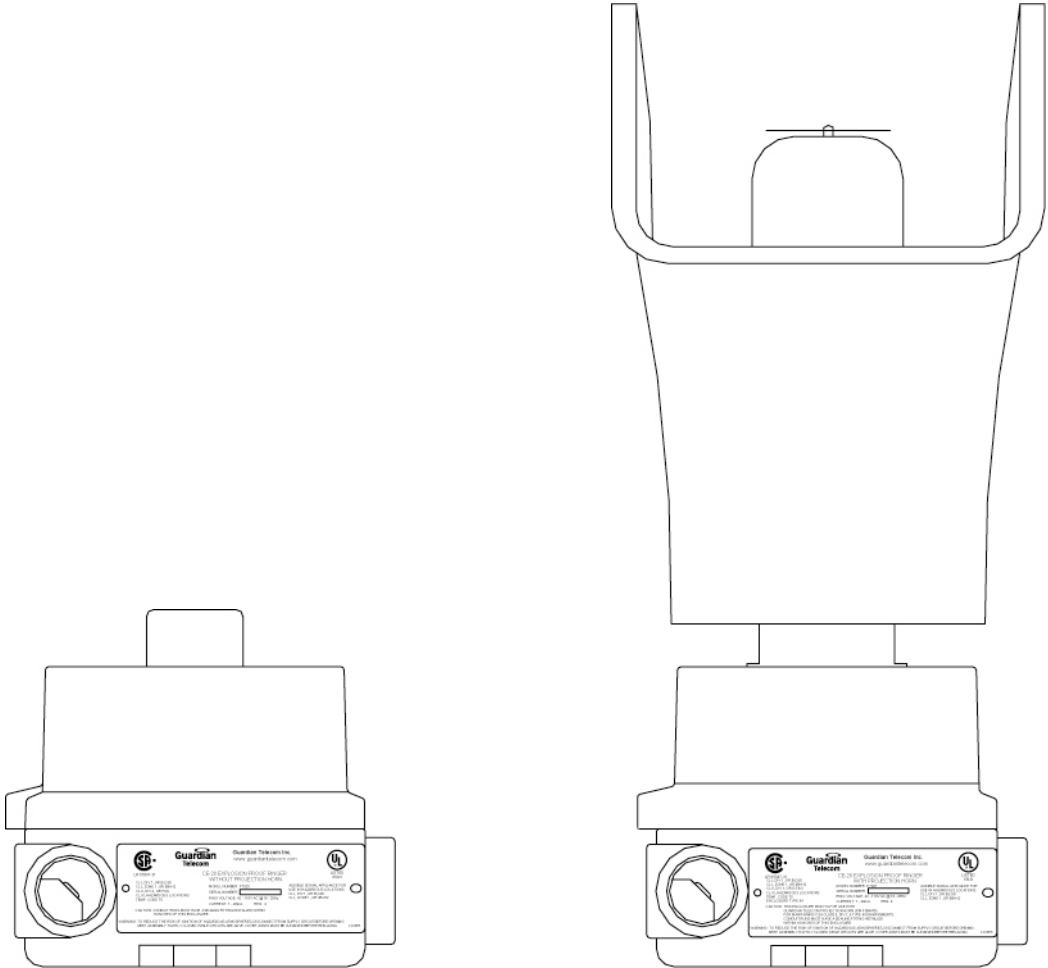


Explosion Proof Line Powered Telephone Ringer

Model CE20

Installation and Operation



P7020 CE20 Without Projection Horn	P7021 CE20 With Projection Horn
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Table of Contents

Package Contents	2
Models	2
Overview	3
Features	3
Installing the CE20	7
Maintenance	7
Specifications	8
Warranty	9
Disclaimer	9
Warning	9
Service Telephone Number	9
Feedback	9
Guardian Product Return	10
Storage	11

Table of Figures

Figure 1 - Overall Dimensions	4
Figure 2 - Electrical Connections	4
Figure 3 - Wiring Alternatives	5
Figure 4 - Exploded Assembly	6

Package Contents

- (1) CE20 Explosion Proof Line Powered Ringer
- (1) Installation & Operation Manual

Models

- P7020 Without Projection Horn
- P7021 With Projection Horn

Overview

CE20 Explosion Proof Line Powered Telephone Ringer

The CE20 is an Industrial Telephone Ringer designed to provide safe, reliable service in hazardous areas. It is telephone line powered requiring no additional source of power. The unit is housed in a rugged, weather and corrosion resistant enclosure that ensures operation in severe conditions.

The CE20 responds to an incoming ringing signal of 42 to 110 VAC at 16 to 25 Hz.

Features

Enclosure

- cast copper free aluminum, powder coated

Flame Arrestor

- Sintered Bronze

Sound Levels

- 90dB at one meter with projection horn, 75dB without horn

Compatibility

- Compatible with any telephone system having ringing voltage, frequency and power available within the specified range

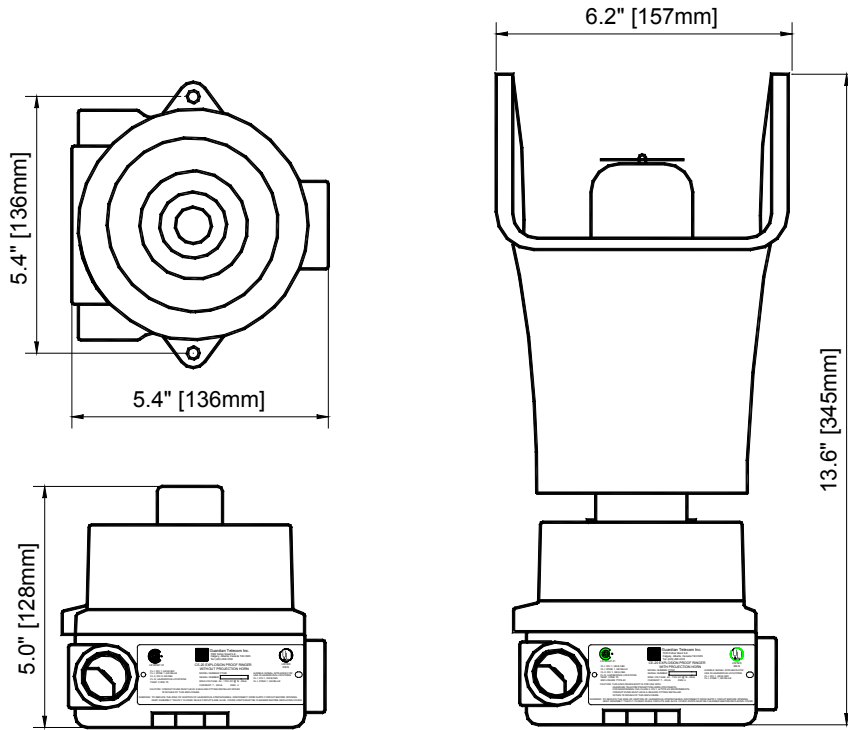


Figure 1 - Overall Dimensions

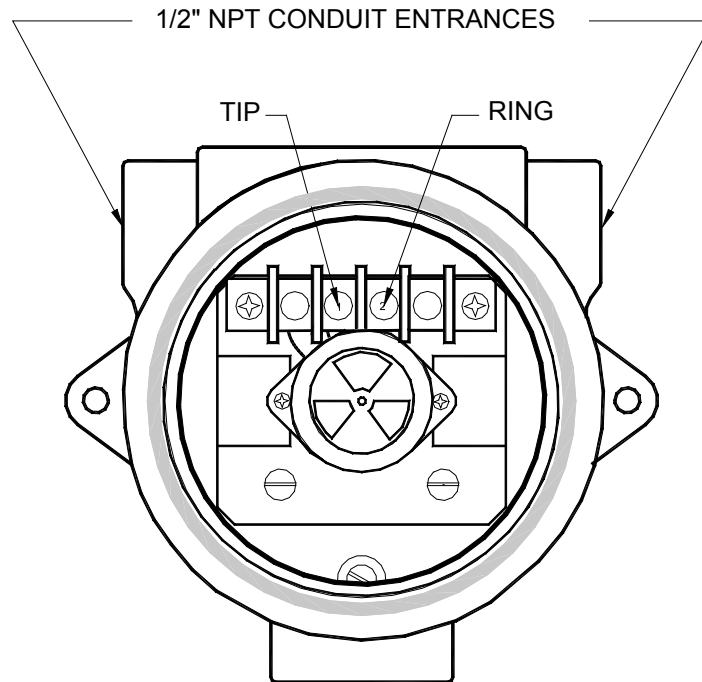


Figure 2 - Electrical Connections

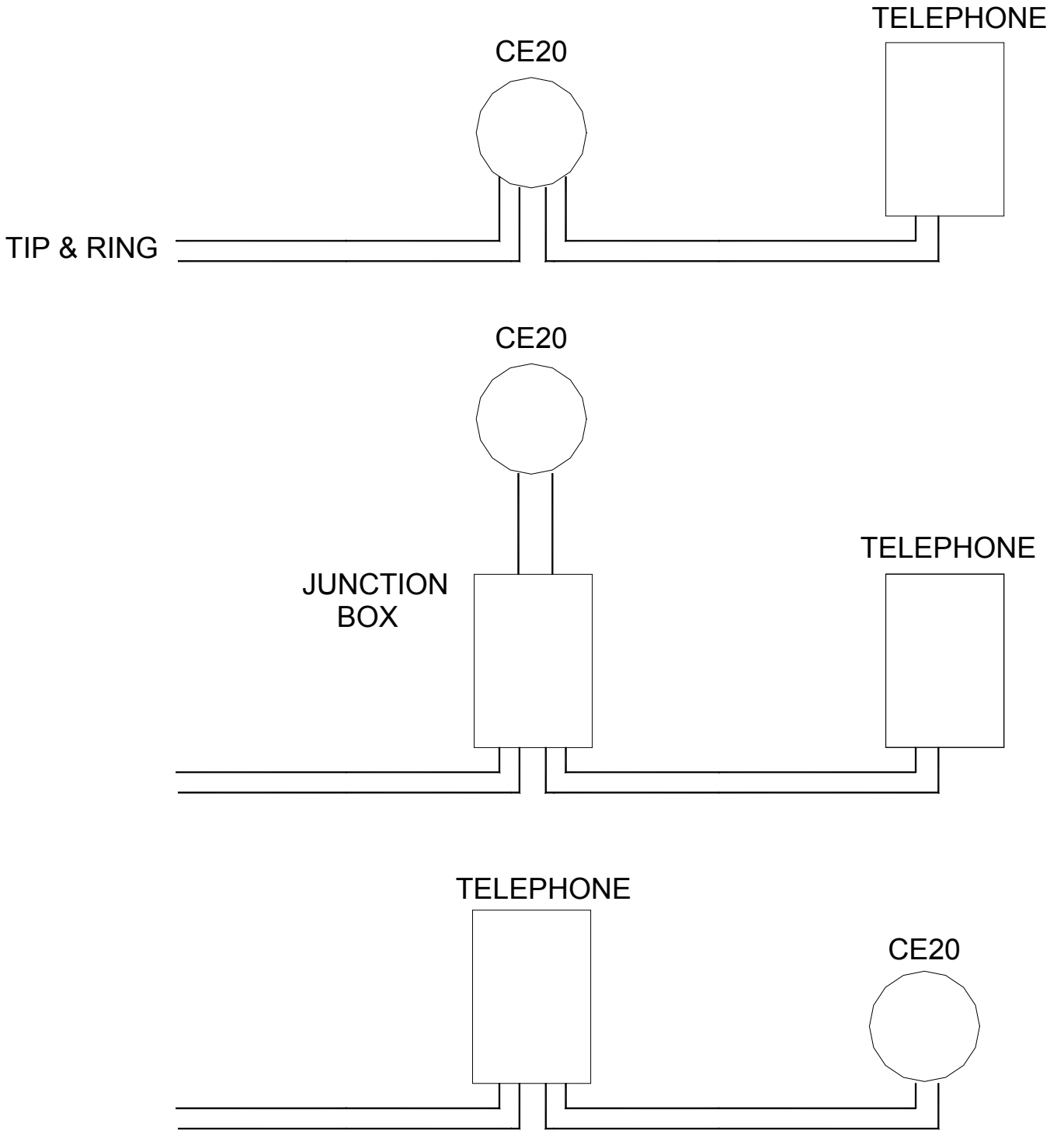


Figure 3 - Wiring Alternatives

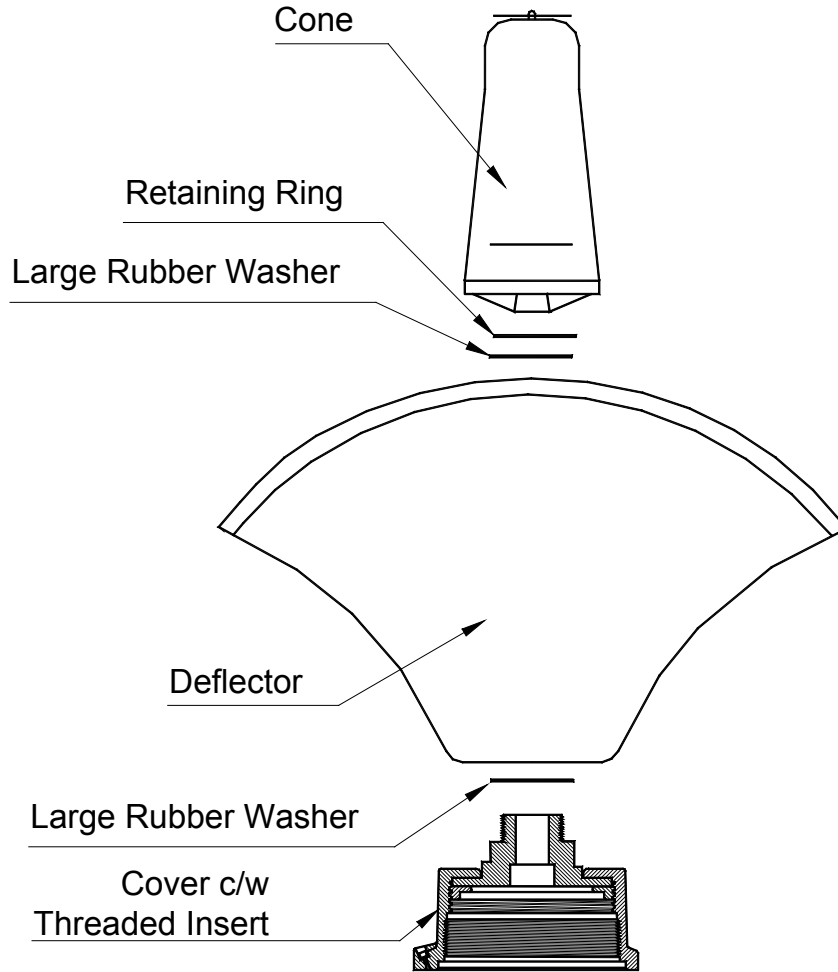


Figure 4 - Exploded Assembly

Installing the CE20

Note: The CE20 must be connected to the tip and ring conductors associated with the telephone for which the additional alerting signal is required. The connection may be made either before or after the telephone or it may branch off from a junction box.

- **Declassify the hazardous location before proceeding with any installation or electrical wiring.**

WARNING

Do not connect this device to any power source other than telephone tip and ring, doing so will destroy the circuitry and void the warranty.

- 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 ½” NPT conduit runs.
- Ensure mounting can support 5 lbs (2.3 kg) and any additional anticipated load.
- Ensure that none of the electrical connection circuits are live.
- Secure the unit using screws or bolts through the mounting tabs.
- Remove the screw cover.
- Run tip and ring wiring to the unit using appropriate electrical fittings.
- Attach the telephone tip and ring leads to the terminal strip.
- Replace the screw cover ensuring that the faces of the cover and the enclosure are in contact.
- Apply power to the system.
- Test the unit by calling from another unit on the exchange.

See: Figure 3 - Wiring Alternatives

Caution: Installation or electrical wiring in a hazardous location could result in serious injury to personnel or damage to property.

See: Figure 1 - Overall Dimensions

Tip: Use #8 or M4 screws or equivalent bolts to secure the unit to the wall.

See: Figure 2 - Electrical Connections

Maintenance

- **Declassify the hazardous location or disconnect the line before proceeding with any maintenance or repairs.**
- To maintain hazardous area compliance the only field repair permitted is the replacement of the driver assembly. All other repairs or alterations must be carried out by Guardian Telecom or an Authorized Service Depot. See **Warranty and Disclaimer for details.**
- When replacing the screw cover ensure that the faces of the cover and the enclosure are in contact.

Specifications	
Electrical Performance	
RINGER OUTPUT P7020 (WITHOUT PROJECTION HORN) P7021 (WITH PROJECTION HORN)	75dB @ 1M 90dB @ 1M
IMPEDANCE	600 OHMS NOMINAL
MAXIMUM LOOP	15,000 FT (4,600 M) OF 22 AWG COPPER
RINGER EQUIVALENCE NUMBER (REN)	0.9B
Electrical Requirements	
RINGER SENSITIVITY	40 - 100 VAC, 16 - 25 Hz
CONNECTION METHOD	TERMINAL BLOCK
Environmental	
WEATHER AND CORROSION RESISTANT	ENCLOSURE CSA 4X
TEMPERATURE	-40° TO +60° C (-40° TO +140° F)
HUMIDITY	0 TO 95% RH NON-CONDENSING
Mechanical	
BODY CONSTRUCTION	COPPER FREE CAST ALUMINUM WITH EPOXY POWDER COAT
FLAME ARRESTOR	SINTERED BRONZE
DIMENSIONS (H x W x D) P7020 (WITHOUT PROJECTION HORN) P7021 (WITH PROJECTION HORN)	136 x 136 x 128 MM (5.4 x 5.4 x 5.0 INCHES) 157 x 360 x 345 MM (6.2 x 14.2 x 13.6 INCHES)
NET WEIGHT P7020 (WITHOUT PROJECTION HORN) P7021 (WITH PROJECTION HORN)	1.6 KG (3.5 LBS) 2.7 KG (6 LBS)
SHIPPING WEIGHT P7020 (WITHOUT PROJECTION HORN) P7021 (WITH PROJECTION HORN)	1.8 KG (4 LBS) 3.4 KG (7.5 LBS)
SHIPPING DIMENSIONS P7020 (WITHOUT PROJECTION HORN) P7021 (WITH PROJECTION HORN)	9.0" x 6.0" x 5.5" (229 x 153 x 140 mm) 16.0" x 10.5" x 9.5" (407 x 267 x 242 mm)
WIRING ACCESS	½ INCH NPT CONDUIT ENTRANCES
Compliance	
CANADIAN STANDARDS ASSOCIATION (CSA)	REFERENCE NUMBER: LR65547-31
P7020 (without horn)	CLASS I, DIVISION 1, GROUPS B, C AND D CLASS I, ZONE 1, GROUPS IIB+H2 CLASS II, DIVISION 2, GROUPS F AND G CLASS III, HAZARDOUS LOCATIONS TEMPERATURE CODE T5
P7021 (with horn)	CLASS I, DIVISION 1, GROUPS B, C AND D CLASS I, ZONE 1, GROUPS IIB+H2 CLASS II, DIVISION 1, GROUPS E, F AND G CLASS III, HAZARDOUS LOCATIONS TEMPERATURE CODE T5 ENCLOSURE TYPE 4X
UNDERWRITERS LABORATORIES (UL) ALL MODELS	LISTED 66LN CLASS I, DIVISION 1, GROUPS B, C AND D CLASS I, ZONE 1, GROUPS IIB+H2

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

For the purposes of installing the product and performing maintenance or repairs this device may be opened and reassembled by qualified personnel, following the instructions in the product manual. In the cases of explosion proof and hazardous area devices it is imperative that mating surfaces be clean and undamaged prior to reassembly and that fasteners be made up to the specified torque.

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

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
<p>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.</p>
<p><i>Step I - On-Site Correction</i></p>
<ul style="list-style-type: none"> • 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.
<ul style="list-style-type: none"> • 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.
<ul style="list-style-type: none"> • Connecting this device to a standard power source, rather than tip & ring, will destroy the circuitry and void the warranty.
<p><i>Step II - Return Materials Authorization (RMA)</i></p>
<ul style="list-style-type: none"> • 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.
<ul style="list-style-type: none"> • 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.
<ul style="list-style-type: none"> • 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.
<ul style="list-style-type: none"> • (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.")
<p><i>Step III - Factory Authorized Service</i></p>
<ul style="list-style-type: none"> • 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.
<ul style="list-style-type: none"> • 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.

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.



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