Pub. 42004-547A

GAI-TRONICS®
A HUBBELL COMPANY

NEMA 4X VoIP Telephones

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Confidentiality Notice

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General Information

The GAI-Tronics Model 354-71x Series NEMA 4X VoIP telephones are designed for use in extreme weather conditions where temperature and moisture are a concern. They are also ideal for use in areas that require a direct water spray (hose-down) for cleaning purposes or where a non-corrosive material is required.

The 354-71x Series telephone is perfectly suited for areas considered too harsh for a standard telephone.

The 354-71x Series telephone operates in the same manner as a standard telephone; simply lift the handset, listen for a dial tone, and dial the desired telephone number. If the telephone is an autodial model, simply lift the handset and the pre-programmed number is automatically dialed.

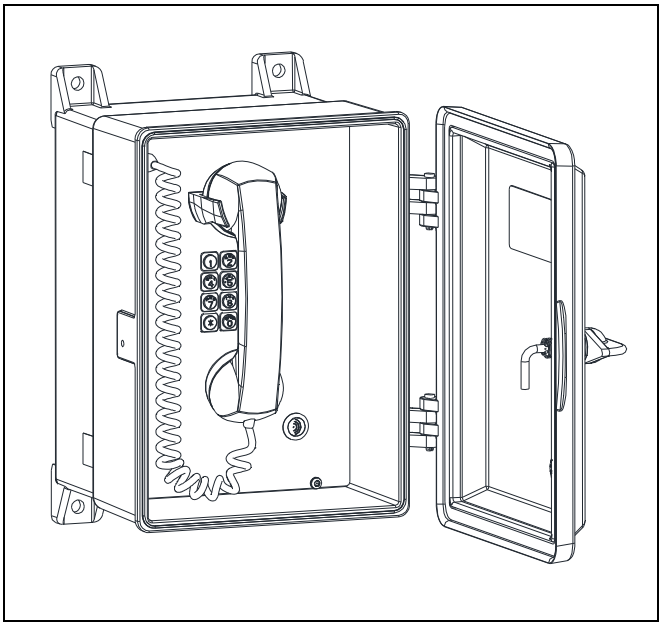

Figure 1 Model 354-710 Series NEMA 4X VoIP Telephone

The 354-71x Series telephones are designed for connection to a 10/100 Base-T Ethernet network, and operate with PoE (Power-over-Ethernet) or a local 24 to 48 V dc power source. The VoIP telephones provide point-to-point communications between personnel throughout a facility over an existing LAN.

In addition to providing standard telephone operation, the NEMA 4X VoIP telephones provide real-time alarm reporting via syslog, SNMP, or TMA (Telephone Management Application). This allows supervision of the telephones' activity to support addressing caller needs or maintenance issues immediately. There are also configurable inputs and outputs available in all models.

Ordering Information

The Model 354-71x series NEMA 4X VoIP Telephone is available in eight standard models with a 6-foot handset cord:

Table 1. Model Chart

Model	Description
354-710	NEMA 4X VoIP Telephone, Gray
354-710YL	NEMA 4X VoIP Telephone, Yellow
354-710OR	NEMA 4X VoIP Telephone, Orange
354-710RD	NEMA 4X VoIP Telephone, Red
354-711	NEMA 4X VoIP Auto-dial Telephone, Gray
354-711YL	NEMA 4X VoIP Auto-dial Telephone, Yellow
354-711OR	NEMA 4X VoIP Auto-dial Telephone, Orange
354-711RD	NEMA 4X VoIP Auto-dial Telephone, Red

Feature and Functions

GAI-Tronics VoIP telephones include the following features:

- NEMA 4X rated with door closed (NEMA 3R with door open)
- handset with 6-foot Hytrel® coiled cord and noise-cancelling microphone
- panel-mounted push-button volume control
- chrome-plated keypad with protective rubber boot and braille reference
- brushed stainless steel panel
- stainless steel assembly hardware.
- SIP compatible (RFC3261)
- real-time alarm reporting via SNMP or syslog
- PoE (Power-over-Ethernet) compatible (Power Mode A, Class 0)
- configurable via web page, serial link, or download
- four configurable auxiliary inputs
- two configurable dry-contact outputs

Options

The following options are available:

- key-lock front door
- coiled cord (15-foot)
- armored handset cord (15-inch)
- spring door closure

Hardware Description

External

NEMA 4X VoIP telephones may contain a handset, standard keypad, volume control push button, and ringer. The handset rests on a cradle that has a magnetic reed switch to signal an off-hook condition (see Figure 2).

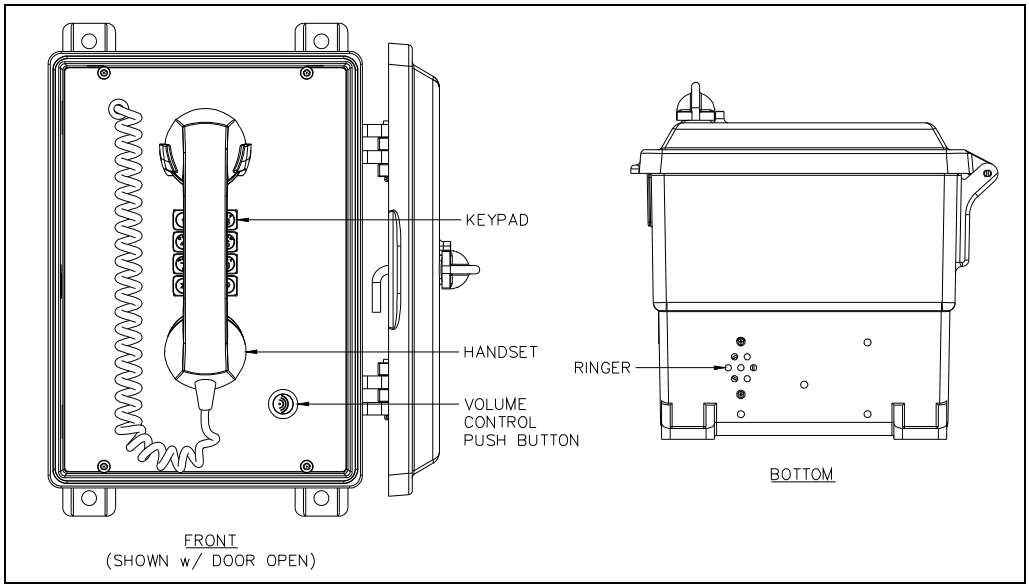

Figure 2. NEMA 4X VoIP Telephone

Internal

The Model 354-71x NEMA 4X VoIP telephones include a relay PCBA and a ringer in the rear enclosure. The front cover holds the main VoIP carrier PCBA, VoIP circuit PCBA, and keypad PCBA (see Figure 3).

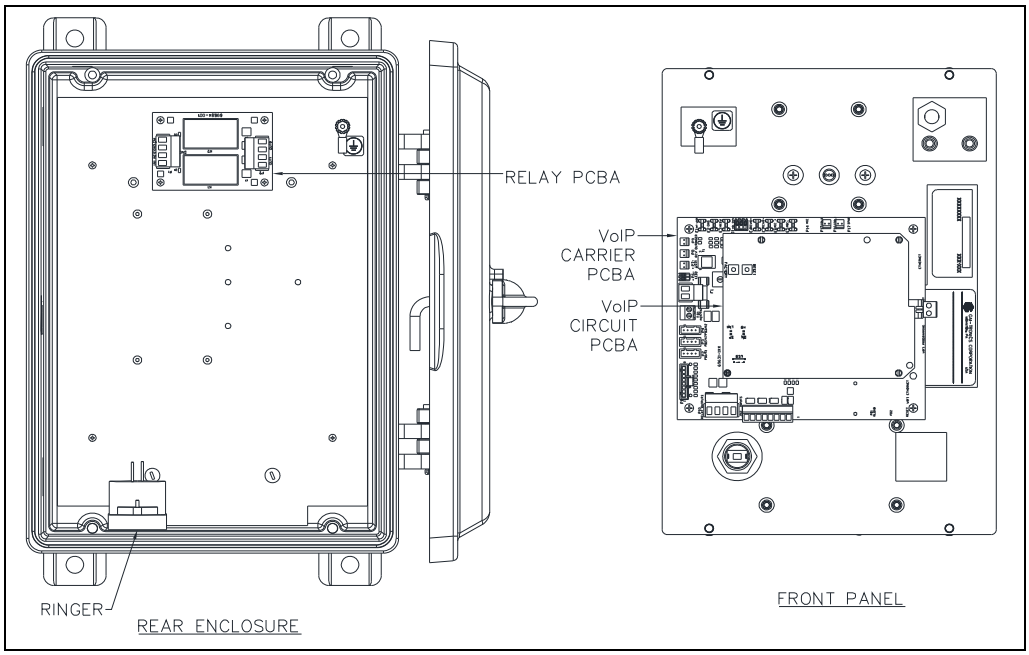

Figure 3. Model 354-710 NEMA 4X VoIP Telephone

System Requirements and Limitations

These VoIP telephones require PoE (Power-over-Ethernet) or a local 24 to 48-volt dc power source for operation. Two VoIP telephones can communicate in a peer-to-peer configuration without the need for a LAN. A 10/100 BaseT Ethernet network with a SIP (Session Initiation Protocol) server is required for systems containing three or more VoIP telephones. Conferences are limited by the customer's LAN media capabilities and the services available at each telephone.

VoIP Subscriber Tips

New and existing subscriptions to an interconnected VoIP service provider should address the following points:

- Provide accurate physical address information to the VoIP service provider to ensure that emergency services can quickly be dispatched to the location.
- Be familiar with the VoIP service provider's procedures for updating the address and promptly update address information in the event of a change.
- Have a clear understanding of any limitations of the local 911 service.
- Be aware that VoIP telephone services may not work if the power is out or the Internet connection is down. Consider installing a backup power supply, maintaining a traditional telephone line, or having a wireless telephone as a backup.
- For questions about interconnected VoIP and 911, or VoIP in general, see http://www.fcc.gov/cgb/consumerfacts/voip.html.

Operation

Handset Receiver Volume Control

A push-button switch is provided on the front panel for adjustment of the handset receiver volume. It decreases the volume gain from 20 dB, to 12 dB, to 0 dB, and back up to 20 dB of the original signal with each press. The signal level is reset to 20 dB after the end of each call.

Model 354-710 Handset Operation

1. Lift the handset to place a call.
2. Press the volume control push button to adjust the receiver volume to the desired level.
3. Dial the desired number.
4. Place the handset on hook after completing of the call.

Model 354-711 Auto-dial Handset Operation

1. Lift the handset to place a call.
2. Press the volume control push button to adjust the handset receiver volume to the desired level.
3. A call will be placed to a preprogrammed number (garage, dorm, etc.)
4. Place the handset on hook after completing of the call.

Installation

Safety Guidelines

⚠ **ATTENTION** ⚠ —Installation must be performed by qualified personnel and only in accordance with the National Electrical Code or applicable local codes.

Please adhere to the following guidelines to ensure the safety of all personnel when installing GAI-Tronics telephone equipment:

- NEVER install a telephone wiring during a lightning storm.
- **Install a UL listed lightning arrestor** on any telephone installed where the telephone or telephone cable is at risk of exposure to lightning strikes. The lightning arrestor must be installed as close to the telephone as possible to maximize the protection. The lightning arrestor must not be installed within the enclosure supplied with the telephone.
- NEVER install telephone jacks in wet locations unless the jack is specifically designed for wet locations.
- NEVER touch uninsulated telephone wires or terminals unless the telephone line has been disconnected at the network interface.
- USE CAUTION when installing or modifying telephone lines.
- Install a UL listed telephone line suppressor (customer-supplied) on the telephone line.
- Use silicone sealant or equivalent around and inside of all conduit entries
- **Install a Category 5 data line lightning surge protector** on any phone installed where the phone or phone cable is at risk of exposure to lightning strikes. The lightning arrestor must be installed as close to the phone as possible in a non-hazardous environment. The lightning arrestor must not be installed within the telephone enclosure.
- USE CAUTION when installing or modifying Category 5 data lines.

GAI-Tronics recommends the following precautionary measures to protect the unit during installation:

- Install this unit using appropriate wiring methods.
- Install the network cable in conduit for physical protection.
- Use a conduit entry on the bottom of the enclosure to prevent any condensation forming inside the conduit from dripping into the unit. Additionally, using bottom conduit entries makes water less likely to enter the unit at the conduit connection points.
- Use Teflon™ pipe joint tape or a thread sealing compound around the conduit threads to seal threaded connections and prevent water from entering the unit at the conduit location.
- Apply a small amount of silicone sealant inside and around the end of the conduit pipe that is inside the unit. The sealant helps to prevent any condensation formed inside the conduit from dripping into the unit. This is especially important when using the conduit entry located on the top of the enclosure. (Manufacturers of silicon sealant include Dow Corning, Duron, General Electric, and DuPont.)
- Sealed fittings should be installed at all cable entry points to prevent liquids from entering the unit.

Security Hardware

Model 354-71x Series Telephones are vandal-resistant; the front panel is attached to the enclosure with security screws. A GAI-Tronics Model 233-001 Security Screwdriver (sold separately) or Torx T-25 security head tip (included with the telephone) is required to install the security screws.

Conduit Installation

GAI-Tronics recommends installing telephone cable in conduit to protect against damage and vandalism. Mounting and wiring the Model 354-71x Series telephones must be in accordance with installation standard practices.

Entering the enclosure from the top is not recommended. Bottom (preferred) or side entry helps prevent condensation moisture from dripping onto the telephone electronics. If using conduit, an appropriate hub (Myers STG Series recommended) or a UL Listed NEMA 4X rated connector appropriate for the installation should be used. If a top entry must be made, a drip path is strongly recommended. Seal all conduit entrances around the entry points and inside the conduit using a silicone-type sealant.

The Model 354-71x Series Telephones are not supplied with openings for conduit or cable. Conduit entrances must be created prior to mounting the enclosure to the wall surface.

1. Open the door and remove the front panel assembly (carefully set aside).
2. Drill (hole saw) or punch entry openings.

   There must be a minimum of 1 inch (26 mm) of material between entry holes.

1. Install hubs or fittings.

Mount the Enclosure

Mount the enclosure using the four 0.437-inch (11mm) diameter holes located on the mounting flanges with 3/8-inch (M8) hardware (see Figure 4).

- The recommended entry is via the enclosure bottom to prevent moisture from dripping onto the connection terminals.
- Use caution to avoid damaging the internal components when mounting the enclosure.
- The suggested mounting height is 48 inches (1219 mm) to the center of the bottom mounting holes of the enclosure.

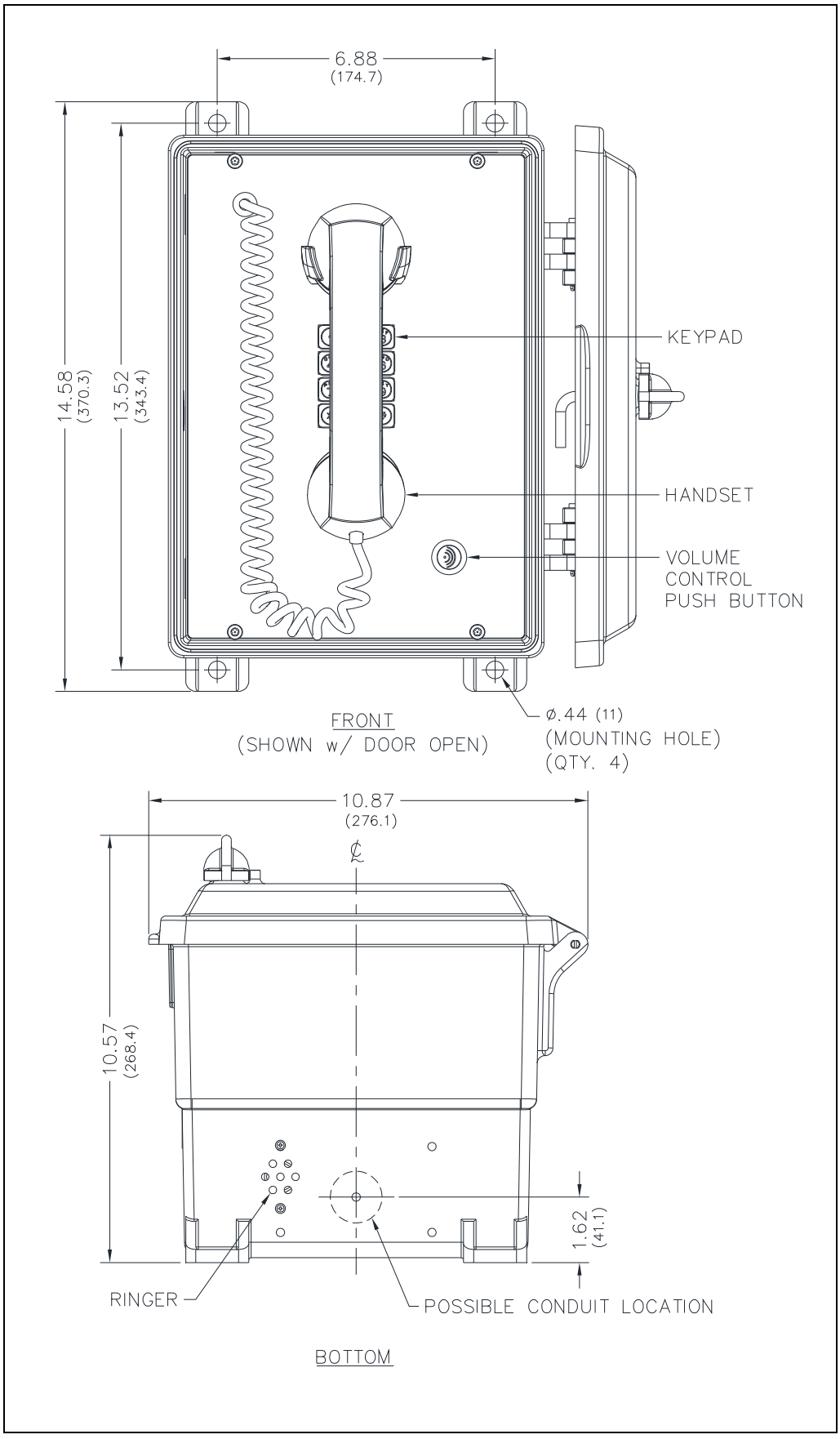

Figure 4. Mounting and Conduit Entry Locations

Open the Telephone

1. Remove the four screws from the front panel and turn it to the right so that the interior surface faces out (see Figure 5).

   Keep all wiring connected.

2. Hang the front panel from the front door by hooking a small piece of wire in the mounting holes of the panel.

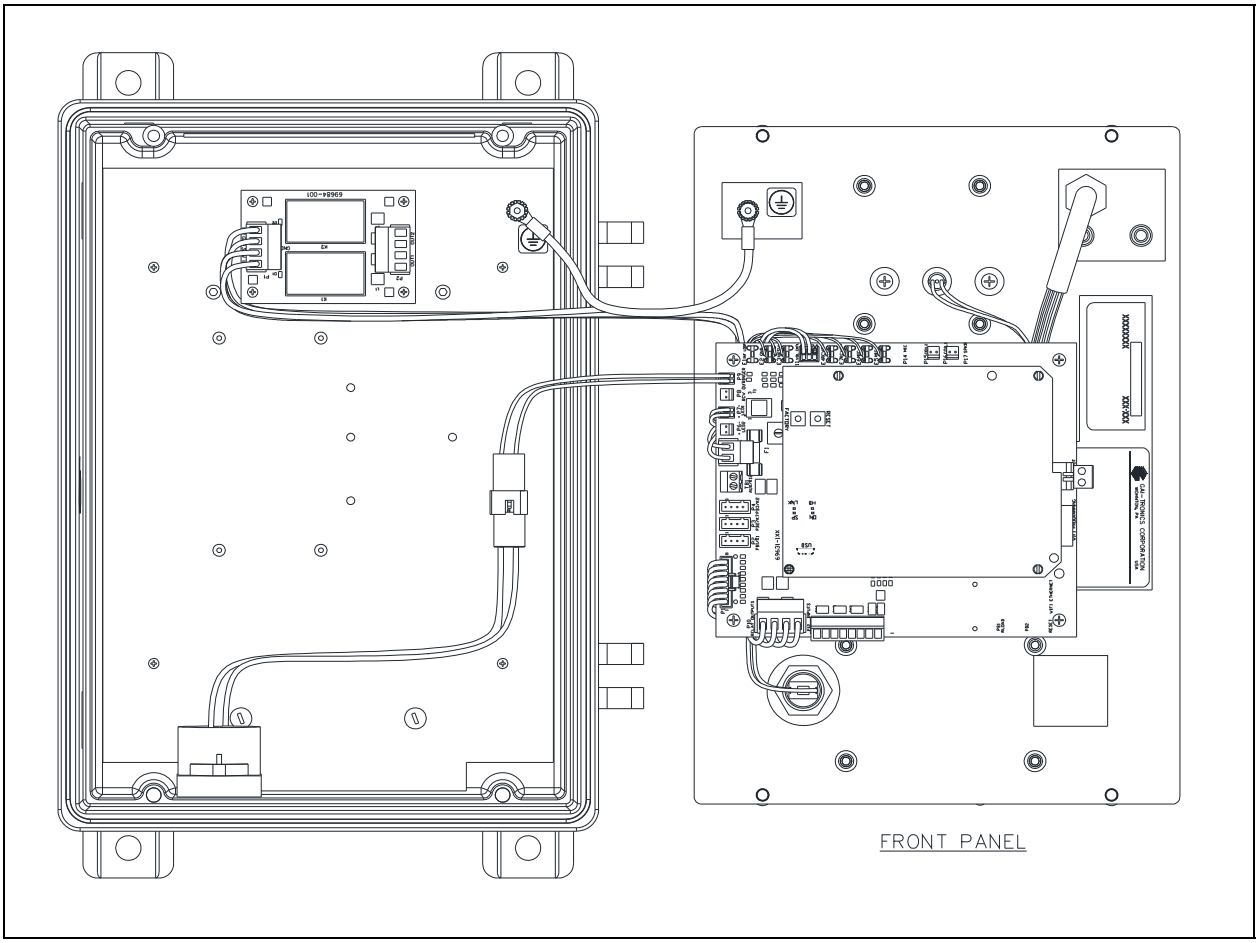

Figure 5. Installation and Maintenance Configuration

Field Wiring

Pull the required field cables into the rear enclosure and install the connections as indicated in the following subsections (see Table 2 for recommended conductor sizes and Figure 6 for wiring details).

NOTE: Consult the National Electrical Code (NFPA 70), Canadian Standards Association (CSA 22.1), and local codes for the specific requirements regarding your installation. Install all equipment without modification and according to the local and national codes. Class 2 circuit wiring must be performed in accordance with the NEC.

Recommended Cable

Table 2. Recommended Cable

Cable Use	Size
LAN	Cat5 or Cat5e UTP cable with an RJ-45 connector
Power	Two-conductor, No. 18 AWG is typical
Inputs	Two-conductor, No. 22 AWG is typical
Output contacts	Two-conductor, No. 18 AWG is typical

Power

Ground

These enclosures must be connected to earth ground:

1. Install a #6 ring lug on the ground conductor.
1. Secure the ground conductor to the ground terminal, located in the upper right corner in the rear of the enclosure (see Figure 5).

PoE (Power over Ethernet)

Connect power to the system as indicated in the POE equipment manual. (Power Mode A, Class 0)

Local Power

A separate, isolated, 24 to 48-volt dc power supply is required when PoE is not available (see Table 7 on Page 16 for the recommended optional plug-in power supply). Connect the local 24–48 V dc power source to removable terminal block, P5 (see Figure 6), on the VoIP Carrier PCBA.

1. Install ferrules or tin the wire ends.
2. Connect the positive conductor to the (+) terminal of P5.
3. Connect the negative conductor to the (−) terminal of P5.
4. Install the removable terminal block onto pin header P5, on the VoIP carrier PCBA.

Table 3. Power—P5

Pin	Label	Description
1	(+)	Positive
2	(−)	Negative

Network Cable

Connect the Category 5 or better UTP Ethernet cable with an RJ45 connector from the LAN to the Ethernet jack, located on the underside of the VoIP PCBA (see Figure 6).

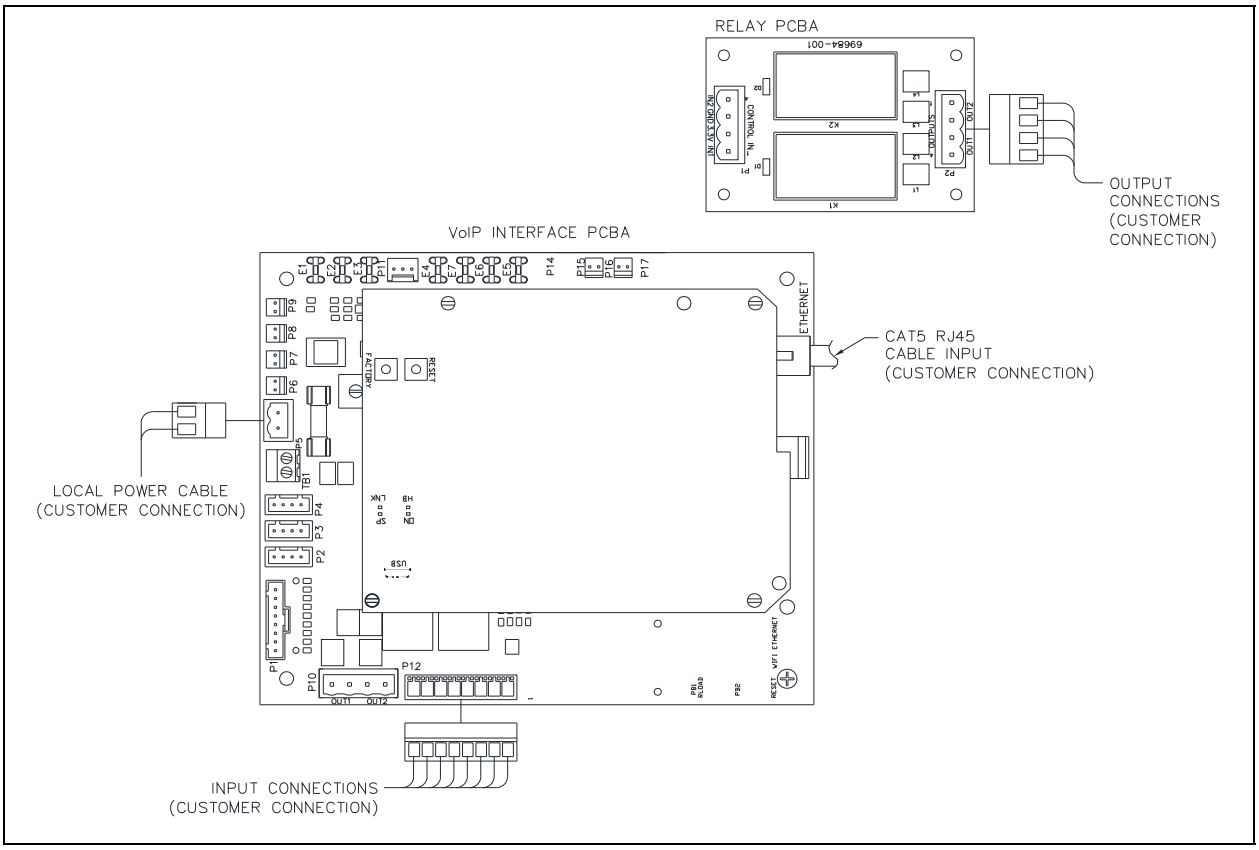

Figure 6. Internal PCBA Connections

Auxiliary I/O

Inputs

The telephones have four auxiliary inputs for customer use. Terminate these inputs to terminal block P12, on the VoIP Carrier PCBA (see Figure 6). Connect each input between the desired input (INPUT 1–4) and common (GND) on terminal block P12.

Table 4. Auxiliary Inputs—Terminal Block P12

Pin	Label	Function
1	IN4	Input 4
2	COM	Common
3	IN3	Input 3
4	COM	Common
5	IN2	Input 2
6	COM	Common
7	IN1	Input 1
8	COM	Common

Inputs have an internal pull-up resistor and need to be 3.3 V dc tolerant.

Outputs

The telephones have two dry-contact outputs for customer use. Terminate these outputs to connector P2 on the relay PCBA (see Figure 6).

Table 5. Output Contacts—Connector P2

Pin	Label	Description
1	C2	Common Output 2
2	NO2	Normally Open Output 2
3	C1	Common Output 1
4	NO1	Normally Open Output 1

Relay capacity is 5 A at 30 V dc or 120 V ac.

USB port

The USB port is for GAI-Tronics service personnel only. Make no connection to this port.

Front Cover Installation

After all wiring and cable connections are complete:

1. Place the front panel on the rear enclosure.
2. Do not to pinch any cables.
3. Secure the front panel using the four screws and washers provided.
4. Torque the screws to 10–12 in· lb (1.13–1.36 N·m).

Programming

The network configuration must provide VoIP service (using the SIP protocol) between the desired locations before attempting to configure a GAI-Tronics VoIP telephone.

The general sequence to set up a VoIP telephone is as follows:

VoIP Telephone Setup

1. Connect a PC to the same network as the VoIP telephone.
2. Log into the unit's web interface.

   The unit is factory configured with a static IP address: ***192.168.1.2.***
3. Enter the username and password when prompted.

   The initial factory settings are:
   - USER NAME: ***user***
   - PASSWORD: ***password***
4. Change the username and password upon first login.

   This security measure helps prevent unauthorized changes to the VoIP telephone's interface configuration.

VoIP Telephone Initial Network Configuration

Configure each VoIP PCBA for operation on the network prior to installation. Assign a local ID, domain, proxy, and registrar.

1. Assign a host name.

   Host names provide identification of different VoIP PCBAs on the network.

2. Test that calls can be made successfully.
3. Maintain the telephone by monitoring alarms.
4. Set up auto-updates.

Refer to Pub. 42004-548 for basic programming instructions for these VoIP telephones (see the Reference Documentation section).

Alternate Configuration Methods

There are two methods to configure a GAI-Tronics VoIP telephone:

- web pages
- configuration file

Web pages (held within the telephone) can be accessed over the network using a browser such as Internet Explorer™, to view and change settings within a single unit.

Configuration files are ASCII text files containing configuration options that can be read and edited by a knowledgeable user. The telephone can automatically download a configuration file from the network, providing a controlled method of configuring multiple telephones.

Input Contacts

Each RED ALERT VoIP telephone includes four dry-contact inputs (see the Specifications section for the ratings). Each input's mode is configurable. Inputs can be configured for one of the following modes:

- None
- Digit
- Memory Dial
- PTT/Mute
- Redial
- Volume
- Hook
- Hook HF
- Memory Hook

The inputs will generate a SYSLOG or an SNMP trap when active. Refer to Pub. 42004-548 for programming instructions for the inputs (see the Reference Documentation section).

Output Contacts

Each RED ALERT VoIP telephone contains two dry-contact outputs (see the Specifications section for the output ratings). Both outputs are SPST (single-pole, single-throw) contacts. The mode of each output is configurable. Configure outputs for one of the following modes:

- On
- Off
- Ring
- Connect
- Hook
- In Use
- Ring Out
- Registered
- Emergency

The duration of activation, or on/off times, can also be set in some modes. Refer to Pub. 42004-548, for programming instructions for the outputs (see the Reference Documentation section).

Maximum (Handset Receiver) Level Remote Control

The receiver volume level can be controlled remotely by changing the setting in the configuration file. Refer to Pub. 42004-548. (see the Reference Documentation section).

Monitoring and Reporting

Each telephone can recognize and generate several hardware and configuration fault condition alarms. These alarms can be signaled to a remote site using three methods:

- syslog output over TCP
- SNMP (Simple Network Management Protocol)
- TMA (Telephone Management Application) software (purchased separately)

Available alarms are:

- handset integrity loop
- configuration error
- cold reset (power cycle)
- warm reset (internal command)
- keypad error, such as a stuck button (if applicable)
- key hook (off-hook status)
- register fail (unsuccessful SIP registration
- audio path test (microphone/receiver test)

Monitoring and reporting must be configured for the telephone. Refer to Pub. 42004-548 for instructions (see the Reference Documentation section).

Maintenance

Service

Contact a regional service center for an RA# (return authorization number) if the telephone requires service. Equipment must be shipped prepaid to GAI-Tronics with an RA# and a purchase order number. Repairs or a replacement will be made in accordance with GAI-Tronics' warranty policy if the equipment is under warranty. Please include a written explanation of all defects to assist our technicians in their troubleshooting efforts.

Call 800-492-1212 inside the USA or 610-777-1374 outside the USA for help with locating the nearest regional service center.

USB port

The USB port is for GAI-Tronics service personnel only. Make no connection to this port.

Troubleshooting

Table 6. Troubleshooting Chart

Problem	Possible Solution
Low volume in handset or headset	Increase the volume setting using the Volume Adjust button on the front panel.
High volume in handset or headset	Decrease the volume setting using the Volume Adjust button on the front panel.
Front panel push buttons not operational	Verify the push buttons are properly configured.
Inputs not operational	• Check the input connections. • Verify the inputs are properly configured.
Outputs not operational	• Check the output connections. • Verify the outputs are properly configured.
Cannot make or receive calls	• Check the connection of the LAN cable. • Verify that power is applied to the unit. • Verify the LAN parameters have been configured properly. • Verify the telephone has been set up on the network.
No power indication	• Check the power connections. • Check fuses. Replace fuses with identical type/ratings. • If using POE, check the operation of the POE equipment.

Status Indication

Power

The ON LED, located on the VoIP PCBA (see Figure 7), illuminates when power is applied to the telephone.

Heartbeat

The HB LED, located on the VoIP PCBA (see Figure 7), flashes when communication over the LAN is established.

Link

The LNK LED, located on the VoIP PCBA (see Figure 7), indicates an active network connection when illuminated.

Speed

The SP LED, located on the VoIP PCBA (see Figure 7), indicates a 100 Mbps network connection when illuminated or a 10 Mbps connection when off.

VoIP Circuit PCBA Pushbuttons

Reset

Press the RESET button momentarily to warm reboot the telephone (see Figure 7). The telephone maintains the current configuration.

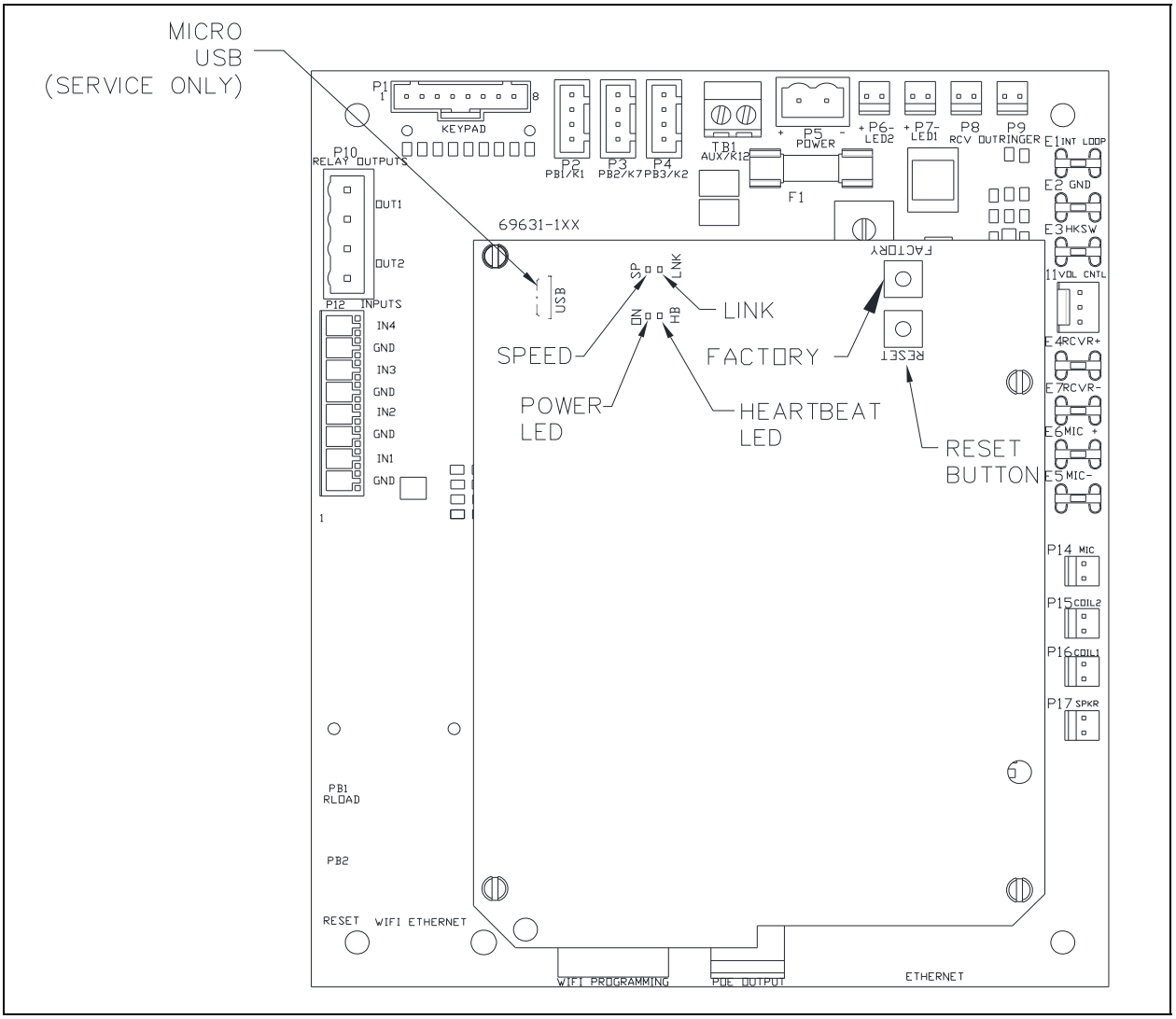

Figure 7. VoIP PCBA Indicators and Buttons

Factory

Use the FACTORY button (see Figure 7) to erase the current configuration and restore the factory default settings as follows:

1. Press and release the RESET button.
2. Press and hold the FACTORY button for 10 seconds while the telephone is rebooting.

The telephone will reboot again with the factory default settings configured.

Replacement Parts and Accessories

Table 7. Available Parts and Accessories

Part Number	Description
10113-122	Replacement Handset Assembly, 6-Foot Hytrel Cord
12505-005	Replacement Door Assembly, Gray
12505-005OR	Replacement Door Assembly, Orange
12505-005RD	Replacement Door Assembly, Red
12505-005YL	Replacement Door Assembly, Yellow
12542-002	Replacement Panel Screws/Washers, 15-Pack
230-001	Pole-Mounting Kit
12509-044	Telephone Management Application Package for VoIP Telephones
40419-011	Optional Plug-in Power Supply, 120/240 V ac input, 24 V dc output

Reference Documentation

VoIP Basic Configuration Guide 42004-548

VoIP Programming Manual 502-20-0171-001

Specifications

Electrical

Power Requirements

Input voltage (dc power supply) ..... 24 V dc to 48 V dc

Minimum current requirement:

24 V dc ..... 250 mA @ 6 W

48 V dc ..... 125 mA @ 6 W

Power-over-Ethernet ..... 12.95 W, 802.11af compliant (via RJ45) Power Mode A, Class 0

VoIP Network

Network ..... 10/100 BaseT Ethernet RJ45, Cat5/6 UTP
static IP or DHCP STUN client (NAT traversal) address provisioning

Call control signaling ..... SIP (RFC3261 compliant) Loose routing call control signaling

Configuration ..... embedded web server, configuration file download
password protection

Handset Audio

Analog microphone gain ..... 30 dB

Analog earpiece gain ..... default: +20 dB
setting 2: +12 dB
setting 3: 0 dB

Frequency response ..... 250 Hz to 6500 Hz

Frequency response flatness ..... 3 dB minimum

THD @ 1 kHz ..... 1% minimum

Inputs

Keypad* ..... 3 × 4 matrix
Push buttons ..... volume control
Configurable inputs (quantity = 4) ..... internal pull-up 3.3 V dc tolerant
*Not available on all models.

Outputs

Output 1 ..... 5 A @ 30 V dc or 120 V ac maximum (resistive load)
Output 2 ..... 5 A @ 30 V dc or 120 V ac maximum (resistive load)

Indicators

Internal on VoIP PCBA ..... heartbeat, link, power, and speed LEDs
Monitoring and reporting ..... real-time over TCP/IP proprietary Syslog application, SNMP
..... automatic fault reporting

Environmental

Operating temperature ..... −4 ºF to +140 ºF (−20 ºC to +60 ºC)
Weather resistance ..... NEMA Type 4X with door closed
Humidity ..... 90% non-condensing

Mechanical

Enclosure (gray, yellow, orange, or red) ..... engineered plastic
Handset Cord ..... G-style handset/Hytrel® (standard)
Connection ..... RJ45 jack
Dimensions, outside (VoIP) ..... 14.6 H × 10.9 W × 10.5 D in (371 × 276 × 267 mm)
Mounting ..... wall or column, four 0.44-inch (11 mm) diameter mounting holes
Shipping weight ..... 13.5 lb (6.1 kg)
Net weight ..... 12.5 lb (5.7 kg)

Approvals

UL/cUL Listed.
Outdoor environmental rating ..... Type 3R, Type 4X with door closed

User Instructions (USA)

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. 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. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Warranty

Equipment. GAI-Tronics warrants for a period of one (1) year from the date of shipment, that any GAI-Tronics equipment supplied hereunder shall be free of defects in material and workmanship, shall comply with the then-current product specifications and product literature, and if applicable, shall be fit for the purpose specified in the agreed upon quotation or proposal document. If (a) Seller's goods prove to be defective in workmanship and/or material under normal and proper usage, or unfit for the purpose specified and agreed upon, and (b) Buyer's claim is made within the warranty period set forth above, Buyer may return such goods to GAI-Tronics nearest depot repair facility, freight prepaid, at which time they will be repaired or replaced, at Seller's option, without charge to Buyer. Repair or replacement shall be Buyer's sole and exclusive remedy. The warranty period on any repaired or replacement equipment shall be the greater of the ninety (90) day repair warranty or one (1) year from the date the original equipment was shipped. In no event shall GAI-Tronics warranty obligations with respect to equipment exceed 100% of the total cost of the equipment supplied hereunder. Buyer may also be entitled to the manufacturer's warranty on any third-party goods supplied by GAI-Tronics hereunder. The applicability of any such third-party warranty will be determined by GAI-Tronics.

Services. Any services GAI-Tronics provides hereunder, whether directly or through subcontractors, shall be performed in accordance with the standard of care with which such services are normally provided in the industry. If the services fail to meet the applicable industry standard, GAI-Tronics will re-perform such services at no cost to buyer to correct said deficiency to Company's satisfaction provided any and all issues are identified prior to the demobilization of the Contractor's personnel from the work site. Re-performance of services shall be Buyer's sole and exclusive remedy, and in no event shall GAI-Tronics warranty obligations with respect to services exceed 100% of the total cost of the services provided hereunder.

Warranty Periods. Every claim by Buyer alleging a defect in the goods and/or services provided hereunder shall be deemed waived unless such claim is made in writing within the applicable warranty periods as set forth above. Provided, however, that if the defect complained of is latent and not discoverable within the above warranty periods, every claim arising on account of such latent defect shall be deemed waived unless it is made in writing within a reasonable time after such latent defect is or should have been discovered by Buyer.

Limitations / Exclusions. The warranties herein shall not apply to, and GAI-Tronics shall not be responsible for, any damage to the goods or failure of the services supplied hereunder, to the extent caused by Buyer's neglect, failure to follow operational and maintenance procedures provided with the equipment, or the use of technicians not specifically authorized by GAI-Tronics to maintain or service the equipment. THE WARRANTIES AND REMEDIES CONTAINED HEREIN ARE IN LIEU OF AND EXCLUDE ALL OTHER WARRANTIES AND REMEDIES, WHETHER EXPRESS OR IMPLIED BY OPERATION OF LAW OR OTHERWISE, INCLUDING ANY WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

Return Policy

If the equipment requires service, contact your Regional Service Center for a return authorization number (RA#). Equipment should be shipped prepaid to GAI-Tronics with a return authorization number and a purchase order number. If the equipment is under warranty, repairs or a replacement will be made in accordance with the warranty policy set forth above. Please include a written explanation of all defects to assist our technicians in their troubleshooting efforts.

Call 800-492-1212 (inside the USA) or 610-777-1374 (outside the USA) for help identifying the Regional Service Center closest to you.