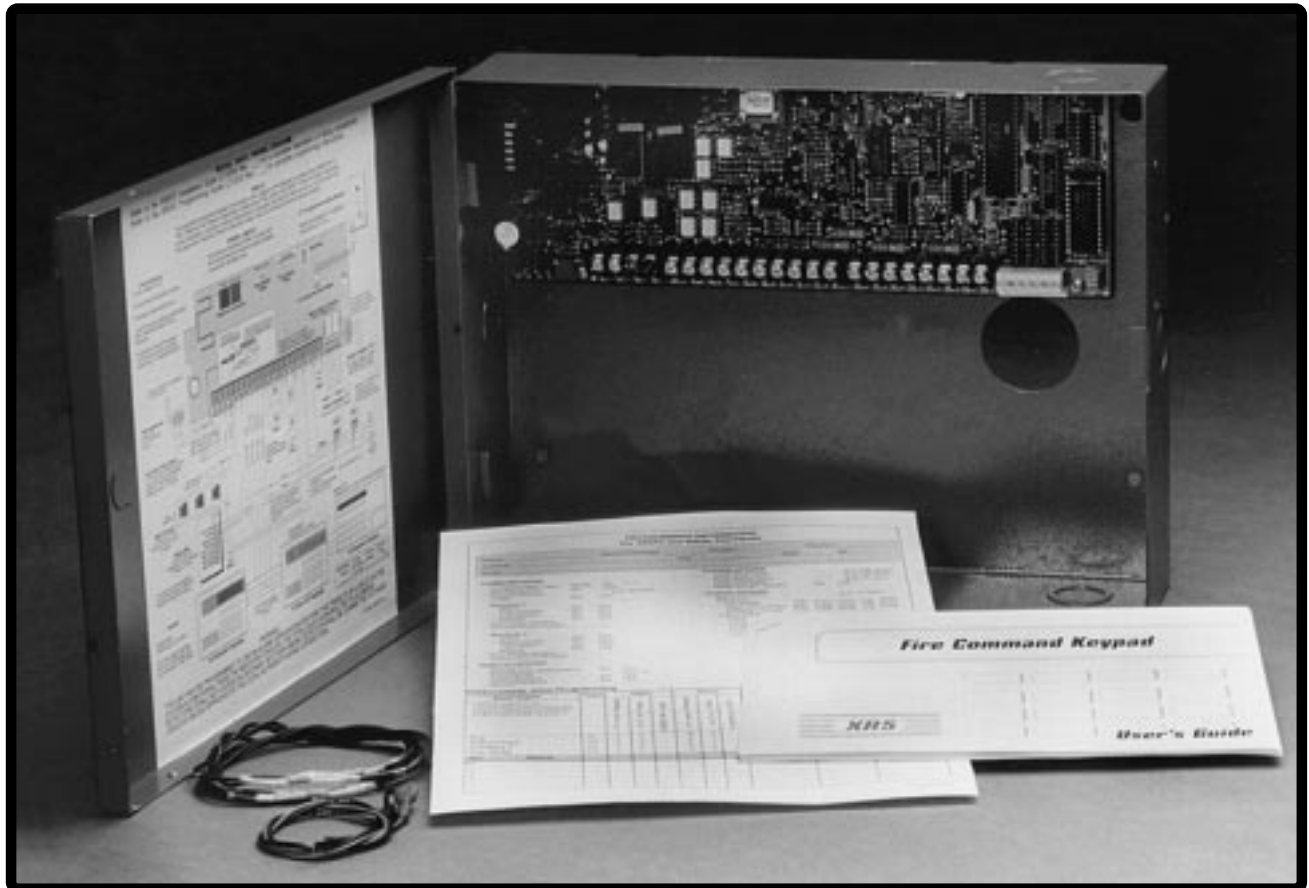


# XR5FC/XR5SL Commercial Fire Panels Programming Guide



## 5 Zone Fire Panels with Built-in Communicators

### Do Not Throw Away!

This programming guide contains information you need to program and service the panel and should be kept along with your other DMP technical documentation.



**Digital Monitoring Products**

2841 E. Industrial Drive Springfield, MO 65802-6310 800-641-4282

LT-0312 (7/96)

## MODEL XR5FC/XR5SL PROGRAMMING MANUAL

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-0229). These documents outline the installation and programming requirements of all applications for which the XR5FC/XR5SL is approved.

Copyright © 1996 Digital Monitoring Products, Inc.

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

# TABLE OF CONTENTS

|  | Section |
|--|---------|
| INTRODUCTION                                     |         |
| Before You Begin .....                           | 1.1     |
| Getting Started .....                            | 1.2     |
| Programming Menu .....                           | 1.3     |
| Programmer Lockout Codes .....                   | 1.4     |
| Reset Timeout .....                              | 1.5     |
| Special Keys .....                               | 1.6     |
| Entering Alpha Characters .....                  | 1.7     |
| Entering Non-Alpha Characters .....              | 1.8     |
| Keypad Prompts Display Current Programming ..... | 1.9     |
| INITIALIZATION                                   |         |
| Initialization .....                             | 2.1     |
| Clear Programming .....                          | 2.2     |
| COMMUNICATION                                    |         |
| Communication .....                              | 3.1     |
| Communication Type .....                         | 3.2     |
| Second Phone Line .....                          | 3.3     |
| Account Number .....                             | 3.4     |
| DTMF .....                                       | 3.5     |
| Receiver 1 Programming .....                     | 3.6     |
| Alarm Reports .....                              | 3.7     |
| Supervisory and Trouble Reports .....            | 3.8     |
| Test Report .....                                | 3.9     |
| Backup Reporting .....                           | 3.10    |
| First Telephone Number .....                     | 3.11    |
| Second Telephone Number .....                    | 3.12    |
| Receiver 2 Programming .....                     | 3.13    |
| First Telephone Number .....                     | 3.14    |
| Second Telephone Number .....                    | 3.15    |
| REMOTE OPTIONS                                   |         |
| Remote Options .....                             | 4.1     |
| Remote Key .....                                 | 4.2     |
| Manufacturer Authorization .....                 | 4.3     |
| Armed Rings .....                                | 4.4     |
| Alarm Receiver Authorization .....               | 4.5     |
| Service Receiver Authorization .....             | 4.6     |
| SYSTEM OPTIONS                                   |         |
| System Options .....                             | 5.1     |
| Cross Zone Time .....                            | 5.2     |
| Retard Delay .....                               | 5.3     |
| Power Fail Delay .....                           | 5.4     |
| Reset Swinger Bypass .....                       | 5.5     |

# TABLE OF CONTENTS

|                                      | Section |
|--------------------------------------|---------|
| OUTPUT OPTIONS                       |         |
| Output Options .....                 | 6.1     |
| Bell Cutoff Time .....               | 6.2     |
| Bell Action .....                    | 6.3     |
| Fire Type .....                      | 6.3A    |
| Supervisory Type .....               | 6.3B    |
| Auxiliary 1 Type .....               | 6.3C    |
| Output Action .....                  | 6.4     |
| Cutoff Outputs .....                 | 6.4A    |
| Output Cutoff Time .....             | 6.4B    |
| Communication Failure Output .....   | 6.4C    |
| Fire Alarm Output .....              | 6.4D    |
| Fire Trouble Output .....            | 6.4E    |
| <br>ZONE INFORMATION                 |         |
| Zone Information .....               | 7.1     |
| Zone Number .....                    | 7.2     |
| Zone Name .....                      | 7.3     |
| Zone Type .....                      | 7.4     |
| Next Zone .....                      | 7.5     |
| Alarm Action .....                   | 7.6     |
| Zone Type Specifications .....       | 7.7     |
| Armed Open .....                     | 7.8     |
| Message To Transmit .....            | 7.8A    |
| Output Number .....                  | 7.8B    |
| Output Action .....                  | 7.8C    |
| Swinger Bypass .....                 | 7.9     |
| Zone Retard .....                    | 7.10    |
| Cross Zone .....                     | 7.11    |
| Zone Number .....                    | 7.12    |
| <br>STOP                             |         |
| Stop .....                           | 8.1     |
| <br>SET LOCKOUT CODE                 |         |
| Set Lockout Code .....               | 9.1     |
| <br>APPENDIX                         |         |
| Appendix .....                       | 10.1    |
| Keypad Status List .....             | 10.2    |
| Zone Type Descriptions .....         | 10.3    |
| Manual Telephone Line Seizure .....  | 10.4    |
| 2-Button Panic Keys .....            | 10.5    |
| Walk Test Operation .....            | 10.6    |
| 4-2 Reporting Operation .....        | 10.7    |
| 4-2 Communication Reports .....      | 10.8    |
| Serviceman's Programmer Access ..... | 10.9    |

## Introduction

### 1.1 Before You Begin

#### About this Guide

This guide provides programming information for the DMP XR5FC and XR5SL Command Processor Panels. After this Introduction, the remaining sections describe the functions of each programming menu item along with their available options. The XR5FC and XR5SL panels contain all of their 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. The information contained here 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 Information Sheet. This sheet lists the various keypad prompts and available options for programming the panel. 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's 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 Command Processor 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's memory of any old or incorrect data.

#### Program from any Keypad Address

You 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 slotted screwdriver across the two RESET jumpers 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 to choose from:

| 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 one of the top row SELECT keys when the name of that section is displayed on the keypad. The detailed instructions for each programming step are found in sections 2 to 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 install 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.

### Installing 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** is displayed (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 displays 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 the Programmer menu can be accessed.

The lockout code number should be written down and kept 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 and enter the program code 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's memory.

To exit the panel's Programmer you must use the Stop routine.

## 1.6 Special Keys

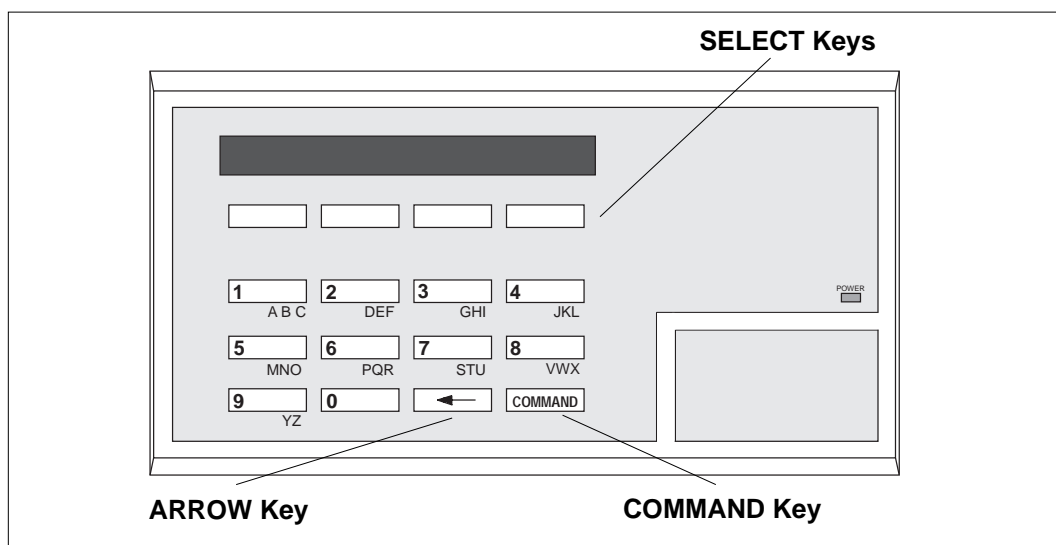


Figure 1: Keypad Function keys

**COMMAND Key**

The COMMAND key is used to advance through the programming. 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's memory.

The COMMAND key is also used to enter information into the panel's memory such as phone numbers or zone names. Press the COMMAND key after you've entered the information and it is being displayed correctly on the keypad.

**ARROW Key**

Use the ARROW key to back up one step while in the programming menu or within a programming section. The 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's 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 1 to 4 options on the display. Pressing the 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 name of the programming section you want is displayed.

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 number digit of the key. 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 is started over.

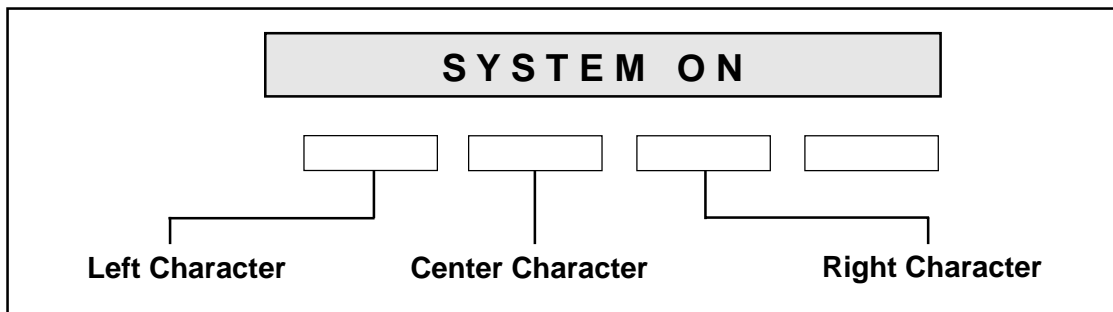


Figure 2: Keypad display and top row keys

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 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's 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 or trailing zeros. The XR5FC and XR5SL automatically 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.

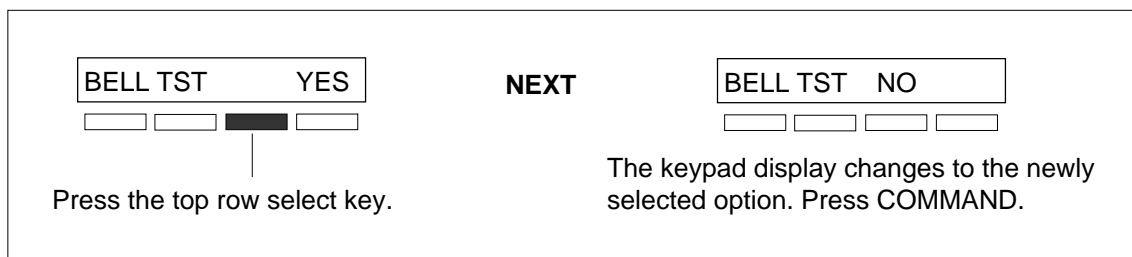


Figure 3: Changing the current option selected.



- 2.1 

|                |
|----------------|
| INITIALIZATION |
|----------------|

 The Initialization function allows you to set the panel's 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 accidentally erasing part of your programming. No memory is cleared from the programming until you answer yes to the **SURE? YES NO** prompt.
- A description of each selection follows:
- 2.2 

|                  |
|------------------|
| DEFAULTS? NO YES |
|------------------|

**CLEAR PROGRAMMING - YES** sets the panel's programming back to factory default selections and clears any information stored in Display Events Memory.
- |              |
|--------------|
| SURE? YES NO |
|--------------|

### 3 - COMMUNICATION

- 3.1  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  **COMMUNICATION TYPE** specifies the communication method the panel uses to contact the receiver. Press any SELECT key to display the following communication options:
- 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 Receivers.
- 4-2** - 4-2 communication to non-DMP receivers.
- 3.3  **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**, you'll need to 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 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. The panel automatically right justifies the account number.

**4-2** - The range of account numbers using 4-2 communication is 1 to 9999.
- 3.5  **DTMF - YES** enables tone dialing. **NO** enables rotary dialing.
- 3.6  **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 REPORTS** - Enter **YES** to enable Alarm and Alarm Restoral reports to be sent to this receiver.
- 3.8  **SUPERVISORY/TROUBLE REPORTS** - Enter **YES** to enable Supervisory, Trouble, Trouble Restoral, and Fault reports to be sent to this receiver.
- 3.9  **TEST REPORT** - Enter **YES** to enable the Recall Test report to be sent to this receiver.
- 3.10  **BACKUP REPORTING** - **YES** enables this receiver to be a backup to the other receiver in the event the other receiver cannot be contacted.
- 3.11   
 **FIRST TELEPHONE NUMBER** - This is the first number the panel dials when sending reports to this receiver. Phone numbers can be up to 15 characters in length. 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 15 allowable characters.
- 3.12   
 **SECOND TELEPHONE NUMBER** - 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 15 characters in length including any P or D characters entered for pause and dial tone detect.

- 3.13**  **RECEIVER 2 PROGRAMMING** Repeat steps 3.7 through 3.14 when communicating to a second receiver. Receiver 2 defaults are set to **NO**.
- If you select **YES** for any of the Receiver 2 options, you must have at least one phone number programmed in Receiver 2 programming.
- 3.14**   
 **FIRST TELEPHONE NUMBER** - This is the first number the panel dials when sending reports to this receiver. Phone numbers can be up to 15 characters in length. 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 15 allowable characters.
- 3.15**   
 **SECOND TELEPHONE NUMBER** - 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 15 characters in length including any P or D characters entered for pause and dial tone detect.

**About the panel's 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 has elapsed, the Recall Test is sent to the receiver. Whatever time of day this happens to be is the time the Recall Test will be sent every 24 hours.

## 4 - REMOTE OPTIONS

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

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

- 4.2  **REMOTE KEY** - This option allows you to enter a code of up to eight digits for use in verifying the authority of an alarm or service receiver 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  **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** - Enter the number of rings the panel counts within a two minute period before answering the phone line. Any number from 1 to 15 can be entered. If 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 section 10.4.

**Answering machine bypass procedure:** Entering a number greater than 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  **ALARM RECEIVER AUTHORIZATION** - Enter **YES** to enable remote commands and programming to be accepted 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  **SERVICE RECEIVER AUTHORIZATION** - **YES** enables remote commands and programming to be accepted 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's 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 remote commands and programming are not accepted from a secondary service receiver.

- 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.
- A description of each System Option follows:
- 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 zero to disable the Cross Zone Fault Time feature.
- 5.3** **RETARD DLY: 10** **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 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.

## 6 - OUTPUT OPTIONS

- 6.1**  **OUTPUT OPTIONS** - This function allows you to program the panels' Bell Output functions and certain Output options for the Form C relays and annunciator outputs. Form C relay outputs are available on the 6-position terminal strip on the panel. 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 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 is reset. The Bell Cutoff Time can be from 1 to 15 minutes. Enter zero to provide continuous bell output.
- 6.3**  **BELL ACTION** 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**.

**Temporal Code 3 output:** The Bell Output operates in the following manner: 0.5 second audible + 0.5 second silent + 0.5 second audible + 0.5 second silent + 0.5 second audible + 2.5 seconds silent. This sequence repeats until silenced.

**California School Code:** The Bell Output operates in the following manner: 1.0 seconds on + 1.0 seconds off for 10 seconds + 5.0 seconds silent. This sequence repeats until silenced.

Below is a list of the bell action for three of the zone types:

- 6.3A**  Defines Bell Action for Fire and Fire Verify Type Zones
- 6.3B**  Defines Bell Action for Supervisory Type Zones
- 6.3C**  Defines Bell Action for Auxiliary 1 Type Zones
- 6.4**  **OUTPUT ACTION** - This option allows you to define the operation of the panel's outputs.
- 6.4A**  **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 6.4B. To disable this option, press any SELECT key to clear the display of output numbers and then press COMMAND.
- 6.4B**  **OUTPUT CUTOFF TIME** - If a Cutoff Output is assigned in section 6.4A, 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 is reset. The Cutoff Time can be from 1 to 15 minutes.
- Enter 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.
- 6.4C**  **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 zero to disable this output.
- 6.4D**  **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 while no additional fire type zones are in alarm. Enter zero to disable this output.
- 6.4E**  **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 zero to disable this output.

- 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 number of the zone you intend to program. Press COMMAND to enter a zone name. For instructions on entering alphanumeric characters, see section 1.7.
- 7.3 **\* UNUSED \*** **ZONE NAME** - Press the SELECT key and enter up to 10 characters for the zone name. A name must be given to each zone in the system. This name can be displayed 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, delete the old name by pressing a top row SELECT key, then press the COMMAND key. The programmer automatically programs the name as **\* UNUSED \***. If you selected **DEFAULTS? NO YES** to clear the panel's memory during Initialization, the zones will already be marked **\* UNUSED \***. See section 2.3.

- 7.4 **ZONE TYPE: FI** **ZONE TYPE** - The Zone Type defines the panel's response to the zone being opened or shorted. See the chart in section 7.7.
- When you assign a Zone Type to a zone, responses are made automatically for the zone. There are four Zone Types to choose from. The functional details of each response are described in section 7.7.
- To enter a new Zone Type, press a top row SELECT key. The display lists the four Zone Types shown below.

FI SV A1 FV

Fire, Supervisory, Auxiliary 1, and Fire Verify. Press COMMAND to display additional zone types.

**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 is displayed, 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.

**Refer to the Appendix section in this guide for zone type descriptions.**

- 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 **ALARM ACTION . . . .** **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 is repeated. If no other Fire Verify or Fire zone is alarmed within 120 seconds, a zone fault report is sent to the receiver.

## 7 - ZONE INFORMATION

### 7.7 ZONE TYPE SPECIFICATIONS

The XR5FC and XR5SL panels contains 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 type 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 |                     |                   |                 |
|             |      | A       | 0      | S      | A       | 0      | S      | Swinger Bypass<br>N | Retard Delay<br>N | Cross Zone<br>N |
|             |      | T       | to     | P      | T       | to     | P      |                     |                   |                 |
|             |      | L       | 4      | M      | L       | 4      | M      | or                  | or                | or              |
|             |      | -       |        | F      | -       |        | F      | Y                   | Y                 | Y               |
| Fire        | FI   | T       | 0      | -      | A       | 0      | -      | N                   | N                 | N               |
| Supervisory | SV   | T       | 0      | -      | A       | 0      | -      | N                   | N                 | N               |
| Auxiliary 1 | A1   | T       | 0      | -      | A       | 0      | -      | N                   | N                 | N               |
| Fire Verify | FV   | T       | 0      | -      | A       | 0      | -      | N                   | N                 |                 |
| No.         | Name |         |        |        |         |        |        |                     |                   |                 |
| 1.          |      |         |        |        |         |        |        |                     |                   |                 |
| 2.          |      |         |        |        |         |        |        |                     |                   |                 |
| 3.          |      |         |        |        |         |        |        |                     |                   |                 |
| 4.          |      |         |        |        |         |        |        |                     |                   |                 |
| 5.          |      |         |        |        |         |        |        |                     |                   |                 |

#### Description of the programmable zone options

Below is a description of the various zone options shown on the table above. For additional information, read through the Zone Information section of this guide.

**Zone Type Defaults** - These are complete spellings of the abbreviations used for the zone types.

**Type** - These are the abbreviations you'll see on the keypad for the zone types.

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

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

**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 is initiated 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:

| Message to transmit | Relay output to activate | Relay output action |
|---------------------|--------------------------|---------------------|
|---------------------|--------------------------|---------------------|

7.8A **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's 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's alarmed zones status lists.

**TROUBLE** - Selecting **T** allows a trouble report to be sent to the receiver and the zone name to appear in the panel's alarmed zones status lists.

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's alarmed zones status lists.

- (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's alarmed zones status list. Only the Output Number selected in section 7.9B activates.

7.8B **OUTPUT NO: 0** **OUTPUT NUMBER** - You can specify any of the outputs on the XR5FC or XR5SL to be activated 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 a top row SELECT key followed by the output number 1 to 4. Press the COMMAND key.

7.8C **ACTION:** **OUTPUT ACTION** - Entering an Output Number in section 7.8B displays this prompt that allows you to assign an output action to the relay. A description of the available output actions is given below:

STD PLS MOM FOLW

**STEADY** - The output is turned on and remains on until the output cutoff time expires.

**PULSE** - The output alternates one second on and one second off until 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've made the three selections in sections 7.8A through 7.8C, the display prompts you for the same three selections for Armed Short conditions. When you've programmed all of the zone conditions, the Swinger Bypass selection is then displayed.

7.9 **SWGR BYP: NO** **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 2 more times within an hour, the bypass trip counter returns to zero and the zone must trip a full 3 times within a subsequent hour to be automatically bypassed.

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

- 7.10**  **ZONE RETARD** - When you select **YES**, the zone operates with the Retard Delay you 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**  **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 the zone programmed for cross zoning trips and then restores and trips again, the panel sends an alarm report for that zone only.
- 
- 7.12**  **ZONE NUMBER** - Enter the zone number you want to program next. Return to section 7.1 and follow the descriptions of each programming prompt. If all zones are programmed, press the ARROW key at the **ZONE NO: -** display to continue.
- 8.1**  At the **STOP** prompt, pressing any SELECT key allows you to exit the programmer function of the XR5FC or XR5SL panel. When selected, the panel performs an internal reset and exits the programmer.
- The Stop function clears the panel's 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.
- 9.1**  **SET LOCKOUT CODE** - Pressing COMMAND at the **STOP** prompt displays **SET LOCKOUT CODE**. This feature allows you to program a special code that will then be required to gain access to the panel's 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).
1. Press a 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 have changed 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.

## 10.1 Appendix

This section provides additional zone and system information.

## 10.2 Keypad Status List

The Status List is the current status of the system or records of recent system events that are displayed 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 manually cleared?                           |
|--|---|
| 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<br>(AC and battery trouble)                              | No - clears when condition restores                 |
| Zone bypasses  | No - clears at Sensor Reset or Reset Swinger Bypass |
| Remote keypad messages<br>(Sent to the keypad by your office or central station) | No  |

Each item in the list is displayed for four seconds. When there are multiple items in the list, you can use the COMMAND or ARROW keys to scroll forward or back through the items.

If there are no items in the Status List, the keypad display shows **SYSTEM NORMAL**.

## 10.3 Zone type descriptions

This section describes applications for the default zone types in Zone Information programming.

**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 is repeated.

## 10.4 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 online 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 an mistake, press the ARROW key. The panel will stop dialing and return 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 the 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.

## 10.5 2-button Panic keys

The XR5FC and XR5SL panels support the 2-button Fire (flame icon) feature on the 670 and 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.

## 10.6 Walk Test

The XR5FC and XR5SL panels also 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 monitored, the system sends a **System Test Begin** report to the central station. The keypad then displays **WALK TEST** for 4 seconds followed by **TRIPS: X X X END**. The " X X X " in the example display is the number of trips that occurs 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 an 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, you can go 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.

**10.7 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, a SDLC only event cannot initiate a call to the receiver. The 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.

**10.8 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.

| 1st Digit | 1st Digit Description                      | 2nd Digit    | 2nd 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                       |
| 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         | Phone 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       |

**How to Read this Table**

The first column on the left is the first digit of the 2-digit event code sent to the receiver. The second column is 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 fourth column (on the right) is what that character represents. See below:

| 1st Digit | 1st Digit Description | 2nd Digit | 2nd 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                        |

1st digit of event code sent to receiver

Describes the event

2nd digit of event code sent to receiver

Defines the user number, zone number, or other information about the event.

## 4-2 Examples

The following examples are the actual **event codes** a central station would receive. The full report would also include 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 will accept 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

## 10.9 Serviceman's Programmer Access

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

### How it works

Once online with the panel using Remote Access, the user number **SVC** is entered into the panel along with a 3 to 5 digit personal passcode. This information is then saved into the panel's programming.

With user **SVC** in the panel, a service technician entering the PROG (6653) code into the keypad to access the panel's Programmer will get the display **MAN NUMBER: —**. At this prompt, they must enter the personal 3 to 5 digit personal passcode that had been assigned using Remote Access.

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 10 attempts to reach the receiver, the keypad displays **TRANSMIT FAILED** and returns to the Status List.

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

**Restrictions:** The Serviceman's Programmer Access feature cannot be used on local systems and will not function on systems where the receiver phone number is blank or incorrect.