GAI-TRONICS®
A HUBBELL COMPANY

RED ALERT®

Retrofit VoIP Telephones

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Confidentiality Notice

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Product Overview

RED ALERT® Retrofit VoIP Telephones connect to a 10/100 BaseT Ethernet network. These telephones operate from PoE (Power-over-Ethernet) or an external 24 to 48-volt dc power source. VoIP telephones provide direct point-to-point communications between personnel over an existing LAN. The appropriate RED ALERT retrofit model is designed to replace a Code Blue, Ramtel, or Talk-A-Phone telephone, using a six-hole mounting pattern.

Features and Functions

The RED ALERT voice-over-internet protocol (VoIP) hands-free telephones include the following features:

- SIP compatible (RFC3261)

- automatic call diversion (memory list)

- weather and vandal resistant

- real-time alarm reporting via SNMP, syslog, or TMA software

- configurable via web page, serial link, or download

- four auxiliary inputs

- two dry-contact auxiliary outputs

- multicast capability, up to eight addresses

- ADA (Americans with Disabilities Act) compliant

The model chart below lists the RED ALERT retrofit VoIP telephones detailed in this manual (see Table 1):

Table 1. Model Chart

Model	Description
397-710CB	**Code Blue Flush-Mount Hands-free VoIP Telephone**, weatherproof brushed stainless-steel front panel, HELP autodial push button, and CALL RECEIVED WHEN LIT LED.
397-710TP	**Talk-A-Phone Flush-Mount Hands-free VoIP Telephone**, weatherproof brushed stainless-steel front panel, HELP autodial push button, and CALL RECEIVED WHEN LIT LED.
397-710RT	**Ramtel Flush-Mount Hands-free VoIP Telephone**, weatherproof brushed stainless-steel front panel, HELP autodial push button, and CALL RECEIVED WHEN LIT LED.
398-712CB	**Code Blue Flush-Mount VoIP Telephone**, weatherproof brushed stainless-steel front panel, HELP autodial push button, CALL (off-hook) button, 12-button Braille keypad, and CALL RECEIVED WHEN LIT LED.
398-712TP	**Talk-A-Phone Flush-Mount VoIP Telephone**, weatherproof brushed stainless-steel front panel, HELP autodial push button, CALL (off-hook) button, 12-button Braille keypad, and CALL RECEIVED WHEN LIT LED.
398-712RT	**Ramtel Flush-Mount VoIP Telephone**, weatherproof brushed stainless-steel front panel, HELP autodial push button, CALL (off-hook) button, 12-button Braille keypad, and CALL RECEIVED WHEN LIT LED.

Code Blue is a registered trademark of Code Blue Corporation.
Talk-A-Phone is a registered trademark of Talk-A-Phone Co.
Ramtel is a registered trademark of Ramtel Corporation.
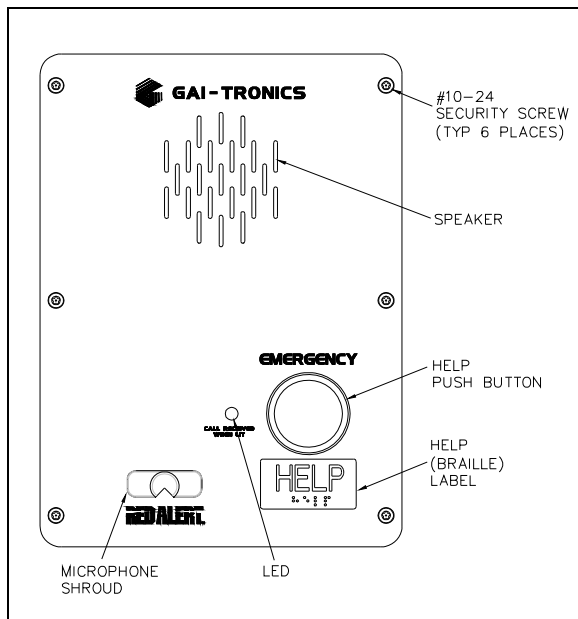
Figure 1. Model 397-710CB
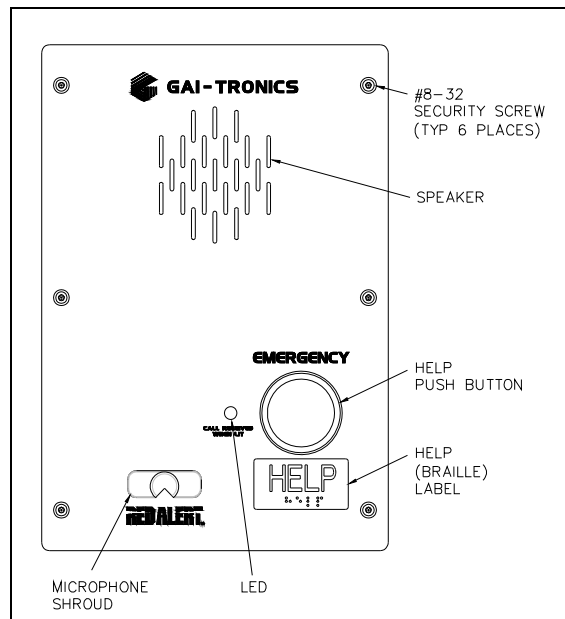
Figure 2. Model 397-710RT
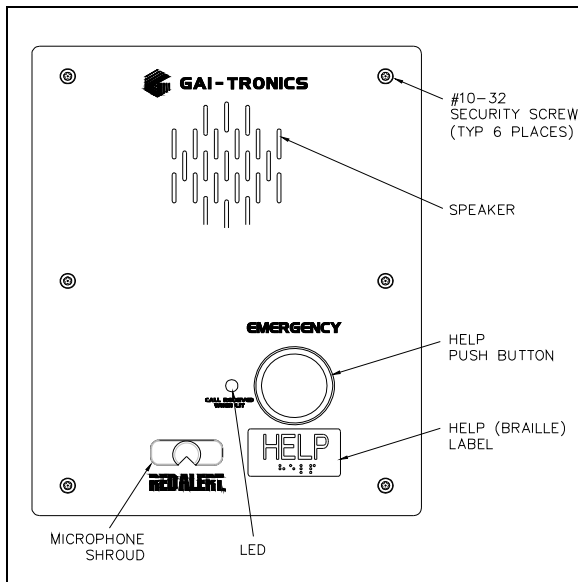
Figure 3. Model 397-710TP
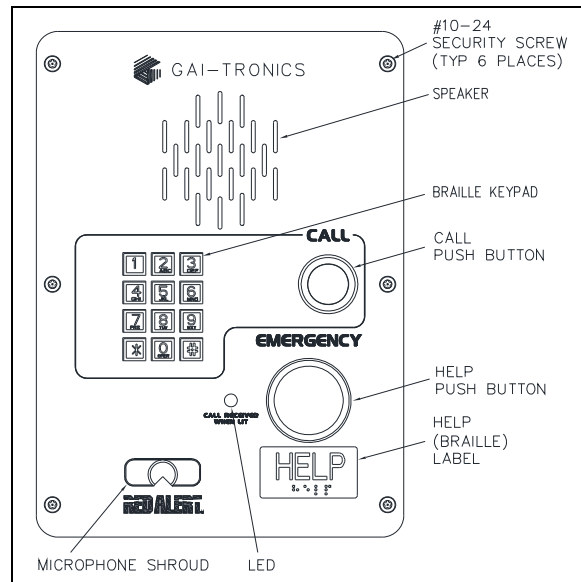
Figure 4. Model 398-712CB
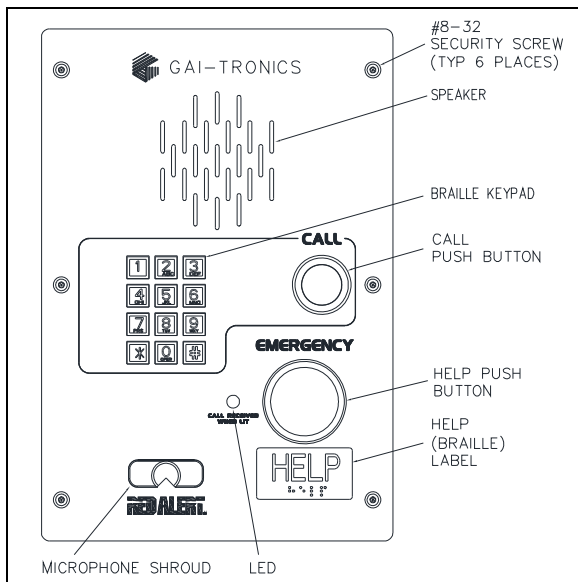
Figure 5. Model 398-712RT
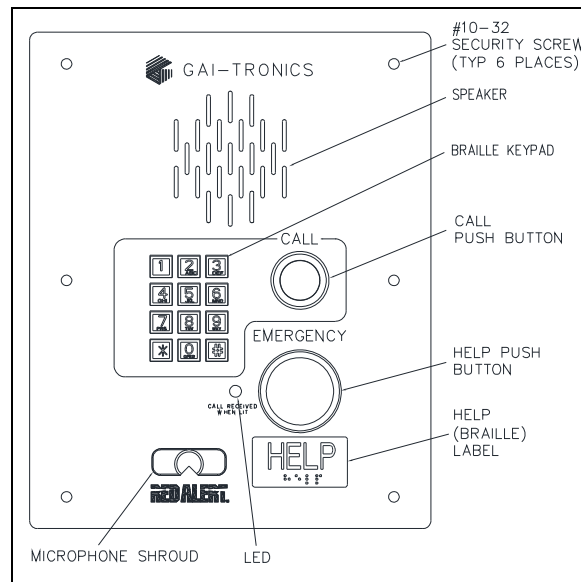
Figure 6. Model 398-712TP

System Requirements and Limitations

RED ALERT VoIP Telephones require PoE (Power-over-Ethernet) or a local 24 to 48-volt dc power source for operation. Two VoIP telephones can be connected 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.

These telephones also receive multicast broadcasts. A multicast audio stream is sent to multiple end points simultaneously to achieve multi-point paging or public address functionality over IP. Multicast requires the use of a SIP server that specifically supports multicast functionality and each telephone must be configured (enabled) to receive multicast packets.

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

Autodial Emergency Calls (All Models)

To place an emergency call:

Press the HELP push button to immediately call the preprogrammed emergency number; typically, a security office or 911.

- The CALL RECEIVED WHEN LIT LED illuminates steadily in accordance with the ADA (Americans with Disabilities Act) when the call is answered.

- The call cannot be terminated by the initiator.

- The call is terminated by any of the following:
  - the receiving caller hangs up
  - the defined call-duration timeout is exceeded
  - the SIP server disconnects the call

Keypad Calls (Models 398-712CB, 398-712RT, and 398-712TP)

To place a general telephone call using the keypad:

1. Press the CALL push button.
2. Wait for the dial tone.
3. Use the keypad to dial the desired number.
4. CALL RECEIVED WHEN LIT LED, in accordance with the American with Disabilities Act (ADA), will light steady when the call is answered.
5. The call is terminated by the following: pressing the CALL push button, or the receiving caller, or the defined timeout of the call duration, or the SIP server.

Receive a Call

RED ALERT VoIP emergency telephones automatically go off-hook (auto-answer) when called. A conversation can then take place.

Multicast Broadcast

When making a multicast call, the SIP server sends the page request to a specific IP address and multiple telephones accept and play the subsequent audio. GAI-Tronics' VoIP telephones can be programmed for up to eight multicast addresses to permit the receipt of multicast broadcasts from different sources or to enable zoning of broadcasts. Each multicast address can be assigned a priority (via programming) to define broadcast override. A telephone with multicast enabled can still make and receive normal calls (peer-to-peer or SIP server). Normal calls can be assigned a priority level, defining whether calls can override multicasts or vice versa.

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 (if applicable)

- configuration error

- cold reset (power cycle)

- warm reset (internal command)

- keypad error (if applicable)

- key hook (off hook status, if applicable)

- register fail (unsuccessful SIP registration)

- audio path test (speaker/microphone test)

Status Indication

Power

The ON LED, located on the VoIP PCBA (see Figure 12 on Page 15), illuminates when power is applied to the telephone.

Heartbeat

The HB LED, located on the VoIP PCBA (see Figure 12 on Page 15), flashes when communication over the LAN is established.

Link

The LNK LED, located on the VoIP PCBA (see Figure 12 on Page 15), indicates an active network connection when illuminated.

Speed

The SP LED, located on the VoIP PCBA, (see Figure 12 on Page 15) indicates a 100 Mbps network connection when illuminated or a 10 Mbps connection when off.

VoIP Circuit PCBA Pushbuttons

Reset

Press the RESET button (see Figure 12 on Page 15) momentarily to warm reboot the telephone. The telephone maintains the current configuration.

Factory

Use the FACTORY button (see Figure 12 on Page 15) 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.

Installation

General Information

⚠ **WARNING** ⚠ —This product can contain hazardous voltages. Always remove power to this station and any associated equipment before beginning any installation.

⚠ **CAUTION** ⚠ —Do not install this equipment in areas other than those indicated on the approval listing in the Approvals section of this manual. Such installation may cause a safety hazard and consequent injury or property damage.

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

Safety Guidelines

When installing any GAI-Tronics equipment, please adhere to the following guidelines to ensure the safety of all personnel:

- Do not install wiring during a lightning storm.

- **Electrostatic Discharge (ESD) Protection:** Your VoIP telephone may have an earth ground terminal provision. If so, ensure that it is connected to ground in accordance with all local safety regulations and the National Electrical Code (NEC). Grounding has to be ensured for safe and stable communications. Do not use long and coiled ground wires. Trim ground wires to the required length. Use a star configuration whenever possible. Please note proper grounding does not eliminate the need for lightning protection for the telephone or the telephone system.

- Do not install jacks in wet locations unless the jack is specifically designed for wet locations.

Station Placement

To prevent audio feedback problems in the system, volume settings and station placement must be taken into consideration. Unpleasant feedback problems can be reduced by:

- pointing the telephone away from other telephones located nearby
- reducing speaker volume levels

Security Hardware

The telephones described in this manual are vandal resistant. The front panel of each telephone is attached to its enclosure with security screws. A GAI-Tronics Model 233-001 Security Screwdriver or Torx T-25 security head tip (sold separately) is required for installing the telephone.

Telephone Removal and Replacement (All Models)

The appropriate RED ALERT retrofit model is designed to replace a Code Blue, Ramtel, or Talk-A-Phone telephone using a six-hole mounting pattern, as follows:

1. Remove the existing telephone.
2. Remove the back box from the front cover of the new retrofit telephone.

   Retain the hardware for re-installation.
3. Remove a plug from one opening of the back box.
4. Feed the Ethernet cable and any peripheral device wiring through the cable entry hole.
5. Connect the Ethernet cable to the Ethernet port, on the underside of the VoIP PCBA (see the Network Cable section).
6. Connect any required peripheral devices (see the Auxiliary I/O section).
7. Re-attach the back box to the front panel.
8. Allow the telephone a minimum of 35 seconds to initialize.
9. Perform the initial programming of the telephone (see the Programming section).
10. Verify telephone operation by calling to and from another telephone.
11. Verify operation of peripheral equipment.
12. Install the RED ALERT Retrofit VoIP Telephone in place of the removed telephone using the security screws provided.
13. Torque the installation screws to 10–12 in·lb.
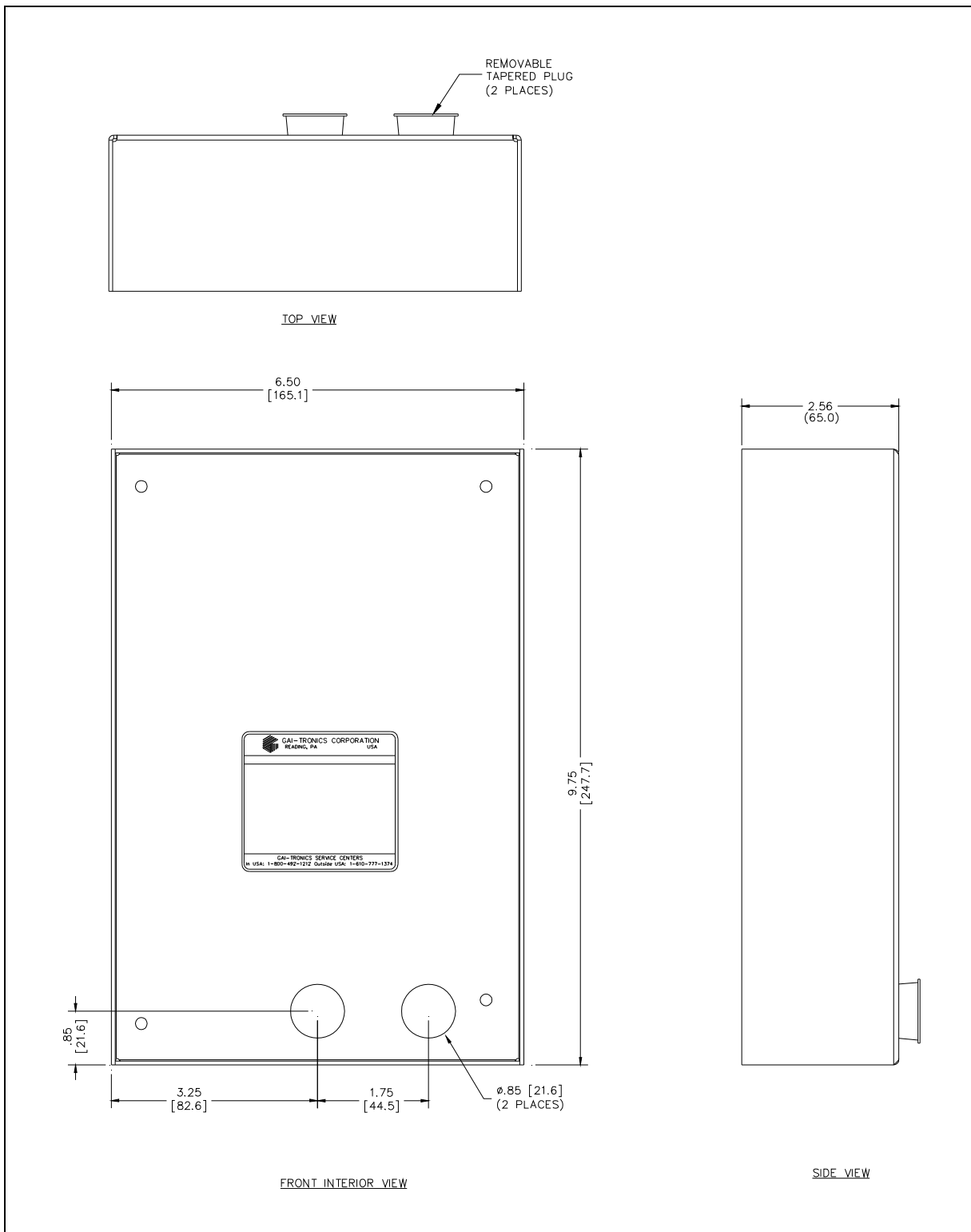
Figure 7. Back Box for Ramtel (RT) and Code Blue (CB)
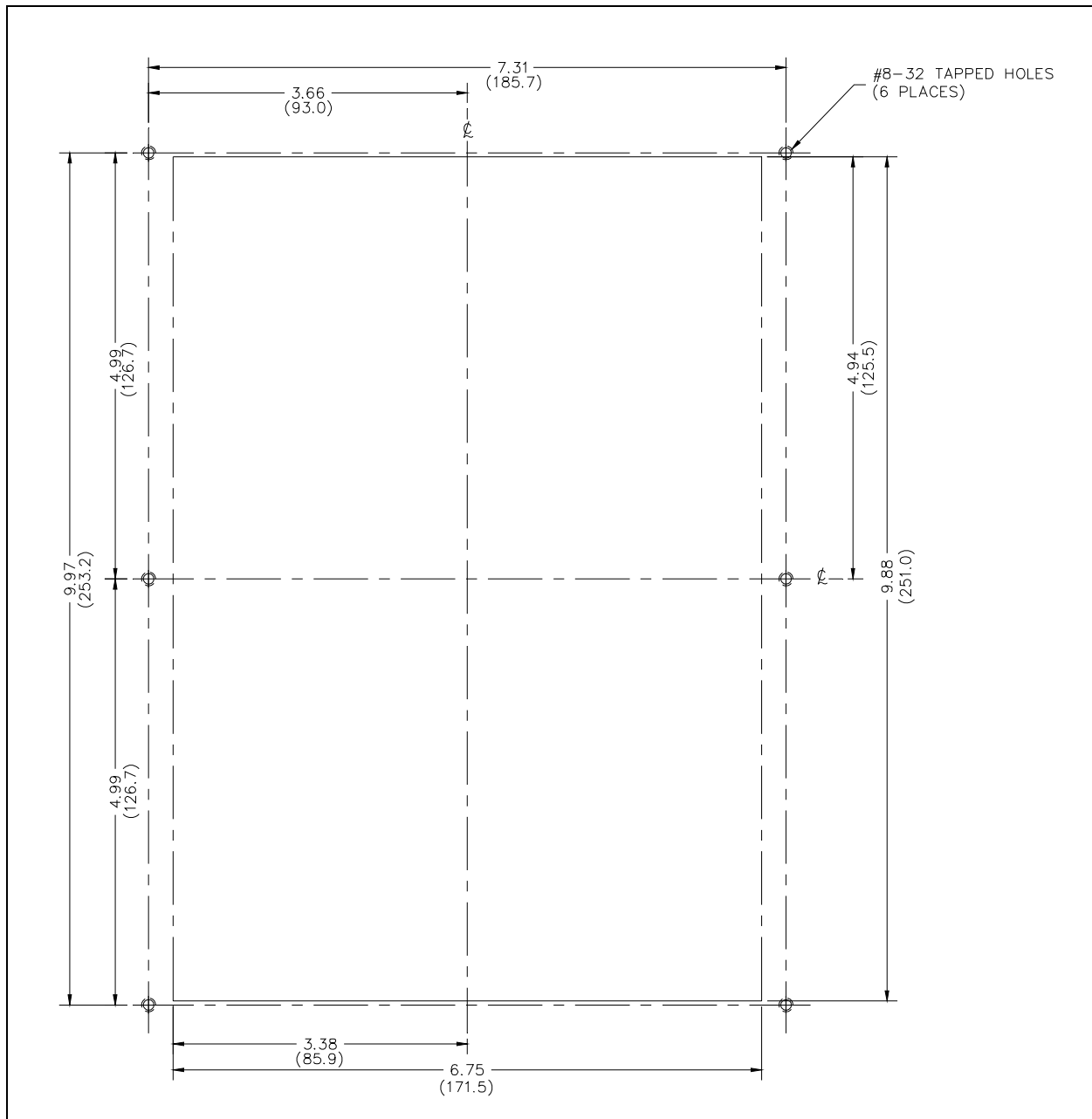
Figure 8. Cutout for Ramtel (RT) Telephones
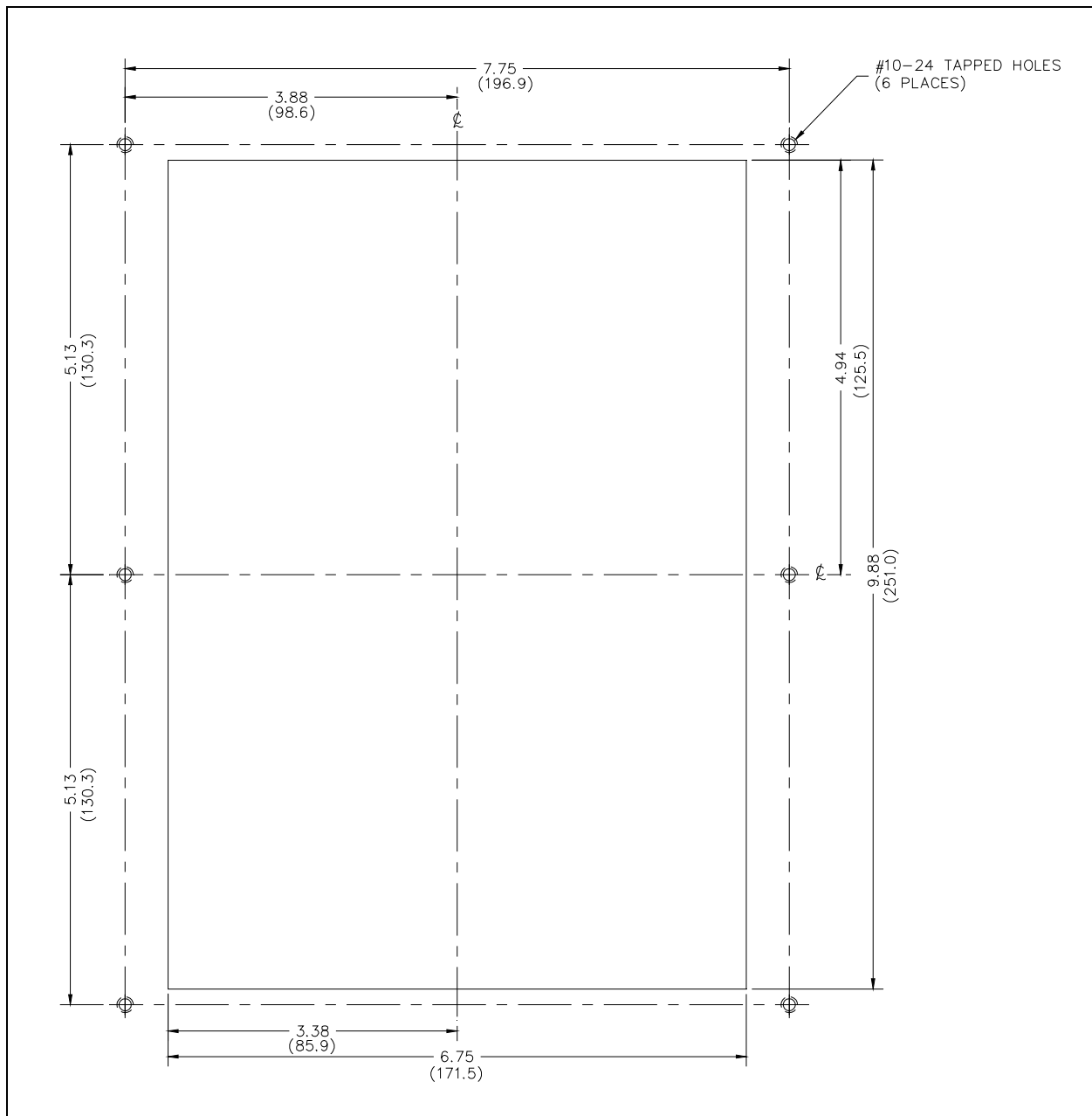
Figure 9. Cutout for Code Blue (CB) Telephones
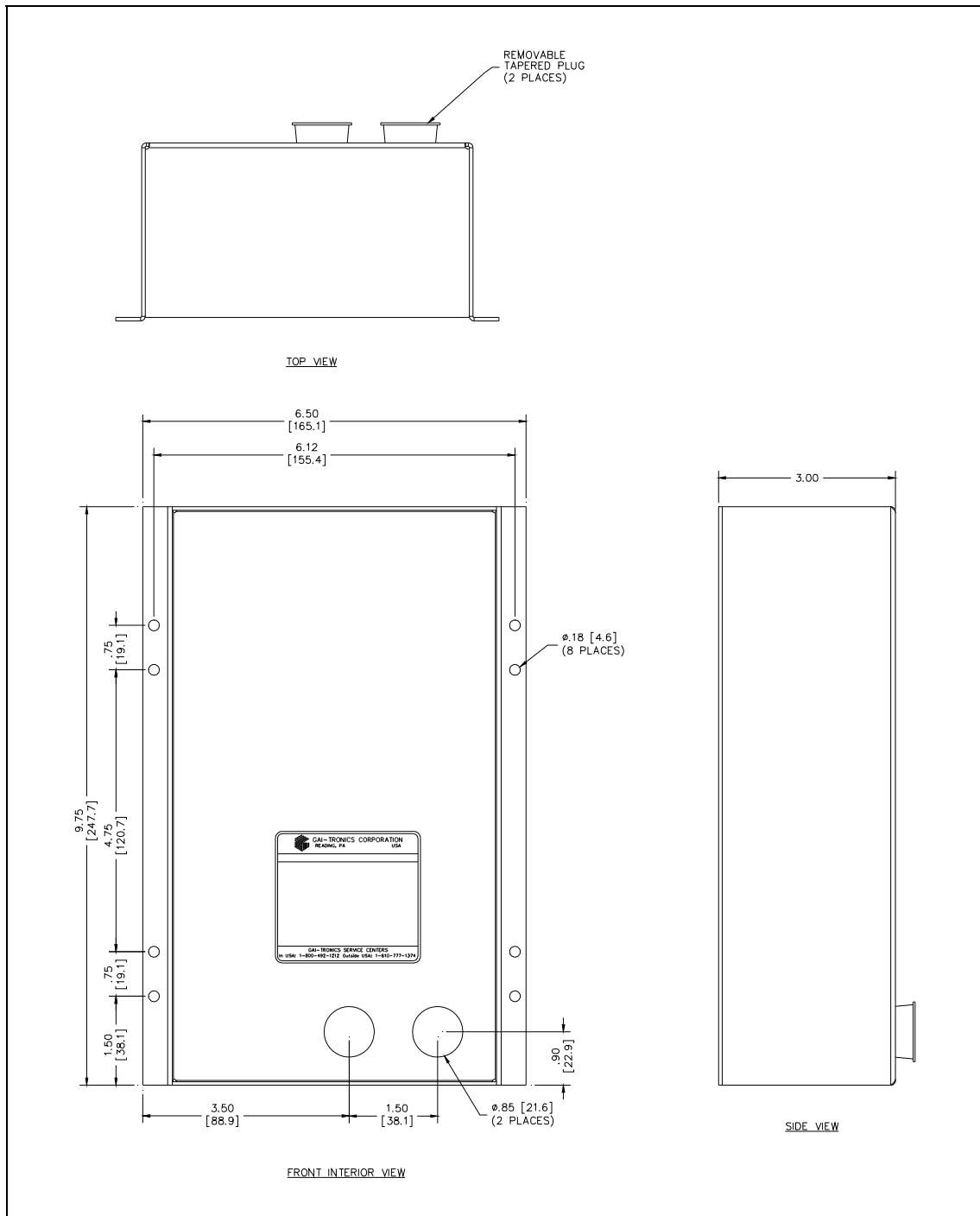
Figure 10. Back Box for Talk-A-Phone (TP)
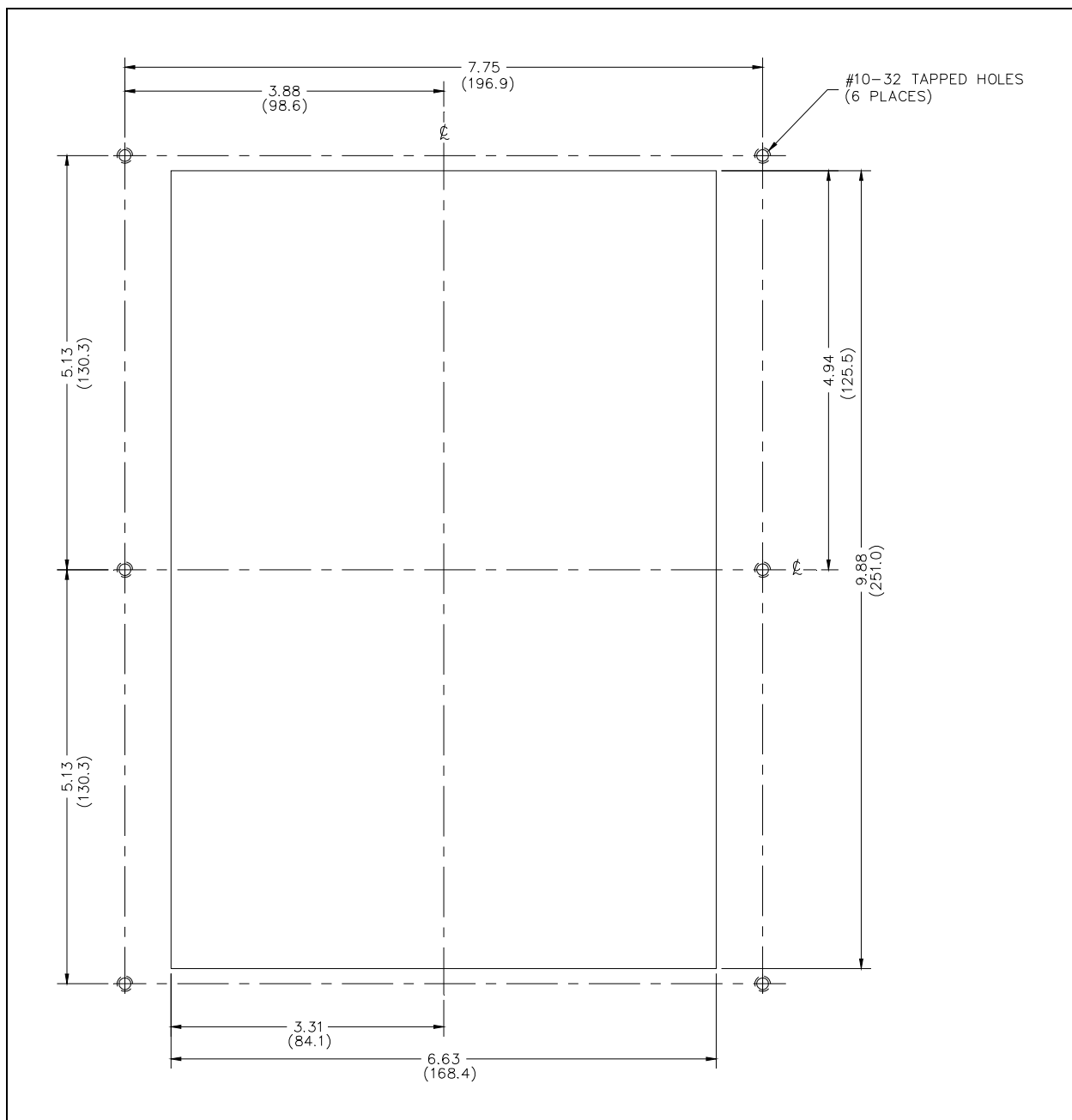
Figure 11. Cutout for Talk-A-Phone (TP) Telephones

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 12 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 Cabling

Table 2. Recommended Cabling

Cable Use	Size
LAN	Cat5 or Cat5e UTP cable with an RJ45 connector
Power	Two-conductor, No. 22 AWG is typical
Inputs	Two-conductor, No. 22 AWG is typical
Output contacts	Two or three-conductor, No. 18 AWG is typical
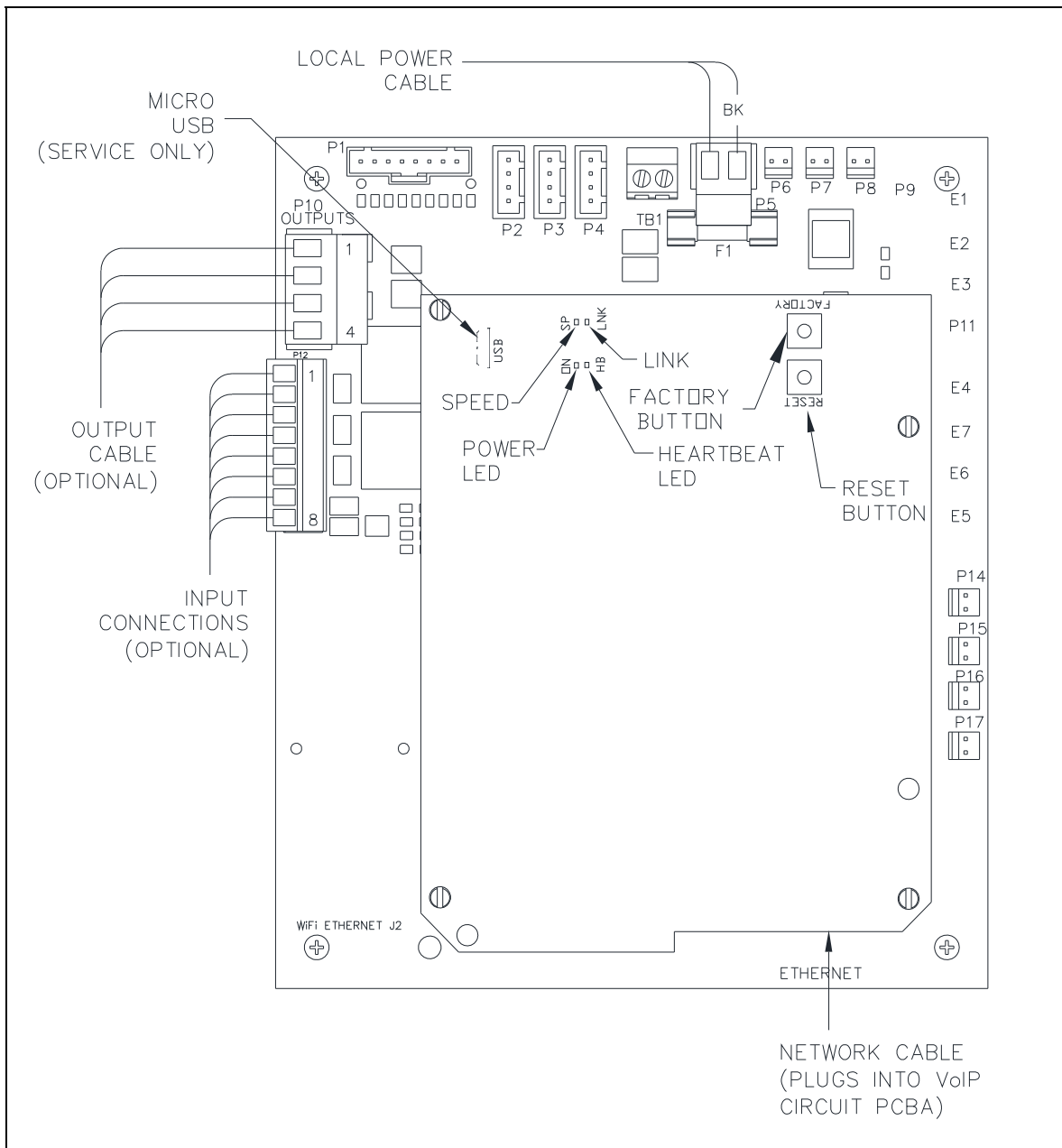
Figure 12. VoIP Telephone PCB Assembly

Power

Ground

The enclosure must be connected to earth ground.

1. Install a #6 ring lug on the ground conductor.

2. Secure it to the ground terminal, located on the rear of the front panel.

Power-Over-Ethernet (PoE)

Connect power to the system as indicated in the PoE equipment manual.

Local Power

A separate, isolated, 24 to 48-volt dc power supply is required when PoE is not available (see Table 7 on Page 20 for the recommended optional plug-in power supply). Connect the local 24–48 V dc power source to removable terminal block, P5 (see Figure 12), 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 a Category 5 or better Ethernet cable with an RJ45 connector from the LAN (Local Area Network) to the Ethernet jack, located on the underside of the VoIP PCBA.

Auxiliary I/O

Outputs

Two outputs have been provided for customer use. Terminations for these outputs are provided on connector P10.

Table 4. Output Contacts—P10

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

Inputs

Four auxiliary inputs have been provided for customer use. Terminations for these inputs are provided on terminal block P12.

Table 5. Auxiliary Inputs—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

USB port

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

Strobe Connection

Each RED ALERT VoIP telephone includes two solid state relays. Contact one typically activates peripheral equipment such as beacons, video cameras, and alarm generators when the HELP push button is pressed. The relay can remain energized for the duration of the emergency call.

An output is often used to operate a GAI-Tronics Model 540-001 or 541-001 Strobe (sold separately) (see Figure 13). Refer to the appropriate installation instructions included with the strobe for additional information.
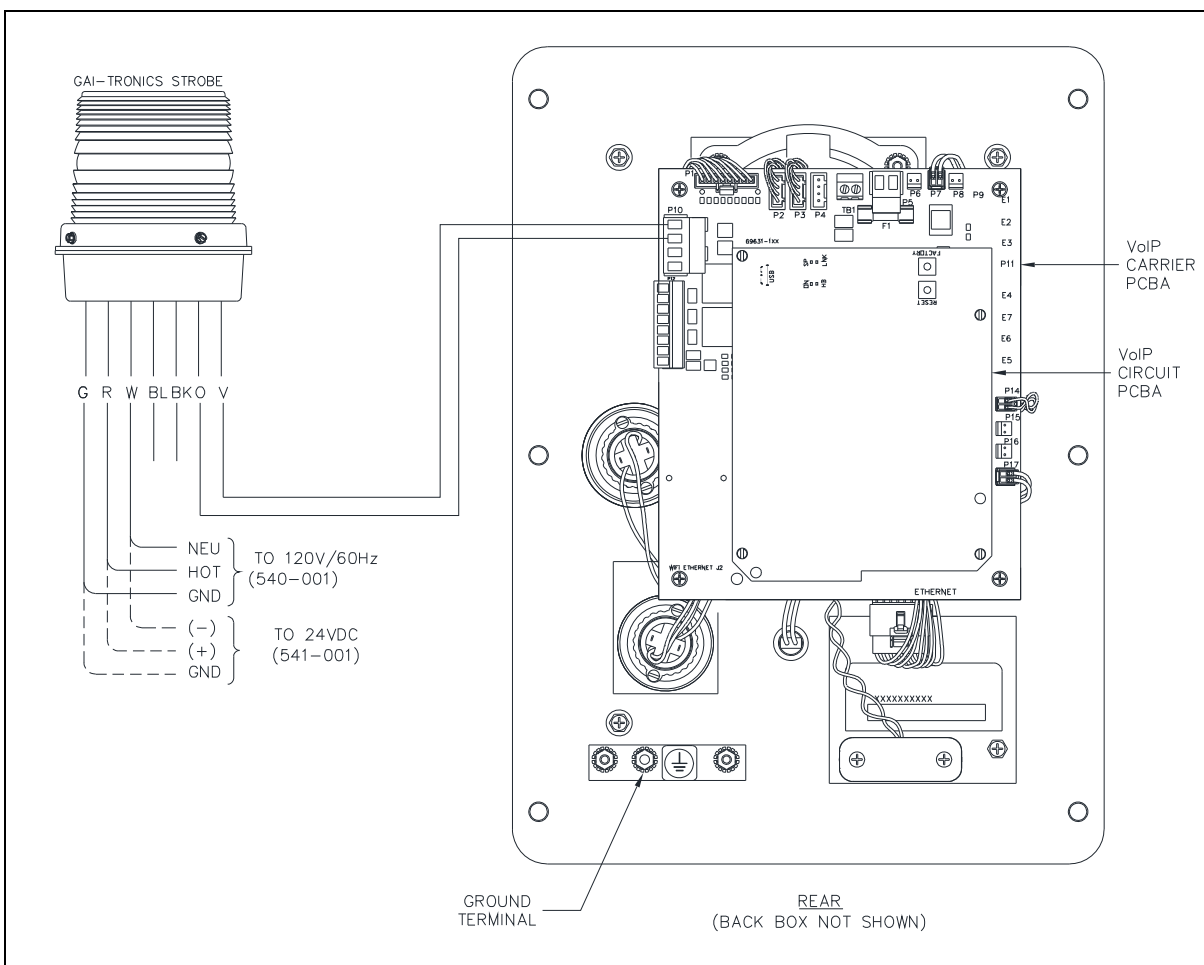
Figure 13. GAI-Tronics Models 540-001 and 541-001 Strobe Connection Detail

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 PCBA 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 PCBA 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.

Input Contacts

Each VoIP telephone includes four dry-contact inputs (see the Specifications section for the input ratings). Each input's mode is configurable. Configure inputs for one of the following modes: On, Off, or On/Off. The inputs can be configured to update a SYSLOG or generate an SNMP trap when active (see Figure 12 on Page 15). Refer to the Logic Settings section of GTC Pub. 42004-548 for programming instructions for these inputs (see the Reference Documentation section).

Output Contacts

Each VoIP telephone contains two voltage-free output contacts (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, or Emergency. The duration of activation, or on/off times, can also be set in some modes (see Figure 12 on Page 15). Refer to the Logic Settings section of GTC Pub. 42004-548, for programming instructions for the outputs (see the Reference Documentation section).

Maintenance

⚠**WARNING** ⚠ —**This product can contain hazardous voltages. Always remove power to this station prior to servicing**.

Corrective Actions

1. Inspect and replace frayed or cracked wiring.

2. Secure/replace loose wires and terminal lugs.

3. Remove corrosion from terminals.

4. Inspect fuse F1 on the VoIP Carrier PCBA.

Preventive Maintenance

Stainless steel does require maintenance to prevent corrosion from occurring. Different installation locations may require more regular maintenance than others, depending on the environment and exposure to airborne contaminants. The following maintenance steps should be performed on a regular basis or when corrosion is first noticed.

Cleaning

For general cleaning, wipe the surface with a cleanser or cleanser and water mixture. Any cleanser that is safe for glass is usually safe for stainless steel. Wipe dry.

Remove corrosion or rust with a non-abrasive commercial cleanser and water. Rub stained areas in the same direction as the existing grain. Stubborn stains may be removed with a paste made from magnesium oxide, ammonia, and water. Wipe clean with water rinse and dry.

Prevention

Automotive wax provides the best results in preventing corrosion on stainless steel. Simply apply wax, let dry to a haze, and buff to a shine with a clean dry cloth. This application should protect the telephone surface for many months as it will allow natural re-formation of the chromium oxide layer.

DO NOT use steel wool, sandpaper, mineral acids, bleaches, or chlorine cleansers on the stainless steel.

Troubleshooting

Table 6. Troubleshooting

Problem	Possible Solution
low volume	Increase the telephone's volume level in the programming configuration.
high volume	Decrease the telephone's volume level in the programming configuration.
front panel push buttons not operational	• Verify the push buttons are properly configured. • Verify power is applied to the unit.
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 phone has been set up on the network.
no power indication	• Check the power connections. • If using PoE, check the operation of the PoE equipment.

Service and Spare Parts

Contact a regional service center for an RA# (return authorization number) if the telephone requires service. Ship equipment 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.

Table 7. Replacement and Optional Parts

Part No.	Description
233-001	Model 233-001 Security Screwdriver
12565-712	VoIP Circuit PCBA Replacement Kit
12542-002	Security Screws (Torx T-25), ½-inch, Pack of 15
12520-009	Push Button Replacement Kit (Emergency)
12521-004	Microphone Replacement Kit
12522-007	Piezo Speaker Replacement Kit
21245-002	Four-Point Connector
21245-003	Terminal Block Connector, Two-Position (External power)
62317-208	Eight-Point Connector (Inputs)
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

Network power .... Power-over-Ethernet, 802.3af compliant (via RJ45)

Local power requirements .... 24–48 V dc, 6 W

Network

Topology .... 10/100 BaseT Ethernet

Cabling .... Category 5 or better UTP with RJ45 jack

Address Assignment .... static IP provisioning or DHCP STUN client (NAT traversal)

Call control signaling .... SIP (RFC3261 compliant) loose routing

Configuration .... embedded web server, configuration file download, or direct serial connection password protection

Inputs

Keypad* .... 3 × 4 matrix

Push buttons* .... HELP and CALL push buttons

Configurable inputs (quantity = 4) .... internal pull-up 3.3 V dc tolerant

*Not available on all models

Outputs

Output 1 ....8 A @ 30 V ac/dc (resistive load)

Output 2 ....8 A @ 30 V ac/dc (resistive load)

Indicators

External..off-hook indicator light

Internal on VoIP PCBA .... heartbeat, link, power, and speed LEDs

Audio output ....85 dB SPL or greater @ 1.0 m (@ 1 kHz)

Mechanical

Temperature range

Operating...−4 ℉ to +131 ℉ (−20 ℃ to +55 ℃)

Storage...−40 ℉ to 158 ℉ (−40 ℃ to +70 ℃)

Relative humidity... up to 95%, non-condensing

PCBA (printed circuit board assembly) .... conformally coated

Construction:

Panel .... 14-gauge, type 304 brushed stainless steel

Back box...16-gauge cold-rolled steel with black polyurethane finish

Dimensions

Model 397-710TP

Panel.. 11.75 H × 9.50 W in (298.4 × 241.3 mm)

Back box (depth from mounting surface) .... 3.0 in (76.2 mm)

Weight... 6.0 lb (2.7 kg)

Model 397-710RT

Panel.. 11.88 H × 8.25 W in (301.6 × 209.6 mm)

Back box (depth from mounting surface) .... 2.48 in (63.0 mm)

Weight... 6.0 lb (2.7 kg)

Model 397-710CB

Panel.. 11.75 H × 8.50 W in (298.4 × 215.9 mm)

Back box (depth from mounting surface) .... 2.48 in (63.0 mm)

Weight... 6.0 lb (2.7 kg)

Model 398-712TP

Panel.. 11.75 H × 9.50 W in (298.4 × 241.3 mm)

Back box (depth from mounting surface) .... 3.0 in (76.2 mm)

Weight... 7.0 lb (3.2kg)

Model 398-712RT

Panel.. 11.88 H × 8.25 W in (301.6 × 209.6 mm)

Back box (depth from mounting surface) .... 2.56 in (65.0 mm)

Weight... 7.0 lb (3.2 kg)

Model 398-712CB

Panel.. 11.75 H × 8.50 W in (298.4 × 215.9 mm)

Back box (depth from mounting surface) .... 2.56 in (65.0 mm)

Weight... 7.0 lb (3.2 kg)

Approvals

Compliance to Standard...FCC CFR 47 Part 15

Enclosure for Electrical Equipment 3R

NOTE: 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. Depending upon the wiring and features used on this device, additional precautions may be necessary not to cause harmful interference. 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.