# Allegro Control Panel Installation Manual



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This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against interference in a residential environment.

This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

Reorient or relocate the receiving antenna.

Increase the separation between the equipment and receiver.

Connect the affected equipment and the panel receiver to separate outlets, on different branch circuits.

Consult the dealer or an experienced radio/TV technician for help.

FCC Part 15 ID: B47-785B-ALGRO

IC: 867A-785ALGRO

Contact information www.utcfireandsecurity.com or www.interlogix.com

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Intended use

FCC compliance

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# Important information

This security system can be used as an intrusion alarm system, a fire alarm system, and emergency notification system. Some installations may require configurations dictated by city/state codes, insurance, or Underwriter's Laboratories (UL).

## **UL** compliance

This section describes the requirements for UL Listed systems.

#### **Basic system**

The basic system includes:

- Allegro Control Panel (60-874-95R).
- Power transformer. Standard Class II 8.0 VAC, 300 mA power transformer, Sino America (A1014444-0) UTC Fire & Security part number 22-117, or Class II 9.0 VAC 700 mA power transformer, Sino America (A30907CW), MG Electronics (AM-9700A), Leader Electronics (22-109-ITI) UTC Fire & Security part number 22-109, or Class II 9.0 VAC, 700 mA power transformer with cord manufacturer: MG Electronics (22-131A) UTC Fire & Security part number 22-131, or alternate transformer for US installations, 9 VAC, 25 VA power transformer MG Electronics (MGT925) UTC Fire & Security part number 22-155. In Canada, Class II 9 VAC, 700 mA MG Electronics (22-109-CN) UTC Fire & Security part number 22-109-CN.
- Dialog Telephone Interface Module (DTIM) (60-879-95R).
- Backup battery 4.8 VDC rechargeable NiCd battery pack (34-057).
- A 2 kΩ EOL resistor (49-467) is required for UL Listed systems.

#### Household Burglary Alarm System Unit (UL 1023)

The basic system, plus:

- Hardwire magnetic contact (13-068 or 13-071), wireless door/window sensor (60-362), wireless PIR motion sensor (60-703-95 or 60-639).
- Receiver trouble set to on.
- Exit delay set to 60 seconds or less (If silent exit is used, exit delay must be 30).
- Quick exit set to off.
- Siren timeout set to 4 minutes or more.
- Entry delay set to 45 seconds or less.

· Quiet time set to off.

#### **Household Fire Warning System (UL 985)**

The basic system, plus:

- Wireless smoke sensor (60-848-02-95) programmed (learned) into sensor group 26.
- Receiver trouble set to on.
- Quiet time set to off.
- Exit extension set to off.
- Siren timeout set to 4 minutes or more.

**Note:** California State Fire Marshall Listed systems have the same requirements as Household Fire Warning System (UL 985).

#### **Digital Alarm Communicator System (UL 1635)**

The basic system, plus:

- · AC failure set to on.
- · Low CPU battery set to on.
- Auto phone test set to one.
- Combined entry delay and abort window should not exceed 1 minute.

#### **UL-Canada Listed system**

Requirements for Residential Burglary Alarm System Unit (ULC-S309) are:

- Siren timeout set to 5 minutes.
- UL Canada or CSA certified accessories.
- Same as UL basic system and Household Burglary Alarm System Unit (UL 1023) except, 22-117-CN or 22-109-CN transformer must be used.

## SIA system requirements

SIA system requirements are the same as those described for a UL Listed basic system, plus if multiple annunciation is required, the Dialog QS1000 Allegro Remote Station (60-982-95R).

The installation requirements for UL Listed systems have priority over SIA requirements.

Table 1 on page 3 describes programming requirements to meet ANSI-SIA CP-01.

**Table 1: SIA requirements** 

Function	Default setting	Required setting
Entry delay	30 seconds	30 to 240 seconds
Exit delay	60 seconds	45 to 254 seconds
Dial delay	30 seconds	15 to 45 seconds
Auto-stay arm	On	On
Predial string	None	Set if reporting to central station and customer has call waiting service
Exit extension	On	On
Swinger shutdown	1 trip	1 to 2 trips
Smoke verify	Off	On
Duress code	Disabled	Disabled
Alarm verify/cross zoning	Disabled	Enabled for PIRs

Table 2 below describes nonprogrammable (hard coded) system operation required to meet ANSI-SIA CP-01 and is provided only for reference.

**Table 2: Nonprogrammable system operation** 

Function	Operation
Silent exit	All annunciators enabled
Remote arming exit time and progress annunciation	All annunciators enabled
Abort annunciation	Enabled
Cancel report annunciation	Enabled
Recent closings	Enabled (two-minute window)
Exit error	Enabled

## **Central station reporting**

The panel has been tested with the following central station receivers using SIA and Contact ID reporting formats:

- CS-5000 Central Station Receiver
- Sur-Gard Central Station Receiver with models SG-DRL2A and SG-CPM2
- Osborne-Hoffman OH 2000 Central Station Receiver

# Installing the panel

The panel keypad provides complete system programming, operation control, system message displays, and system status indicators.

The system's basic (out-of-the-box) hardware capabilities include:

- AC Class II 8 or 9 VAC power transformer.
- Rechargeable 4.8 VDC NiCd backup battery pack (provides up to 24 hours of operation without AC power).
- One supervised hardware zone (input for various hardwired detectors).
- Built-in radio receiver that allows use of up to 20 UTC Fire & Security 319.5
   MHz crystal and/or SAW learn mode wireless sensors and touchpads.
- Built-in siren capable of 85 dB at 10 ft. (3 m).
- Built-in panel keypad.
- Liquid crystal display (LCD).

The dialog telephone interface module (DTIM) allows the panel to communicate with the central monitoring station. The DTIM does not have a backup battery.

**Note:** Before beginning an installation, you must verify compatibility with the listed central station receivers indicated for the installation.

The system can monitor up to 20 of the following sensors:

- Door/Window Sensor (60-670-95R)
- 2-Button Keychain Touchpad (60-607-319.5)
- Remote Handheld Touchpad (60-671-95R)
- Indoor Motion Sensor (60-639-95R)
- Carbon Monoxide Alarm (60-652-95) (not investigated by UL)
- Smoke Sensor (60-848-02-95)
- ShatterPro Glass Break (60-873-95)
- Freeze Sensor (60-742-95R or 60-504-10-319.5)
- Water Sensor (60-744-95R)
- Dialog QS1000 Allegro Remote Station (60-982-95R)

Before starting the installation, plan your system layout and programming using the worksheets provided in "Reference tables" on page 43.

To install the system you will need to:

- Mount the panel.
- Connect detection devices to panel zone inputs.
- Connect the AC power to the transformer.
- Connect the backup battery pack.
- Power up the panel.

## Mounting the panel

Before permanently mounting the panel, use the following guidelines to determine the panel location:

- To prevent wire runs from picking up electrical noise, avoid running wires parallel with electrical wiring or fixtures such as fluorescent lighting.
- Mount the panel at a comfortable working height (about 45 to 55 in. from the floor to the bottom of the panel).
- Leave space above the panel for the optional antenna housing (minimum 4 in.).
- Mount the panel at least 10 ft. from any other panel or DTIM.

When mounting the panel, you can choose from three antenna options:

- Standard range
- Extended range
- Longest range

Methods for installing each option are given below.

#### To mount the panel:

- 1. Remove the panel from the mounting plate by lifting and pulling back the tab on the top of the panel (Figure 1 on page 6).
- 2. Remove the wiring knockout (Figure 2 on page 6).

The knockout is approximately the same width as a wall stud. If mounting the panel to a wall stud, be sure you have enough room to feed the wires through the knockout.

- 3. Feed all device wires through the knockout and place the mounting plate in position against the wall.
- 4. Level the mounting plate and mark the top and bottom mounting holes (Figure 2 on page 6). Install anchors where studs are not present.
- 5. Partially insert a screw into the top mounting hole location and then hang the mounting plate on the screw.
- 6. Recheck for level, insert the lower screw, and tighten both mounting screws.
- 7. Install the antenna for the desired range.

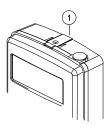
Standard range: Leave the antenna as is (Figure 3 on page 6).

Extended range: Attach the optional antenna housing (included in the accessory pack) to the panel. Push the antenna housing down into the top right hole of the panel until it snaps into place (Figure 4 on page 7). Remove the antenna loop from the last clip and inset it into the antenna housing.

Longest range: Hang the antenna in the wall. When you mark the mounting holes in the back plate, also mark the antenna hole (Figure 2 below) and drill a hole in the wall at the mark. Remove the antenna loop from the clips, and then feed the antenna through the antenna hole and down into the wall.

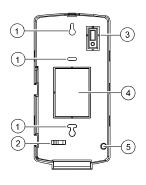
8. Place the panel into the mounting plate and snap into place.

Figure 1: Tab location



1. Tab

Figure 2: Mounting plate



- 1. Mounting hole
- 2. Wire clip
- 3. Tamper switch
- 4. Knockout
- 5. Antenna wire hole

Figure 3: Antenna loop



1. Antenna loop

Figure 4: Antenna housing



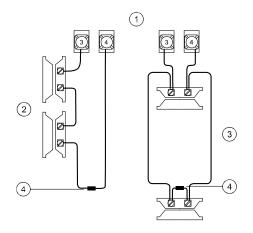
1. Antenna housing

## Connecting detection devices to panel zone inputs

The zone input is supervised using a  $2-k\Omega$  end-of-line (EOL) resistor (included with the panel) at the last device on the circuit. It accepts either normally open (NO) or normally closed (NC) detection devices.

Figure 5 below shows the typical wiring for NC and NO door/window intrusion detection.

Figure 5: Intrusion detection wiring



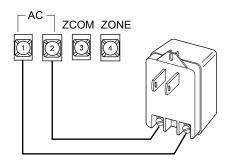
- 1. Panel terminals
- 2. Normally closed (NC) contacts in series
- 3. Normally open (NO) contacts in parallel
- 4. 2-kΩ EOL resistor

## **Connecting the AC power transformer**

Do not plug in the power transformer at this time. The panel must be powered up using the sequence of steps described in "Powering up the panel" on page 9.

The panel must be powered by a UL approved transformer. Connect the power transformer to the panel as shown in Figure 6 below.

Figure 6: Power transformer connection



**Note:** In Canada, use the AC power transformer without a securing tab (22-117-CN or 22-109-CN).

## Connecting the backup battery pack

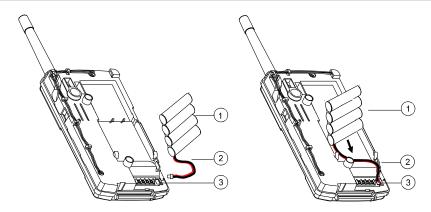
The panel will receive its primary power from an AC Class II transformer. In the event of an AC power failure, the panel will be powered by a battery pack containing four rechargeable NiCd batteries.

#### To connect the backup battery pack:

- 1. Remove the panel from the mounting plate by lifting and pulling back the tab on the top of the panel (Figure 1 on page 6).
- 2. Slide the battery pack into the space provided on the back of the panel (Figure 7 on page 9).
- Plug the battery pack lead into the slot provided next to the wire terminals.Be sure to run the battery pack wires below the battery and through the wire channel.
- 4. Replace the panel on the mounting plate and snap into place.

**Note:** Make sure the front door of the panel is in place before replacing the panel on the mounting plate. It is not possible to attach the door after the panel is secured into the mounting plate.

Figure 7: Backup battery pack



- 1. Battery pack
- 2. Battery pack lead
- 3. Battery connector

## Powering up the panel

After connecting and wiring all devices to the panel, you are ready to apply AC power to the panel.

#### To power up the panel:

- 1. Plug the transformer into an outlet that is not controlled by a switch or ground fault circuit interrupt (GFCI). Be sure to screw the top of the transformer onto the outlet so that it doesn't fall out of the outlet.
  - If the DTIM is programmed (learned) into the system (see "Programming the DTIM into the panel" on page 11), the panel displays TEL MODULE INITIALIZING while the panel and the DTIM sync up. This will take approximately five minutes.
- 2. To eliminate the five minute wait, remove and replace the DTIM cover after powering up the Allegro system.
  - See "Troubleshooting" on page 38 if the panel displays LOW BATTERY.

**Caution:** Be careful when securing the transformer to an outlet with a metal cover. Hold the cover tightly in place. You could receive a serious shock if the metal outlet cover drops onto the prongs of the plug while you are securing the transformer and cover to the outlet box. If the panel does not have a display showing, immediately unplug the transformer and disconnect the backup battery.

# **Programming overview**

You can program the panel manually using the panel keypad on site. Alternately, you can program remotely via a modem and phone line using Enterprise Downloader software.

## Panel keypad buttons

In program mode, panel keypad buttons let you navigate to all installer programming menus. Table 3 below describes how the panel keypad buttons function in program mode.

**Table 3: Keypad button functions** 

Button	Programming function	
Bypass/Select (#)	Selects menu item or data entry (move to tier 2 programming). Toggles between on and off whenever needed.	
	Press twice to delete options that can be deleted.	
Status/Back (*)	Deselects menu item or data entry (if pressed before #). Returns to the tier 1 program menu.	
Lock (up arrow)	Scroll through available options at the current menu tier.	
Unlock (down arrow)	Press Unlock (down arrow) to advance forward through the menus. Press Lock (up arrow) to back up through the menus	
0 to 9	Enter numeric values whenever needed.	
1 to 6	Press and hold to enter A to F in account numbers.	
Silent	Press to enter a pause in phone numbers. Pause displays as a "P".	
7	Press and hold to enter "*" characters in phone numbers.	
9	Press and hold to enter "#" characters in phone numbers.	

## **Clearing memory**

We strongly recommend that you clear memory on all newly installed panels before programming. Clearing memory deletes all existing programming information and then resets the panel settings to their default settings. The dealer code is not erased when panel memory is cleared.

#### To clear panel memory:

- 1. Press 8 and enter the dealer or installer code.
  - The display shows ACCOUNT.
- 2. Press the up arrow twice.

The display shows CLEAR MEMORY.

- Press #.
- 4. Enter the dealer or installer code to clear memory.

## **Programming the DTIM into the panel**

The Dialog Telephone Interface Module (DTIM) is a battery operated communication link between the security system control panel and the central monitoring station. The DTIM receives radio signals from the panel, and then uses the phone line to report security system events to the central monitoring station. Refer to the DTIM documentation for complete installation instructions.

The DTIM uses a 3-2-1 tamper switch activation sequence for learning (programming), which causes the LED to blink in a corresponding 3-2-1 sequence. You must wait for the LED to turn off after each flash sequence before releasing the tamper switch.

#### To program the DTIM into the panel:

- 1. Remove the DTIM cover and set it aside.
- Install the antennas.

The antennas must be installed and the DTIM should be at least 10 ft. from the panel for programming.

- 3. With the system disarmed, enter program mode by pressing 8 + code.
- 4. Press the down arrow twice and # twice.

The display shows ZONE 01 - TRIP.

- 5. Locate the DTIM tamper switch and LED (refer to the DTIM documentation).
- 6. Press and release the DTIM's tamper switch as follows:

Press three times, holding the tamper switch down on the third press until the LED flashes three times, then release after the third flash.

Immediately press two times holding the tamper switch down on the second press until the LED flashes two times, then release after the second flash.

Immediately press and hold, then wait for the panel to beep once indicating it learned (programmed) the DTIM. Release the tamper switch.

7. Continue programming the panel or exit from program mode.

Timing is the key to success in step 6. Do not wait more than one second between tamper switch activations. If you wait too long, the LED will not flash and you must start over. If you release the tamper switch before the LED is done flashing, you must start over.

# Installer programming menus

There are three tiers of programming menus. Tier 1 menus are accessible immediately after entering program mode.

## **Entering installer programming mode**

To enter installer programming mode, use an installer code at the panel. The default installer code is 4321. You can only put the system in program mode when the system is disarmed. Press 8 + code (with the system disarmed).

Table 4 below shows the installer programming menus.

**Table 4: Programming menus** 

Tier 1 menu	Tier 2 menu	Tier 3 menu	Range	Default
Account			4 to 10 digits	00000
Phones	Phone 1	Number 1	24 digits	None
		FMT-CID	SIA or CID	CID
		High level	On or off	On
		Low level	On or off	On
		Openings	On or off	Off
		Closings	On or off	Off
	Phone 2	Number 2	24 digits	None
		FMT-CID	SIA or CID	CID
		High level	On or off	Off
		Low level	On or off	Off
		Openings	On or off	Off
		Closings	On or off	Off
	Dial delay		15 to 45 seconds	30 seconds
	Predial string		8 digits	None
	DTMF dial		On or Off	On
Devices	Add			
	Delete			
	Review			
	Text			
Downloader	Number		24 digits	None
	DL code		6 digits	123456
Codes	Install code		4 digits	4321
	Dealer code		4 digits	None

Tier 1 menu	Tier 2 menu T	ier 3 menu	Range	Default
	Duress code		4 digits	None
	Manager code		4 digits	None
	Maintenance code		4 digits	None
Γimers	Entry delay		30 to 240 seconds	30 seconds
	Exit delay		45 to 254 seconds	60 seconds
	Auto phone test		0 to 255 days	0 (off)
	Quiet time		On or off	On
	Quiet hour		00 to 23	22
	Rearm timer		0 to 12 hours	0
Options	KTP arm		On or off	Off
	Police panic		On or off	On
	Emergency panic		On or off	Off
	Fire panic		On or off	On
	Receiver trouble		On or off	Off
	Panel tamper		On or off	On
	Exit extension		On or off	On
	Swinger shutdown		1 or 2	1
	Quick arm		On or off	Off
	Quick exit		On or off	On
	Auto stay arm		On or off	On
	Supervisory time		12 am to 11:59 pm	1:00 am to 3:59 am
	Alarm verify		On or off	Off
	Smoke verify		On or off	Off
	Demo kit		On or off	Off
Reports	AC fail		On or off	Off
	Low CPU battery		On or off	On
	Phone test		On or off	On
	Fire restoral		On or off	On
Siren	Siren time out		1 to 30 minutes	4 minutes
	Trouble beeps		On or off	On
	Alarm volume		0 to 6	6

Tier 1 menu	Tier 2 menu	Tier 3 menu	Range	Default
	Loud KTP beeps		On or off	Off
Clear memory				
Exit				

## Account menu

Use the Account menu to set up the account number used for customer identification by the central monitoring station. The panel sends the account number every time it reports to the central station.

Account numbers must be 4 to 10 characters long. You can assign alpha characters A to F to the account number by pressing and holding buttons 1 to 6 respectively, until the character appears.

To program an account number, press #, then enter the 4 to 10 digit code (0 to 9 and A to F) and press #.

The default is 00000.

**Note:** The CID format only supports four-digit account numbers with letters B to F, or numbers 0 to 9 (or a combination of those letters and numbers).

### Phones menu

Use the Phones menu to set up central station reporting for the Allegro system. Table 5 below shows the Phones tier 2 menus.

Table 5: Phones tier 2 menus

Menu	Description
Phone 1 and Phone 2	The Phone 1 and Phone 2 menus contain the tier 3 menus shown in Table 6 on page 15.
Dial Delay	Alarm reports from sensors in groups 00, 01, 04, 06, 08 to 10, 13 to 20,
disarm the system within the dial delay tir reports from these sensor groups are abortollowing reports can also be aborted: system within the dial delay tir reports from these sensor groups are abortollowing reports can also be aborted: system within the dial delay tir reports from these sensor groups are abortollowing reports can also be aborted: system within the dial delay tir reports from these sensor groups are abortollowing reports can also be aborted: system within the dial delay tir reports from these sensor groups are abortollowing reports can also be aborted: system within the dial delay tir reports from these sensor groups are abortollowing reports can also be aborted: system within the dial delay tir reports from these sensor groups are abortollowing reports can also be aborted: system within the dial delay tir reports from these sensor groups are aborted: system within the dial delay tir reports from these sensor groups are aborted: system within the dial delay tir reports from these sensor groups are aborted: system within the dial delay tir reports from the system	29, and 38 can be aborted. To abort the dialing attempt, you must disarm the system within the dial delay time setting. Cancel and restoral reports from these sensor groups are aborted at the same time. The following reports can also be aborted: system tamper alarm/cancel; touchpad police and emergency panic/cancel; forced arming; and recent closing.
	To set the dial delay, enter the desired amount of time (15 to 45 seconds) and then press #.
	Note: Fire alarm reports to the central station cannot be aborted.

Menu	Description
Predial String	Determines a dialing prefix to disable the call waiting feature before the panel makes its first dialing attempt to any programmed central monitoring station or downloader phone number. The prefix can be up to eight digits. Contact your local phone company for call waiting disable numbers and characters.
	To set the predial string, enter the desired numbers (see "Panel keypad buttons" on page 10) and press #.
	To delete the predial string, press # twice.
	Programming a call waiting disable string on a phone line that does not have call waiting will prevent successful communication with the central station.
	The predial string is not accessible if a dealer code is programmed and the installer code is used to enter installer programming mode. To access the predial string menu when a dealer code is programmed, you must enter installer programming mode using the dealer code.
DTMF Dial	Determines whether the panel uses DTMF tones (on) or pulse (off) for
Default = On	dialing programmed phone numbers.
	To set this option, press # to turn it on or off.

Table 6 below describes the Phone 1 and Phone 2 tier 3 menus.

Table 6: Phone 1 and Phone 2 tier 3 menus

Menu	Description
Number 1/2	Central station receiver phone number (1 to 24 digits long, including pauses or * and # characters).
	To program Number 1 or 2, enter a 1 to 24 digit number (see "Panel keypad buttons" on page 10) and press #. To clear the phone number, press Quick Exist. Press Silent to enter a pause in phone numbers. Press and hold the 7 button to enter "*" characters in phone numbers. Press and hold the 9 button to enter "#" characters in phone numbers.
	To delete Number 1 or 2, press # twice.
	The phone numbers are not accessible if a dealer code is programmed and the installer code is used to enter installer programming mode. To access these numbers when a dealer code is programmed, you must enter installer programming mode using the dealer code.
	Call-waiting services should be disabled to prevent interrupting panel communication to the central monitoring station. To program a dialing prefix that disables call-waiting, see Predial String in Table 5 on page 14.
FMT – CID	Determines whether the system uses the SIA (off) or CID (on) reporting
Default = On (CID)	format for central station communication.
	To set this option, under Phone 1 or 2, press # to turn it on or off.

Menu	Description
High Level	High level reporting. If on, the following conditions report to the central
Defaults: Phone 1 = On; Phone 2 = Off; UL installations = On	station: fire, police, emergency, and duress alarms; phone test; receiver trouble; tamper alarm conditions (including zone tampers and system tamper); cancel report; exit error; RF Interference; and recent closing.
	To set this option, under Phone 1 or 2, press # to turn it on or off.
Low Level	Low level reporting. If on, the following nonalarm conditions report to the
Defaults: Phone 1 = On, Phone 2 = Off, UL installations = On	central station: AC failure; forced arming; entering or exiting sensor test mode; hardwired zone trouble; RF supervisory; RF low battery; low panel battery; and phone test
	To set this option, under Phone 1 or 2, press # to turn it on or off.
Openings	Determines whether an opening report is sent to the central station. If on, the panel sends an opening report when the system is disarmed.
Default = Off	To set this option, under Phone 1 or 2, press # to turn it on or off.
Closings Default = Off	Determines whether a closing report is sent to the central station. If on, the panel sends a closing report when the system is armed.
Doldan Oli	To set this option, under Phone 1 or 2, press # to turn it on or off.
Backup (Phone 2 only) Default = On	Determines whether the DTIM uses phone number 2 for reporting if three initial attempts on phone number 1 are unsuccessful. Phone 1 is backed up by Phone 2. The DTIM makes up to 16 attempts (8 per phone number), alternating between the two programmed phone numbers.
	For example, if backup is on and three failed reporting attempts occur using Phone 1 (panel displays PHONE 1 FAIL), the DTIM switches to Phone 2 for three more reporting attempts. If these attempts fail (panel displays PHONE 2 FAIL), the DTIM switches back to Phone 1 for five more reporting attempts, and if necessary, switches back to Phone 2 for five final attempts. If these final attempts fail, the panel will display PHONE FAILURE.
	To set this option, press # to turn it on or off.

## **Devices menu**

Use the Devices menu to program the devices in the system. Table 7 below shows the sensor group assigned to the devices.

**Table 7: Device sensor groups** 

Device	Sensor group
Keyfob or RF touchpad	1
Portable panic	1
Hardwired input	10
Door/window sensor	10
Carbon monoxide detector	10, must be changed to sensor group 34 to ensure proper supervision
Freeze sensor	10, must be changed to sensor group 29 to ensure proper supervision
Water sensor	10, must be changed to sensor group 38 to ensure proper supervision
PIR motion detector	17
Sound sensor	17
Glassbreak sensor	17
Smoke detector	26
Rate-of-rise heat detector	26
DTIM	39
Dialog QS1000 Allegro Remote Station	10, the zone input is assigned to sensor group 10

See Table 20 on page 36 for more information on sensor groups.

Table 8 below describes how to program (learn) the device into the panel.

**Table 8: Device programming** 

Device	Programming
Door/window sensor (SAW)	Press the button on the top of the sensor (cover removed).
Motion sensor	Press and release the button on the back of the sensor (mounting plate removed).
Keychain touchpad (nonencrypted)	Press the lock and unlock buttons at the same time until LED blinks.
Keychain touchpad (encrypted)	Refer to the touchpad documentation
Crystal sensor	Refer to the sensor documentation.

Device	Programming
DTIM	3-2-1 sequence (see "Programming the DTIM into the panel" on page 11)
Hardwire sensor	For normally closed, separate the sensor for the magnet. For normally open, close the sensor then reopen.
Carbon monoxide alarm	Plug in the module and within 30 seconds, press and hold the test/rest button until you hear six beeps.
Freeze and water sensor	Trip the sensor as described in Testing sensors/zones on page 34, then press and hold the button on the top of the sensor (cover removed) until the system confirms programming.
Dialog QS1000 Allegro Remote Station	Press and hold the police panic buttons for two seconds.

Table 9 below describes the Devices tier 2 menus.

Table 9: Devices tier 2 menus

Menu	Description
Add	When adding devices, the panel will automatically assign the device to a sensor group based on the type of device. To add a device:
	1. Press #. The display shows ZONE (01 to 20) - TRIP.
	<ol><li>Trip the sensors (see Table 8 on page 17). The panel beeps twice to indicate the sensor was successfully learned into the panel.</li></ol>
	To override the assigned sensor number, scroll to the desired sensor number.
Delete	Remove hardwire and wireless sensors from panel memory. To delete a device:
	Scroll through the learned zones.
	<ol><li>Press # to delete the displayed zone. The display shows the next sensor.</li></ol>
	Deleting zones/sensors does not delete text associated with the deleted zone/sensor number.
Review	Review devices allows you to change the group assigned to devices.  The panel accepts the group numbers defined in Table 21 on page 43.
	For example, the display shows ZONE 01 GRP 10, where ZONE 01 is the zone/sensor number and GRP 10 is sensor group 10. Enter the desired group number to modify, then press #. The display shows the new setting.

Menu	Description
Text	The panel allows you to associate sensor text to each device. The sensor text consists of a prefix field, base field, and suffix field. Table 10 below below shows the words available for each field. The default text for zones 2 to 3 are: Zone 2 = Front door, Zone 3 = Back door. To add text:
	<ol> <li>Navigate to the zone you want to add text to and press #. The base words are the first to display.</li> </ol>
	<ol><li>Press #, scroll through the base words, and then press # to select the word you want.</li></ol>
	<ol><li>Navigate to the prefix words. Press #, scroll through the prefix words, and then press # to select the word you want.</li></ol>
	<ol> <li>Navigate to the suffix words. Press #, scroll through the suffix words, and then press # to select the word you want.</li> </ol>
	<ol><li>Press * to review what you have selected, and then navigate to the next zone to change.</li></ol>
	<ol><li>Repeat the procedure to change all zone.</li></ol>
	The text for the zone in which the DTIM is learned is automatically set to Phone Module when it is enrolled. Some combinations of sensor text are too long for the display.

Table 10: Sensor text

Field	Text options
Prefix	None, North, NE, East, SE, South, SW, West, NW
Base	None, Keychain, Touchpad, Front, Back, Garage, Bedroom, Guest Room, Childs Room, Utility Room, Living Room, Dining Room, Bathroom, Laundry Room, Kitchen, Office, Den, Special Chime, Basement, Upstairs, Downstairs, Hallway, medicine Cabinet, Closet, Attic, System Panic, Phone Module
Suffix	None, Door, Window, Remote, Smoke, Emergency, Motion, Fire, Freeze, CO, 0, 1, 2, 3, 4, 5, 6, 7, 8, 9

## Downloader menu

Use the Downloader menu to set up the Allegro panel for use with Enterprise Downloader software. Table 11 below describes the Downloader tier 2 menus.

Table 11: Downloader tier 2 menus

Menu	Description
Number	Phone number of an off-site computer that can be used to program the panel through the phone line. The number can be 1 to 24 digits long, including pauses or * and # characters.
	To program a downloader number, enter a 1 to 24 digit number and then press #. Press Silent to enter a pause in phone numbers (pause displays as a "P"). Press and hold the 7 button to enter "*" characters in phone numbers. Press and hold the 9 button to enter "#" characters in phone numbers.
	To delete a downloader number, press # twice.
	The phone number is not accessible if a dealer code is programmed and the installer code is used to enter installer programming mode. To access these numbers when a dealer code is programmed, you must enter installer programming mode using the dealer code.
	For this feature to work, the DTIM must be connected to a phone line with a downloader phone number, and with a downloader code.
	Call-waiting services should be disabled to prevent interrupting panel communications to the downloader. To program a dialing prefix that disables call-waiting, see Predial String in Table 5 on page 14.
DL Code	Downloader code. This 5-digit code is used in conjunction with
Default = 12345	downloader programming. The downloader operator must have the panel account number, dealer code, and downloader code in order to perform any programming.
	To program a downloader code, enter the 5-digit code (0 to 9) and then press #.
	The downloader code cannot be deleted from panel memory. To change the downloader code to its default setting, enter 12345 when programming the downloader code.

# Codes menu

Use the Codes menu to define the codes described in Table 12 below.

Table 12: Codes tier 2 menus

Menu	Description
Install Code	The 4-digit installer code is used for entering program mode and
Default = 4321	changing system settings. If a dealer code is programmed, all settings except phone numbers, predial string, downloader number, and dealer code can be changed.
	To change an installer code, enter a 4-digit code (0 to 9) and then press #.
Dealer Code	The 4-digit dealer code is used to prevent unauthorized persons from changing the programmed central station phone numbers. When this feature is enabled, central station phone numbers, predial string, and downloader phone number cannot be changed (unless you enter program mode using the dealer code). All other system settings are still accessible by entering program mode with the installer code.
	To program a dealer code, enter a 4-digit code (0 to 9) and then press #.
	To delete a dealer code, press # twice.
	When memory is cleared, the dealer code will not be deleted from panel memory. If a dealer code has already been programmed into the system, use that code to change the dealer code.
Duress Code	The duress code is a unique 4-digit access code that allows users to operate the system and, at the same time, instructs the panel to send a silent alarm report to the central station.
	To program a duress code, enter a 4-digit code (0 to 9) and then press #.
	To delete a duress code, press # twice.
Manager Code	The manager code functions the same as the primary code within the user programming menu, and can arm or disarm the system.
	To program a manager code, enter a 4-digit code (0 to 9) and then press #.
	To delete the manager code, press # twice.
Maintenance Code	The maintenance code is used in conjunction with the apartment manager keychain touchpad. When a maintenance person needs access to a site protected by Allegro, they can press disarm on the apartment manager keychain touchpad, enter the premises, then disarm using the maintenance code at the panel.
	To program a maintenance code, press #, enter the desired 4–digit code (0 to 9) and then press #.
	To delete the maintenance code, press # twice.

# Timers menu

Use the Timers menu to set up the timers described in Table 13 below.

Table 13: Timers tier 2 menus

Menu	Description
Entry Delay  Default = 30 seconds, for UL installations, 45 seconds	Entry delay determines how much time you have to disarm the system after entering the armed premises through a designated delay door
	(group 10) without causing an alarm.
	To set the entry delay, press # enter the desired time (30 to 240 seconds), and then press #.
Exit Delay  Default = 60 seconds,	Exit delay determines how much time you have after arming the system to leave the premises through a designated delay door (group 10 to 19) without causing an alarm.
for UL installations, 60 seconds	To set the exit delay, press #, enter the desired time (30 to 254 seconds), and then press #.
Auto Phone Test Default = 0 days	Automatic phone test. The system can be set to perform an automatic phone test anywhere from every day to every 255 days. Set this option to 0 to turn it off.
	To set the automatic phone test, press #, enter the desired number of days (0 to 255), and then press #.
Quiet Time  Default = On, for UL	Quiet time determines whether quiet hour is enabled or disabled. If enabled, proceed to Quiet Hour to set the quiet time desired.
installations, Off	To set the quiet time, press # to turn it on or off.
	Note: Fire related trouble beeps are not affected by quiet time.
Quiet Hour	Quiet hour determines the start time of a 10-hour window during which
Default = 22	trouble beeps are suppressed. For example, if quiet hour is set to 22 (10 p.m.), nonfire related trouble beeps would not start between 10 p.m. and 8 a.m.
	To set quiet hour, enter the desired time (00 to 23) and then press #.
Rearm Timer	Rearm timer determines how long the system will remain disarmed
Default = 0	before it rearms to the previous level if disarmed with the Allegro keychain access manager. Refer to the Allegro keychain access manager documentation for more information on its use.
	To set the rearm timer, press #, enter the desired number of hours (0 to 12 hours), and then press #.

# **Options menu**

Use the Options menu to program the security options described in Table 14 below.

Table 14: Options tier 2 menus

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Menu	Description
KTP Arm Default = Off	Keychain touchpad arming. When this option is on, pressing the lock button on keychain touchpads arms the system directly to level 3 with the no delay option. When this option is off, each key press increments the arming level without the no delay option.
	To set this option, press # to turn it on or off.
Police Panic Default = On	Determines whether panel keypad police panic buttons are enabled (on) or disabled (off). If enabled, an immediate police alarm will occur after the police panic buttons are pressed for two seconds and the panel displays the alarm as a police panic.
	If the DTIM is installed with the system, an alarm report will be issued. If the dialer delay option is on, the report will be delayed or can be aborted.
	To set this option, press # to turn it on or off.
Emergency Panic Default = Off	Determines whether panel keypad emergency panic buttons are enabled (on) or disabled (off). If enabled, an immediate alarm will occur after the emergency panic buttons are pressed for two seconds and the panel displays the alarm as an emergency panic.
	If the DTIM is installed with the system, an alarm report will be issued. If the dialer delay option is on, the report will be delayed or can be aborted.
	To set this option, press # to turn it on or off.
Fire Panic Default = On	Determines whether panel keypad fire panic buttons are enabled (on) or disabled (off). If enabled an immediate fire alarm will occur after the fire panic buttons are pressed for two seconds and the panel displays the alarm as a fire panic.
	If the DTIM is installed with the system, an immediate alarm report will be issued.
	To set this option, press # to turn it on or off.
	Note: The fire panic alarm report cannot be aborted or cancelled.
Receiver Trouble  Default = Off, for UL installations, On	When receiver trouble is on, the panel reports a receiver failure if a wireless sensor signal has not been received for two hours, or if the receiver is being jammed with a constant signal.  To set this option, press # to turn it on or off.
	TO SEL HIIS OPHOLI, PLESS # TO TAILL IT OF OIL.

Menu	Description
Panel Tamper Default = On	Determines how the panel handles possible tamper situations. When this feature is on, the panel reports a panel tamper if the panel back cover or DTIM cover is opened while the panel is armed. A police alarm will sound and the panel will display PANEL TAMPER OF PHONE MODULE TAMPER. If this feature is off or the system is disarmed, the panel will display a status message only.
	To set this option, press # to turn it on or off.
Exit Extension  Default = On, for UL installations, Off	When the exit extension option is on, the panel restarts the exit delay timer if you reenter the premises through a standard delay door before the standard exit delay expires. This helps prevent exit faults and false alarms by allowing you to reenter the premises for a forgotten item.
	When this option is off, the exit delay timer does not restart if you reenter the premises, forcing you to disarm the system to avoid setting off an accidental alarm.
	To set this option, press # to turn it on or off.
Swinger Shutdown Default = 1	Determines the maximum number of times a sensor or zone can go into alarm (during a single arming period) before the panel automatically bypasses that sensor or zone. This feature applies to all sensor groups except the fire (26), DTIM (29), and special chime (25) groups.
	When set to 1, the panel automatically bypasses a sensor or zone after it causes an alarm. When set to 2, the panel waits until a sensor or zone has caused a second alarm (during the same arming period) before bypassing it.
	Changing the arming level also clears all bypassed sensors and zones and reset the swinger limit count on all sensors and zones.
	To set the swinger shutdown, press #, enter the desired number (1 or 2), and then press #.
Quick Arm Default = Off	When this feature is on, the system arming level can be increased without entering an access code. A valid access code is still required to disarm the system.
	To set this option, press # to turn it on or off.
Quick Exit  Default = On, for UL installations, Off	When quick exit is on and the system is armed, pressing Quick Exit starts a two-minute timer. During the two minutes, exit or entry is allowed through a standard entry/exit door (sensor group 10). You may open and close the entry/exit door as many times as necessary within the two minutes. When this feature is off, the system must be disarmed if a protected door is opened.
	To set this option, press # to turn it on or off.

Menu	Description
Auto Stay Arm Default = On	When this feature is on and the system is armed, the display counts down the exit delay time. If the exit delay time expires with no group 10 sensor activation, the system automatically arms to Level 2 (doors and windows).
	To set this option, press # to turn it on or off.
	Arming the system to Level 3 with no delay or arming to Level 3 from a keychain touchpad or hand-held touchpad overrides the automatic stay arming feature.
Supervisory Time Default = 1:00 a.m. to	Determines what time of day the panel sends supervisory, low battery, and automatic phone test reports to the central station.
3:59 a.m.	To set the supervisory time, press #, enter the desired time (12:00 a.m. to 11:59 p.m.), scroll to select am or pm, and then press #.
	The panel clock must be set with the correct time for accurate supervisory time reporting.
Alarm Verify Default = Off, for UL installations, Off	Determines whether the panel reports to the central monitoring station after a single sensor or zone trip (off) or waits for a second trip before reporting (on). This setting affects sensors/zones in groups 10 through 20. If alarm verify is set to on, group 18 responds the same as group 17.
	To set this option, press # to turn it on or off.
	<b>Note:</b> The first trip of a sensor will be a local alarm (doesn't call in); the second trip must be a different sensor within four minutes of the first trip.
Smoke Verify Default = Off	Determines whether the panel reports to the central monitoring station after a single trip of a group 26 fire sensor (off), or waits for a second group 26 sensor trip or a repeat message from the first sensor before reporting (on).
	To set this option, press # to turn it on or off.
	<b>Note:</b> When enabled, the first trip of a sensor will be a local alarm. The second trip must occur while the siren is sounding from the first trip.
	Performing a download to an Allegro panel with software version 1.3 with ToolBox version 5.7 will turn this feature off. Version 5.7.1 fixes this issue.

Menu	Description
Demo Kit	Determines whether the panel is used for a standard installation (off), or
Default = Off	as a demo kit (on).
	To put the panel into demo kit mode, press # to turn the demo kit option on and clear the panel memory (see "
	Clearing memory" on page 10).
	The power up defaults are the same as the production version except the following:
	Sensor test: Zone 1 = Keychain Remote; and Zone 2 = Front Door.
	Options: Demo kit = On; CPU low battery = Off; Quick arming = On; Panel panics = On; Entry delays = 8 seconds; Exit delays = 8 seconds; Siren time out = 1 minute; Trouble beeps = Off; and Panel tamper = Off.
	You can change all program items, but they will return to defaults upon a memory clear execution.
	A transformer is not required for the demo kit. AC power test will never be performed and AC power failure will never be shown. The prompt for setting time after a power cycle will never shown.

# Reports menu

Use the Reports menu to set up the central station reports described in Table 15 below.

Table 15: Report tier 2 menus

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Menu	Description
AC Fail	When AC failure is on, the panel reports to the central station 15 minutes after AC power to the panel is lost.
Default = Off, for UL installations, On	To set this option, press # to turn it on or off.
Low CPU Battery	When this setting is on, the panel reports a low battery to the central
Default = On, for UL installations, On	station. The panel will not call in a low CPU battery within the first 24 hours of being powered up.
	To set this option, press # to turn it on or off.
Phone Test Default = On	Determines if you can test the communication between the panel and the central station when the panel is disarmed. If a DTIM is not enrolled, the panel will not display the option to do a phone test.
	If a DTIM is installed with the system:
	<ul> <li>The panel sends a packet to the DTIM informing it to send a phone test report to the central station. The report will be sent out immediately.</li> </ul>
	<ul> <li>The DTIM will send a successful or failed phone test message to the panel.</li> </ul>
	<ul> <li>The panel will display PHONE TEST FAILURE, if the phone test is unsuccessful.</li> </ul>
	The panel will display TEST PASS, if the phone test is successful.
	<ul> <li>If a central station phone number is not programmed, the panel will not display the option to do a phone test.</li> </ul>
	High or low level reporting must be on.
	To set this option, press # to turn it on or off.
Fire Restoral	When this setting is on, the panel reports a restoral report to the central
sent whe	station when a group 26 fire sensor in alarm is restored. No report is sent when this option is off. The report is not sent if the sensor restoral occurs after the alarm is cancelled.
	To set this option, press # to turn it on or off.

## Siren menu

Use the Siren menu to set the siren options described in Table 16 below.

Table 16: Siren tier 2 menus

Menu	Description
Siren Time Out	Determines how long sirens sound if no one is present to disarm the system.
Default = 4 minutes, for UL installations, 4 minutes	
	To set the siren time out, press #, enter the desired time (1 to 30), and then press #.
Trouble Beeps	When this setting is on, the panel will beep to indicate system trouble.
Default = On, for UL installations, On	To set this option, press # to turn it on or off.
Alarm Volume	Adjusts the panel's siren volume. You can set the volume from 0 to 6,
Default = 6, for UL installations, 6	with 0 being the lowest volume.
	To set the alarm volume, press #, enter the desired volume level (0 to 6), and then press #.
Loud KTP Beeps	Sets the volume of the beeps that sound when the system is armed or disarmed with a keychain touchpad. You can set the volume low (off) or high/loud (on).
Default = Off	
	To set this option, press # to turn it on or off.
	<b>Note:</b> Performing a download to an Allegro panel with software version 1.3 with ToolBox version 5.7 will turn this feature off. ToolBox version 5.7.1 fixes this issue.

## **Clear Memory menu**

We strongly recommend that you clear memory on all newly installed panels before programming. Clear memory deletes all existing programming information and then resets the panel settings to their defaults. The dealer code is not erased when panel memory is cleared.

#### To clear memory:

- 1. Press 8 and enter the dealer or installer code.
  - The display shows ACCOUNT.
- 2. Press the up arrow twice.
  - The display shows EXIT DL; CLEAR MEMORY.
- 3. Press #.
- 4. Enter the dealer or installer code to clear memory.

## **Exit DL menu**

After all installer programming is completed:

- To exit programming mode, press \* until EXIT DL is displayed, and then press #. The current time will display.
- To begin a downloader session, press \* until EXIT DL is displayed and then enter an installer, dealer, or primary code to start a downloader session.

# **User programming menus**

There are two tiers of user programming menus. Tier 1 menus are accessible immediately after entering program mode. User programming tier 1 menus are:

- Codes
- Time
- Phone Test
- Sensor Test
- Version
- Exit

Press the down arrow to advance through the menus. Press the up arrow to move through the menus in reverse. See "Panel keypad buttons" on page 10 for more information on navigating through the menus.

You can use the primary access code to enter user programming mode. The default primary code is 1234. To enter user programming mode, with the system disarmed, press 8 + code. This will take you to Codes, the first menu item in tier 1.

#### Codes menu

Use the Codes menu to define the security codes described in Table 17 below.

Table 17: Codes tier 2 menus

Menu	Description
Manager Code	The manager code functions the same as the primary code within the user programming menu and can arm or disarm the system.
	To program/change the manager code, press # to display the current code (if any). Press #, enter the desired 4-digit code (0 to 9), and then press #.
	To delete a manager code, press # twice.
	<b>Note:</b> This code will only be displayed in user programming if the manager code was used to enter user programming mode.
Maintenance Code	The maintenance code is used in conjunction with the apartment manager keychain touchpad. When a maintenance person needs access to a site protected by an Allegro system, they can press disarm on the apartment manager keychain touchpad, enter the premises, then enter the maintenance code at the panel to disarm the system.
	To set the maintenance code, press #, enter the desired 4-digit code (0 to 9), and then press #.
	To delete the maintenance code, press # twice.
	<b>Note:</b> This code will only be displayed in user programming if the manager code was used to enter user programming mode.

Menu	Description
Primary Code	The primary code performs all system operations and user programming.
Default = 1234	
	To set the primary code, press # to display the current code. Press #, enter the desired 4-digit code (0 to 9), and then press #.
User Code 2, 3, 4	User codes perform arming and disarming functions. The user code cannot directly bypass sensors or program the primary code. The system allows up to 3 user codes (user 2 to 4).
	To program/change user 2, 3, and 4 codes, press # to display the current user code (if any). Press #, enter the desired 4-digit code (0 to 9), and then press #.
	To delete user 2, 3, 4 code, press # twice.

#### Time menu

Use the Time menu to adjust the panel's clock to the correct time. The panel uses a 12-hour clock.

The default is 12:00 a.m.

#### To set the time:

- 1. Press # to display the time.
- 2. Enter the current time using the numbered keys.
- 3. Use the arrow keys to select AM or PM.
- 4. Press #.

## **Phone Test menu**

Use the Phone Test menu to perform a manual phone test to check phone communication between the panel and the central monitoring station.

The DTIM and phone number must be programmed before the panel will display the phone test option.

To perform a phone test, press # to initiate the phone test. The panel will indicate if the test was successful or not.

#### Sensor Test menu

Use the Sensor Test menu to perform sensor tests to check that all sensors are working properly:

- To start a sensor test, press # to display TEST: ZONE XX. The display then scrolls through the untested zones, and beeps indicating the number of sensor packets received.
- A DTIM and panel battery test are performed at the start of the sensor test.
   The panel will display PHONE MODULE and beep once for every transmission received.
- The panel will beep indicating the number of transmission received (see Table 20 on page 36) and display <SENSOR NAME> + OK to indicate the sensor has been tested. For the first 10 to 20 seconds of the test, the volume is set to a lower level.
- To trip a sensor, follow the instructions in Table 20 on page 36.
- The panel will display TEST DONE when all sensors have been tested.
- The panel will automatically leave sensor test after 15 minutes. Warning beeps will sound the last minute. To restart the list, press 1. This will also restart the 15-minute timer.

See "Testing sensors/zones" on page 36 for more information.

**Note:** While the sensor test is a valuable installation and service tool, it only tests sensor operation for the current conditions. You should perform a sensor test after any change in environment, equipment, or programming.

#### Volume menu

Use the Volume menu to adjust the panel's status, auxiliary alarm, and arming level beep volume. You can set the volume from 0 to 5, with 0 being the lowest level.

Press # to display the current volume. Press #, enter the desired volume level, and then press #.

The default is 0.

## Version menu

Use the Version menu to check the software version of the panel and phone module (DTIM). Table 18 below describes the Version tier 2 menus.

Table 18: Version tier 2 menus

Menu	Description
Panel	Displays the panel software, hardware, and EEPROM version installed.
	Press # to display the current information.
Phone Module	Displays the DTIM software, hardware, and EEPROM version installed.
	Press # to display the current information.

### Exit menu

After all user programming is completed, press \* until the panel displays EXIT, and then press #. The panel displays the current time.

# **Downloader programming**

You can program the panel remotely using Enterprise Downloader. Allegro has a 100 event buffer that can only be viewed by Enterprise Downloader. Use the information you record in "Reference tables" on page 43 to inform the downloading operator of the programming requirements for this system.

### To initiate an Enterprise Downloader session:

- 1. Contact your downloader station and ask the operator to prepare to download to the panel.
- 2. Make sure the system is disarmed.
- 3. Navigate to installer program mode.
- 4. Press \* to go to the EXIT DL display.
- 5. Enter the installer, dealer, or primary code.

When the downloader session completes, a panel programmed status message will display.

If the panel display does not flash DOWNLOAD ON, call the downloader operator to verify the downloader phone number. Make sure Enterprise Downloader is set up properly. Refer to "Troubleshooting" on page 38 if the problem persists.

For offsite access where an answering machine does not exist, the user or Enterprise Downloader operator calls the panel location once and listens for 10 rings. The panel should answer after the tenth ring.

For offsite access where an answering machine exists, the user or Enterprise Downloader operator must use the ring/hang/ring method. Call the panel location, let the phone ring once, and then hang up. Wait at least 10 seconds, but no more than 40, and then call the panel location again. The panel should answer on the first ring.

**Note:** A downloader phone number and code must be programmed for remote downloader programming to work.

Downloader programming is not investigated by UL.

# **Testing**

You should test the system after installing or servicing, and after adding or removing devices from the system.

Note: UL Listed systems must be tested weekly.

### **Basic system commands**

Table 19 below describes the system's basic panel keypad operating commands. For complete details on system operation, including user programming, refer to the User Manual.

**Table 19: Basic system commands** 

Task	Command
Check system status	Press Status
Arms doors and windows	Press Arm + code
	Press Arm (once if quick arm is on)
Arm doors and windows, no delay	Press Arm + code + No Delay
Arm motions, doors and windows	Press Arm (twice) + code
	Press Arm (twice if quick arm is on)
Arm motions, doors and windows, no delay	Press Arm (twice) + code + No Delay
Arm system silently	Press Silent + Arm + code
Turn chime feature on and off (only when system is unarmed)	Press Chime
Identify alarms in memory	Press Status
Bypass a zone	Press Bypass + primary code
Disarm the system	Press Disarm + code
Quick exit	Press Quick Exit (starts a 2-minute timer for use of one entry/exit door)
Police panic	Press and hold both the Arm and 1 buttons until the panel indicates the alarm
Emergency panic	Press and hold both the Disarm and No Delay buttons until the panel indicates the alarm
Fire panic	Press and hold both the Silent and Chime buttons until the panel indicates the alarm

### **Testing sensors/zones**

We recommend that you test sensors/zones after all programming is completed and whenever a sensor/zone-related problem occurs. If the system does not respond as described in Table 20 below, see "Troubleshooting" on page 38.

Table 20: Sensor tripping instructions

Sensor	Tripping instructions	Number of beeps
DTIM	Initiate a sensor test.	7 to 8
Door/Window	Open the secured door or window.	7 to 8
Carbon monoxide alarm	Unplug the alarm. Plug it back in, wait 10 seconds, then press the test/reset button until the unit beeps 8 times.	7 to 8
Glass guard	Tap the glass 3 or 4 in, from the sensor.	7 to 8
Motion sensor	Avoid the motion sensor field of view for 5 minutes, and then enter its view.	7 to 8
Rate-of-rise heat detector	Rub your hands together until warm, and then place one hand on the detector for 30 seconds.	7 to 8
Shock sensor	Tap the glass twice (away from the sensor). Wait at least 30 seconds before testing again.	7 to 8
Smoke sensor	Press and hold the test button until the system sounds transmission beeps.	7 to 8
Panic button	Press and hold the appropriate panic buttons for 3 seconds.	7 to 8
Keychain touchpad	Press and hold the Lock and Unlock buttons simultaneously for 3 seconds.	7 to 8
Remote handheld touchpad	Press and hold the two emergency buttons simultaneously for 3 seconds.	7 to 8
Hardwire loop	Open the secured door or window.	1
Freeze sensor	Apply ice to the sensor (do not allow the sensor to get wet)	7 to 8
Water sensor	Press a wet rag or wet finger over both of the round gold-plated terminals on the bottom of the sensor.	7 to 8
Dialog QS1000 Allegro Remote Station	Open the sensor connected to the touchpad's hardwire loop or press the police panic buttons.	7 to 8

When possible, locate wireless sensors within 100 ft. of the panel. While a transmitter may have an open-air range of 500 ft. or more, the environment at the installation site can have a significant effect on transmitter range. See "Troubleshooting" on page 38 to resolve the problem.

For wireless sensors that don't respond, use an RF Sniffer (60-401) test tool to verify that the sensor is transmitting. Constant beeps from the RF Sniffer test tool indicate a faulty sensor. Remove the sensor's battery and replace the sensor.

### **Testing phone communication**

Perform a phone test to check phone communication between the panel and the central monitoring station (see "Phone Test menu" on page 31).

### **Testing central station communication**

After performing sensor and phone tests, check that the system is reporting alarms successfully to the central station.

#### To test central station communication:

- 1. To avoid the dispatch of emergency personnel, call the central station and tell the operator that you will be testing the system.
- 2. Arm the system.
- 3. Test each of the panel keypad and wireless panic buttons and trip at least one sensor of each type (fire, intrusion, etc.) to verify correct operation.
- 4. Call the central station to verify all alarms were reported.

# **Troubleshooting**

# Panel power

Panel does not power up and does not display or respond.

Verify that the panel is plugged into an unswitched outlet and wired correctly.

Verify that the backup battery is installed correctly and the AC power transformer is plugged in and wired correctly.

Measure the incoming AC voltage at panel terminals 1 and 2. It should read between 8.0 and 12.0 VAC.

No incoming AC voltage at panel terminals 1 and 2.

- 1. Unplug the AC power transformer and disconnect the wires from the transformer and the panel.
- Check the transformer to panel wire for short or open circuits.
- 3. Plug in the transformer and check for 8.0 to 12.0 VAC at the transformer unconnected terminals. If zero volts, replace the transformer

Panel display indicates a low CPU battery.

During initial installation or when the AC power was out for an extended period of time, the battery may not be fully charged yet (may take up to 24 hours to charge).

Perform a battery test by entering and exiting sensor test. Verify that the backup battery is installed correctly and the AC power transformer is plugged in. Measure the incoming AC voltage at the panel terminals 1 and 2. It should read between 8.0 and 12.0 VAC. Remove the backup battery power by disconnecting the battery and replace the battery if necessary.

If AC power is present, the battery voltage is only monitored during a backup battery test. The panel automatically runs a two-minute backup battery test under the following conditions: (1) during user sensor test, (2) once every 4 hours, (3) when the back cover is closed. In order for the panel to update the battery status, a backup battery test must be run, (4) power up

With the AC power transformer plugged in, the panel automatically charges the battery. While the battery is charging for the first time, it is normal for the system to indicate Low CPU Battery. Charging the battery can take a number of hours depending on the battery's initial charge. Once the battery reaches 4.8 VDC, the condition clears. If the trouble condition persists after 24 hours, replace the backup battery. A low battery report to the central station will not be made for the first 24 hours after power up.

After pressing Status, the panel flashes "AC Fail" (panel continues to operate from the backup battery).

Verify that the AC circuit is live and that the panel and transformer are wired properly. Verify that the transformer is supplying AC to the panel and is plugged into a nonswitched outlet and secured with the provided screw.

# Access code

Customer cannot remember access codes.

Check your records to see if you have the customer's access codes on file or verify the access codes using the downloader. You can also use the apartment manager code to enter user program mode and view the primary and user codes.

Clear memory and reprogram the panel locally.

Installer cannot remember install code.

Check your records to see if you have the install code on file or verify the install code using the downloader. You can also use the dealer code to enter program mode and view the install/primary code.

### **Arming**

System protests and will not arm immediately.

Press Status for an indication of the problem. Verify that all monitored perimeter doors and windows are closed. Verify that all perimeter and interior sensors are closed.

### Bypassing

Sensor to bypass is not listed.

Make sure you are not attempting to bypass a 24-hour sensor (a sensor that is active in all levels) that cannot be bypassed. Verify that the sensor is active in the current arming level and that the sensor is programmed (learned) into the panel.

# Sensor or touchpad low battery

System indicates sensor/touchpad low battery.

To avoid a false alarm, initiate a sensor test and then replace the indicated device battery. After replacing the battery, perform another sensor test to test the sensor/touchpad.

If the sensor/touchpad is not tested after battery replacement, the system continues to show a low battery condition since that was the last signal it received from the device. Testing the sensor/touchpad with new batteries allows the panel to receive a signal with good battery information.

# Central station reporting

Central station is not receiving reports.

Verify that the premises phone line is working. Perform a phone test. Verify correct phone line wiring between the DTIM and RJ-31X jack (see DTIM documentation).

Verify that the central station phone number is programmed into the panel. If necessary, reprogram the phone number and retest. Verify that the correct phone format (SIA or CID) is being used.

Perform a sensor test to test panel and DTIM communication.

# Hardwire zone

System doesn't go into alarm when the zone is tripped.

Verify that the sensor is active in the current arming level (verify sensor group and retest) and that the zone is learned (programmed) into panel memory (enter installer program mode, go to Devices > Add and learn the zone into memory).

Verify wiring.

System indicates trouble and open.

For a normally closed contact, verify the 2  $k\Omega$  EOL resistor is installed and a short circuit does not exist between ZCOM and ZONE.

For a normally open contact, verify the 2  $k\Omega$  EOL resistor is installed and there is not an opening between ZCOM and ZONE.

For a normally open contact that is open, the contact has not been enrolled correctly. Delete and enroll it again.

System indicates the zone is open.

Close the contact. With the sensor closed, the voltage between ZONE and ZCOM should be between 2.0 and 3.0 VDC. If this voltage is not measured, verify the 2  $k\Omega$  EOL resistor is installed and verify wiring.

Verify the hardwire contact/sensor is operating properly.

#### Phone

There is a constant dial tone, preventing dial-out on premises phones.

One or more polarity-sensitive phones exist on-site.

Panel indicates phone 1 fail, phone 2 fail, or phone failure.

Make sure the DTIM is wired correctly.

Check to see if there is a problem with the central station.

#### Phone test

Panel does not display the option to perform a phone test.

Verify that the central station phone is programmed in and that the DTIM is enrolled.

Verify that the phone test option is on.

Alarm report is not called in to the central station.

Perform a phone test. Make sure the phone test option is on.

Verify that high and/or low level reporting option is on.

Perform a sensor test to verify communication between the DTIM and panel.

# Wireless touchpad

System doesn't respond to commands entered from the wireless touchpad.

Check the touchpad for dead batteries.

Perform a sensor test.

Touchpad reports a trouble condition.

Check the touchpad battery for low voltage. Replace the battery if necessary.

### **DTIM**

Panel indicates telephone module initializing.

After the panel power up, the panel and the DTIM need to synchronize their communication. This could take approximately 5 minutes. To eliminate the 5 minute wait, remove and replace the DTIM cover. The message should go away within 10 seconds.

If the panel continues to display TEL MODULE INITIALIZING, continue with the procedure for telephone module failure.

### Telephone module failure.

The DTIM's signals may not be reaching the panel. Using an RF Sniffer, verify that the DTIM is transmitting by removing the cover. The DTIM will transmit whenever its cover is removed/replaced.

If the DTIM is not transmitting, check the DTIM battery for voltage. Replace if necessary.

If the DTIM is transmitting, use the RF Sniffer to verify that the panel is transmitting. Power down and then power up the panel. Place an RF Sniffer next to the panel's antenna (right side). You should hear beeps immediately after applying power.

If the panel is not transmitting, contact technical support for assistance.

If the DTIM and the panel are transmitting, the DTIM's signal may not be reaching the panel because it is too far away from the panel or there is too much interference. Remove the DTIM from its mounted location and test from other locations. Mount the DTIM in an area where the signal can reach the panel. If easier, the panel can also be moved. To increase range, install the panel's antenna in a wall. Delete and enroll the DTIM to ensure proper programming.

### Panel indicates a phone module low battery.

Replace the DTIM battery and perform a phone test to clear the low battery condition. The DTIM performs a battery test when calling out.

Panel indicates a telephone module memory failure.

Contact technical support for assistance.

Panel indicates a telephone module tamper.

Remove the cover and make sure the tamper switch has a spring installed. The tamper switch will not function correctly without the spring (contact technical support if the spring is missing.

Replace the cover and latch securely (this should clear the condition).

Panel indicates phone module service required.

There is inconsistent communication between the panel and DTIM. Remove the DTIM from its mounted location and test from other locations. Mount the DTIM in an area where the signal can reach the panel. If easier, the panel can also be moved. To increase range, install the panel's antenna in the wall. To clear the condition, cycle the panel power off and on.

Panel indicates a telephone module version error.

The DTIM software or EEPROM may not be compatible with the panel software. Contact technical support for assistance.

Downloader Download/upload session fails on a preprogrammed panel.

Verify the downloader phone number, the downloader code, the dealer code, and the panel account number matches the Enterprise Downloader setting.

Download/upload session fails on an unprogrammed panel.

Verify the downloader phone number, downloader code, and dealer code matches the Enterprise Downloader setting.

#### Receiver

Panel indicates an RX jam.

There may be a faulty transmitter (constantly transmitting). Use an RF Sniffer to identify the faulty transmitter. Place the RF Sniffer next to each RF sensor until you find the sensor transmitting. Remove the battery from the sensor and replace the sensor.

Panel indicates an RX failure.

The panel has not heard an RF signal for four hours. Contact technical support for assistance.

## Reference tables

This section contains reference information on sensor groups, cross-zoning, system settings, sensor text, and specifications.

# Sensor group characteristics

**Table 21: Sensor groups** 

Number/Name.	Application	Alarm	Delay	ral	vis			Active levels
				Restoral	Supervis	SS	Chime	ieveis
00 / Fixed panic	24-hour audible fixed emergency buttons	Police	Instant		Х	Х		1, 2, 3
01 / Portable panic	24-hour audible portable emergency buttons	Police	Instant			X		1, 2, 3
02 / Fixed panic	24-hour silent fixed emergency buttons	Silent	Instant		X	X		1, 2, 3
03 / Portable panic	24-hour silent portable emergency buttons	Silent	Instant			X		1, 2, 3
04 / Fixed emergency	24-hour emergency sensor, such as pendant panic or holdup button	Emergency	Instant		X	X		1, 2, 3
06 / Portable emergency	24-hour portable emergency alert button	Emergency	Instant			X		1, 2, 3
08 / Special intrusion	Special belongings, such as gun cabinets and wall safes	Police	Instant	X	X	X		1, 2, 3
09 / Special intrusion	Special belongings, such as gun cabinets and wall safes	Police	Standard	X	X	X		1, 2, 3
10 / Entry/exit delay	Entry and exit doors that require a standard delay time	Police	Standard	X	X	X	X	2, 3
13 / Instant perimeter	Exterior doors and window	Police	Instant	X	Х	Х	Х	2, 3
14 / Instant interior	Interior doors	Police	Follower	X	X	X		2, 3
15 / Instant interior	Interior PIR motion sensors	Police	Follower		Х	X		2, 3
16 / Instant interior	Interior doors	Police	Follower	X	Х	Х		3

Number/Name.	Application	Alarm	Delay	Restoral	Supervis	CS	Chime	Active levels
17 / Instant interior	PIR motion sensors	Police	Follower		Х	Х		3
18 / Instant interior	PIR motion sensors subject to false alarms. (cross-zone)!		Follower		X	X		3
19 / Delayed interior	Interior doors that initiate a delay before going into alarm	Police	Standard	X	X	X		3
20 / Delayed interior	PIR motion sensors that initiate a delay before going into alarm	Police	Standard		X	X		3
21 / Local instant interior	24-hour local alarm zone protecting anything that opens and closes	Police	Instant	X	X			1, 2, 3
22 / Local delayed interior	Same as group 21, plus activation initiates a delay before going into alarm	Police	Standard	X	X			1, 2, 3
23 / Local instant emergency	24-hour local alarm zone protecting anything that opens and closes	Emergency	Instant	X	X			1, 2, 3
25 / Local special chime	Notify when a door is opened, sound emit from a local annunciator	Special chime	Instant		X			1, 2, 3
	If using a PIR motion sensor, use only Part 60-511-01-95.							
26 / Fire	24-hour fire, rate-of-rise heat, and smoke sensors	Fire	Instant	X	Х	Х		1, 2, 3
29 / Freeze	Freeze sensors	Emergency	Instant	Х	Х	Х		1, 2, 3
33 / Siren	Siren supervision	Silent	Instant		X	Χ		1, 2, 3
34 / Gas	Carbon monoxide gas detector	Emergency	Instant	X	Х	Х		1, 2, 3
38 / Water	Water sensors	Trouble beeps	Instant	X	Х	Х		1, 2, 3
39/ DTIM	Dialog telephone interface module (the DTIM will report in all levels)	Police	Instant		X	X		

Table 22 on page 45 describes the alarm and delay types used in the previous table.

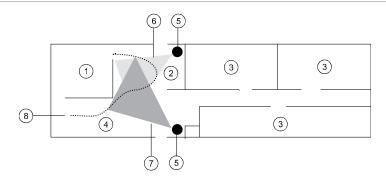
Table 22: Alarm (siren) and delay types.

Туре	Description
Police	A high level steady siren.
Fire	A high level temporal siren.
Silent	No siren.
Emergency	A low level on off patterned siren.
Instant	A sensor of this type will cause an immediate alarm if a violation occurs anytime in an active level.
Standard	A sensor of this type will cause an entry delay if a violation occurs anytime in active arming level. A violation during an exit delay will not cause an alarm.
	If the arming level modifier "no delay" is enabled, a sensor of this type will cause an immediate alarm if the violation occurs during an active arming level.
Follower	A sensor of this type will cause an immediate alarm if a violation occurs during an active level unless an entry or exit delay is in progress. If violated during an entry delay and the entry delay expires, the sensor will go into alarm.

### **Cross-zoning**

Cross-zoning, or two-trip, refers to two different Group 18 sensors that must be tripped within four minutes of each other in order for an alarm to be sent. Figure 8 below shows the path of a person walking from the kitchen to the living room. When the person is detected walking through the kitchen, the motion sensor in the kitchen is tripped, sounding a local alarm. If motion is detected by the living room motion sensor within four minutes, an alarm report will be sent to the central station.

Figure 8: Cross-zoning



- 1. Dining room
- 2. Kitchen
- 3. Bedroom
- 4. Living room

- 5. Motion sensor
- 6. Detection path/kitchen motion sensor
- 7. Detection path/living room motion sensor
- 8. Path of person walking

We do not recommend cross-zoning for exit/entry zones. Each zone has the ability to individually protect the intended area.

# **System settings**

Table 23: System settings

Menu	Default setting	Parameters	Setting
Account	00-000	4 to 10 digits; 0 to 9, A to F	
Number 1	None	24 digits; 0 to 9, *, #, pause	
FMT-CID	On	On = CID, Off = SIA	
High level	On	On, Off	
Low level	On	On, Off	
Openings	Off	On, Off	
Closings	Off	On, Off	
Number 2	None	24 digits; 0 to 9, *, #, pause	
FMT - CID	On	On = CID, Off = SIA	
High level	Off	On, Off	
Low level	Off	On, Off	
Openings	Off	On, Off	
Closings	Off	On, Off	
Backup	On	On, Off	
Dial delay	30	15 to 45	
Predial string	None	8 digits; 0 to 9, *, #, pause	
DTMF dial	On	On, Off	
Number	None	24 digits; 0 to 9, *, #, pause	
Downloader code	12345	5 digits; 0 to 9	
Installer code	4321	4 digits; 0 to 9	
Dealer code	None	4 digits; 0 to 9	
Duress code	None	4 digits; 0 to 9	
Manager code	None	4 digits; 0 to 9	
Maintenance code	None	4 digits; 0 to 9	
Entry delay	30, (45 for UL)	30 to 240	

Menu	Default setting	Parameters	Setting
Exit delay	60 (60 for UL)	45 to 254	
Auto phone test	0 (1 for UL)	0 (off) to 255	
Quiet time	On (Off for UL)	On, Off	
Quiet hour	22	0 to 23	
Rearm timer	0	0 to 12	
KTP arm	Off	On (all on), Off (ratchet arm), No Delay	
Police panic	On	On, Off	
Emergency panic	Off	On, Off	
Fire panic	On	On, Off	
Receiver trouble	Off (On for UL)	On, Off	
Panel tamper	On	On, Off	
Exit extension	On (Off for UL)	On, Off	
Swinger shutdown	1	1, 2	
Quick arm	Off	On, Off	
Quick exit	On (Off for UL)	On, Off	
Auto stay arm	On	On, Off	
Supervisory time	Random between 1:00 am and 3:59 am	12:00 am to 11:59 pm	
Alarm verify	Off (Off for UL)	On, Off	
Smoke verify	Off	On, Off	
Demo kit	Off	On, Off	
AC fail	Off (On for UL 1635)	On, Off	
Low CPU battery	On (On for UL 1635)	On, Off	
Phone test	On	On, Off	
Fire restoral	Off	On, Off	
Siren time out	4 (4 for UL)	1 to 30	
Trouble beeps	On (On for UL)	On, Off	
Alarm volume	6 (6 for UL)	0 to 6	
Loud KTP beeps	Off	On, Off	

# **Sensor information**

**Table 24: Sensor information** 

Sensor number	Sensor text	Sensor type	Sensor group
01			
02			
03			
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20			

# **Specifications**

Model number	60-874-95R
Power requirements	8 or 9 VAC, minimum 300 mA (must be UTC Fire & Security recommended transformer)
Backup battery	4.8 VDC rechargeable NiCd battery pack
Estimated battery life	24-hours of operation without AC power
RF frequency	319.5 MHz + or –140 kHz
Nominal range	500 ft. (150 m) open-air receiving range
Operating temperature	32 to 122°F (0 to 49°C)
Storage temperature	−30 to 140°F (−34 to 60°C)
Relative humidity	5 to 85% noncondensing
Dimensions	7.5 x 6.75 x 1.5 in. (190 x 171 x 38 mm)
Weight	1.0 lb.
Installation	Wall-mounting
Zones	20 total, including 1 hardware and 1 for DTIM