INSTALLATION GUIDE

XR2500F ADDRESSABLE FIRE ALARM CONTROL PANEL

Digital Monitoring Products

Download from Www.Somanuals.com. All Manuals Search And Download.

MODEL XR2500F
COMMAND PROCESSOR
INSTALLATION GUIDE

FCC NOTICE

This equipment generates and uses radio frequency energy and, if not installed and used properly in strict accordance with the manufacturer's instructions, may cause interference with radio and television reception. It has been type tested and found to comply with the limits for a Class A computing device in accordance with the specification in Subpart J of Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference in a residential installation. If this equipment does cause interference to radio or television reception, which can be determined by turning the equipment off and on, the installer is encouraged to try to correct the interference by one or more of the following measures:

Reorient the receiving antenna

Relocate the computer with respect to the receiver

Move the computer away from the receiver

Plug the compute into a different outlet so that computer and receiver are on different branch circuits

If necessary, the installer should consult the dealer or an experienced radio/television technician for additional suggestions. The installer may find the following booklet, prepared by the Federal Communications Commission, helpful:

"How to identify and Resolve Radio-TV Interference Problems."

This booklet is available from the U.S. Government Printing Office, Washington D.C. 20402

Stock No. 004-000-00345-4

© 2008 Digital Monitoring Products, Inc.

Information furnished by DMP is believed to be accurate and reliable.
This information is subject to change without notice.

Download from Www.Somanuals.com. All Manuals Search And Download.

TABLE OF CONTENTS

Introduction
1.1 Overview 1
1.2 System Components 1
1.3 Power Specifications 1
1.4 Communication 1
1.5 Panel Zones 1
1.6 Keypad Bus 1
1.7 LX-Bus™ 2
1.8 Outputs 2
1.9 Relays 2
1.10 Zone Reference 2
1.11 Compliance Instructions 2

Mounting
2.1 Mounting the Enclosure 3
2.2 Surface Mounting 3
2.3 Flush Mounting 3
2.4 Fire Command Center LCD Keyboard 3
2.5 Metal Backplate 3
2.6 Wiring Diagram 4

AC Connection
3.1 Transformers and AC Power Connection 5
3.2 16 VAC Transformer 5
3.3 Earth Ground (GND) 5

Secondary Power Supply
4.1 Description 6
4.2 Battery Connection to XR2500F Command Processor panel 6

Two 866 NAC Modules
5.1 Description 7
5.2 Connection 7
5.3 Bell Silence/Bell Trouble 7

LX-Bus™ Operation
6.1 Description 8
6.2 XR2500F On-board LX-Bus 8
6.3 LX-Bus 481 Zone Expansion Interface Card 8
6.4 Installing the 481 Card 8

893A Dual Phone Line Module
7.1 Description 9
7.2 Connection 9
7.3 Jumper Settings 9
7.4 Digital Dialer 9
7.5 Phone Line Monitor 9
7.6 Processor Fail Buzzer 9
7.7 J10 893A Connector 9
7.8 Ground start 9
7.9 Notification 10
7.10 FCC Registration 10

Fire Command Center
8.1 Description 11
8.2 Connection 11
8.3 Remote Fire Command Center 11

Expansion
9.1 Zone Expansion 12
9.2 Output Expansion 12

Download from Www.Somanuals.com. All Manuals Search And Download.

TABLE OF CONTENTS

Accessory Devices
10.1 Wiring Diagram 13
10.2 Lightning Protection....13
10.3 Accessory Devices 14
10.4 Mounting Keypads and Zone Expansion Modules....15
10.5 Connecting LX-Bus and Keypad Bus Devices 15

Battery Information
11.1 Battery Only Restart 16
11.2 Battery Replacement Period....16
11.3 Discharge/Recharge....16
11.4 Battery Supervision....16
11.5 Battery Cutoff....16
12.6 XR2500F Power Requirements....16
11.7 XR2500F Standby Battery Calculations 17
11.8 Standby Battery Selection 19

Bell Output
12.1 Terminals 5 and 6....20

Keypad Bus
13.1 Description....20
13.2 Terminal 7 - RED 20
13.3 Terminal 8 - YELLOW 20
13.4 Terminal 9 - GREEN 20
13.5 Terminal 10 - BLACK 20
13.6 J8 Programming Connection....20
13.7 OVC LED....20

Smoke and Glassbreak Detector Output
14.1 Terminals 11 and 12 21
14.2 Current Rating....21

Powered Zones for 2-Wire Smoke Detectors
15.1 Terminals 25–26 and 27–28 21
15.2 Compatible 2-Wire Smoke Detector Chart....22

Protection Zones
16.1 Terminals 13–24....23
16.2 Operational Parameters....23
16.3 Zone Response Time....23
16.4 Keyswitch Arming Zone....23

Dry Contact Relay Outputs
17.1 Description....24
17.2 Contact Rating 24
17.3 Output Harness Wiring....24

J11 Annunciator Outputs
18.1 Description....25
18.2 Model 300 Harness Wiring....25
18.3 Model 860 Relay Module 25

J23 6-Pin Header
19.1 Description....25

J22 LX-Bus Expansion Connector
20.1 Description....26
20.2 LX-Bus Interface Cards....26
20.3 LX-Bus LEDs....26
20.4. OVC LED 26

J21 Serial Connector
21.1 Description....26
21.2 Serial Connector LEDs....26

Download from Www.Somanuals.com. All Manuals Search And Download.

J1 Ethernet Connector
22.1 Description 27
22.2 Ethernet LEDs 27

Reset and Tamper Headers
23.1 J16 Reset Header 27
23.2 J4 Tamper Header 27

Listed Compliance Specifications
24.1 Introduction 28

Universal UL Burglary Specifications
25.1 Introduction 28
25.2 Wiring 28
25.3 Control Outside of Protected Area 28
25.4 Police Station Phone Numbers 28
25.5 Bypass Reports 28
25.6 System Maintenance 28
25.7 Listed Receivers 28
25.8 Power Supply Supervision 28
25.9 Wireless Tamper 28
25.10 Wireless External Contact 28
25.11 Wireless Supervision Time 28
25.12 Detect Wireless Jamming 28

Area Information
26.1 Ownership 29
26.2 Annunciation 29
26.3 Trouble Display 29
26.4 Closing Wait 29
26.5 Local Bell Supervision 29

Household Burglar-Alarm System Units ANSI/UL 1023
27.1 Audible Devices 29
27.2 Auxiliary Circuits 29
27.3 Bell Cutoff 29
27.4 Entry Delay 29
27.5 Exit Delay 29
27.6 Weekly Test 29
27.7 Wireless Audible Annunciation Option 29

Central-Station and Proprietary Burglar-Alarm Units ANSI/ UL 1610 AND ANSI/UL 1076
28.1 Opening/Closing Reports 29
28.2 Closing Wait 29
28.3 Entry Delay 29
28.4 Exit Delay 29
28.5 Proprietary Dialer 30
28.6 DACT Central Station 30
28.7 Bell Cutoff 30
28.8 Standard or Encrypted Line Security 30
28.9 Wireless Audible Annunciation Option 30
28.10 Model 463G CELL Only, Standard or Encrypted Line Security 30
28.11 Model 463G NET with CELL as Alternate Primary and Dialer Backup, Standard or Encrypted Line Security 31
28.12 Model 463G NET with CELL as Backup and Adaptive Primary, Standard or Encrypted Line Security 31

Download from Www.Somanuals.com. All Manuals Search And Download.

Holdup Alarm Units
ANSI/UL 636
29.1 ANSI/UL 1610 Required 32
29.2 1100X Wireless Receiver 32
29.3 Wireless Supervision Time 32
29.4 LED Display 32
29.5 Jamming Detection 32
29.6 Local Alarm 32
29.7 Message to Transmit 32
29.8 Wireless Audible Annunciation Option 32

Digital Burglar Alarm Communicator System Units
ANSI/ UL 1635
30.1 System Trouble Display 32
30.2 Digital Dialer Telephone Number 32
30.3 Test Time 32
30.4 Closing Wait 32

Police Station Connected and Local Burglar Alarm Units
ANSI/UL 365
31.1 System Trouble Display 32
31.2 Entry Delay 32
31.3 Exit Delay 32
31.4 Bell 33
31.5 Bell Cutoff 33
31.6 Automatic Bell Test 33
31.7 Standard or Encrypted Line Security 33
31.8 Wireless Audible Annunciation Option 33
31.9 Model 463G CELL Only, Standard or Encrypted Line Security 33
31.10 Model 463G NET with CELL as Alternate Primary and Dialer Backup, Standard or Encrypted Line Security 34
31.11 Model 463G NET with CELL as Backup and Adaptive Primary, Standard or Encrypted Line Security 34

Police Station Connected and Local Burglar Alarm Units
ANSI/UL 609
32.1 Mercantile 35
32.2 Entry Delay 35
32.3 Exit Delay 35
32.4 Bell 35
32.5 Wireless Audible Annunciation Option 35

Access Control System Units
ANSI/UL 294
33.1 Panel Designation 35
33.2 Compatible Devices 35

Universal Fire Alarm Specifications
34.1 Introduction 36
34.2 Wiring 36
34.3 Transformer 36
34.4 End-of-Line Resistor 36
34.5 System Trouble Display 36
34.6 Fire Display 36
34.7 Police Station Phone Number 36
34.8 System Maintenance 36
34.9 Audible Alarm 36
34.10 Fire Zone Programming 36
34.11 Style D Zones 36
34.12 Listed Receivers 36

Download from Www.Somanuals.com. All Manuals Search And Download.

Control Units for Fire-Protective Signaling Systems ANSI/UL 864, NFPA 72

35.1 Power Supply 37
35.2 Zone Restoral Reports....37
35.3 Power Fail Delay 37
35.4 Sprinkler Supervisory 37
35.5 DACT Systems....37
35.7 Local Protective Signaling Systems....37
35.8 Remote Station Protective Signaling Systems....37
35.9 Fire Protective Signaling Systems using Internet/Intranet Networks....37
35.10 Combination Systems....37
35.11 Remote Annunciators....37
35.12 Notification Appliances 38
35.13 Cross Zoning....38
35.14 Ground Fault 38

Household Fire Warning System Units ANSI/UL 985, NFPA 72

36.1 Bell Output Definition....38
36.2 Audible Devices 38
36.3 Auxiliary Circuits 38
36.4 Bell Cutoff....38

California State Fire Marshal Specifications

37.1 Bell Output Definition....39

New York City (MEA) Specifications

38.1 Introduction 39
38.2 Digital Dialer and Network Communication 39
38.3 Wiring....39
38.4 Communication Programming....39
38.5 Additional Requirements 39

Wiring Diagrams

39.1 Prewired 866 Modules with NAC Extender 40
39.2 Prewired 866 Class B Style W Modules using Single Notification Appliance 40
39.3 Prewired 866 Class B Style W Modules with Multiple Notification Appliances....41
39.4 Prewired 866 Class B Style W Modules with Dual Notification Appliance Circuits 42
39.5 867 Class B Style W using Single Notification Appliance....43
39.6 867 Class B Style W Multiple Notification Appliance Circuit....43
39.7 867 Class B Style W Multiple Notification Appliance Circuits 44
39.8 Dual Style D Zone Module Installation 45
39.9 Remote Station Reversing Relay Connection 46
39.10 Second LX-Bus™ with Auxiliary Power Supply 47
39.11 LX-Bus™ Module Connection 48
39.12 Model 860 Relay Module Connection 49
39.13 Powered Burglary Devices....49

Revisions to This Document

OPERATING INSTRUCTIONS MODEL XR2500F PANELS

Mounting Instructions....52

Listings and Approvals

Download from Www.Somanuals.com. All Manuals Search And Download.

This page intentionally left blank

Download from Www.Somanuals.com. All Manuals Search And Download.

Introduction

1.1 Overview

The DMP XR2500F Addressable Fire Alarm Control Panel (FACP) is an expandable 24 VDC Fire Alarm Control with built-in DACT and LCD Fire Command Center keyboard with membrane keyswitch. A complete system can provide:

- 574 programmable inputs and outputs for commercial and industrial fire alarm service.
- Eight on-board grounded zones
- Two on-board 12 VDC Class B, Stye A powered zones

Connect a 12 or 24 VDC regulated, power limited power supply listed for Fire Protective Signaling Systems to distribute notification appliance power between the two class B style W NAC outputs. Additional NAC outputs can be added with conventional supervision modules or addressable power supply/boosters. Addressable smoke detectors and input modules round out the XR2500F to deliver a truly flexible and expansive fire detection and notification system. The Fire Alarm Control Panel is shipped pre-wired in a red metal enclosure housing the necessary components to monitor and control fire alarm notification appliances.

The enclosure dimensions are as follows: 32" H x 14.5" W x 4" D. The lid adds about 0.5" to each side.

1.2 System Components

The XR2500F FACP consists of the following pre-wired components:

- One Model XR2500F Command Processor panel
- Two Model 866 Class B Style W NAC modules
- One 16 VAC, 56 VA transformer
- One Model 481 Zone Expansion Interface Card
- One Model 893A Dual Phone Line module
- One Model 630F PCB and membrane switch
- Two Model 305 Plug-in Relays
- One Metal Backplate

1.3 Power Specifications

Transformer Input: Primary input: 120 VAC, 60 Hz, Secondary output: 16 VAC 56 VA

Standby Battery: 12 VDC, 1.0 Amps Max. charging current

Auxiliary: 12 VDC output at 1.0 Amp Max*

Bell Output: 12 VDC at .7 Amp Max*

Note: The combined Auxiliary and Bell outputs total cannot exceed 1.9 Amps with a 56 VA Transformer.

All circuits are inherent Power Limited except the red battery wire and AC terminal.

*** For Commercial Fire installations, see the Compliance Instructions section.**

1.4 Communication

Built-in dialer or network communication to DMP Model SCS-1R Receivers

Built-in Contact ID communication to non-DMP receivers

893A Dual Phone Line Module with phone line supervision

Can operate as a local panel

1.5 Panel Zones

Eight 1k Ohm EOL burglary zones (zones 1 to 8). Connect to 869 Class A module for burglary applications. Two 3.3k Ohm EOL powered zone with reset (zones 9 and 10).

Note: Use the supplied DMP Model 311 1k Ohm and DMP Model 301 3.3k Ohm resistors.

1.6 Keypad Bus

You can connect up to 15 of the following supervised keypads and expansion modules to the keypad bus:

- Alphanumeric Fire Command Centers or keypads
- Four- and/or single-zone expansion modules
- Single-zone detectors
- Access control modules

Download from Www.Somanuals.com. All Manuals Search And Download.

1.7 LX-Bus™

You can connect the following devices to the LX-Bus™ provided by the DMP 481 (supplied) or by the 462N, 481, 462P, 463G, and 472 Interface Cards up to the maximum number of LX-Bus™ addresses. See Accessory Devices.

- Model 521LX or 521LXT Smoke Detectors with CleanMe
- Sixteen-, eight-, four- and/or single-zone expansion modules
- Single-zone detectors
- Relay output expansion modules
- Graphic annunciator modules

1.8 Outputs

The XR2500F provides two pre-installed Model 305 Single Pole, Double Throw (SPDT) relay outputs, each rated 1 Amp at 30 VDC (power limited sources only).

The XR2500F also provides four programmable open collector outputs rated for 30 VDC @ 50mA each. The open collector outputs provide ground connection for a positive voltage source. A Model 300 Output Harness is required to use these outputs and may be connected to a Model 860 Relay Output Module.

1.9 Relays

The XR2500F ships with two Model 305 Relays pre-installed to allow zone alarm control for the 866 NAC Modules. When a fire alarm occurs the bell output is factory programmed to turn on and provide power to the contacts of the relays. Specific zone programming determines whether one or both relays turn on signal voltage to the 866 NACs. This allows control of the NACs by zone.

1.10 Zone Reference

The XR2500F has been pre-wired in the factory. The first 866 NAC module connects to Zone 1. The second 866 NAC module connects to Zone 2.

1.11 Compliance Instructions

For applications that must conform to a local authorities installation standard or a National Recognized Testing Laboratory certificated system, please see the Wiring Diagrams for Notification Appliances and the Listed Compliance Specifications section near the end of this guide for additional instructions.

Download from Www.Somanuals.com. All Manuals Search And Download.

Mounting

2.1 Mounting the Enclosure

The XR2500F must be mounted in a secure, dry location to protect the unit from damage due to tampering and the elements. The enclosure can be either flush mounted or surface mounted and includes a hinged door with lock. The hole in the enclosure door allows access to the Fire Command Center without opening the door. Figure 1 illustrates the mounting hole locations for the panel enclosure.

The enclosure dimensions are 32" tall, 14.5" wide, by 4" deep. The lid adds about 0.5" to each side.

2.2 Surface Mounting

The enclosure center hole should be attached to a wall stud. Due to the enclosure weight, especially the batteries, it is extremely important to mount the enclosure on the stud. Attach the two holes beside the center hole to sheetrock to secure enclosure. When mounting the enclosure, be sure to leave room for the panel door to swing open. The door lock should be easily accessible.

2.3 Flush Mounting

The enclosure can also be flush mounted. Use 1" screws to secure the enclosure between two studs using the two sets of holes on the sides of the enclosure. Use the top and bottom holes to secure to horizontal studs, if necessary.

2.4 Fire Command Center LCD Keyboard

A Fire Command Center LCD Keyboard has been factory installed on the XR2500F enclosure. A keyswitch has also been installed and pre-wired to the left of the keyboard. The user can turn the keyswitch to enable the four function keys without opening the enclosure door.

2.5 Metal Backplate

The XR2500F components are pre-wired and installed on a metal backplate. The backplate can be easily removed to keep components safe during pre-wire activities.

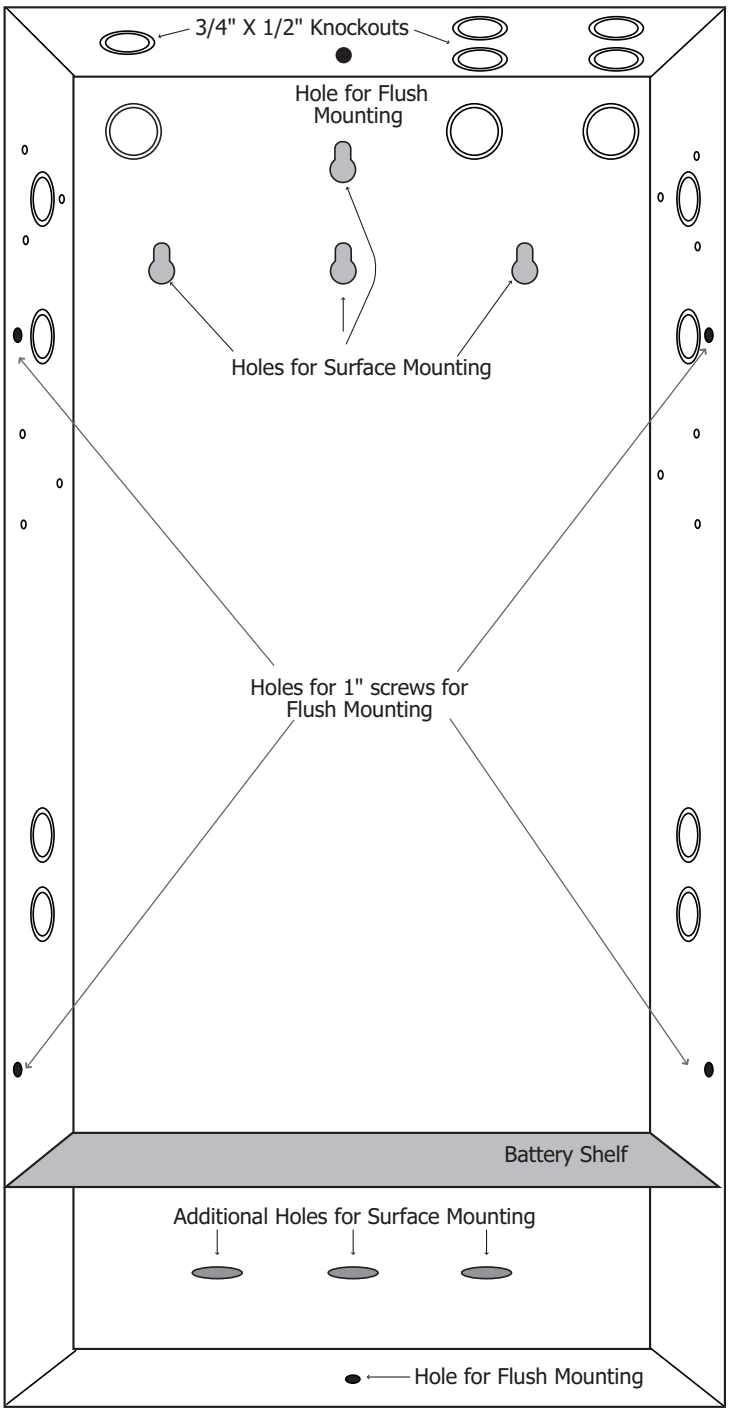


Figure 1: Mounting the XR2500F Enclosure

Remove AC and battery power from the XR2500F panel before removing the backplate. Disconnect all battery, transformer, and the Fire Command Center LCD keyboard wires. From the panel, disconnect the AC wires from terminals 1 and 2. Disconnect the battery wires either from the batteries or the panel terminals 3 and 4. Finally, disconnect the keyboard wires from panel terminals 7, 8, 9, and 10.

Remove the screws securing the backplate to the enclosure. Loosen the two top screws that the backplate hangs on. After loosening and removing the screws, lift the backplate up slightly and pull the backplate toward you. When reinstalling the backplate, be sure all connections are secure.

Figure 2 illustrates the backplate and the components. The backplate is shown in light gray.

Download from Www.Somanuals.com. All Manuals Search And Download.

2.6 Wiring Diagram

The XR2500F system below shows the component layout. The wires shown in this guide have been factory installed and connected. The dashed lines represent wires running underneath or behind a component. Detailed wiring diagrams for each supplied component appear in following sections of this guide.

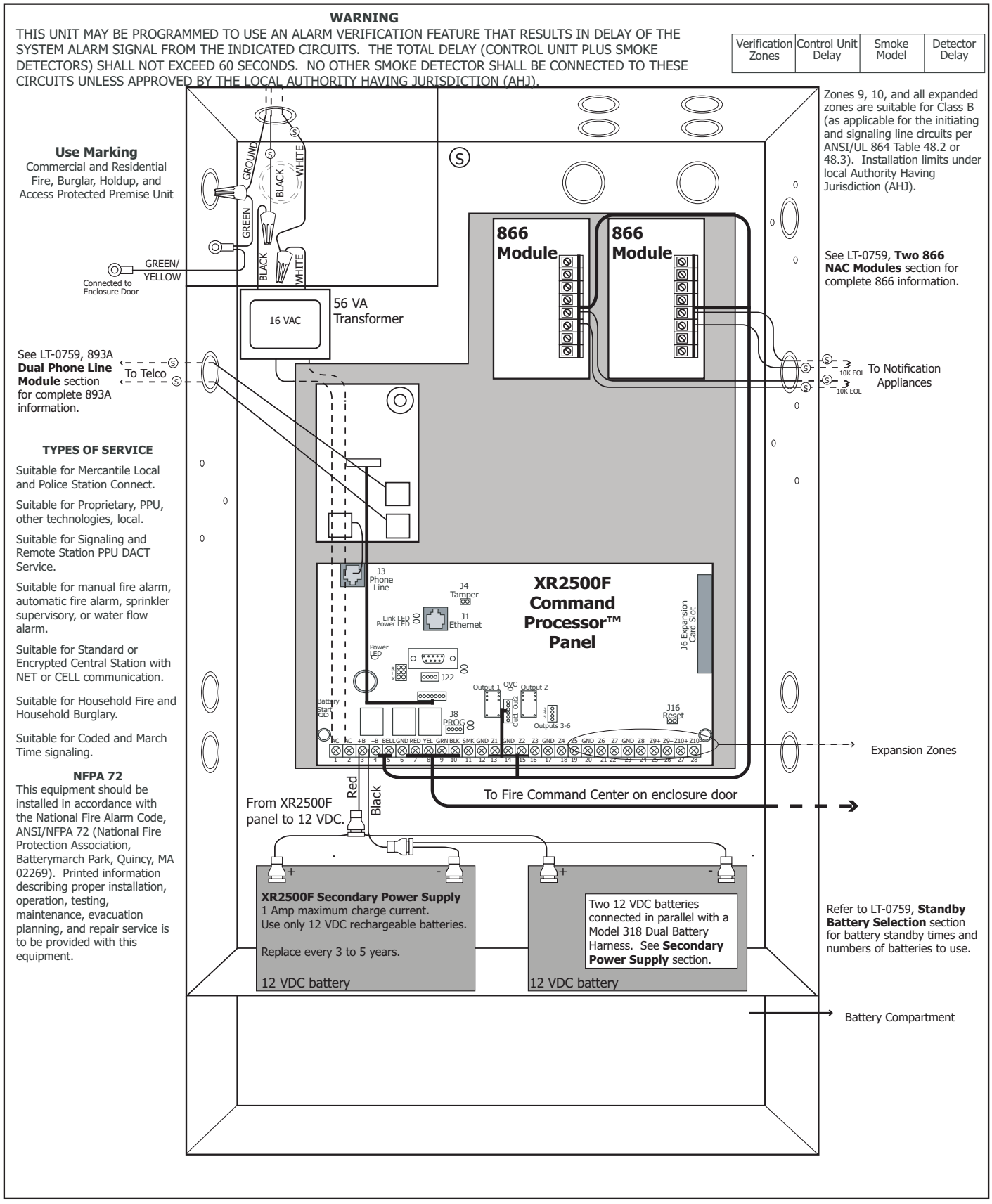


Figure 2: XR2500F System

Download from Www.Somanuals.com. All Manuals Search And Download.

AC Connection

3.1 Transformers and AC Power Connection

The AC connection should be completed by a licensed electrician.

Never share the Fire Alarm Control Panel circuit with any other equipment.

The XR2500F comes supplied with a 16 VAC 56 VA transformer. The 16 VAC transformer white leads and black leads must be connected to an unswitched 120 VAC 60 Hz power source with at least .87A available. Observe wire colors and connect the transformer wires:

The Black transformer wires to the Black 120 VAC wire

The White transformer wires to the White 120 VAC wire

The Green/Yellow ground wire to the electrical ground

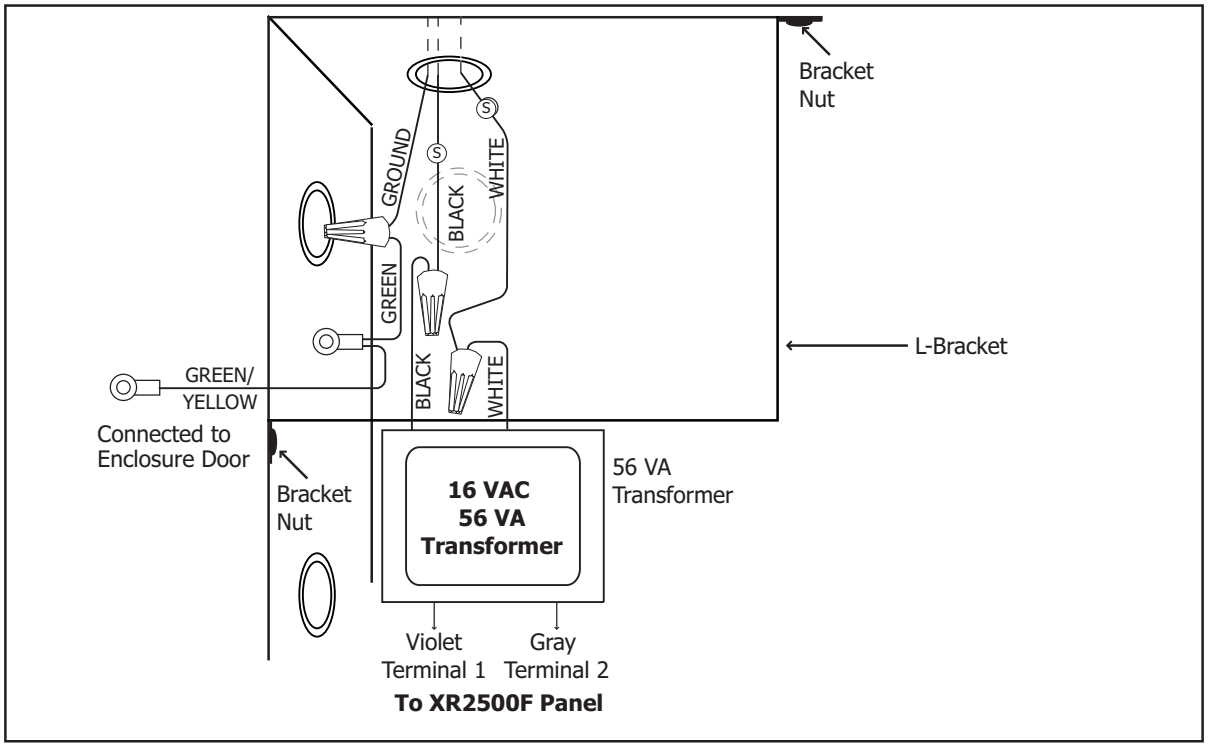


Figure 3: Transformers and AC Power Connection

Always ground the panel before applying power to any devices! Use 18 AWG or larger for all power connections. The XR2500F must be properly grounded before connecting any devices or applying power to the panel. Proper grounding protects against Electrostatic Discharge (ESD) that can damage system components.

3.2 16 VAC Transformer

The 16 VAC 56 VA transformer supplies power to the XR2500F panel and is factory pre-wired. See Figure 3: Transformers and AC Power Connection. Also refer to Figure 11: XR2500F Panel Wiring Diagram.

3.3 Earth Ground (GND)

The XR2500F terminal 4 must be connected to earth ground using 14 AWG or larger wire to provide proper transient suppression. DMP recommends connecting to a cold water pipe, building ground, or ground rod only. Do not connect to an electrical ground or conduit, sprinkler or gas pipes, or to a telephone company ground.

Download from Www.Somanuals.com. All Manuals Search And Download.

Secondary Power Supply

4.1 Description

The XR2500F system includes pre-wired cables for connecting 12 VDC battery to the XR2500F panel. Observe polarity when connecting all batteries.

Use sealed lead-acid batteries only. Use the DMP Model 367, 368, 369, 365, 366, 12 VDC sealed lead-acid rechargeable batteries. Batteries supplied by DMP have been tested to ensure proper charging with DMP products.

Gel cell batteries cannot be used with the XR2500F panel.

4.2 Battery Connection to XR2500F Command Processor panel

For 12 VDC battery operation to the XR2500F, connect the black battery lead to the battery negative terminal. The black battery wire connects to XR2500F panel terminal 4.

Connect the red battery lead to the battery positive terminal. The red battery wire connects to XR2500F panel terminal 3. See Figure 11 and Figure 2.

Add a second battery in parallel using the DMP Model 318 Dual Battery Harness. When wiring two batteries with the Model 318 Dual Battery Harness, plug the Dual Battery Harness red male end into the panel red female battery lead. Plug the Dual Battery Harness black male end into the panel black female battery lead. Attach both Dual Wiring Harness female leads to the two batteries as described above. See Table 3: Battery Calculations.

Download from Www.Somanuals.com. All Manuals Search And Download.

Two 866 NAC Modules

5.1 Description

Each 866 provides one style W indicating circuit for supervising listed polarized notification appliances, such as bells, strobes, and horns. See Table 1: Notification Appliances for a list of approved notification appliances.

5.2 Connection

Each 866 module is pre-installed on the removable backplate using the standard three-hole configuration. The modules are factory pre-wired to each other and the XR2500F panel. Refer to the figure below and to Figure 2: XR2500F System for wiring connections.

Connect a 12 or 24 VDC regulated, power limited power supply listed for Fire Protective Signaling Systems to terminals 2 and 4 of each module to provide Notification appliance power. Connect notification appliances to terminals 5 and 6 of each module. Each module provides a zone of notification and can be activated separately.

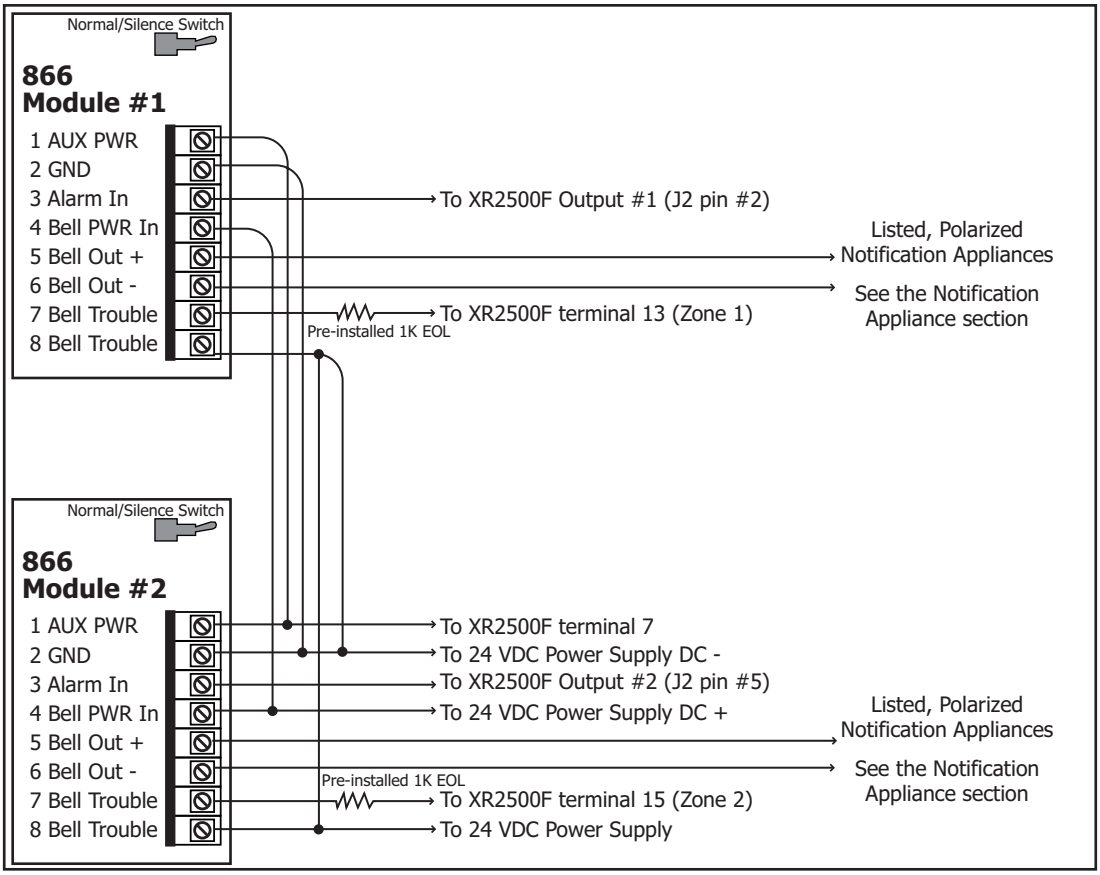


Figure 5: 866 Modules Wiring

5.3 Bell Silence/Bell Trouble

A bell silence switch on the 866 module is provided to prevent indicating devices from sounding during system testing. When the Silence position is selected, a 15-second delay occurs before the 866 bell trouble contacts (terminals 7 and 8) open. Select the Normal position after testing to return the 866 module to normal operation.

Download from Www.Somanuals.com. All Manuals Search And Download.

LX-Bus™ Operation

6.1 Description

The XR2500F Command Processor™ panel supports LX-Bus operation directly from the panel. Each LX-Bus circuit provides 100 additional zones. Use J22 LX-Bus Header for the first 100 zones. Use the installed 481 Zone Expansion Interface Card for the next 100 zones. This provides a total of 200 expansion zones. To install up to four additional Interface Cards use a Model 461 Interface Adaptor Card.

6.2 XR2500F On-board LX-Bus

To enable J22 to operate as an LX-Bus, place a jumper on the two pins next to the letter "L" on the J23 6-Pin header. When using J22 as an LX-Bus, connect a DMP Model 300 4-wire Harness to the J22 4-pin header labeled LX-BUS. This provides the first 100 LX-Bus zones numbered 500-599. Respect wire colors when connecting devices and use all four wires. Reset the panel using the J16 jumper to activate LX-Bus operation. See Connecting LX-Bus and Keypad Devices section for maximum wiring distances.

Note: Do NOT use shielded wire when using the LX-Bus. Do NOT connect the wires from the 4-wire harness to the panel terminals.

6.3 LX-Bus 481 Zone Expansion Interface Card

The 481 Zone Expansion Interface Card provides an additional 100 zones to the XR2500F. When used in conjunction with the on-board J22 LX-Bus the 481 LX-Bus zones are numbered 600 to 699.

6.4 Installing the 481 Card

Remove AC and battery power from the XR2500F panel and ground yourself before handling and installing the 481 Card.

1. Align the 481 Card 50 pin connector with the XR2500F panel J6 connector.
2. Press the 481 onto the J6 connector while applying even pressure to both sides.

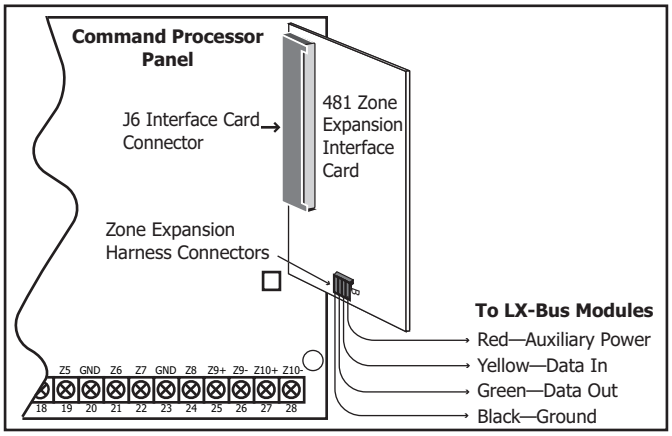


Figure 6: 481 Wiring

Download from Www.Somanuals.com. All Manuals Search And Download.

893A Dual Phone Line Module

7.1 Description

The 893A is a dual telephone line supervision module that allows the panel to indicate a phone line failure to the premises and the central monitoring station. After the 893A senses a failure on the main line, it switches to the backup, or secondary, phone line. The 893A installs on the removable backplate above the XR2500F circuit board.

7.2 Connection

The pre-wired 893A connects the panel to the public telephone network through an installed DMP 356 RJ Cable between the XR2500F panel J3 connector and the 893A Module J3 connector labeled PANEL.

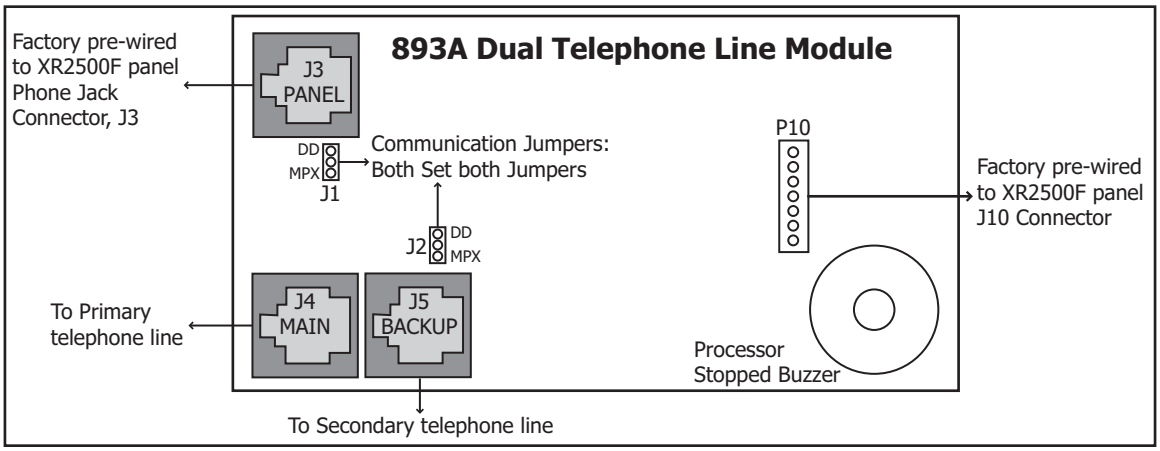


Figure 8: 893A Dual Phone Line Module Wiring

7.3 Jumper Settings

The 893A module has two sets of jumpers. Both communication jumpers must be set for DD (digital dialer) operation. Do not set the 893A jumpers next to MPX. The 893A Module supports multiplex operation, but the XR2500F panel does not.

7.4 Digital Dialer

You can configure the 893A to provide two lines of digital dialer. Maximum line impedance is 100 Ohms. The XR2500F is preset at the factory for Digital Dialer. The Main modular jack (J4) is used for the primary digital dialer line. The Backup modular jack (J5) is used for the secondary digital dialer line.

7.5 Phone Line Monitor

The 893A uses a phone line monitor for the main and backup phone lines. When sending a report, the 893A verifies the main phone line is working before sending data. If the line is bad, the module tests the backup phone line. The 893A sends the report on the first working phone line.

The phone line monitor has a two-minute trouble delay and a one-minute restore delay. Phone line trouble is displayed in the Fire Command Center LCD Status List as a System Trouble. The Fire Command Center LCD is factory programmed to display system troubles in the Status List.

7.6 Processor Fail Buzzer

The 893A module also monitors the panel CPU and sounds a trouble buzzer whenever either the panel processor is reset using J16 or the processor stops functioning.

7.7 J10 893A Connector

The 893A Dual Phone Line Module connects to the XR2500F J10. Refer to the 893A Installation Sheet (LT-0135) for complete information.

7.8 Ground start

Ground start phone service cannot be used on commercial or residential fire applications.

Download from Www.Somanuals.com. All Manuals Search And Download.

7.9 Notification

The user must not repair registered terminal equipment. In case of trouble, immediately unplug the device from the telephone jack. The factory warranty provides for repairs. Registered terminal equipment may not be used on party lines or in connection with coin telephones. Notify the telephone company with the following information:

a. The particular line(s) where the service is connected

b. The FCC registration number

c. The ringer equivalence

d. The device make, model, and serial number (see the serial # sticker on the panel)

7.10 FCC Registration

The Model XR2500F complies with Part 68 of the FCC rules and the requirements adopted by the ACTA. On the outside of the enclosure of this equipment is a label that contains, among other information, a product identifier in the format US:CCKAL00BXR500. If requested this number must be provided to the telephone company.

A plug and jack used to connect this equipment to the premises wiring and telephone network must comply with the applicable FCC Part 68 rules and requirements adopted by the ACTA. See installation instructions for details.

The Ringer Equivalence Number (REN) is used to determine the number of devices that may be connected to a telephone line. Excessive RENs on a telephone line may result in the devices not ringing in response to an incoming call. In most but not all areas, the sum of RENs should not exceed five (5.0). To be certain of the number of devices that may be connected to a line, as determined by the total RENs, contact the local telephone company.

If the XR2500F causes harm to the telephone network, the telephone company will notify you in advance that temporary discontinuance of service may be required. But if advance notice isn't practical, the telephone company will notify the customer as soon as possible. Also, you will be advised of your right to file a complaint with the FCC if you believe it is necessary.

The telephone company may make changes in its facilities, equipment, operations or procedures that could affect the operation of the equipment. If this happens the telephone company will provide advance notice in order for you to make necessary modifications to maintain uninterrupted service.

If trouble is experienced with the Model XR2500F, for repair or warranty information, please contact DMP at the address and telephone number listed on the back of this document. If the equipment is causing harm to the telephone network, the telephone company may request that you disconnect the equipment until the problem is resolved.

If your premises has specially wired alarm equipment connected to the telephone line, ensure the installation of the XR2500F does not disable your alarm equipment. If you have questions about what will disable alarm equipment, consult your telephone company or a qualified installer.

Caution: To ensure proper operation, this equipment must be installed according to the installation instructions in this manual. To verify that the equipment is operating properly and can successfully report an alarm, this equipment must be tested immediately after installation, and periodically thereafter, according to the test instructions in this document and the XR500 Series Programming Guide (LT-0679). Additionally, verification of Line Seize capability should be made immediately after installation, and periodically thereafter, in order to ensure that this equipment can initiate a call even when other equipment (telephone, answering system, computer modem, etc.) connected to the same line is in use.

Download from Www.Somanuals.com. All Manuals Search And Download.

Fire Command Center

8.1 Description

The XR2500F provides an LCD display and 20-key keyboard for programming and system user operation. The Fire Command Center is installed on the XR2500F enclosure door. A keyswitch is installed and pre-wired to the left of the keyboard. The user must turn the keyswitch to enable the four function keys. See the illustration below.

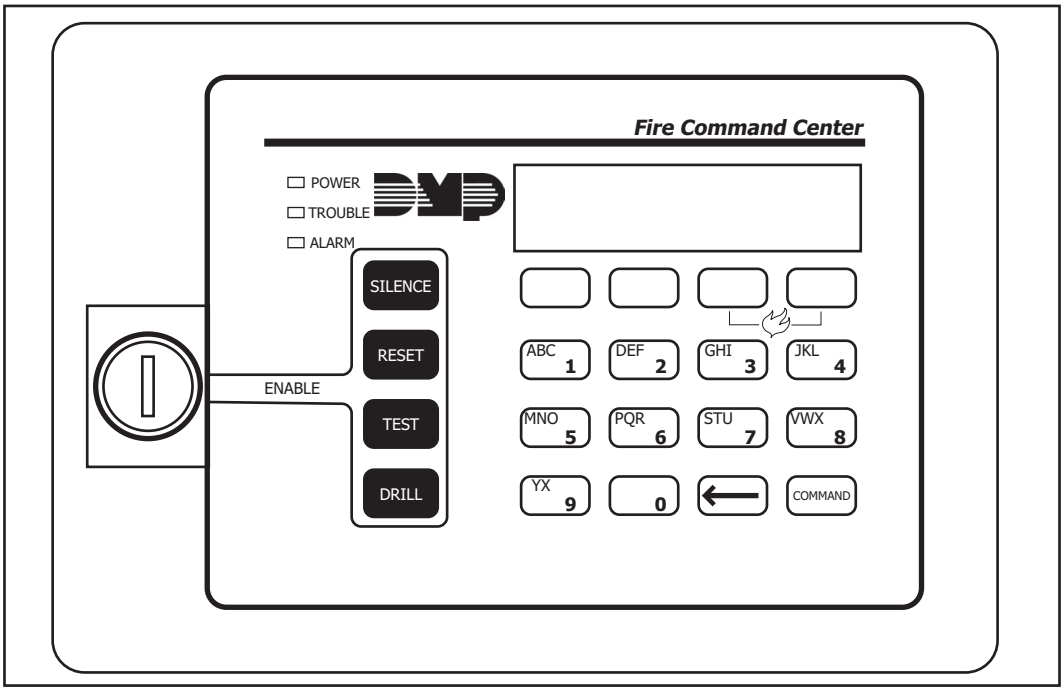


Figure 10: Fire Command Center LCD and Keyboard

8.2 Connection

The display and keyboard are factory pre-wired to the XR2500F panel terminals 7, 8, 9, and 10. For standby battery calculations, the display draws 92mA of current in normal standby or alarm condition. See Panel Standby Battery Calculations. The keyswitch is pre-wired to the membrane keyboard.

8.3 Remote Fire Command Center

Up to fifteen Model 630F Remote Fire Command Centers may be remotely attached to the XR2500F system. See the 630F Installation Guide (LT-0741) for additional information.

Download from Www.Somanuals.com. All Manuals Search And Download.

Expansion

9.1 Zone Expansion

Up to 574 fire and burglary zones are available on the XR2500F using DMP Security Command keypad remote zone capability and zone expansion modules. The panel keypad data bus supports up to sixteen supervised device addresses with each address supporting up to four programmable expansion zones.

Up to 500 zones are available using the on-board LX-Bus along with additional expansion modules. Use the 461 Interface Adaptor, 462N, 462P, 463G, or 481 interface cards, and any combination of sixteen, eight, four, and single point zone expander modules and single point LX-Bus detectors.

Combined current requirements of additional modules may require an additional power supply. See the 710/710F Bus Splitter/Repeater Installation Guide (LT-0310). Refer to the Standby Battery Calculations section when calculating power requirements.

Note: Do not use shielded wire for LX-Bus or Keypad Bus circuits.

9.2 Output Expansion

Note: Do not use shielded wire for LX-Bus or Keypad Bus circuits.

In addition to the two SPDT relays and four programmable open collector outputs on the XR2500F, you can also connect up to 25 programmable Model 716 Output Expansion Modules to each LX-Bus. These modules can provide an additional 500 programmable SPDT relays.

The XR2500F provides 100 Output Schedules you can use for programming the 716 to perform a variety of annunciation and control functions. You can also assign the 716 outputs to any panel Output Options such as Fire Alarm, Communication Fail, or Phone Trouble Outputs. Refer to the 716 Installation Guide (LT-0183).

The LX-Bus™ also supports the Model 717 Graphic Annunciator Module. Each 717 module supplies 20 switched ground outputs that follow the state of their assigned zones.

Note: The 717 supports the first eight keypad bus zones. To follow Keypad Bus zones nine through 16, install multiple 716 modules. Refer to the 717 Installation Guide (LT-0235) and 716 Installation Guide (LT-0183).

Download from Www.Somanuals.com. All Manuals Search And Download.

Accessory Devices

10.1 Wiring Diagram

The XR2500F system below shows some of the accessory modules for use in various applications. A brief description of each module follows.

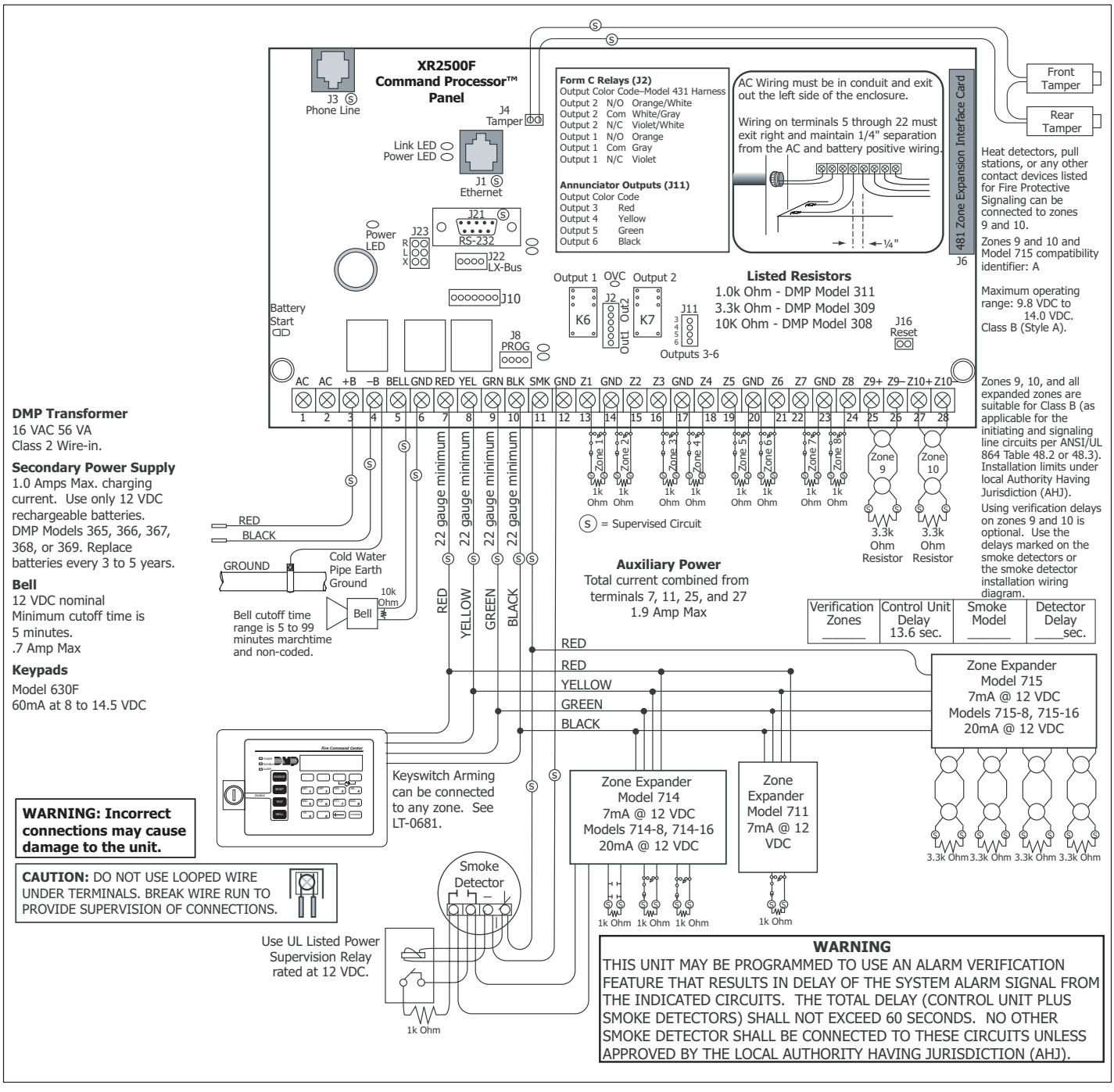


Figure 12: Typical XR2500F Wiring Diagram

10.2 Lightning Protection

Metal Oxide Varistors and Transient Voltage Suppressors help protect against voltage surges on XR2500F input and output circuits. Additional surge protection is available by installing the DMP 370 or 370RJ Lightning Suppressors.

Download from Www.Somanuals.com. All Manuals Search And Download.

10.3 Accessory Devices

Interface Adaptor and Interface Cards	
461 Interface Adaptor Card	Allows you to connect two or more expansion interface cards to the XR2500F panel. The 461 is an expansion board that plugs into the panel J6 Interface Connector and is required when using two or more Interface Cards. Use combinations of Interface Cards for expanding zones, network interfacing, and local printing.
462N Network Interface Card	Allows you to connect the XR2500F to any compatible data network and use its communication capability in place of standard dial out telephone lines. The 462N also provides an LX-Bus™ for connecting zone and output expansion modules to the panel.
462P Printer Interface Card	Allows you to connect the XR2500F to any compatible serial printer providing the user with real-time event recording. The 462P also provides an LX-Bus™ for connecting zone and output expansion modules.
463G Digital Cellular Communicator Card	Allows you to connect the XR2500F to any compatible GPRS/SMS network and use its communication in place of standard dial out lines. The 463G also provides and LX-Bus™ for connecting zone and output expansion modules to the panel.
481 Expansion Interface Card	Provides one LX-Bus for connecting up to 100 zone and output expansion modules.
Zone and Output Expansion Modules	
710/710F Bus Splitter/Repeater	Allows you to increase keypad or LX-Bus™ wiring distance to 2500 feet. Model 710F is for 24 VDC applications.
711 Single Point Zone Expanders	Provides one Class B zone for connecting devices.
714, 714-8, 714-16 Zone Expanders	Provides Class B zones for connecting non-powered fire devices.
715, 715-8, 715-16 Zone Expanders	Provides 12 VDC Class B powered zones for connecting smoke detectors, glassbreak detectors, and other 2- or 4-wire devices.
725 Zone Expanders	Provides 24 VDC Class B powered zones for connecting smoke detectors, glassbreak detectors, and other 2- or 4-wire devices. Requires 710F Bus Splitter/Repeater.
716 Output Expander	Provides four Form C relays (SPDT) and four switched grounds (open collector) for use in a variety of remote annunciation and control applications.
717 Graphic Annunciator Module	Provides 20 zone following annunciator outputs (open collector) for use in a variety of remote annunciation and control applications for use on the keypad bus only.
733, 734 Wiegand Interface Cards	Provides system codeless entry, and arming and disarming using access control readers.
Indicating and Initiating Devices	
865 Supervised Style W or X Notification Circuit Module	Provides supervised alarm current when using the XR2500F panel bell output and up to 5 Amps at 12 or 24 VDC when using a listed auxiliary power supply. The 865 can supervise 2-wire or 4-wire style circuits for opens and shorts with individual LED annunciation.
866 Style W Notification Circuit Module	Provides supervised alarm current using the XR2500F panel bell output and up to 5 Amps at 12 or 24 VDC when using a listed auxiliary power supply. The 866 can supervise 2-wire Style W circuits for opens and shorts.
867 Style W LX-Bus Notification Circuit Module	Provides supervised alarm current using the XR2500F panel bell output and up to 5 Amps at 12 or 24 VDC when using a listed auxiliary power supply. The 867 connects to the XR2500F panel LX-Bus™ and provides one 2-wire Style W notification circuit for open and short conditions. Individual Bell Relay addresses Bell Ring styles.
869 Dual Class A Style D Initiating Module	Provides two Class A, Style D, 4-wire initiating zones for connecting waterflow switches and other non-powered fire and burglary devices.
Accessory Modules and Keypads	
893A Dual Phone Line Module	Allows you to supervise two standard phone lines connected to an XR2500F panel. The 893A module monitors the main and backup phone lines for a sustained voltage drop and alerts users when the phone line is bad.
* ePAD™ Virtual Keypads	Allows users to control the security system from any computer in the world using the Internet.
LCD keypads	Allows you to control the panel from various remote locations. Connect up to sixteen supervised Model 630F Remote Fire Command Center, Model 690, 790, 693/793 Security Command™ keypads, 7060, 7063, 7070, 7073, 7160, 7163, 7170, 7173 Thinline™ keypads, 7060A, 7063A, 7070A, 7073A Aqualite™ keypads, or 7760 Clear Touch™ keypad to the keypad bus using terminals 7, 8, 9, and 10.
Addressable Smoke Detectors	
521LX, 521LXT	Single-zone, addressable module conventional smoke/smoke heat detectors that connect to the LX-Bus. Includes remote maintenance reporting, drift compensation, and multi-criteria detection.
*** These devices have not been investigated and shall not be used in listed installations.**	

Table 5: Accessory Devices

Download from Www.Somanuals.com. All Manuals Search And Download.

10.4 Mounting Keypads and Zone Expansion Modules

LCD keypads have removable covers that allow mounting the keypad to a wall or other flat surface using the screw holes on each corner of the base. Before mounting the base, connect the keypad wire harness leads to the keypad cable from the panel and to any device wiring run to that location. Then attach the harness to the pin connector on the PC board, mount the base, and install the keypad cover making sure all of the keys extend through their respective holes.

For mounting keypads on solid walls, or for applications where conduit is required, use the Model 695 1-1/2" deep or the Model 696 1/2" deep backboxes.

The DMP 711, 714, 715, 716, and 717 modules are each contained in molded plastic housings with removable covers. The base provides you with mounting holes for installing the unit to a wall, switch plate, or other surface.

10.5 Connecting LX-Bus and Keypad Bus Devices

Several factors determine the DMP LX-Bus™ and keypad bus performance characteristics: the wire length and gauge used, the number of devices connected, and the voltage at each device. When planning an LX-Bus™ and keypad bus installation, keep in mind the following information:

1. DMP recommends using 18 or 22-gauge **unshielded** wire for all keypad and LX-Bus circuits. **Do not** use twisted pair or shielded wire for LX-Bus and keypad bus data circuits.
2. On keypad bus circuits, to maintain auxiliary power integrity when using 22-gauge wire do not exceed 500 feet. When using 18-gauge wire do not exceed 1,000 feet. To increase the wire length or to add devices, install an additional power supply that is listed for Fire Protective Signaling, power limited, and regulated (12 VDC nominal) with battery backup.
   Note: Each panel allows a specific number of supervised keypads. Add additional keypads in the unsupervised mode. Refer to the panel installation guide for the specific number of supervised keypads allowed.
3. Maximum distance for any one bus circuit (length of wire) is 2,500 feet regardless of the wire gauge. This distance can be in the form of one long wire run or multiple branches with all wiring totaling no more than 2,500 feet. As wire distance from the panel increases, DC voltage on the wire decreases. Maximum number of LX-Bus devices on the first 2,500 foot circuit is 40 devices.

4. Maximum voltage drop between the panel (or auxiliary power supply) and any device is 2.0 VDC. If the voltage at any device is less than the required level, add an auxiliary power supply at the end of the circuit. When voltage is too low, the devices cannot operate properly.

For additional information refer to the LX-Bus/Keypad Bus Wiring Application Note (LT-2031).

Expansion Interface Cards (Models 481, 462N, 462P, 463G, and 472)

The LX-Bus provided on these cards requires only a 4-wire cable between the card and any devices connected to the bus. You can connect devices (zone or output expansion modules) together on the same cable or provide separate runs back to the card. Each LX-Bus provides up to 100 zones or outputs.

Note: Do not use twisted pair or shielded wire when connecting an LX-Bus or keypad bus.

Download from Www.Somanuals.com. All Manuals Search And Download.

Battery Information

11.1 Battery Only Restart

When powering up the XR2500F panel without AC power, briefly short across the battery start pads to pull in the battery cutoff relay. The leads need a momentary short only. Once the relay has pulled in, the battery voltage holds it in that condition. If the XR2500F panel is powered up with an AC transformer, the battery cutoff relay is pulled in automatically. For battery start pad location refer to Figure 11.

11.2 Battery Replacement Period

DMP recommends replacing the battery every 3 to 5 years under normal use.

11.3 Discharge/Recharge

The XR2500F battery charging circuit float charges at 13.9 VDC at a maximum current of 1.0 Amps using a 56 VA transformer. Listed below are the various battery voltage level conditions:

Battery Trouble:	Below	11.9 VDC
Battery Cutoff:	Below	10.2 VDC
Battery Restored:	Above	12.6 VDC

11.4 Battery Supervision

The XR2500F tests the battery when AC power is present. The test is done every three minutes and lasts for five seconds. During the test, the panel places a load on the battery; if the battery voltage falls below 11.9 VDC a low battery is detected. If AC power is not present, a low battery is detected any time the battery voltage falls below 11.9 VDC.

If a low battery is detected with AC power present, the test repeats every two minutes until the battery charges above 12.6 VDC indicating the battery has restored voltage. If a weak battery is replaced with a fully charged battery, the restored battery is not detected until the next two minute test completes.

11.5 Battery Cutoff

The panel disconnects the battery any time the battery voltage drops below 10.2 VDC. This prevents battery deep discharge damage.

12.6 XR2500F Power Requirements

During AC power failure, the XR2500F panel and all auxiliary devices connected to the XR2500F draw their power from the battery. All devices must be taken into consideration when calculating the battery standby capacity. On the following page is a list of the XR2500F panel power requirements.

- XR2500F Command Processor™ Panel
- The Fire Command Center
- 893A Dual Phone Line Module
- Two 866 NAC modules
- 481 Zone Expansion Interface Card

Then add the additional current draw of Remote Fire Command Centers, Security Command keypads, zone expansion modules, smoke detector output, and any other auxiliary devices used in the system for the total current required. The total is then multiplied by the number of standby hours required to calculate the total ampere-hours required.

See the XR2500F Standby Battery Power Calculations chart on the following page and the Standby Battery Selection information on the next page.

Download from Www.Somanuals.com. All Manuals Search And Download.

11.7 XR2500F Standby Battery Calculations

Standby Battery Power Calculations	Standby Current			Alarm Current		
XR2500F Control Panel	Qty 1	x	180mA 180 mA	Qty 1	x	180mA 180 mA
Relay Outputs 1-2 (ON)	Qty _____	x	30mA _____	Qty _____	x	30mA _____
Switch Grounds 3-6 (ON)	Qty _____	x	5mA _____	Qty _____	x	5mA _____
Active Zones 1-8	Qty _____	x	1.6mA _____	Qty _____	x	*2mA _____
Active Zones 9-10	Qty _____	x	4mA _____	Qty _____	x	30mA _____
2-Wire Smoke Detectors	Qty _____	x	0.1mA _____	Qty _____	x	0.1mA _____
Panel Bell Output						1500mA _____mA
893A Dual Phone Line Module	Qty _____	x	12mA _____	Qty _____	x	50mA _____
461 Interface Adaptor Card			7mA _____		x	7mA _____
462N Network Interface Card	Qty _____	x	50mA _____	Qty _____	x	50mA _____
462P Printer Interface Card	Qty _____	x	50mA _____	Qty _____	x	50mA _____
463G Digital Cellular Communicator Card	Qty _____	x	21mA _____	Qty _____	x	21mA _____
481 Expansion Interface Card	Qty _____	x	15mA _____	Qty _____	x	15mA _____
860 Relay Output Module (one relay active)	Qty _____	x	34mA _____	Qty _____	x	34mA _____
All four relays active			138mA _____			138mA _____
865 Style Y or Z Notification Module	Qty _____	x	26mA _____	Qty _____	x	85mA _____
866 Style W Notification Module	Qty _____	x	45mA _____	Qty _____	x	76mA _____
867 LX-Bus Style W Notification Module	Qty _____	x	30mA _____	Qty _____	x	86mA _____
630F Remote Fire Command Center	Qty _____	x	63mA _____	Qty _____	x	92mA _____
690 Security Command Keypad	Qty _____	x	77mA _____	Qty _____	x	84mA _____
693/793 Security Command Keypad	Qty _____	x	92mA _____	Qty _____	x	120mA _____
Active Zones (EOL Installed)			1.6mA _____	Qty _____	x	*2mA _____
790 Security Command Keypad	Qty _____	x	77mA _____	Qty _____	x	84mA _____
Active Zones (EOL Installed)			1.6mA _____	Qty _____	x	*2mA _____
7060/7060A/7160 Thinline Keypad	Qty _____	x	80mA _____	Qty _____	x	84mA _____
7063/7063A/7163 Thinline Keypad	Qty _____	x	86mA _____	Qty _____	x	112mA _____
7070/7070A/7170 Thinline Keypad	Qty _____	x	72mA _____	Qty _____	x	87mA _____
Active Zones (EOL Installed)			1.6mA _____	Qty _____	x	*2mA _____
7073/7073A/7173 Thinline Keypad	Qty _____	x	93mA _____	Qty _____	x	112mA _____
Active Zones (EOL Installed)			1.6mA _____	Qty _____	x	*2mA _____
733 Wiegand Interface Module	Qty _____	x	30mA _____	Qty _____	x	30mA _____
Active Zones (EOL Installed)	Qty _____	x	1.6mA _____	Qty _____	x	*2mA _____
Annunciator (ON)				Qty _____	x	20mA _____
734 Wiegand Interface Module	Qty _____	x	30mA _____	Qty _____	x	30mA _____
Active Zones (EOL Installed)	Qty _____	x	1.6mA _____	Qty _____	x	*2mA _____
Annunciator (ON)				Qty _____	x	20mA _____
Copy Sub-Totals to next page			Sub-Total Standby _____mA			Sub-Total Alarm _____mA

*Based on 10% of active zones in alarm.

Download from Www.Somanuals.com. All Manuals Search And Download.

Standby Battery Power Calculations	Standby Current			Alarm Current		
736P POPIT Interface Module	Qty _____	x	25mA _____	Qty _____	x	25mA _____
Radionics Popex, POPITs, OctoPOPITs	Qty _____	x	___mA _____	Qty _____	x	___mA _____
710 Bus Splitter/Repeater Module	Qty _____	x	32mA _____	Qty _____	x	32mA _____
710F Fire Bus Splitter/Repeater Module	Qty _____	x	40mA _____	Qty _____	x	40mA _____
711 Zone Expansion Module	Qty _____	x	11mA _____	Qty _____	x	11mA _____
Active Zones (EOL Installed)	Qty _____	x	1.6mA _____	Qty _____	x	*2mA _____
714 Zone Expansion Module	Qty _____	x	7mA _____	Qty _____	x	7mA _____
Active Zones (EOL Installed)	Qty _____	x	1.6mA _____	Qty _____	x	*2mA _____
714-8, 714-16 Zone Expansion Module	Qty _____	x	20mA _____	Qty _____	x	20mA _____
Active Zones (EOL Installed)	Qty _____	x	1.6mA _____	Qty _____	x	*2mA _____
715 Zone Expansion Module	Qty _____	x	7mA _____	Qty _____	x	7mA _____
Active Zones (EOL Installed)	Qty _____	x	4mA _____	Qty _____	x	*30mA _____
2-Wire Smokes	Qty _____	x	.1mA _____	Qty _____	x	.1mA _____
715-8, 715-16 Zone Expansion Modules	Qty _____	x	20mA _____	Qty _____	x	20mA _____
Active Zones (EOL Installed)	Qty _____	x	4mA _____	Qty _____	x	*30mA _____
2-Wire Smokes	Qty _____	x	.1mA _____	Qty _____	x	.1mA _____
716 Output Expansion Module	Qty _____	x	13mA _____	Qty _____	x	13mA _____
Active Form C Relays				Qty _____	x	12mA _____
717 Graphic Annunciator Module	Qty _____	x	10mA _____	Qty _____	x	10mA _____
Annunciator Outputs				Qty _____	x	1mA _____
521LX, 521LXT Smoke Detectors	Qty _____	x	8.8mA _____	Qty _____	x	*28mA _____
Aux. Powered Devices on Terminals 7 and 11 Other than Keypads and LX-Bus Modules			_____mA			_____mA
This page only			Sub-Total Standby _____mA			Sub-Total Alarm _____mA
Sub-Totals from previous page			Sub-Total Standby _____mA			Sub-Total Alarm _____mA
*Based on 10% of active zones in alarm			Total Standby _____mA			Total Alarm _____mA

Total Standby_____mA x number of Standby Hours needed _____ = _____mA-hours

Total Alarm _____mA +_____mA-hours

Total _____mA-hours

X .001

= _____Amp-hrs Required

Download from Www.Somanuals.com. All Manuals Search And Download.

11.8 Standby Battery Selection

To choose the type and number of batteries needed for 24, 60, or 72 hours of standby power based on the Amp Hours Required calculation from the XR2500F Power Requirements section, perform the following:

1. Select the desired standby hours required from the table below: 24, 60, or 72 hours
2. Select the desired battery size: Model 368 (12 VDC 4.5 Ah), Model 369 (12 VDC 7 Ah), Model 367 (12 VDC 7.7 Ah), Model 365 (12 VDC 9 Ah), Model 366 (12 VDC 18 Ah).
3. Select a Max. Ah Available number that is just greater than the number calculated as the Amp Hours Required.
4. Install the number of batteries shown in the corresponding No. of Batteries required column.

Example: If the Amp Hours Required calculation equals 22 Ah for 24 hours of standby time and 4.5 Ah batteries are desired, install six (6) Model 368 (12 VDC, 4.5 Ah) batteries.

For listed installations, all batteries shall be installed in a DMP Model 341, 349, 350, or 352S enclosure and all wiring shall run through conduit. The enclosure shall be installed to the left of the XR2500F enclosure to ensure Battery and AC wire separation.

24 hours of standby power

4.5 Ah Batteries		7 Ah Batteries		7.7 Ah Batteries		9 Ah Batteries		18 Ah Batteries	
Max. Ah Available	No. of Batteries	Max. Ah Available	No. of Batteries	Max. Ah Available	No. of Batteries	Max. Ah Available	No. of Batteries	Max. Ah Available	No. of Batteries
8	2	6	1	6	1	8	1	16	1
12	3	12	2	13	2	16	2	32	2
16	4	18	3	20	3	24	3	48	3
20	5	24	4	27	4	32	4		
24	6	31	5	34	5	40	5		
28	7	37	6	41	6				
32	8	43	7						
36	9								
40	10								

Note: 48 hours is the typical battery recharge time for any of the Number of Batteries shown in this section.

60 hours of standby power

7 Ah Batteries		7.7 Ah Batteries		9 Ah Batteries		18 Ah Batteries	
Max. Ah Available	No. of Batteries	Max. Ah Available	No. of Batteries	Max. Ah Available	No. of Batteries	Max. Ah Available	No. of Batteries
13	2	14	2	17	2	17	1
20	3	22	3	26	3	34	2
27	4	29	4	34	4	52	3
33	5	37	5	43	5	69	4
40	6	44	6	52	6		
47	7	52	7	61	7		
54	8	59	8	69	8		
60	9	67	9				
67	10						

Note: 48 hours is the typical battery recharge time for any of the Number of Batteries shown in this section.

72 hours of standby power

9 Ah Batteries		18 Ah Batteries	
Max. Ah Available	No. of Batteries	Max. Ah Available	No. of Batteries
16	2	16	1
25	3	33	2
33	4	50	3
42	5	67	4
50	6		
59	7		
67	8		

Note: 72 hours is the typical battery recharge time required for any of the Number of Batteries shown in this section.

Note: If the Amp Hours Required calculation is greater than any Max. Ah Available number shown on a table, then add power supply(s) to power some system devices allowing the Amp Hours Required calculation to be reduced. See the 710/710F Bus Splitter/Repeater Installation Guide (LT-0310).

Download from Www.Somanuals.com. All Manuals Search And Download.

Bell Output

12.1 Terminals 5 and 6

Terminal 5 supplies positive 12 VDC regulated power for alarm bells or horns. This output can be steady, pulsed, or temporal depending upon the Bell Action specified in Output Options. Terminal 6 is the ground reference for the bell circuit. This supervised output detects 10k Ohms or less as normal. The indicating appliance can supply this resistance. If using a horn or siren, a 1k Ohm 1/2 W EOL resistor (provided) should be added across the bell circuit to provide supervision. See the Notification Appliance section for a list of approved notification appliances and the Wiring Diagrams for connections.

Keypad Bus

13.1 Description

XR2500F panel terminals 7, 8, 9, and 10 are for the keypad bus. In addition to Fire Command Centers and Remote Fire Command Centers, you can connect up to fifteen supervised keypads and multiple unsupervised keypads to the XR2500F. In addition to Security Command keypads, you can also connect any combination of zone expansion modules, 5845LX Glassbreak detectors, and 6155LX PIRs to the data bus. Refer to the specific device Installation sheet for the maximum number of keypad Bus devices.

Refer to the section titled LX-Bus for complete information about the LX-Bus 4-pin header and expansion slot.

Note: Do not use shielded wire for LX-Bus/Keypad Bus circuits.

13.2 Terminal 7 - RED

This terminal supplies positive 12 VDC regulated to power Fire Command Centers and zone expansion modules. Terminal 7 also supplies power for any auxiliary device. The ground reference for terminal 7 is terminal 10.

The output current is shared with the smoke power output on terminal 11 and Zones 9 and 10. Current draw for all connected devices must not exceed the panel maximum current rating. See Power Supply in the Compliance section for maximum current in a fire listed application.

13.3 Terminal 8 - YELLOW

Terminal 8 receives data from keypads and zone expansion modules. It cannot be used for any other purpose.

13.4 Terminal 9 - GREEN

Terminal 9 transmits data to keypads and zone expansion modules. It cannot be used for any other purpose.

13.5 Terminal 10 - BLACK

Terminal 10 is the ground reference for Fire Command Centers, zone expansion modules, and all auxiliary devices being powered by terminal 7.

13.6 J8 Programming Connection

A 4-pin header (J8) is provided to connect a keypad when using a DMP Model 330 Programming Cable. This provides a quick and easy connection for panel programming.

You may also use the J8 Programming Header to connect Keypad Bus devices. This is an alternative to connecting keypad bus devices to terminals 7, 8, 9, and 10.

13.7 OVC LED

The Overcurrent LED (OVC) lights Red when the devices connected to the Keypad Bus and LX-Bus(es) draw more current than the panel is rated for. The OVC is located above Outputs 1 and 2 on the panel and turns a steady Red when lit. When the OVC LED lights Red, the LX-Bus(es) and Keypad bus are shut down.

Download from Www.Somanuals.com. All Manuals Search And Download.

Smoke and Glassbreak Detector Output

14.1 Terminals 11 and 12

Terminal 11 supplies positive 12 VDC regulated to power 4-wire smoke detectors and other powered devices. This output can be turned off by the user for five seconds using the Sensor Reset User Menu option to allow latched devices to reset. Terminal 12 is the ground reference for terminal 11.

14.2 Current Rating

The Output current from terminal 11 is shared with terminals 7, 25, and 27.

The total current draw of all devices powered from the panel must be included with terminal 11 calculations and must not exceed the maximum output rating.

Powered Zones for 2-Wire Smoke Detectors

15.1 Terminals 25–26 and 27–28

Panel terminals 25 through 28 provide two resettable Class B, Style A, 2-wire powered zones. For programming purposes the zone numbers are 9 and 10.

Note: The maximum wire length for either zone 9 or zone 10 is 3000 feet using 18 AWG or 1000 feet using 22 AWG. The maximum voltage is 14 VDC and the maximum normal standby current is 1.25mA DC. The maximum line impedance is 100 Ohms. The maximum short circuit current is 56mA.

When using 725 Zone Expansion Modules, use included, listed 6.8k Ohm EOL resistors. The compatibility identifier for the zones using 725 Zone Expansion Modules is B. When using 715 Zone Expansion modules, use listed 3.3k Ohm EOL resistors, Model 309. For all other zone expansion modules, use listed 1.0k Ohm Model 310 EOL resistors. The compatibility identifier for the zones is A.

Note: Do not mix detectors from different manufacturers on the same zone.

Caution: Performing a Sensor Reset momentarily drops power to the devices on Zones 9 and 10. The panel views these zones (9 and 10) as "Open" while the power is absent.

Download from Www.Somanuals.com. All Manuals Search And Download.

15.2 Compatible 2-Wire Smoke Detector Chart

Manufacturer	Model	Detector ID	Base	Base ID	DC Voltage Range	# of Detectors (12V/24V)	Zone Expansion Modules	Panel Zones
Detection Systems	DS230, DS230F	B/A	MB2W, MB2WL	A	8.5-33	10	725	
Detection Systems	DS250, DS250TH	B	MB2W, MB2WL	A	8.5-33	10/12	715, 715-8, 715-16, 725	9 & 10
Detection Systems	DS250HD	B	MB2W, MB2WL	A	8.5-33	10	715, 715-8, 715-16	9 & 10
Detection Systems	DS260	B/A	MB2W, MB2WL	A	8.5-33	17	725	
Detection Systems	DS282, DS282TH, DS282THC, DS282THS	B			8.5-33	10/12	715, 715-8, 715-16, 725	9 & 10
DMP/Hochiki	SLR-835	HD-3	NS6-100	HB-55	8-35	7/14	725	9 & 10
DMP/Hochiki	SLR-835B	HD-6	N/A		8-35	7/14	725	9 & 10
Hochiki	SLR-835B-2 SLR-835BH-2	HD-6	N/A		8-35	14	725	9 & 10
Hochiki	SLR-24, SLR-24H	HD-3	NS4-220	HB-3	15-33	15	725	9 & 10
Hochiki	SIJ-24, DCD-190, DCD-135	HD-3	NS4-220	HB-3	15-33	15	725	9 & 10
Hochiki	SLR-24, SLR-24H	HD-3	NS6-220	HB-3	15-33	15	725	9 & 10
Hochiki	SIJ-24	HD-3	NS6-220	HB-3	15-33	20	725	9 & 10
Hochiki	DCD-190, DCD-135	HD-3	NS6-220	HB-3	15-33	16	725	9 & 10
Sentrol/ESL	429AT, 521B, 521BXT, 521NB, 521NBXT	S09A			6.5-20	12	715, 715-8, 715-16	9 & 10
Sentrol/ESL	429C, 429CT, 521B/BXT	S10A			8.5-33	12	725	
Sentrol/ESL	429CRT, 429CST, 429CSST, 521CRXT	S11A			8.5-33	12	725	
Sentrol/ESL	711U, 712U, 713-5U, 713-6U, 721U, 721UT	S10A	701E, 70-1U, 702E, 702U	S00	8.5-33	12	725	
Sentrol/ESL	731U, 723U	S11A	701E, 701U, 702E, 702U, 702RE, 702RU	S00	8.5-33	12	725	
System Sensor	1400	A			8.5-35	10	715, 715-8, 715-16	9 & 10
System Sensor	1151, 2151	A	B110PL, B401		8.5-35	10/10	715, 715-8, 715-16, 725	9 & 10
System Sensor	1451, 2451TH	A	B401, B401B		8.5-35	10	715, 715-8, 715-16	9 & 10
System Sensor	1451DH	A	DH400		8.5-35	10	715, 715-8, 715-16	9 & 10
System Sensor	2100T, 2100B, 2100TB, 2100D, 2100TD	A			8.5-35	10	715, 715-8, 715-16	9 & 10
System Sensor	2400, 2400AT, 2400AIT, 2400TH	A			8.5-35	10	715, 715-8, 715-16	9 & 10
System Sensor	2451	A	B401, B401B, DH400		8.5-35	10	715, 715-8, 715-16	9 & 10
System Sensor	2W-B, 2WT-B	A			8.5-35	10	715, 715-8, 715-16	9 & 10
System Sensor	DH100P, DH100LP	A			8.5-35	10	715, 715-8, 715-16, 725	9 & 10

Table 6: Compatible 2-Wire Smoke Detectors

Download from Www.Somanuals.com. All Manuals Search And Download.

Protection Zones

16.1 Terminals 13–24

Zones 1 to 8 (terminals 13 to 24) on the XR2500F panel are all grounded burglary zones. For programming purposes, the zone numbers are 1 through 8. Listed below are terminal 13 to 24 connection functions.

Terminal	Function	Terminal	Function
13	Zone 1 voltage sensing	19	Zone 5 voltage sensing
14	Ground for Zones 1 and 2	20	Ground for Zones 5 and 6
15	Zone 2 voltage sensing	21	Zone 6 voltage sensing
16	Zone 3 voltage sensing	22	Zone 7 voltage sensing
17	Ground for Zones 3 and 4	23	Ground for Zones 7 and 8
18	Zone 4 voltage sensing	24	Zone 8 voltage sensing

Note: Zones 1 and 2 have been pre-wired to the two 866 NAC modules. All other zones are available.

The voltage sensing terminal measures the voltage across a 1k Ohm End-of-Line resistor to ground. Use DMP Model 311 1k Ohm resistors. Dry contact sensing devices can be used in series (normally-closed) or in parallel (normally-open) with any of the burglary protection zones.

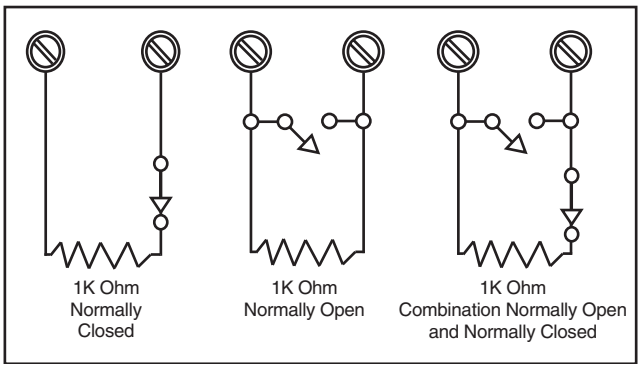


Figure 12: Protection Zone Wiring

16.2 Operational Parameters

Each protection zone detects three conditions: Open, Normal, and Short. Listed below are voltage and resistance parameters for each condition:

Condition	Resistance on zone	Voltage on zone terminal
Open	over 1300 Ohms	over 2.0 VDC
Normal	600 to 1300 Ohms	1.2 to 2.0 VDC
Short	under 600 Ohms	under 1.2 VDC

16.3 Zone Response Time

A condition must be present on a zone for 500 milliseconds before it is detected by the XR2500F panel. Ensure detection devices used on the protection zones are rated for use with this delay. Zones 1-10 can also be programmed for a fast response delay of 160 milliseconds.

16.4 Keyswitch Arming Zone

Using a keyswitch on an Arming type zone allows you to arm and disarm selected areas without having to enter a user code.

Download from Www.Somanuals.com. All Manuals Search And Download.

Dry Contact Relay Outputs

17.1 Description

The XR2500F panel provides two programmable auxiliary SPDT relays with the two DMP Model 305 relays in K6 (Output 1) and K7 (Output 2) and a Model 431 Output Harness on the J2 6-pin Header. Each relay provides one SPDT set of contacts that can be operated by any of the functions listed below:

1) Activation by zone condition: Steady, Pulsing, Momentary, and Follow
2) Activation by 24-hour 7-day schedule: One on and one off time a day for each relay
3) Manual activation from the Security Command keypad menu
4) Communication failure
5) Armed area annunciation
6) Fire Alarm, Fire Trouble, or Supervisory
7) Ambush Alarm
8) Exit and Entry timers
9) System Ready
10) Late to Close

Refer to the XR500 Series Programming Guide (LT-0679) for specific information.

17.2 Contact Rating

The Model 305 relay contacts are rated for 1 Amp at 30 VDC (allows .35 power factor). Connect auxiliary power to the Relay Output 1 common terminal by installing the gray harness wire to terminal 7. Current draw for all connected devices must not exceed the panel maximum current rating.

17.3 Output Harness Wiring

The Output Harness is pre-installed on the 6-pin header labeled J2. Output 2 uses the top three prongs, and Output 1 uses the bottom three prongs. Outputs 1 and 2 are pre-wired to the 866 NAC modules located within the XR2500F enclosure. For reference, the wire harness and contact locations are shown below:

Contact	Color
Output 1 normally closed	Violet
Output 1 common	Gray
Output 1 normally open	Orange
Output 2 normally closed	Blue
Output 2 common	White
Output 2 normally open	Yellow

Download from Www.Somanuals.com. All Manuals Search And Download.

J11 Annunciator Outputs

18.1 Description

The four programmable annunciator outputs can be programmed to indicate the activity of the panel zones or conditions occurring on the system. Annunciator **outputs do not provide a voltage but instead switch-to-ground** a voltage from another source and are rated at a maximum 30 VDC @ 50mA. The outputs can respond to any of the conditions listed in the Description section of Dry Contact Relay Outputs.

18.2 Model 300 Harness Wiring

Access the open collector outputs by installing DMP 300 Harness on the 4-pin header labeled J11. The output locations are shown below.

Note: For UL applications, devices connected to the outputs must be located within the same room as the panel.

Output	Color	Wire	Output	Color	Wire
3	Red	1	5	Green	3
4	Yellow	2	6	Black	4

18.3 Model 860 Relay Module

Connect a Model 860 Relay Module to the J11 on the XR2500F panel to provide relays for outputs 3-6. Use these relays for electrical isolation between the alarm panel and other systems or for switching voltage to control various functions. Power is supplied to the relay coils from a single wire connected to the panel auxiliary power terminal 7. The module includes one relay and provides three additional sockets for expansion of up to four relays. Mount the 860 inside the panel enclosure using the 3-hole pattern and plastic standoffs. Refer to the 860 Module Install Sheet (LT-0484) as needed.

Model 305 Relay Contact Rating: 1 Amp at 30 VDC (allows .35 power factor)

J23 6-Pin Header

19.1 Description

The XR2500F Command Processor™ panel supports RS-232, LX-Bus and Wireless Bus expansion operation. These operations cannot function at the same time. Install a jumper on one pair of J23 headers to indicate how the panel is programmed to operate. Refer to the table below when installing a jumper on J23. When a jumper is installed or moved on the 6-pin header, briefly reset the panel using the J16 jumper to activate the selected operation.

J23 6-Pin Header	
Letter	**Operation**
R	Standard RS-232
L	LX-Bus
X	Wireless Bus

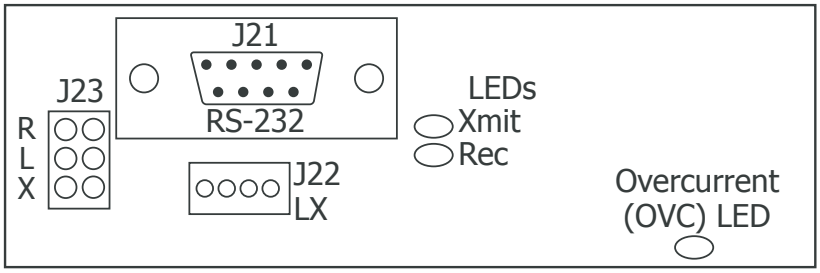


Figure 14: J23 6-Pin Header

Download from Www.Somanuals.com. All Manuals Search And Download.

J22 LX-Bus Expansion Connector

20.1 Description

J22 LX-Bus and J21 RS-232 connectors cannot be used at the same time. Either use J21 to connect a serial device for PC Log Reporting, or use J22 to connect an LX-Bus or Wireless device. This is determined by where you install the jumper on J23 6-Pin Header. Reset the panel using J16 jumper to activate selected J23 operation. See the Connecting LX-Bus and Keypad Bus Devices section for maximum wiring distances.

Note: Do NOT use shielded wire when using the LX-Bus. Do NOT connect the wires from the 4-wire harness to the panel terminals.

20.2 LX-Bus Interface Cards

Refer to the following tables to identify zone locations and numbers relative to J22 operation.

J22 LX-Bus Enabled			One Interface Card			461 Adaptor Card and Multiple Interface Cards	
LX-Bus	Zone Numbers	AND	LX-Bus	Zone Numbers	OR	LX-Bus	Zone Numbers
1	500-599		2	600-699		2 (A)	600-699
						3 (B)	700-799
						4 (C)	800-899
						5 (D)	900-999

J22 LX-Bus NOT Enabled	One Interface Card			461 Adaptor Card and Multiple Interface Cards	
	LX-Bus	Zone Numbers	OR	LX-Bus	Zone Numbers
	1	500-599		1 (A)	500-599
				2 (B)	600-699
				3 (C)	700-799
				4 (D)	800-899
				5 (E)	900-999

20.3 LX-Bus LEDs

The two LEDs, located near the bottom-right corner of J21 indicate data transmission and receipt. The top LED flashes green to indicate the panel is transmitting LX-Bus data. The bottom LED flashes yellow to indicate the panel is receiving LX-Bus data.

20.4. OVC LED

The Overcurrent LED (OVC) lights Red when the devices connected to the Keypad Bus and LX-Bus(es) draw more current than the panel is rated for. The OVC is located above Outputs 1 and 2 on the panel and turns a steady Red when lit. When the OVC LED lights Red, the LX-Bus(es) and keypad bus shut down.

J21 Serial Connector

21.1 Description

Note: J22 LX-Bus and J21 RS-232 connectors cannot be used at the same time. Either use J21 to connect a serial device, or use J22 to connect an LX-Bus or Wireless device. This is determined by where you install the jumper on the J23 6-Pin Header. Reset the panel using J16 jumper to activate selected J23 operation. The maximum line impedance is 100 Ohms.

To enable J21 to operate in RS-232 mode place a jumper on the two pins next to the letter “R” on the J23 6-Pin header. The Serial Connector allows the XR2500F panel to transmit PC Log Reports directly to an RS-232 device.

21.2 Serial Connector LEDs

The two LEDs, located near the bottom-right corner of J21 indicate data transmission and receipt. The top LED flashes green to indicate the panel is transmitting serial data. The bottom LED flashes yellow to indicate the panel is receiving serial data.

Download from Www.Somanuals.com. All Manuals Search And Download.

J1 Ethernet Connector

22.1 Description

The J1 Ethernet Connector is available to connect directly to an Ethernet network using a standard patch cable. The maximum line impedance is 100 Ohms.

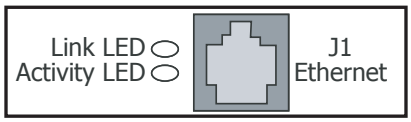


Figure 15: J1 Header and LEDs

22.2 Ethernet LEDs

The two LEDs, located to the left of J1 Ethernet Connector, indicate network operation. The top, Activity LED flashes green to indicate the network traffic is good. The bottom, Link LED flashes yellow to indicate messages are being sent and received.

Reset and Tamper Headers

23.1 J16 Reset Header

The reset header is located just above the terminal strip on the right side of the circuit board and is used to reset the XR2500F microprocessor. To reset the panel when first installing the system, install the reset jumper before applying power to the panel. After connecting the AC and battery, remove the reset jumper.

To reset the panel while the system is operational, for example, prior to reprogramming, install the reset jumper without powering down the system. Remove the reset jumper after one or two seconds.

After resetting the panel, begin programming within 30 minutes. If you wait longer than 30 minutes, you must reset the panel again.

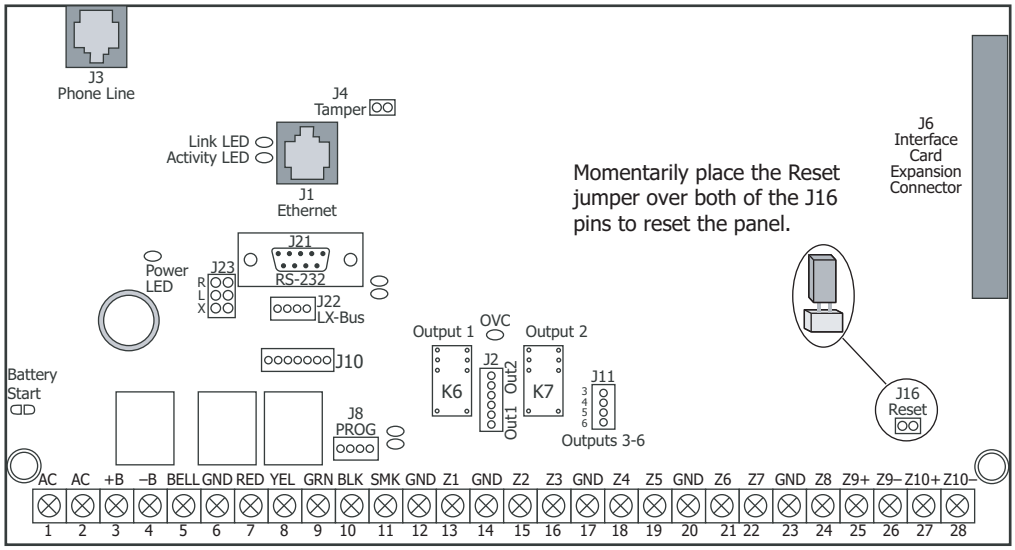


Figure 16: XR2500F Panel Showing the Reset Jumper

23.2 J4 Tamper Header

The J4 header is for use with the optional DMP 306 Tamper Harness. The harness connects to one or more tamper switches mounted inside the panel enclosure to supervise against unauthorized enclosure opening or removal. Refer to the wiring diagram on the enclosure door for correct tamper switch wiring.

How the Tamper Works

If the enclosure is opened or removed while one or more of the system areas are armed, a panel tamper alarm is indicated. If all areas are disarmed, a panel tamper trouble is indicated.

Download from Www.Somanuals.com. All Manuals Search And Download.

Listed Compliance Specifications

24.1 Introduction

For applications that must conform to a local authorities installation standard or a National Recognized Testing Laboratory certificated system, please see the following sections.

Universal UL Burglary Specifications

25.1 Introduction

The programming and installation specifications contained in this section must be completed when installing the XR2500F panel in accordance with any burglary standards. Additional specifications may be required by a particular standard. See the XR500 Programming Guide (LT-0679).

25.2 Wiring

All wiring must be in accordance with NEC, ANSI/NFPA 70, ANSI/UL 681. All transformer wires must be installed in conduit.

25.3 Control Outside of Protected Area

A Potter EVD or Sentrol 5402 should be used in place of a lined cabinet when the panel is installed outside of the protected area. Front and rear tamper switches are required. Refer to the system wiring diagram and Figure 2.

25.4 Police Station Phone Numbers

The digital dialer telephone number programmed for communication must not be a police station phone number.

25.5 Bypass Reports

The Bypass Reports option must be programmed as YES for all listed burglary applications.

25.6 System Maintenance

To ensure continuous satisfactory operation of any alarm system, proper installation and regular maintenance by the installing alarm company and frequent testing by the end user is essential. Offering a maintenance program and acquainting the user with the correct procedures for system use and testing is also the responsibility of the installing alarm company.

25.7 Listed Receivers

Operation has been verified with the DMP SCS-1R, Sur-Gard SG-HLR2-DG, FBII CP220PB, Osborne-Hoffman Quick-Alert, and Radionics D6500 receivers. It is the installer's responsibility to verify compatibility between the XR2500F and the receiver used during installation. The installer shall verify the compatibility of the receiver and the system on a yearly basis.

25.8 Power Supply Supervision

For commercial burglary applications the power supply for all local bells shall be under 24-hour protection. Refer to the Secondary Power Supply section in this document.

25.9 Wireless Tamper

The Zone Information Disarmed Open Message to Transmit must be programmed Trouble (T). (Not applicable to ANSI/UL 1023).

25.10 Wireless External Contact

When used, the External Contact of 1101 or 1102 must be programmed Normally Closed.

25.11 Wireless Supervision Time

The Zone Information Supervision Time cannot be set to 0 (zero).

25.12 Detect Wireless Jamming

The Detect Wireless Jamming option must be programmed YES. (Not applicable to ANSI/UL 1023).

Download from Www.Somanuals.com. All Manuals Search And Download.

Area Information

26.1 Ownership
The control unit system shall be under one ownership.

26.2 Annunciation
The System shall be installed so that when arming any area from any keypad, the local bell shall annunciate.

26.3 Trouble Display
The Status List programming shall be set to annunciate all trouble messages at all keypads.

26.4 Closing Wait
The Closing Wait option must be programmed YES.

26.5 Local Bell Supervision
When a local bell is employed, the power supply for the bell shall be under 24-hour protection. Proper personnel for maintenance or security of the system shall be able to disarm that area.

Household Burglar-Alarm System Units ANSI/UL 1023

27.1 Audible Devices
At least one listed audible device (Ademco AB12M) rated to operate over the voltage rate of 11.7 VDC to 12.8 VDC and rated at 85 DB minimum must be used.

27.2 Auxiliary Circuits
At least one burglary alarm initiating device shall be used on the system. If the voltage for the device is applied by the control unit the burglary alarm initiating device shall be rated to operate over the range of 11.5 VDC to 12.7 VDC.

27.3 Bell Cutoff
The Bell Cutoff time cannot be less than five minutes.

27.4 Entry Delay
The maximum entry delay used must not be more than 45 seconds.

27.5 Exit Delay
The maximum exit delay used must not be more than 60 seconds.

27.6 Weekly Test
The product should be tested weekly.

27.7 Wireless Audible Annunciation Option
The Wireless Audible option must be selected as DAY for residential applications.

Central-Station and Proprietary Burglar-Alarm Units ANSI/ UL 1610 AND ANSI/UL 1076

28.1 Opening/Closing Reports
The Opening/Closing Reports option must be programmed as YES. .

28.2 Closing Wait
The Closing Wait option must be programmed YES.

28.3 Entry Delay
The maximum entry delay used must not be more than 60 seconds.

28.4 Exit Delay
The maximum exit delay used must not be more than 60 seconds.

Download from Www.Somanuals.com. All Manuals Search And Download.

28.5 Proprietary Dialer

The Model XR2500F provides proprietary service when configured as a digital dialer.

28.6 DACT Central Station

DACT Central Station service can be provided under by adding an Ademco AB12M bell and bell housing.

28.7 Bell Cutoff

The Bell Cutoff time cannot be less than 15 minutes.

28.8 Standard or Encrypted Line Security

Standard Line Security is provided when configured as a Path 1 NET system using an XR500N panel. The NET Check-in time must be set to 06 minutes or RDM. When programmed for Standard Line Security, Exit Time Restart is disabled. When a dialer is required for 06 minute check-in time, an attack resistant enclosure (DMP Model 350A) is required. When the check-in time is set to a number less than 200 seconds, an attack resistant enclosure is not required.

To provide Encrypted Line security, install an XR500E panel.

For Encrypted Line security operation, communication between the Premise and Supervising Station provides 128 bit encryption when using an XR500E panel or an XR500 panel with an iCOM-E Encrypted Network Alarm Router.

The Model XR500 Series Protected Premises Control Unit is suitable for Standard Line Security service when configured for NET communication with SCS-1R receiving system. This configuration is approved for the following:

AMCX - Central Station Alarm Units
APOU - Proprietary Alarm Units

28.9 Wireless Audible Annunciation Option

The Wireless Audible option must be selected as ANY for commercial applications.

28.10 Model 463G CELL Only, Standard or Encrypted Line Security

Standard or Encrypted Line Security is provided when programmed using CELL with no backup. XR500 cellular communication is used as primary with a 3 minute check-in when armed or disarmed.

Path 1 programming	
Comm Type: = CELL	Checkin: = 3 minute
Path Type: = Primary	Fail Time: = 3 minute
Encrypt: = NO or YES*	Test Rpt: = NO
Sub Code: = NO or YES	

*For Encrypted Line Security, program a Passphrase in Network Options.

Download from Www.Somanuals.com. All Manuals Search And Download.

28.11 Model 463G NET with CELL as Alternate Primary and Dialer Backup, Standard or Encrypted Line Security

Standard or Encrypted Line Security is provided using NET communication with CELL as an alternate primary and with digital dialer as a backup. XR500 network communication is used as primary with a 6 minute check-in when armed, and a random check-in over a 60 minute period when disarmed. CELL is the backup path and set to daily test. Should the NET primary path become disabled, CELL adapts the same check-in time programmed for the primary communication and becomes an alternate primary path. The dialer path is used as the backup if both NET and CELL fail to receive acknowledgement from the receiver.

This method of operation causes the CELL alternate primary to adapt to the 6 minute NET primary check-in rate when the NET primary is unavailable maintaining line supervision and precludes the need for a central station runner to respond to the NET primary failure.

Path 1 programming	Path 2 programming	Path 3 programming
Comm Type: = NET	Comm Type: = CELL	Comm Type: = DD
Path Type: = Primary	Path Type: = Backup (operates as alternate primary)	Path Type: = Backup (operates as second method)
Test Rpt: = NO	Test Rpt: = YES	Test Rpt: = YES
Checkin: = 6 minute, or RND (random)	Test Freq: = Daily	Test Freq: = Daily
Fail Time: = 6 minute, or RND (random)	Checkin: = ADAPT	Duplicate Alarms: = YES
Encrypt: = NO or YES*	Encrypt: = NO or YES*	
Sub Code: = YES	Sub Code: = Shared	

*For Encrypted Line Security, program a Passphrase in Network Options.

28.12 Model 463G NET with CELL as Backup and Adaptive Primary, Standard or Encrypted Line Security

Standard or Encrypted Line Security is provided when programmed using NET communication and CELL as backup and as needed adapts and takes over as primary. XR500 network communication is used as primary with a 6 minute check-in when armed, and a random check-in over a 60 minute period when disarmed. CELL is the backup path and set to daily test. Should the primary path become disabled, the CELL adapts to a special 3 minute check-in time and because of that check-in rate becomes the primary without the requirement of a backup. This method of operation causes the CELL backup to adapt to the 3 minute check-in rate when the NET primary is unavailable becoming a standalone primary without the need for a backup. This maintains line supervision and precludes the need for a central station runner to respond to the NET primary failure.

Path 1 programming	Path 2 programming
Comm Type: = NET	Comm Type: = CELL
Path Type: = Primary	Path Type: = Backup (operates as second method)
Test Rpt: = NO	Test Rpt: = YES
Checkin: = 6 minute, or RND (random)	Test Freq: = Daily
Fail Time: = 6 minute, or RND (random)	Checkin: = ADAPT3
Encrypt: = NO or YES*	Encrypt: = NO or YES*
Sub Code: = YES	Duplicate Alarms: = YES
	Sub Code: = Shared

*For Encrypted Line Security, program a Passphrase in Network Options.

Download from Www.Somanuals.com. All Manuals Search And Download.

Holdup Alarm Units
ANSI/UL 636

29.1 ANSI/UL 1610 Required
The programming and installation specifications contained in this section must be completed in addition to ANSI/UL 1610 Specifications when installing a Model 1142 with a Model XR500 Series panel.

29.2 1100X Wireless Receiver
The Model 1100X Wireless Receiver in conjunction with the Model 1142 Holdup Alarm Transmitter must be installed in the system.

29.3 Wireless Supervision Time
The Zone Information Supervision Time must be a maximum of 240 minutes.

29.4 LED Display
The LED Operation option display must be set to NO when using a Model 1142 Holdup Alarm Transmitter.

29.5 Jamming Detection
The Detect Wireless Jamming option must be set to YES.

29.6 Local Alarm
The Bell Action for a PN (Panic) type zone must be programmed as N (None).

29.7 Message to Transmit
The Armed Open and Armed Short messages for a PN (Panic) type zone must be programmed to A (Alarm).

29.8 Wireless Audible Annunciation Option
The Wireless Audible option must be selected as ANY for commercial applications.

Digital Burglar Alarm Communicator System Units
ANSI/ UL 1635

30.1 System Trouble Display
The Status List Display must include at least one keypad that displays system monitor troubles.

30.2 Digital Dialer Telephone Number
Both programmed telephone numbers must begin with a P.

30.3 Test Time
The Test Time option must be programmed so that the XR2500F sends a report once every 24 hours.

30.4 Closing Wait
The Closing Wait option must be programmed YES.

Police Station Connected and Local Burglar Alarm Units
ANSI/UL 365

31.1 System Trouble Display
The Status List Display must include at least one keypad that displays system monitor troubles.

31.2 Entry Delay
The maximum entry delay used must not be more than 60 seconds when using Model 350A or 350H Attack housing.

31.3 Exit Delay
The maximum exit delay used must not be more than 60 seconds.

Download from Www.Somanuals.com. All Manuals Search And Download.

31.4 Bell

A local audible signal appliance must be used such as Ademco AB12M bell and bell housing.

The alarm housing for a mercantile alarm system without a remote alarm transmission connection shall be mounted on the outside of the building, visible from a public street or highway. It shall be accessible for examination and repair. It shall also be located not more than four stories above the street level unless:

a) A second alarm sounding device and housing, intended for outside service, is mounted adjacent to the premises or area of the building in which the alarm system is installed or

b) A second alarm sounding device, intended for inside service, is mounted within the premises.

In either case, the outside alarm sounding device and housing may be mounted as high as the seventh floor.

31.5 Bell Cutoff

The Bell Cutoff time cannot be less than 15 minutes.

31.6 Automatic Bell Test

The Automatic Bell Test option must be programmed as YES.

31.7 Standard or Encrypted Line Security

Standard Line Security is provided when configured as a Path 1 NET system using an XR500N panel or an XR500 panel with an iCOM™ Network Alarm Router. The NET Check-in time must be set to 06 minutes or RDM. When programmed for Standard Line Security, Exit Time Restart is disabled. When a dialer is required for 06 minute check-in time, an attack resistant enclosure (DMP Model 350A) is required. When the check-in time is set to a number less than 200 seconds, an attack resistant enclosure is not required.

To provide Encrypted Line security, install an XR500E panel or an XR500 panel with an iCOM-E™ Encrypted Network Alarm Router.

For Encrypted Line security operation, communication between the Premise and Supervising Station provides 128 bit encryption when using an XR500E panel or an XR500 panel with an iCOM-E Encrypted Network Alarm Router.

31.8 Wireless Audible Annunciation Option

The Wireless Audible option must be selected as ANY for commercial applications.

31.9 Model 463G CELL Only, Standard or Encrypted Line Security

Standard or Encrypted Line Security is provided when programmed using CELL with no backup. XR500 cellular communication is used as primary with a 3 minute check-in when armed or disarmed.

Path 1 programming	
Comm Type: = CELL	Checkin: = 3 minute
Path Type: = Primary	Fail Time: = 3 minute
Encrypt: = NO or YES*	Test Rpt: = NO
Sub Code: = NO or YES	

*For Encrypted Line Security, program a Passphrase in Network Options.

Download from Www.Somanuals.com. All Manuals Search And Download.

31.11 Model 463G NET with CELL as Alternate Primary and Dialer Backup, Standard or Encrypted Line Security

Standard or Encrypted Line Security is provided using NET communication with CELL as an alternate primary and with digital dialer as a backup. XR500 network communication is used as primary with a 6 minute check-in when armed, and a random check-in over a 60 minute period when disarmed. CELL is the backup path and set to daily test. Should the NET primary path become disabled, CELL adapts the same check-in time programmed for the primary communication and becomes an alternate primary path. The dialer path is used as the backup if both NET and CELL fail to receive acknowledgement from the receiver.

This method of operation causes the CELL alternate primary to adapt to the 6 minute NET primary check-in rate when the NET primary is unavailable maintaining line supervision and precludes the need for a central station runner to respond to the NET primary failure.

Path 1 programming	Path 2 programming	Path 3 programming
Comm Type: = NET	Comm Type: = CELL	Comm Type: = DD
Path Type: = Primary	Path Type: = Backup (operates as alternate primary)	Path Type: = Backup (operates as second method)
Test Rpt: = NO	Test Rpt: = YES	Test Rpt: = YES
Checkin: = 6 minute, or RND (random)	Test Freq: = Daily	Test Freq: = Daily
Fail Time: = 6 minute, or RND (random)	Checkin: = ADAPT	Duplicate Alarms: = YES
Encrypt: = NO or YES*	Encrypt: = NO or YES*	
Sub Code: = YES	Sub Code: = Shared	

*For Encrypted Line Security, program a Passphrase in Network Options.

31.12 Model 463G NET with CELL as Backup and Adaptive Primary, Standard or Encrypted Line Security

Standard or Encrypted Line Security is provided when programmed using NET communication and CELL as backup and as needed adapts and takes over as primary. XR500 network communication is used as primary with a 6 minute check-in when armed, and a random check-in over a 60 minute period when disarmed. CELL is the backup path and set to daily test. Should the primary path become disabled, the CELL adapts to a special 3 minute check-in time and because of that check-in rate becomes the primary without the requirement of a backup. This method of operation causes the CELL backup to adapt to the 3 minute check-in rate when the NET primary is unavailable becoming a standalone primary without the need for a backup. This maintains line supervision and precludes the need for a central station runner to respond to the NET primary failure.

Path 1 programming	Path 2 programming
Comm Type: = NET	Comm Type: = CELL
Path Type: = Primary	Path Type: = Backup (operates as second method)
Test Rpt: = NO	Test Rpt: = YES
Checkin: = 6 minute, or RND (random)	Test Freq: = Daily
Fail Time: = 6 minute, or RND (random)	Checkin: = ADAPT3
Encrypt: = NO or YES*	Encrypt: = NO or YES*
Sub Code: = YES	Duplicate Alarms: = YES
	Sub Code: = Shared

*For Encrypted Line Security, program a Passphrase in Network Options.

Download from Www.Somanuals.com. All Manuals Search And Download.

Police Station Connected and Local Burglar Alarm Units ANSI/UL 609

32.1 Mercantile

For Mercantile and Police Station Connect operation the Model XR500 Series must be mounted in an Attack Resistant Housing, (DMP Model 350A or 350H).

32.2 Entry Delay

The maximum entry delay used must not be more than 60 seconds when using the Model 350A or 350H housing.

32.3 Exit Delay

The maximum exit delay used must not be more than 60 seconds.

32.4 Bell

A local audible signal appliance must be used such as Ademco AB12M bell and bell housing.

In a mercantile burglar alarm system, a mercantile alarm sounding device located within a building but outside the protected area, is acceptable, provided it is rated for outside service and alarm conditions are transmitted to:

a) The dispatch location of the law enforcement agency having jurisdiction over the protected property or

b) A central station or residential monitoring station complying with the Standard for Central Station Alarm Services, UL 827.

In a mercantile burglar alarm system, an alarm sounding device located within the area of greatest protection, or outside the area of greatest protection but within an area protected by an alarm system and that shares a common control unit with the system installed in the area of greatest protection, is acceptable provided it is rated for inside service and alarm conditions are transmitted to:

a) The dispatch location of the law enforcement agency having jurisdiction over the protected property or

b) A central station or residential monitoring station complying with the Standard for Central Station Alarm Services, UL 827.

An inside sounding device shall be mounted at least 10 feet (3.05 m) above the floor or at the surface of the ceiling. When there is fixed construction within the area that could provide access for an intruder, the alarm sounding device shall also be mounted at least 4 feet (1.2 m), as measured horizontally, away from the edges of the fixed construction or at least 10 feet (3.05 m) above it so as to minimize access by an intruder.

32.5 Wireless Audible Annunciation Option

The Wireless Audible option must be selected as ANY for commercial applications.

Access Control System Units ANSI/UL 294

33.1 Panel Designation

The XR2500F is designated as a stand alone unit.

33.2 Compatible Devices

The following devices are compatible with the XR2500F panels.

Access Control	
733 Wiegand Interface Module	Proximity reader connector
734 Wiegand Interface Module	Programmable proximity reader connector
OP-08CB Motion Detector	Infrared sensor.
* PB-2 REX Button	Exit control push button
PP-6005B Proxpoint Plus® Reader	Proximity reader
MP-5365 Miniprox® Reader	Slimline proximity reader
PR-5455 ProxPro® II Reader	Long range reader with sounder
MX-5375 Maxi-Prox™ Reader	Long range reader compatible with 1351 Prox Pass
*** This device has not been investigated and shall not be used in listed installations.**	

Download from Www.Somanuals.com. All Manuals Search And Download.

Universal Fire Alarm Specifications

34.1 Introduction

The programming and installation specifications contained in this section must be completed when installing the Model XR2500F in accordance with any of the ANSI/UL or NFPA fire standards. Additional specifications may be required by a particular standard. See the XR500 Series Programming Guide (LT-0679).

34.2 Wiring

All wiring must be in accordance with NEC, ANSI/NFPA 70.

34.3 Transformer

Use the supplied 16 VAC 56 VA transformer.

34.4 End-of-Line Resistor

The DMP Model 310 1K Ohm EOL resistor should be used on all 1K Ohm EOL fire zones.

34.5 System Trouble Display

The Status List Display must include at least one keypad that displays system monitor troubles.

34.6 Fire Display

The Status List Display must include at least one keypad that displays troubles and alarms on fire type zones.

34.7 Police Station Phone Number

The digital dialer telephone number programmed for communication must not be a police station phone number, unless that phone number is specifically provided for that purpose.

34.8 System Maintenance

To ensure continuous satisfactory operation of any alarm system, proper installation and regular maintenance by the installing alarm company and frequent testing by the end user is essential. Offering a maintenance program and acquainting the user with the correct procedures for system use and testing is also the responsibility of the installing alarm company.

34.9 Audible Alarm

Fire Type zones must be programmed to activate an audible alarm. The Bell Action for Fire Type zones must not be programmed as “N”.

34.10 Fire Zone Programming

If a retard delay is used on a waterflow zone, it cannot exceed 90 seconds and any retard delay in the waterflow initiating devices must be subtracted from the 90 seconds allowed. The retard delay should not be used on a zone with smoke detectors.

34.11 Style D Zones

If required, the DMP 869 Dual Style D Initiating Module provides for connection of two Style D zones to the Model XR2500F. See the 869 Installation Guide (LT-0186) and this guide for wiring information.

34.12 Listed Receivers

Use the DMP SCS-1R (SDLC), Sur-Gard SG-HLR2-DG (CID), FBII CP220PB (CID), and Osborne-Hoffman Quick-Alert (CID) receivers.

Download from Www.Somanuals.com. All Manuals Search And Download.

Control Units for Fire-Protective Signaling Systems ANSI/UL 864, NFPA 72

35.1 Power Supply

For listed installations, the total current combined from Auxiliary and Bell Power cannot exceed:
1.2 Amps with a 56 VA transformer; .5 Amp Max for Auxiliary Power and .7 Amp Max for Bell

Combined total current from Terminals 7, 11, 25, and 27 cannot exceed 1.2 Amps.

35.2 Zone Restoral Reports

The Restoral Reports option must be selected as YES or Disarm. .

35.3 Power Fail Delay

The Power Fail Delay option must be selected as required by the service of the panel. For Central Station or Remote Station service: 1.

35.4 Sprinkler Supervisory

Any zone used for sprinkler supervisory must be programmed with "SPRINKLR XXX" as the zone name. The last three characters in the zone name may be assigned a number to identify the zone. The Model 893A Dual Phone Line Module must be used on all sprinkler supervisory systems.

35.5 DACT Systems

Two phone lines must be used. The two phone lines cannot be ground start or party lines. The 893A Dual Phone Line Module is used to provide two phone line connections to the system. The 2ND Phone Line communication option must be selected as DD.

Two different phone numbers must be programmed for digital communication. The Test Time option must be programmed so that the XR2500F sends a report every 24 hours.

35.7 Local Protective Signaling Systems

The DMP Model 865, 866, or 867 Notification Circuit Module must be used on the bell circuit for detection of shorts and grounds. See this guide for wiring diagrams. Any burglary or other off premises communication must be done with the Model 893A Dual Phone Line Module. For local commercial fire installations, the 893A is required.

35.8 Remote Station Protective Signaling Systems

You must provide 60 hours of standby battery. See this guide for standby battery calculations. Two Radionics Model D127 Reversing Relay Modules provide two reversing polarity telephone connections. See the D127 Installation Instruction sheet for wiring details. A DMP Model 893A is used to provide two line dialer communication.

35.9 Fire Protective Signaling Systems using Internet/Intranet Networks

The XR2500F panel must be programmed as described below for Fire Protective Signaling Systems using NET Communication Type.

- SUB CODE must be programmed as YES
- CHECKIN must be programmed as 3
- FAIL TIME must be programmed as 5
- SEND COMM TRBL must be programmed as YES

35.10 Combination Systems

For combination fire and burglary systems, powered burglary devices (PIR, Glassbreak, etc.) must be powered from a separate listed power supply (DMP Model 505-12). This requirement is not needed for non-powered burglary devices (door contacts, etc.) which only connect to the zone input of zone expanders or keypads. Refer to Powered Burglary Devices in this document.

For combination fire and burglary systems, burglary sounding devices such as sirens and bells must be energized using panel relays, 860 relays, or 716 relays. Programming the output to activate the relay must occur using the Burglary Bell Output option in Area Information or by the Alarm Action output option of Zone Information. The Burglary Bell Action option of the panel Bell Options must be programmed as None.

35.11 Remote Annunciators

At least one Model 630F Remote Annunciator must be used on the system. All fire alarms, fire troubles and supervisory alarms or troubles must be annunciated only on the 630F. All burglary alarms or troubles must only be annunciated on non-fire keypads. See Status List options of the XR500 Series Programming Guide (LT-0679).

Download from Www.Somanuals.com. All Manuals Search And Download.

35.12 Notification Appliances

The following table indicates the approved notification appliances that can be used with the XR2500F system.

Wheelock Model No.	Description	12V	24V	Max No. of Detectors using 56 VA
MB-G6-12-R	Motor Bell, 6”	X		16
MB-G10-12-R	Motor Bell, 10”	X		16
MT-12/24	Multi-tone Horn	X	X	8
RSS-12575W-F	Multi-Candela Strobe	X		5
RSSP-121575W-F	Multi-Candela Strobe with Retrofit Plate	X		5
SM-12/24-R	Sync Module, Single circuit	X	X	
DM-12/24-R	Sync Module, Dual circuit	X	X	
MIZ-24	Mini Horn		X	
AH-24	Horn		X	
AH-24WP	Weatherproof Horn		X	
MB-G6-24-R	6-Inch Bell		X	
MB-G10-24-R	10-Inch Bell		X	
RSS-2475C-FW	Weatherproof Strobe		X	
RSS-24MCW-F	Multi-Candela Strobe		X	
RSSP-24-MCW-F	Multi-Candela Strobe with Retrofit Plate		X	
NS-24MCW-F	Multi-Candela Horn Strobe		X	
AS-24MCW-F	Multi-Candela Audible Strobe		X	
ASWP-2475W	Weatherproof Audible Strobe		X	

35.13 Cross Zoning

When using cross zoning, there must be a minimum of two detectors installed in each protected space and the detector installation spacing must be 0.7 times the linear spacing in accordance with National Fire Alarm Code, NFPA 72.

35.14 Ground Fault

For supervised circuits, ground fault is detected at 0 (zero) Ohms.

Household Fire Warning System Units ANSI/UL 985, NFPA 72

36.1 Bell Output Definition

The Model XR2500F panel Bell Output must be programmed to operate steady on burglary alarms and pulsed or temporal on fire alarms.

36.2 Audible Devices

At least one listed audible device rated to operate over the voltage rate of 11.7 VDC to 12.8 VDC and rated at 85 DB minimum must be used.

36.3 Auxiliary Circuits

At least one fire alarm initiating device shall be used on the system. If the voltage for the device is applied by the control unit the fire alarm initiating device shall be rated to operate over the range of 11.5 VDC to 12.7 VDC.

36.4 Bell Cutoff

The Bell Cutoff time cannot be less than five minutes.

Download from Www.Somanuals.com. All Manuals Search And Download.

California State Fire Marshal Specifications

37.1 Bell Output Definition

The Model XR2500F panel Bell Output must be programmed to operate steady on burglary alarms and pulsed, temporal, or California School Code on fire alarms.

New York City (MEA) Specifications

38.1 Introduction

The programming and installation specifications contained in this section must be completed when installing the XR500 Series panel for New York City (MEA) fire alarm installations that provide a digital dialer with network IP communication as backup. Fire alarm installations that use two digital dialer telephone lines do not need to comply with these specifications.

38.2 Digital Dialer and Network Communication

When used with a central office communicator or a transmitter, the installation and operation of the equipment and devices shall comply with 3RCNY 17-01. The installation shall employ the digital dialer as the primary communicator (using telephone line) with network IP communication as backup or secondary means of communication. It shall have the capability of transmitting separate and distinct signals to indicate manual pull station alarm, automatic detection alarm, sprinkler waterflow alarm, supervisory signal indications and trouble indications.

38.3 Wiring

All wiring must be in accordance with NEC, ANSI, and NFPA 70. All network cabling must be installed in accordance with NFPA 70 for communication circuits.

38.4 Communication Programming

For digital dialer communication with supervised network backup, program the following:

PRIMARY COMM TYPE = DD
FIRST PHONE NUMBER = Central Station Receiver Phone Number
BACKUP COMM TYPE = NET
RECEIVER
ALARMS = YES

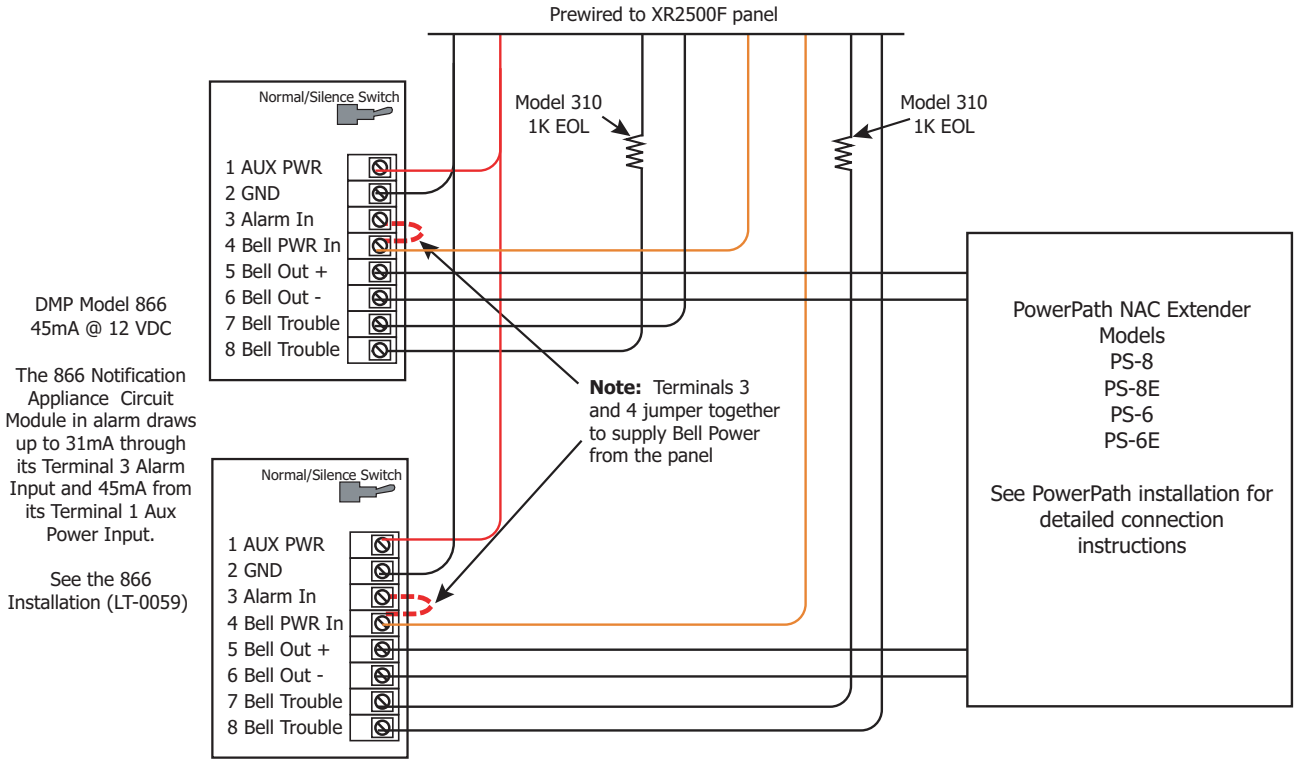
38.5 Additional Requirements

Program and install the equipment to comply with NFPA basic fire requirements. Refer to the Universal Fire Alarm Specifications and ANSI/UL 864, NFPA 72 in this document.

Download from Www.Somanuals.com. All Manuals Search And Download.

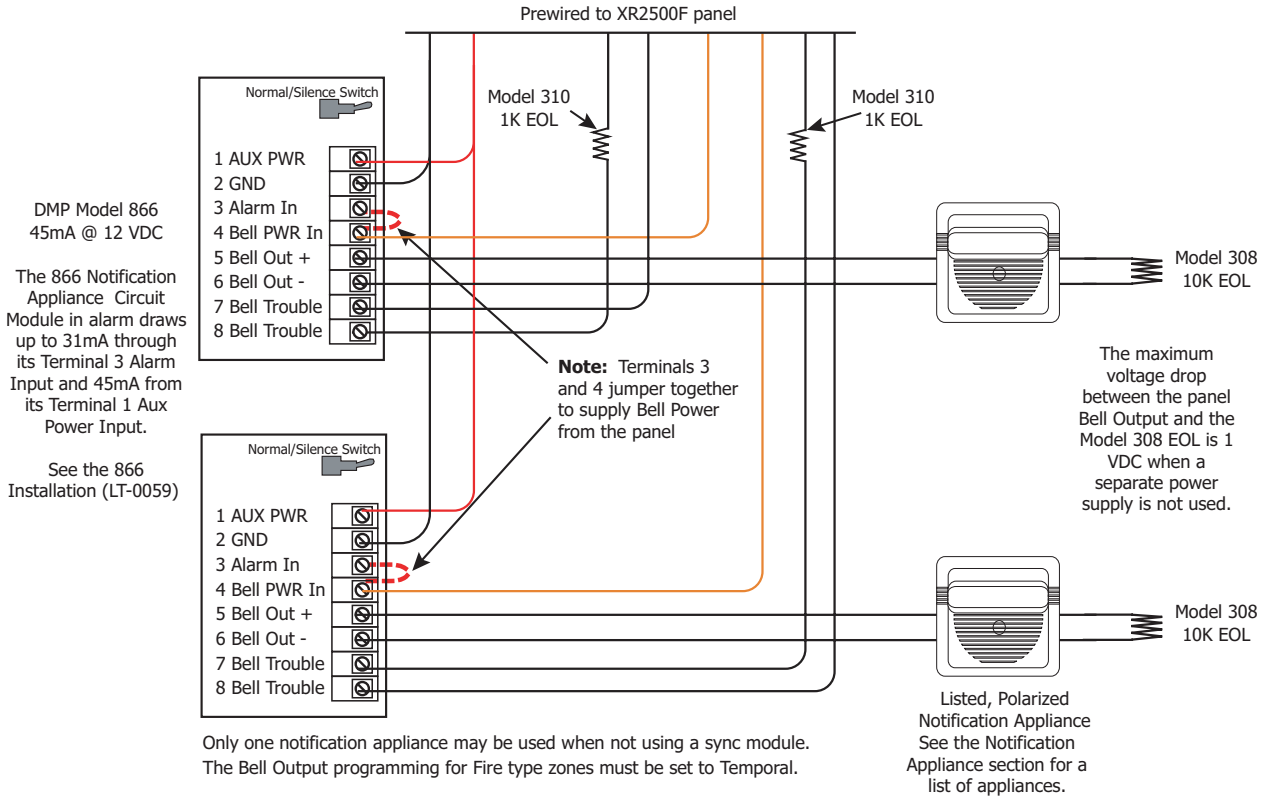
Wiring Diagrams

39.1 Prewired 866 Modules with NAC Extender



The Bell Output programming for Fire type zones must be set to Steady

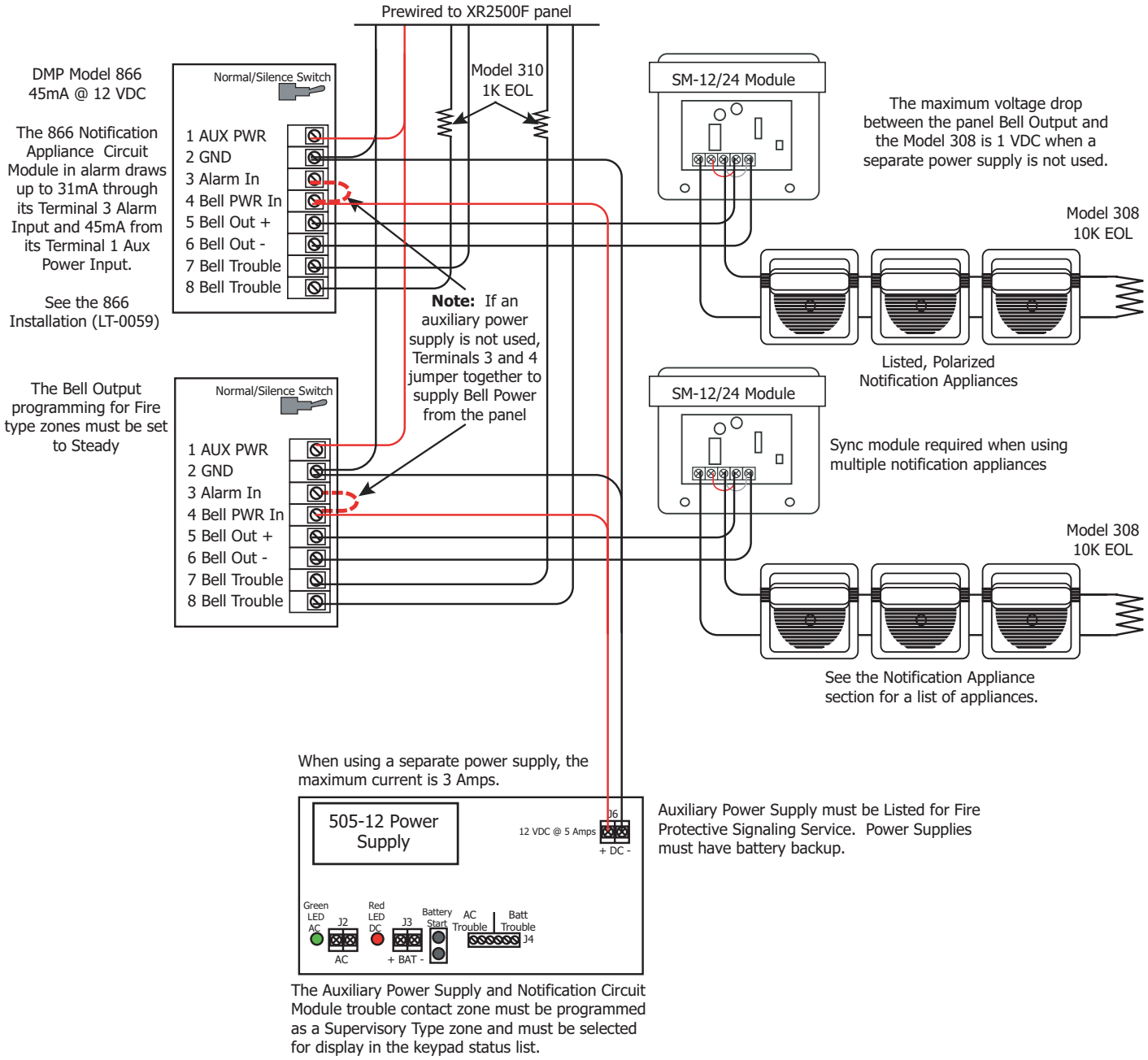
39.2 Prewired 866 Class B Style W Modules using Single Notification Appliance



Only one notification appliance may be used when not using a sync module.
The Bell Output programming for Fire type zones must be set to Temporal.

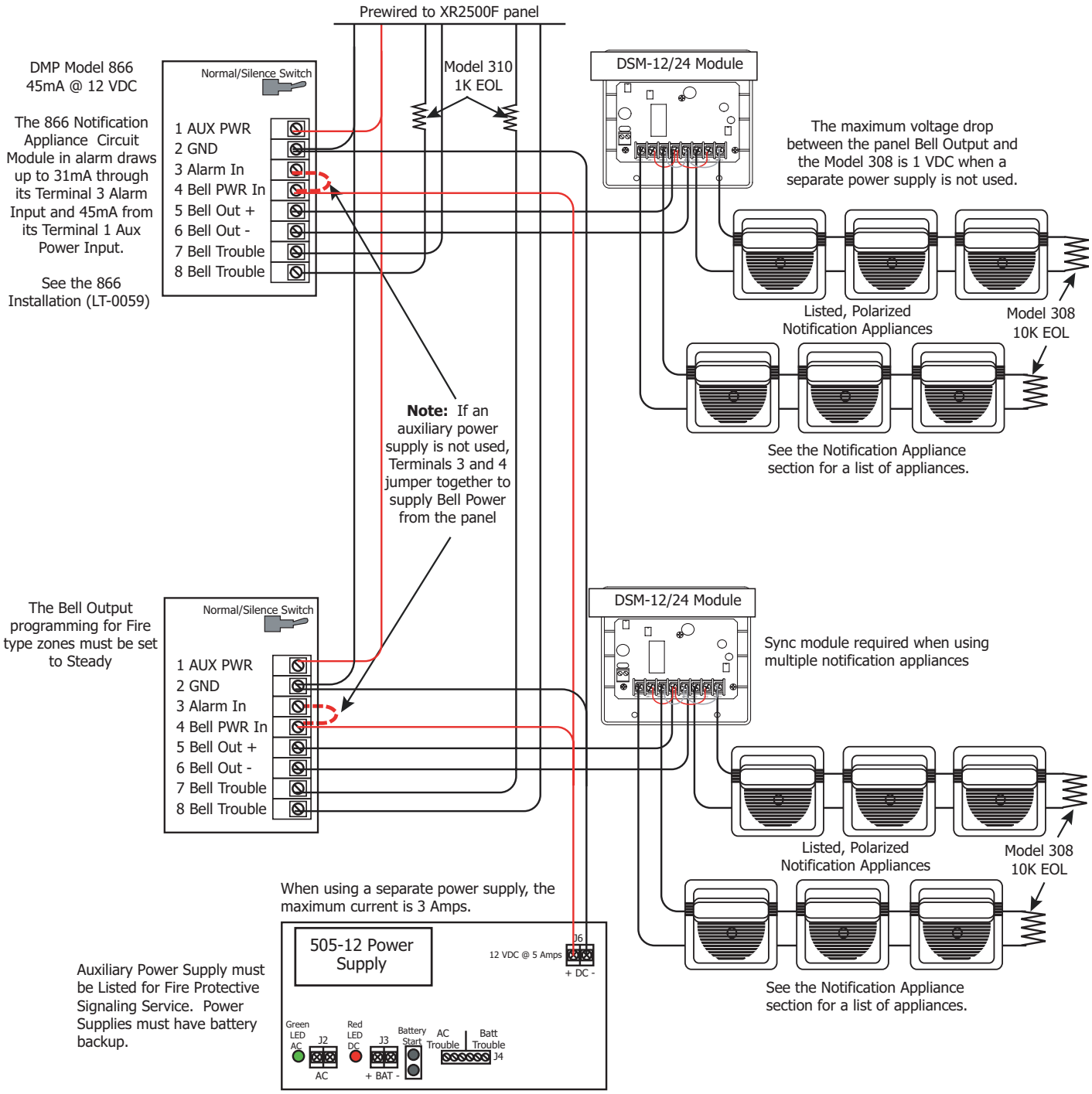
Download from Www.Somanuals.com. All Manuals Search And Download.

39.3 Prewired 866 Class B Style W Modules with Multiple Notification Appliances



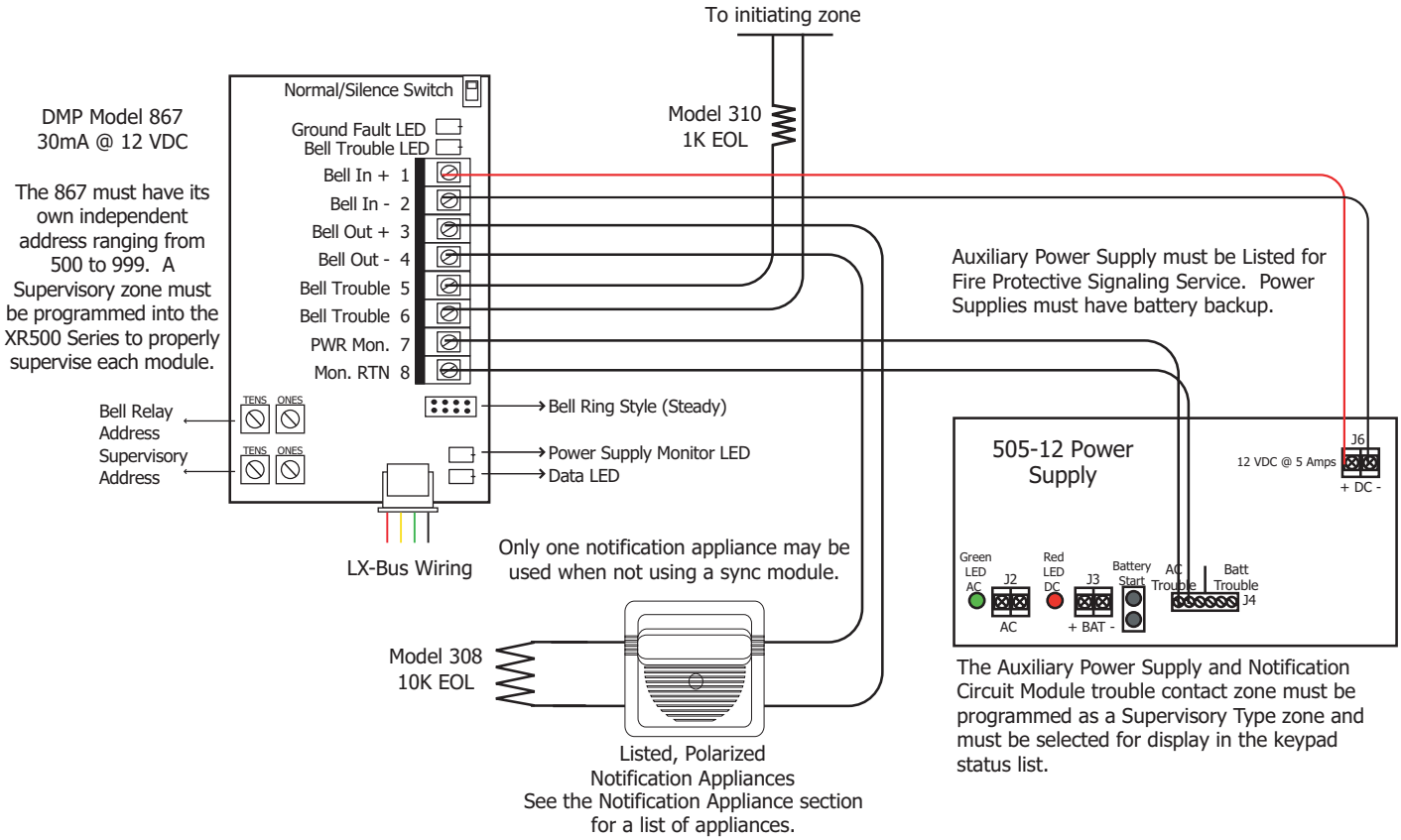
Download from Www.Somanuals.com. All Manuals Search And Download.

39.4 Prewired 866 Class B Style W Modules with Dual Notification Appliance Circuits

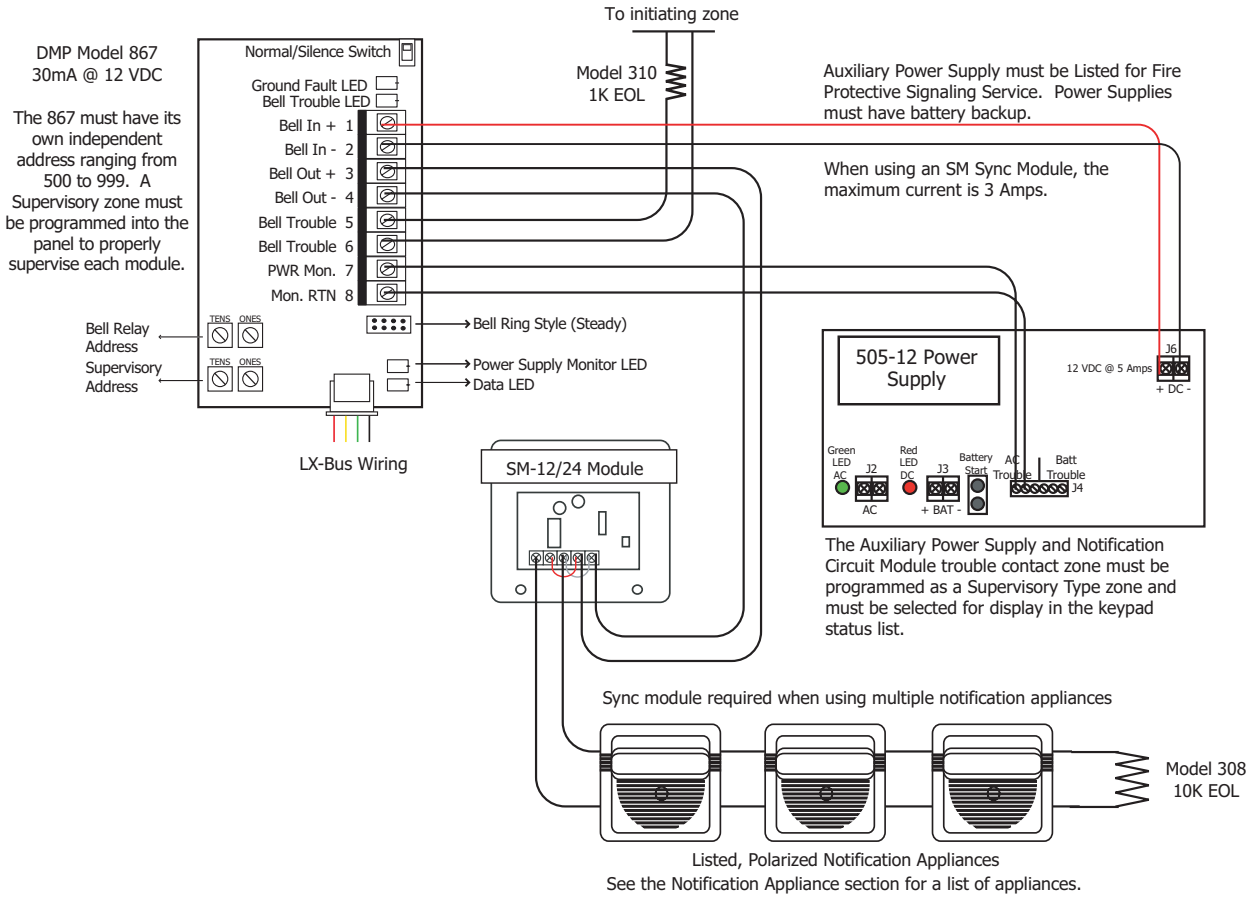


Download from Www.Somanuals.com. All Manuals Search And Download.

39.5 867 Class B Style W Notification Appliance Circuit

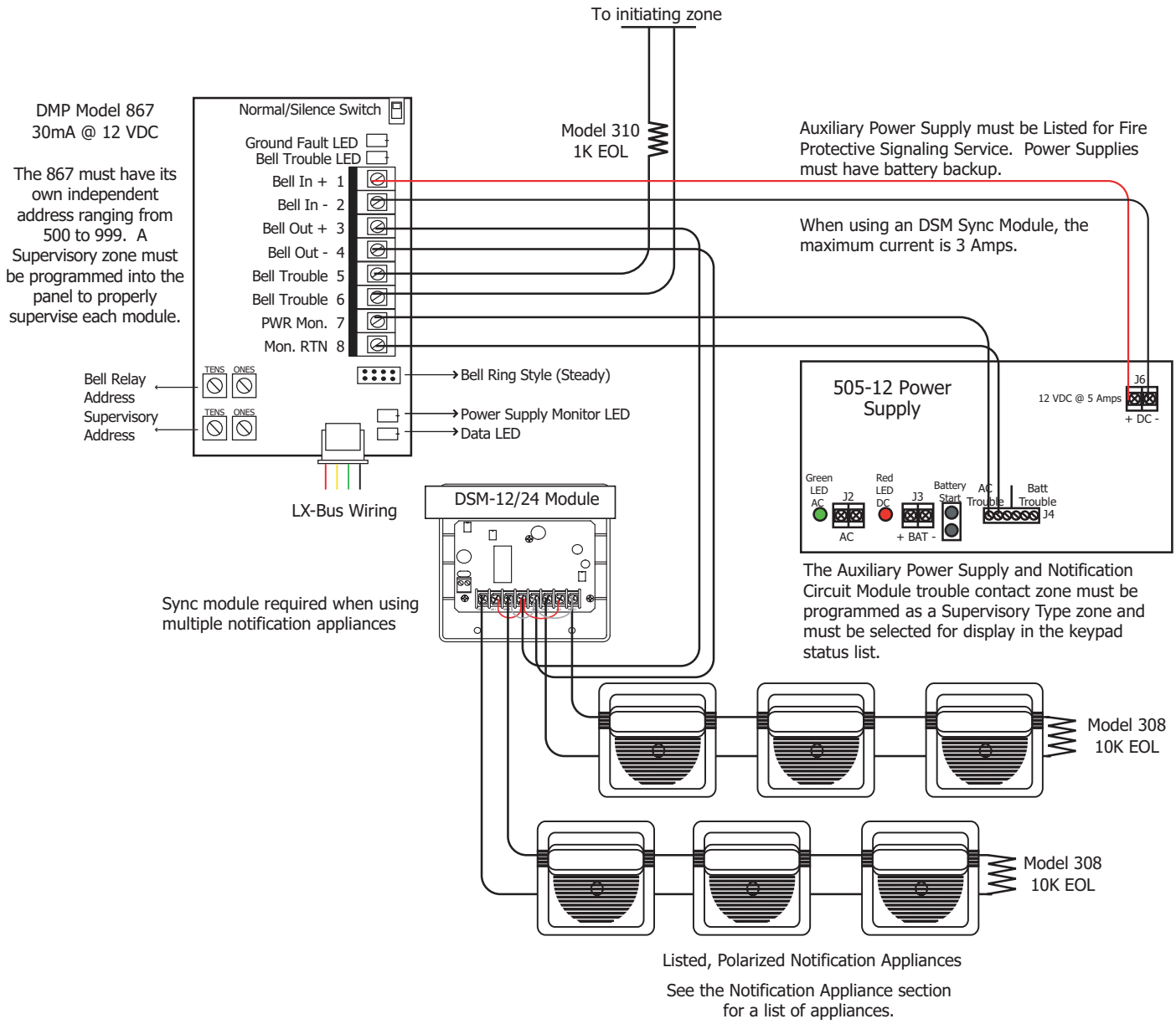


39.6 867 Class B Style W Multiple Notification Appliance Circuit



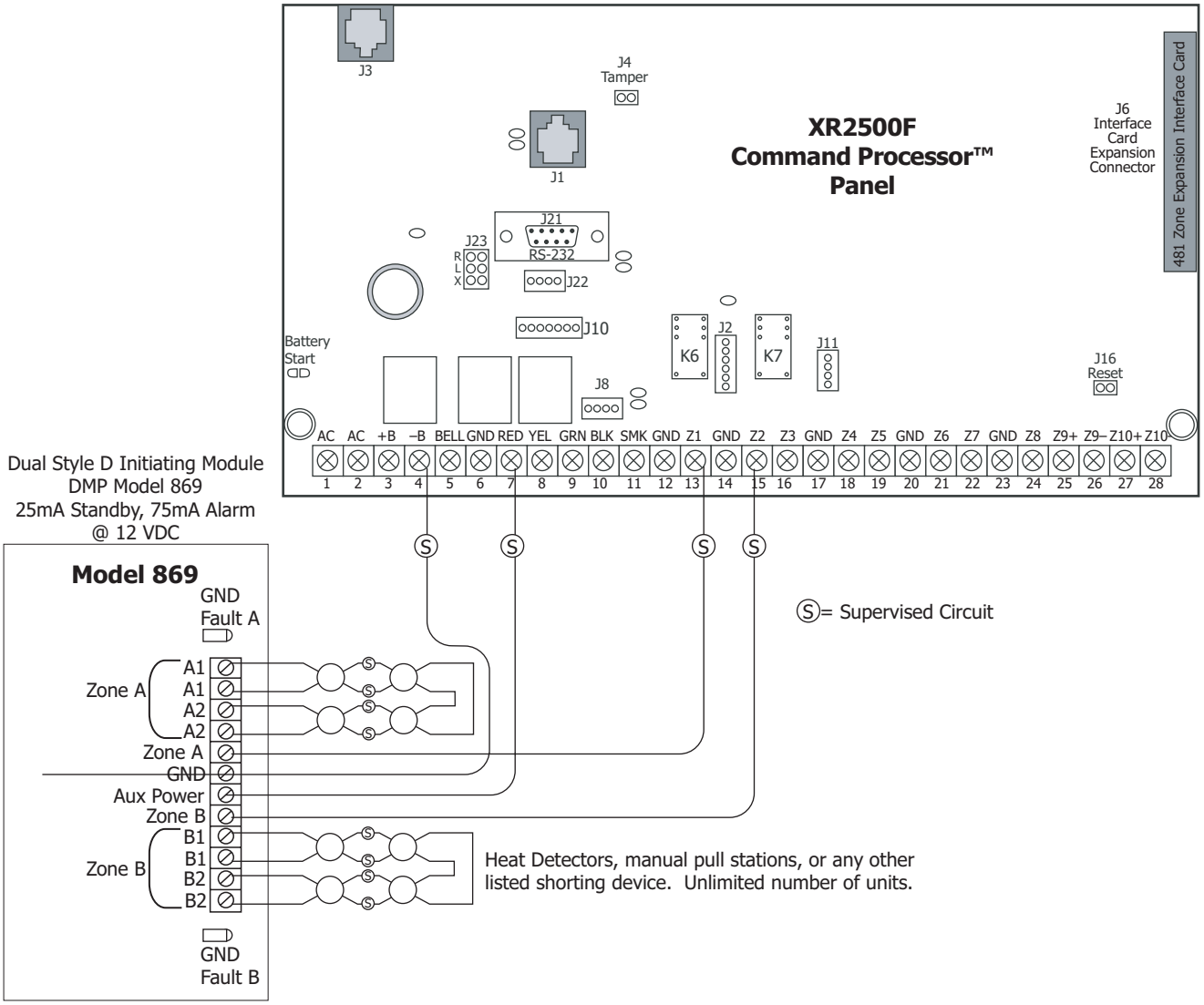
Download from Www.Somanuals.com. All Manuals Search And Download.

39.7 867 Class B Style W Multiple Notification Appliance Circuits



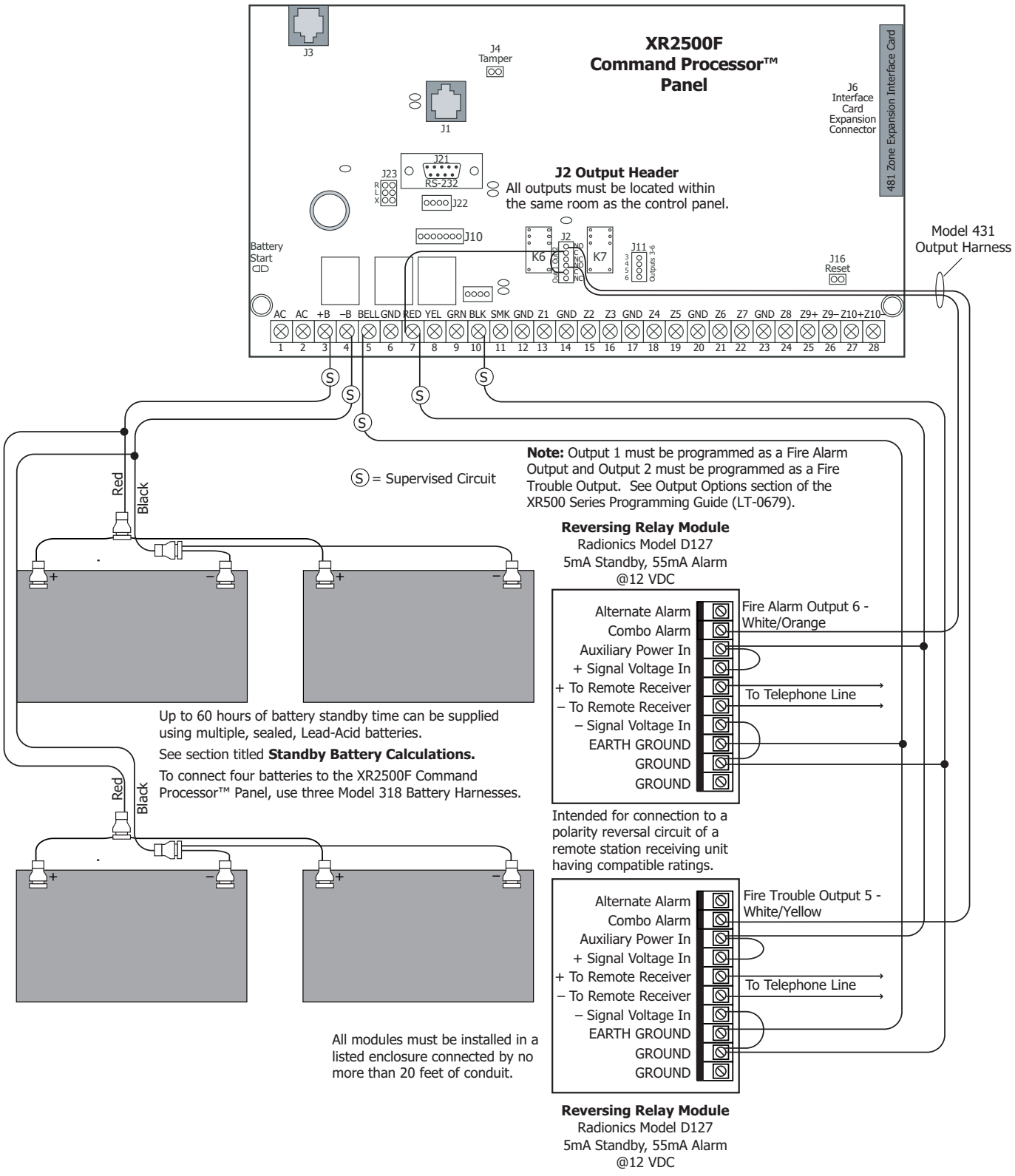
Download from Www.Somanuals.com. All Manuals Search And Download.

39.8 Dual Style D Zone Module Installation



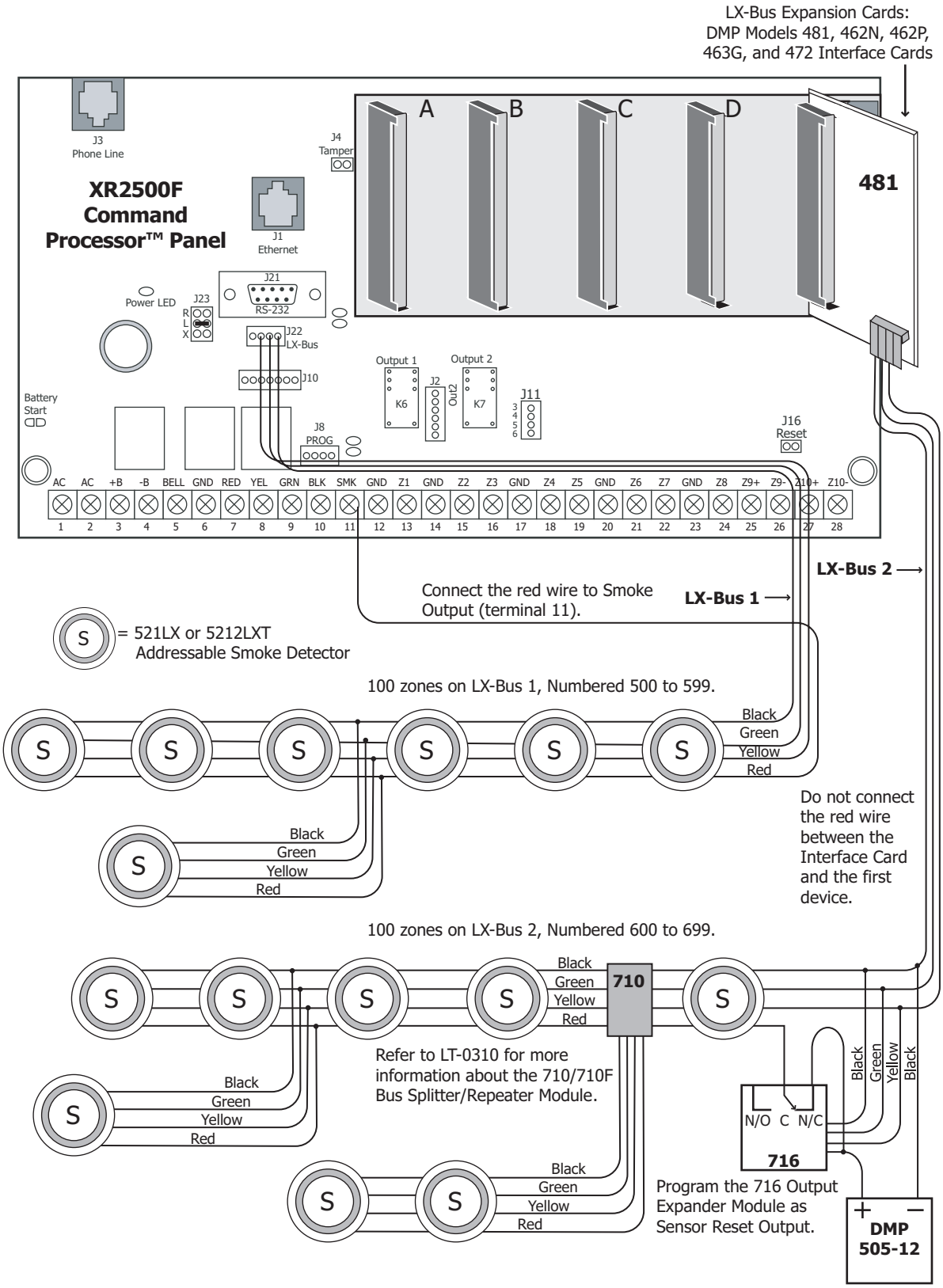
Download from Www.Somanuals.com. All Manuals Search And Download.

39.9 Remote Station Reversing Relay Connection



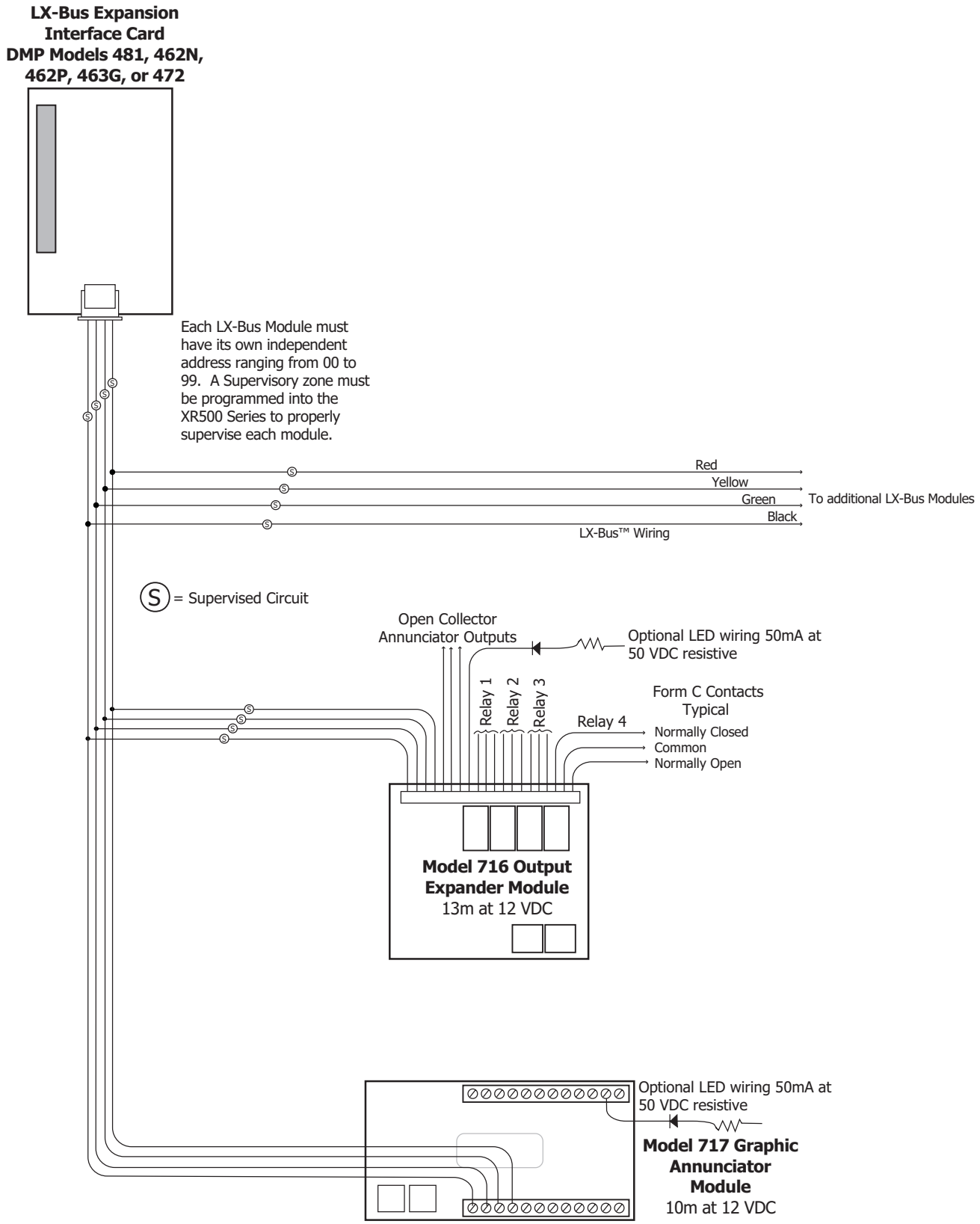
Download from Www.Somanuals.com. All Manuals Search And Download.

39.10 Second LX-Bus™ with Auxiliary Power Supply



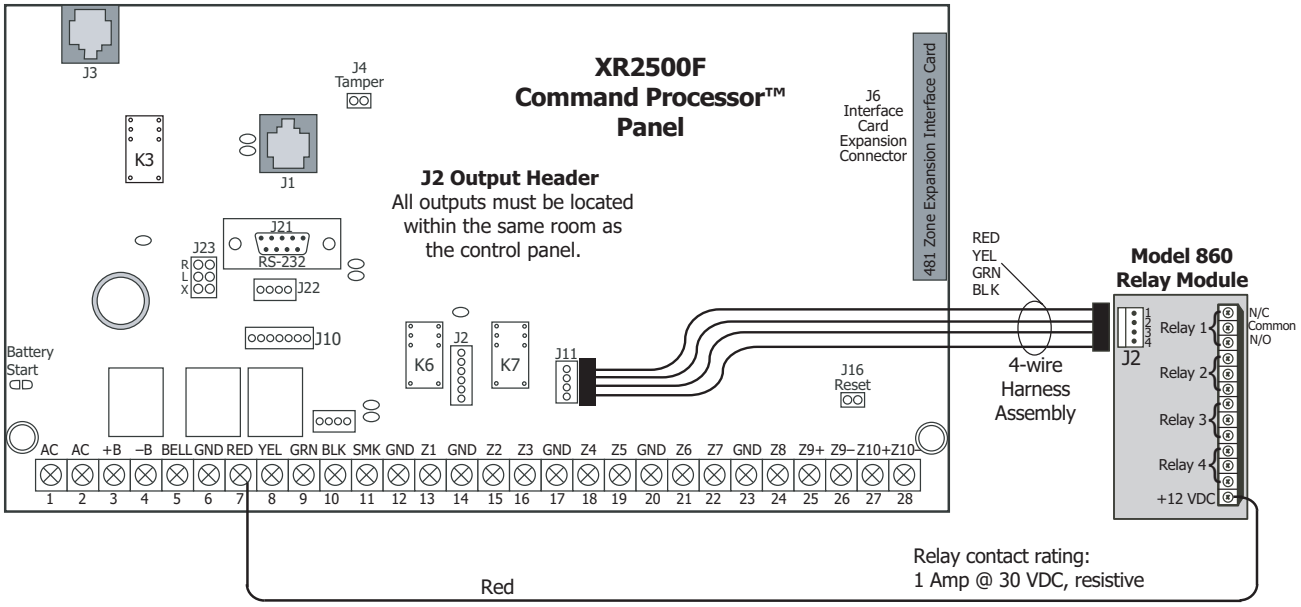
Download from Www.Somanuals.com. All Manuals Search And Download.

39.11 LX-Bus™ Module Connection

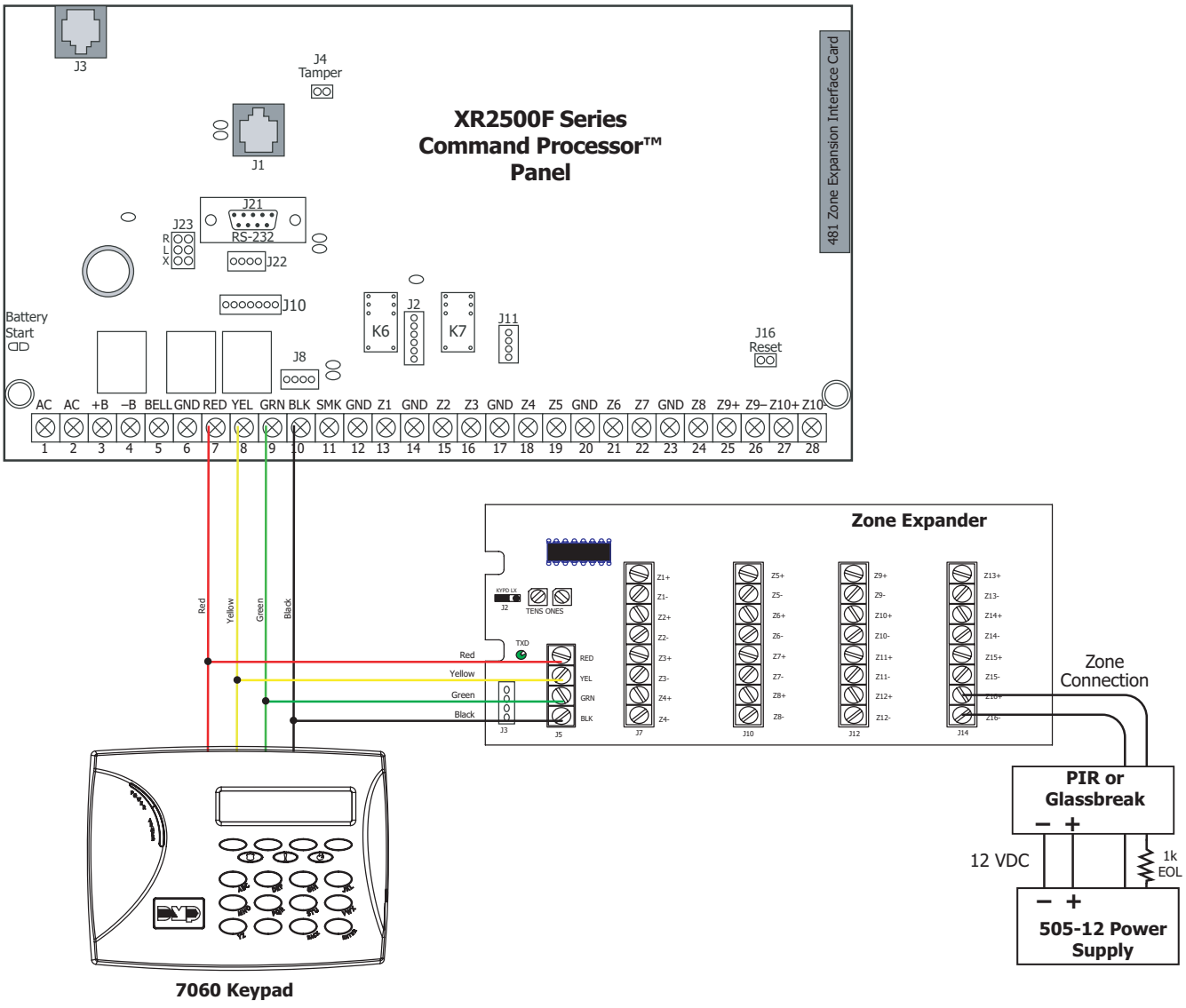


Download from Www.Somanuals.com. All Manuals Search And Download.

39.12 Model 860 Relay Module Connection



39.13 Powered Burglary Devices



Download from Www.Somanuals.com. All Manuals Search And Download.

Revisions to This Document

This section explains the changes made to this document during this revision. It lists the version and identifies the change(s) made, the related section number and section heading, and a summary of the change.

Ver	Section Number and Heading	Quick Explanation of Changes
1.03	31.4 Bell	Added mercantile information
	32.4 Mercantile Safe & Vault	Removed section
	32.4 Bell	Added mercantile information
	32.6 Bank Safe	Removed section
1.02	The following changes were implemented for ANSI/UL 864 9th Edition compliance	
	Complete Document	Removed all references to the 504-24 Power Supply
	1.1 Overview	Added reference to optional power supply
	1.3 Power Specifications	Added reference to Compliance Instruction section
	1.7 LX-Bus	Added reference to 463G
	1.8 Outputs	Added output rating
	1.11 Compliance Instructions	Added section
	2.6 Wiring Diagram	Removed 504-24, 24 VDC batteries, and transformer Updated Types of Service
	3.1 Transformers and AC Power	Removed 100 VA transformer
	5.2 Connection	Added reference to optional power supply Updated Figure 5 for Notification Appliances
	5.4 Notification Appliances	Moved to Compliance section
	6.8 Power Requirements	Updated 710, 711, 716, 866, and 867 current draw
	7.4 Digital Dialer	Added maximum impedance
	10.1 Wiring Diagram	Replaced 790F keypad with 630F
	10.3 Accessory Devices	Added 463G, updated 865, 866, 867, and 869 descriptions, removed reference to 690F, and 790F.
	11.7 Standby Battery Calculations	Added 463G, and 7100 keypads
	11.8 Standby Battery Selection	Added 341, and 352S as optional battery enclosures
	12.1 Terminal 5 and 6	Added reference to Notification Appliance section
	13.2 Terminal 7 - RED	Added reference to Power Supply section
	15.1 Terminals 25-26 and 27-28	Added maximum voltage, maximum normal standby, maximum line impedance, and ground fault detection
	17.2 Contact Rating	Added power factor statement
	18.1 J11 Description	Added maximum ratings
	18.3 Model 860 Relay Module	Added power factor statement
	19.1 J23 Description	Added Wireless Bus reference
	24.1 Listed Compliance Specification	Added section
	25.8 - 26.12 Universal Burglary	Added sections
	27.7 Wireless Audible	Added section
	28.8 - 28.13 ANSI/UL 1610	Added sections
	29.1 - 29.8 ANSI/UL 636	Added sections
	31.8 - 31.13 ANSI/UL 365	Added sections
	32.1 - 32.7 ANSI/UL 609	Split from ANSI/UL 365
	35.1 Power Supply	Added section
	35.9 Fire Protective Signalling	Updated to reflect current panel programming options
	35.10 - 35.14 ANSI/UL 864	Added sections
	38.4 Communication Programming	Updated to reflect current panel programming options
	39.1 - 39.7 Wiring Diagrams	Added wiring diagrams
	39.10 Wiring Diagrams	Added reference to 463G
	39.11 Wiring Diagrams	Removed reference to 867 module

Download from Www.Somanuals.com. All Manuals Search And Download.

This page intentionally left blank

Download from Www.Somanuals.com. All Manuals Search And Download.

OPERATING INSTRUCTIONS
MODEL XR2500F PANELS

NORMAL STANDBY CONDITION
When the system is in the normal standby condition, the keypad shows either the time of day or a blank display.

ALARM CONDITION
When the system is in an alarm condition, the keypad display shows the violated zone name(s) followed by an alarm display.

ALARM SILENCE
To silence the alarm while the bell or siren is sounding, enter your code number and press the COMMAND key. This silences the alarm but does *not* cancel any alarm reports to the central station.

RESETTING DETECTORS
To reset a smoke or other detector, enter the User Menu by pressing the COMMAND key until **MENU? NO YES** appears in the display. Press the top row key under **YES**. The display shows **ENTER CODE: -**. Enter your code number and press COMMAND. The keypad display now shows **ALARM SILENCE?** if your code allows. Press the COMMAND key until **SENSOR RESET?** appears in the display. Press any top row key.

TROUBLE CONDITION
When a device is in a trouble condition, the keypad tones and displays the zone or device name followed by **TRBL**. Press any top row key to silence.

SYSTEM TESTING
You should test the security system weekly to ensure proper operation. You can do this through a function in the User Menu. After entering the User Menu, press the COMMAND key until **SYSTEM TEST?** displays. Press the left most top row Select key. The system bell, battery, and communication to the central station receiver system is then tested.

ALARM SERVICE
If service is required for this system, please contact:

Company _____

Address _____

Telephone _____

Mounting Instructions
Attach the above operating instructions to the front, or framed and located adjacent to, the panel or a keypad with an alphanumeric display.

Listings and Approvals
California State Fire Marshal (CSFM)
FCC Part 15
FCC Part 68 Registration ID CCKAL00BXR500
New York City (MEA)
Underwriters Laboratories (UL) Listed
Commercial and Residential Fire, Burglar, Holdup, and Access Protected Premise Unit

ANSI/UL 294	Access Control System Units
ANSI/UL 365	Police Connected Burglar
ANSI/UL 609	Local Burglar
ANSI/UL 636	Holdup Alarm Units Systems Accessory
ANSI/UL 1023	Household Burglar
ANSI/UL 1076	Proprietary Burglar
ANSI/UL 1610	Central Station Burglar
ANSI/UL 1635	Digital Burglar
ANSI/UL 985	Household Fire Warning
ANSI/UL 864	Fire Protective Signaling 9th Edition

UL Standard Line Security
UL Encrypted Line Security

Digital Monitoring Products
800-641-4282
www.dmp.com
Made in the USA
INTRUSION • FIRE • ACCESS • NETWORKS
2500 North Partnership Boulevard
Springfield, Missouri 65803-8877

LT-0759 1.03 © 2009 Digital Monitoring Products, Inc. 9043
MADE IN U.S.A.
Download from Www.Somanuals.com. All Manuals Search And Download.

Free Manuals Download Website

http://myh66.com

http://usermanuals.us

http://www.somanuals.com

http://www.4manuals.cc

http://www.manual-lib.com

http://www.404manual.com

http://www.luxmanual.com

http://aubethermostatmanual.com

Golf course search by state

http://golfingnear.com

Email search by domain

http://emailbydomain.com

Auto manuals search

http://auto.somanuals.com

TV manuals search

http://tv.somanuals.com