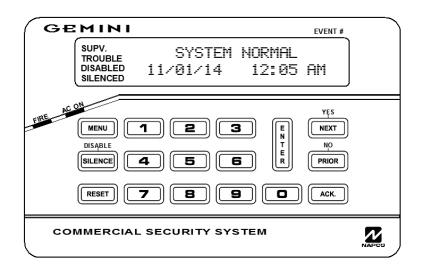
OPERATING GUIDE for your Gemini C-Series System and the GEMC-FK1 KEYPAD



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INTRODUCTION

The GEMC-FK1 is the Primary Operator Interface for the fire section of your GEMC Combination Commercial Fire and Burglary Alarm System. It meets the requirements of NFPA and UL864 (9th Edition) as the Primary User Interface.

When the system is operating normally without alarms, supervisory conditions or troubles, the keypad displays "SYSTEM NORMAL" and the **AC ON** indicator will be turned on.

The keypad displays the initial highest priority Event in the following order:

- Fire Alarms
- Supervisory Signals
- Troubles

It has six distinct visual indicators, two LED's that indicate *FIRE* alarm and *AC ON*, and four LCD icons that indicate *SUPV* alarm, *TROU-BLE*, *DISABLED* and *SILENCED*.

To silence outputs, acknowledge events and to reset the system, the keypad must be "unlocked" using a programmable code and manually interrogated.

This booklet contains important information about the operation of your system with this GEMC-FK1 Keypad. Read it carefully and keep it handy for future reference. Check the Glossary for an explanation of terms that may be unfamiliar to you.

You may find subjects mentioned in this booklet that do not apply to your system. Napco control panels have such a wide variety of features that few security systems, if any, will ever need them all. Your alarm professional has chosen appropriate features for your particular needs.

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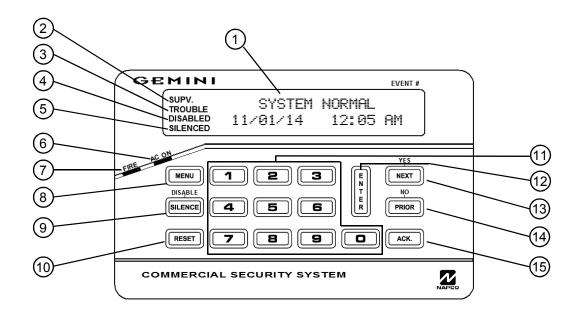
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TO SILENCE AN ALARM, ENTER YOUR CODE, AND PRESS

FOR SERVICE, CALL:
Company Name:
Address:
Telephone Number:
CENTRAL STATION:
FIRE ALARM SOUND*:
BURGLAR ALARM SOUND:

KEYPAD CONTROLS & INDICATORS



KEYPAD CONTROLS & INDICATORS

- LCD 32 Character Display: Displays system status, zone descriptions, menu options, etc.
- 2) **SUPV** Icon: *Pulsing* indicates Supervisory Signal; *Steady* indicates an acknowledged supervisory signal; *Off* indicates no supervisory signal.
- TROUBLE Icon: Pulsing indicates a trouble; Steady indicates an acknowledged trouble; Off indicates no troubles.
- DISABLED Icon: Steady indicates a zone or output is disabled; Off indicates no zones or devices are disabled.
- 5) **SILENCED** Icon: Steady indicates fire alarm with audible alarm silenced.
- 6) **AC ON** (Green LED): Indicates Primary Power (AC) is on

- FIRE LED (Red LED) Pulsing indicates Fire Alarm; Steady indicates a silenced Fire Alarm; off indicates no Fire Alarm
- 8) MENU Key: After keypad is unlocked with code (or key switch), pressing MENU scrolls through menu options
- 9) SILENCE Key: After keypad is unlocked with code (or key switch), pressing SILENCE silences audible alarm. Pressing SILENCE also acknowledges alarm/troubles. Also used to toggle between disabling and enabling zones and devices when in the menu option "Display Directory"
- 10) RESET Key: After keypad is unlocked with code, pressing RESET allows latched initiating circuits to restore, if the cause of the alarm is removed.

- Pressing RESET also acknowledges alarm/troubles.
- 11) **Numerical Keys**: (1-9, 0): Used to enter unlock codes and zone number numbers.
- 12) Key: Pressing Enter Key causes entered unlock code or selected function to be executed.
- 13) NEXT Key: (1) Scrolls the MENU display forward (2) Answers Yes to questions in the window display.
- 14) PRIOR Key: (1) Scrolls the MENU display backward (2) Answers No to questions in the window display.
- 15) ACK. Key: After keypad is unlocked with code, pressing ACK. Key acknowledges event (s) and silences local trouble sounder.

NORMAL DISPLAY

SYSTEM NORMAL 11/01/12 12:05 AM When the system is "normal", with no fire alarms, supervisory signals or troubles detected the system:

- 1. The red **FIRE** LED is off.
- 2. The Green AC ON LED is on.
- 3. The SUPV, TROUBLE, DISABLED and SILENCED icons are off.
- 4. The LCD displays "SYSTEM NORMAL" and date ("DD/MM/YY") and the time.

FIRE ALARM DISPLAY

FIRE Z123 001 11/01/12 12:05 AM

Display slowly scrolls between these two screens

123-SMK NW STAIR 3RD FLOOR When a single fire alarm is detected by the system:

- 1. The red FIRE LED will flash, and
- 2. The LCD display will slowly toggle between the following two displays:

Display 1, top row: The word "FIRE" followed by the 3-digit zone # "ZXXX" (where XXX represents numbers from 001 to 255). The three digits to the right indicate the event number, in this example, it will display "001".

Display 1, bottom row: The date in MM/DD/YY format, followed by the time.

Display 2: Zone number followed by the zone description (entered by the dealer).

FIRE Z123 001> 11/01/12 12:05 AM

Display slowly scrolls between these 2 screens

123-SMK NW STAIR 3RD FLOOR When a fire alarm is detected and there are other conditions on the system such as a supervisory signal, or system troubles:

- 1. The red **FIRE** LED will flash and the icons **SUPV** and/or **TROUBLE** may be flashing or on steady.
- 2. The LCD display will indicate the initial fire alarm, slowly toggling between the two displays as described at left. The symbol ">" will follow the event number to indicate that additional events/conditions have occurred in the system. Press NEXT to view any subsequent fire alarms and/or events of lower priority.

SUPERVISORY SIGNAL DISPLAY

SUPV. SUPV Z137 001

Display slowly scrolls between these 2 screens

^{SUPV.} 137-WATERFLOW SUPV 3RD FLOOR When a single supervisory signal is detected by the system (no fire alarms or troubles):

- 1. The SUPV icon will flash, and
- 2. The LCD display will slowly toggle between the two displays:

Display 1, top row: The word "SUPV" followed by the 3-digit zone number "ZXXX" (where XXX represents numbers from 001 to 255). The three digits to the right indicate the event number; in this example the display is "001".

Display 1, bottom row: The DATE in MM/DD/YY format, followed by the Time.

Display 2: Zone number followed by the zone description.

SUPV Z137 001> 11/01/12 12:05 AM

Display slowly scrolls between these 2 screens

SUPV. 137-WATERFLOW SUPV 3RD FLOOR When a supervisory signal is detected by the system (there are no fire alarms) but there are other conditions on the system (other supervisory signals or troubles):

- The SUPV icon will flash and the icons SUPV and/or TROUBLE may be flashing or on steady.
- 2. The LCD display will indicate the initial supervisory signal, slowly toggling between the two displays as described at left. The symbol ">" will follow the event number to indicate additional events / conditions have occurred in the system. Press NEXT to view subsequent supervisory signals and/or events of lower priority.

SYSTEM TROUBLE DISPLAY

SYStrbl E02 001 11/01/12 12:05 AM

Display slowly scrolls between these 2 screens

SUPV. LOW BATTERY E02-000 When a single system trouble is detected by the system (no fire alarms, or supervisory alarms):

- 1. The TROUBLE icon will flash, and
- 2. The LCD display will slowly toggle between the two displays:

Display 1, top row: **"SYStrbI"** followed by **"EXX"** where XX represents the specific error code of the associated trouble, numbers from 01 to 99. The three digits to the right indicate the event number, in this example it will display "001".

Display 1, bottom row: The DATE in MM/DD/YY format, followed by the time.

Display 2: System trouble description, followed be "**EXX-YYY**" (where XX is the specific 2-digit error code associated with the trouble and YYY is specific device number associated with the trouble, where applicable).

^{SUPV.} SYStrbl E02 001>

Display slowly scrolls between these 2 screens

SUPV. LOW BATTERY E02-000 When a trouble is detected--and there are no fire or supervisory signals--but there are additional trouble conditions on the system such as other supervisory signals or troubles:

- 1. The **TROUBLE** icon will flash.
- 2. The LCD display will indicate the initial supervisory signal, slowly toggling between the two displays as described at left. The symbol ">" will follow the event number to indicate that additional troubles are present in the system.

UNLOCKING THE KEYPAD

SYSTEM NORMAL 11/01/12 12:05 AM Only persons with authority may "unlock" the keypad, allowing them to affect the operation of the Fire alarm system. This authority is determined either by a valid 4-through 6-digit "User Code" or by the use of a "momentary-on" key switch mounted adjacent to the keypad.

KEYPAD LOCKED ENTER CODE If the keypad is locked, any attempt to view or alter the system status will cause the keypad to momentarily display "KEYPAD LOCKED ENTER CODE", and then return to the existing display.

There are two types of Fire Codes:

Fire User Code Allows the initiation of fire drills, the viewing of all

events, and allows the ACK., SILENCE and RESET

buttons to operate.

Dealer Code Allows all of the User Code operations, plus the abil-

ity to add or change User Codes and to perform a "One Man Test" of the system. Allows the **MENU**

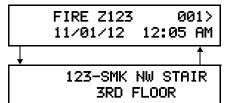
button to operate.

KEYPAD UNLOCKED

Unlocking the Keypad

To unlock the keypad, either enter the User Code or Dealer Code and press **ENTER** or use the key to momentary turn on the key switch mounted adjacent to the keypad. After approximately 5 minutes of inactivity at the keypad, the keypad will automatically re-lock. Subsequent system interaction will require the system to be unlocked.

SILENCING AND RESETTING A FIRE ALARM

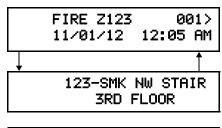


When a fire alarm is detected by the system, the keypad must be "unlocked" to view the total system status, silence audible alarms and reset the system (see **Unlocking the Keypad** on page 10).

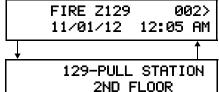
Press the **ACK**. button to acknowledge the fire alarm and silence the local keypad sounder. The **Fire** alarm LED will change from flashing to steady.

KEYPAD UNLOCKED

The "KEYPAD UNLOCKED" message will display for several seconds.



Press **NEXT** to view the next condition if ">" displays after the event number (the event numbers start with number "@@1" as shown in the example at left).



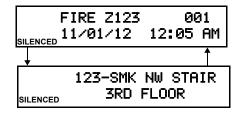
Continue to view all events. When the event number returns to "001", all events have been viewed. To review the status of events, the **PRIOR** and **NEXT** buttons may be used to scroll back and forward through the events.

SILENCING AND RESETTING FIRE ALARM



After the entire system status has been reviewed using the **NEXT** and **PRIOR** buttons and the authority on site reaches the reasonable decision to silence the alarm sounders, proceed as follows:

Press **SILENCE** to silence all audible fire alarm sounders. All sounding appliances will silence and the **SILENCED** icon will turn on steady.



Attempting Reset Please wait...

SYSTEM NORMAL 11/01/12 12:05 AM After the system has been silenced and it is determined that there are no fires remaining, the system is ready to reset:

Press **RESET**. "Attempting Reset Please Wait 15 sec" will display momentarily. If all abnormal conditions are absent, the keypad will return to "normal".

Note: To clear any latched LED's on the sensors. press RESET.

FIRE PROTECTION

LIMITATIONS OF FIRE ALARM WARNING SYSTEM

Although a fire alarm system may be of a reliable and state-of- the-art design, neither it nor its peripheral detection devices can offer guaranteed protection against fire. Any such equipment may fail to warn for a variety of reasons:

Control panels, communicators, dialers, smoke detectors, and many other sensing devices will not work without power. Battery-operated devices will not work without batteries, with dead batteries, or with improperly-installed batteries. Devices powered solely by AC will not work if their power source is cut off for any reason.

Fires often cause a failure of electrical power. If the system does not contain a working battery backup power supply, and if the electrical circuit feeding the devices is cut or is not providing power for any reason, the system will not detect heat or smoke or provide any warning of a possible fire.

Telephone lines needed to transmit alarm signals to a central monitoring station may be out of service.

Smoke detectors, though highly effective in reducing fire deaths, may not activate or provide early-enough warning for a variety of reasons: (a) they may not sense fires that start where smoke cannot reach them, such as in chimneys, walls, roofs, behind closed doors, etc.; (b) they may not sense a fire on a different level of the residence or building; (c) they have sensing limitations; no smoke detector can sense every kind of fire every time.

Thermostatic heat detectors do not always detect fires because the fire may be a slow smoldering low-heat type (producing smoke); because they may not be near the fire; or because the heat of the fire may bypass them. These detectors will not detect oxygen levels, smoke, toxic gases, or flames. Therefore, they may only be used as part of a comprehensive fire-detection system in conjunction with other devices. Under no circumstances should thermostatic heat detectors be relied upon as the sole measure to ensure fire safety.

Alarm warning devices such as sirens, bells, or horns may not alert someone behind a closed or partially-opened door. Warning devices located on one level are less likely to alert those on a different level. Even those who are awake may not hear the warning if the alarm is obscured by noise from a stereo.

radio, air conditioner, or other appliance, or by passing traffic, etc. Alarm warning devices, however loud, may fail to warn the hearing impaired.

Alarm products, as all electrical devices, are subject to component failure. Even though the equipment is designed for many years of trouble-free performance, electronic components could fail at any time.

Above are some of the reasons that fire alarm equipment could fail. The most common cause of an alarm system not functioning when a fire occurs is inadequate testing and maintenance. The system should be tested at least weekly to ensure that all the equipment is working properly.

While an alarm system may make one eligible for lower insurance rates, it is not a substitute for insurance. Homeowners, property owners, and renters are therefore urged to maintain adequate insurance coverage of life and property.

EVACUATION PLANNING

Assign responsibility for the following tasks:

- Determine the best evacuation routes, and contingency routes.
- 2. Determine the best emergency assembly areas, and evaluate the safety of these assembly areas.
- 3. Determine how to disseminate information about the selected evacuation routes and assembly areas.
- 4. During an alarm, select personnel who will be responsible for ensuring the evacuation routes are clear.
- 5. Ensure all emergency exits unlock during an alarm (to prevent entrapment).
- Determine those responsible for ordering an evacuation. Note: The premises may require a partial or full evacuation, depending on circumstances. Procedures for communicating the order should be clear to everyone.
- 7. Determine those who will assist with the evacuation.
- 8. Determine those who will assist with the elderly, disabled or persons with special needs.
- 9. Create a system for the accounting of persons and for decisions made during an emergency.
- 10. Determine those responsible for turning off utilities and other equipment.
- 11. Determine those responsible for ordering a facility reentry (or other plan of action).

Ensure the following is performed during the evacuation process:

- □ All able-bodied persons evacuated.
- □ All disabled persons assigned a helper and evacuated.
- □ All areas searched and all people accounted for.
- Determine those in most need of medical aid. Communicate first aid and rescue needs to internal and external medical and rescue crews.
- □ Roll call results reported to authority having jurisdiction.
- ☐ Check the safety of the facility and report all findings to the authority having jurisdiction.
- □ Monitor the release of persons to emergency workers/parents/police/others.
- ☐ Liaison with outside helping agencies.
- □ Terminate the evacuation order when necessary.
- □ Coordinate a return to the facility--OR--issue further orders

FAMILY EMERGENCY PLANNING

Protect yourself by planning ahead. The following checklist will help you get started. Discuss these ideas with others, and then prepare an emergency plan. Post the plan where everyone will see it.

- Meet with household members to discuss the dangers of fire, severe weather, earthquakes and other emergencies. Explain how to respond to each.
- Find the safe spots in your home for each type of disaster.
- Discuss what to do about power outages and personal injuries.
- Draw a floor plan of your home. Mark two escape routes from each room.
- Show family members how to turn off the water, gas and electricity at main switches when necessary.
- Post emergency telephone numbers near telephones.
- Teach children how and when to call 911, police and fire.
- Instruct household members to turn on the radio for emergency information.
- Pick one out-of-state and one local friend or relative for family members to call if separated during a disaster (it is often easier to call out-of-state than within the affected area).

- Teach children your out-of-state contact's phone numbers.
- Pick two emergency meeting places. 1) A place near your home in case of a fire. 2) A place outside your neighborhood in case you cannot return home after a disaster.
- Take a basic first aid and CPR class.
- Keep family records in a waterproof and fire-proof container.
- Find out which disasters could occur in your area.
- Ask how to prepare for each disaster.
- Ask how you would be warned of an emergency.
- Learn your community's evacuation routes.
- Ask about special assistance for elderly or disabled persons.
- Ask your workplace about emergency plans.
- Learn about emergency plans for your children's school or day care center.

For additional information about how to prepare for hazards in your community, contact your local emergency management or civil defense office and American Red Cross chapter.

FUNCTION MENU

The keypad can provide access to a wide assortment of utility functions.

- 1. To enter the Function Menu, first unlock the keypad (see Unlocking the Keypad on page 10) then press MENU.
- 2. To skip a function, press **MENU**.
- 3. To select and execute a function, press **ENTER** or **NEXT**.

YZN

- Functions may be manually scrolled forward or backward using **MENU** and **SILENCE**, respectively.
- To return to normal keypad operation, press **RESET**. **Note**: The keypad will automatically exit the *Function Menu* if no activity is detected for longer than approximately 1 minute.

DISPLAY ZONE DIRECTORY Y/N **ZONE DIRECTORY:** Displays the description of each fire zone in the system. Press **NEXT** and **PRIOR** to scroll through list of fire zones.. Allows zones to be disabled or enabled by pressing **SILENCE** (**DISABLE**) when viewing the selected zone.

DISPLAY ZONES DISABLED Y/N **ZONE DISABLE:** Displays disabled fire zones. Press **NEXT** and **PRIOR** to scroll through list of disabled zones. Pressing **SILENCE** while viewing selected zone will undisable the displayed zone.

DISPLAY OUTPUT DIRECTORY Y/N **OUTPUT DIRECTORY:** Displays a listing of the motherboard outputs and up to 40 external output relays and NAC boards in the system. Press **NEXT** and **PRIOR** to scroll the zone directory. Allows outputs to be disabled or enabled by pressing the **SILENCE** (**DISABLE**) button when viewing the selected output.

DISABLE OUTPUT **OUTPUT DISABLED:** Displays disabled notification circuits. Press **NEXT** and **PRIOR** to scroll through list of disabled notification circuits. Pressing **SILENCE** (**DISABLE**) while viewing selected notification circuit will un-disable the displayed circuit.

LOCK KEYPAD

YZN

LOCK KEYPAD: Master Security Code or Dealer Keypad Program Code or Fire User Code required to view this function) Immediately locks keypad. Must unlock with key or code to affect system operation.

DISPLAY FIRE LOG Y/N **DISPLAY FIRE LOG:** Displays all fire events in chronological order; use **NEXT** and **PRIOR** buttons to scroll through the log. Refer to page 27 for the Fire Log event descriptions.

DO FIRE DRILL Y/N **DO FIRE DRILL:** Activates a fire drill by forcing the programmed fire drill zone into alarm.

DO ONE MAN TEST Y/N **DO ONE MAN TEST:** (Master Security Code or Dealer Keypad Program Code required to view this function). Initiates One Man Test mode (refer to page 23).

TEST COMMUNICATOR Y/N **TEST COMMUNICATOR:** (Master Security Code or Dealer Keypad Program Code required to view this function). Initiates a test report to the central station.

Enable Change (User Code) Y/N **ENABLE (CHANGE USER CODE):** Allows Fire User Codes to be changed (see the section "**Security, Program & User Codes**" for a full definition of "Fire User Code". In general, Fire User Codes can be used to arm and disarm the Fire system. Changing User Codes can be performed at any GEMC-FK1 Fire keypad. **Note:** The total

number of Fire User Codes in a system is determined by the number of codes added within PCD-Windows Quickloader download software.

Change an existing Fire User Code:

- As detailed at the beginning of this section, press MENU until this "ENABLE (CHANGE USER CODE)" selection appears, then press NEXT/YES.
- The keypad display reads: "ENTER CODE TO CHANGE (ENTER)". Enter the "old" code you want to change and press ENTER.
- The keypad display reads: "ENTER NEW CODE". Enter the new code and press ENTER
- 4. The keypad display reads: "RE-ENTER NEW CODE". To ensure the new code entered in step 3 is correct, re-enter new code, then press **ENTER**.

Erase an existing Fire User Code:

Fire User Codes cannot be "erased" from the system using the keypad; instead, simply "change" the "old" code to a different code using the directions above ("Change an existing Fire User Code"). Using PCD-Windows Quickloader download software, Fire User Codes can be erased using the User Assignment screen, User/System Codes tab.

Add a new Fire User Code:

You cannot add new Fire User Codes using the GEMC-FK1 Fire keypad. Instead, use PCD-Windows Quickloader download software, **User Assignment** screen, **User/System Codes** tab.

ENTER CODE TO CHANGE (ENTER)

ENTER NEW CODE

RE-ENTER NEW CODE

SYSTEM READY 11/01/12 12:09 AM

CF DEALER PROG MODE $Y \angle N$ CF DEALER PROGRAM MODE? (Master Security Code or Dealer Keypad Program Code required to view this function). Allows dealer to change system programming.

ENABLE PROGRAMMING

Y/N

ENABLE PROGRAMMING: (Master Security Code or Dealer Keypad Program Code required to view this function). This feature is used to allow keypad programming and downloading of new or altered programming that affects Fire system operation.

Execute Download

Y/N

EXECUTE DOWNLOAD: (Master Security Code or Dealer Keypad Program Code required to view this function). Allows site initiated download sequence to start.

Supplemental Output Reset

YZN

SUPPLEMENTAL OUTPUT RESET: Turns off outputs programmed as "Supplemental".

DISPLAY RF XMITTER STAT Y/N

DISPLAY RF XMITTER STAT Y/N? (Master Security Code or Dealer Keypad Program Code required to view this function). Allows dealer to change system programming.

Reinitialize FSLC Devices

Y/N

REINITIALIZE FSLC DEVICES This menu item is typically used when replacing a defective SLC device while keeping the existing Fire system in operation (thus allowing the Fire system to continue to protect life and property). This selection is intended to ensure

valid communication and correct operation for each Fire SLC device in the system.

When initiated, power is removed from the GEMC-FW-SLC bus (the common pathway that connects all of the Fire SLC devices), then power to the GEMC-FW-SLC bus is restored. Each device's pre-existing configuration (stored within each device) is retained. To ensure each device's ability to respond to the Fire SLC circuit board, each Fire SLC device "type" is retrieved from each device by the GEMC-FW-SLC circuit board (this process takes about 20 seconds, depending on the number of devices). The retrieval of each SLC device "type" indicates each device's ability to respond to the Fire SLC circuit board; for each successful retrieval, the GEMC-FW-SLC instructs each device to use its pre-existing configuration.

Full FSLC Initialize

Y/N

FULL FSLC INITIALIZATION

Use this selection when you wish to re-establish a "starting" condition for all Fire SLC devices in the system, **without** the need for the system to remain in operation.

To ensure all devices are operating correctly, this selection clears all memory from each Fire SLC device in the system, verifies communication with the Fire SLC circuit board, and restores each device's programming by sending data stored within the Fire SLC board memory back to each device. **Note:** This re-initialization process may take up to 1.25 hours to complete, depending on the number of SLC devices in the system.

A full Fire SLC device initialization is also available in PCD-Windows Quickloader download software. In the PCD-Windows Quickloader toolbar, click **Panel History**, **Status History**, and click the "**Fire SLC Init**" button.

Disable Remote Reporting Y/N **DISABLE REMOTE REPORTING?** (Master Security Code or Dealer Keypad Program Code required to view this function). Simplifies Dealer servicing and downloading program changes by disabling all Fire and Burglary reporting. When disabled, the option "Enable Remote Reporting" will appear. **Note:** Exiting **Dealer Program Mode** will re-enable remote reporting.

DO FIRE DRILL

A fire drill is a pre-planned rehearsal designed to test the fire alarm system and evacuation procedures. Before performing a fire drill, always notify the central monitoring station and/or fire department to ensure that the alarm report was actually received and to avoid an unintentional response by fire personnel. Ensure that all devices (such as bells, strobes, horns and sirens) that activate during a real emergency also activate during the fire drills in order to familiarize occupants with the alarm signals they would expect during a real emergency.

To initiate a fire drill:

1.	Notify the central monitoring station and/or fire department.
	Fire Station Notified: Drill started at:AM/PM, Date Telephone
2.	At any Fire (red-colored) keypad, enter the <i>Function Menu</i> by unlocking the keypad (see Unlocking the Keypad on page 10) then press MENU . Note: The keypad will automatically exit the Function Menu if no activity is detected for longer than 1 minute.
3.	Scroll through the functions by pressing MENU until DO FIRE DRILL appears in the display, then press ENTER The keypad will indicate the fire drill is in progress. When the fire drill has ended, contact the central monitoring station and/or fire department.
	Fire Station Notified: Drill ended at:AM/PM, Date Telephone
	Alarm Signal Transmission Confirmed? Yes No
4	Deturn to narmal keymod exerction proce PECET

ONE MAN TEST

DO ONE MAN TEST

Fire Watch

A fire watch is implemented to ensure the fire-safety of a building or an area in the event of any act (such as entering One Man Test mode) that creates an increased risk to persons or property.

The term "Fire Watch" is used to describe a dedicated person or persons whose sole responsibility is to look for fires within an established area.

ROUBLE ONE MAN TEST MODE SYSTEM OFF LINE

Enter One Man Test mode as follows:

- 1 Enter the *Function Menu* by first unlocking the keypad (see **Unlocking the Keypad** on page 10) then press **MENU**.
- 2 Skip through the function by pressing **MENU** until "DO ONE MAN TEST" appears in the keypad display.
- **3** Press **ENTER** or **NEXT** to enter the mode. The words "ONE MAN TEST MODE, SYSTEM OFF LINE" appears in the keypad display.

During **One Man Test** mode, all zones are disabled from activating bell outputs, door release circuits and from reporting alarms to the central monitoring station. Therefore, the Fire Warden must be notified and must initiate a *Fire Watch* during this time (see sidebar at left). A signal is sent to the central station to notify the monitoring station that the system is under a test. To exit One Man Test mode, **press RESET on any keypad** to automatically re-enable all zones and send a signal to the central station that the system has returned to normal operation.

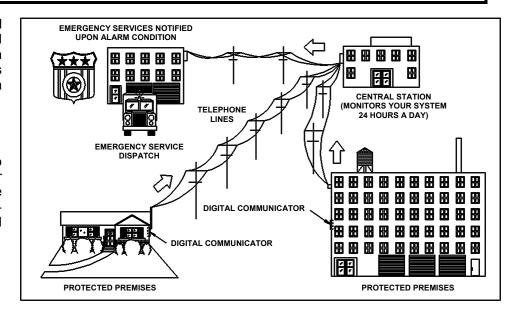
While in **One Man Test** mode, as smoke sensors and other devices are triggered, the bell output will sound a "ding" once; when the sensor or circuit is restored, the bell output will "ding" twice.

CENTRAL STATION MONITORING

Your alarm specialist has programmed your system to be monitored by a central station. The digital communicator can transmit emergency signals and status reports to the central station 24 hours a day.

Fire Communicator Features

Test Timer. Will send a signal to the central station once a day over telephone lines or once a minute over the internet. This feature is always enabled and cannot be turned off.



KEYPAD MESSAGES

The keypad can display the following functional messages. Other diagnostic messages are available for the installer or servicer. Should any unfamiliar messages appear, call your dealer for service.

SYSTEM NORMAL (DATE) (TIME)

System operating normally with no fire alarms, supervisory signals or troubles.

INVALID ENTRY TRY AGAIN Wrong code entered.

AC POWER FAIL E01-00 SERVICE

Check for blown fuse or circuit breaker; general power outage.

LOW BATTERY E02-00 SERVICE Battery weak. If not recharged within 24 hours, replace battery.

Communication failure to the central station.

COMM FAIL E03-00 SERVICE

GLOSSARY

Following are brief descriptions of terms and features used herein that may be unfamiliar to you. Some of the features are programmable options that may or may not apply to your particular system.

- **Battery** Backup power source in the control-panel enclosure to provide protection in the event of a power failure.
- Central Station Monitors incoming reports and emergency messages from a digital communicator and notifies the proper authorities.
- **Code** Your personalized code for unlocking the system. It may contain up to six digits.
- Communicator Reports fire alarms, supervisory signals and troubles directly to the central station over telephone lines (or optionally the Internet).
- Control Panel The brain of the

- system, it controls all system functions.
- **Directory** A listing of the programmed zone and output descriptions stored in memory.
- **Report** A transmission to a central station notifying of a change in the status of the system (alarm, trouble, low battery, etc.).
- RF Low Battery (Wireless systems only) Weak transmitter battery.
- RF Check In (Wireless systems only) Periodic test report from transmitter (if a report is not received on time, a supervisory-failure system trouble will result).

- **System Trouble** A problem (low battery, power failure, etc.) detected i
- **Zones** Independent circuits that protect specific areas of the premises:
- **Fire Zone**: Detects fire alarms or trouble conditions.

FIRE LOG

Displays a list of all Fire events that have occurred within the system. The information displayed includes an event number, the device number, device location, date, time and the following event "type" descriptions:

Fire: System in Fire alarm.

Fire Rstor: System restored from Fire alarm. Fire Tb1: Fire trouble detected on system.

FrTb1 Rstr: System restored from Fire trouble; Fire trouble removed.

CleanSmks: Smoke detector issued a request for cleaning.

C1nRstSmks: Request for smoke detector cleaning cancelled.

NetComFail: TCP/IP (network) communication failure.

NetComRest: System restored from TCP/IP (network) communication failure.

WaterFlwA: Water flow alarm indication.

WaterF1wAR: System restored from Water flow alarm.

WaterFlwT: Water flow trouble detected on system

WaterF1wTR: System restored from Water flow trouble; trouble removed.

Bypass NAC: NAC device bypassed.

UBypas NAC: NAC device un-bypassed.

SUPU ALM: System in Supervisory alarm.

SUPU TRBL: Supervisory trouble detected on sytstem

SUPU ALMR: System restored from Supervisory alarm.

SUPU TRBLR: System restored from Supervisory trouble indication.

FSLCNORES: No response detected from Fire SLC device.

FSLCNORESR: System restored from Fire SLC no response indication.

FSLCLPTBL: Fire SLC loop trouble detected on sytstem.

FSLCLPTBLR: System restored from Fire SLC loop trouble indication.

FSLCTAMP: Fire SLC tamper detected on sytstem. FSLCTAMPR: System restored from Fire SLC tamper.

FSLCPTTBL: Fire SLC point trouble detected on sytstem.

FSLCPTTBLR: System restored from Fire SLC point trouble indication.

FSLCPTMT: Fire SLC point maintenance detected on sytstem.

FSLCPTMTR: System restored from Fire SLC point maintenance indication.

FKEYTAMP: Fire keypad tamper detected on syt-

FKEYTAMPR: System restored from Fire keypad tamper indication.

FKEYUNLK: Fire keypad unlocked. FKEYLK: Fire keypad locked.

FSERUSTR: Fire service mode start. FSERUEND: Fire service mode end.

FKEYBUSF: Fire keypad bus failure detected on sytstem.

FKEYBUSFR: System restored from a Fire keypad bus failure indication.

FDRILLSTR: Fire drill started.

FDRILLEND: Fire drill ended.

ONEMANSTR: One man test mode started.

ONEMANEND: One man test mode ended.

FNACBTBL: Fire NAC board trouble detected on sytstem.

FNACBTELR: System restored from a Fire NAC board trouble indication.

FNACTBL: Fire NAC trouble detected on sytstem.

FNACTBLR: System restored from a Fire NAC trouble indication.

FNACDISA: Fire NAC device disabled.

FNACDISAR: System restored from a Fire NAC device disabled indication.

FNACON: Fire NAC on. FNACOFF: Fire NAC off.

FNACSILENC: Silence Fire NAC.

FMONZONET: Fire monitor zone trouble detected on sytstem.

FMONZONETR: System restored from a Fire monitor zone trouble indication.

Your control panel is capable of detecting a variety of troubles that may affect system performance. If a trouble is detected, the **TROUBLE** icon will flash on the left side of keypad window along with one or more of the following error codes. If the problem is related to a specific zone or device, the corresponding number will also be indicated. Below is a list of the most common troubles along with the necessary corrective action, if any. If a message appears that is not listed below, call your security professional for service. When a trouble occurs, the keypad trouble sounder can be silenced unlocking the keypad, and pressing **ACK**. or **SILENCE**. The **TROUBLE** icon will change from flashing to steady. If the trouble is cleared, the display may be cleared by pressing **RESET**. The keypad should return to the system normal display. **Note:** If you cannot clear a system trouble yourself, call installing company for service as soon as possible.

TBL#	FIRE KEYPAD DISPLAY	KEYPAD TROUBLE DESCRIPTION
E01-00	SYStrbl E01 xxx MM/DD/YY HH:MM 'AC Power Failure' 'E01-000 SERVICE'	System AC Power failure/outage. Check blown fuse or circuit breaker.
E02-00	SYStrbl E02 xxx MM/DD/YY HH:MM 'Battery Trouble ' 'E02-000 SERVICE '	System Battery Trouble. Generated when there is either a depleted or damaged battery and/or the battery charging circuit is not working. If there has been a recent power failure, the battery may be partially depleted and must be recharged by the control panel. The control panel performs an automatic test of the battery every 100 seconds, at which time the trouble will clear if the battery has been recharged and the charging circuit is functioning correctly. See also E63 below, the description for the GEMC-BM/PS low battery.

TBL#	FIRE KEYPAD DISPLAY	KEYPAD TROUBLE DESCRIPTION
E03-00	SYStrbl E03 xxx MM/DD/YY HH:MM ' Comm Failure ' 'E03-000 SERVICE '	Communication Failure: The system was not able to report to the central station. If this is due to a temporary interruption in the telephone service, the trouble can be cleared when the service is restored by performing a Communication Test: Fire Keypads 1. Enter code to unlock keypad and press MENU. 2. Press MENU until "ACTIVATE DIALER TEST" appears in the window. 3. Press ENTER to send a test signal to the central station. 4. Allow a minute or 2 for the call to reach the central station then press RESET. Burg Keypads: 1. While disarmed, enter your User Code followed by MENU. 2. Answer NO until "ACTIVATE DIALER TEST" appears in the window. 3. Press YES to send a test signal to the central station. Note: Will also display if panel improperly programmed to report (Report Alarm, Report Codes, Subscriber ID Numbers, etc. must be programmed correctly).
E04-NNNNNN	SYStrbl E04 xxx MM/DD/YY HH:MM 'RFPnt Supv Trbl' 'E04-NNN XXXXXX'	Wireless Transmitter or SLC Point Supervison Failure. A problem has been detected either in a wireless transmitter or a burglary SLC Point. "XXXXXX" = The wireless/SLC device 6-digit ID map number. NNN = associated zone number
E05-NN	SYStrbl E05 xxx MM/DD/YY HH:MM 'RFPnt LowBattery' 'E05-NNN XXXXXX'	Wireless Transmitter Low Battery. The battery in a wireless transmitter is low and should be replaced. This transmitter is on the zone corresponding to the number NN. Warning: Replace batteries only with the same type as specified on the sticker mounted on the device or in the installation instructions. Use of another battery may present a risk of fire or explosion. Do not recharge or disassemble battery, or dispose of in fire. "XXXXXXX" = The wireless device 6-digit ID map number. NN or NNN = Zone number.
E06-NN	SYStrbl E06 xxx MM/DD/YY HH:MM 'RFRec NoResponse' 'E06-000 SERVICE'	RF Receiver or SLC Module response trouble. NN = Receiver or SLC Module address (1-4). Check connection to receiver/SLC module, check Receiver wiring is on correct bus Fire or Burg and/or correct SLC connector SLC1 or SLC2, check to make sure address jumper on receiver or SLC Module is correct. Make sure no duplicate addresses are used. For Burglary keypads, NNN = receiver number (1-4).

TBL#	FIRE KEYPAD DISPLAY	KEYPAD TROUBLE DESCRIPTION
E07-00	'Download Failure' 'E07-00 SERVICE'	Download attempt failure.
E08-NN	SYStrbl E08 xxx MM/DD/YY HH:MM 'Telco Line Fail ' 'E08-NNN SERVICE '	Telephone line failure (system trouble displays after a programmed delay of low on hook voltage and no off hook line current from connected phone line). NN = Telco line number 1 or 2.
E09-00	SYStrbl E09 xxx MM/DD/YY HH:MM ' COLD START ' 'E09-000 SERVICE'	A system cold start was performed, erasing all programmed data in the control panel such as the Dealer Program, Zone Description Data and Schedules.
E14-NNN	SYStrbl E14 xxx MM/DD/YY HH:MM 'NacRly BoardTrbl' 'E14-000 SERVICE'	NAC or Relay board response failure. NNN = Relay board number (address). Check to make sure correct Relay group address jumpers are set (no duplicates) and GEMC-RM3008's and GEMC-OUT8's are wired to the correct bus (either the Fire bus or the Burg bus). If the GEMC-FW-SLC or GEMC-BSLC is used, check to ensure correct relay group dip switch settings. If the GEMC-NAC7S or GEMC-NAC7L is used, check to ensure the address jumpers are set correctly.
E15-NNNNNN	SYStrbl E15 xxx MM/DD/YY HH:MM 'RFpnt Tamper' 'E15-NNN XXXXXX'	Wireless RF Transmitter or SLC Point cover removed or the unit is removed from its mounting location and/or an SLC device cover is removed. "XXXXXX" is the wireless device 6-digit ID map number or SLC point address. NNN is the associated zone number
E16-NN	SYStrbl E16 xxx MM/DD/YY HH:MM 'RFRec JammedTrbl' 'E16-000 SERVICE '	Wireless RF Receiver or Burg SLC Trouble. NN = Receiver/SLC Module address (1-4). Either a Receiver is receiving a constant conflicting signal or noise that may interfere with receiving signals, or a GEMC-BSLC module has detected a short on the bus (class A or B) and/or an open on a class A loop. Consider moving Receiver location or repairing SLC loop.
E17-NN	SYStrbl E17 xxx MM/DD/YY HH:MM 'RFRec Tamper' 'E17-000 SERVICE'	Wireless RF receiver cover removed or removed from mounting location. NN = Receiver address (1-4).

TBL#	FIRE KEYPAD DISPLAY	KEYPAD TROUBLE DESCRIPTION
E19-00	'SystemMemoryFail' 'E19-00 SERVICE'	Internal User Program memory error. Fire Keypads: Unlock keypad and press RESET to clear. Burg Keypads: Select menu option RESET SYSTEM TBL then press ENTER.
E20-00	SYStrbl E20 xxx MM/DD/YY HH:MM 'Panel Memory ERR' 'E20-000 SERVICE'	Internal Program memory error. Fire Keypads: Unlock keypad and press RESET to clear. Burg Keypads: Select menu option RESET SYSTEM TBL then press ENTER.
E24-00	SYStrbl E24 xxx MM/DD/YY HH:MM 'TIME FOR SERVICE' 'E24-00 SERVICE'	A service message can be programmed through the PCD-Windows Quickloader (event-schedule screen) to remind the user to arrange for scheduled maintenance. At the programmed date and time, the keypad sounder will start to pulse and the display will read "TIME FOR SERVICE". Fire Keypads: Unlock keypad and press RESET to clear. Burg Keypads: Select menu option RESET SYSTEM TBL then press ENTER.
E26-00	SYStrbl E26 xxx MM/DD/YY HH:MM 'System Gnd Fault' 'E26-000 SERVICE'	System Ground Fault. A system wire is shorted to earth ground.
E27-00	SYStrbl E27 xxx MM/DD/YY HH:MM 'Printer Trouble ' 'E27-001 SERVICE '	Printer communication failure. Check printer connections.
E28-00	SYStrbl E28 xxx MM/DD/YY HH:MM 'ErrorCheck Req' 'E28-000 SERVICE'	Fire System is in "ENABLE PROGRAMMING" mode ("ENABLE PROGRAMMING" is entered via the Keypad Function menu) and therefore may not be relied upon to perform as intended. The system account program must be downloaded with PCD-Windows performing an error check. The system must always be tested after download to confirm proper operation. Access to panel programming must be enabled via the above described keypad Function menu to allow keypad programming or remote downloading of FIRE-related programming changes.

TBL#	FIRE KEYPAD DISPLAY	KEYPAD TROUBLE DESCRIPTION
E31-NNN	SYStrbIE31 xxx MM/DD/YY HH:MM 'FireEzmNoRespTbl' 'E31-NN SERVICE '	Fire Expansion Zone Module response failure. NN = EZM address number (001-031). Check to make sure correct EZM address jumpers (no duplicates) and wired to Fire bus (not Burg bus).
E32-00	SYStrbl E32 xxx MM/DD/YY HH:MM 'Fire Keypad Trbl' 'E32-NNN SERVICE'	Fire keypad response failure. NNN is keypad number (address 001-015). Check to make sure correct Keypad address configured (no duplicates) and wired to Fire bus (not Burg bus).
E33-NNN	SYStrbl E33 xxx MM/DD/YY HH:MM 'FireEzm Tamper' 'E33-000 SERVICE'	Fire Expansion Zone Module tamper. NN = EZM address number. Check to make sure correct EZM address jumpers (no duplicates) and wired to Fire bus (not Burg bus). In addition, ensure the module is mounted to the wall correctly and the cover is in place.
E35-NNN	RIyTbI/ E35 NN MM/DD/YY HH:MM NN-XXXXXXXXXXX XXXXXXXXXXXXXXXX	Supervised output trouble. Check the following: 1. NAC's A-D open, short or overcurrent on output. 2. GEMC-SLC-SOM has open or short. 3. GEMC-SLC-SOM is not powered correctly. 4. GEMC-NAC7L or GEMC-NAC7S NAC outputs 1-4 open, shorted or overcurrent on output. 5. Output is disabled (display will read "RlyDis/ E35 NN". "NN" is the external output number, followed by a programmed 29-character NAC description (multiple "X" characters). For Burglary systems, a GEMC-BSLC-RLY is not responding or its relay is not working correctly.
E59-00	SYStrbl E59 xxx MM/DD/YY HH:MM 'Tcpip Comm Fail ' 'E59-NNN SERVICE '	Fail to Communicate with NL-MOD. Caused by not getting required kiss-off with timeout of NL-MOD after a panel-initiated report has been sent. This error is reportable. "NNN" is the receiver number (1-3).
E66-00	SYStrbl E66 xxx MM/DD/YY HH:MM 'CleanSmk' 'E66-NNN XXXXXX'	Wireless or SLC Smoke Detector is indicating it needs to be cleaned or its sensitivity is falling below an acceptable level. NNN is the associated zone number; XXXXXX is the Device Six-Character ID number.

TBL#	FIRE KEYPAD DISPLAY	KEYPAD TROUBLE DESCRIPTION
E72-00	SYSTrbl E72 xxx MM/DD/YY HH:MM 'RFRec High Noise' 'E72-000 SERVICE'	Wireless Radio Receiver High Noise. Extraneous wireless signals are being detected. Try re-locating the GEMC-RECV receiver to a quieter position. XXX is the receiver number.
E90-00	SYStrbl E90 xxx MM/DD/YY HH:MM 'FslcRec Mem Fail' 'E90-000 SERVICE'	Fire or Burglary SLC module memory failure. Indicates the onboard memory of the SLC device is not working as intended. Attempt to correct by downloading via PCD-Windows Quickloader download software. Replace module if trouble persists.
E91-00	SYStrbl E91 000 MM/DD/YY HH:MM 'NLM SUPV TROUBLE' 'E91-000 SERVICE'	NL-MOD supervision trouble. A problem has been detected with the NL-MOD. Caused when control panel is not communicating with the NL-MOD; either the NL-MOD is not working properly or it is not connected to the control panel. Check the 4 wire harness. This error is reportable.
E92-000	SYStrbl E92 xxx MM/DD/YY HH:MM 'FslcRec Unmapped' 'E92-000 SERVICE'	"Unmapped" Device Trouble. One or more Fire SCL device(s) associated with the GEMC-FW-SLC Fire SLC module was found on the loop but not mapped (programmed) to any zone.
E94-000	SYStrbl E94 xxx MM/DD/YY HH:MM 'FslcRec NoRespon' 'E94-000 SERVICE'	For Fire Systems: A response failure in the GEMC-FW-SLC Fire SLC Module. Ensure the associated SLC Module is correctly addressed and its wiring harness is placed in the correct connector (SLC #1 or SLC #2).
E96-000	SYStrbl E96 xxx MM/DD/YY HH:MM 'FslcRec LoopTrbl' 'E96-000 SERVICE'	GEMC-FW-SLC Fire SLC Module wiring trouble. Short detected on Class B loop; open or short detected on a Class A loop. Check SLC loop wiring connections. NNN = module number.

TBL#	FIRE KEYPAD DISPLAY	KEYPAD TROUBLE DESCRIPTION
E97-NNNNNN	SYStrbl E97 xxx MM/DD/YY HH:MM 'FslcPnt Trouble' 'E97-NNN XXXXXX'	Trouble detected on a Fire SLC device. Each device generates troubles specific to its Type (see list numbered 1-9 below) and all troubles are indicated with this trouble except the E66 "CleanSmk" sensitivity trouble. NNN is the associated zone number; XXXXXX is the Device Six-Character ID number (the second number from left is the "Type" as per the list below). To determine the specific trouble, PCD-Windows Quickloader "Status Upload" must be performed. Each device Type is as follows: 1: FWC-FSLC-SMK Photoelectric Smoke 2: FWC-FSLC-HEAT Heat Sensor 3: FWC-FSLC-HEAT Heat Sensor 4: FWC-FSLC-PULL Analog Manual Pull Station 4: FWC-FSLC-EZM1 Fast Response Contact Monitor Module 5: FWC-FSLC-SOM1 Supervised Output Module 6: FWC-FSLC-SOM1 Supervised Output Module 7: FWC-FSLC-DUCT Photoelectric Duct Sensor 8: FWC-FSLC-EZM2 Dual Input Monitoring Module 9: FWC-FSLC-CZM Conventional Zone Module

SLC Loop 1	SLC Loop 1 SLC Loop 1				
Zone No.	Description	Zone No.	Description	Zone No.	Description

C Loop 1		SLC Loop 1	
Zone No.	Description	Zone No.	Description

SLC Loop 2		SLC Loop 2	SLC Loop	
Zone No.	Description	Zone No.	Description	Zone No

		SLC Loop 2		SLC Loop 2	
Description	Zone No.	Description	Zone No		

NOTES

NAPCO LIMITED WARRANTY

defects in materials and workmanship for thirty-six months following the date of manufacture. NAPCO will, neither assumes, nor authorizes any other person purporting to act on its behalf to modify, to change, or to within said period, at its option, repair or replace any product failing to operate correctly without charge to assume for it, any other warranty or liability concerning its products. the original purchaser or user.

This warranty shall not apply to any equipment, or any part thereof, which has been repaired by others, improperly installed, improperly used, abused, altered, damaged, subjected to acts of God, or on which any serial numbers have been altered, defaced or removed. Seller will not be responsible for any dismantling or reinstallation charges

THERE ARE NO WARRANTIES, EXPRESS OR IMPLIED, WHICH EXTEND BEYOND THE DESCRIPTION ON THE FACE HEREOF. THERE IS NO EXPRESS OR IMPLIED WARRANTY OF MERCHANTABILITY OR A WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE. ADDITIONALLY, THIS WARRANTY IS IN LIEU OF ALL OTHER OBLIGATIONS OR LIABILITIES ON THE PART OF NAPCO.

Any action for breach of warranty, including but not limited to any implied warranty of merchantability, must be brought within the six months following the end of the warranty period.

IN NO CASE SHALL NAPCO BE LIABLE TO ANYONE FOR ANY CONSEQUENTIAL OR INCIDENTAL DAMAGES FOR BREACH OF THIS OR ANY OTHER WARRANTY, EXPRESS OR IMPLIED, EVEN IF THE LOSS OR DAMAGE IS CAUSED BY THE SELLER'S OWN NEGLIGENCE OR FAULT.

In case of defect, contact the security professional who installed and maintains your security system. In order to exercise the warranty, the product must be returned by the security professional, shipping costs prepaid and insured to NAPCO. After repair or replacement, NAPCO assumes the cost of returning products under warranty. NAPCO shall have no obligation under this warranty, or otherwise, if the product has been repaired by others, improperly installed, improperly used, abused, altered, damaged, subjected to accident, nuisance, flood, fire or acts of God, or on which any serial numbers have been altered, defaced or removed. NAPCO will not be responsible for any dismantling, reassembly or reinstallation

This warranty contains the entire warranty. It is the sole warranty and any prior agreements or

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In no event shall NAPCO be liable for an amount in excess of NAPCO's original selling price of the product. for any loss or damage, whether direct, indirect, incidental, consequential, or otherwise arising out of any failure of the product. Seller's warranty, as hereinabove set forth, shall not be enlarged, diminished or affected by and no obligation or liability shall arise or grow out of Seller's rendering of technical advice or service in connection with Buyer's order of the goods furnished hereunder.

NAPCO RECOMMENDS THAT THE ENTIRE SYSTEM BE COMPLETELY TESTED WEEKLY.

Warning: Despite frequent testing, and due to, but not limited to, any or all of the following; criminal tampering, electrical or communications disruption, it is possible for the system to fail to perform as expected. NAPCO does not represent that the product/system may not be compromised or circumvented; or that the product or system will prevent any personal injury or property loss by burglary, robbery, fire or otherwise; nor that the product or system will in all cases provide adequate warning or protection. A properly installed and maintained alarm may only reduce risk of burglary, robbery, fire or otherwise but it is not insurance or a guarantee that these events will not occur. CONSEQUENTLY, SELLER SHALL HAVE NO LIABILITY FOR ANY PERSONAL INJURY, PROPERTY DAMAGE, OR OTHER LOSS BASED ON A CLAIM THE PRODUCT FAILED TO GIVE WARNING. Therefore, the installer should in turn advise the consumer to take any and all precautions for his or her safety including, but not limited to, fleeing the premises and calling police or fire department, in order to mitigate the possibilities of harm and/or damage.

NAPCO is not an insurer of either the property or safety of the user's family or employees, and limits its liability for any loss or damage including incidental or consequential damages to NAPCO's original selling price of the product regardless of the cause of such loss or damage.

Some states do not allow limitations on how long an implied warranty lasts or do not allow the exclusion or limitation of incidental or consequential damages, or differentiate in their treatment of limitations of liability for ordinary or gross negligence, so the above limitations or exclusions may not apply to you. This Warranty gives you specific legal rights and you may also have other rights which vary from state to state.

THE FOLLOWING STATEMENT IS REQUIRED BY THE FCC.

This equipment generates and uses radio-frequency energy and, if not installed and used properly, that is, in strict accordance with the manufacturer's instructions, may cause interference to radio and television reception. It has been type tested and found to comply with the limits for a Class-B computing device in accordance with the specifications in Subpart J of Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference in a residential installation.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause 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 the receiving antenna; relocate the computer with respect to the receiver; move the computer away from the receiver; plug the computer into a different outlet so that computer and receiver are on different branch circuits.

If necessary, the user should consult the dealer or an experienced radio/television technician for additional suggestions. The user may find the following booklet prepared by the Federal Communications Commission helpful: "How to Identify and Resolve Radio-TV Interference Problems". This booklet is available from the U.S. Government Printing Office, Washington, DC 20402; Stock No. 004-000-00345-4