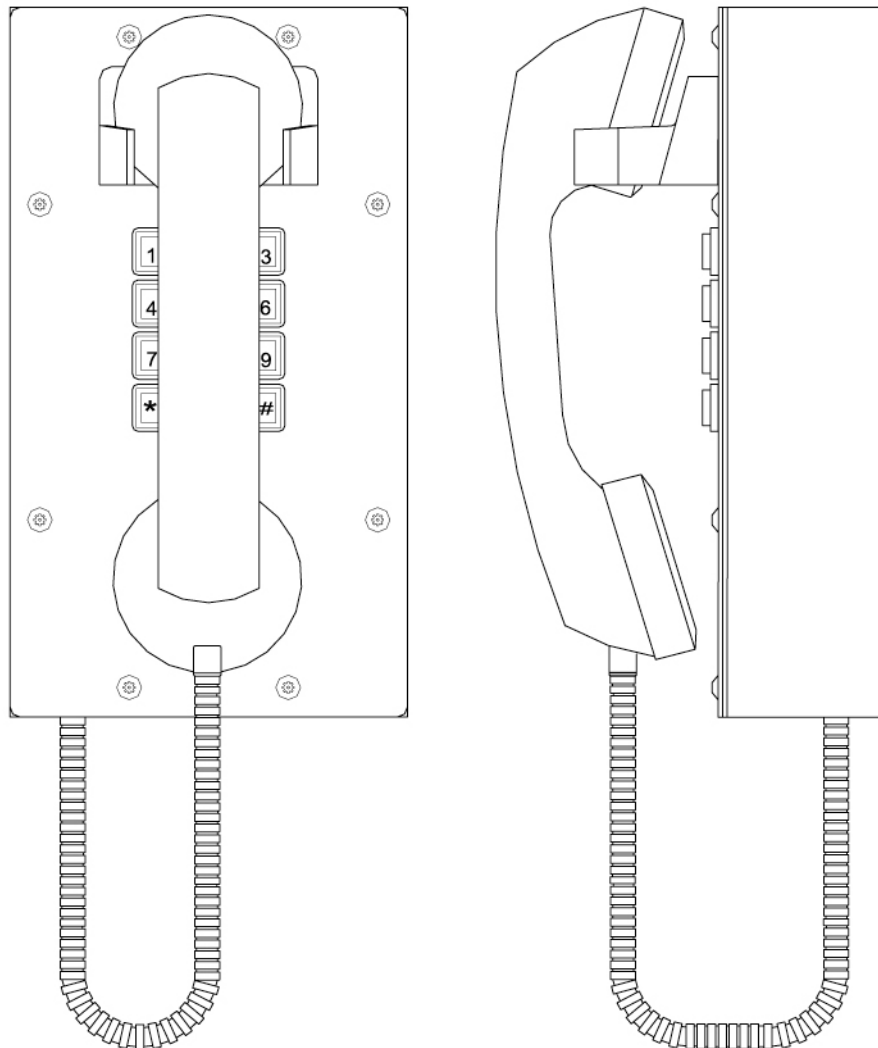




# Correctional Institute Telephone

Model CIT-40

## Installation & Operation



P005687 Rev. D 180420 4/20/2018 12:50 PM

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Package Contents

- (1) P6969 CIT-40 Telephone
- (1) Installation & Operation Manual
- (1) Tamper Resistant Screw Driver Bit

## Overview

### ***CIT-40 Correctional Institute Telephone***

The CIT-40 is a rugged telephone designed to provide safe and reliable communication in locations prone to abuse and vandalism.

## Features

### ***Enclosure and Faceplate***

- 16 AWG steel, zinc dichromate plated and powder coated, faceplate secured with vandal resistant screws.

### ***Keypad***

- vandal resistant metal, standard 3 x 4 matrix

### ***Handset***

- high impact ABS with locked on caps

### ***Hook Switch***

- magnetic reed hook switch, no moving parts

### ***Surge Arrestor and Fuse***

- prevents damage to the electronic circuits in the event of a high voltage spike on the telephone line

### ***Noise Reducing Microphone***

- aids in clarity of transmission in noisy areas

### ***Tone (DTMF) Operation***

- factory set to tone (DTMF) dialing
- pulse dialing can be ordered or configured in the field

### ***Armored Handset Cord***

- withstands vandalism and severe use

### ***Hearing-Aid Compatible***

- compatible with inductively coupled hearing-aid devices

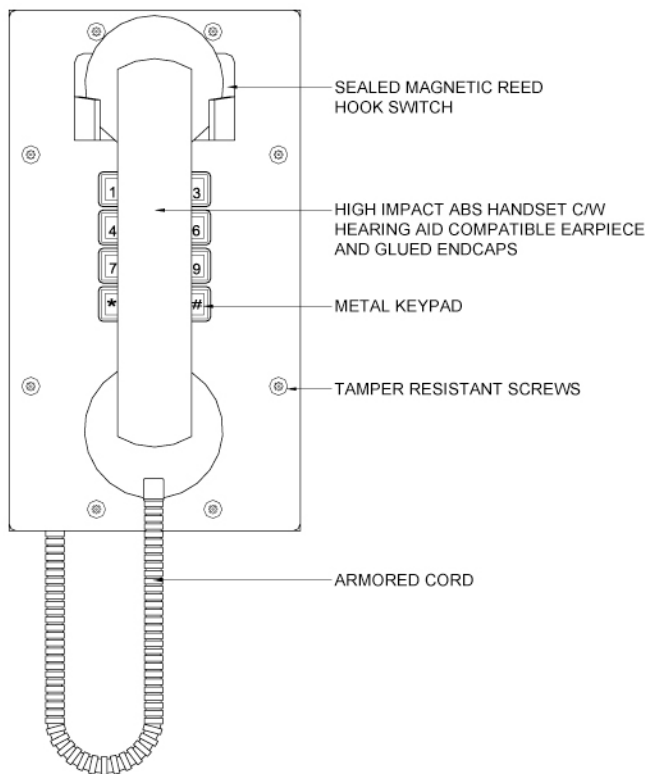


Figure 1 - Features

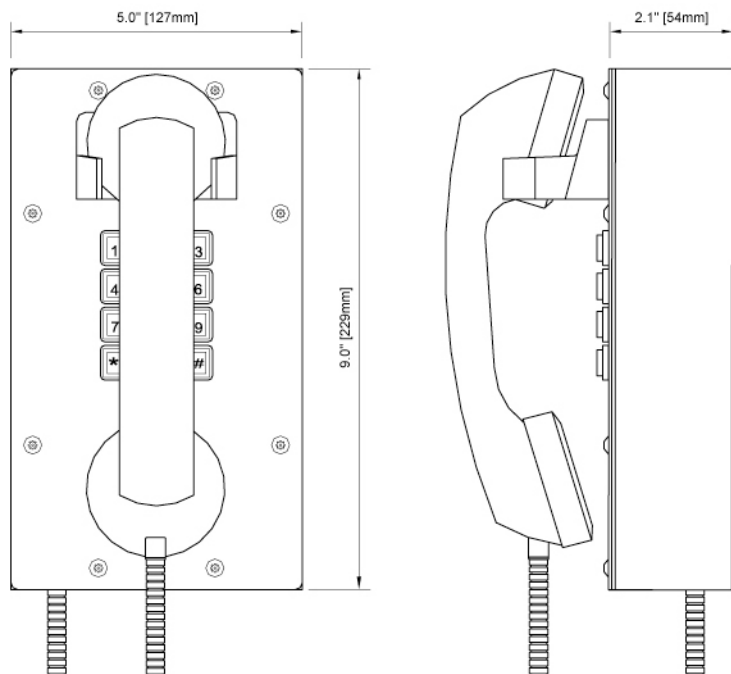


Figure 2 - Dimensions

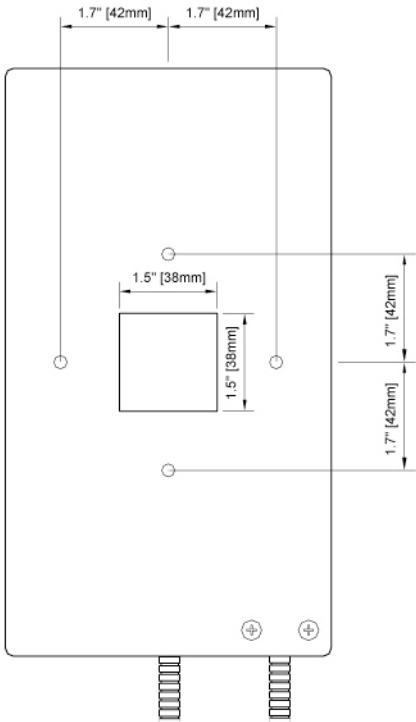


Figure 3 - Mounting

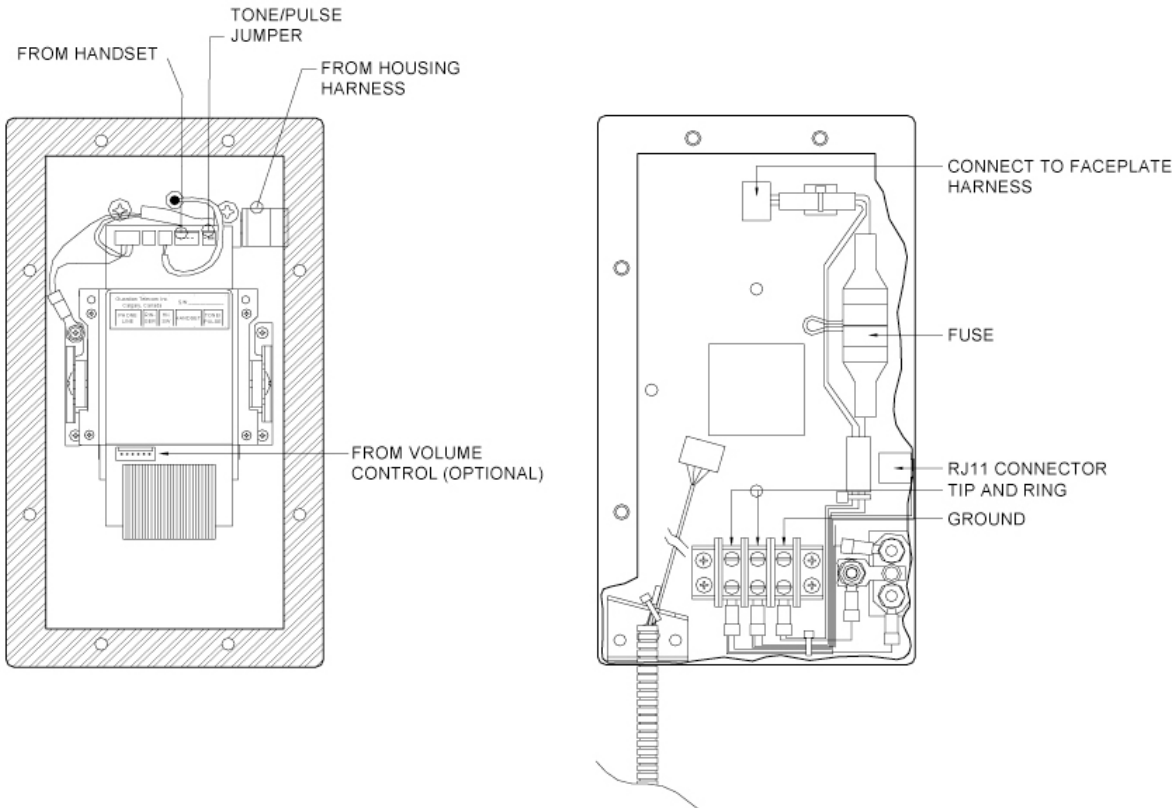


Figure 4 - Electrical Connections

### Installing the CIT-40

- If Pulse dialing is required refer to the section on Setting Dialing Mode.
- Follow all appropriate electrical codes and use only approved electrical fittings for the installation.
- Choose a wall location that is free of obstructions and permits space for cable or conduit runs.
- Ensure mounting can support 4lbs (1.8kg) and any additional load to which the telephone may be subjected.
- Ensure that none of the electrical connection circuits are live.
- Bring Tip, Ring and Ground wiring to the location where the wiring access opening in the back of the CIT-40 will be when the telephone is installed.
- Remove the eight (8) cover screws from the front of the unit and carefully remove the front cover assembly. NOTE that the handset and all electronics are attached to the front plate. The front cover may be separated from the back box by disconnecting the harness plug.
- Use the enclosure as a template to locate and drill holes for #8 or M4 mounting screws or other suitable attachments.
- Feed Tip, Ring and Ground wiring through the wiring access opening and secure the unit to the wall.
- Attach individual wires from the exchange (Tip/Ring/Ground) to the terminal strip (Tip & Ring are not polarity sensitive), or plug the RJ11 connector into the socket if this termination method was chosen. Even if an RJ11 connector is used an approved earth ground must still be provided to the ground connection on the terminal strip.
- Ensure all connections are tight, then replace and secure the cover.
- Connect the telephone into the system.
- Test the unit by calling to and from another unit on the exchange.

**See:** *Setting Dialing Mode*

**See:** *Figure 2 - Dimensions*

**Tip:** *The CIT-40 may be wired directly to the terminal block or an RJ11 connector may be used.*

**Tip:** *Use the driver bit provided to remove the tamper resistant screws.*

**See:** *Figure 3 - Mounting.*

**See:** *Figure 4 - Electrical Connections*

**Note:** *an approved earth ground must be connected to the ground position on the terminal strip regardless of Tip and Ring wiring method.*

### Operation

- Once the Model CIT-40 Telephone has been properly installed and energized operation is identical to most other single line telephones.

### Field Repairs

**Note:** The only field repair permitted is the replacement of fuses and changing the Tone/Pulse setting. All other repairs or alterations must be carried out by Guardian Telecom or an Authorized Service Depot. See **Warranty and Disclaimer for details.**

**See:** *Figure 4 - Electrical Connections*

### Setting Dialing Mode

The CIT-40 is shipped from the factory set for DTMF (Tone) dialing mode. If loop disconnect (Pulse) dialing is required proceed as follows.

**See:** Figure 4 -  
Electrical Connections

- Carefully remove the front cover assembly and separate from the housing by disconnecting the harness plug. NOTE that the handset and all electronics are attached to the front plate.
- Move the jumper from pins 1 & 2 to pins 2 & 3.
- The set will now be in pulse dialing mode, it can be returned to tone mode by moving the jumper back to pins 1 & 2.
- Carefully replace the front plate and install all eight screws. Do not over tighten the cover screws; there is a flexible gasket between the cover and the body. Excessive tightening of the screws deforms the gasket and reduces the weather resistance of the set.

### Fuse Replacement

- Disconnect the telephone from Tip and Ring power supplied by the PABX or central office before attempting to replace the fuse.
- Carefully remove the front cover assembly and separate from the housing by disconnecting the harness plugs. NOTE that the handset and all electronics are attached to the front plate.
- Replace fuse in fuse holder.
- Carefully replace the front plate and install all eight screws. Do not over tighten the cover screws; there is a flexible gasket between the cover and the body. Excessive tightening of the screws deforms the gasket and reduces the weather resistance of the set.

**See:** Figure 4 -  
Electrical Connections

**Note:** Use a ¼ Amp 250  
Volt 3AG Fast Blow  
Fuse

### WARNING!

- Replace only with a 0.25 amp 3AG fast blow fuse. Failure to do so will void the warranty.
- If, on reconnecting power, the fuse fails, check the telephone system wiring. The fuse protects the Tip and Ring line from the telephone system. It is usually powered at 48 volts DC and must not be connected to 120 volts AC.

## Specifications

### ***ELECTRICAL PERFORMANCE***

AUDIBLE RANGE FREQUENCY RESPONSE	300 – 3400 Hz
DIALING METHOD	DTMF OR 40/60 PULSE AT 10 PPS
TRANSMIT OBJECTIVE LOUDNESS RATING (TOLR)	-40 +/- 3 dB
RECEIVE OBJECTIVE LOUDNESS RATING (ROLR)	TYPICAL 50 +/- 3 dB
SIDE TONE OBJECTIVE LOUDNESS RATING (SOLR)	TYPICAL 11 +/- 4 dB
SET IMPEDANCE	600 OHMS NOMINAL
MAXIMUM LOOP	15,000 FT (4,600 M) OF 22 AWG COPPER

### ***ELECTRICAL REQUIREMENTS***

LINE VOLTAGE	24 – 56 VDC
LOOP CURRENT	20 - 120 mA
CONNECTION METHOD	TERMINAL STRIP OR RJ11 CONNECTOR
FUSE	¼ AMP 250 VOLT 3AG FAST BLOW

### ***ENVIRONMENTAL***

TEMPERATURE	-40° TO +60° C (-40° TO +140° F)
HUMIDITY	0 TO 95% RH
DUSTPROOF	FULL ENCLOSURE GASKET

### ***MECHANICAL***

HOOK SWITCH (CRADLE SWITCH) LIFE	>1 000 000 OPERATIONS
BODY AND FACEPLATE CONSTRUCTION	16 AWG STEEL, ZINC DICHROMATE PLATED AND POWDER COATED
DIMENSIONS (L x W x D)	9 x 5 x 5.2 INCHES (229 x 127 x 132 MM)
NET WEIGHT	4 LBS (1.8 KG)
SHIPPING DIMENSIONS	15 x 11.5 x 5 INCHES (381 x 293 x 127 MM)
SHIPPING WEIGHT	5.5 LBS (2.5 KG)
HANDSET MATERIAL	HIGH IMPACT ABS
MICROPHONE	NOISE REDUCING ELECTRET
OPTIONAL MICROPHONE	NOISE CANCELING DYNAMIC
RECEIVER	HEARING AID COMPATIBLE
STANDARD MOUNTING	VERTICAL WALL
WIRING ACCESS	REAR OPENING 1.5 x 1.5 INCHES ( 38 x 38 MM)
HARDWARE MATERIAL	STAINLESS STEEL



## Replacement Parts

Part No.	Description
P005542	Housing
P005684	Handset with 16" Armored Cord
P002786	Cradle
P004350	Faceplate
P005582	Circuit Board
P005917	Reed Switch
P006295	Metal Keypad

## Storage

### General Storage (All situations):

- Note any stacking limits or warnings on packaging (if any).
- Do not store in temperatures over +80C.
- Store in original packaging if possible until needed.

### Long Term Storage (> 6 Months):

- If area is air conditioned and not subject to high changes in humidity, continue to store in original packaging.
- If wide humidity shifts are expected, then use these steps:
  - Remove product from packaging (including plastic bags) and store on shelf in open air.
  - If area is subject to a high degree of dust, to help maintain cosmetic appearance you can cover with cloth (Do not cover with plastic or materials that will trap moisture) or clean periodically.
  - Do not store out of packaging long term where they are exposed to sunlight. Long term exposure to UV may cause fading on plastic parts.

## Cleaning Tips for Guardian Telephones

Guardian Telephones may occasionally need to be cleaned to maintain appearance. Generally, wiping the surface with a clean, water dampened cloth will remove most films or residues. If the soiling is too stubborn for plain water, a mild detergent solution may be used. Be sure to wipe away any detergent residue with a plain water dampened cloth. The Telephone may be cleaned with any general-purpose household glass and surface type cleaner. Do not spray the telephone directly! Spray the cleaner on a soft cloth then wipe the surface. Pre-treated cloths, like those used for eyeglasses or cameras, may be used to clean the Telephone. Premoistened towelettes may also be used, however, avoid those containing lanolin or aloe as they will leave a slippery residue. The handset and surface of the telephone may be cleaned with disinfectants used for general cleaning in a medical environment. Isopropyl alcohol may be used applied with a cloth. Avoid using alcohol on silicon based keypads, since doing so may significantly degrade legibility.

- Do not use furniture polishes, waxes or plasticizer-based cleaner (Armor All etc.)
- Do not use lanolin, aloe, glycerin or other skin care type products.
- Do not apply any solvent such as acetone, mineral spirits etc.
- Do not directly spray or immerse the handset.

## Warranty

Guardian Telecom warrants your product to be free of defects in material and workmanship for a period of one year. Guardian Telecom will repair or replace any defective unit that is under warranty free of charge.

This warranty is null and void if any non-authorized modifications have been made to this product, or if it has been subjected to misuse, neglect, or accident. This warranty covers bench repairs only; such repairs must be made at Guardian Telecom or an authorized service depot. Guardian Telecom is not responsible for costs incurred for on-site service calls, freight, or brokerage.

***A return authorization must be obtained prior to warranty claims or repairs.***

## Disclaimer

The products covered by this manual are designed for use in Industrial Environments and/or Hazardous Locations. Due to the range of possible applications for these instruments the manufacturer will not be responsible for damages or losses of any kind suffered as a result of the use of this product, including consequential damages.

## Warning

For the purposes of installing the product and replacing fuses only, this device may be opened and reassembled by qualified personnel, following the instructions in the product manual.

## Service Telephone Number

### **1-800-363-8010**

Guardian Telecom provides a customer service telephone number which is toll-free within North America. If you need assistance when installing or operating this product, please call the toll-free telephone number between regular business hours (8:00AM-5:00PM), Mountain Standard Time. If you are calling outside of regular business hours, please leave a detailed message, and a member of Guardian Telecom's Service Department will return your call as soon as possible. If your product requires service, Guardian personnel will supply you with an RMA (return materials authorization) number over the telephone or through our web site product return page. This number must be included with your return address and the name of the person to contact.

**Guardian Telecom, a division of Circa Enterprises Inc.**

**Toll-free 1-800-363-8010**

**Ph. (403) 258-3100**

**Fax. (403) 253-4967**

**[www.guardiantelecom.com](http://www.guardiantelecom.com)**

## Feedback

Guardian Telecom continually strives to make reliable, durable, and easy to use products. If you, as an installer or user of our equipment, have any suggestions for improvements to this or any of our products or documents, including this manual, we would appreciate hearing from you.

## Guardian Product Return

Guardian products have been quality tested and are in full working order when shipped from the factory, given the rugged nature of these products shipping is not expected to damage a unit. In the unlikely event of a malfunction Guardian follows the three step procedure below.

### ***Step I - On-Site Correction***

- The most common source of difficulties with a new product is improper installation in one of two ways: incorrect wiring connections or connection to an incorrect power source.
- Product wiring needs to be properly connected to the on-site wiring. Correct wiring instructions are shown in the user manual included with the product.
- Connecting a telephone to a standard power source, rather than tip & ring, will blow the telephone's internal, user-replaceable fuse. In the event of fuse burn-out, disconnect the telephone from the power source, replace the fuse, and reconnect following the wiring diagrams provided with the product.

### ***Step II - Return Materials Authorization (RMA)***

- When a product has been installed following user manual instructions, and the unit fails to operate, the user must contact Guardian Telecom to obtain authorization to return the product. This can be done by completing a RMA form online at [www.guardiantelecom.com](http://www.guardiantelecom.com), or by calling the service telephone number given in this manual.
- After providing information on the product, the owner and the nature of the problem, Guardian will issue a RMA number, to be shown on documentation returned with the product.
- In addition to the RMA number, shipping documents should include name, address and telephone number of the owner along with contact information for the person responsible for the repair and/or the user who identified the malfunction.
- (Where a product is being returned for repair from outside of Canada, customs documentation must show the product's serial number, date of export [date of purchase], and a notation that the equipment is: "Canadian goods returning.")

### ***Step III - Factory Authorized Service***

- Once received, each product is carefully inspected and tested. If the product is under warranty, repairs are completed and the product returned to the owner, generally within five working days of receipt by the factory.
- A product that has been subjected to misuse, neglect or accident or is beyond the warranty period will be evaluated. The service department will provide the owner's representative with a repair cost estimate. Once approved, repairs are completed and the product returned, generally within five working days.



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**Phone (403) 258-3100**

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*(Click to open message box)*

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