User's Guide

for the DS7400Xi (version 4+) Security System

System Overview

Congratulations on the installation of your new security system. No other investment can provide such peace of mind. Welcome to the DS7400Xi intrusion/fire control system. Since each installation is unique, yours will contain some, but not necessarily all of the features mentioned in this guide.

A security system usually consists of:

- **A Control Panel:** The control panel is the center of your intrusion/fire alarm system. It supports such vital functions as receiving trouble and alarm signals from detectors, sounding of bells and/or sirens, and communicating with your alarm monitoring company.
- **Command Control Stations** (Keypads): The keypad is where you interact with the system. The keypad allows you to initiate commands such as arming and disarming and may display critical information concerning the operation of your alarm system. You may have more than one keypad and may have both wired and wireless keypads on your system.
- **Protected Zones:** Your security system may contain protected windows and doors (perimeter zones), plus various internal sensors. Your control panel separates perimeter zones from interior protection zones. Specific protection devices may include:
  - **Glass Breakage sensors:** Devices that detect the sound of breaking glass.
  - **Interior Motion sensors:** Electronic sensors (e.g., passive infrared) that detect movement within an interior zone.
  - **Magnetic Contacts:** Switches used to detect the opening of doors or windows.
  - **Smoke Detectors:** Devices that detect products of combustion.

This system includes a telephone line seizure feature. The system may be programmed to communicate with a central monitoring station to report system events. You will not be able to use your phone while the system is communicating with the central monitoring station. In the unlikely event that the central station is not able to receive the report, your phone may be unavailable for up to 20 minutes while the panel makes additional communication attempts.

Your system may or may not be monitored by an alarm monitoring service. If it is **not** monitored, it is vital to understand the following:

- Alarms sound only at your location.
- When an alarm is sounded, no signals are sent out.
- Duress and other silent alarms are disabled.
- Emergency alarms sound only at your location.

Table of Contents

Conventions Used in this Guide

Tips, Notes, Cautions, and Warnings

Throughout this User's Guide helpful tips and notes will be presented on the use of your security system. They will be indicated as follows:

Warnings of the possibility of injury to the user or physical damage to the equipment.

Cautions about possible physical damage to the equipment.

Important information to aid you in the effective use of your security system.

Typographical Conventions

Special type styles are used to help you identify the objects being described in this User's Guide.

Boldface Text is used to emphasize important words or phrases. For example: An alarm **will** occur upon entry emphsizes that there will be an alarm if anyone enters that zone.

Italicized Text is used for references to other parts of this manual. For example: See *Error Displays* means that you should look in the section of this manual titled Error Displays.

[Text in Brackets] is used to indicate which button or key to press when entering a command sequence from a keypad. For example: [System Reset] means press the button labeled System Reset on your DS7445 or DS7447 keypad.

"Text in Quotes" is used to indicate what is shown on the DS7447 keypad's alpha display. For example: "Ready to Arm" is the standard message shown on the DS7447 keypad's alpha display when a zone is ready to be armed.

Understanding Partitioning

Your alarm system may be Partitioned.

A **Partitioned** system is a system that is divided into up to eight areas which may be armed and disarmed independently. Each keypad and keyfob may be assigned to arm and disarm individual partitions or the entire system. Only your installing company can change which partitions a keypad or keyfob affects.
If a keypad is set to arm and disarm the entire system, then you may assign user codes (PINs) to arm and disarm individual partitions. Refer to the section on Personal Identification Numbers for more information.

The following applies in a Partitioned system:

- User PIN numbers are always required to perform operations in a Partitioned system.
- If the User PIN has authority in only one Partition, using that PIN on any keypad will perform Arming and Disarming commands only for the Partition in which the User has authority.
- If the User PIN has authority in more than one Partition, the User may arm or disarm those Partitions by entering the commands from any keypad.
- Only Users with access to all Partitions attached to a common zone can arm that common zone.
- If the User PIN has authority in more than one Partition, the User may arm or disarm the **first Partition only** by entering the PIN number + [##] + the arming/disarming command, the **second Partition only** by entering the PIN number + [####] + the arming/disarming command, etc..
- If **Custom Arming** (PIN + [#] [4]) is used in a Partitioned system, the following will apply:
  - Users with access to all Partitions can Custom Arm all zones.
  - Users with access to all Partitions cannot Custom Arm a single Partition.
  - Users with access to one Partition can Custom Arm any zones in that Partition but cannot arm common zones or zones in other Partitions.
- DS7447 LCD keypads will alternately display (about every 2 seconds) the current status of each partition.
- DS7445 LED keypads will alternately display (about every 2 seconds) the current status of each partition by way of the LED's.
  See *Understanding the DS7447 and DS7445 Keypads* for details.

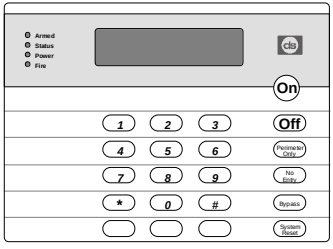
Understanding the DS7447 and DS7445 Keypads

This chart will help you understand what each Light/LED on a Standard wired keypad represents.

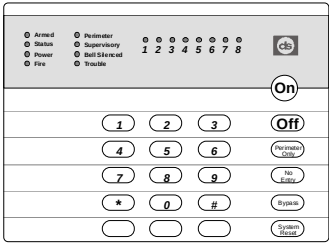
(For other keypad operations, see also, *The Master Keypad* and)

The DS7447 is an alpha-numeric LCD keypad.
The DS7445 is an LED keypad; its LEDs (1-8) represent the first 8 zones of the system.

Both display information on various control panel functions.
A built-in sounder is used to annunciate keystroke entries and functions as an interior warning device.



DS7447



DS7445

LED	Off	Flashing	On
Armed (red)	All partitions are disarmed.	One or more partitions are armed, or an alarm has occurred.	All partitions are armed, and no alarms have occurred.
Status (green)	Not ready to arm (if the Armed LED is on, all partitions are armed).	One or more zones are bypassed.	All partitions are ready to arm.
Power (green)	The control panel has lost all power; no AC or battery.	Control panel problems exist. See *Error Displays.*	Normal Operation. The control panel is running on AC power with no problem.
Fire (red)	There are no fire alarms.	A fire zone is in alarm.	A fire trouble condition exists.

continued on next page

Understanding the DS7447 and DS7445 Keypads (continued)

These LEDs Present on the DS7445 Only:

LED	Off	Flashing	On
Perimeter (yellow)	Panel is disarmed or is not armed perimeter.	This LED will not flash	The perimeter is armed.
Supervisory (yellow)	There are no supervisory alarms present.	A supervisory condition exists.	This LED will not turn on steady.
Bell Silenced (red)	The bells do not need to be or have not been silenced.	This LED will not flash	There has been a fire alarm and the bells have been silenced. To clear, enter the Fire Reset command: [PIN] + [System Reset].
Trouble (yellow)	There are no trouble conditions.	This LED will not flash	A trouble condition exists.
LEDs 1-8 (red)	There are no zone alarms.	A zone (1-8) has been alarmed.	A zone (1-8) is Not Ready to Arm, or if a fire zone, a trouble condition exists.

Volume Control: The keypad sounder volume can be adjusted using the [1] and [4] keys along with the [*] key.
- Hold the [*] key while pressing the [1] key to increase the volume or the [4] key to decrease the volume.

Backlight Control (DS7447 Only): The display backlight intensity can be adjusted using the [3] and [6] keys along with the [*] key.
- Hold the [*] key while pressing the [3] key to increase the brightness or the [6] key to decrease the brightness.

Note: After the backlight and volume are adjusted you must arm and disarm the system once to store this information in the control panel. If power is disconnected before the panel is armed, the backlight and volume levels will return to the default settings.

Understanding the RF3341 Keypad and Keyfobs

General Information

Your security system may use keypads or keyfobs which use a radio frequency to transmit signals to your security system. These RF (wireless) devices are programmed with a unique code which will allow only your keypads and keyfobs to work with your security system.

IMPORTANT

Although the range of your RF devices may be up to 500 feet (150 meters) in open air, normal building materials can greatly reduce their range. If you are in your automobile or if your home has aluminum siding, the range may be reduced even further. We suggest that you try out your RF devices at various locations to test the range.

Being wireless, these RF devices operate on batteries. The batteries supplied with your RF devices should last for several years; however, battery life will vary depending on the amount of use. If you notice the range of the RF device is decreasing or if the LED is not working, it may be time to replace your battery. Refer to the User Guide that came with your RF device for recommended replacement batteries and instructions for battery replacement.

RF3341

RF3502

RF3334

RF3332

IMPORTANT

Your RF device cannot tell you if the alarm system is armed or disarmed. If you need to know if the system is armed or disarmed, have your installing company install an indicator light or other device to let you know the system status.The LED on your RF device will flash to indicate that a signal has been sent to your security system.

Option and Emergency Keys

Some RF devices have Option Keys that may be programmed by your installing company to control other devices (such as lights) within the protected area and/or Emergency Keys that may be programmed by your installing company to perform functions including activating alarm responses and operating relays. If this is true for your RF device(s), ask your installer to explain the programmed Option Key(s) and/or Emergency Keys for your device(s). See also, *Emergency Procedures*.

Day to Day Operations

Standard Operations

This section describes the standard (those built and programmed into your system at the factory) procedures for arming and disarming your security system. Your installing conpany can program your system for various optional operations (see also, *Optional Operations*).

Normal Arming

Used when no one is left on the premises, all zones are to be armed, and an entry/exit delay is in effect. The green Status LED must be lit and, if using a DS7447 keypad, "Ready to Arm" must be displayed. If the green LED is not on or the keypad displays "Not Ready," see Force Arming or Zone Bypass in *Optional Procedures* for other ways to arm the system.

<table>
<tr><th>Equipment Used</th><th>Command Sequence</th><th>What Will Happen</th><th>What To Do</th></tr>
<tr><td>DS7447</td><td rowspan="2">[PIN] + [On]</td><td rowspan="2">• The red Armed LED will flash.
• "Armed" will be displayed. *
• "Exit Now" will be displayed during the exit-delay period. *
• A single beep will sound.
• The red Armed LED will turn on steady when the exit-delay period ends.
• All zones will arm.</td><td rowspan="5">Exit during the exit-delay period.</td></tr>
<tr><td>DS7445</td></tr>
<tr><td>RF3341</td><td>PIN] + [#] + [1]</td><td>• The LED will flash indicating a signal has been sent to your security system.
• All zones will arm.</td></tr>
<tr><td>RF3332</td><td rowspan="2">Press ARM button</td><td rowspan="2">All zones will arm.</td></tr>
<tr><td>RF3334</td></tr>
<tr><td>RF3502</td><td colspan="3">Not Applicable</td></tr>
</table>

Note: In commercial burglar alarm applications for UL Listed systems, a ring-back indication and bell test should be heard after arming (closing). If not heard, call for service.

* DS7447 only
** DS7445 only

Perimeter Instant Arming

Used when someone is still on the premises, only the exterior (perimeter) zones are to be armed, and an exit delay is in effect, but no entry delay is in effect so an alarm **will** occur upon entry. The green Status LED must be lit and, if using a DS7447 keypad, "Ready to Arm" must be displayed. If the green LED is not on or the keypad displays "Not Ready," see Force Arming or Zone Bypass in *Optional Procedures* for other ways to arm the system.

<table>
<tr><th>Equipment Used</th><th>Command Sequence</th><th>What Will Happen</th><th>What To Do</th></tr>
<tr><td>DS7447</td><td rowspan="2">[PIN] + [No Entry] + [Perimeter Only]</td><td rowspan="2">• The red Armed LED will flash.
• "Perimeter Inst." Will be displayed. *
• "Exit Now" will be displayed during the exit-delay period. *
• The green Status LED will turn on steady.
• A single beep will sound.
• The red Armed LED will turn on steady when the exit-delay period ends.
• The yellow Perimeter LED will turn on steady. **
• Only exterior protection zones will arm.</td><td rowspan="3">• Move freely around the interior.
• Opening any exterior door or window will trigger an alarm.</td></tr>
<tr><td>DS7445</td></tr>
<tr><td>RF3341</td><td>[PIN] + [#] + [2]</td><td>• The LED will flash indicating a signal has been sent to your security system.
• Only exterior protection zones will arm.</td></tr>
<tr><td>RF3332</td><td colspan="3" rowspan="3">Not Applicable</td></tr>
<tr><td>RF3334</td></tr>
<tr><td>RF3502</td></tr>
</table>

Note: In commercial burglar alarm applications for UL Listed systems, a ring-back indication and bell test should be heard after arming (closing). If not heard, call for service.

* DS7447 only
** DS7445 only

Standard Operations (continued)

Perimeter Arming

Used when someone is still on the premises, only the exterior (perimeter) zones are to be armed, and an entry/exit delay is in effect. The green Status LED must be lit and, if using a DS7447 keypad, "Ready to Arm" must be displayed. If the green LED is not on or the keypad displays "Not Ready," see Force Arming or Zone Bypass in *Optional Procedures* for other ways to arm the system.

<table>
<tr><th>Equipment Used</th><th>Command Sequence</th><th>What Will Happen</th><th>What To Do</th></tr>
<tr><td>DS7447

DS7445</td><td>[PIN] +
[Perimeter Only]</td><td>• The red Armed LED will flash.
• "Perimeter On" will be displayed. *
• "Exit Now" will be displayed during the exit-delay period. *
• The green Status LED will turn on steady.
• A single beep will sound.
• The red Armed LED will turn on steady when the exit-delay period ends.
• The Yellow Perimeter LED will turn on steady. **
• Only exterior protection zones will arm.</td><td rowspan="2">• Move freely around the interior.
• Opening any exterior door or window will trigger an alarm.</td></tr>
<tr><td>RF3341</td><td>[PIN] + [#] + [3]</td><td>• The LED will flash indicating a signal has been sent to your security system.
• Only exterior protection zones will arm.</td></tr>
<tr><td>RF3332
RF3334
RF3502</td><td colspan="3">Not Applicable</td></tr>
</table>

Note: In commercial burglar alarm applications for UL Listed systems, a ring-back indication and bell test should be heard after arming (closing). If not heard, call for service.

* DS7447 only
** DS7445 only

Standard Operations (continued)

Custom Arming

Used to alarm zones that you specify and your installer programs into your system. An entry/exit delay will be in effect unless otherwise programmed. The green Status LED must be lit and, if using a DS7447 keypad, "Ready to Arm" must be displayed. If the green LED is not on or the keypad displays "Not Ready," see Force Arming or Zone Bypass in *Optional Procedures* for other ways to arm the system.

<table>
<tr><th>Equipment Used</th><th>Command Sequence</th><th>What Will Happen</th><th>What To Do</th></tr>
<tr><td>DS7447</td><td rowspan="3">[PIN] + [#] + [4]</td><td rowspan="2">• The red Armed LED will flash.
• "On Partial" will be displayed. *
• "Exit Now" will be displayed during the exit-delay period. *
• The green Status LED will turn on steady.
• A single beep will sound.
• The red Armed LED will turn on steady when the exit-delay period ends.
• The zones that have been programmed for custom arming will arm.</td><td rowspan="3">Exit during the exit-delay period.</td></tr>
<tr><td>DS7445</td></tr>
<tr><td>RF3341</td><td>• The LED will flash indicating a signal has been sent to your security system.
• The zones that have been programmed for custom arming will arm.</td></tr>
<tr><td>RF3332</td><td colspan="2" rowspan="3">Not Applicable</td><td rowspan="3"></td></tr>
<tr><td>RF3334</td></tr>
<tr><td>RF3502</td></tr>
</table>

Note: In commercial burglar alarm applications for UL Listed systems, a ring-back indication and bell test should be heard after arming (closing). If not heard, call for service.

* DS7447 only
** DS7445 only

Standard Operations (continued)

Maximum Security Arming

Used when no one is still on the premises, all zones are to be armed, and an exit delay is in effect, but no entry delay is in effect so an alarm **will** occur upon entry. The green Status LED must be lit and, if using a DS7447 keypad, "Ready to Arm" must be displayed. If the green LED is not on or the keypad displays "Not Ready," see Force Arming or Zone Bypass in *Optional Procedures* for other ways to arm the system.

<table>
<tr><th>Equipment Used</th><th>Command Sequence</th><th>What Will Happen</th><th>What To Do</th></tr>
<tr><td>DS7447
DS7445</td><td>[PIN] + [No Entry] + [On]</td><td>• The red Armed LED will flash.
• "Armed Instant" will be displayed. *
• "Exit Now" will be displayed during the exit-delay period.
• A single beep will sound.
• The red Armed LED will turn on steady when the exit-delay period ends.
• All zones will arm.</td><td rowspan="2">• Exit during the exit-delay period.
• Violating any zone after the exit-delay period ends will trigger an instant alarm.</td></tr>
<tr><td>RF3341</td><td>[PIN] + [#] + [5]</td><td>• The LED will flash indicating a signal has been sent to your security system.
• All zones will arm.</td></tr>
<tr><td>RF3332
RF3334
RF3502</td><td colspan="3">Not Applicable</td></tr>
</table>

Note: In commercial burglar alarm applications for UL Listed systems, a ring-back indication and bell test should be heard after arming (closing). If not heard, call for service.

* DS7447 only
** DS7445 only

Standard Operations (continued)

Normal Disarming

Please read the section about Emergency Procedures prior to being confronted with an emergency event. If you have entered the building through a perimeter door, you may hear a steady entry alert tone from the wired keypads. If so, disarm according to the chart below.

If an alarm has occurred sometime before your arrival, then the bells and sirens are on, and/orthe wired keypads are issuing a pulsed tone during the entry delay instead of the usual steady tone, and/orthe red Armed LED on any DS7445 keypad is flashing, and/or the red Armed LED on any DS7447 keypad display is flashing with the reading **"Zone Alarm."** If the alarm has not been previously investigated, do not enter the building unless accompanied by the appropriate Emergency Services' personnel.

<table>
<tr><th>Equipment Used</th><th>Command Sequence</th><th>What Will Happen</th><th>What To Do</th></tr>
<tr><td>DS7447

DS7445</td><td>[PIN] + [Off]</td><td>• The red Armed LED will turn off.
• All sounders will silence.
• All zones will disarm.
• If a fire alarm was sounding, "Sounder Silenced" will display until system is reset. *</td><td rowspan="4">• Determine why the sounders, if any, were sounding.
• Correct the cause.
• After correcting the cause, if a fire alarm was sounding, reset the system using a DS7445 or DS7447 keypad.</td></tr>
<tr><td>RF3341</td><td>[PIN] + [#]</td><td rowspan="2">• The LED will flash indicating a signal has been sent to your security system.
• All sounders will silence.
• All zones will disarm.</td></tr>
<tr><td>RF3332

RF3334</td><td>Press DISARM button</td></tr>
<tr><td>RF3502</td><td colspan="2">Not Applicable</td></tr>
</table>

Note: When in Commercial Fire Mode, entering [PIN] + [#] for a second time on a DS7445 or DS7447 keypad allows you to locate the fire zone number(s) in alarm.

* DS7447 only
** DS7445 only

Day to Day Operations (continued)

Optional Operations

Quick Arming

Quick Arming allows some arming commands to to entered without first entering a PIN. If Quick Arming is **not** used, a PIN must be entered at the beginning of all arming command sequences.

Note: Quick Arming is not available from a Master keypad nor from RF (wireless) keypads.

The following shortcuts are allowed when the system has been programmed for Quick Arming:

Type of Arming	Quick Arming Command Sequence
Normal Arming	[#] + [On]
Perimeter Instant Arming – no entry delay	[#] + [No Entry] + [Perimeter Only]
Perimeter Arming – entry/exit delay in effect	[#] + [Perimeter Only]
Maximum Security Arming	[#] + [No Entry] + [On]

Force Arming

When one or more zones are faulted (if, for example, a window or door is open), the system may be Force Armed (if programmed) by bypassing the faulted zones. A DS7447 display will read **"Not Ready"** and the zone LED(s) on a DS7445 for the faulted zone(s) will be on when Force Arming is required to arm the system. Although an RF3341 keypad will not indicate a faulted state on the system, Force Arming can be entered from an RF3341 keypad. Using a Master keypad in Single Partition Mode also allows Force Arming of Partitions.

Force Arming during an AC power failure: Regular arming of the control panel is not permitted during an AC power failure. Having to Force Arm serves as a warning that the control panel is operating under backup battery.

Bypassing or Force Arming removes some of your building's protection because it excludes the faulted zones from arming. Therefore, an intrusion may not be detected or the detection may be delayed. Always attempt to correct any zone problems (close doors and windows, etc.) before using these features. If the problem can not be corrected, contact your installing company.

Note: See *Zone Bypass* for an alternate method of arming the system when faults exist. Force arming is not available in UL Listed systems.

Equipment Used	Command Sequence	What Will Happen	What To Do
DS7447 DS7445	Enter any Arming Command Sequence. Enter [Bypass] during five-second beep.	• The red Armed LED will flash during the exit-delay period. • All zones normally armed by the Arming Command Sequence will arm except for faulted zones.	Exit during exit-delay period if leaving.
RF3341	Any Arming Command Sequence + [9]	• The LED will flash indicating a signal has been sent to your security system. • All zones normally armed by the Arming Command Sequence will arm except for faulted zones.	
RF3332 RF3334 RF3502	Not Applicable		

Day to Day Operations (continued)

Optional Operations (continued)

Zone Bypass

There may be occasions when it is desirable or necessary to temporarily bypass one or more zones prior to arming the system. Bypass commands only work when the control panel is disarmed. For instance, an open window may cause the DS7447 display to read **"Not Ready"** followed by the zone number. The DS7445 may have one of its zone 1-8 LEDs on steady. If bypassing is performed from a Master keypad, you must be in Single Partition Mode. Bypassing without arming is not allowed from an RF (wireless) keypad. If more than one zone requires bypassing, simply enter the additional zone numbers.

Note: See Force Arming for another method of zone bypassing.

Type of Bypassing Desired	Command Sequence	What Will Happen	What To Do
Bypass Faulted Zones	[PIN] + [Bypass] [XXX] [XXX] [XXX] ‡	The green Status LED will flash if no other zones are faulted.	Arm control panel, if desired, after bypassing.
Read Bypassed Zones	PIN] + [Bypass]	• "Bypass" will be displayed on a DS7447 keypad followed by the zone number(s) of any bypassed zones. • The zone LED of any zone being bypassed will flash on a DS7445 keypad.	
Clear Individual Bypassed Zone(s)	[PIN] + [Bypass] [XXX] ‡	The specified Individual zone bypass will clear.	
Clear All Bypasses	[PIN] + [Bypass] [*]	All bypasses will clear.	

The zone number must be entered as a three digit number. Example: 001, 062, 125, etc. ‡ [XXX] = a 3-digit zone number

Note: All bypasses are cleared when the system is disarmed, unless they are 24-hour zones or Day-Monitor zones. To clear a bypass on a 24-hour zone or Day-Monitor, use one of the two methods above.

Optional Operations (continued)

Automatic Arming

Each partition can be programmed to automatically arm once per day. Automatic Arming is not programmable from an RF (wireless) keypad. If Automatic Arming is used in Master Keypad mode, it will affect all partitions you have access to. If used in single partition mode, or from a single partition keypad, it will affect only the partition you are working in.

It is recommended that this procedure be performed at a DS7447 keypad. No visual clues will be given from a DS7445 keypad.

Setting the Automatic Arming Time	Notes
[Master PIN] + [#] + [0]	Setting the Automatic Arming Time can only be performed in the Master Programming Mode.
[1]	To enter the Automatic Arming Setup programming
Enter the partition number. Press [#] to exit.	• If programming is done from a Master Keypad that is **not** in Single Partition Mode, you will be prompted to enter the Partition to be programmed. • You will only be allowed to program the Partitions to which you are assigned. • If programming from a standard keypad or from a Master Keypad in Single Partition Mode, this step will be skipped.
Enter a time for each day in 24-hour clock format.	• The display will start with Sunday. It will read, “Sunday –nn : nn” • Enter the time in 24-hour clock format, then press the # key. If you make a mistake, press the # key twice to move back to your last entry. • Time Examples: 12 midnight = 2400# 12 noon = 1200# 12:01 am = 0001# 12:01 pm = 1201# 1:00 am = 0100# 1:00 pm = 1300# Disabled = 0000#

Optional Operations (continued)

Delaying Automatic Arming

When Automatic Arming is set, to inform occupants that the system is about to arm, a pre-arming period will begin 15 minutes before the system arms automatically. The keypad sounders, and any outputs programmed to follow the keypad sounders, will pulse five times every minute. During the last five minutes before arming, these sounders will be on steady. Once per minute the keypad (DS7447 only) will read, "Arm in nn min./PIN + OFF - extend." An RF3341 keypad will give no indication of the pre-arming period and **cannot** be used to delay Automatic Arming.

To delay the Automatic Arming during the pre-arming period, use the appropriate command sequence from the table. To extend the Automatic Arming Time at any time, use the Delayed Arming feature.

Equipment Used	Command Sequence	What Will Happen	What To Do
DS7447 DS7445	[PIN] + [Off]	The arming time will be extended to 30 minutes from when you input the Command Sequence. A new pre-arming period will begin 15 minutes prior to the new Automatic Arming Time.	Exit before the new Automatic Arming Time.
RF3341 RF3332 RF3334 RF3502	Not Applicable		

Note: The keypad volume setting also applies to the Auto Arm tone.

Optional Operations (continued)

Automatic Disarming

Each partition can be programmed to automatically disarm once per day. Automatic Disarming is not programmable from an RF (wireless) keypad. If Automatic Disarming is used in Master Keypad mode, it will affect all partitions you have access to. If used in single partition mode, or from a single partition keypad, it will affect only the partition you are working in.

It is recommended that this procedure be performed at a DS7447 keypad. No visual clues will be given from a DS7445 keypad.

Setting the Automatic Disarming Time	Notes
[Master PIN] + [#] + [0]	Setting the Automatic Disarming Time can only be performed in the Master Programming Mode.
[4]	To enter the Automatic Disarming Setup programming
Enter the partition number. Press [#] to exit.	• If programming is done from a Master Keypad that is **not** in Single Partition Mode, you will be prompted to enter the Partition to be programmed. • You will only be allowed to program the Partitions to which you are assigned. • If programming from a standard keypad or from a Master Keypad in Single Partition Mode, this step will be skipped.
Enter a time for each day in 24-hour clock format.	• The display will start with Sunday. It will read, "Sunday –nn : nn" • Enter the time in 24-hour clock format, then press the # key. If you make a mistake, press the # key twice to move back to your last entry. • Time Examples: 12 midnight = 2400# 12 noon = 1200# 12:01 am = 0001# 12:01 pm = 1201# 1:00 am = 0100# 1:00 pm = 1300# Disabled = 0000#

Delayed Arming

Delayed Arming is simply causing the system to arm after a specified number of hours. Delayed Arming is not available from RF (wireless) keypads. Delayed Arming can be used even if there are no Automatic Arming times programmed. If Delayed Arming is used in Master Keypad mode, it will affect all partitions you have access to. If it is used in single partition mode, or from a single partition keypad, it will affect only the partition you are working in.

Note: Delayed Arming will override Automatic Arming. Delayed arming will also provide a 15-minute pre-arming period like the one provided with Automatic Arming.

It is recommended that this procedure be performed at a DS7447 keypad. No visual clues will be given from a DS7445 keypad.

Setting Delayed Arming	Notes
[PIN] + [#] [9] [9]	• To enter the Delayed Arming Setup programming. • The keypad will display: "Arm in nn Hours # to accept
Enter the number of hours to delay arming in [0] [1] format.	Enter the number of hours from the current time that you would like the system to wait before arming. For example: If it is now 3:00pm and you want the system to arm at 9:30pm, enter [0] [6] [#].

Optional Operations (continued)

Chime Mode

Chime Mode causes the keypad sounders to beep each time a Perimeter or Entry/Exit zone is violated while the control panel is off (disarmed). The [#] [7] command is used to turn Chime Mode both off and on.

Action Desired	Equipment Used	Command Sequence	What Will Happen
Turn On Chime Mode	DS7447 DS7445 RF3341	[PIN] + [#] + [7]	• "Chime Mode On" will display for five seconds. • The LED will flash indicating a message has been sent to your security system. ** • Keypad sounders will beep for two seconds whenever a Perimeter or Entry/Exit zone is violated.
Turn Off Chime Mode	DS7447 DS7445 RF3341	[PIN] + [#] + [7]	• "Chime Mode Off" will display for five seconds. • The LED will flash indicating a message has been sent to your security system. • Chime Mode is turned off.

* DS7447 only
** RF3341 only

Optional Operations (continued)

Access Control

Your system may use a keypad key sequence to activate other electrical devices. Access Control is not available from an RF (wireless) keypad or from the keyfobs.

Note: This feature can be used in armed or disarmed modes.

The special PIN required to perform this function is known as an Access Control PIN. The PIN may control devices that activate for a short period of time (i.e. electric locking mechanisms on a door). Access PIN activations are recorded at the History Buffer.

Type of Disarming	Command Sequence	What Will Happen
Momentary Access Control Panel Activation	[Access Control PIN] + [Off]	The access device will be activated for ten seconds.

Note: This feature must be disabled on UL Listed Systems. The control is not a listed access control unit (UL294).

Changing the Date

The System Date can only be changed in Master Programming Mode, so it is **not** programmable from an RF (wireless) keypad.

Note: You should write down your entries before you enter the Master Programming Mode and have them with you as you begin programming. Make your entries promptly. If a delay of 15 seconds or more occurs between your entries, the 3-beep error tone occurs and exits you from the programming mode.

It is recommended that this procedure be performed at a DS7447 keypad. No visual clues will be given from a DS7445 keypad.

Steps to Change the Date	Command Sequence	If Accepted, DS7447 Display Reads:
Enter Master Programming Mode.	[Master PIN] + [#] [0]	"2 Change Date" (display will scroll to this)
Enter a 2 for System Date Setup programming	[2]	"Enter Month" (01 … 12)
Enter the Month.	[0] [1] through [1] [2] January December	"Enter Day" (01 … 31)
Enter the Day.	[0] [1] through [3] [1]	"Enter Year" (XX) End with #
Enter the Year.	Last two digits of the year followed by [#].	"Month, Day, Year" A long beep signifies acceptance.

Note: Entering the command sequence [Master Code] [#] [0] [2] [#] will cause the DS7447 keypad to read back the date.

Optional Operations (continued)

Setting the System Clock

Setting the time on the System Clock can only be done in Master Programming Mode, so it is **not** programmable from an RF (wireless) keypad.

Note: You should write down your entries before you enter the Master Code Programming Mode and have them with you as you begin programming. Make your entries promptly. If a delay of 15 seconds or more occurs between your entries, the 3-beep error tone occurs and exits you from the programming mode.

It is recommended that this procedure be performed at a DS7447 keypad. No visual clues will be given from a DS7445 keypad.

Steps to Set the Time	Command Sequence	If Accepted, DS7447 Display Reads:
Enter Master Programming Mode.	[Master PIN] + [#] [0]	"6 Change Time" * (display will scroll to this)
Enter a 6 for System Clock Setup programming	[6]	"Enter Day" (1 … 7)
Enter the Day.	[1] through [7] Sunday Saturday	"Enter Time" (0100 … 1259)
Enter the Time.	[0] [1] [0] [0] through [1] [2] [5] [9]	"Enter AM/PM" (4/6) End with #
Enter AM or PM.	[4] [#] for AM or [6] [#] for PM	"Day – Time" A long beep signifies acceptance.

* = This will display **only** when in Single Partition Mode.

Note: Entering the command sequence [Master Code] [#] [0] [6] [#] will cause the DS7447 keypad to display the time.

Emergency Procedures

Identifying Alarm Sounds

Your alarm system may be programmed for a steady alarm sound or a pulsed alarm sound. It is important to learn the difference between a fire alarm sound and an intrusion alarm sound before you are confronted with an actual emergency.

Silencing Alarms

All alarms can be silenced with any PIN that has disarm privileges. Entering your [PIN] + [Off] (or [PIN] + [#] from an RF3341 keypad) will silence the alarm and turn off (disarm) the control.

A Cautionary Note

How you respond to an alarm will depend, mostly, on the type and time of the alarm. You should seek the advice of your installing company as they install your system, **not** later (i.e. after an alarm) to develop a response plan.

Above all else, common sense should prevail.

If there is any threat or hint of danger to yourself or others on the premises, such as in the event of a fire alarm, everyone should be instructed to leave the premises immediately. Do not enter the premises unless accompanied by the appropriate Emergency Services' personnel, or after they have given the OK to enter.

Caution When Entering A Building

An alarm has occurred if:

- The bells and sirens are on, and/or
- The red Armed LED is flashing with the DS7447 display reading **"Zone Alarm"**
- The DS7445 zone LEDs 1-8 are flashing.

The wired keypad will also issue a pulsed tone during the entry delay instead of the usual steady tone.

The RF3341 Keypads will not indicate that an alarm is occurring or has occurred. With these keypads, you must rely on signals from other devices in the system to notify you of an alarm.

If the alarm has not been previously investigated, **do not enter the building unless accompanied by the appropriate Emergency Services' personnel.**

Fire Alarms

Fire Alarms are silenced using the same procedure as intrusion alarms: a [PIN] (with disarm privileges) + the [Off] key.

The Fire Alarm system is **not** reset until alarms at smoke detectors are cleared by using the [System Reset] command.
The Fire Alarm system will **not** be functional until this procedure has been followed. See *Fire Reset*.

Emergency Procedures (continued)

Fire Reset / Fire Trouble

Fire Reset

During a fire alarm, exit the premises immediately. When you have determined there is no fire, you must silence the bells/sirens before you can initiate the [System Reset] command.

[PIN] + [System Reset]

Before the [System Reset] command is used, determine which smoke detector has alarmed so the monitoring company may verify its operation.

Note: Although alarms may be silenced from an RF3341 Keypad, the system **cannot** be reset from an RF3341 Keypad.

A [PIN] followed by the [System Reset] key will reset any smoke detectors after a fire alarm has occurred.

Note: To use the System Reset command sequence, your PIN must have disarm privileges.

The System Reset command will perform a fire reset, a battery test and will clear all system troubles.

Fire Trouble

A Fire Trouble message with a zone number signifies a problem with the fire system, such as a break in the wiring that monitors smoke detectors. A Fire Trouble message with no zone number indicates a ground fault if the unit is in the Commercial Fire Mode.

A Fire Trouble will be indicated by a short beep from the keypad sounders every 10 seconds. The DS7447 will display **"Fire Trouble"** followed by the zones in a trouble condition. The DS7445 will turn the Fire and Trouble LEDs on steady and will light the corresponding zone LEDs. The RF3341 Keypad cannot indicate a Fire Trouble condition.

Notify your installing company immediately if the Fire Trouble message is displayed.

The Fire Trouble beep can be silenced with any [PIN] followed by the [Off] key or by [PIN] + [#] from an RF3341 Keypad. After problems have been remedied, a [PIN] followed by the [Off] key ([PIN] + [#] from an RF3341 Keypad) should again be entered to clear the **"Fire Trouble"** display.

Fire Safety

WARNING: No fire detection device or system should be considered 100 percent foolproof.

This fire alarm system can provide early warning of a developing fire. Such a system, however, does not ensure protection against property damage or loss of life resulting from a fire. Any fire alarm system may fail to warn for any number of reasons (i.e. smoke not reaching a detector that is behind a closed door).

When considering detectors for residential applications, refer to NFPA Standard 72, "The National Fire Alarm Code." This standard is available at a nominal cost from: The National Fire Protection Association, Batterymarch Park, Quincy, MA 02269.

If Installed in Family Residences

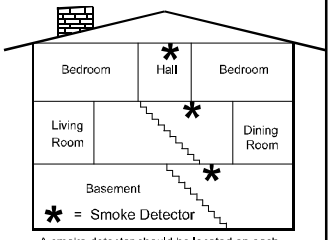
Adherence to the NFPA Standard 72 can lead to reasonable fire safety when the following items are practiced:

- **Minimize hazards:** Avoid the three traditional fire killers: smoking in bed, leaving children home alone, and cleaning with flammable liquids.
- **Providing a fire warning system:** Most fire deaths occur in the home with the majority during sleeping hours. The minimum level of protection requires smoke detectors to be installed outside of each separate sleeping area and on each additional story of the dwelling.

For added early warning protection, it is recommended that detectors be installed in all separated areas including the basement, bedrooms, dining room, utility room, furnace room and hallways.

Having and Practicing an Escape Plan

A fire warning may be wasted unless the family has planned in advance for a rapid and safe exit from the building.



A smoke detector should be located on each story including basements, but excluding crawl spaces and unfinished attics.

- Draw a floor plan of the entire house showing **two** exits from each bedroom and **two** from the house. Since stairwells and hallways may be blocked during a fire, the plan should provide exits from bedroom windows.

  Make copies of the plan and practice it with all family members.

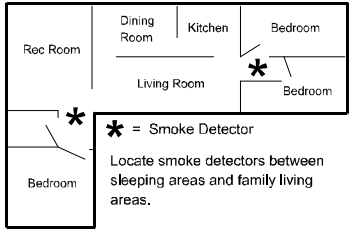
- Pre-arrange a meeting place **outside and away** from the residence. Once out of the building, all occupants should immediately go to the pre-selected location to be accounted for.

Fire Safety (continued)

- Provide a barricade between family members and fire, smoke and toxic gases (i.e. close all bedroom doors before retiring).
- Children should be instructed on opening their bedroom windows and exiting safely from the building. If exiting is not possible, they should be taught to stay at the open window and shout for help until it arrives.
- In the event of a fire alarm after retiring, wake the children by shouting to them from behind your closed door. Tell them to keep their bedroom doors closed.
- **If the top of your bedroom door is uncomfortably hot, do not open it.** There is most likely fire, intolerable heat or smoke on the other side. Shout to all family members to keep their bedroom doors closed and to exit the building via alternate routes.
- If the top of the door is not uncomfortably hot, brace the bottom of the door with your foot, and the top with one hand, then open the door about one inch. Be prepared to slam the door shut if there is any pressure against the door or if any hot air rushes in.
- If there is no evidence of excessive heat or pressure, **leave the room and close the door behind you.** Shout appropriate instructions to all family members and immediately leave the building via the pre-planned routes. If heavy smoke is present, drop to your hands and knees, or crawl to remain below the smoke level.

Installation Considerations

Proper location of detection devices is one of the most critical factors in a fire alarm system.



The following are some general considerations:

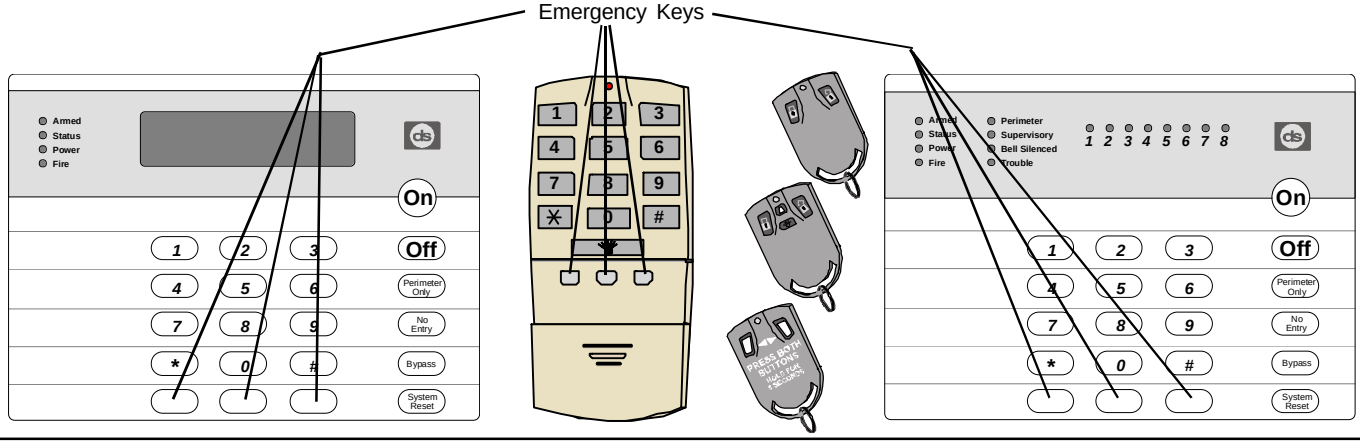
- Smoke detectors should **not** be installed in "dead air" spaces or close to ventilating or air-conditioning outlets because smoke may be circulated away from the detector. Locations near air inlets should be favored.
- Avoid areas subject to normal smoke concentrations such as kitchens, garages, or near fireplaces.
- Do not install smoke detectors where normal area temperatures are above 100 degrees F (38 degrees C) or below 32 degrees F (0 degrees C).
- Areas of high humidity and dust concentrations should be avoided.
- The edge of ceiling mounted detectors should be no closer than 4 inches (10 cm) from any wall.
- Place the top edge of wall mounted detectors between 4 and 12 inches (10 to 30 cm) from the ceiling.

Emergency Procedures (continued)

Emergency Keypad Alarms / Silencing Alarms

The Emergency Alarm Keys [ ], [ ], and [ ] may generate Fire, Special Emergency and Panic Alarms if programmed by the installer. Ask your installing company to explain the function of these keys. **When using the Emergency Keys, they must be pressed for two seconds to generate an alarm.** Use the Disarming Command Sequence to cancel or silence these alarms.

Note: If the Emergency Alarm Keys are to be used, they should be labeled to signify their functions.
The leftmost key should be labeled as the Fire key. This is the only key that may be designated as the Fire key.
The middle key should be labeled as the Special Emergency key.
The rightmost key should be labeled as the Panic key. On RF keyfobs, the Panic signal is sent to your security system when two keys are held down simultaneously for at least three seconds. On the RF3502 Panic Keyfob, pressing and holding either key for at least four seconds will also send a Panic signal to your security system.



Emergency Procedures (continued)

Turning OFF (Disarming) Your System Under Duress

A Duress PIN (see also, *Personal Identification Numbers, PIN Authority Levels)* is used when someone demands, by threatening your life or well-being, that the system be turned off. When used, the Duress PIN will both turn off the system and report a silent Duress alarm if connected to a monitoring service. Extreme care should be used when entering your PIN to turn off the system, so a Duress PIN is not inadvertently entered.

The Duress PIN can be entered at any keypad, but is not available from a keyfob. In a duress situation, try to avoid having to use a keyfob to disarm the system since this will prevent you from notifying the monitoring service of your need for assistance.

Note: Ask your installer if the Duress feature has been activated.

<table>
<tr><th>Equipment Used</th><th>Command Sequence</th><th>What Will Happen</th><th>What To Do</th></tr>
<tr><td>DS7447
DS7445</td><td rowspan="2">[Duress PIN] + [Off]</td><td rowspan="2">• The system will appear to disarm normally.
• A Duress Code will be sent to your monitoring service.</td><td rowspan="2">Protect your life and well-being while awaiting assistance.</td></tr>
<tr><td>RF3341</td><td>[Duress PIN] + [#]</td></tr>
<tr><td>RF3332
RF3334
RF3502</td><td colspan="3">Not applicable</td></tr>
</table>

Personal Identification Numbers

General Information

When programming Personal Identification Numbers, it is helpful to know the following terms:

- **PIN:** Personal Identification Number. This is the 4 or 6 digit code users must enter at the keypad to gain access to the system. A PIN may be assigned to each User Number 001 through 200.
- **User Number:** This is the number that identifies each person using the system. There are 200 possible User Numbers available for use (001 through 200).
- **Authority Level:** This number determines which functions each user will be able to perform.

Your system has the capability to assign up to 200 PINs, each four or six digits long. **Each User Number can have only one PIN assigned to it.** Attempting to assign the same PIN to multiple User Numbers will result in the three-beep error tone, and the entry will not be made.

User Number 001 is designated as a Master code. It can be used to add, delete, or change other PINs. It will always have access to all partitions regardless of how it is programmed.

User Number 001 is shipped from the factory with the PIN of 1 2 3 4. **This PIN should be changed to one of your personal preference and must be programmed as a Master code.**

PINs should never be programmed with common sequences such as 1 2 3 4, 1 1 1 1, or 2 4 6 8 because they are easily violated.

Removing a PIN

To disable (remove) a PIN, enter:

- a [Master code] followed by [#] [0]
- [0]
- User number of the PIN to be cancelled, followed by [#]

User Number 001 can not be disabled in this manner.

Personal Identification Numbers (continued)

Changing a PIN

PINs can only be changed in Master Programming Mode, so they are **not** programmable from an RF (wireless) keypad.

Note: You should write down your entries before you enter the Master Code Programming Mode and have them with you as you begin programming. Make your entries promptly. If a long delay occurs in your entries, the 3-beep error tone occurs and exits you from the programming mode.

It is recommended that this procedure be performed at a DS7447 keypad. No visual clues will be given from a D7445 keypad.

Steps to Change a PIN	Command Sequence	If Accepted, DS7447 Display Reads:
Enter Master Programming Mode.	[Master PIN] + [#] [0]	"0 User Change" (display will scroll to this)
Enter a 0 for PIN Setup programming.	[0]	"Enter User No" (001 … 200)
Enter the User Number.	[0] [0] [1] through [2] [0] [0]	"Enter Authority Level" Level (0-6)
Enter the Authority Level.	[0] through [6]	"Enter Area(s) or # for all"
Enter the Area(s) (Partitions) to which this user will have access.	[1], [2], [3], [4], [5], [6], [7], and/or [8] followed by [#]	"Enter Next Area, End with #" or "Enter PIN"
Enter the PIN.	Any 4 or 6 digits. Do **not** press [#].	"Enter PIN Again. End with #" A long beep signifies acceptance of the PIN.
Enter the PIN again followed by [#].	[PIN] (same 4 or 6 digits as previous step) then [#]	

Note: If a Master PIN is not assigned to at least all the areas that the PIN being changed is assigned to, the Master PIN will not be allowed to alter that PIN.

continued on next page

PIN Authority Levels

0 = **Master:**
Can enter all commands, add or change PINs in assigned partitions, change the time and date, bypass, arm, disarm, perform system tests, system reset and view history. User Number 001 must have the Master authority level. Any or all PINs can behave as a Master code.

1 = **Unlimited:**
Can enter all commands, bypass, arm, disarm, system reset and perform system tests. It can not change PINs.

2 = **General:**
Can bypass, arm and disarm. It can not change PINs, system reset, enter [#] [7] or any of the [#] [8] functions.

3 = **Arm Only:**
Can arm the system with [PIN] + [ON] arming sequence only. It can not perform any other functions, including disarming.

4 = **Temporary:**
Valid only for a specified time (the PIN will disappear upon expiration date). It can arm and disarm the system, but can not perform any other functions. If this is done from a Master keypad, you must be in Single Partition Mode. If access is assigned to more than one partition, you must enter a Temporary PIN expiration date for all assigned partitions (see Changing the Expiration Date for Temporary PINs).

5 = **Duress:**
When the system is disarmed using the duress code, a silent report is sent to your monitoring service. The Duress code is intended to be used when the user is forced to disarm the system.

6 = **Access Code:**
When a PIN with an Access Code is entered, any output programmed for Access Output (i.e. door strikes) will pulse on for 10 seconds (works when the system is armed or disarmed).

Changing the Expiration Date for Temporary PINs

The Expiration Date for Temporary PINs can only be changed in Master Programming Mode, so they are **not** programmable from an RF (wireless) keypad.

Note: You should write down your entries before you enter the Master Code Programming Mode and have them with you as you begin programming. Make your entries promptly. If a long delay occurs in your entries, the 3-beep error tone occurs and exits you from the programming mode.

It is recommended that this procedure be performed at a DS7447 keypad. No visual clues will be given from a DS7445 keypad.

Steps to Change the Expiration Date	Command Sequence	If Accepted, DS7447 Display Reads:
Enter Master Programming Mode.	[Master PIN] + [#] [0]	"3 Change Date of Code Expiration" * (display will scroll to this)
Enter a 3 for Date of Code Expiration Setup programming.	[3]	"Enter Month" (01 … 12)
Enter the Expiration Month.	[0] [1] through [1] [2] January December	"Enter Day" (01 … 31)
Enter the Expiration Day. *The Temporary PIN will expire at Midnight on the day selected.*	[0] [1] through [3] [1]	"Enter Year" (XX) End with #
Enter the Year.	Last two digits of the year followed by [#]	"Month, Day, Year" A long beep signifies acceptance.

* = This will display **only** when in Single Partition Mode.

Note: Entering the command sequence [Master Code] [#] [0] [3] [#] will cause the DS7447 keypad to read back the temporary code expiration date.

Error Displays

Error Displays can only be read when the control is disarmed. Some Control Panel Errors, such as battery trouble and any RF troubles, will cause the keypad sounders to beep every 10 seconds. The keypad sounders may be silenced for 4 hours by entering:

[PIN] + [Off].

The sounders will continue to resound until the problem is fixed.

To Clear a display, enter:

[PIN] + [System Reset].

Clear the Error Display only on the advice of your installing company or if you are certain the problem has been remedied.

Error / Warning Messages		
DS7445 LED Keypad	**DS7447 Alpha Keypad**	**Meaning**
Power Light (green) flashing	Control Trouble Enter #87	There is an Error Message. To display the message, enter [PIN] + [#] [8] [7].
LED 1 on	AC Power Failure	There is a power failure and the panel is operating on backup battery power.
LED 2 on	Battery Trouble*	If the system has just been through a power failure, wait at least two hours for the battery to recharge, then enter [PIN] + [System Reset] to perform a battery test.
LED 3 on	Communicator Err**	The communicator failed to communicate with the central station.
LED 4 on	System Fault	Internal error in the control circuitry or optional circuitry. *See System Faults.*
LED 5 on	Keypad Fault	One of the keypads is not responding to the control panel.
LED 6 on	Keypad Tamper	One of the keypad housings has been opened.
LED 7 on	Multiplex Bus	The multiplex bus is defective or has been shorted.
LED 8 on	Aux. Power Fault	The auxiliary power has been shorted.
	Zone Trouble	One of the zones is not responding to the control panel. This may also be displayed during power-up; if so, ignore it.
	RF	Indicates a problem with an RF (wireless) zone.
	Dirty Chamber	One of the multiplex smoke detectors has failed the sensitivity test and may require cleaning or replacement. The keypad beep may be cleared by entering [PIN] + [Off].

* = Battery Trouble display will clear **only** by the [System Reset] command or another Automatic Battery Test even after the problem has been remedied.

** = Communicator Error display will clear **only** by the [System Reset] command or the next successful Automatic System Off Normal report even after the problem has been remedied.

System Faults

System faults are designated as follows:

[#] [8] [7] will display	[#] [8] [9] will display
RAM Fault	System Fault 01
ROM Fault	System Fault 02
EEPROM Fault	System Fault 03
Ground Fault	System Fault 04
2Ph/Bell Fault = loss of communication to DS7420I	System Fault 10
Line 1 Fault = DS7420I phone line 1 fault	System Fault 11
Line 2 Fault = DS7420I phone line 2 fault	System Fault 12
Bell Fault = DS7420I bell circuit fault	System Fault 13
Aux. Relay Fault = DS7420I aux. relay fault	System Fault 14
Oct. Relay Fault = loss of communication to DS7488	System Fault 20
Reserved for older panels	System Fault 50
AR IB Queue Full = modem buffer full	System Fault 51
AR Host Down = network data switch down	System Fault 52
AR Unreg. Modem = modem not registered	System Fault 53
AR Power Fail = power source below defined threshold	System Fault 54
AR Network Lost = loss of network	System Fault 55
AR Modem HW Err = modem hardware error	System Fault 56
AR Modem SW Err = modem software error	System Fault 57
AR Opt. Bus Err = loss of communications to ARDIS module	System Fault 58
AR Corrupt MSG = message error	System Fault 59

Testing Your System

Zone Test

The Zone Test is used to confirm that detectors will report alarms to the keypad. A Zone Test works on all zones, except 24-hour zones and fire zones. While the keypad is in a Zone Test, no control panel alarms will activate an alarm, except 24-hour zone alarms and fire alarms; these will override the Zone Test function.

This test requires you to manually alarm each zone.

At the start of the test, if so programmed, a report is sent to the central station followed by reports on the individual zones as they are tested. Upon completion of the zone test, a test restoral report is sent to the central station.
If this test is performed from a Master keypad, it must be in Single Partition Mode. System Tests are not available from RF (wireless) keypads.

Note: It is recommended that the system be tested weekly.

Type of Test	Command Sequence	What Will Happen	What To Do
Zone Test	[PIN] + [#] [8] [1]	• "Test Zone" will display followed by the zone number of any zones that have not been tested.* • The zone LEDs of any untested zones will flash.** • "Now Testing" will display followed by the zone number of the zone that is currently being tested.* • The zone LED for the zone currently being tested will turn on steady. ** • As each zone is tested, the display turns to "Test Zone" and indicates the remaining untested zones.* • As each zone is tested, its LED turns off.**	• Test each zone as instructed by your installing company • Exit the Zone Test using [PIN] + [#]

* DS7447 only
** DS7445 only

Battery Tests

If a power failure occurs, your control panel has a built-in battery that will continue to power the control panel for many hours. The control panel automatically recharges the battery when power is restored.

In addition to an automatic battery test performed every 2 minutes, the battery may also be tested manually. This test also uses the battery to manually activate all the system sounders for 2 seconds ([PIN] [#] [8] [5] only). If the battery voltage is low, a battery fault will occur (see *Error Displays*).

If this test is performed from a Master keypad, it must be in Single Partition Mode. System Tests are not available from RF (wireless) keypads.

Type of Test	Command Sequence	What Will Happen	What To Do
Local Battery / Sounder Test	[PIN] + [#] [8] [5]	• All keypad LEDs will turn on. • The keypad sounder and all alarm sounding devices will operate for two seconds.	• If the test fails, the control panel will indicate a control problem. See *Error Displays.* • If the power in your buiding has been off recently, wait two hours for the battery to recharge and then try again.
Battery Test	[PIN] + [System Reset]	• The control panel will perform a battery test. • The control panel will report a Low Battery or a Low Battery Restoral is necessary.	

Communicator Test

This test is available only if your system transmits alarms and system information to a monitoring service, and has been programmed by the security installing company to permit communicator tests. This test can be performed from a Master Keypad. The account code for partition #1 will be used. System Tests are not available from RF (wireless) keypads.

A long beep will initially sound to acknowledge the start of the test. If the test is successful, the sounder will again issue one long beep. If the test fails, the keypad sounder will turn ON continuously. To silence the sounder, enter your [PIN] followed by the [#] key or press the [*] key.

Type of Test	Command Sequence	What Will Happen	What To Do
Communicator Test	[PIN] + [#] [8] [2]	• A long beep will sound. • A "Test" report is sent to the monitoring service.	If the test fails, the keypad sounder will sound continuous To silence the sounder, press [System Reset]. **Note:** This test may take several minutes to complete because the control pnael will try ten attempts

Fire Walk Test

This test is used to confirm that Smoke detectors will report alarms to the keypads. The Fire Walk Test tests all fire zones, including verified fire and waterflow.

This test requires you to manually alarm each zone.

At the start of the Fire Walk Test a Fire Walk Test report, if programmed, is sent to the central station. Fire alarm reports are not sent to the central station during the Fire Walk Test. A Fire Walk Test restoral is sent upon completion of the Fire Walk Test.
The Fire Walk Test is enabled for 20 minutes once it is started. The test time is extended to 20 minutes every time another zone is tested. When a fire zone is tested, any output programmed to follow that zone will activate for 5 seconds.

Type of Test	Command Sequence	What Will Happen	What To Do
Fire Walk Test	[PIN[+ [#] [9] [1]	• "Fire Test" will display followed by the zone number of any zones that have not been tested.* • The zone LEDs of any untested zones will flash.** • "Fire Testing" will display followed by the zone number of the zone that is currently being tested.* • The zone LED for the zone currently being tested will run on steady.** • As each zone is tested, the display returns to "Fire Test" and indicates the remaining untested zones.* • As each zone is tested, its LED turns off.**	• Test each zone as instructed by your installaing company. • Exit the Zone Test using [PIN] + [#]

*DS7447 only
**DS7445 only

A Fire Walk Test will prevent the system from sending any Fire Reports during the test.

Event History Readback

The History Buffer stores the last 400 events in memory. The DS7447 can display all of these events. The DS7445 will only display those zones (1-8) that have alarmed since the last Event History Readback. If this test is performed from a Master keypad, it must be in Single Partition Mode. The RF3341 cannot display history events.

Type of Test	Command Sequence	What Will Happen	What To Do
Event History Readback	[PIN] + [#] [8] [9]	• The last event to take place will be displayed.* • The zone LEDs for any zones that have alarmed since the last Event History Readback in that partition will flash.** **Note:** To read the System Error Displays, follow the instructions in *Error Displays*.	• Scroll through the events using the [9], [6], and [#] keys.* • Exit from Event Histo using the [*] key.

* DS7447 only
** DS7445 only

DS7447 Only: Scrolling through the History Events.

To begin scrolling back through the events, press the [#] key. The [#] key will scroll you back through the history line by line. The [9] key will scroll you back in reverse chronological order by event. A [6] will scroll you back up through the events (toward the most recent) by event.

Each event consists of two or three lines or display screens. The first line/screen will be the event title and user. The second line/screen will be the date of the event or the change being made. If there is a third line/screen, it will be the date of the change.

To exit the Event History Mode, press the [*] key or wait 20 seconds and the keypad will exit automatically.

When performing this from a Master keypad, each partition will display its own history.

The Master Keypad - DS7447 only

General Information

Your system may include a Master keypad. A Master keypad is a DS7447 keypad programmed to give a user access to all the partitions he has access to, not just the partition in which the Master keypad is located. This is different from a Standard keypad in that Standard keypads only give access to the single partition in which they are located. Commands entered at the Master keypad will affect all the partitions to which the user has access. If this is not desirable, the Master keypad can also be used to control each partition individually; this is called Single Partition Mode. Single Partition Mode allows a user to control any or all of the partitions he has access to on an individual (one by one) basis (see page 44 for more information on Single Partition Mode).

Note: In order to use the Master keypad, your PIN must be assigned to the partition in which the Master keypad is located.

Master Keypad Displays (also see the following page)

Master keypad displays will differ slightly from Standard keypads. The Master keypad display will scroll the Status of each partition, followed by the partition number. For example, if all partitions are armed, the Master keypad will scroll through the following displays:

Armed area 1	**Armed area 2**	**Armed area 3**	**Armed area 4**	**Armed area 5**	**Armed area 6**	**Armed area 7**	**Armed area 8**

If only partitions 1, 2, 3, 4, 6, and 8 are armed, the Master keypad will scroll through the following displays:

Armed area 1	**Armed area 2**	**Armed area 3**	**Armed area 4**	**Ready to Arm area 5**	**Armed area 6**	**Ready to Arm area 7**	**Armed area 8**

Displays for partitions that are Not Ready will display in the same manner.

Master Keypad Displays (continued)

This chart will help you understand what each LED function of the Master keypad represents.

LED	Off	Flashing	On
Armed (red)	All partitions are disarmed.	One or more partitions are armed, or an alarm has occurred.	All partitions are armed, and no alarms have occurred.
Status (green)	Not ready to arm (if the Armed LED is on, all partitions are armed).	One or more zones are bypassed.	All partitions are ready to arm.
Power (green)	The control panel has lost all power; no AC or battery.	Control panel problems exist. See *Error Displays.*	Normal Operation. The control panel is running on AC power with no problem.
Fire (red)	There are no fire alarms	A fire zone is in alarm	A fire trouble condition exists.

Single Partition Mode

Single Partition Mode is used to control partitions on a "one at a time/one by one" basis from the Master keypad.

To enter the Single Partition Mode, enter your [PIN], then press the [#] key twice. This will call up the first partition you have access to. Enter the command sequence you wish for this partition. You do not need to use your PIN again. To move on to the next partition you have access to, press the [#] key twice.

To exit the Single Partition Mode, hold the [*] key down for 2 seconds. The system will also automatically drop out of Single Partition Mode after 40 seconds without a keypad entry.

Example of accessing Single Partition Mode

1. Enter your [PIN], followed by the [#] key twice: [1] [2] [3] [4] [#] [#].
2. The first partition you have access to will be displayed: **"Ready to Arm. Cafeteria."**
3. Complete the command sequence (in this case arming) you wish for this partition: [#] [On].
4. Move to the next partition you have access to by pressing the [#] key twice: [#] [#].
5. The next partition you have access to will be displayed: **"Ready to Arm. Office."**
6. Complete the command sequence you wish for this partition.
7. After you have completed all the command sequences for the partitions you have access to, exit Single Partition Mode by pressing the [*] key for two seconds.

Arming from the Master Keypad

Type of Arming Desired	Command Sequence
Arming **All** the Partitions to which You Have Access	[PIN] + any Arming Command Sequence This will arm all the partitions to which you have access even if they are already armed.
Arming **Only Some** of the Partitions to which You Have Access	1. [PIN] + [#] + [#]. This puts you into Single Partition Mode. 2. The first partition to which you have access is displayed: **"Ready to Arm. Cafeteria."** 3. Enter the Arming Command Sequence you want for this partition. 4. [#] + [#] opens the next partition to which you have access. 5. The next partition to which you have access is displayed: **"Ready to Arm. Office."** 6. Enter the Arming Command Sequence you want for this partition. 7. After arming any or all partitions to which you have access, you may exit Single Partition Mode by holding the [*] key for at least two seconds. The system will also drop out of Single Partition Mode after 40 seconds without a keypad entry.

Disarming from the Master Keypad

Type of Disarming Desired	Command Sequence
Disarming **All** the Partitions to which You Have Access	[PIN] + [Off] This will disarm all the partitions to which you have access even if they are already disarmed.
Disarming **Only Some** of the Partitions to which You Have Access	1. [PIN] + [#] + [#]. This puts you into Single Partition Mode. 2. The first partition to which you have access is displayed: **"Armed. Cafeteria."** 3. If you wish to disarm this partition, enter [Off]. If not, go to the next step. 4. [#] + [#] opens the next partition to which you have access. 5. The next partition to which you have access is displayed: **"Armed. Office."** 6. If you wish to disarm this partition, enter [Off]. If not, go to the next step. 7. After disarming any or all partitions to which you have access, you may exit Single Partition Mode by holding the [*] key for at least two seconds. The system will also drop out of Single Partition Mode after 40 seconds without a keypad entry.

Glossary

Access Control PIN

An Access Control PIN is a special code used to activate electric door locks or other mechanisms connected to the control panel that require this code to turn them on or off.

Armed/Disarmed

Arming the system (burglar zones) means to turn it on. Disarming the system means to turn it off. Remember, fire protection (if installed) is always Armed/on.

Central Station/Monitoring Service

A Central Station/Monitoring Service is a facility used to continuously monitor phone signals from your system. Trained personnel there dispatch proper authorities as necessary.

Common Area

A Common Area is an area that is connected to another partition or all the partitions. It may be used as a common entry way to separate partitions. A Master keypad would normally be found in the Common Area. A Common Area is only armed when all the partitions it is connected to are armed. It is disarmed when at least one of the partitions it is connected to is disarmed.

Custom Arming

Custom Arming is a type of arming that uses the [#] [4] sequence. It is only a valid sequence if programmed by the installing company. It is a specific type of arming designed for your individual installation needs. Ask your installing company to explain Custom Arming further.

Disarming Command Sequence

The Disarming Command Sequence is the sequence of keys you press at the keypad to disarm the system and/or silence alarms. It consists of your PIN followed by the command (#) button.

Entry Delay

An Entry Delay is a predetermined amount of time that allows entry into an armed area.

Exit Delay

An Exit Delay is a predetermined amount of time that allows you to exit an area just after you have armed it.

Faulted Zone

A Faulted Zone is a zone that is not ready to arm (i.e. an open door or window). It may also be described as being violated.

Force Arming

Force Arming is a way of arming the system by bypassing zones that are not ready to arm. This reduces the level of security and should be avoided.

Installing Company

The Installing Company is the company that physically installed the system. It may or may not be the same company who monitors the system.

Glossary (continued)

Local System

A Local System is a system that has a control panel that is not programmed to call a monitoring service. It will sound only local (on sight) bells or sirens when an intrusion or fire alarm is detected.

Monitored System

A Monitored System is a system that uses phone lines to notify a monitoring service of programmed abnormal events such as burglar or fire alarms.

Partition

A Partition exists when the system is divided up into 2, 3, 4, 5, 6, 7, or 8 areas or Partitions. Keypads within a Partition can interact with only that Partition.

Partitioning

Partitioning is to divide the system into 2, 3, 4, 5, 6, 7, or 8 areas or partitions. This allows the system to act as 2, 3, 4, 5, 6, 7, or 8 separate systems.

Zone

A Zone is an input to the control panel. There are eight hard-wired zones on the control panel and additional zones may be added. A zone is usually some type of detection device whether it be designed for burglar or fire.

Zone Bypassing

Zone Bypassing is a way of arming the system by deliberately eliminating zones to be armed.

Zone Function

A Zone Function is the description of how a zone behaves in the system. Zone Functions usually define how a zone will respond when armed or when it detects an alarm.

Index

Index (continued)

Quick Reference Guide

Maintenance and Service

The system should be tested weekly to ensure it is functioning properly. If problems are detected in testing or changes are noticed in normal operation, call your installing company for service. The manufacturer recommends replacing the system battery every 3 to 5 years.

Monitoring Service Phone No. _____

Monitoring Service System No. _____

Installing Company Phone No. _____

Zone	Protection	Zone	Protection	Zone	Protection	Zone	Protection	Zone	Protection
1		14		27		40		53	
2		15		28		41		54	
3		16		29		42		55	
4		17		30		43		56	
5		18		31		44		57	
6		19		32		45		58	
7		20		33		46		59	
8		21		34		47		60	
9		22		35		48		61	
10		23		36		49		62	
11		24		37		50		63	
12		25		38		51		64	
13		26		39		52			

Quick Reference Guide (continued)

Zone	Protection	Zone	Protection	Zone	Protection	Zone	Protection	Zone	Protection
65		78		91		104		117	
66		79		92		105		118	
67		80		93		106		119	
68		81		94		107		120	
69		82		95		108		121	
70		83		96		109		122	
71		84		97		110		123	
72		85		98		111		124	
73		86		99		112		125	
74		87		100		113		126	
75		88		101		114		127	
76		89		102		115		128	
77		90		103		116			

Quick Reference Guide (continued)

Zone	Protection	Zone	Protection	Zone	Protection	Zone	Protection	Zone	Protection
129		142		155		168		181	
130		143		156		169		182	
131		144		157		170		183	
132		145		158		171		184	
133		146		159		172		185	
134		147		160		173		186	
135		148		161		174		187	
136		149		162		175		188	
137		150		163		176		189	
138		151		164		177		190	
139		152		165		178		191	
140		153		166		179		192	
141		154		167		180			

Quick Reference Guide (continued)

Zone	Protection	Zone	Protection	Zone	Protection	Zone	Protection	Zone	Protection
193		206		219		232		245	
194		207		220		233		246	
195		208		221		234		247	
196		209		222		235		248	
197		210		223		236			
198		211		224		237			
199		212		225		238			
200		213		226		239			
201		214		227		240			
202		215		228		241			
203		216		229		242			
204		217		230		243			
205		218		231		244			

This page intentionally blank

System Features Reference Guide

Audible Alarm Signalling Device Sounds

Intrusion ( ) Pulse ( ) Continuous
Fire ( ) Pulse ( ) Continuous

Keypad Supplemental Alarm [B] Key

( ) Continuous ( ) Silent

This system has the Duress Alarm feature.
( ) Yes ( ) No

This system has the communicator test feature.
( ) Yes ( ) No

Turning On (arming) Your System

Normal Arming:
DS7447/DS7445: [PIN] + [On]
RF3341: [PIN] + [#] + [1]

Perimeter Arming, no entry delay:
DS7447/DS7445: [PIN] + [No Entry] + [Perimeter Only]
RF3341: [PIN] + [#] + [2]

Perimeter Arming, with entry delay:
DS7447/DS7445: [PIN] + [Perimeter Only]
RF3341: [PIN] + [#] + [3]

Maximum Security Arming:
DS7447/DS7445: [PIN] + [No Entry] + [On]
RF3341: [PIN] + [#] + [5]

Custom Arming

[PIN] + [#] + [4] for _____

Force Arming

Enter an arming command sequence followed by the [Bypass] key on DS7447/DS7445 keypads or the [9] key for RF3341 keypads. The maximum number of zones that can be forced armed is _____

Zone Bypass

[PIN] + [Bypass] followed by the [Zone number].

Quick Arming Your System

Normal Arming:
[#] + [On]

Perimeter Arming, no entry delay:
[#] + [No Entry] + [Perimeter Only]

Perimeter Arming, with entry delay:
[#] + [Perimeter Only]

Maximum Security Arming:
[#] + [No Entry] + [On]

Turning Off (disarming) Your System

Enter your [PIN] + [Off] for DS7447/DS7445 keypads or [PIN] + [#] for RF3341 keypads

System Features Reference Guide (continued)

Partitioning

( ) Partitioning enabled
( ) Partitioning **not** enabled
( ) Number of Partitions

Commands for Other System Features

Chime Mode	[PIN] + [#] [7]
Zone Test	[PIN] + [#] [8] [1]
Battery Test	[PIN] + [System Reset]
Communicator Test	[PIN] + [#] [8] [2]
Error Display	[PIN] + [#] [8] [7]
Error Display Reset	[PIN] + [System Reset]
Fire Reset	[PIN] + [System Reset]
Event History Readback	[PIN] + [#] [8] [9]
Fire Walk Test	[PIN] + [#] [9] [1]

Access Control

Enter your **[Access Code PIN]** followed by [Off].

For Service

Please contact your
installing company at _____

detection systems

Detection Systems, Inc., 130 Perinton Parkway
Fairport, New York, USA 14450-9199

A member of the
Bosch Group

7/01

DS7400Xi (Ver. 4+) User's Guide P/N: 43851C