MITSUBISHI ELECTRIC

REMOTE STATUS ALARM PANEL

RSAP

INSTALLATION/INSTRUCTION MANUAL

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Physical Characteristics

Weight: 10lbs (4.5 kgs.)
Height: 81/4 inches (210 mm)
Width: 8 5/16 inches (211 mm)
Depth: 4 5/16 inches (110 mm)

Installation

1. Locate the area where the Remote Status Alarm Panel (RSAP) will be installed. The monitor should be within 300 feet (91 meters) of the UPS.

2. Mount the monitor to the wall using the four (4) pre-drilled holes in the back. Use appropriate hardware for the installation.

3. Wiring requirements are: Seven (7) twisted pair 16 AWG cable run in metal conduit. Use Belden Catalog No. 1485A(eight (8) twisted pair) or equivalent. All electrical and mechanical connections to be made per local and/or national electric codes.

4. Connect the conduit to the RSAP by punching the appropriately sized hole in a convenient location.. ***Caution!*** Care should be taken not to damage any internal components when drilling the hole for conduit.

5. Refering to Figure 2.0, 3.0, and the corresponding UPS wiring diagram, connect the seven (7) pairs of twisted wire from the RSAP to the customer accessible alarm contact terminal bar in the UPS module. (Refer to the UPS Owner's Manual for location)

6. Refering to Figure 3.0, install six (6) AA batteries (included). Batteries will provide approximately 8 hours of run time in the event of an AC power failure. Replace these batteries annually for optimum performance.

7. Refering to Figure 1.0, connect the power supply adapter into the corresponding jack located on the bottom left-hand side of the RSAP enclosure. Plug the power supply into a convenient 120V/60Hz wall receptacle. Failure to connect to a suitable wall outlet will drain the RSAP's internal batteries and/or result in damage to the monitor. (If supplied with the hardwire version, please refer to Figure 3.1 for AC input terminal block layout. Connect L1, Neutral, and Ground with minimum of 18awg wire.)

Caution! The monitor must be installed by a qualified electrician. Installation to be inspected by an Authorized UPS Service Engineer at the time of UPS startup.

Operating Instructions

ALARM SILENCE pushbutton is used to silence the alarm.
MONITOR RESET pushbutton is used to reset the RSAP's UPS FAULT alarm. The monitor will alarm again if the alarm condition is still present following the RESET.

Monitor TEST pushbutton is used to check the operation of all LED's and the audible alarm. All LED's that are illuminated will go off and all lights that are off will illuminate. Horn will also sound.

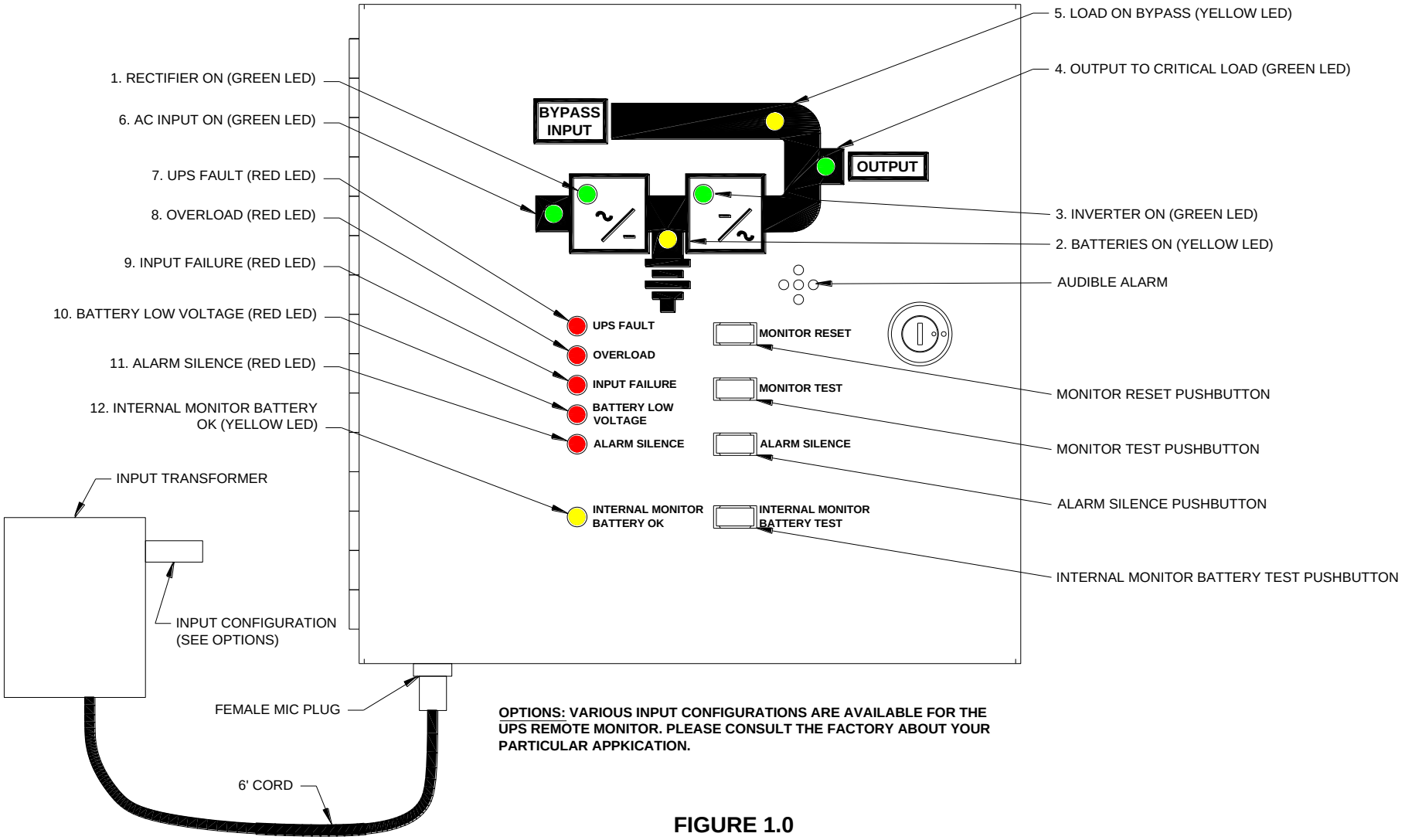
INTERNAL MONITOR BATTERY TEST button is used to test the condition of the monitor's battery pack. If the yellow LED does not illuminate, replace the batteries.

Reset the RSAP as follows:

1. On the UPS, note the alarm and it's fault code. If applicable, contact 24-hour UPS field service at (800) 887-7830.
2. If no alarm code is present, press the monitor reset button.
3. If the monitor's audible alarm sounds again repeat steps 1and 2.
4. Contact Mitsubishi service if the alarm cannot be reset after a few attempts.

Refer to Figure 1.0 for the location of the LED's and pushbuttons described below:

1. **Rectifier / Charger LED.** This green LED is illuminated as long as the UPS' inverter is operating.
2. **Battery LED.** This yellow LED is illuminated as long as the UPS is in the battery backup mode. The audible alarm will beep intermittently.
3. **Inverter On LED**. The green LED is illuminated as long as the UPS' inverter is operating.
4. **Output LED**. This green LED is illuminated as long as there is power to the critical load (either by the inverter or bypass).
5. **Load On Bypass LED**. This yellow LED is illuminated as long as the critical load is powered by the bypass.
6. **AC Input LED.** This green LED is illuminated as long as there is AC power supplied to the system.
7. **UPS Fault.** This red LED is illuminated and the audible alarm sounds when a UPS fault has occurred. The RSAP must be reset after the alarm is cleared.
8. **Overload LED.** This red LED is illuminated when a UPS overload has occurred. The audible alarm will also sound.
9. **Input Failure LED**. This red LED is illuminated when an input power failure condition is present. The audible alarm will also sound.
10. **Battery Low Voltage**. This red LED is illuminated as soon as the DC bus voltage approaches its cutoff voltage. The audible alarm will also sound.
11. **Alarm Silence LED**. This LED will illuminate when the ALARM SILENCE pushbutton has been pressed and alarm condition is still present. If alarm condition clears, the ALARM SILENCE LED will automatically reset.
12. **Internal Monitor Battery OK LED.** This yellow LED will illuminate when it's corresponding push button is pressed and the batteries are OK. If this light is dim or does not light, replace all internal batteries.



OPTIONS: VARIOUS INPUT CONFIGURATIONS ARE AVAILABLE FOR THE UPS REMOTE MONITOR. PLEASE CONSULT THE FACTORY ABOUT YOUR PARTICULAR APPKICATION.

FIGURE 1.0

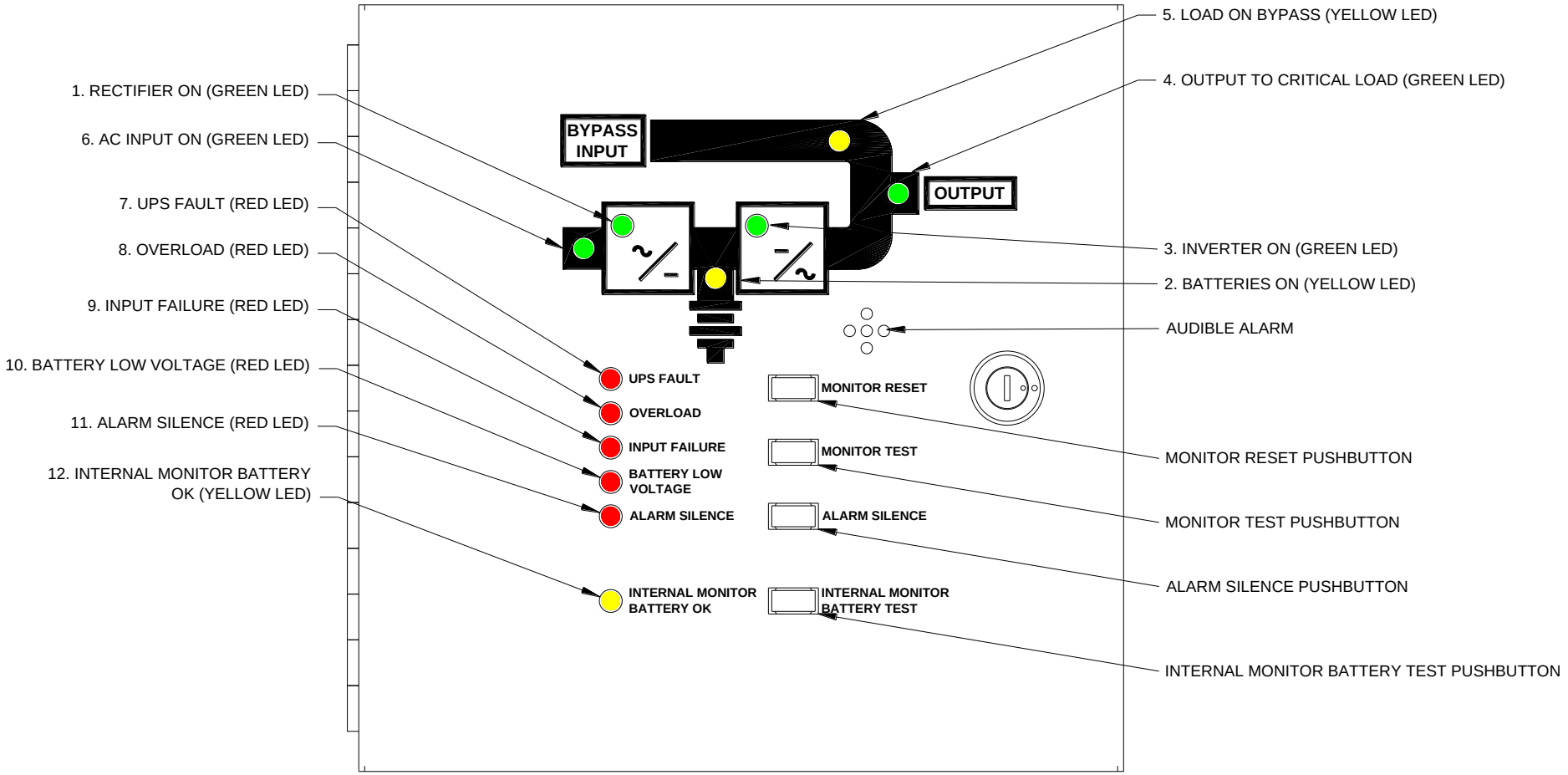
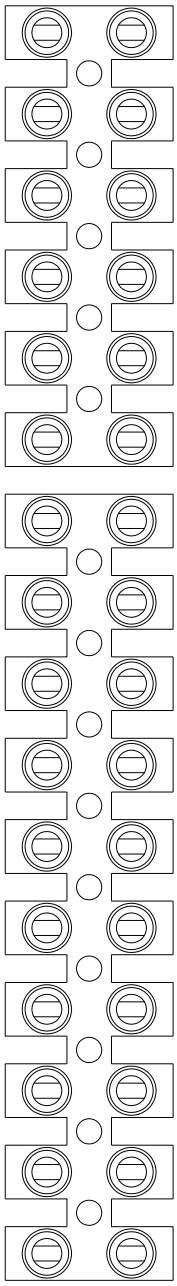


FIGURE 1.1

(INTERNAL POWER SUPPLY / HARDWIRE OPTION)

TB1



1 -AC INPUT L1 (OPTION)

2 -AC INPUT L1 (OPTION)

3 -BYPASS (CLOSES WHEN ON BYPASS)

4 -BYPASS COMMON

5 -INVERTER (CLOSES WHEN INVERTER IS RUNNING)

6 -INVERTER COMMON

7 -ON BATTERIES (CLOSES WHEN ON BATTERIES)

8 -BATTERY COMMON

9 -RECTIFIER (CLOSES WHEN RECTIFIER IS RUNNING)

10 -RECTIFIER COMMON

11 -UPS FAILURE (CLOSES ON UPS FAILURE)

12 -UPS COMMON

13 -LOW BATTERY (CLOSES WHEN BATTERIES ARE LOW)

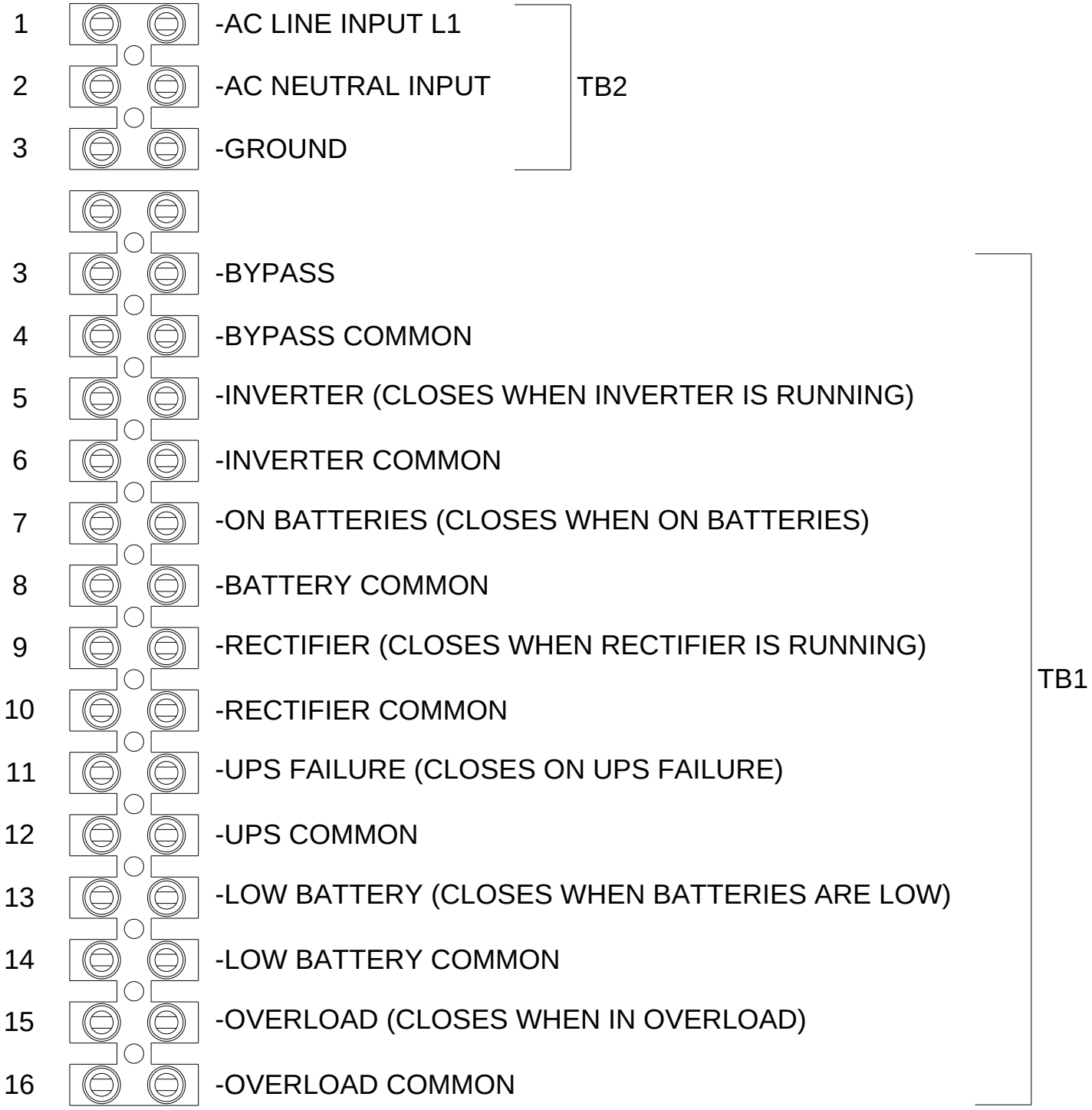
14 -LOW BATTERY COMMON

15 -OVERLOAD (CLOSES WHEN IN OVERLOAD)

16 -OVERLOAD COMMON

TERMINAL BLOCK DESCRIPTION (LOCATED INSIDE BOX)

FIGURE 2.0



TERMINAL BLOCK DESCRIPTION (LOCATED INSIDE BOX)

FIGURE 2.1

(INTERNAL POWER SUPPLY / HARDWIRE OPTION)

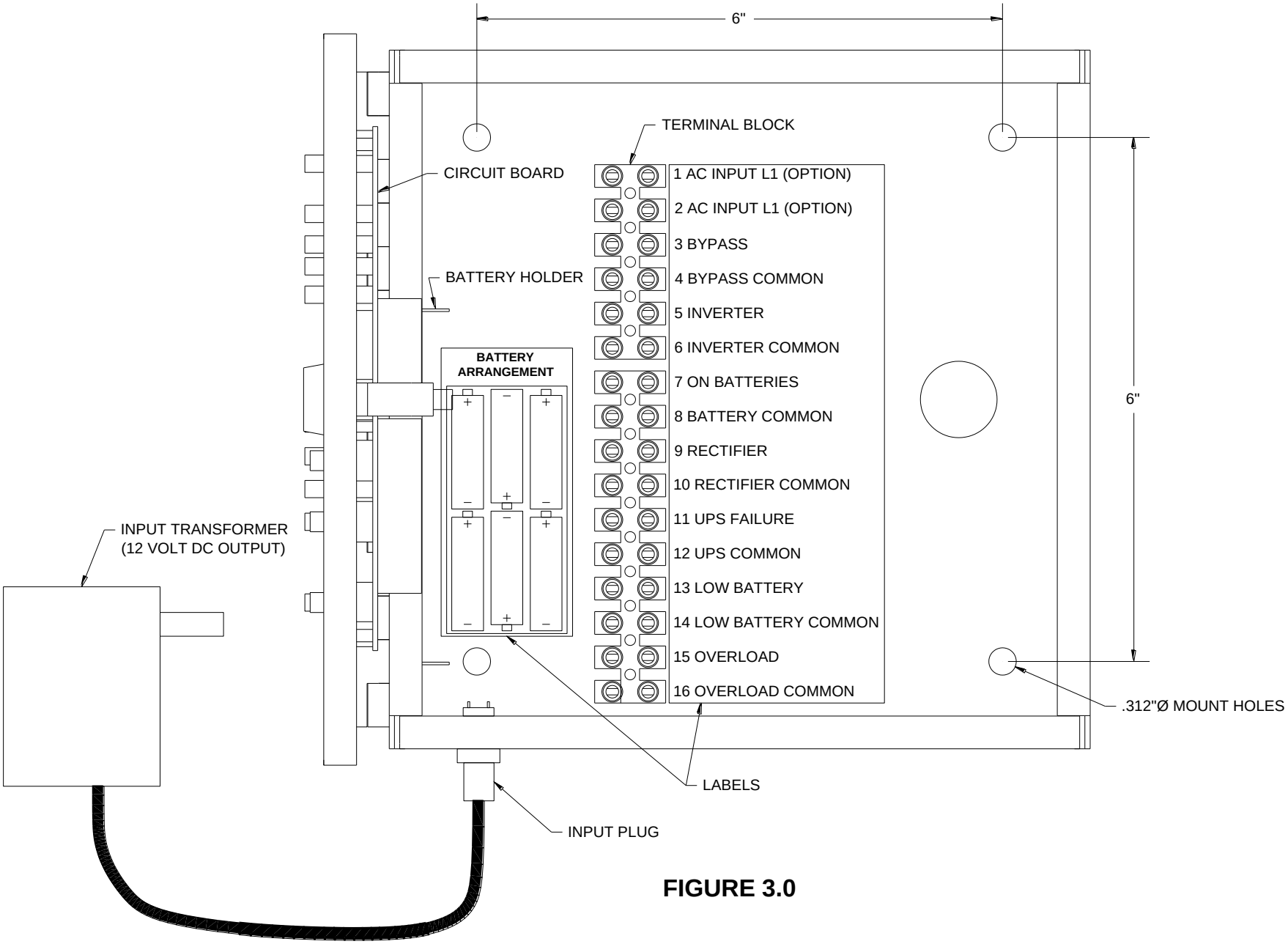

6"
TERMINAL BLOCK
CIRCUIT BOARD
BATTERY HOLDER
BATTERY ARRANGEMENT
1 AC INPUT L1 (OPTION)
2 AC INPUT L1 (OPTION)
3 BYPASS
4 BYPASS COMMON
5 INVERTER
6 INVERTER COMMON
7 ON BATTERIES
8 BATTERY COMMON
9 RECTIFIER
10 RECTIFIER COMMON
11 UPS FAILURE
12 UPS COMMON
13 LOW BATTERY
14 LOW BATTERY COMMON
15 OVERLOAD
16 OVERLOAD COMMON
6"
INPUT TRANSFORMER
(12 VOLT DC OUTPUT)
.312"Ø MOUNT HOLES
LABELS
INPUT PLUG

FIGURE 3.0

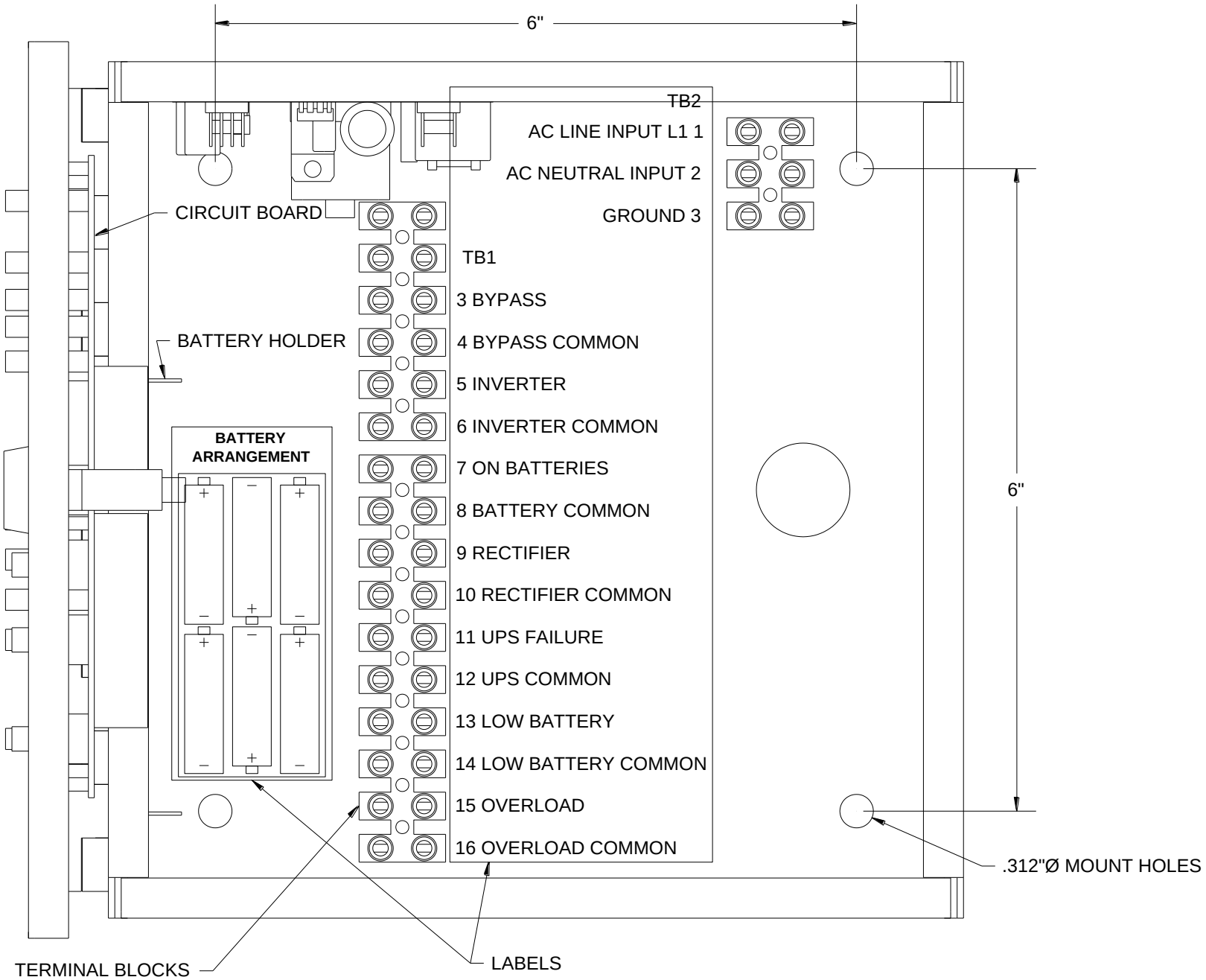
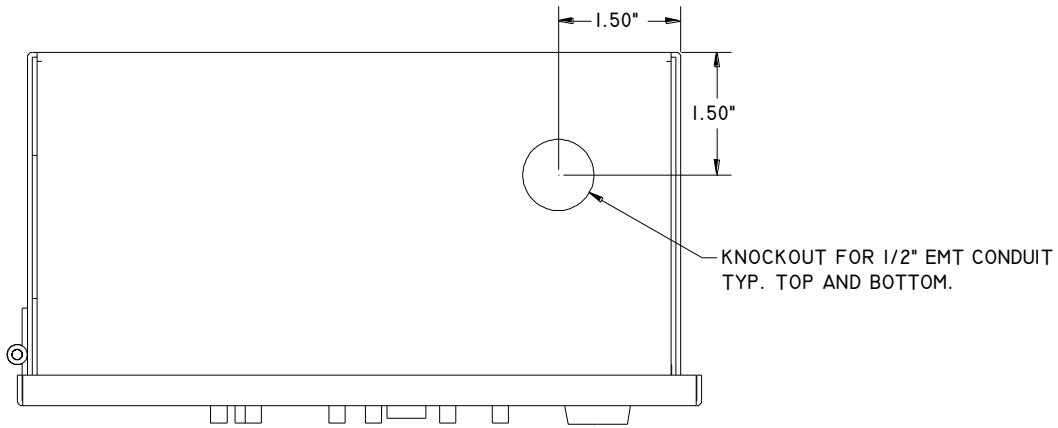
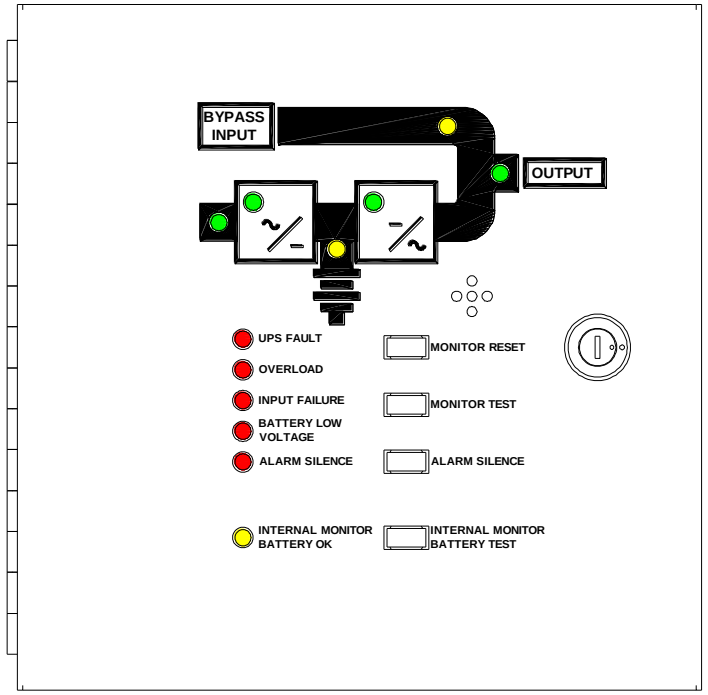


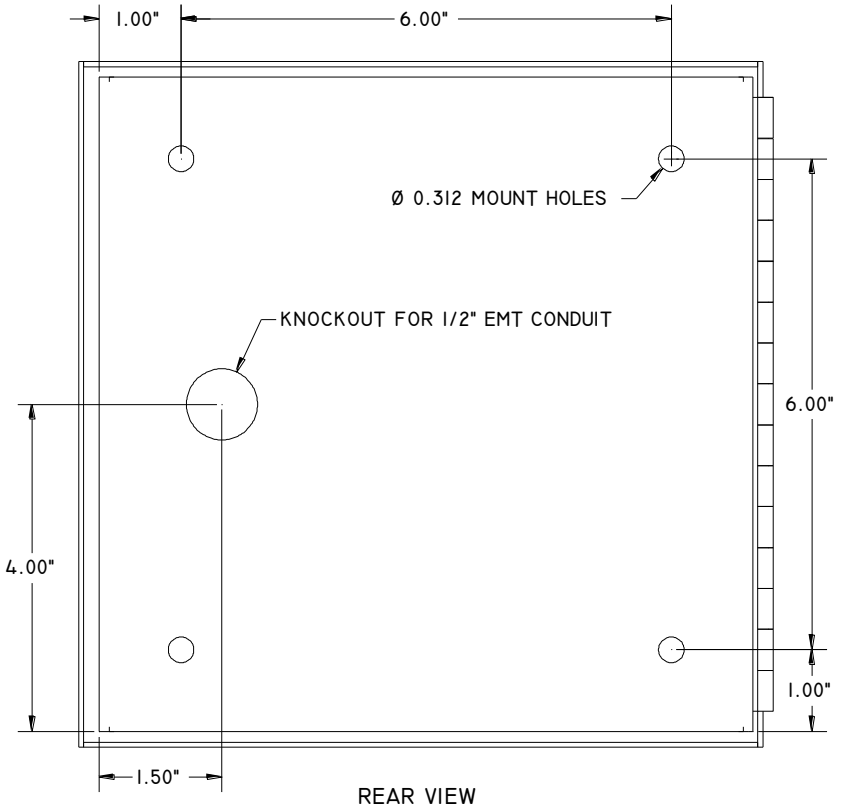
FIGURE 3.1
(INTERNALLY HARDWIRED POWER SUPPLY OPTION)



TOP VIEW



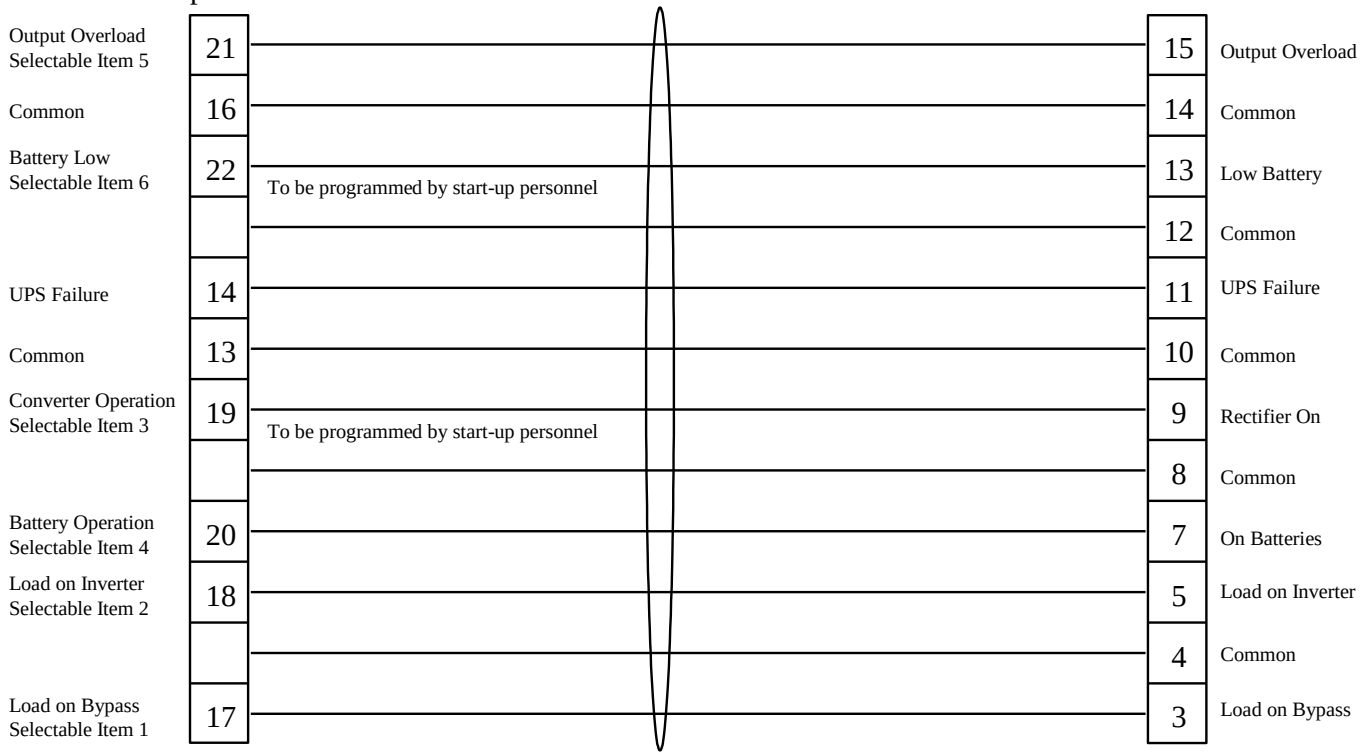
FRONT VIEW



REAR VIEW

FIGURE 4

Dwg No. U-23026

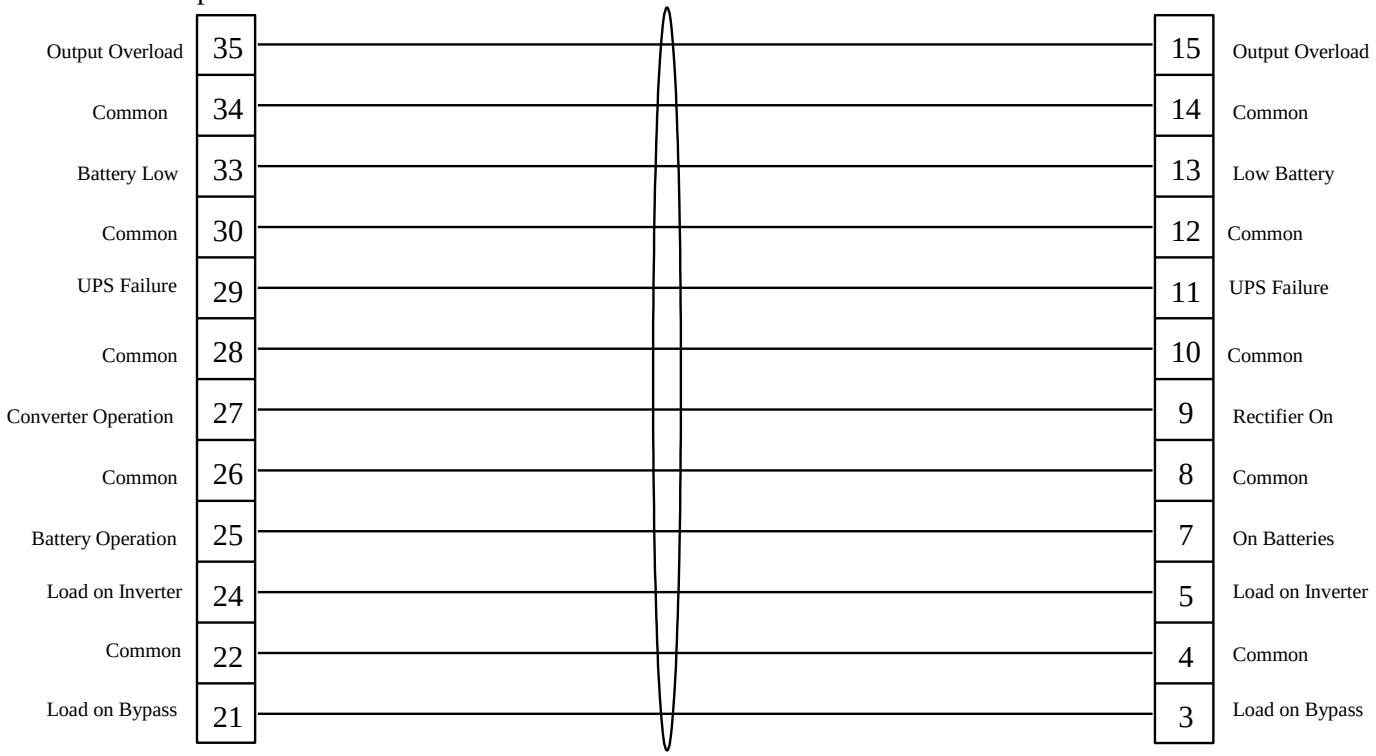


16 awg twisted pair recommended

Note: TB1 terminals 6 and 16 not shown for clarity. Terminals are connected internally.

Mitsubishi Electric Automation, Inc.		Remote Status Alarm Panel (RSAP) Interconnect Diagram	
Date	02-15-00		
Drawn by	Tom Kobayashi	2033 A (Analog)	Page 1/1
Dwg No.	U-23026		

	1	2	3	4	5	6	7	8	9
A									Dwg No. U-23028
B									
C									
D									

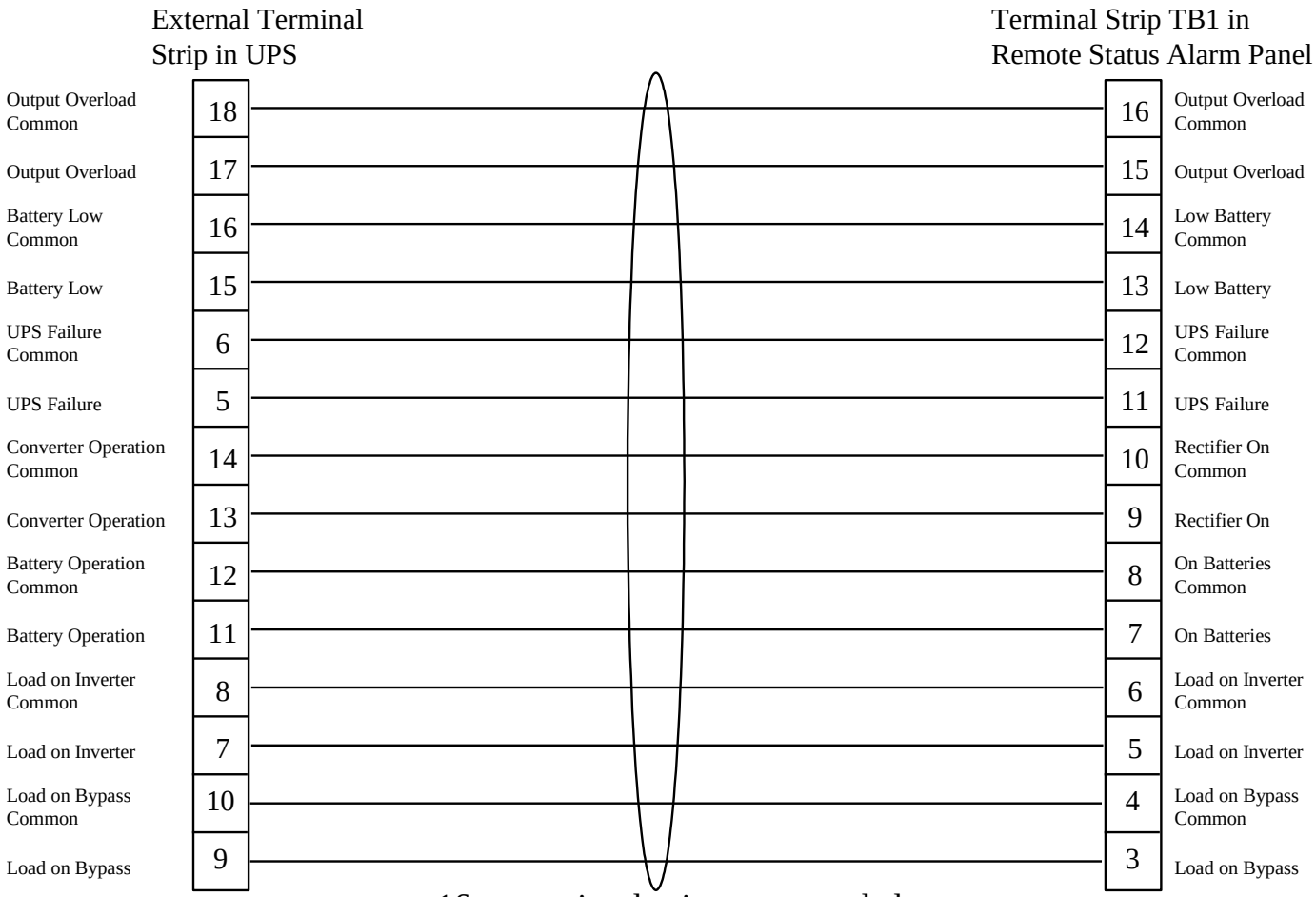


14 awg shielded wire recommended

Note: TB1 terminals 6 and 16 not shown for clarity. Terminals are connected internally.

Mitsubishi Electric Automation, Inc.		Remote Status Alarm Panel (RSAP) Interconnect Diagram	
Date	03-10-98		
Drawn by	Mario Recine	2033 A DDC	Page 1/1
Dwg No.	U-23028		

	1	2	3	4	5	6	7	8	9	
A								Dwg No.	U-23C012	
B										
C										
D										



Mitsubishi Electric Automation, Inc.		Remote Status Alarm Panel (RSAP) Interconnect Diagram	
Date	02-15-00		
Drawn by	Tom Kobayashi	2033 C	Page 1/1
Dwg No.	U-23C012		

DWG No. U-23D019

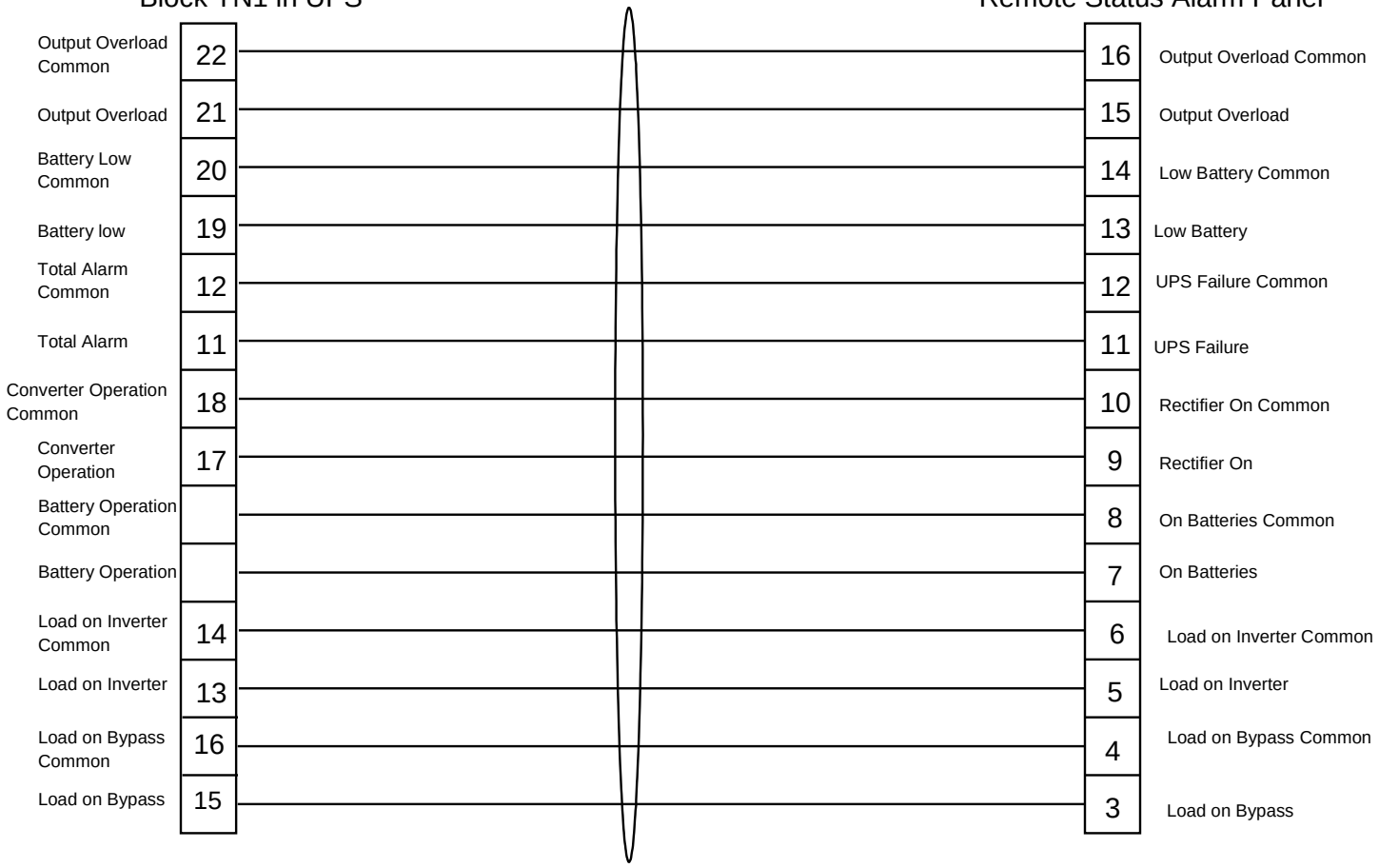
External Terminal Strip
TN1(Output) in UPS

		Terminal Strip TB1 in Remote Status Alarm Panel	
Overload Common	26	16	Overload Common
Overload	25	15	Overload
Battery Low Voltage Common	22	14	Low Battery Common
Battery Low Voltage	21	13	Low Battery
Total Alarm Common	38	12	UPS (Failure) Common
Total Alarm	37	11	UPS Failure
Converter (Rectifier) Operation Common	18	10	Rectifier Common
Converter (Rectifier) Operation	17	9	Rectifier
Battery Operation Common	14	8	On Batteries Common
Battery Operation	13	7	On Batteries
Load on Inverter Common	10	6	Inverter Common
Load on Inverter	9	5	Inverter
Load on Bypass Common	6	4	Bypass Common
Load on Bypass	5	3	Bypass

14 AWG shielded wire recommended

Mitsubishi Electric Automation, Inc.		Remote Status Alarm Panel (RSAP) Interconnect Diagram	Rev A
Date	8/29/03		
Drawn by	Carl E. Luecht	2033D/9800AD/9800AE	Page 1/1
DWG No.	U-23D019		

	1	2	3	4	5	6	7	8	9
A									Dwg No. -
B									
C									
D									



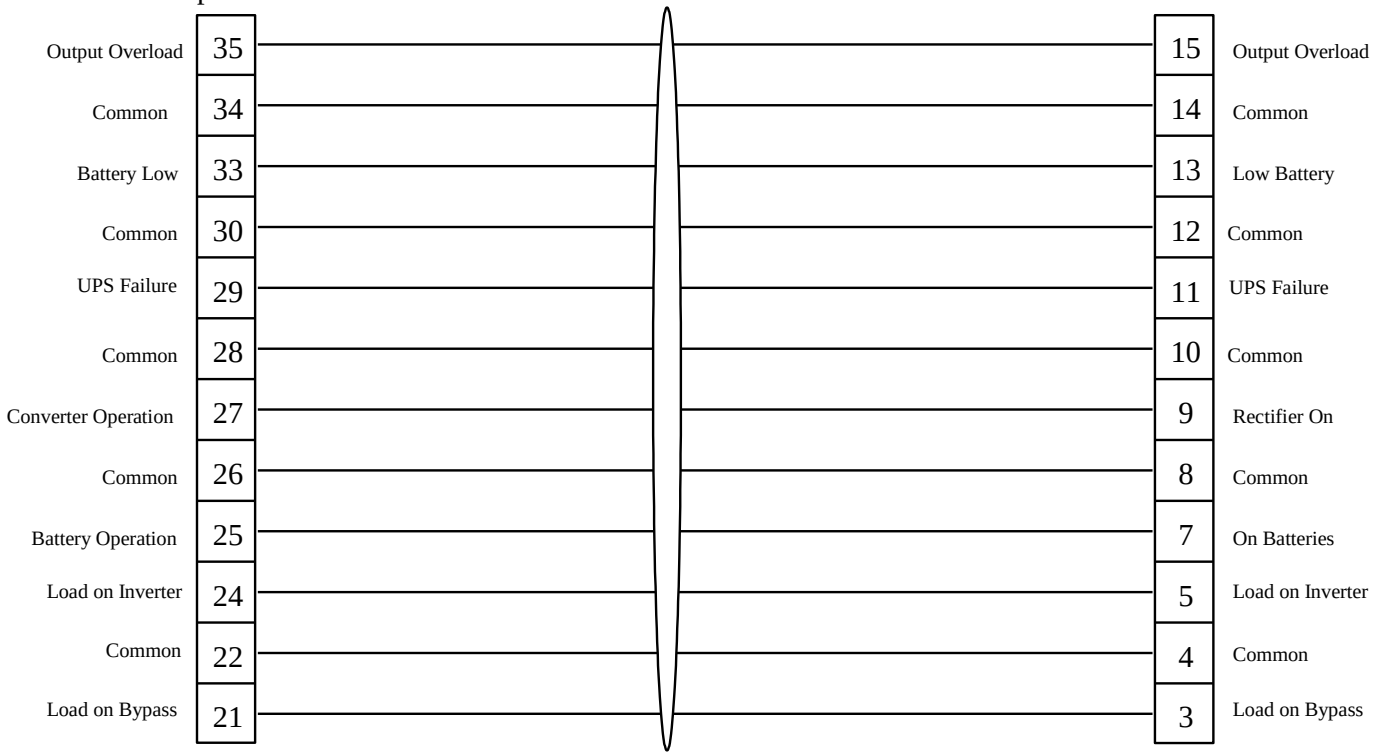
14 awg shielded wire recommended

MITSUBISHI ELECTRIC POWER PRODUCTS, INC.		Remote Status Alarm Panel (RSAP) Interconnect Diagram	
Date	12-02-08		
Drawn by	Raymond Lewis	2033GA	Page 1/1
Dwg No.	-		

Dwg No. U-97017

External Terminal Strip in UPS

Terminal Strip TB1 in Remote Status Alarm Panel



14 awg shielded wire recommended

Note: TB1 terminals 6 and 16 not shown for clarity. Terminals are connected internally.

Mitsubishi Electric Automation, Inc.		Remote Status Alarm Panel (RSAP) Interconnect Diagram	
Date	10-21-97		
Drawn by	Mario Recine	9700	Page 1/1
Dwg No.	U-97017		

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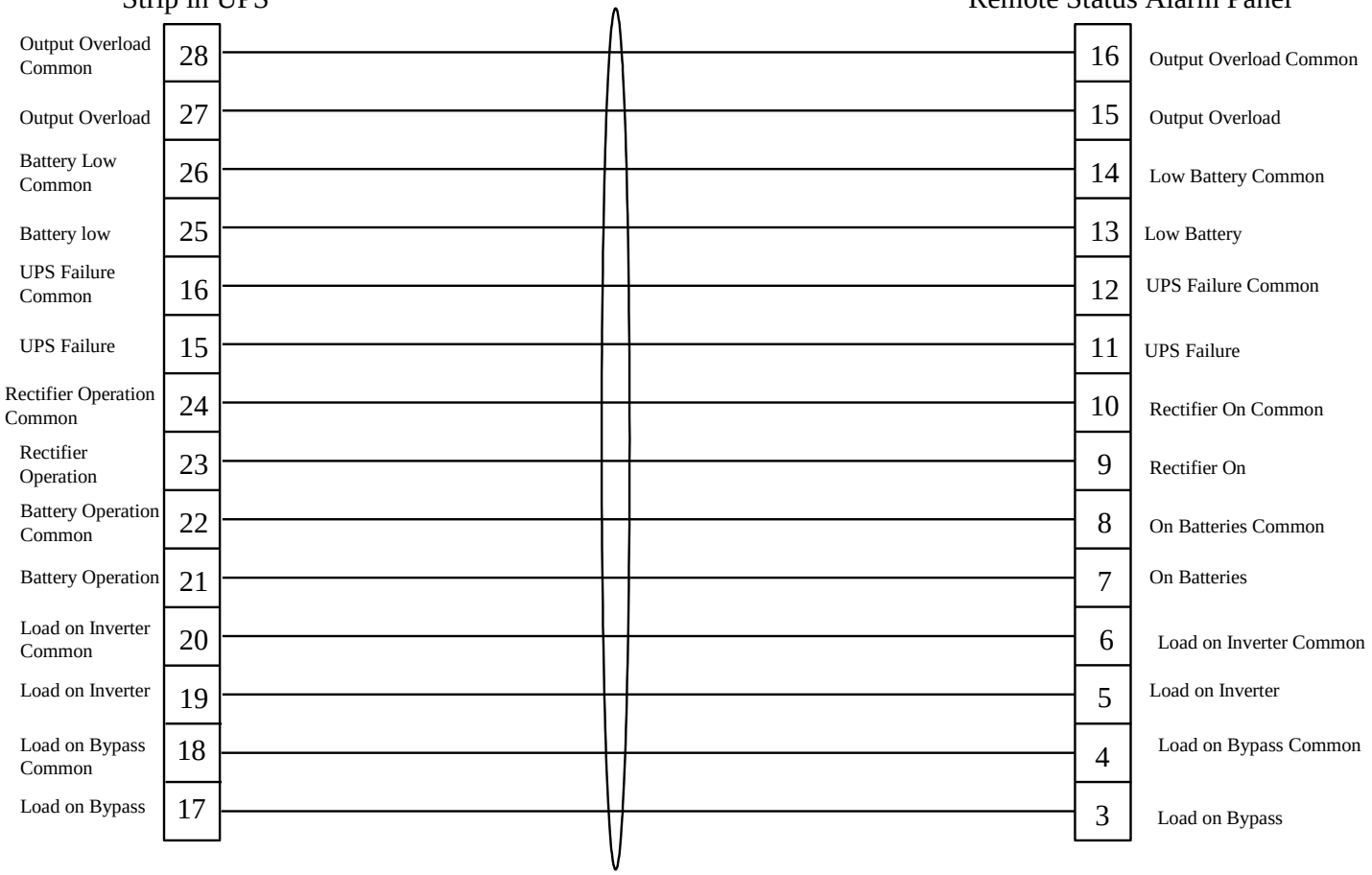
A									Dwg No.	U-98015
B										
C										
D										



14 awg shielded wire recommended

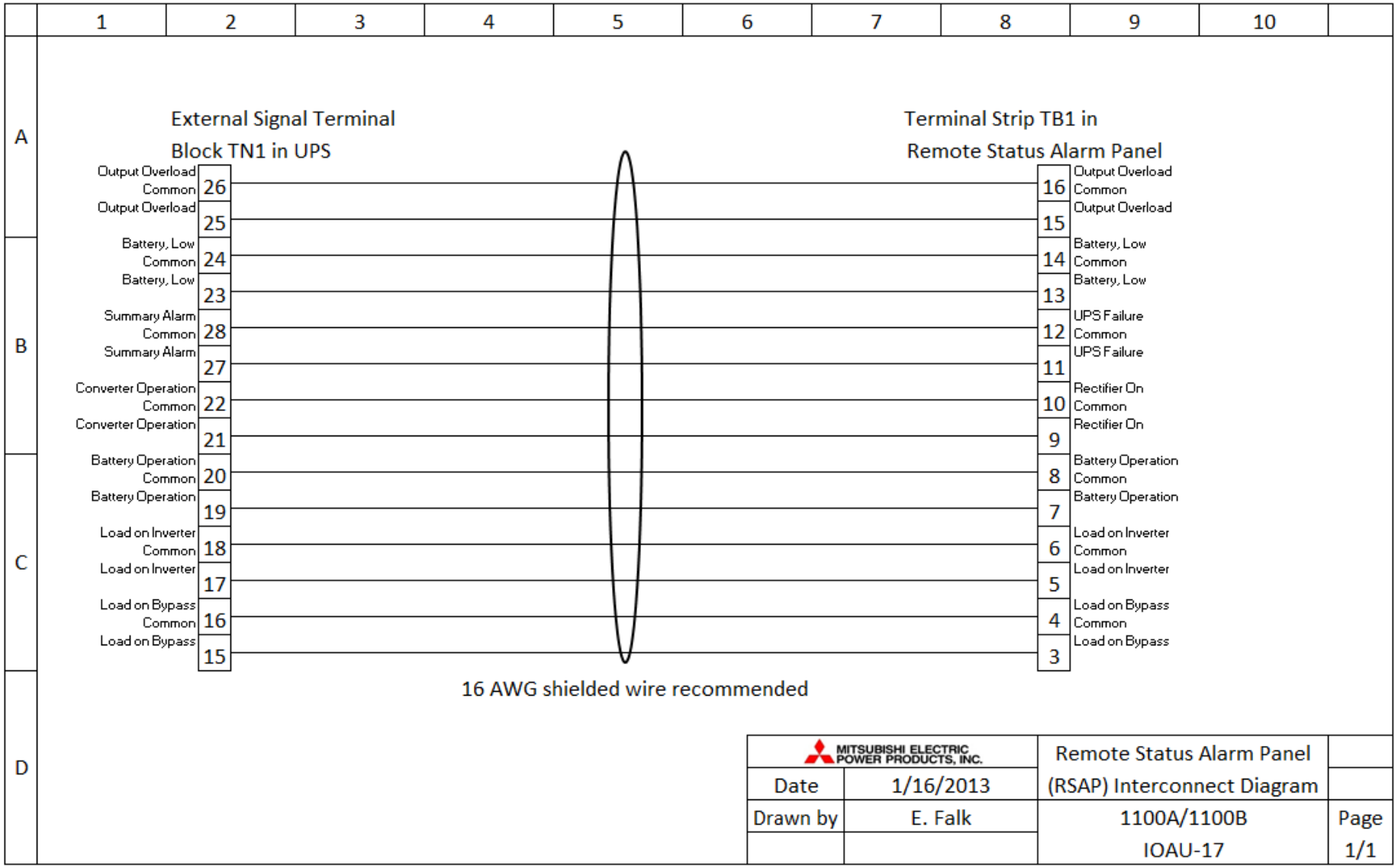
Mitsubishi Electric Automation, Inc.		Remote Status Alarm Panel (RSAP) Interconnect Diagram	
Date	07-09-99		
Drawn by	Mario Recine	9800A	Page 1/1
Dwg No.	U-98015		

Dwg No. -

External Signal Terminal Block TN2 in UPS		Terminal Strip TB1 in Remote Status Alarm Panel	
Output Overload Common	14	16	Output Overload Common
Output Overload	13	15	Output Overload
Battery Low Common	12	14	Low Battery Common
Battery low	11	13	Low Battery
Total Alarm Common	18	12	UPS Failure Common
Total Alarm	17	11	UPS Failure
Converter Operation Common	10	10	Rectifier On Common
Converter Operation	9	9	Rectifier On
Battery Operation Common	8	8	On Batteries Common
Battery Operation	7	7	On Batteries
Load on Inverter Common	6	6	Load on Inverter Common
Load on Inverter	5	5	Load on Inverter
Load on Bypass Common	4	4	Load on Bypass Common
Load on Bypass	3	3	Load on Bypass

14 awg shielded wire recommended

MITSUBISHI ELECTRIC POWER PRODUCTS, INC.		Remote Status Alarm Panel (RSAP) Interconnect Diagram	
Date	1-20-16		
Drawn by	M. Meinert	9900A/9900AEGIS/9900B/ 9900C/9900SUMMIT	Page 1/1
Dwg No.	-		


External Signal Terminal Block TN1 in UPS
Terminal Strip TB1 in Remote Status Alarm Panel
Output Overload Common 26
Output Overload 25
Battery, Low Common 24
Battery, Low 23
Summary Alarm Common 28
Summary Alarm 27
Converter Operation Common 22
Converter Operation 21
Battery Operation Common 20
Battery Operation 19
Load on Inverter Common 18
Load on Inverter 17
Load on Bypass Common 16
Load on Bypass 15
16 Output Overload Common
15 Output Overload
14 Battery, Low Common
13 Battery, Low
12 UPS Failure Common
11 UPS Failure
10 Rectifier On Common
9 Rectifier On
8 Battery Operation Common
7 Battery Operation
6 Load on Inverter Common
5 Load on Inverter
4 Load on Bypass Common
3 Load on Bypass
16 AWG shielded wire recommended
MITSUBISHI ELECTRIC POWER PRODUCTS, INC.
Remote Status Alarm Panel (RSAP) Interconnect Diagram
Date 1/16/2013
Drawn by E. Falk
1100A/1100B IOAU-17
Page 1/1