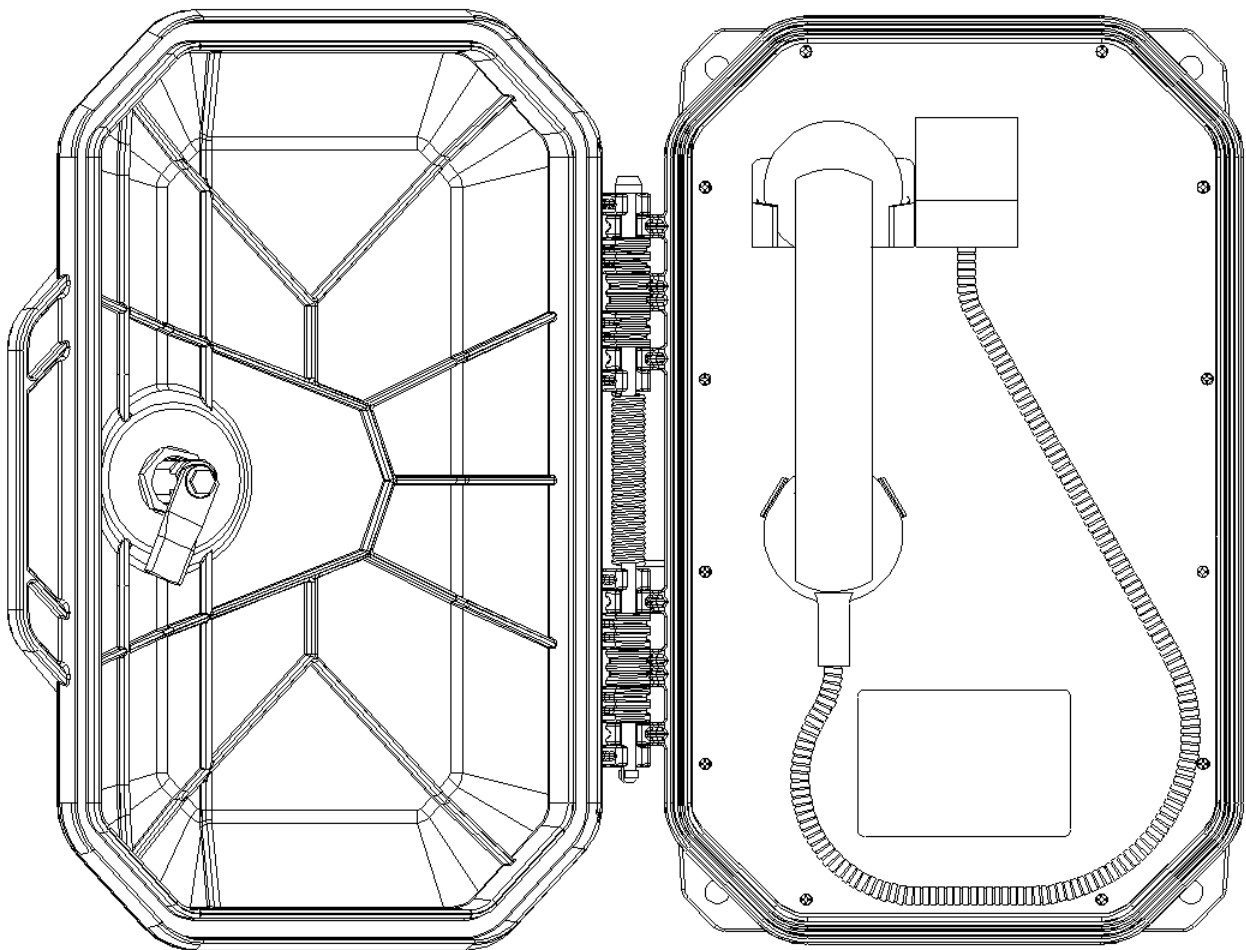


Water Tight Hazardous Area Ringdown Telephone

WTR-41-H

Installation & Operation



Part No. P5306

P006664 Rev. B 150109 1/9/2015 12:16 PM

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Package Contents

- (1) P5306 WTR-41-H Hazardous Area Ringdown Telephone
- (2) Door Latch Keys (if locking door option ordered)
- (12) Faceplate Screws (standard or vandal resistant)
- (1) Driver bit for Vandal Resistant screws (if this option was ordered)
- (1) Installation and Operation Manual

Options

Part No.	Description
LCK-WTE	Locking door
VR-WTE	Vandal Resistant Screws With Driver Bit
NC	Noise Canceling Microphone

Accessories

- **P7226** Explosion Proof ring detect relay, (external to telephone)
- **P7231** 24 Volt Explosion Proof off-hook detect relay, (external to telephone)
- **P7233** 48 Volt Explosion Proof off-hook detect relay, (external to telephone)
- Loud Ringers and Strobe Lights

Overview

WTR-41-H Water Tight Hazardous Area Ringdown/Autodialer Telephone

Guardian's WTR-41-H Telephone offers maximum efficiency under extreme environmental and hazardous area conditions. The sturdy Thermoplastic Resin enclosure protects the internal circuitry against wind blown dust and rain, corrosion, splashing and high pressure water.

It has a CSA Type 4X rating, and is approved for use in Class I, Division 2 Groups A, B, C & D; Class I, Zone 2, Group IIC Hazardous Locations. These compliances make this the ideal telephone for use in wet or corrosive atmospheres such as chemical plants and offshore platforms.

Features

Enclosure

- Thermoplastic Resin body construction
- weatherproof and corrosion resistant
- spring loaded door (locking latch optional)

Encapsulated Circuitry

- encapsulated circuit boards are resistant to corrosive agents (e.g. H₂S, SO₂ and NH₃) and environments with high humidity

Magnetic Reed Hook Switch

- No moving parts

Surge Arrestor and Field Replaceable Fuse

- Prevents injury to the user and damage to the electronic circuitry in the event of a high voltage spike on the telephone line

Wall Mount

- Easily mounted on any sturdy vertical structure
- Pole mounting kit available

Noise Reducing Microphone

- allows a high level of intelligibility in locations with high background noise

Receiver Volume Control

- Switch in handset provides 13.5dB of range

Hearing-Aid Compatible

- compatible with inductively coupled hearing-aid devices

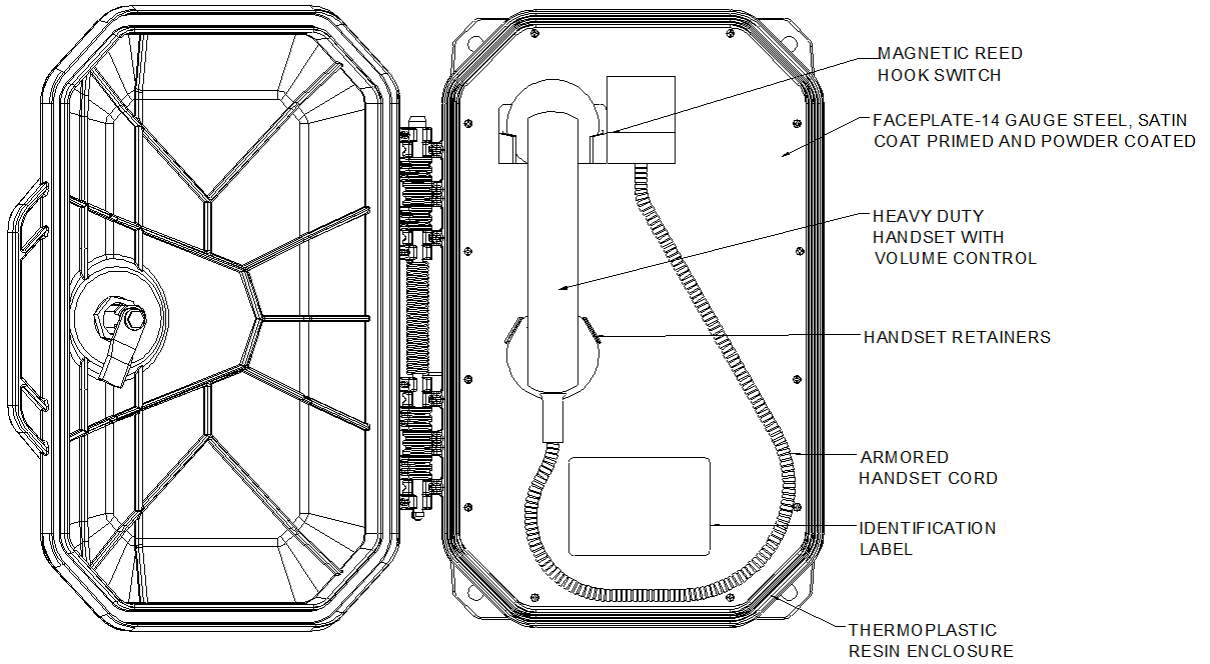


Figure 1 - Features

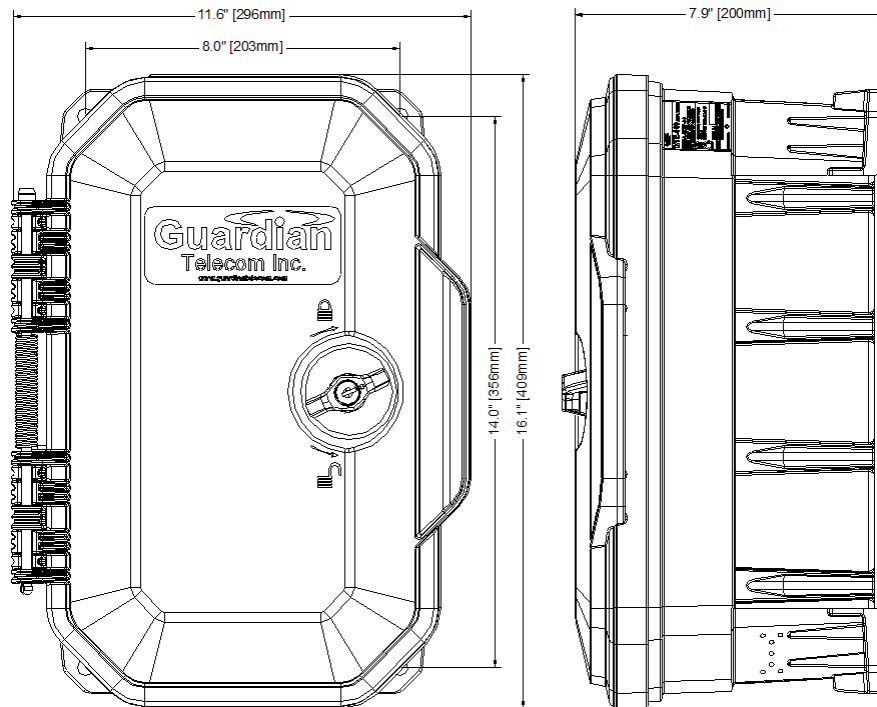


Figure 2 - Dimensions & Mounting

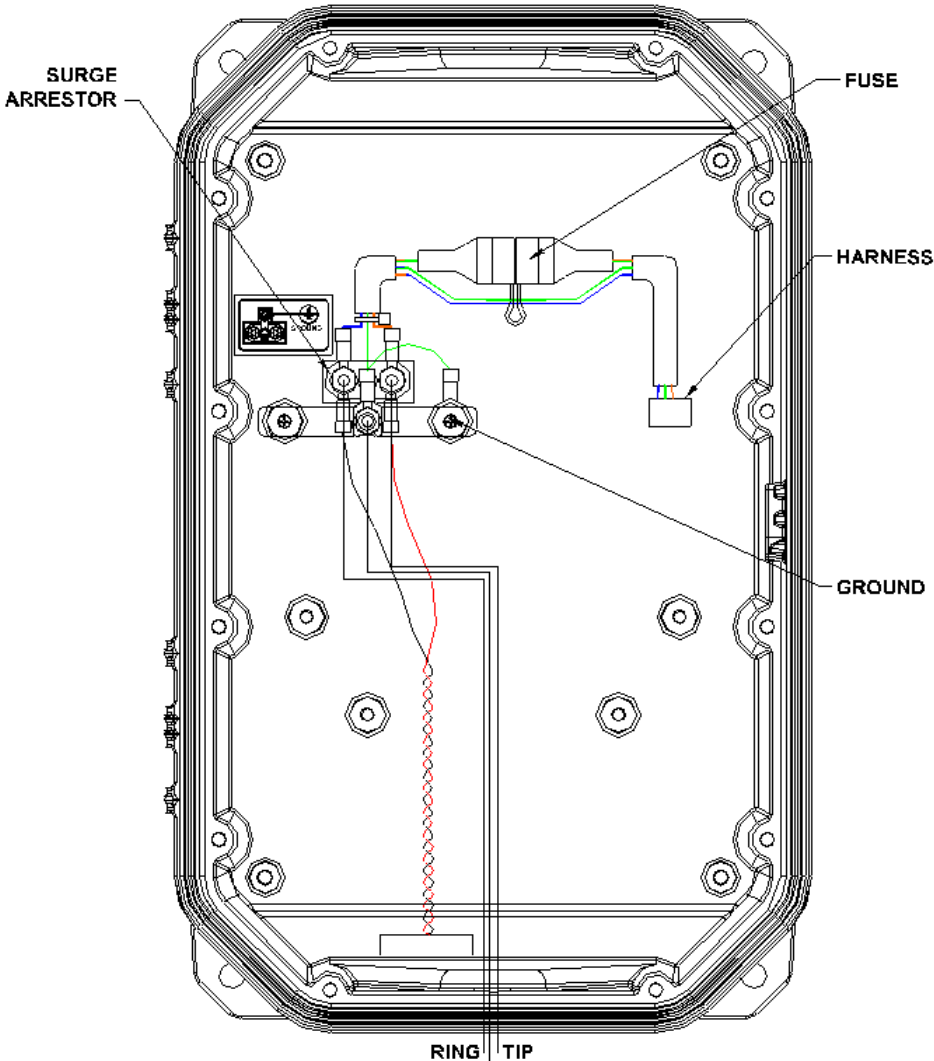


Figure 3 - Installation

Installing the WTR-41-H

- Follow all appropriate electrical codes and use only approved electrical fittings for the installation.
- For waterproofing purposes ensure all glands and conduits are properly gasketed.
- Choose a wall location that is free of obstructions and permits space for ½" NPT conduit runs.
- Ensure mounting can support 16 lbs (7.3 kg) and any additional foreseeable load.
- Ensure that none of the electrical connection circuits are live.
- Separate the faceplate from the housing by removing the two temporary, factory installed screws and unplugging the wiring harness from the faceplate.
- Use the template provided or the enclosure itself to locate and drill holes for mounting screws.
- Secure the unit to the wall.
- Bring cable into the enclosure through the conduit entrance and attach individual wires from the exchange (Tip/Ring/Ground) to the surge arrestor, (Tip & Ring are not polarity sensitive.). If a conduit hub is used, ensure it is grounded to the ground stud.
- Plug the wiring harness back into the faceplate and secure the faceplate using the screws provided.
- Close up unused cable entrances with approved plugs.
- Connect the telephone lines at the local exchange or demarcation block.
- The WTR-41-H Telephone may be supplied with an optional Auto Dialer or dialing may be configured by the PABX. If an Auto Dialer is ordered with the WTR-41-H, refer to the manual for the Auto Dialer for instructions on programming and for compliances.
- Test the unit by making calls to and from another station.

See: Figure 2 - Dimensions.

Tip: Use ¼" or M8 screws to secure the unit to the wall.

See: Figure 3 - Installation

Note: If Vandal Resistant screws were ordered as an option a special driver bit will be provided with them.

Operating the WTR-41-H

- The WTR-41-H Ringdown/Autodialer phone is designed for automatic calling simply by removing the handset from the cradle.

Field Repairs

Field repairs may only be carried out by qualified technicians using OEM parts. Substitution of parts voids warranty and may pose a hazard to users of the equipment.

- Disconnect the telephone from Tip and Ring power supplied by the PABX or central office.
- 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.
- Perform the necessary repairs or adjustments.
- Carefully replace the front plate and install all twelve 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

- Remove the old fuse by pulling on the ends of the fuse holder to open. Insert a new 0.25 amp, 250Volt, 3AG fast blow fuse and close the fuse holder.

WARNING!

- Replace only with a 0.25 amp 250V 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.

See: Figure 3 -
Installation &
Replacement Parts

See: Figure 3 -
Installation

Product Specifications

<i>ELECTRICAL PERFORMANCE</i>	
AUDIBLE RANGE FREQUENCY RESPONSE	300 – 3400 Hz
TRANSMIT OBJECTIVE LOUDNESS RATING (TOLR)	-38 +/- 4 dB
RECEIVE OBJECTIVE LOUDNESS RATING (ROLR)	TYPICAL 50 +/- 3 dB
SIDE TONE OBJECTIVE LOUDNESS RATING (SOLR)	TYPICAL 11 +/- 4 dB
RINGER OUTPUT	85 dB @ 1m
FCC RINGER EQUIVALENC	0.8B
SET IMPEDANCE	600 OHMS NOMINAL
MAXIMUM LOOP	15,000 FEET (4,600 METERS) OF 22 AWG COPPER
<i>ELECTRICAL REQUIREMENTS</i>	
RINGER SENSITIVITY	40 – 100 V, 16 – 25 Hz
LINE VOLTAGE	24 – 56 VDC
LOOP CURRENT	20 - 120 mA
CONNECTION METHOD	SURGE ARRESTOR
FUSE	¼ AMP 250 VOLT 3AG FAST BLOW
<i>ENVIRONMENTAL</i>	
WEATHERPROOF	ENCLOSURE NEMA 4X, IP66
TEMPERATURE	-40° TO +122° F (-40° TO +50° C)
HUMIDITY	0 TO 100% RH
DUST RESISTANT	FULL ENCLOSURE GASKET
<i>MECHANICAL</i>	
HOOK SWITCH (CRADLE SWITCH) LIFE	>1 000 000 OPERATIONS
BODY CONSTRUCTION	THERMOPLASTIC RESIN
DIMENSIONS	16.1 x 11.6 x 7.9 INCHES (409 x 296 x 200)
NET WEIGHT	16 LBS (7.3 KG)
HANDSET MATERIAL	HIGH IMPACT ABS
MICROPHONE	NOISE REDUCING ELECTRET
OPTIONAL MICROPHONE	NOISE CANCELING DYNAMIC
RECEIVER	HEARING AID COMPATIBLE
STANDARD MOUNTING	VERTICAL WALL
CONNECTION FITTINGS	½" NPT THREADED OPENINGS
HARDWARE MATERIAL	STAINLESS STEEL

Compliance

DOC	1012 6721 A
FCC	HQHCAN-22517-TE-E
CSA	CLASS I, DIVISION 2 GROUPS A, B, C & D; CLASS I, ZONE 2, GROUP IIC
WATER TIGHT ENCLOSURE	CSA TYPE 4X, IP66

Replacement Parts

Part No.	Description
P006965	Faceplate
P006499	Gasket – Faceplate
P004050	Faceplate Screws – standard – (12 required)
P007004	Faceplate Screws – Vandal Resistant – (12 required)
P004260	Driver Bit for Vandal Resistant Screws
P005479	Handset Shell Only C/W 6' Curly Cord
P002786	Handset Cradle
P004371	Handset Retainer
P000028	Microphone Cartridge – Noise Reducing
P004538	Microphone Cartridge – Noise Canceling
P002080	Receiver Cartridge
P005699	Handset Assembly C/W Armored Cord and Noise Reducing Microphone
P005582	Telephone Circuit Board
P006646	Ringer – Floyd Bell BR-3
P005917	Reed Switch
P002992	Surge Arrestor – TII 126L1
P002991	Fuse – Glass 0.25 Amp 250V 3AG
P006442	Housing
P006441	Door
P006440	Hinge Pin
P006439	Hinge Spring
P006460	Door Latch – (non-locking)
P006461	Door Latch – (locking)

Government Certification

Attached to the telephone are labels for *Industry Canada* and the *United States Federal Communications Commission*. These identify equipment certifications indicating the 60 and 70 series telephones meet certain telecommunications network protective, operational and safety requirements. These agencies do not guarantee the equipment will operate to the user's satisfaction.

Before installing this telephone equipment, users should ensure it is permissible to connect the equipment to facilities of the local telecommunications company.

Equipment must be installed using acceptable connection methods. In some cases, the telephone users inside wiring, associated with a single line service, may be extended by a certified connector assembly (telephone extension cord). The customer should be aware that in some situations compliance with the above conditions may not prevent degradation of service.

Repairs to certified equipment should be made by a supplier designated authorized maintenance facility.

For their own protection users should ensure the electrical ground connections of the power utility, telephone lines and internal metallic water pipe systems, if present, are connected. This precaution may be particularly important in rural areas.

CAUTION: Users should not attempt to make ground connections, but should contact the appropriate electrical inspection authority or electrician.

Load Number (LN)

The Load Number (LN) assigned to each terminal device denotes the percentage of the total load to be connected to a telephone loop used by the device. Termination on a loop may consist of any combination of devices subject only to the requirement that the total of the Load Numbers of all the devices does not exceed 100.

Notification to Telephone Company

Upon request, the customer must notify the telephone company of the particular line to which the connection will be made and provide the Industry Canada or FCC registration number. The local telephone company may request disconnection of the telephone where alterations or malfunctions affect the telephone's performance.

United States Federal Communications Commission

This equipment generates, uses and can radiate radio frequency energy, and if not installed and used in accordance with the instruction manual, may cause interference to radio communications. It has been tested and found to comply with the limits for Class A computing device pursuant to Subpart J of Part 15 of FCC rules, which are designed to provide reasonable protection against such interference when operated in a commercial environment. Operation of this equipment in a residential area is likely to cause interference in which case the user, at his own expense, will be required to take whatever measures may be required to correct the interference.

Interference

There is no guarantee that interference will not occur in a particular installation. If interference to radio or television reception from this equipment is suspected, proceed as follows:

1. Unplug the set, check for the interference.
2. Re-orient the receiving antenna.
3. Relocate the set with respect to the receiver.
4. Move the set away from the receiver.

If necessary, consult the supplier or an experienced radio/television technician for additional suggestions.

FCC Rules and Ringer Equivalence Number

This equipment complies with Part 68 of the FCC Rules. On the side of this equipment is a label that contains, among other information, the FCC registration number and ringer equivalence number (REN) for this equipment. If requested, this information must be provided to the telephone company.

The REN is used to determine the quantity of devices which may be connected to the telephone line. Excessive RENs on the telephone line may result in the devices not ringing in response to an incoming call. In most, but not all areas, the sum of the RENs should not exceed five. To be certain of the number of devices that may be connected to the line, as determined by the total RENs, contact the telephone company to determine the maximum REN for the calling area.

Service changes and Limitations

The telephone company may make changes in its facilities, equipment, operations, or procedures that could affect the operation of the equipment. If this happens, the telephone company will provide advance notice in order for you to make the necessary modifications in order to maintain uninterrupted service.

This equipment can not be used on public coin telephone service as provided by your telephone company. Connection to party line service is subject to state tariffs (contact the state public utility commission, public service commission or corporate commission for information.)

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.

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

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

High voltages may be present in this product when connected to telephone wiring.

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 Inc.

Toll-free 1-800-363-8010

Ph. (403) 258-3100

Fax. (403) 253-4967

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, 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.

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.

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