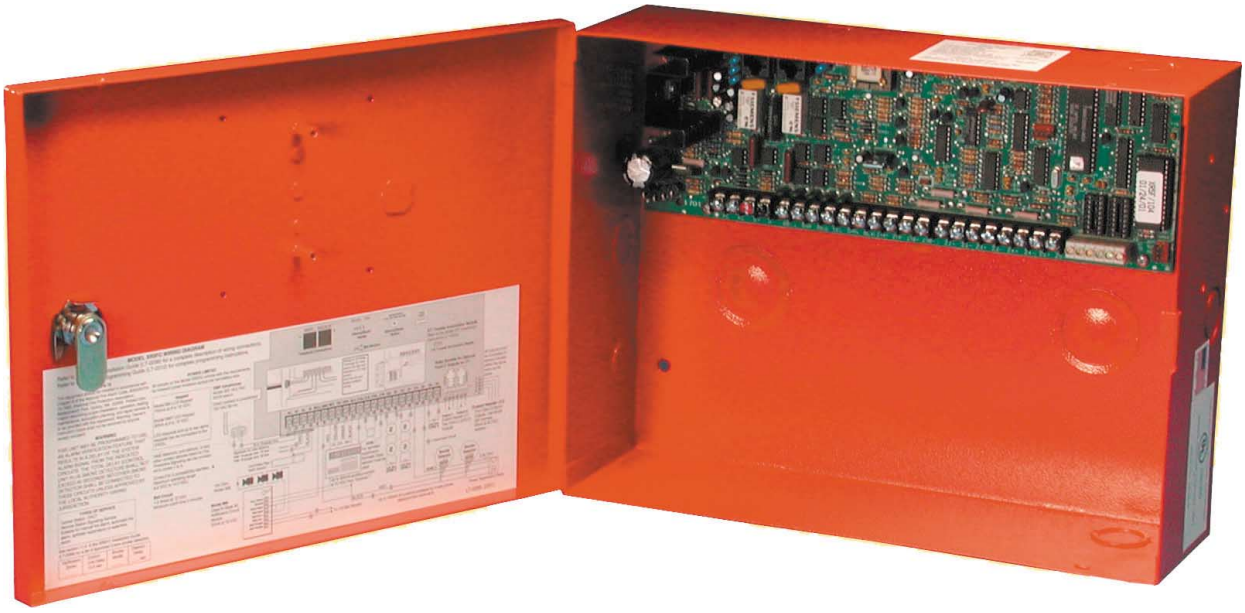
PROGRAMMING GUIDE



XR5FC/XR5SL
FIRE COMMAND PROCESSOR™ PANELS

Digital Monitoring Products

PANEL PROGRAMMER MODEL XR5FC / XR5SL
FIRE COMMAND
PROGRAMMING GUIDE

When using the XR5FC/XR5SL panel for any UL, NFPA, CSFM or other listing organization's approved methods, refer to this manual and the XR5FC/XR5SL Installation Guide (LT-0299). These documents outline the installation and programming requirements of all applications for which the XR5FC/XR5SL is approved.

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 B 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 computer 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

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

Appendix

Revisions to this Document

This section explains the changes made to this document during this revision. This section lists the date the change was made, the section number and section heading, and a brief explanation of the change.

Date	Section Number and Heading	Quick Explanation of Changes
7/05	3.2 Communications Type	Revised default programming value.
	4.4 Armed Rings	Revised default programming value.
3/04	3.2 Communication Type and 3.9 Test Report	Added SCS-1R receiver.
	Entire Document	Reformatted, incorporated minor editorial changes.
1/03	1.2 Getting Started	Corrected Jumper number: J9.
1/03	3.10 Backup Reporting	Corrected default programming value.
1/03	7.4 Zone Type	Included Zone Type Descriptions in Zone Type section.
1/03	10.3 Zone Type Descriptions	Moved section into Zone Type section of programming. **Note:** Subsequent section numbers changed.
1/03	Entire Manual	Updated Layout and format.
2/02	3.2 - 7.11 Programming	Noted and corrected default programming values.
2/02	3.14 Pager Type	Added pager specifications.
2/02	10.8 4-2 Communication Reports	Added 7E Transmit Fail and 7F Restore.
2/02	10.10 Table of Common Keypad Messages	Added table.

Introduction

1.1 Before You Begin

About this Guide

This guide provides programming information for the DMP XR5FC and XR5SL Fire Command™ Panels. After this Introduction, the remaining sections describe each programming menu item function and its available options. The XR5FC and XR5SL panels contain all programming information in an on-board processor and do not require an external programmer.

Reading the Contents

Before starting to program, we recommend you read through the contents of this guide. This information allows you to quickly learn the programming options and operational capabilities of the XR5FC and XR5SL panels. In addition to this guide, you should also read and be familiar with the following XR5FC and XR5SL documents:

- XR5FC and XR5SL User's Guide (LT-0296)
- XR5FC and XR5SL Installation Guide (LT-0299)
- XR5FC and XR5SL Programming Sheet (LT-0297)

Programming Information Sheets

Included with each XR5FC and XR5SL panel is a Programming Sheet. This sheet lists the various keypad prompts and available options for panel programming. Before starting, we recommend you completely fill out the programming sheet with the options you intend to enter into the panel.

Having completed programming sheets available while entering data helps to prevent errors and can shorten the length of time you spend programming. Completed sheets also provide you with an accurate account of the panel program you can keep on file for future system service or expansion.

The remainder of this Introduction tells you how to start and end an XR5FC/XR5SL programming session.

1.2 Getting Started

The XR5FC and XR5SL Fire Command™ panels must be completely installed before you begin programming. Make sure the panels are properly grounded and the AC and battery wires are connected to the correct panel terminals.

Initializing the Panel

When programming an XR5FC or XR5SL panel for the first time, use the **Initialization** function described in section 2. Initializing clears the panel memory of any old or incorrect data and resets programming to factory defaults.

Program from Any Keypad Address

Program the XR5FC and XR5SL panels from an alphanumeric keypad connected to the keypad data bus. See the XR5FC and XR5SL Installation Guide (LT-0299) for keypad addressing and installation information.

Accessing the Programmer

To access the programmer function of the XR5FC and XR5SL:

1. Place a flat screwdriver across the two J9 RESET jumper wires for two seconds.
2. Remove the screwdriver.
3. Enter the code 6653 (PROG) into the keypad.
4. Enter your Lockout Code (if required).
5. The keypad displays: **PROGRAMMER.**

You are now ready to start programming the XR5FC and XR5SL panels. Press the COMMAND key to scroll through the programming menu items listed in section 1.3.

1.3 Programming Menu

There are 8 programming menu items from which to choose:

Menu Item	Section in this guide
Initialization	2
Communication	3
Remote Options	4
System Options	5
Output Options	6
Zone Information	7
Stop	8
Set Lockout Code	9

To select a section for programming, press any top row Select keys when the keypad displays the name of that section. Detailed instructions for each programming step are found in sections 2 through 9 of this guide.

1.4 Programmer Lockout Codes

Although the XR5FC and XR5SL panels allow you to enter the built-in Programmer without a lockout code, you may wish to program one to restrict programming access to only those persons your company authorizes. You can do this by using the **SET LOCKOUT CODE** feature at the end of the programming menu.

Programming a Lockout Code

1. After entering the Programmer menu, the keypad displays **PROGRAMMER**. Press the COMMAND key to advance through the programming sections until **SET LOCKOUT CODE** displays (after Stop).
2. Press any top row Select key. At the **ENTER CODE: -** display, enter a 3 to 5-digit programmer lockout code. Press COMMAND.
3. The display shows **ENTER AGAIN**. Enter the same lockout code again and press COMMAND. The display shows **CODE CHANGED**. The new code number must now be entered before accessing the Programmer menu.

Write the lockout code number down and keep it in a secure place with access limited to authorized persons only.

Lost Lockout Code requires factory reset: If you lose or forget the lockout code, the panel must be sent back to the factory to be reset. There is no field option for gaining access to the panel without a valid lockout code.

1.5 Reset Timeout

The XR5FC and XR5SL has a feature that requires you to enter the Programmer within 30 minutes of resetting the panel. After 30 minutes, if you attempt to program by entering the 6653 (PROG) code, the keypad displays: **RESET PANEL**. You must reset the panel, enter the program code, then begin programming within the next 30 minutes.

If you are already in the Programmer and do not press any keys on the programming keypad for 30 minutes, the panel terminates programming. All data entered up to that point is saved in the panel memory.

Use the Stop routine to exit the panel Programmer.

1.6 Special Keys

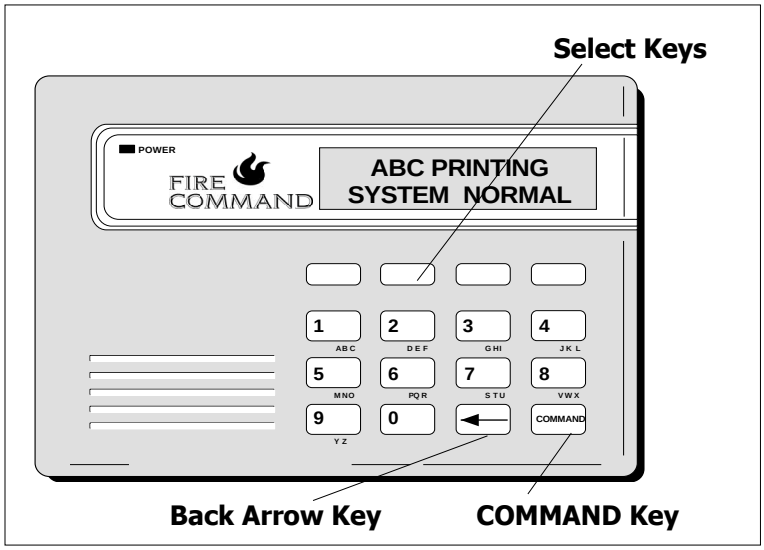


Figure 1: Keypad Function Keys

COMMAND Key

Pressing the COMMAND key allows you to go forward through the programming menu and through each step of a programming section. As you go through the programming, the keypad display shows any current programming already stored in the panel memory. If no change is required for a prompt, press the COMMAND key to advance to the next step.

The COMMAND key is also used to enter information into the panel memory such as phone numbers or zone names. Press the COMMAND key after entering the information and it displays correctly on the keypad.

Back Arrow Key

Use the Back Arrow key to back up one step while in the programming menu or within a programming section. The Back Arrow key also allows you to correct an error by erasing the last character entered.

Select Keys

The top row of keys are called the Select keys. When the Programmer displays an option for you to select, such as **YES** or **NO**, you press the Select key under the option you want to enable.

The Select keys also allow you to change programming information currently in the panel memory. As you step through each program option, the keypad displays the current information. To change this information, press the appropriate key under the display then enter the new information through the keypad.

If you are changing a phone number or account number, press the Select key followed by the appropriate digit keys. If entering a communication type or choosing a programming option, the keypad displays the available response options above the Select keys. When there are more than four response options available, the keypad displays the first four. Pressing the COMMAND key brings up the next one to four options on the display. Pressing the Back Arrow key allows you to review the previous four choices.

The Select keys are also used for selecting a section from the programming menu. This is done by pressing any one of the Select keys when the programming section name you want displays.

1.7 Entering Alpha Characters

Some programming options allow you to enter alphanumeric names. To enter an alpha character, press the key that has that letter written below it. The keypad displays the key number. Next, press the Select key that corresponds to the location of the letter under the key. Pressing a different Select key changes the letter. When another digit key is pressed, the last letter displayed is retained and the process starts over.

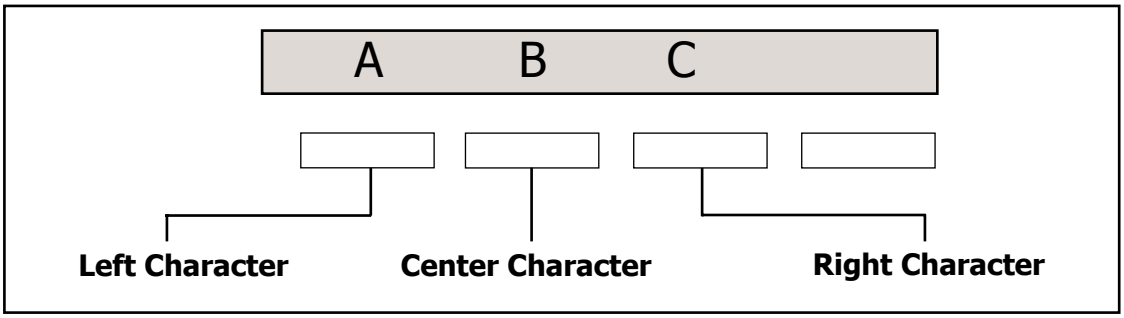


Figure 2: Keypad Display and Select Keys

1.8 Entering Non-Alpha Characters

To enter a space, press the 9 digit key followed by the third Select key. The three characters on the 9 digit key are Y, Z, and space. You can also enter the characters - (dash), **.** (period), * (asterisk), and # (pound sign) using the 0 (zero) key and the four Select keys from left to right.

1.9 Keypad Prompts Display Current Programming

Each programming prompt displayed at the keypad shows the currently selected option in the panel memory. These options are either shown as a number, a blank, or a **NO** or **YES**. To change a number or blank to a new number, press any top row Select key. The current option is replaced with a dash. Press the number(s) on the keypad you want to enter as the new number for that prompt.

It is not necessary to enter numbers with leading 0s (zero). The XR5FC and XR5SL automatically right justifies the number when you press the COMMAND key.

To change a programming prompt that requires a **NO** or **YES** response, press the top row Select key under the response not selected.

For example, if the current prompt is selected as **YES** and you want to change it to **NO**, press the third top row Select key from the left. The display changes to **NO.** Press the COMMAND key to go to the next prompt. See Figure 3.

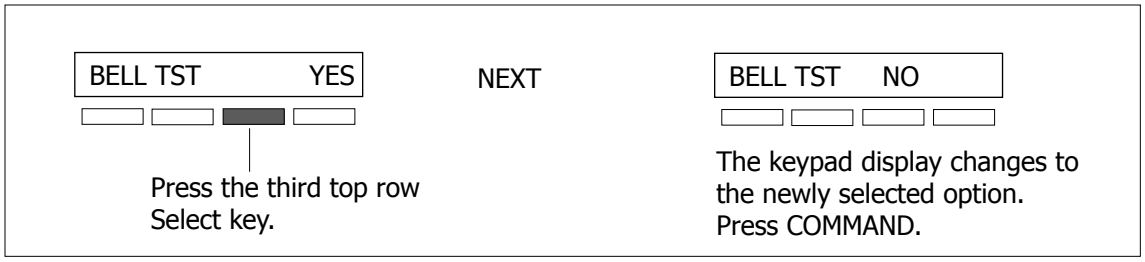


Figure 3: Changing the Currently Selected Option

Initialization

2.1 Initialization

INITIALIZATION

The Initialization function allows you to set the panel programmed memory back to the factory defaults in preparation for system programming.

After you select **YES** to clear a section of memory, the panel asks if you are sure you want to clear the memory. This is a safeguard against accidently erasing part of your programming. No memory is cleared from the programming until you answer yes to the **SURE? YES NO** prompt.

2.2 Clear Programming

DEFAULTS? NO YES

SURE? YES NO

YES sets the panel programming back to factory default selections and clears any information stored in Display Events Memory.

Communication

3.1 COMMUNICATION

Communication

Section 3 allows you to configure the communication settings for the XR5FC and XR5SL panels. After choosing the Communication Type, continue through the list of additional communication options.

3.2 COMM TYPE: NONE

Communication Type

This specifies the communication method the panel uses to contact the receiver. Press any Select key to display the following communication options:

NONE **DD** 4-2 CID

NONE - For local systems. Selecting **NONE** disables the phone line monitor for the Main and Backup phone lines and ends communication programming.
DD - Digital Dialer communication to DMP SCS-1/SCS-1R Receivers.
4-2 - 4-2 communication to non-DMP receivers.
CID - Contact ID communication to non-DMP receivers. This format sends Ademco Contact ID communications format report codes.

3.3 2ND LINE NO **YES**

Second Phone Line

This option allows the panel to use a second phone line to send reports to the receiver should the first phone line fail. If **2ND LINE** is **YES**, connect a second phone line to the BACKUP phone jack on the panel. Selecting **NO** disables the phone line monitor for the Backup phone line.

3.4 ACCOUNT NO: 12345

Account Number

Enter the account number sent to the receiver.
DD - The range of account numbers for Digital Dialer is 1 to 65,535. For account numbers of four digits or less, you do not have to enter leading zeros.
4-2 - The range of account numbers using 4-2 communication is 1 to 9999.
CID - The range of account numbers using CID communication is 1 to 9999.

3.5 DTMF NO **YES**

DTMF

YES enables tone dialing. **NO** enables rotary dialing.

3.6 RECEIVER 1 PROG

Receiver 1 Programming

Allows you to set the options for the first receiver the XR5FC and XR5SL panels attempt to contact when sending reports. The XR5FC and XR5SL support communication to two receivers.

3.7 ALARM NO **YES**

Alarm Report

Enter **YES** to enable Alarm and Alarm Restoral reports to be sent to this receiver.

3.8 SPV/TRBL NO **YES**

Supervisory/Trouble Reports

Enter **YES** to enable Supervisory, Trouble, Trouble Restoral reports, and user zone trouble, fault, and bypass reports to be sent to this receiver.

3.9 TEST RPT NO **YES**

Test Report

Enter **YES** to enable the Recall Test report to be sent to this receiver. When 2nd line is **YES**, the Recall Test message alternates between the two phone lines. The message is sent on the phone line designated for that day even when the supervision circuit indicates the phone line is bad. This allows both phone lines to be tested as required by NFPA 96 Section 4-5.3.2.1.6.2 (b) exception #2.

About the Panel Recall Test Time

Once you have finished programming, reset the panel. The Recall Test timer now begins and runs for twelve hours. After twelve hours elapse, the Recall Test is sent to the receiver. Whatever time of day this happens to be is the time the Recall Test is sent every 24 hours. The first Recall Test is made on the main phone line for all ten dial attempts. The next 24 hour period the Recall Test is made on the second phone line for all ten dial attempts. This allows both phone lines to be tested every two days.

If the system has any existing Fire, Fire Verify, or Supervisory zones currently in alarm or trouble, or any system monitor (AC, battery, or phone line) in trouble, the standard S07 Automatic Recall report to the SCS-1/SCS-1R Receiver is replaced by S88 (Automatic Recall OK - Unrestored System) message.

3.10 BACKUP **NO** YES

Backup Reporting

YES enables Receiver 1 to be a backup to Receiver 2 in the event the panel cannot contact Receiver 2.

3.11 FIRST PHONE NO:
-
-

First Telephone Number

This is the first number the panel dials when sending reports to this receiver. A phone number can consist of two lines of 16 characters to equal 32 characters. You can program a three second pause in the dialing sequence by entering the letter P. You can program a dial tone detect by entering the letter D. These characters are counted as part of the 32 allowable characters.

3.12 SECOND PHONE NO:
-
-

Second Telephone Number

The panel dials the second number when two successive tries using the first number fail. If the panel cannot reach the receiver after two attempts using the second number, it returns to the first number and makes two additional attempts. A total of ten dialing attempts are made using the first and second phone numbers. If a second phone number is not entered, the first phone number is used for all dialing attempts.

Each number can be up to 32 characters in length including any P or D characters entered for pause and dial tone detect.

3.13 RECEIVER 2 PROG

Receiver 2 Programming

Receiver 2 defaults are set to **NO**. If you select **YES** for any Receiver 2 options, you must have at least one phone number programmed in Receiver 2 programming.

3.14 PAGER? **NO** YES

Pager Type

This option allows the panel to send Alarm and Trouble reports to a customer's numeric pager. The panel uses DTMF tones for numeric pagers. Selecting **NO** allows you to use the Receiver 2 Programming to send panel reports to a second receiver.

Note: The XR5 communicates in a half-duplex mode with a Glenayre alphanumeric pager terminal. The terminal modem must accept the following parameters:

- 300 bps Bell 103 protocol
- Carrier detect response time = 300ms
- Delay between lost carrier and hang-up = 12.0 seconds

3.15 ALARM**NO** YES

Alarm Reports

See Receiver 1 Alarm Reports section for programming.

3.16 SPV/TRBL **NO** YES

Supervisory/Trouble Reports

See **Receiver 1 Supervisory/Trouble Reports** section for programming.

3.17 TEST RPT **NO** YES

Test Report

Enter **YES** to enable the Recall Test report to be sent to this receiver. When 2nd line is **YES**, the Recall Test message alternates between the two phone lines. The message is sent on the phone line designated for that day even when the supervision circuit indicates the phone line is bad. This allows both phone lines to be tested as required by NFPA 96 Section 4-5.3.2.1.6.2 (b) exception #2.

3.18 BACKUP **NO** YES

Backup Reporting

YES enables Receiver 2 to be a backup to Receiver 1 in the event the panel cannot contact Receiver 1.

3.19 First Telephone Number

FIRST PHONE NO:
-
-

This is the first number the panel dials when sending reports to this receiver. A phone number can consist of two lines of 16 characters to equal 32 characters. You can program a three second pause in the dialing sequence by entering the letter P. You can program a dial tone detect by entering the letter D. These characters are counted as part of the 32 allowable characters.

3.20 Second Telephone Number

SECOND PHONE NO:
-
-

When **PAGER?** is **NONE**, the panel dials the second number when two successive tries using the first number have failed. If the panel cannot reach the receiver after two attempts using the second number, it returns to the first number and makes two additional attempts. A total of ten dialing attempts are made using the first and second phone numbers. If a second phone number is not entered, the first phone number is used for all dialing attempts.
Each number can be up to 32 characters in length including any P or D characters entered for pause or dial tone detect.

3.21 Pager Identification Number

PAGER ID NUMBER
-
-

Enter a pager identification number if your pager uses one. For numeric paging, the panel waits for nine seconds after dialing the First Phone Number before sending the Pager ID. After the Pager ID is transmitted, the panel waits another three seconds before sending the actual pager message containing the panel reports. You can program additional three second pauses by entering a letter P for each pause you want to add.

Remote Options

4.1 REMOTE OPTIONS

Remote Options

This section allows you to enter the information needed for Remote Command/ Remote Programming operation. A description of the Remote Options follow.

Note: ***Functional testing is required:*** A complete functional checkout of the panel is required following any programming or reprogramming.

4.2 RMT KEY:

Remote Key

This option allows you to enter a code of up to eight digits for use in verifying an alarm or service receiver authority to perform a remote command/programming session. The receiver must give the correct key to the panel before being allowed access. All panels are shipped from the factory with the Remote Key preset as blank.

To enter a new Remote Key, press a top row Select key and enter any combination of up to eight digits. The numbers you enter appear as asterisks. Press COMMAND.

4.3 MFG AUTH **NO** YES

Manufacturer Authorization

Enter **YES** to allow DMP service technicians to access the panel when required during system service or troubleshooting. This authorization automatically expires within one hour.

DMP remote service is provided on a read only basis: DMP technicians can look at the system programming and make suggestions only.

4.4 ARMED RINGS: **8**

Armed Rings

Enter the number of rings the panel counts within a two minute period before answering the phone line. Enter any number from 1 to 15. Default is 8 rings.

If 0 (zero) is entered, the panel does not answer the phone. If **NONE** is selected as the Communication type, the ring detect function is disabled and the 984 Command function must be used to seize the phone line. See Manual Telephone Line Seizure Section in the Appendix.

Answering machine bypass procedure: Entering a number greater than 0 (zero) into Armed Rings allows a central station operator to connect remotely with the panel.

How it works: The operator calls the panel, rings the phone once and then hangs up. The panel stores this attempt to communicate. The operator then calls back within 30 seconds causing the panel to seize the phone line and allow remote programming.

4.5 ALR RCVR **NO** YES

Alarm Receiver Authorization

Enter **YES** to enable the panel to accept remote commands and programming from the alarm receiver. The Remote Key option can also be required.

When **YES** is selected, the panel requests the **alarm receiver key** during its first alarm communication with the first receiver. The panel retains this **alarm receiver key** in memory and allows remote commands to be accepted from the alarm receiver. If an alarm occurs during a remote connect, the alarm report is immediately sent to this receiver only.

When **NO** is selected, remote commands and programming are not accepted from the alarm receiver.

4.6 SVC RCVR NO **YES** Service Receiver Authorization

YES enables the panel to accept remote commands and programming from a secondary service receiver other than the alarm receiver. The Remote Key option can also be required.

With **YES** selected, the panel requests the **service receiver key** the first time it is contacted by the service receiver. The panel retains this **service receiver key** in memory and accepts remote commands from the service receiver.

If an alarm occurs during a remote connect, the panel disconnects from the service receiver and calls the alarm receiver. Alarm reports are only sent to the alarm receiver. It is important that the **alarm receiver key** and the **service receiver key** programmed at the central station are NOT the same so the panel can determine the difference between receivers.

When **NO** is selected, the panel does not accept remote commands and programming from a secondary service receiver.

System Options

5.1 SYSTEM OPTIONS

System Options

This section allows you to select system wide parameters used in the operation of the XR5FC and XR5SL system.

5.2 CRS ZONE TM: 0

Cross Zone Fault Time

Enter the time allowed after a zone trips to indicate a zone fault condition. When a zone programmed for cross zoning trips, the panel begins counting down the Cross Zone Fault Time you enter here. If the same zone or another zone trips within this time, or prior to a Sensor Reset, an alarm report is sent to the receiver for both zones.

If the Cross Zone Fault Time expires without the second zone trip, a zone fault report from the first zone is sent to the receiver.

The Cross Zone Fault Time can be set from 4 to 250 seconds in one second increments. Enter 0 (zero) to disable the Cross Zone Fault Time feature.

5.3 RETARD DLY: 0

Zone Retard Delay

Enter the time allowed for zones to be shorted before the panel acknowledges the short as an alarm. This option is primarily used on waterflow zones where fluctuations in the flowswitch may short the zone in the absence of an actual alarm condition.

The Retard Delay can be set from 0 to 250 seconds in one-second increments.

5.4 PWR FAIL HRS: 6

Power Fail Delay

This option tracks the duration of an AC power failure. When the AC power is off for the length of the programmed delay time, an AC power failure report is sent to the receiver.

The delay time can be set from 6 to 12 hours.

5.5 RST SBYP NO **YES**

Reset Swinger Bypass

When **YES** is selected, a swinger bypassed zone is automatically reset if it remains in a normal condition for one hour after being bypassed. A report of the reset is automatically sent to the receiver.

Output Options

6.1 OUTPUT OPTIONS

Output Options

This function allows you to program the panel Bell Output functions and certain Output options for the Form C relays and annunciator outputs. Form C relay outputs are available on the panel 6-position terminal strip. Annunciator outputs (open collector) are available by using the 4-wire output header on the XR5FC and XR5SL board. Refer to the XR5FC and XR5SL Installation Guide (LT-0299) for complete information. A description of each output option follows:

6.2 BELL CUTOFF: 15

Bell Cutoff Time

Enter the maximum time the Bell Output remains on. If the Bell Output is manually silenced or the system is disarmed, the cutoff time resets. The Bell Cutoff Time can be from 1 to 15 minutes. Enter 0 (zero) to provide continuous bell output.

6.3 BELL ACTION . . . . .

Bell Action

This defines the type of Bell Output for zone alarms. Trouble conditions do not activate the Bell Output. There are four bell actions you can program for Bell Output: To provide a steady Bell Output, enter **S**. For a pulsed output, enter **P**. For Temporal Code 3, enter **T**. For California School Code, enter **C**. For no Bell Output, enter **N**. **Below** is a list of the bell action for three of the zone types:

6.3.1 FIRE TYPE: **P**

Fire

Defines Bell Action for Fire and Fire Verify Type Zones

6.3.2 SUPRVSRY TYPE: **N**

Supervisory

Defines Bell Action for Supervisory Type Zones

6.3.3 AUXLRY I TYPE: **N**

Auxiliary

Defines Bell Action for Auxiliary 1 Type Zones

6.4 OUTPUT ACTION . . .

Output Action

This option allows you to define the operation of the panel outputs.

6.4.1 CO OUTS: - - - -

Cutoff Outputs

Any or all of the available outputs can be programmed here to turn off after the time specified in **OUTPUT CUTOFF TIME**. See section 6.4.2. To disable this option, press any Select key to clear the display of output numbers and then press COMMAND.

6.4.2 CUTOFF TIME: 0

Output Cutoff Time

If a Cutoff Output is assigned in section 6.4.1, you can enter a Cutoff Time of up to 15 minutes for the output to remain on. If the output is turned off manually, the Cutoff Time resets. The Cutoff Time can be from 1 to 15 minutes.

Enter 0 (zero) to provide continuous output.

The Cutoff Timer is shared by all outputs. If a second output trips, the timer is not reset. Both outputs turn off when the original time expires.

6.4.3 COM FAIL OUT: 0

Communication Failure Output

This output is turned on when a **DD** or **4-2** system fails to communicate with the receiver after ten successive dial attempts.

Enter 0 (zero) to disable this output.

6.4.4 FIRE ALR OUT: 0 Fire Alarm Output

This output is turned on any time a fire type zone is placed in alarm. The output is turned off using the Sensor Reset option when no additional fire type zones are in alarm. Enter 0 (zero) to disable this output.

6.4.5 FIRE TRB OUT: 0 Fire Trouble Output

This output is turned on any time a fire type zone is placed in trouble, when a supervisory type zone is placed in alarm or trouble, or when AC power, battery power, or either phone line is in trouble. The output is turned off when all trouble conditions are restored to normal. Enter 0 (zero) to disable this output.

Zone Information

7.1 ZONE INFORMATION — Zone Information

This allows you to define the operation of each protection zone used in the system.

A description of each programming option follows:

7.2 ZONE NO: – — Zone Number

Enter the zone number to program. Press COMMAND to enter a zone name. See section 1.7 for instructions on entering alphanumeric characters.

7.3 * UNUSED * — Zone Name

Press any Select key and enter up to ten characters for the zone name. Each operating zone in the system must be given a name. This name can display at the keypads when the zone is bad or viewed in Display Events. The zone name is also sent to the receiver as part of a zone event report.

A zone that is not part of the system must be marked *__UNUSED__*. To mark a zone unused, press a top row Select key to delete the old name, then press the COMMAND key. The programmer automatically programs the name as *** UNUSED ***. If you selected **DEFAULTS? NO YES** to clear the panel memory during Initialization, the zones are already marked *** UNUSED ***. See section 2.2.

7.4 ZONE TYPE: FI — Zone Type

The Zone Type defines the panel response when the zone is opened or shorted. See the chart in section 7.7.

When you assign a Zone Type to a zone, automatic responses are made for the zone. There are four Zone Types to choose from. Each response functional details are described in section 7.7.

To enter a new Zone Type, press any top row Select key. The display lists the following four Zone Types.

F I SV A1 FV

FI = Fire, **SV** = Supervisory, **A1** = Auxiliary 1, and **FV** = Fire Verify.

Note: ***Supervisory Type zones provide default zone names:*** If SV (Supervisory) is selected as the zone type, SUPRVSRY n (n = zone number) is automatically stored as the 10-character zone name.

When the Zone Type you want to select displays, press the Select key beneath its name. The chart in section 7.7 gives an outline of the Alarm Action for each Zone Type.

Press COMMAND to continue.

Zone Type Descriptions

FI (Fire zone) - Used for any type of powered or mechanical fire detection device. Typical applications are for smoke detectors, sprinkler flowswitches, manual pull stations, and beam detectors. Cross zoning is compatible with the Fire zone type.

SV (Supervisory zone) - Used to provide 24-hour zone supervision to devices associated with fire systems. Typical applications are tamper switches on Post Indicator Valves (PIVs), gate valves, and low and high temperature gauges.

A1 (Auxiliary 1) - These zones allow you to customize the operation for peripheral fire protection devices.

FV (Fire Verify zone) - Used primarily for smoke detector circuits to verify the existence of an actual fire condition. When a Fire Verify zone initiates an alarm, the panel performs a Fire Reset. If any Fire zone initiates an alarm within 120 seconds after the reset, an alarm is indicated. If an alarm is initiated after 120 seconds, the cycle repeats.

7.5 NEXT ZN? NO YES Next Zone?

When **YES** is selected, the programming for the zone terminates and the display returns to **ZONE NO: -** allowing you to enter a new zone number. To make changes to the Alarm Action for a zone, answer the **NEXT ZONE?** prompt with **NO**. The Alarm Action is then defined in sections 7.6 through 7.12.

7.6 CO OUTS: - - - - - - - - Alarm Action

The Alarm Action section allows you to change or confirm the default alarm characteristics of a zone type that was selected in section 7.4.

The Fire Verify zone type functions the same as Fire zone with the following exceptions: When a Fire Verify zone is placed into shorted condition, the panel performs a Sensor Reset and does not send a report. If any Fire Verify or Fire zone initiates an alarm within 120 seconds after the reset, an alarm is indicated. If an alarm is initiated after 120 seconds, the cycle repeats. If no other Fire Verify or Fire zone is alarmed within 120 seconds, a zone fault report is sent to the receiver.

7.7 Zone Type Specifications

The XR5FC and XR5SL panels contain four default zone types for use in configuring the system. These zone types provide the most commonly selected functions for their applications. All zone types except the Arming zone can be customized by changing the variable options listed below.

Zone Types	Type	Open			Short			Swinger	Retard	Cross Zone
		Message	Output	Action	Message	Output	Action	Swinger Bypass	Retard Delay	Cross Zone
		A T L -	0 to 4	S P M F	A T L -	0 to 4	S P M F	N or Y	N or Y	N or Y
Fire		T	0	-	A	0	-	N	N	N
Supervisory		T	0	-	A	0	-	N	N	N
Auxiliary 1		T	0	-	A	0	-	N	N	N
Fire Verify		T	0	-	A	0	-	N	N	
1										
2										
3										
4										
5										

Programmable Zone Options Descriptions

Below is a description of the various zone options shown on the table above.

Zone Type Defaults - The complete spellings of the abbreviations used for the zone types.

Type - The abbreviations that display on the keypad for the zone types.

Message - **A** = alarm report, **T** = trouble report, **L** = local with no report, **-** (dash) = no report.

Output - This only refers to the four XR5FC/XR5SL relay outputs.

Action - This selects the type of relay output: S = steady, P = pulse, M = momentary, and F = follow

Swinger Bypass - Allows the zone to be automatically bypassed after three trips.

Retard Delay - Provides a time delay before an alarm initiates from a short on this zone.

Cross Zone - Provides cross zoning for this zone.

7.8 ARMED OPEN — Armed open

Defines the action taken by the panel when the zone is placed into an open condition. There are three actions to define: the Message to transmit, which Relay output to activate, and the Relay output action.

7.8.1 MSG: TROUBLE — Message to Transmit

You can send two report types to the receiver: Alarm and Trouble. These are represented by the characters A and T. Press any top row Select key to display the zone full reporting options.

A T L -

Alarm - Selecting **A**, allows an alarm report to be sent to the receiver and the bell output to activate according to zone type. See section 6.3, Bell Action. The zone name appears in the panel alarmed zones status list.

Trouble - Selecting **T** allows a trouble report to be sent to the receiver and the zone name to appear in the panel alarmed zones status list.

You cannot change the Alarm (**A**) and Trouble (**T**) action for Fire (**FI**), Fire Verify (**FV**), or Supervisory (**SV**) zone types.

Local - When you select **L**, an alarm report is NOT sent to the receiver. The bell output still activates according to zone type and the zone name appears in the panel alarmed zones status list.

NOTE: You can also select **L** for a zone to send alarm reports to the subscriber's personal pager only, and not to the central station. You must enable the **Pager** option in the **Communication** section to operate this feature.

– (dash) - When you select **-** , reports are NOT sent to the receiver. The bell output does not activate and there is no display in the panel alarmed zones status list. Only the Output Number selected in section 7.8.2 activates.

7.8.2 OUTPUT NO: 0 — Output Number

You can specify any of the outputs on the XR5FC or XR5SL to activate by a zone condition. The output can be activated regardless of the report to transmit or whether or not the zone is programmed as local.

To enter an Output Number, press any top row Select key followed by the output number 1 to 4. Press the COMMAND key.

7.8.3 ACTION: — Output Action

Entering an Output Number in section 7.8.2 displays this prompt allowing you to assign an output action to the relay. A description of the available output actions follows:

STD PLS MOM FOLW

Steady - The output is turned on and remains on until a Sensor Reset is performed or the output cutoff time expires.

Pulse - The output alternates one second on and one second off until a Sensor Reset is performed or the output cutoff time expires.

Momentary - The output is turned on only once for one second.

Follow - The output is turned on and remains on while the zone is in an off normal, or bad condition. When the zone restores, the output is turned off.

After you have made the three selections in sections 7.8.1 through 7.8.3, the display prompts you for the same three selections for Armed Short conditions. When you have programmed all of the zone conditions, the Swinger Bypass selection then displays.

7.9 SWGR BYP: **NO** YES — Swinger Bypass

YES allows the zone to be bypassed by the panel after three alarm, trouble, or local trips within one hour. Selecting **NO** disables swinger bypassing for this zone.

After the first trip, if the zone does not trip two more times within an hour, the bypass trip counter returns to zero. To automatically bypass it, the zone must trip a full three times within a subsequent hour.

A report of the swinger bypass is automatically sent to the receiver. Keypads on the system display the zone name followed by - **BYPAS** until a Sensor Reset is performed or the zone automatically resets when Reset Swinger Bypass is enabled.

7.10 RETARD: **NO** YES — Zone Retard

When you select **YES**, the zone operates with the Retard Delay specified in section 5.3. This retard functions only in zone short conditions.

The zone must remain shorted for the full length of the Retard Delay before the panel recognizes its condition. If you select **NO**, the zone operates without a Retard Delay.

7.11 CRS ZONE **NO** YES — Cross Zone

Select **YES** to enable cross zoning for this zone. Cross zoning requires this zone to trip twice, or this zone and another cross zoned zone to trip prior to a Sensor Reset, before an alarm report is sent to the receiver.

How it works

When a zone programmed for cross zoning trips, the Bell and Output action assigned to the zone activates and the **Cross Zone Fault Time** specified in System Options begins to count down. See sections 6.3 and 5.2. If the same zone or another zone programmed for cross zoning trips within this time, or prior to a Sensor Reset, an alarm report is sent to the receiver for both zones.

If no other zone programmed for cross zoning trips before the cross zone fault time expires, the panel sends a fault report for the zone to the receiver. This fault report does not inhibit a second zone from tripping and generating an alarm prior to the next Sensor Reset.

If the zone programmed for cross zoning trips and then restores and trips again, the panel sends an alarm report for that zone only.

Cross zoning is not selectable on Fire Verify zone types.

7.12 ZONE NO: – — Zone Number

Enter the zone number you want to program next. Return to section 7.1 and follow each programming prompt description. If all zones are programmed, press the Back Arrow key at the **ZONE NO:** - display to continue.

Stop

8.1 STOP — Stop

At the **STOP** prompt, press any Select key to exit the XR5FC or XR5SL panel programmer function. When selected, the panel performs an internal reset and exits the programmer.

The Stop function clears the panel Status List.

During the Stop function, all keypad displays are momentarily blank for two seconds. Afterwards, the programming function is terminated and the keypads return to the Status List display.

Set Lockout Code

9.1 SET LOCKOUT CODE — Set Lockout Code

Pressing COMMAND at the **STOP** prompt displays **SET LOCKOUT CODE.** This feature allows you to program a special code that is then required to gain access to the panel internal Programmer through the keypad.

Changing the Lockout Code

You can change this code at any time to any combination of numbers from 3 to 5 digits long (100 to 65535). ***Do not use leading zeros for the lockout code***.

1. Press any Select key. The display changes to **ENTER CODE: -**.
2. Enter a 3 to 5-digit code (do not enter a number higher than 65535). Press COMMAND.
3. Enter the new Lockout Code again. Press COMMAND. The keypad display changes to **CODE CHANGED**.

Once you change the code, it is important that you write it down somewhere and store it in a safe place. Lost lockout codes require the panel to be sent back into DMP for repair.

Appendix

10.1 Keypad Status List

The Status List is the current status of the system or records of recent system events that display on the alphanumeric keypads.

If an event occurs on the system, such as an AC failure, the keypad displays the **AC POWER -TRBL** message. This is a system event that is placed into the Status List to alert the user to a problem.

Some Status List items remain in the display until manually cleared and some are cleared automatically when the condition returns to normal. Below is a complete list of status and event displays the keypad can show in the Status List:

Description	Must be cleared manually?
Fire and Supervisory zone alarms	Yes - by Sensor Reset
Fire and Supervisory zone troubles	No - clears when zone restores
All other zone alarms	No - clears when zone restores
System monitor troubles (AC and battery trouble)	No - clears when condition restores
Zone bypasses	No - clears at Sensor Reset or Reset Swinger Bypass
Remote keypad messages (Sent to the keypad by your office or central station)	No

Each item in the list displays for four seconds. When there are multiple items in the list, you can use the COMMAND or Back Arrow keys to scroll forward or back through the items.
If there are no items in the Status List, the keypad displays **SYSTEM NORMAL**.

10.2 Manual Telephone Line Seizure

This feature allows you to connect with a remote receiver either by having the panel pick up the phone line while the receiver is ringing the line or by entering a phone number for the panel to dial. This feature is primarily used when bringing a new account on-line as it allows your office or the central station to connect to the panel and upload a custom program.

How it Works

While the panel is in the Status List, press the numbers 984 and then the COMMAND key. The keypad display changes to **NBR PICKUP**.

NBR

Press the Select key under NBR to enter a phone number for the panel to dial. Press each number key slowly and deliberately. The panel dials each number as it is pressed. If you make a mistake, press the Back Arrow key. The panel stops dialing and returns to the **NBR PICKUP** display.

You can enter up to 15 characters for the phone number. To enter a # (pound sign) or * (asterisk) press the 0 (zero) key and third Select key (pound) or fourth Select key (asterisk).

The panel makes ten attempts to reach the receiver. If, while attempting to contact the receiver, the panel needs to send an alarm report, the dialing attempts stop and the panel uses the line to send its report.

PICKUP

The panel immediately seizes the phone line and sends a carrier tone to the receiver.

10.3 2-Button Panic Keys

The XR5FC and XR5SL panels support the 2-button Fire (flame icon) feature on the 690 series Security Command keypads and the 692F LED keypad. Pressing the two Select keys above the flame icon sends a zone 39 Fire alarm to the central station receiver.

10.4 Walk Test

The XR5FC and XR5SL panels provide a walk test feature that allows a single technician to test the protection devices connected to zones on the system. To conduct the Walk Test:

From an Alphanumeric Keypad

1. From the keypad, enter the code 8144. If the system is monitored and the communication type is set to DD, the system sends a **System Test Begin** report to the central station. The keypad then displays **WALK TEST** for four seconds followed by **TRIPS: X X X END**. The " **X X X** " represents the number of trips that occur during the Walk Test.
2. Once in the Walk Test, you can go around and trip each protection device. As each device is tripped, the panel sounds the alarm bells for two seconds and then performs an automatic Sensor Reset. Continue tripping devices until the entire system has been tested. The trip counter on the keypad display increments by one each time a device is opened or shorted
3. To end the test, press the Select key under **END**. The panel sends a **System Test End** to the central station and performs a final Sensor Reset. At the end of the test, the keypad displays any zones that failed to trip. Below are two examples:

   Keypad display: **SOUTH SMOK -FAIL** Keypad display: **LOBBY HEAT -FAIL**

From the 692F LED Keypad

1. From the keypad, enter the code 8144. If monitored, the system sends a **System Test Begin** report to the central station. The bottom row of zone LEDs (yellow) begin to pulse.
2. Once in the Walk Test, walk around and trip each protection device. As a device is tripped, the zone alarm LED on the keypad turns on, the panel sounds the alarm bells for two seconds and the panel performs an automatic Sensor Reset. The alarm LED stays on for the duration of the Walk Test.

   Continue tripping devices until the entire system has been tested.
3. To end the test, press the RESET key and enter the user code or press COMMAND + 4 + 7. The panel sends a **System Test End** to the central station.

10.5 4-2 Reporting Operation

When using the 4-2 reporting format, the panel follows this sequence to report to the receiver.

1. The panel dials the receiver phone number and waits for a response.
2. If the panel detects it is communicating with a 4-2 compatible receiver, all reports except those that can only be sent in SDLC are sent to the receiver.
3. If the panel detects it is communicating with a DMP receiver, all reports are sent in SDLC format.
4. If the panel last communicated to a 4-2 compatible receiver, an SDLC-only event cannot initiate a call to the receiver. SDLC-only events for the XR5FC and XR5SL are Walk Test and Code Change reports.
5. If the panel last communicated to a DMP receiver, any report can initiate a call to the receiver.

10.6 4-2 Communication Reports

The table below contains a complete list of the hexadecimal characters sent using the DMP **4-2** communication format with the XR5FC and XR5SL panels.

How to Read this Table

The left column is the first digit of the 2-digit event code sent to the receiver. The second column identifies what that character represents. The third column from the left is the second digit of the 2-digit event code sent to the receiver. The right column is what the second digit character represents.

First Digit	First Digit Description	Second Digit	Second Digit Description
1	Fire Alarm	**1 to 5, B**	Zones 1 to 5 and 670-A Fire Buttons
5	Supervisory Alarm	**1 to 5**	Zones 1 to 5
6	Auxiliary Type Alarm	**1 to 5**	Zones 1 to 5
7	System Report	**1**	Automatic Recall
7	System Report	**2**	Non-Alarm Overflow
7	System Report	**3**	Zone Alarm Overflow
7	System Report	**4**	System Test
7	System Report	**5**	Unsuccessful Remote Connect
7	System Report	**8**	Remote Programming Complete
7	System Report	**9**	Local Programming
7	System Report	**A**	Transmit Fail
7	System Report	**E**	Restore
7	System Report	**F**	Bell Trouble
8	User Code Addition	**1**	Users
8	User Code Deletion	**1**	Users
8	User Code Change	**1**	Users
A	Zone Bypass	**1 to 5**	Zones 1 to 5
E	Any Zone Restoral/Reset or System Restoral	**1 to 5, B, C**	Zones 1 to 5, Battery, and AC
E	Pone Line Restoral	**E and F**	Phone Line 1 and Phone Line 2
F	Zone Trouble, Fault, or System Trouble	**1 to 5, B, C**	Zones 1 to 5, Battery, and AC
F	Phone Line Trouble	**E and F**	Phone Line 1 and Phone Line 2

4-2 Examples

The following examples are the actual **event codes** a central station receives. The full report also includes the account number and checksum.

When the central station receives this event code	It means
15	A Fire alarm is being reported on zone five
FB	A battery trouble is being reported
F1	A Trouble is being reported on zone one

4-2 Communication Format Configuration

The DMP **4-2** format communicates to the central station as 4-2 with a checksum at 40 pulses per second (pps). The XR5FC and XR5SL panels using **4-2** communication accepts either a 1400Hz or 2300Hz acknowledgment tone (handshake) from the receiver.

A report format sent to the receiver is defined as follows:

```
      1234   56   7
      aaaa   f s   c
a  =  account number
f  =  first digit
s  =  second digit
c  =  checksum
```

10.7 Serviceman Programmer Access

This option can only be enabled using DMP Remote Link™ software. This option requires service technicians to enter a personal passcode into the keypad before panel Programmer access is granted.

How it works

Once on-line with the panel using Remote Link, enter the user number **SVC** into the panel along with a three to five digit personal passcode. This information is then saved into panel programming.

With user **SVC** in the panel, a service technician entering the PROG (6653) code into the keypad to access the panel Programmer receives the display **MAN NUMBER:** --. At this prompt, enter the 3 to 5-digit personal passcode assigned using Remote Link.

The panel then dials out to the central station receiver and sends a Serviceman (M) report, the personal passcode entered into the keypad, and an **S86 "WARNING: Local programming in progress"** report. If the report is successfully sent to the receiver, the keypad displays **PROGRAMMER** and the panel allows access to its programming options.

The S86 report must be acknowledged by the receiver before any programming can begin. If the report is not acknowledged after ten attempts to reach the receiver, the keypad displays **TRANSMIT FAILED** and returns to the Status List.

Important: The serviceman passcode is not a user code and cannot be used to operate any panel restricted functions.

Restrictions: The serviceman Programmer Access feature cannot be used on local systems and does not function on systems where the receiver phone number is blank or incorrect.

10.8 Table of Common Keypad Messages

Message	Meaning	Possible Solutions
Invalid Code	The user code you entered is not recognized by the system	Check the user code and try again.
Invalid Level	The code you used does not have the authority level to access the desired option.	Check the user level to see if you have the correct level set for the code. Remember you can only grant a user authority if you have the same authority or greater: You cannot give what you don't have.
AC Trouble	The system is not getting proper power.	Check to ensure the AC connections are good.
Battery Trouble	Battery is either low or missing.	Check to ensure the battery connections are good and the batter is still good.
System Trouble or Service Required	There is a problem with one or more of the components in the system.	Ensure jumper J16 is removed. Ensure there is not an open or short on the green data wire to the keypad. You could also have a bad keypad or zone expander.
System Busy	The system is performing another task with a higher priority.	Wait a few moments for the system to finish the task. Also ensure that J16 is not installed. If System Busy appears on the display for a long period of time, the processor could be locked up.
4-Wire Bus Trouble	No supervised device on bus.	Program a device to be supervised.
	Low Voltage or an open yellow wire.	Ensure all wires are connected. Add a power supply.
	Two devices on the same address.	Program second device with a separate address of its own.
Transmit Trouble	The panel attempted to communicate with the central station three times and has not succeeded.	Verify your communication type, account number, and phone number. Ensure the telephone line is connected and working properly.
Transmit Fail	The panel attempted to communicate with the central station ten times and has not succeeded.	Verify your communication type, account number, and phone number. Ensure the telephone line is connected and working properly.
Enter Code (when entering programming)	A lockout code is programmed into the panel.	Enter the lockout code.
Man Number	A serviceman number is assigned using Remote Link.	Enter your Service Man Code to obtain panel access.