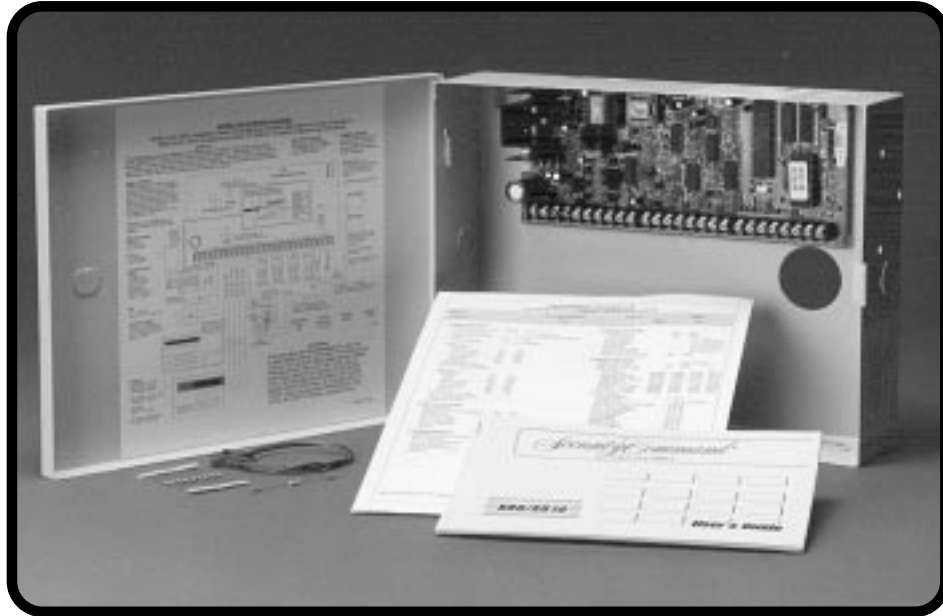


# XR6A/XR10A/XR20A Command Processor™ Panels Installation Guide



## 6/10/26 Zone Burglary/Fire/Access Control Panels with Built-in Communicator



2841 E. Industrial Drive Springfield, MO USA 65802-6310

Digital Monitoring Products

LT-0464 (6/99)

# MODEL XR6A/XR10A/XR20A COMMAND PROCESSOR™ INSTALLATION GUIDE

## COMPLIANCE STATEMENT

The DMP Model XR6A, XR10A, and XR20A systems have been tested and comply with the requirements of CISPR22 Class B Electromagnetic Emissions, ACA Technical Standard TS001-1997 Electrical Safety, AS/NZS 3260-1993 including amendments 1 to 4 Electrical Safety, and ACA Technical Standard TS002-1997 Telecommunications.



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## Panel Specifications

### 1.1 Power supply

Transformer Input: 16.5 VAC 40VA or 16.5 VAC 20VA

Standby Battery: 12 VDC 7.0Ah (40VA transformer charges up to 2 batteries)

Auxiliary Output: 12 VDC at 500mA

Bell Output: 12 VDC at 1.5 Amps with 40VA transformer, 600mA with 20VA transformer

Smoke Detector Output: 12 VDC at 100mA

All circuits inherent power limited

### 1.2 Communication

Built-in SDLC Digital Dialer communication to DMP Model SCS-1 Receivers

Built-in 4-2 communication to non-DMP receivers

Built-in M2E (Radionics Modem IIe) communication to non-DMP receivers (XR20A only)

Built-in CID (Contact ID) communication to non-DMP receivers

All panels can operate as a local system.

### 1.3 Panel zones

Nine 1k  $\Omega$  EOL burglary zones (zones 1 to 9), (zones 1 to 5 on XR6A)

One 3.3k  $\Omega$  EOL Class B powered fire zone with reset capability (zone 10 on XR10A and XR20A), (zone 6 on XR6A)

### 1.4 Keypads

You can connect up to four of the following supervised keypads to the XR6A/XR10A/XR20A panels.

- 16 or 32 character alphanumeric keypads
- 10-zone LED keypads

In addition, four and single point zone expanders can be added to the XR20A panel.

When using the FA426 Wireless Receiver, the XR20A allows unsupervised devices to be added to address five.

### 1.5 Outputs

The XR6A/XR10A/XR20A panels provide four open collector outputs rated for 50mA each. See section 12.1. A Model 300 Wire Harness is required. The open collector outputs provide the ground connection for a positive voltage source.

### 1.6 Enclosure specifications

The XR6A/XR10A/XR20A panel ships in an enclosure with EOL resistors, battery leads, user's guide, and programming sheet.

Size:	12.5" W x 9.5" H x 2.75" D
Weight:	4 lbs
Color:	Gray or Black
Construction:	20 gauge cold rolled steel

## Introduction

### 2.1 Description

The DMP XR6A/XR10A/XR20A Command Processors are powerful 12 VDC burglary and fire communicator panels with battery backup. The XR10A/XR20A provide nine on-board burglary zones and one on-board 12 VDC Class B powered fire zone. The XR6A provides five burglary and one fire zone. The fire zone has a reset capability to provide for 2-wire smoke detectors, relays, or other latching devices. The XR6A/XR10A/XR20A can communicate to one or two DMP SCS-1 Receivers using SDLC digital dialer, 4-2, or Contact ID (CID) reporting formats. In addition, the XR20A can communicate using the Radionics Modem IIe format.

### 2.2 System configurations

The XR6A/XR10A/XR20A can be programmed to operate as either an All/Perimeter system that provides one Perimeter area and one Interior area, or as a Home/Sleep/Away system that provides one Perimeter, one Interior, and one Bedroom area. The Bedroom area can include any protection devices the user wants disarmed during their sleeping hours and armed in the Away mode. In addition, the XR20A can operate as a four area system.

### 2.3 Before you begin

Before installing the XR6A/XR10A/XR20A, we recommend you read through the entire contents of this guide. Familiarize yourself with the features of the panel and the key points to remember during the installation. Be sure to read and understand all of the caution statements printed in bold italics.

In addition to this installation guide, you should also read through and familiarize yourself with these other product documents:

- XR6/XR10 Programming Guide (LT-0230)
- XR6/XR10 Program Information Sheet (LT-0212)
- XR6/XR10 Security Command User's Guide (LT-0226)
- XR20 Programming Guide (LT-0305)
- XR20 Program Information Sheet (LT-0302)
- XR20 Security Command User's Guide (LT-0303)

### 2.4 About this guide

The information contained in this guide is organized into three sections: Table of Contents, Introduction, and Installation.

- The Table of Contents at the front of this guide lists all of the headings and subheadings used throughout each section and the page number where the information can be found.
- The Introduction section gives you an overview of the various components that go into a XR6A/XR10A/XR20A system and diagrams some typical system configurations. This section gives descriptions of the panel, keypads, and accessory modules and provides details on how each of them operate together in the system.
- The Installation section begins with mounting instructions for the enclosure and takes you through the proper way to power up the panel prior to programming.

#### Caution notes

Throughout this guide you'll see caution notes containing information you need to know when installing the XR6A/XR10A/XR20A panel. These cautions are written with a bold, italicized introductory clause followed by a detailed description of the caution. See the example shown below:

***Always ground the panel before applying power to any devices:*** The XR6A/XR10A/XR20A 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.

Whenever you see a caution note, make sure you completely read and understand its information. Failing to follow the caution note can cause damage to the equipment or improper operation of one or more components in the system.

### 2.5 How to use this guide

To locate information about the installation of the XR6A/XR10A/XR20A, first go to the Table of Contents at the front of this guide. Find the subject heading that closely describes the information you need and turn to the section number shown to the right of the heading.

The text that follows the heading has been written to provide as much information about the subject as possible. If you can't find the information you need under that heading, try scanning through a few of the headings before and after and reading the text under those that sound similar.

## System Components

### 3.1 Description

The DMP XR6A/XR10A/XR20A system is made up of an alarm panel with built in communicator, an enclosure, a 16.5 VAC transformer, and a 12 VDC 7.0 Ah battery. You can add up to four Security Command keypads to the system and can also connect auxiliary devices to the panel's open collector outputs to expand the basic system. Combined current requirements of additional modules may require an auxiliary power supply. Refer to section 6.6 in this guide when calculating power requirements. In addition, up to 16 points of zone expansion can be added to the XR20A and four points to the XR6A.

### 3.2 Wiring diagram

The XR6A/XR10A/XR20A system wiring diagram in Figure 1 shows some of the accessory devices you can connect for use in various applications. A complete description of each module follows. Zone expanders can be added to the XR6A or XR20A.

### 3.3 Lightning protection

Metal Oxide Varistors and Transient Voltage Suppressors help protect against voltage surges on input and output circuits. A transorb is provided for the Smoke Detector Output Circuit (Terminal 11). This transient protection provides additional resistance to electrical surges such as lightning. Additional surge protection is available by installing the DMP 370 or 370RJ Lightning Suppressors.

### 3.4 Command Processor Accessories

You can connect any combination of up to four Model 670, 770, and 771 vacuum fluorescent, 690, 790, 791, and 793 LCD, or 692 LED Security Command Keypads to the 4-wire keypad data bus provided by the panel on terminals 7, 8, 9, and 10. Also, you can connect Model 714, 715, 714-8, 714-16, 715-8, 715-16 zone expanders to the XR20A or XR6A 4-wire keypad bus. (**Note:** The XR10A does not support zone expansion on the keypad bus.)

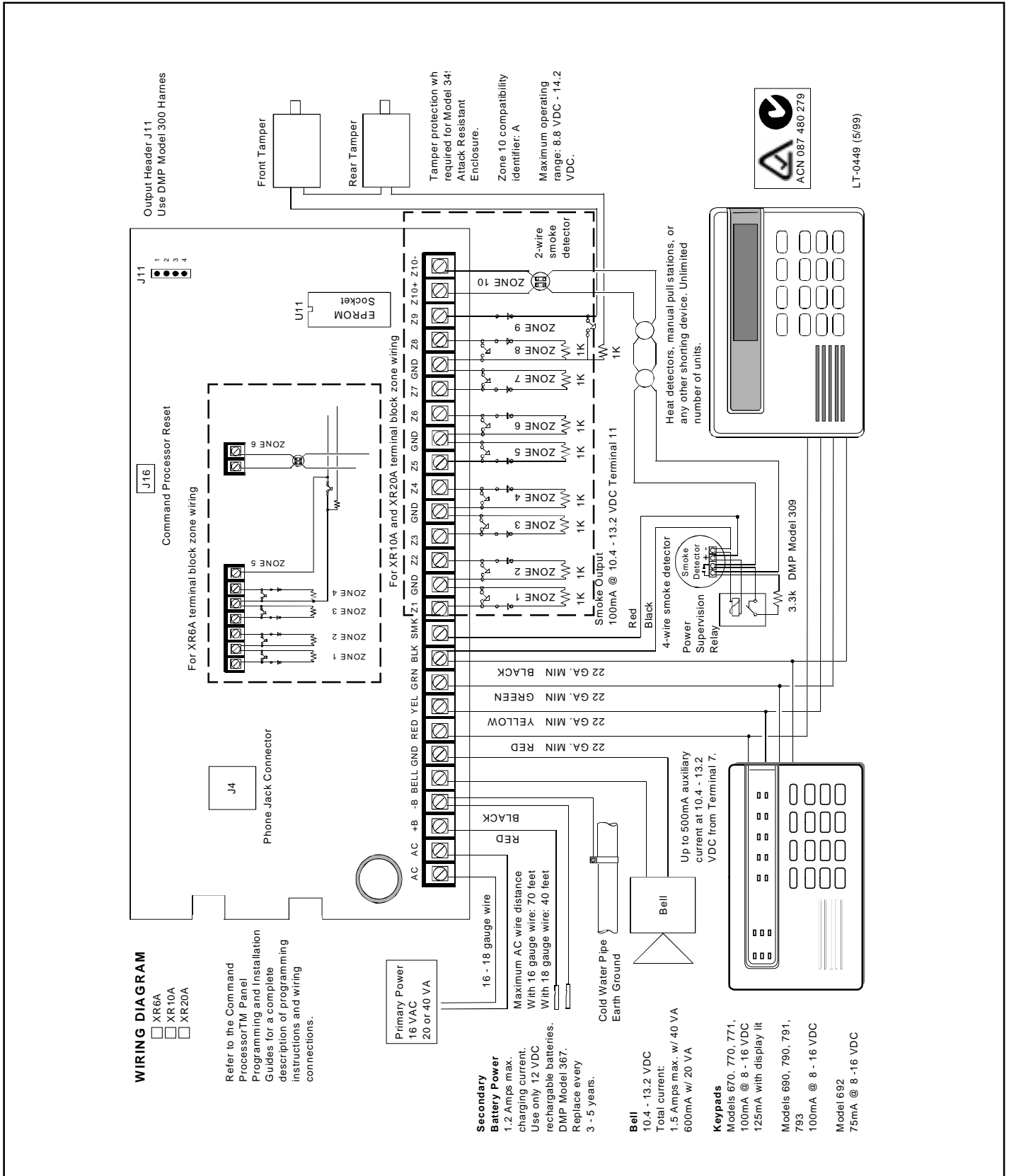


Figure 1: XR6A/XR10A/XR20A wiring diagram



## Installation

### 4.1 Mounting the enclosure

The metal enclosure must be mounted in a secure, dry place to protect the panel from damage due to tampering or the elements. It is not necessary to remove the PC board when installing the enclosure.

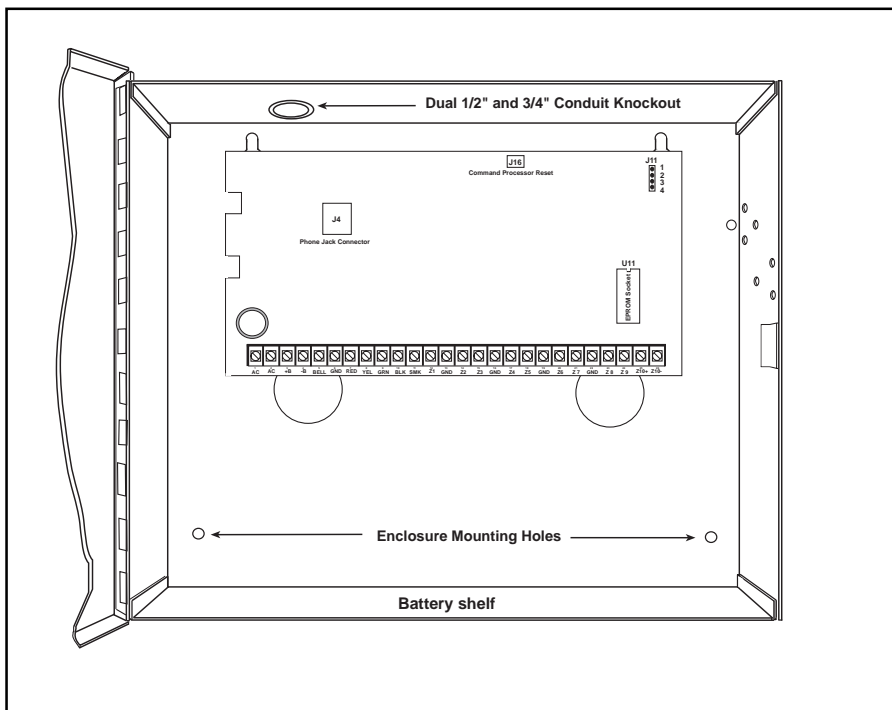


Figure 2: XR6A/XR10A/XR20A in standard enclosure

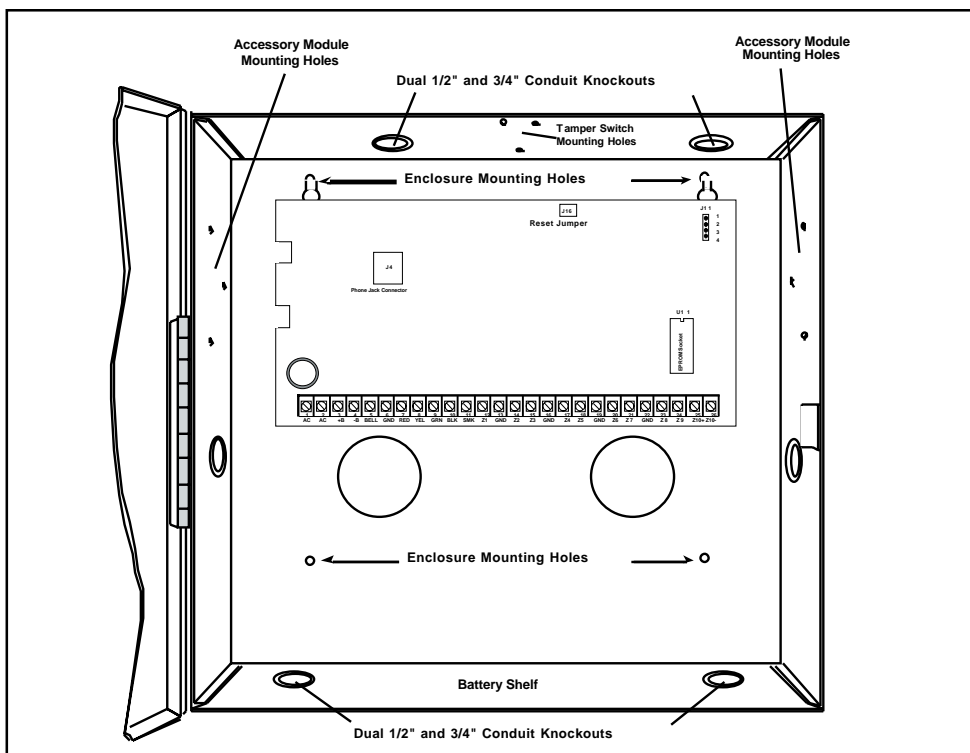


Figure 2A: XR6A/XR10A/XR20A in optional 349 Enclosure

## 4.2 Mounting keypads

Security Command keypads have removable covers that allow you to easily mount the base to a wall or other flat surface using the screw holes provided on each corner.

For mounting keypads on solid walls, or for applications where conduit is required, use a DMP 695, 696, 775, or 776 keypad conduit backbox.

## 4.3 Wiring keypads

### Keypad data bus

The keypad data bus consists of a 4-wire cable that provides 12 VDC power, data in, data out, and a panel common. You can connect keypads in parallel on one 4-wire cable or provide a separate cable run back to the panel for each keypad. The maximum cable length for one keypad can be up to 500 feet using 22 gauge wire or up to 1000 feet using 18 gauge wire. Additional keypads installed on the same cable decrease the maximum distance at which they'll operate properly.

Refer to the 710 Bus Splitter/Repeater Module Installation Sheet (LT-0310) for additional information when connecting keypads to a keypad bus circuit greater than 2,500 feet.

## Primary Power Supply

### 5.1 AC terminals 1 and 2

Connect the transformer wires to terminals 1 and 2 on the panel. Use no more than 70 ft. of 16 gauge, or 40 ft. of 18 gauge, wire between the transformer and the XR6A/XR10A/XR20A.

**Always ground the panel before applying power to any devices:** The XR6A/XR10A/XR20A 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. See Earth ground, section 6.2.

### 5.2 Transformer types

The larger transformer for the XR6A/XR10A/XR20A is 16.5 VAC 40VA, which provides up to 1.5 Amps of bell output current, 500mA of auxiliary current, and 100mA of smoke detector output. The total current available is limited by the total battery standby requirements of the installation. When a 16.5 VAC 20VA plug-in transformer is used, the bell output current is reduced to 600mA.

The transformer must be connected to a commercial power outlet that is not controlled by a wall switch. **Never share the transformer output with any other equipment.**

## Secondary Power Supply

### 6.1 Battery terminals 3 and 4

Connect the black battery lead to terminal 4 on the panel and to the negative terminal of the battery. The negative terminal connects to the enclosure ground internally through the XR6A/XR10A/XR20A circuit board. Connect the red battery lead to terminal 3 on the panel and to the positive terminal of the battery. **Observe polarity when connecting the battery.** The panel can charge up to two batteries.

**Use sealed lead-acid batteries only:** Use the DMP Model 367, 12 VDC 7.0Ah sealed lead-acid rechargeable battery. Batteries supplied by DMP or manufactured by Eagle Picher or Yuasa have been tested to ensure proper charging with DMP products.

**GEL CELL BATTERIES CANNOT BE USED WITH THE XR6A/XR10A/XR20A PANEL.**

### 6.2 Earth ground

Terminal 4 of the XR6A/XR10A/XR20A panel must be connected to earth ground using 14 gauge or larger wire to provide proper transient suppression. DMP recommends connecting to a metal cold water pipe or ground rod only. Do not connect to electrical conduit or a telephone company ground.

### 6.3 Replacement period

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

### 6.4 Discharge/recharge

The XR6A/XR10A/XR20A battery charging circuit float charges at 13.9 VDC at a maximum current of 1.2 Amps using a 40VA transformer. The total current available is reduced by the combined auxiliary current draw from terminals 7, 11, and 25. The various battery voltage levels are listed below:

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

### 6.5 Battery supervision

The XR6A/XR10A/XR20A tests the battery once every hour when AC power is present. The test lasts for five seconds. A load is placed on the battery and if its voltage falls below 11.9 VDC a low battery is detected. If AC power has failed, 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 is repeated every two minutes until the battery charges above 12.6 VDC; the battery restored voltage. If a faulty battery is replaced with a fully charged battery, the restored battery will not be detected until the next two minute test is done.

### 6.6 XR6A/XR10A/XR20A power requirements

During AC power failure, the panel and all auxiliary devices connected 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 power requirements of the XR6A/XR10A/XR20A panel. Add the additional current draw of Security Command keypads, smoke detector output, and any other auxiliary devices used in the system for the total current required. The total is then multiplied by the total number of standby hours required to arrive at the total Ampere/hours required.

## XR6A/XR10A/XR20A STANDBY BATTERY POWER CALCULATIONS

	Standby Current	Alarm Current
Command Processor Panel	50mA _____ mA	50mA _____ mA
Active Zones 1-9	Qty _____ x 1.6mA _____ mA	Qty _____ x *2mA _____ mA
Active Zone 10 (zone 6 on XR6A)	4mA _____ mA	30mA _____ mA
2-Wire Smoke Detectors	Qty _____ x .1mA _____ mA	Qty _____ x .1mA _____ mA
Bell Output		1500mA max. _____ mA
670, 770, and 771 Keypads	Qty _____ x 125mA _____ mA	Qty _____ x 125mA _____ mA
Annunciator (ON)		Qty _____ x 20mA _____ mA
690, 790, 791, and 793 Keypads	Qty _____ x 100mA _____ mA	Qty _____ x 100mA _____ mA
Annunciator (ON)		Qty _____ x 20mA _____ mA
692 Keypads	Qty _____ x 30mA _____ mA	Qty _____ x 30mA _____ mA
Annunciator (ON)		Qty _____ x 10mA _____ mA
710 Bus Splitter/Repeater	Qty _____ x 30mA _____ mA	Qty _____ x 30mA _____ mA
711 or 714 Zone Expander	Qty _____ x 7mA _____ mA	Qty _____ x 7mA _____ mA
Active Zones (EOL installed)	Qty _____ x 1.6mA _____ mA	Qty _____ x *2mA _____ mA
715 Zone Expander	Qty _____ x 7mA _____ mA	Qty _____ x 7mA _____ mA
Active Zones (EOL installed)	Qty _____ x 4mA _____ mA	Qty _____ x 30mA _____ mA
2-Wire Smokes	Qty _____ x .1mA _____ mA	Qty _____ x .1mA _____ mA
714-8 or 714-16 Point Zone Expanders	20mA _____ mA	20mA _____ mA
Active Zones (EOL installed)	Qty _____ x 1.6mA _____ mA	Qty _____ x *2mA _____ mA
715-8 or 715-16 Point Zone Expanders	20mA _____ mA	20mA _____ mA
Active Zones (EOL installed)	Qty _____ x 4mA _____ mA	Qty _____ x 30mA _____ mA
2-Wire Smokes	Qty _____ x .1mA _____ mA	Qty _____ x .1mA _____ mA
733 Wiegand Interface	30mA _____ mA	30mA _____ mA
Active Zones (EOL installed)	Qty _____ x 1.6mA _____ mA	Qty _____ x *2mA _____ mA
Annunciator (ON)		20mA _____ mA
738A Ademco Wireless Interface w/Receiver	75mA _____ mA	75mA _____ mA
FA426 16 Point Receiver	50mA _____ mA	50mA _____ mA
740/741/743 SC Keypads	Qty _____ x 50mA _____ mA	Qty _____ x 100mA _____ mA
Annunciator (ON)		Qty _____ x 20mA _____ mA
Auxiliary Powered Devices on Terminals 7 and 11 (Other than keypads)	_____ mA	_____ mA
	Total Standby _____ mA	Total Alarm _____ mA

Total Standby \_\_\_\_\_ mA x number of standby hours needed \_\_\_\_\_ = \_\_\_\_\_ mA/hours

\* Based on 10% of active zones in alarm condition

Total Alarm + \_\_\_\_\_ mA/hours  
 Total \_\_\_\_\_ mA/hours  
 x .001 \_\_\_\_\_  
 = \_\_\_\_\_ A/hours required

## Bell Output

### 7.1 Terminals 5 and 6

Nominal 12 VDC is supplied by terminal 5 on the panel to power alarm bells or horns. The output is rated for a maximum of 1.5 Amps with a 40VA transformer and 600mA with a 20VA transformer. This output can be steady or pulsed depending upon the Bell Action specified in Output Options programming. Terminal 6 is the ground reference for the bell circuit.

## Keypad Data Bus

### 8.1 Description

Terminals 7, 8, 9, and 10 of the XR6A/XR10A/XR20A panel are designated as the keypad data bus. In addition to keypads, the XR20A allows the connection of any combination of zone expanders to the data bus up to a maximum of four devices. The XR6A allows the connection of four zones on address one.

### 8.2 Terminal 7 - RED

Nominal 12 VDC is supplied at terminal 7 to power Security Command keypads and zone expanders. This is also where power for any auxiliary device is supplied. The ground reference for terminal 7 is terminal 10. The maximum output is rated at 500mA. All auxiliary devices totaled together must not exceed the panel's maximum current rating of 500mA.

### 8.3 Terminal 8 - YELLOW

Data receive from keypads and zone expanders.

### 8.4 Terminal 9 - GREEN

Data transmit to keypads and zone expanders.

### 8.5 Terminal 10 - BLACK

Terminal 10 is the ground reference for Security Command keypads, zone expanders, and any auxiliary devices being powered by terminals 7 and 11.

## Smoke and Glassbreak Detector Output

### 9.1 Terminal 11

Nominal 12 VDC at 100mA maximum (shared by terminal 25) is supplied at terminal 11 to power 4-wire smoke detectors or other auxiliary powered devices. This output can be turned off by the user for 5 seconds using the Sensor Reset Menu Option. Terminal 10 is the ground reference for terminal 11.

## Burglary Zones

### 10.1 Description

The XR10A/XR20A terminals 12 to 24 are the nine burglary zones. For programming purposes, the zone numbers are 1 to 9. The zone configurations on terminals 12 to 24 are described below. The XR6A terminals 12 to 18 are the five burglary zones with terminal 16 providing the ground for zone 5.

Terminal	Function	Terminal	Function
12	Zone 1 voltage sensing	19	Ground for zones 5 & 6
13	Ground for zones 1 & 2	20	Zone 6 voltage sensing
14	Zone 2 voltage sensing	21	Zone 7 voltage sensing
15	Zone 3 voltage sensing	22	Ground for zones 7, 8, & 9
16	Ground for zones 3 & 4 (& 5 on XR6A)	23	Zone 8 voltage sensing
17	Zone 4 voltage sensing	24	Zone 9 voltage sensing
18	Zone 5 voltage sensing		

The voltage sensing terminal measures the voltage flowing through the 1k Ω End Of Line resistor to the zone's ground terminal. Dry contact sensing devices can be used in series (normally-closed) or in parallel (normally-open) with any of the burglary protection zones.

### 10.2 Operational parameters

Each burglary protection zone detects three conditions: open, normal, and short.

The parameters for each are listed below:

Condition	Resistance on zone	Voltage on right 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

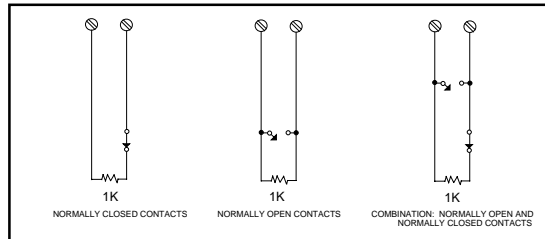


Figure 3: Protection zone contact wiring

### 10.3 Zone response time

A condition must be present on a zone for 500 milliseconds before it's detected by the XR6A/XR10A/XR20A panel. Ensure detection devices used on the protection zones are rated for use with this delay.

### 10.4 Keyswitch arming zone

#### Momentary keyswitches

You can use a momentary keyswitch on a zone programmed as an Arming type for use in arming and disarming the system without a code.

## Powered Zone for 2-Wire Smoke Detectors

### 11.1 Terminals 25 and 26

A resettable 2-wire Class B powered zone is provided on terminals 25 (positive) and 26 (negative) of the panel. For programming purposes, the zone number is 10 on the XR10A/XR20A and zone 6 on the XR6A. The zone uses a Model 309, 3.3k  $\Omega$  EOL resistor (provided with the panel) and has an operating range of 8.8 to 14.2 VDC.

Power is dropped from zone 10 any time a Sensor Reset is performed on the panel. Whenever non-Fire and non-Supervisory zone types are used on zone 10, make the appropriate adjustments to the zone's Armed Action to prevent false alarms from occurring.

The UL compatibility identifier is: **A**.

Manufacturer	Model	Detector ID	Base	Base ID	# of Detectors	XR Panel	Zone Expander
Detection Systems	DS282	B	None	N/A	10	10/20	715, 715-8, 715-16
Detection Systems	DS282TH	B	None	N/A	10	10/20	715, 715-8, 715-16
Detection Systems	DS250	B	MB2W	A	10	10/20	715, 715-8, 715-16
Detection Systems	DS250TH	B	MB2W/MB2WL	A	10	10/20	715, 715-8, 715-16
Detection Systems	DS250HD	B	MB2W/MB2WL	A	10	10/20	715, 715-8, 715-16
Hochiki	SLK-12	HD-4	HSB-12-1, HSB-12-1N	HB-80	20	10/20	715, 715-8, 715-16
DMP/Hochiki	SLK-835	HD-5	HSB-200, HSB-200N	HB-55	7	10/20	715, 715-8, 715-16
DMP/Hochiki	SLK-835H	HD-5	HSB-200, HSB-200N	HB-55	7	10/20	715, 715-8, 715-16
Sentrol/ESL	429AT	S09A	None	N/A	12	10/20	715, 715-8, 715-16
Sentrol/ESL	521B	S09A	None	N/A	12	10/20	715, 715-8, 715-16
Sentrol/ESL	521BXT	S09A	None	N/A	12	10/20	715, 715-8, 715-16
System Sensor	1100	STD	None	N/A	10	20	715
System Sensor	1151	STD	B110LP	N/A	10	20	715
System Sensor	1400	STD	None	N/A	10	10/20	715
System Sensor	1451	STD	B401, B401B	N/A	10	10/20	715
System Sensor	2100	STD	None	N/A	10	10/20	715
System Sensor	2400	STD	None	N/A	10	10/20	715
System Sensor	2451	STD	B401, B401B, DH400	N/A	10	10/20	715
System Sensor	1451DH	STD	DH400	N/A	10	10/20	715
System Sensor	2100T	STD	None	N/A	10	10/20	715
System Sensor	2400AT	STD	None	N/A	10	10/20	715
System Sensor	2400AIT	STD	None	N/A	10	10/20	715
System Sensor	2400TH	STD	None	N/A	10	10/20	715
System Sensor	2451TH	STD	B401, B401B	N/A	10	10/20	715

Figure 4: Compatible 2-wire smoke detectors

## Annunciator Outputs

### 12.1 Description

The four annunciator outputs can be programmed to indicate the activity of the panel's zones or conditions occurring on the system. **Annunciator outputs do not provide a voltage but instead switch to ground voltage from another source.** The outputs can respond to any of the conditions listed below:

- 1) Activation by zone condition: Steady, Pulse, Momentary, or Follower
- 2) Manually from the Security Command keypad
- 3) Communication failure
- 4) Armed area annunciation
- 5) Fire Alarm or Fire Trouble
- 7) Ambush alarm
- 8) Exit and Entry timers
- 9) System Ready
- 10) Ground start activation

### 12.2 Harness wiring

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

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

## Telephone RJ Connector

### 13.1 Description

Connect the panel to the public telephone network by installing a DMP 356 RJ Cable between the panel's J4 connector and the RJ31X or RJ38X phone jack.

#### Phone Cable Monitor

A two pin header labeled RJ SUP (J7) is provided to allow monitoring of the telephone cable connected between the panel and a RJ38X jack (pins 2 & 7 jumpered). Attach a DMP Model 306 Harness between J7 and any available zone. The pins of J7 are connected via the telephone cable to 2 & 7 of the RJ38X jack. The RJ38X jack provides a jumper between pins 2 & 7 which completes the circuit.

When the zone is programmed for a Supervisory type (SV) and the telephone cable is removed, the keypad will display the zone in trouble and produce a steady tone.

### 13.2 ACA Compliance

The XR6A/XR10A/XR20A have been tested and meet the requirements of ACA Technical Standard TS-002-1997 for Telecommunications.

### 13.3 Ground start

To configure the XR6A/XR10A/XR20A for ground start operation, you must install the appropriate ground start module and program one of the panel's available annunciator outputs for Ground Start operation. Refer to the XR6A/XR10A/XR20A Programming Guide for complete programming information.



## Reset Jumpers J16

### 14.1 Description

There are two reset jumpers located at the top right of the panel's circuit board labeled RESET. Momentarily shorting these jumpers allows you to reset the microprocessor of the XR6A/XR10A/XR20A. Resetting the panel allows you to enter the panel's internal programmer.

To reset the panel when first installing the system, place the blade of a slotted screwdriver across the two reset jumpers after applying power to the panel.

To reset the panel while the system is operational (for example, prior to reprogramming), you can short the jumpers without powering down the system.

After resetting the panel for programming, you must begin within 30 minutes. If you wait longer than 30 minutes, you'll have to reset the panel again.

## Troubleshooting Section

### 15.1 Description

This section of the XR6A/XR10A/XR20A Installation Guide provides troubleshooting information for use when installing or servicing an XR6A/XR10A/XR20A system.

Problem	Possible Cause	Solution
Security Command keypads display " SERVICE REQUIRED"	J16 reset jumper is installed. Open or short on the green data wire to the keypad. Bad keypad or zone expander.	Remove the J16 reset jumper. Check for broken or shorted wires between the keypad and panel. Replace with a new or repaired keypad or zone expander.
Keypad display is not functional. When a key is pressed, only a short beep is emitted.	Open or short condition on the yellow data wire. Bad keypad or zone expander.	Check for broken or shorted wires. Replace with a new or repaired keypad or zone expander.
Keypad beeps when keys are pressed but won't allow the user to arm or enter the User Menu.	Two or more keypads are assigned to the same address.	Set each keypad to a different address to match the Device Setup programming.

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