01 - 01	SITE A1		J02 - 24		J17 - 07	J06 - 21	AIN+11
J14 - 58	H02 - 01	GNDDIN	J15 - 26	S01 - 02	SITE A2	J15 - 55	J01 - 25	PTT CH25	J17 - 08	J06 - 22	AIN-11
	J05 - 49		J15 - 27	S01 - 03	SITE A3		J02 - 25		J17 - 09		n/c
	J05 - 50		J15 - 28	S01 - 04	SITE A4	J15 - 56		n/c	J17 - 10		n/c
	J09 - 49		J15 - 29	S01 - 05	SITE A5	J15 - 57		n/c	J17 - 11	J06 - 23	AIN+12
	J14 - 59		J15 - 30	S01 - 06	CNT/TX	J15 - 58	H01 - 01	PTT RTN	J17 - 12	J06 - 24	AIN-12
	J15 - 59		J15 - 31	J01 - 01	PTT CH01	J15 - 59	H02 - 01	GNDDIN	J17 - 13		n/c
	S01 - 11			J02 - 01			J05 - 49		J17 - 14		n/c
	S01 - 12		J15 - 32	J01 - 02	PTT CH02		J05 - 50		J17 - 15	J06 - 25	AIN+13
	S01 - 13			J02 - 02			J09 - 49		J17 - 16	J06 - 26	AIN-13
	S01 - 14		J15 - 33	J01 - 03	PTT CH03		J14 - 58		J17 - 17		n/c
	S01 - 15			J02 - 03			J14 - 59		J17 - 18		n/c
	S01 - 16		J15 - 34	J01 - 04	PTT CH04		S01 - 11		J17 - 19	J06 - 27	AIN+14
J14 - 59	H02 - 01	GNDDIN		J02 - 04			S01 - 12		J17 - 20	J06 - 28	AIN-14
	J05 - 49		J15 - 35	J01 - 05	PTT CH05		S01 - 13		J17 - 21		n/c
	J05 - 50			J02 - 05			S01 - 14		J17 - 22		n/c
	J09 - 49		J15 - 36	J01 - 06	PTT CH06		S01 - 15		J17 - 23	J06 - 29	AIN+15
	J14 - 58			J02 - 06			S01 - 16		J17 - 24	J06 - 30	AIN-15
	J15 - 59		J15 - 37	J01 - 07	PTT CH07	J15 - 60		n/c	J17 - 25	J06 - 31	AIN+16
	S01 - 11			J02 - 07					J17 - 26	J06 - 32	AIN-16
	S01 - 12		J15 - 38	J01 - 08	PTT CH08	J16 - 01	J06 - 01	AIN+01			
	S01 - 13			J02 - 08		J16 - 02	J06 - 02	AIN-01	J18 - 01	J06 - 33	AIN+17
	S01 - 14		J15 - 39	J01 - 09	PTT CH09	J16 - 03	J06 - 03	AIN+02	J18 - 02	J06 - 34	AIN-17
	S01 - 15			J02 - 09		J16 - 04	J06 - 04	AIN-02	J18 - 03	J06 - 35	AIN+18
	S01 - 16		J15 - 40	J01 - 10	PTT CH10	J16 - 05		n/c	J18 - 04	J06 - 36	AIN-18
J14 - 60	H03 - 01	+5 DIN		J02 - 10		J16 - 06		n/c	J18 - 05		n/c
			J15 - 41	J01 - 11	PTT CH11	J16 - 07	J06 - 05	AIN+03	J18 - 06		n/c
				J02 - 11		J16 - 08	J06 - 06	AIN-03	J18 - 07	J06 - 37	AIN+19
NOT USED			J15 - 42	J01 - 12	PTT CH12	J16 - 09		n/c	J18 - 08	J06 - 38	AIN-19
J15 - 01	J09 - 23	DIN71*		J02 - 12		J16 - 10		n/c	J18 - 09		n/c
J15 - 02	J09 - 24	DIN72*	J15 - 43	J01 - 13	PTT CH13	J16 - 11	J06 - 07	AIN+04	J18 - 10		n/c
J15 - 03	J09 - 25	DIN73*		J02 - 13		J16 - 12	J06 - 08	AIN-04	J18 - 11	J06 - 39	AIN+20
J15 - 04	J09 - 26	DIN74*	J15 - 44	J01 - 14	PTT CH14	J16 - 13		n/c	J18 - 12	J06 - 40	AIN-20
J15 - 05	J09 - 27	DIN75*		J02 - 14		J16 - 14		n/c	J18 - 13		n/c
J15 - 06	J09 - 28	DIN76*	J15 - 45	J01 - 15	PTT CH15	J16 - 15	J06 - 09	AIN+05	J18 - 14		n/c
J15 - 07	J09 - 29	DIN77*		J02 - 15		J16 - 16	J06 - 10	AIN-05	J18 - 15	J06 - 41	AIN+21
J15 - 08	J09 - 30	DIN78*	J15 - 46	J01 - 16	PTT CH16	J16 - 17		n/c	J18 - 16	J06 - 42	AIN-21
J15 - 09	J09 - 31	DIN79*		J02 - 16		J16 - 18		n/c	J18 - 17		n/c
J15 - 10	J09 - 32	DIN80*	J15 - 47	J01 - 17	PTT CH17	J16 - 19	J06 - 11	AIN+06	J18 - 18		n/c
J15 - 11	J05 - 47	DIN47		J02 - 17		J16 - 20	J06 - 12	AIN-06	J18 - 19	J06 - 43	AIN+22
J15 - 12	J05 - 48	DIN48	J15 - 48	J01 - 18	PTT CH18	J16 - 21		n/c	J18 - 20	J06 - 44	AIN-22
J15 - 13	J09 - 01	DIN49*		J02 - 18		J16 - 22		n/c	J18 - 21		n/c

<u>FROM</u>	<u>TO</u>	<u>FUNCTION</u>									
J18 - 22		n/c	J20 - 21	J07 - 41	DOUT11	J21 - 09		n/c	J30 - 04		n/c
J18 - 23	J06 - 45	AIN+23	J20 - 22	J07 - 42	DOUT12	J21 - 10		n/c			
J18 - 24	J06 - 46	AIN-23	J20 - 23	J07 - 43	DOUT13				J31 - 01		n/c
J18 - 25	J06 - 47	AIN+24	J20 - 24	J07 - 44	DOUT14	J22 - 01	J43 - 01	GNDCPUB	J31 - 02	J10 - 17	M TIP S09
J18 - 26	J06 - 48	AIN-24	J20 - 25	J07 - 45	DOUT15	J22 - 02		n/c	J31 - 03	J10 - 18	M RING S09
			J20 - 26	J07 - 46	DOUT16	J22 - 03	J43 - 05	RXDB	J31 - 04		n/c
J19 - 01	J07 - 01	AIN+25	J20 - 27	J07 - 17	DOUT17	J22 - 04		n/c			
J19 - 02	J07 - 02	AIN-25	J20 - 28	J07 - 18	DOUT18	J22 - 05	J43 - 03	TXDB	J32 - 01		n/c
J19 - 03	J07 - 03	AIN+26	J20 - 29	J07 - 19	DOUT19	J22 - 06		n/c	J32 - 02	J10 - 19	M TIP S10
J19 - 04	J07 - 04	AIN-26	J20 - 30	J07 - 20	DOUT20	J22 - 07		n/c	J32 - 03	J10 - 20	M RING S10
J19 - 05		n/c	J20 - 31	J07 - 21	DOUT21	J22 - 08		n/c	J32 - 04		n/c
J19 - 06		n/c	J20 - 32	J07 - 22	DOUT22	J22 - 09		n/c			
J19 - 07	J07 - 05	AIN+27	J20 - 33	J07 - 23	DOUT23	J22 - 10		n/c	J33 - 01		n/c
J19 - 08	J07 - 06	AIN-27	J20 - 34	J07 - 24	DOUT24				J33 - 02	J10 - 21	M TIP S11
J19 - 09		n/c	J20 - 35	J07 - 25	DOUT25	J23 - 01		n/c	J33 - 03	J10 - 22	M RING S11
J19 - 10		n/c	J20 - 36	J07 - 26	DOUT26	J23 - 02	J10 - 01	M TIP S01	J33 - 04		n/c
J19 - 11	J07 - 07	AIN+28	J20 - 37	J07 - 27	DOUT27		J44 - 41				
J19 - 12	J07 - 08	AIN-28	J20 - 38	J07 - 28	DOUT28	J23 - 03	J10 - 02	M RING S01	J34 - 01		n/c
J19 - 13		n/c	J20 - 39	J07 - 29	DOUT29		J44 - 47		J34 - 02	J10 - 23	M TIP S12
J19 - 14		n/c	J20 - 40	J07 - 30	DOUT30	J23 - 04		n/c	J34 - 03	J10 - 24	M RING S12
J19 - 15	J07 - 09	AIN+29	J20 - 41	J07 - 47	DOUT31				J34 - 04		n/c
J19 - 16	J07 - 10	AIN-29	J20 - 42	J07 - 48	DOUT32	J24 - 01		n/c			
J19 - 17		n/c	J20 - 43		n/c	J24 - 02	J10 - 03	M TIP S02	J35 - 01		n/c
J19 - 18		n/c	J20 - 44		n/c	J24 - 03	J10 - 04	M RING S02	J35 - 02	J11 - 01	M TIP S13*
J19 - 19	J07 - 11	AIN+30	J20 - 45		n/c	J24 - 04		n/c	J35 - 03	J11 - 02	M RING S13*
J19 - 20	J07 - 12	AIN-30	J20 - 46		n/c				J35 - 04		n/c
J19 - 21		n/c	J20 - 47		n/c	J25 - 01		n/c			
J19 - 22		n/c	J20 - 48		n/c	J25 - 02	J10 - 05	M TIP S03	J36 - 01		n/c
J19 - 23	J07 - 13	AIN+31	J20 - 49		n/c	J25 - 03	J10 - 06	M RING S03	J36 - 02	J11 - 03	M TIP S14*
J19 - 24	J07 - 14	AIN-31	J20 - 50		n/c	J25 - 04		n/c	J36 - 03	J11 - 04	M RING S14*
J19 - 25	J07 - 15	AIN+32	J20 - 51		n/c				J36 - 04		n/c
J19 - 26	J07 - 16	AIN-32	J20 - 52		n/c	J26 - 01		n/c			
			J20 - 53		n/c	J26 - 02	J10 - 07	M TIP S04	*NOT USED		
J20 - 01		n/c	J20 - 54		n/c	J26 - 03	J10 - 08	M RING S04	J37 - 01		n/c
J20 - 02		n/c	J20 - 55		n/c	J26 - 04		n/c	J37 - 02	J11 - 05	M TIP S15*
J20 - 03		n/c	J20 - 56		n/c				J37 - 03	J11 - 06	M RING S15*
J20 - 04		n/c	J20 - 57		n/c	J27 - 01		n/c	J37 - 04		n/c
J20 - 05		n/c	J20 - 58	J07 - 49	GNDDOUT	J27 - 02	J10 - 09	M TIP S05			
J20 - 06		n/c		J07 - 50		J27 - 03	J10 - 10	M RING S05	J38 - 01		n/c
J20 - 07		n/c		J20 - 59		J27 - 04		n/c	J38 - 02	J11 - 07	M TIP S16*
J20 - 08		n/c	J20 - 59	J07 - 49	GNDDOUT	J28 - 01		n/c	J38 - 03	J11 - 08	M RING S16*
J20 - 09		n/c		J07 - 50		J28 - 02	J10 - 11	M TIP S06	J38 - 04		n/c
J20 - 10		n/c		J20 - 58		J28 - 03	J10 - 12	M RING S06			
J20 - 11	J07 - 31	DOUT01	J20 - 60	H04 - 01	+5 DOUT	J28 - 04		n/c	J39 - 01		n/c
J20 - 12	J07 - 32	DOUT02							J39 - 02	J11 - 09	M TIP S17*
J20 - 13	J07 - 33	DOUT03	J21 - 01	J08 - 05	GNDCPUA	J29 - 01		n/c	J39 - 03	J11 - 10	M RING S17*
J20 - 14	J07 - 34	DOUT04	J21 - 02		n/c	J29 - 02	J10 - 13	M TIP S07	J39 - 04		n/c
J20 - 15	J07 - 35	DOUT05	J21 - 03	J08 - 03	RXDA	J29 - 03	J10 - 14	M RING S07			
J20 - 16	J07 - 36	DOUT06	J21 - 04		n/c	J29 - 04		n/c	J40 - 01		n/c
J20 - 17	J07 - 37	DOUT07	J21 - 05	J08 - 02	TXDA				J40 - 02	J11 - 11	M TIP S18*
J20 - 18	J07 - 38	DOUT08	J21 - 06		n/c	J30 - 01		n/c	J40 - 03	J11 - 12	M RING S18*
J20 - 19	J07 - 39	DOUT09	J21 - 07		n/c	J30 - 02	J10 - 15	M TIP S08	J40 - 04		n/c
J20 - 20	J07 - 40	DOUT10	J21 - 08		n/c	J30 - 03	J10 - 16	M RING S08			

**WIRING LIST**

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<u>FROM</u>	<u>TO</u>	<u>FUNCTION</u>									
J41 - 01		n/c	J44 - 23		n/c		J45 - 04			J14 - 59	
J41 - 02	J11 - 13	M TIP S19*	J44 - 24		n/c					J15 - 59	
J41 - 03	J11 - 14	M RING S19*	J44 - 25		n/c	J45 - 04	J44 - 17	GND1		S01 - 11	
J41 - 04		n/c	J44 - 26		n/c		J44 - 27			S01 - 12	
			J44 - 27	J44 - 17	GND1		J45 - 03			S01 - 14	
J42 - 01		n/c		J45 - 03						S01 - 15	
J42 - 02	J11 - 15	M TIP S20*		J45 - 04		S01 - 01	J15 - 25	SITE A1	S01 - 14	S01 - 16	
J42 - 03	J11 - 16	M RING S20*	J44 - 28		n/c	S01 - 02	J15 - 26	SITE A2		H02 - 01	GNDDIN
J42 - 04		n/c	J44 - 29		n/c	S01 - 03	J15 - 27	SITE A3		J05 - 49	
			J44 - 30		n/c	S01 - 04	J15 - 28	SITE A4		J05 - 50	
J43 - 01	J22 - 01	GNDCPUB	J44 - 31		n/c	S01 - 05	J15 - 29	SITE A5		J09 - 49	
J43 - 02		n/c	J44 - 32		n/c	S01 - 06	J15 - 30	CNT/TX		J14 - 58	
J43 - 03	J22 - 05	TXDB	J44 - 33		n/c	S01 - 07		n/c		J14 - 59	
J43 - 04		n/c	J44 - 34		n/c	S01 - 08		n/c		J15 - 59	
J43 - 05	J22 - 03	RXDB	J44 - 35		n/c	S01 - 09		n/c		S01 - 11	
J43 - 06		n/c	J44 - 36		n/c	S01 - 10		n/c		S01 - 12	
J43 - 07		n/c	J44 - 37		n/c	S01 - 11	H02 - 01	GNDDIN		S01 - 13	
J43 - 08		n/c	J44 - 38		n/c		J05 - 49			S01 - 15	
J43 - 09		n/c	J44 - 39		n/c		J05 - 50			S01 - 16	
J43 - 10		n/c	J44 - 40		n/c		J09 - 49		S01 - 15	H02 - 01	GNDDIN
			J44 - 41	J10 - 01	M TIP S01		J14 - 58			J05 - 49	
J44 - 01		n/c		J23 - 02			J14 - 59			J05 - 50	
J44 - 02		n/c	J44 - 42		n/c		J15 - 59			J09 - 49	
J44 - 03		n/c	J44 - 43		n/c		S01 - 12			J14 - 58	
J44 - 04		n/c	J44 - 44		n/c		S01 - 13			J14 - 59	
J44 - 05	J10 - 49	RCV T S01	J44 - 45		n/c		S01 - 14			J15 - 59	
J44 - 06		n/c	J44 - 46		n/c		S01 - 15			S01 - 11	
J44 - 07		n/c	J44 - 47	J10 - 02	M RING S01		S01 - 16			S01 - 12	
J44 - 08		n/c		J23 - 03		S01 - 12	H02 - 01	GNDDIN		S01 - 13	
J44 - 09		n/c	J44 - 48		n/c		J05 - 49			S01 - 14	
J44 - 10		n/c	J44 - 49	J10 - 48	XMT R S01		J05 - 50			S01 - 16	
J44 - 11		n/c	J44 - 50		n/c		J09 - 49				
J44 - 12		n/c	J44 - 51		n/c		J14 - 58		S01 - 16	H02 - 01	GNDDIN
J44 - 13		n/c	J44 - 52		n/c		J14 - 59			J05 - 49	
J44 - 14		n/c	J44 - 53		n/c		J15 - 59			J05 - 50	
J44 - 15	J10 - 50	RCV R S01	J44 - 54		n/c		S01 - 11			J09 - 49	
J44 - 16		n/c	J44 - 55	J10 - 47	XMT T S01		S01 - 13			J14 - 58	
J44 - 17	J44 - 27	GND1	J44 - 56		n/c		S01 - 14			J14 - 59	
	J45 - 03				*NOT USED		S01 - 15			J15 - 59	
	J45 - 04		J45 - 01	H05 - 01	+12 F01-1		S01 - 16			S01 - 11	
J44 - 18		n/c		J45 - 02		S01 - 13	H02 - 01	GNDDIN		S01 - 12	
J44 - 19	H07 - 01	RS01-1	J45 - 02	H05 - 01	+12 F01-1		J05 - 49			S01 - 13	
J44 - 20		n/c		J45 - 01			J05 - 50			S01 - 14	
J44 - 21		n/c	J45 - 03	J44 - 17	GND1		J09 - 49			S01 - 15	
J44 - 22		n/c		J44 - 27			J14 - 58				