



345 Bayview Avenue
Amityville, New York 11701

For Sales and Repairs 1-800-ALA-LOCK

For Technical Service 1-800-645-9440

or visit us at <http://tech.napcosecurity.com>

(Note: Technical Service is for security professionals only)
Publicly traded on NASDAQ Symbol: NSSC

AL-IME2-PIE Plug-In Expander Installation Instructions



© ALARM LOCK 2018

WI2219BLF 6/18

OVERVIEW

The Trilogy Network™ **AL-IME2-PIE Plug-in Expander** greatly extends the coverage area of version 2 series Gateways. The **AL-IME2-PIE** is a "plug-in" version of the **AL-IME2-EXP Expander**; both models are functionally identical. Installation is simple, with the **AL-IME2-PIE** only requiring a connection to a standard 120VAC wall outlet.

AL-IME2-PIE Expanders are cost-effective, require no wiring, and feature a simplified 'Plug and Play' setup where the Networkx system *automatically* identifies all newly powered Expanders and quickly determines the best wireless signal pathways. Up to 7 Expanders can be added to one version 2 series Gateway.



at least one new version 2 Gateway must be up and running before an **AL-IME2-PIE Plug-In Expander** can be used.

IMPORTANT: **DL-Windows version 5.4.2** or later is required to support version 2 Gateways and Expanders. The **AL-IME2-PIE Plug-In Expander** is compatible with Alarm Lock and Continental Access products. Refer to the documentation supplied with your software for integration details.

AL-IME2-PIE SPECIFICATIONS

NETWORK RANGE

Note: Actual range varies with building construction.

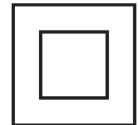
- Gateway/Expander to Locks: Clear field range 500'.
- Typical indoor range: Networkx 75-175'; ArchiTech Networkx: 50-125'.
- Gateway/Expander to Expander: Clear field range 500'. Typical indoor range, 75- 175'.

AL RADIO LINK

- 902 - 928MHz
- 13.5mW typical RF power

POWER

- Input Voltage: 120VAC @ 60Hz
- Peak Supply Current: 10mA
- Occupies one 120VAC outlet



ENVIRONMENTAL

- Operating Temperature: -20° to 60°C (-4° to 140°F)
- Storage Temperature: -40° to 85°C (-40° to 185°F)

PHYSICAL

- Enclosure Size: 4.3"H x 2.5"W x 0.875"D, (5"H with *Mounting Tab*)
- Weight: 0.35lbs.

Why use AL-IME2-PIE Expanders?

- Less costly, Expanders allow large coverage areas without using additional Gateways
- Does not require network access / Ethernet cables
- Can be added to existing systems to improve signal strength in weak signal areas
- Allows for greater flexibility when positioning version 2 Gateways
- Allows large area signal coverage with a single network connection to the Gateway

Note: Expanders are available in two different designs: The **AL-IME2-PIE Plug-In Expander** and the **AL-IME2-EXP Expander** (identical in operation; see WI2156 for more information).

Version 2

The **AL-IME2-PIE** "version 2" Expanders (notice the "2" in the model name) are the next generation of Networkx wireless devices. Because **AL-IME2-PIE** Expanders *only* work with version 2 Gateways, a version 2 Gateway must be installed and operational in your system for **AL-IME2-PIE** Expanders to function (**AL-IME2-PIE** Expanders cannot communicate with older "non-version 2" Gateways).

Note: Although the version 2 Gateways and **AL-IME2-PIE** Expanders CAN be mixed into an existing system that includes older "non-version 2" Gateways,

EXPANDER LOCATION GUIDELINES

Once your version 2 Gateway location has been selected, the next step is to determine **where** to install Expanders. However, the following must be taken into consideration:

- Although wood and wallboard construction can have little effect upon signal strength, concrete or brick can reduce signal strength by up to 35%. Steel-reinforced concrete or metal lath and plaster can reduce signal strength as much as 90%!



NOTICE – Local Regulations in Canada do not permit use of a Mounting Tab. In Canada, do not use the Mounting Tab to attach the unit to an outlet. **Avis** – Les réglementations locales au Canada ne permettent pas l'utilisation d'une patte de montage. Au Canada, il est interdit de raccorder l'appareil à une prise de courant au moyen d'une patte de montage.

- Generally, depending on construction, the Expanders should be typically mounted within approximately 100 feet of the Gateway or another Expander
- Expanders should be typically located within approximately 75 feet from the intended wireless lock locations
 - Open areas will increase range while concrete building construction, walls, ceilings and narrow corridors will decrease range
 - ArchiTech series locks generally have shorter range to and from an Expander
- Any standard un-switched 120VAC outlet can be used. Be aware signal levels can be affected by outlet locations
 - (Optional) Use the **Mounting Tab** (see Fig. 1) to prevent unauthorized access to the **AL-IME2-PIE** by securing the unit to the wall outlet (replace the existing center outlet cover screw with the supplied screw)
- Installing in computer closets or server rooms can negatively impact range and performance

Helpful Tips

- The **AL-NSM** Networkx Signal Meter and the **AL-NSG** Networkx Signal Generator can assist with identifying optimal Gateway locations relative to Expanders and locks. See WI2092 for complete information about how to properly use these devices.
- We recommend obtaining a floor plan and subsequently creating a layout of your intended system identifying all proposed installation locations, also noting building construction materials
- **AL-IME2-PIE**s are also handy for quickly determining a suitable location for **AL-IME2-EXP Expanders** (if required for your system). Simply plug in an **AL-IME2-PIE** in a convenient location and perform a Expander discovery. If the **AL-IME2-PIE** appears in your DL-Windows list of discovered Expanders, you can replace the plug-in **AL-IME2-PIE** with an **AL-IME2-EXP** (or leave the **AL-IME2-PIE** where it is).

IMPORTANT: Be sure to read the "**INSTALLATION STEPS**" section on this page **before** powering your Expanders.

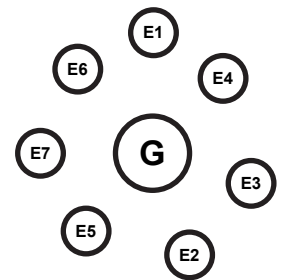
Follow these tips for each additional Expander added to the system; see below for Expander installation configurations.

INSTALLATION CONFIGURATIONS

Gateways / Expanders will automatically determine the optimal routing pathways between one another, ensuring optimal signal levels. The following are NOT "required" configurations, but are simply examples of typical Expander configurations.

Gateway centrally located:

When a single version 2 Gateway is located in the center, surrounded by up to 7 Expanders (maximum), this configuration covers a large area around a centrally located Gateway.



Gateway located at one end of a row of Expanders:

Useful for covering very long distances. Connects several Expanders in series with a 100 foot maximum distance between the Gateway and the first (and between each subsequent) Expander. In this example, the signal is easily extended over 700 feet in one direction, and provides coverage for door locks located along this range:



The below example shows the Gateway centrally located within a line of Expanders (a typical corridor configuration).



Note: The labels "E1" through "E7" are used only for illustration purposes and do not necessarily reflect Expander "numbers" nor the manner in which the Expanders will self-configure. In addition, the examples above are just 3 possible scenarios; in theory, endless automatic (self-configuring) installation configurations are possible!

INSTALLATION STEPS

1. Blue and White ID Cards

We recommend that when installing **any** model Gateway, a **blue-colored "Gateway ID Card"** (OI357) be completed, and when installing the **AL-IME2-PIE Plug-In Expander**, a **white-colored "Expander ID Card"** (OI388) be completed.

Gateway and Expander physical locations may easily be forgotten. These ID cards may prove to be very useful when replacing Gateways or Expanders, when using DL-Windows to select a particular Gateway or Expander to discover locks, or whenever an installed Gateway or Expander needs to be physically located.

2. Set "Expander Group" Value

On the inside surface of the Expander are two rotary "Expander Group" dials. When the **AL-IME2-PIE** is held in your hand in the orientation shown in Fig. 1, use these dials to set the "Expander Group" value ("00" through "99" are valid selections). All version 2 Gateways include an identical set of dials. *The dial value set on your Gateway MUST match the dial value set on your AL-IME2-PIE.*

IMPORTANT: Each Gateway in your system **MUST**

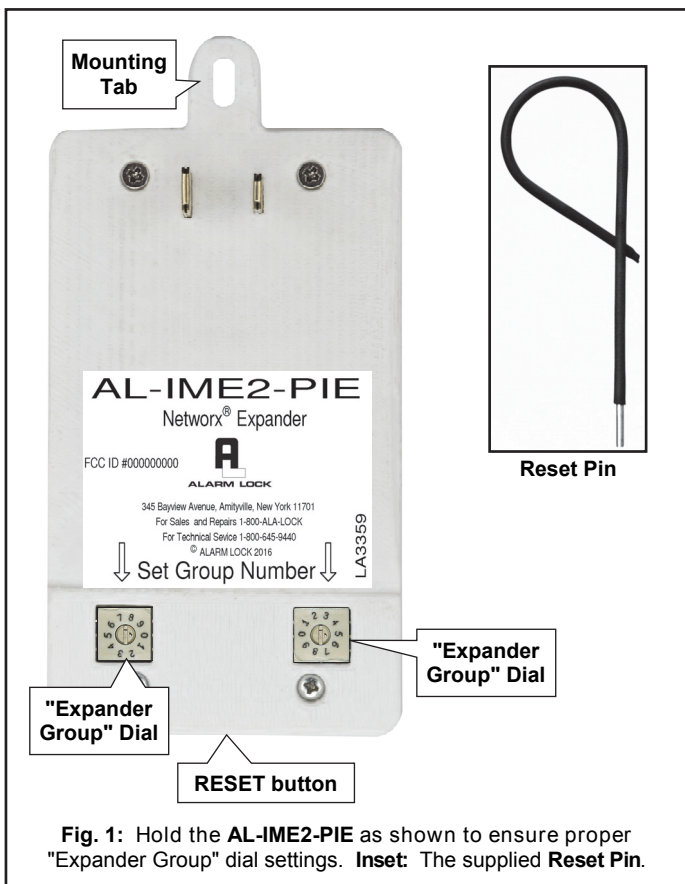


Fig. 1: Hold the **AL-IME2-PIE** as shown to ensure proper "Expander Group" dial settings. Inset: The supplied **Reset Pin**.

be set to a different "Expander Group" value (along with its associated Expanders). The "Expander Group" value determines which Expanders are associated with each Gateway, thus preventing Gateways from discovering unintended Expanders. **Note:** The small "selection arrow" on each dial must be pointing directly to the desired value. Hold the **AL-IME2-PIE** with the label "up" as shown in Fig. 1.

Example: Fig. 2 (below) displays the "Expander Group" value set to "50". Use a small flat-head screwdriver to turn the dials and make the selections.

3. Power the Expander

After setting the "Expander Group" values dials, simply plug the **AL-IME2-PIE** into a standard un-switched 120VAC wall outlet, then observe the LEDs (see step 4 below).

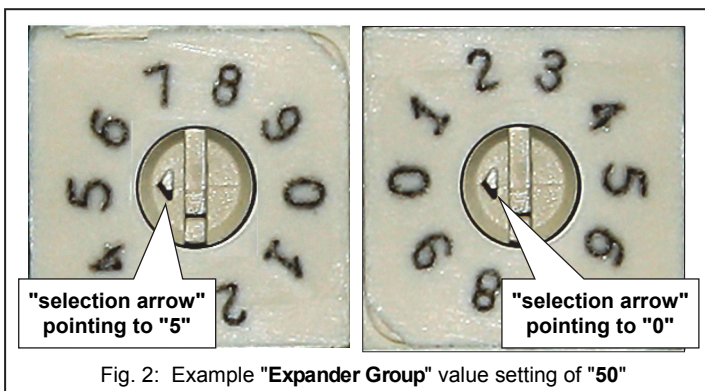


Fig. 2: Example "Expander Group" value setting of "50"

4. Observe the LEDs

Upon power up:

- **Red solid** (momentarily)...
- **Yellow blinks** counting out "Expander Group" setting (no blink = zero)...
- **Yellow solid + green rapid flicker**

Next, reset the Expander as follows:

5. Reset the Expander!

IMPORTANT: ALWAYS reset the Expander memory, even if the Expander is new "out of the box" and/or has never been used previously. The **RESET** button described below can be accessed through a small hole in the unit (location shown in Fig. 1). To depress the **RESET** button, simply insert supplied **Reset Pin** into the hole. Proceed as follows:

WHILE THE UNIT IS POWERED AND PLUGGED INTO THE OUTLET:

- Press and hold the **RESET** button...
- ...Continue holding until the red LED turns on solid...
- ...Release and verify the green LED flickers rapidly

This "resetting" of the **AL-IME2-PIE** Expander clears all memory and ensures that any previous data (such as factory test data) is cleared from the unit.

EXPANDER LED INDICATIONS

Yellow	Upon Power up, displays "Expander Group" dial setting (in two sequences)
	Receiver On (i.e. normal operation)
Red	Flickering during communications
(Expander Status)	
Green	Not configured = Rapid blinking / flickering
	Idle / configured = Approximately 1 blink per second
	2 blinks repeated = Expander to lock communication error
	4 blinks repeated = Expander to Expander communication error

Congratulations! You're finished! Now go to the DL-WINDOWS™ for Networx™ V5 USER'S GUIDE (OI383) for instructions about discovering your Expanders from DL-Windows.

ALARM LOCK LIMITED WARRANTY

ALARM LOCK SYSTEMS, INC. (ALARM LOCK) warrants its products to be free from manufacturing defects in materials and workmanship for twenty four months following the date of manufacture. ALARM LOCK 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, environmental wear and tear, normal maintenance expenses, or shipping and freight expenses required to return products to ALARM LOCK. Additionally, this warranty shall not cover scratches, abrasions or deterioration due to the use of paints, solvents or other chemicals.

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 ALARM LOCK.

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 ALARM LOCK 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 ALARM LOCK. After repair or replacement, ALARM LOCK assumes the cost of returning products under warranty. ALARM LOCK 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. ALARM LOCK will not be responsible for any dismantling, reassembly or reinstallation charges, environmental wear and tear, normal maintenance expenses, or shipping and freight expenses required to return products to ALARM LOCK. Additionally, this warranty shall not cover scratches, abrasions or deterioration due to the use of paints, solvents or other chemicals.

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. ALARM LOCK 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 ALARM LOCK be liable for an amount in excess of ALARM LOCK'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.

ALARM LOCK 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. ALARM LOCK 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.

ALARM LOCK 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 ALARM LOCK'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.



NOTICE – Local Regulations in Canada do not permit use of a Mounting Tab. In Canada, do not use the Mounting Tab to attach the unit to an outlet. **Avis** – Les réglementations locales au Canada ne permettent pas l'utilisation d'une patte de montage. Au Canada, il est interdit de raccorder l'appareil à une prise de courant au moyen d'une patte de montage.

FEDERAL COMMUNICATIONS COMMISSION INTERFERENCE STATEMENT

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 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 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 equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/ TV technician for help.

CAUTION:

Any changes or modifications not expressly approved by the grantee of this device could void the user's authority to operate the equipment.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) this device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

RF EXPOSURE WARNING

This equipment must be installed and operated in accordance with provided instructions and the antenna(s) used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter. End-users and installers must be provided with antenna installation instructions and transmitter operating conditions for satisfying RF exposure compliance.

Canada, Industry Canada (IC) Notices

This device complies with Industry Canada's licence-exempt RSSs. Operation is subject to the following two conditions:

- (1) This device may not cause interference; and
- (2) This device must accept any interference, including interference that may cause undesired operation of the device.

Canada, avis d'Industry Canada (IC)

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes :

- (1) l'appareil ne doit pas produire de brouillage, et
- (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

Radio Frequency (RF) Exposure Information

The radiated output power of the Wireless Device is below the Industry Canada (IC) radio frequency exposure limits. The Wireless Device should be used in such a manner such that the potential for human contact during normal operation is minimized.

This device has also been evaluated and shown compliant with the IC RF Exposure limits under mobile exposure conditions. (antennas are greater than 20cm from a person's body).

Informations concernant l'exposition aux fréquences radio (RF)

La puissance de sortie émise par l'appareil de sans fil est inférieure à la limite d'exposition aux fréquences radio d'Industry Canada (IC).

Utilisez l'appareil de sans fil de façon à minimiser les contacts humains lors du fonctionnement normal. Ce périphérique a également été évalué et démontré conforme aux limites d'exposition aux RF d'IC dans des conditions d'exposition à des appareils mobiles (antennes sont supérieures à 20 cm à partir du corps d'une personne).