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Air Access™ LTEA Series AA-LTEA

Multi-Function Communicator INSTALLATION INSTRUCTIONS



WI2453ALF 12/21

OVERVIEW

The Air Access™ model **AA-LTEA** is a multi-function communicator and supervised Air Access interface module. The Air Access system allows you to upload and download lock programming features wirelessly, using the Air Access programming software. The **AA-LTEA** communicator is one link in the system that facilitates wireless communications between the Air Access software and an individual Networx wireless lock mounted on a protected door. As shown in the following illustration, the Air Access software is accessed through a secure Internet (cloud) connection. The software data is transmitted through a secure cellular connection to an **AA-LTEA-Series** communicator. The **AA-LTEA** communicator can be wired directly to a single Air Access Gateway module (e.g. the **AA-GATEWAYPOE**), or if multiple Gateways are needed, the **AA-LTEA** communicator must be wired directly to a stand-alone Ethernet switch located within the protected premises. The Ethernet switch can then be wired to up to six (6) Air Access Gateways. Each Gateway is wirelessly connected via a private wireless signal to up to 63 wireless locking devices. For more information about Air Access Gateways, see the documentation listed in **ORDERING INFORMATION**.

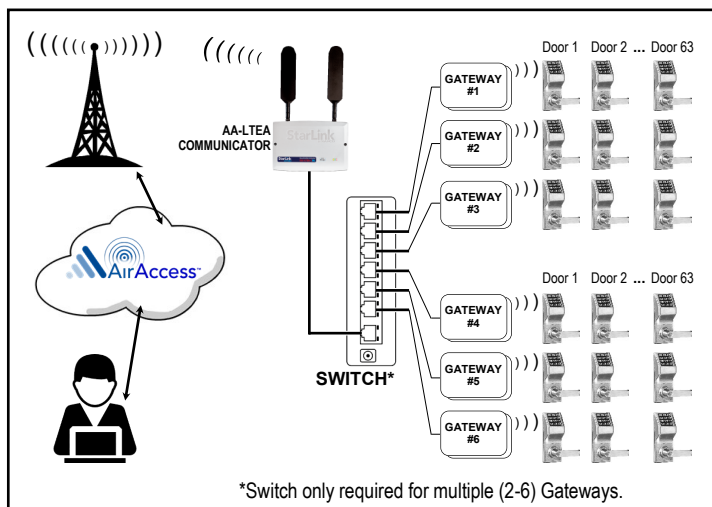


Fig. 1: Air Access Overview Flowchart

Installing the **AA-LTEA** communicator is simple; it is powered by an external 12VDC/2A power supply at the **AA-LTEA** terminals 1 and 2. The **AA-LTEA Ethernet** socket is connected to an open Ethernet port in the system's stand-alone Ethernet switch with a standard RJ-45 network cable. **Important: Do NOT mount the AA-LTEA-communicator within 6 feet (1.8m) of a Gateway.**

CAPACITIES

As shown in the previous illustration, up to six (6) **AA-GATEWAY** devices are supported for each **AA-LTEA** com-

municator. Up to 63 wireless locks including up to 7 Expanders are supported for each **AA-GATEWAY**.



If required, mount the unit to a single-, dual-, or three-gang electrical box and route the wires through the back thru-hole(s), or as specified by local codes. **See the Air Access Cloud Online Help for programming instructions.**

Air Access Series communicators use proprietary data-capture technology that captures and transmits signals to and from the Air Access Control Center (the NAPCO / Continental "NOC" at <https://airaccess.cloud>).

AA-LTEA - Multi-function communicator and supervised interface module LTE (AT&T), SIM card included. White plastic enclosure, with dual antennas.

ORDERING INFORMATION

In addition to the models previously referenced, the following sub-assemblies are available. All documentation available for download at tech.napcosecurity.com:

AA-TRF - Mini UPS or sm. transformer w/ power backup

AA-POESW - POE Switch

AA-POEIJ - POE Injector

SLE-ANTEXT30 - Extended antenna with 30 feet of cable.

SLE-ANTEXT50 - Extended antenna with 50 feet of cable.

SLE-ANTEXT75 - Extended antenna with 75 feet of cable.

SLE-ANTEXT100 - Extended antenna with 100 feet of cable.

SLE-ANTEXT04 - Extended antenna with 4 feet of cable. (ideal for installations that may require a few extras dBs of gain but running the external cable may not be practical).

SLE-ANT - Antenna only.

All documentation available for download at

tech.napcosecurity.com:

WI2447 - Air Access Quick Start Guide

WI2449 - **AA-GATEWAY** Installation Instructions

WI2450 - **AA-GATEWAYPOE** Installation Instructions

WI2453 - **AA-LTEA** Installation Instructions (this manual)

WI2454 - **AA-LTEA-PW** Installation Instructions

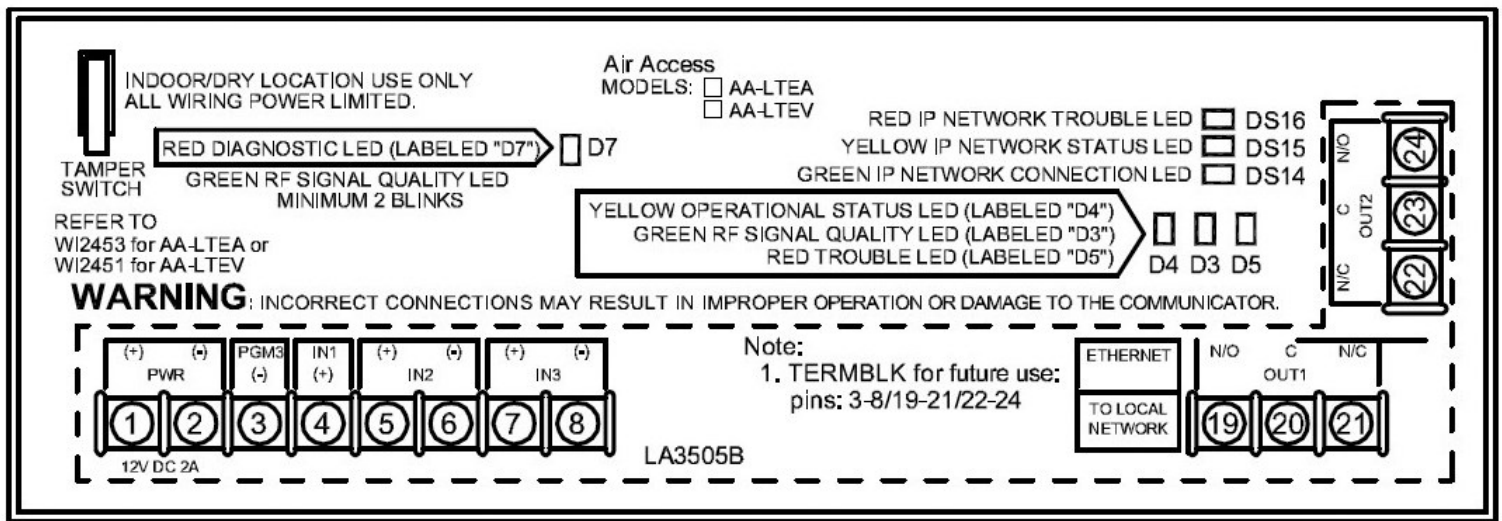
Note: Air Access Cloud Online Help available in the Air Access software.

SPECIFICATIONS

Electrical Ratings for +12V / 24V (powered by an external 12VDC/2A power supply)

- Input Voltage: 12VDC regulated.
- Input Current:
12VDC standby: 125mA

IN1, IN2, IN3 and **PGM3** are reserved for future use.



Physical (W x H x D)

- Plastic Housing: 8 x 5⁻²⁹/₆₄ x 1¹/₂" (20.3 x 13.9 x 3.8cm)
- Mounting: Plastic housing includes three keyhole slots for triple gang boxes (see scale template on page 6);
- Antenna Length: 8.25" (21cm)

Environmental

- Operating Temperature: 0°C - 49°C (32°F - 120°F)
- Humidity: Maximum 93% Non-Condensing
- Indoor / dry location use only

TERMINAL DESCRIPTIONS

Configure all inputs and outputs using the Management Center screen (located at <https://airaccess.cloud>). Located at the bottom of the Air Access communicator PC board, the terminals are described as follows:

TB1: PWR (+12VDC)

(Refer to section "STEP 4: APPLY POWER")

TB2: PWR GND (-)

(Refer to section "STEP 4: APPLY POWER")

TB3-TB8: Reserved for future use.

Ethernet: Connect directly to the Air Access system's stand-alone Ethernet switch located within the protected premises. **Note:** The Gateway at the premises requires standby power, therefore a UL 1481 / UL 864 or UL Listed ITE (*Information Technology Equipment*) UPS must be used at the premises to power this device for a minimum of 24 hours.

TB19-TB24: Reserved for future use.

LED DESCRIPTIONS

The communicator PC board contains several LEDs. For locations, see wiring diagram at the top of this page.

GREEN RF SIGNAL STRENGTH LED

Labeled "D3", this LED is located at the lower right corner of the PC board.

Every 30 seconds, the Air Access communicator receiver section turns on and listens to the cell tower. Depending on the signal strength detected, it will blink the Signal Strength LED from 1 to 5 times, providing a signal strength indicator that is updated constantly and is always displayed.

Green LED Operation

Signal strength (as received by the communicator) is displayed by this LED blinking 1 to 5 times at a constant rate (with a short delay between blink cycles). **Acceptable signal strength is greater than or equal to 2 blinks.**

YELLOW OPERATIONAL STATUS LED

Labeled "D4", this LED is located at the bottom right of the PC board. Operation is as follows:

Normal Standby Condition:

- **Blinks on momentarily every 10 seconds:** Unit is in standby waiting to send data.

Sending or Receiving Data:

- Very fast blinks: Attempting to connect to a remote server
- Blinks every 2 or 3 seconds: Connected to the remote server successfully and in the middle of communication

RED TROUBLE LED

Labeled "D5", this LED is located at the bottom right of the PC board. Operation is as follows:

- **1 Blink:** Low Aux Power input voltage
- **2 Blinks:** Battery trouble
- **3 Blinks:** Invalid Radio ID detected
- **4 Blinks:** RF trouble (antenna connection or cellular registration)
- **5 Blinks:** Communicator failure to remote server (radio).
- **6 Blinks:** Unit disabled from device communication
- **7 Blinks:** Unit has shut down without functionality; restart required to restore operation (full power down and full power up sequence)
- **8 Blinks:** Default jumper detected. Communicator programming options will be defaulted at power up

RED DIAGNOSTIC LED

Labeled "D7", this LED is located in the middle of the PC board. One blink indicates a weak or non-existent signal from the network (green LED is off). If this red LED is blinking in any other manner, please contact technical support.

- **1 Blink:** A weak or non-existent signal from the network (green LED is off)
- **2 Blinks:** Unable to receive RF signal strength reading

from communicator

- **3 Blinks:** Encryption between communicator and remote server is detected as 'OFF'
- **4 Blinks:** Outbound connection is throttled for a short time to allow incoming access for the communicator. Applicable only when communicator failure to remote server has occurred
- **5 Blinks:** (Reserved)
- **6 Blinks:** Communicator unable to either register or connect to cell carrier
- **7 Blinks:** Communicator unable to power up
- **8 Blinks:** (Reserved)

GREEN IP NETWORK CONNECTION LED

Labeled "DS14", this LED is located to the right of the **ETHERNET** socket on the PC board. Operation is as follows:

Off = No network cable detected

- **1 Blink:** Static IP
- **2 Blinks:** DHCP Client
- **3 Blinks:** DHCP Server

RED IP NETWORK TROUBLES LED

Labeled "DS16", this LED is located to the right of the **ETHERNET** socket on the PC board. Operation is as follows:

Slow Flashing:

- **1 Blink:** No network cable detected
- **2 Blinks:** Communicator is broadcasting UDP and there is no response from AA GATEWAY
- **3 Blinks:** No AA-GATEWAY connection to the communicator
- **4 Blinks:** If MAC address table is populated with devices but not all devices are connected to the communicator
- **5 Blinks:** Total number of devices that connect to the communicator does not match the number of locks connected to the communicator.
- **6 Blinks:** Encryption disabled

YELLOW IP NETWORK STATE LED

Labeled "DS15", this LED is located to the right of the **ETHERNET** socket on the PC board.

- **Blink every 3 seconds:** TCP traffic between the communicator and AA GATEWAY operating correctly.

SUPPLYING POWER

Power is supplied by a 12VDC 2A plug in wall transformer. For proper operation in a power outage, UPS backup is required as the communicator will not be able to communicate with Gateways if the power is lost. Standby power to the cable modem/router and switch (if any) at the premises must be provided by UL 1481, UL 864 or ITE (*Information Technology Equipment*) Listed UPS at the premises to power these devices for 24 hours (unless an engine driven generator is provided on the premises).

INSTALLATION STEPS

STEP 1: ACCOUNT REGISTRATION

Create a new account and register specific Air Access communicator modules at www.NapcoComNet.com. Accounts and modules registered via the Internet are enabled for activation within 24 hours.

STEP 2: SELECT A MOUNTING LOCATION

Do NOT mount the Gateway within 6 feet (1.8m) of the AA-LTEA-Series communicator.

The mounting location should be indoors within the protected area and selected based on RF performance. It is HIGHLY recommended that the installer carefully adhere to the following recommendations BEFORE any wires are installed.

- Generally, high locations are best. DO NOT mount communicator in basements or below grade as unpredictable performance may result.
- DO NOT mount the communicator in non-climate controlled environments (i.e. attics may become extremely hot in summer, garages may become extremely cold in winter).
- Avoid mounting locations within 3 feet of AC power lines, fluorescent light fixtures, or large metal objects (air conditioners, metal garage doors, etc.) as these locations have been shown to have a detrimental effect on signal strength.
- A fair amount of care may be required to mount the communicator so as to achieve an optimal RF path. The installer should spend as much time as needed to obtain the highest signal level possible.
 - a. **Before applying power, be sure to connect the antenna.** Temporarily connect power to the communicator from a fully charged 12V (4AH minimum) battery. DO NOT mount the unit at this time. Press **Tamper** switch to send a signal.
 - b. Position the unit in the desired mounting location, with antenna oriented vertically. The signal strength is displayed by the Green "Signal Strength LED" labeled "D3" (located at the lower right corner of the PC board). The radio tower signal strength may fluctuate from day to day, therefore it is best to try to find a mounting location where the LED provides a **minimum of 2 blinks**.
 - c. Once a location has been selected based on signal coverage, permanently secure the unit using #8 screws (not supplied) in the two mounting holes.

WARNING: To ensure user safety and to satisfy FCC RF exposure requirements, this unit must be installed so that a minimum separation distance of 60cm (24") is always maintained between the antenna of the transmitting device and nearby persons.

STEP 3: WIRING

22-gauge wire may be used if mounted up to 50 feet from the 12V plug, and 18-gauge wire should be used for up to 100 feet. Reference the wiring diagrams further in this manual.

Wiring Methods

- Strip wire carefully to avoid exposed conductors after installation, etc.)
- Use of Listed wire, ensuring that all conductors are to be insulated for the maximum voltage of any conductor in the enclosure
- All wiring methods must be performed in accordance with NFPA70, Articles 725, and 800

STEP 4: APPLY POWER

- **Attach antennas before applying power !**
- Apply 12VDC to terminals 1 and 2.

STEP 5: SIGNAL VERIFICATION

After triggering channels, use the Air Access communicator Signal Verification to ensure that the Air Access communicator Network has properly received the signals.

- **Verify Online:** To verify that the signals have been received by the Air Access communicator Network online, go to <https://airaccess.cloud>, log in with your Username and Password, enter your **Company ID** number and the Air Access **Radio Number**, then click **Signal Log**.

IMPORTANT: Verify that the signals transmitted by the Air Access communicator have been properly received by your central station before leaving the premises.

NOTE: This equipment has been tested and found to

comply with the limits for a Class B Unintentional Radiator, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the Instruction Manual, 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 of more of the following measures: 1. Reorient or relocate the receiving antenna; 2. Increase the separation between the equipment and receiver; 3. Connect the equipment into an outlet on a circuit different from that to which the receiver is connected; 4. Consult the dealer or an experienced radio/TV technician for help.

Cover Tamper Switch

The Air Access series communicators in the plastic housings are provided with a front tamper switch. **Note:** The tamper switch on the communicator PC board is always functional and requires no programming.

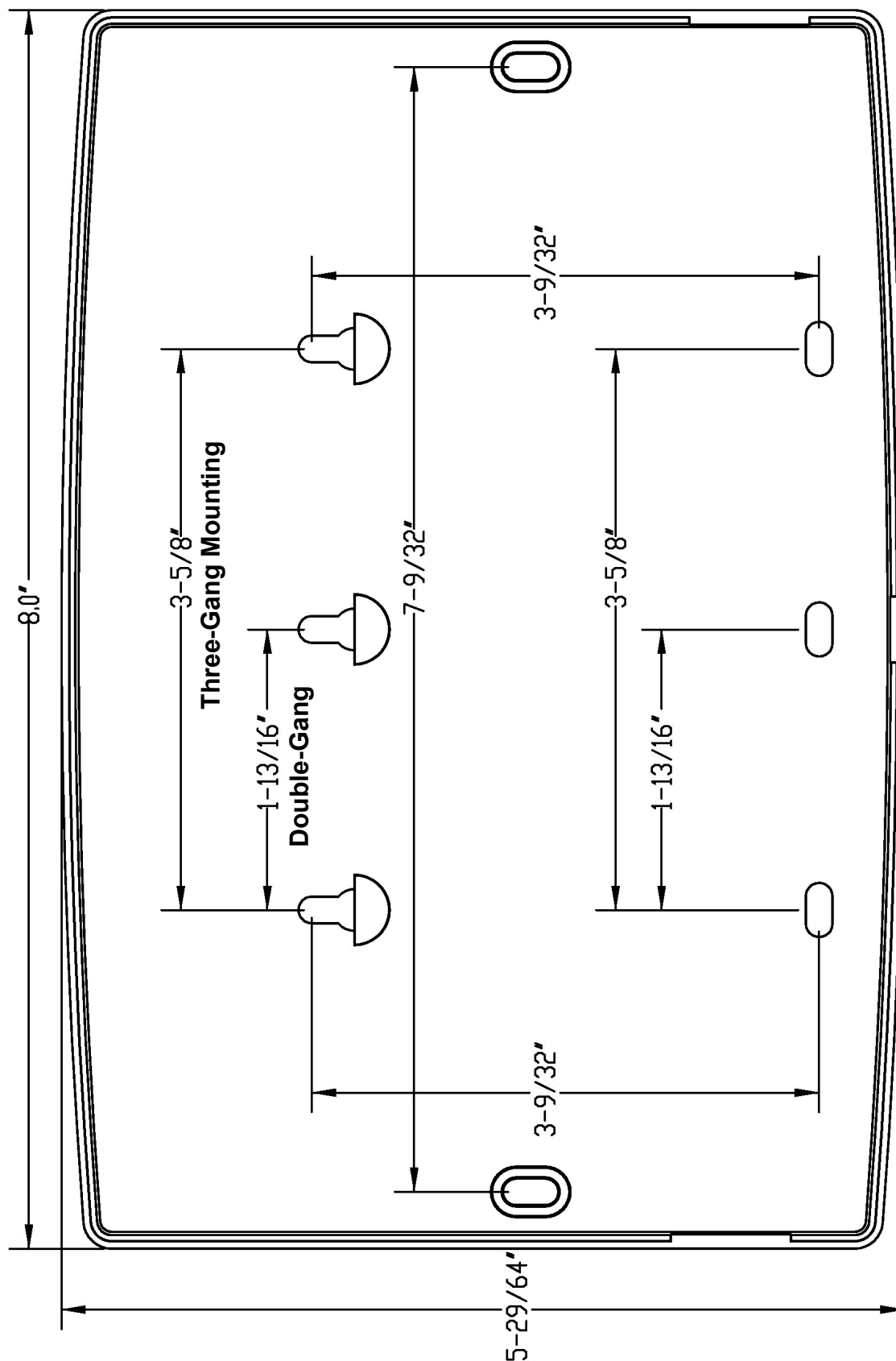
SIGNALS ORIGINATED AT THE NOC

NOC Originated Alarms	Initiated By	Comments
Supervisory Fail	Automatically by NOC if fail to receive any signal from Air Access communicator within Supervisory Timeout duration.	For Auto Enroll, uses captured telephone number, Sub ID and format. For Dealer Programmed, uses entered telephone number, Sub ID and format.
Press to Send Test Signal	Manually by dealer from the Management Center Signal Log screen (located at https://airaccess.cloud). Sends test into CS receiver.	Same comment as above.
Press to Send Communicator Test	Manually by dealer from the Management Center Checkins screen (located at https://airaccess.cloud). Sends a command to the Air Access communicator to force a check-in to the NOC.	----

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Do NOT mount the AA-LTEA-communicator within 6 feet (1.8m) of a Gateway

Housing Template (1:1 Scale)



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NAPCO LIMITED WARRANTY

NAPCO SECURITY TECHNOLOGIES, INC. (NAPCO) warrants its products to be free from manufacturing defects in materials and workmanship for *thirty-six months* following the date of manufacture. NAPCO will, within said period, at its option, repair or replace any product failing to operate correctly without charge to 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 charges.

This warranty contains the entire warranty. It is the sole warranty and any prior agreements or representations, whether oral or written, are either merged herein or are expressly cancelled. NAPCO neither assumes, nor authorizes any other person purporting to act on its behalf to modify, to change, or to

assume for it, any other warranty or liability concerning its products.

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.

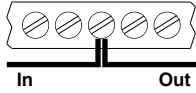
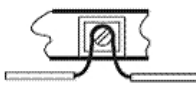
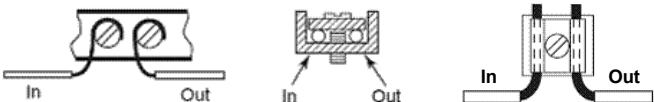
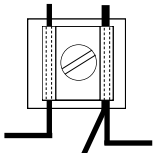
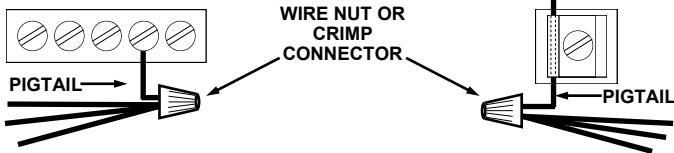
NAPCO RECOMMENDS THAT THE ENTIRE SYSTEM BE COMPLETELY TESTED WEEKLY.

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.

IMPORTANT WIRING METHODS

 For single-conductor terminal blocks (like the type shown at left), to terminate more than one conductor to a terminal, use the wiring methods shown at right:	 Incorrect	 Correct -- Single incoming and/or pigtail with wire nut / crimp connectors
 For "barrier" type terminal blocks (like the type shown at left), to terminate two conductors to a terminal, use the wiring methods shown at right:	 Incorrect	 Correct -- Separate incoming and outgoing conductors
To terminate more than two conductors or conductors of different wire sizes to a terminal, use the "pigtail" type wiring method as shown at right. Use insulated wire for the pigtail, and firmly secure the conductors to the pigtail using an appropriate wire nut or crimp connector for the number and gauge of conductors used.	 Incorrect	 Correct -- Use pigtail and wire nut / crimp connector