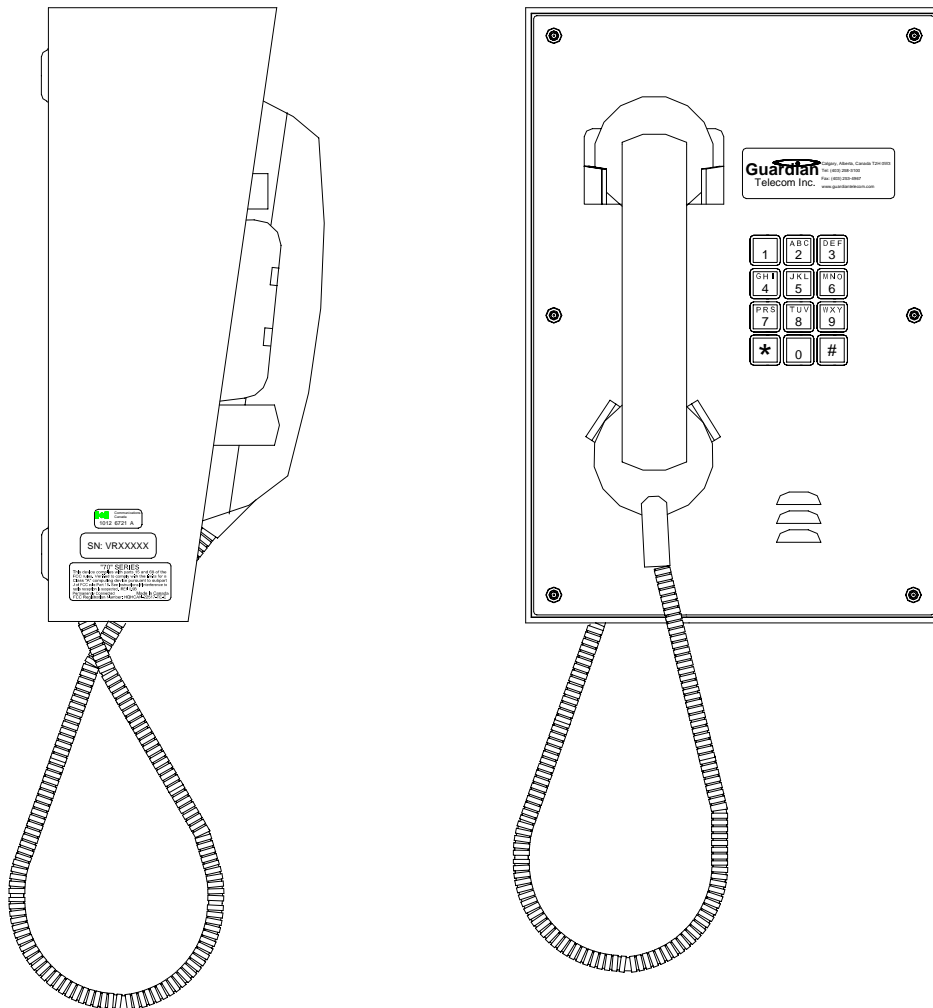


# Vandal Resistant Telephone

## Model VR70

### Installation & Operation



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## **Package Contents**

- (1) VR70 Telephone
- (6) Vandal Resistant Screws
- (1) Driver Bit
- (1) Installation & Operation Manual

## Overview

### ***VR70 Vandal Resistant Telephone***

The VR70 Telephone is designed to provide safe, reliable communication in harsh environments and locations prone to vandalism.

## Features

### ***Enclosure***

- 12 AWG steel, zinc chromate plated and powder coated

### ***Keypad***

- durable metal standard 3 x 4 keypad

### ***Encapsulated Circuitry***

- the circuit board is encapsulated by an epoxy resin making it resistant to corrosive agents (e.g. H<sub>2</sub>S, SO<sub>2</sub> and NH<sub>3</sub>) and environments with high humidity

### ***Hook Switch***

- magnetic reed hook switch, no moving parts

### ***Surge Arrestor***

- 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

### ***Receiver Volume Control (Optional On Model P5012)***

- Switch in handset provides 13.5dB of range

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

- compatible with inductively coupled hearing-aid devices

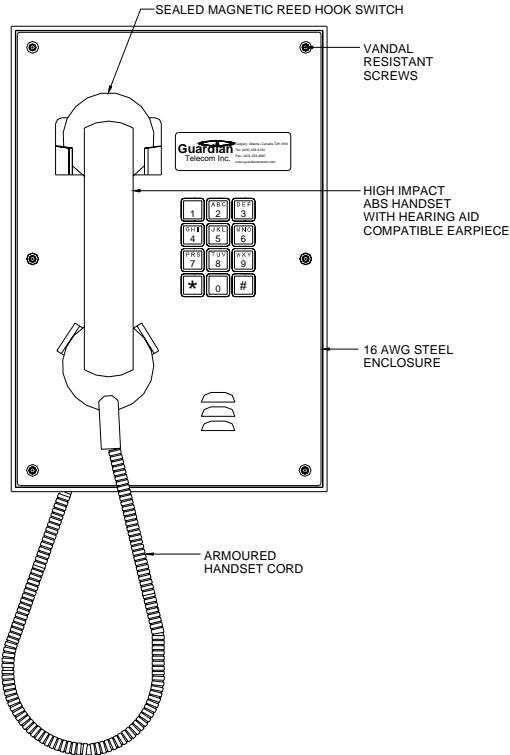


Figure 1 - Features

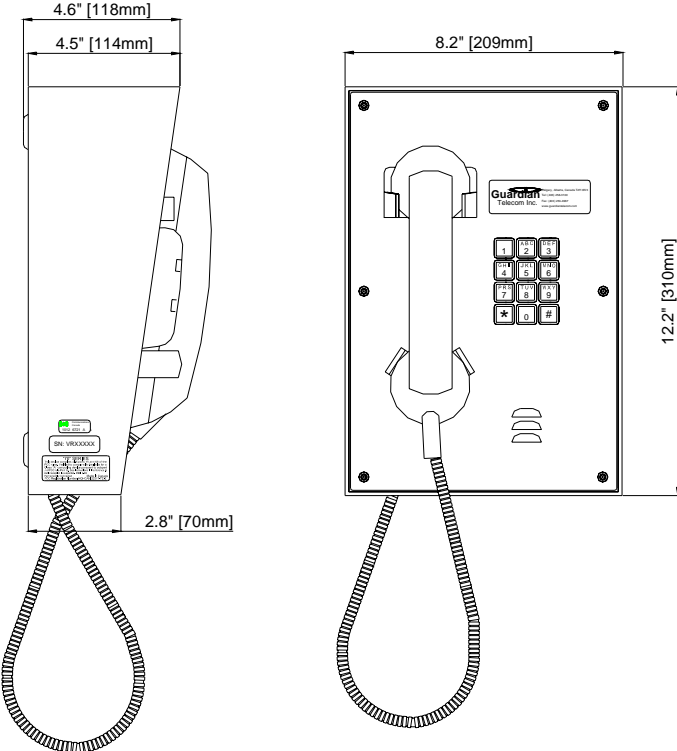


Figure 2 - Dimensions

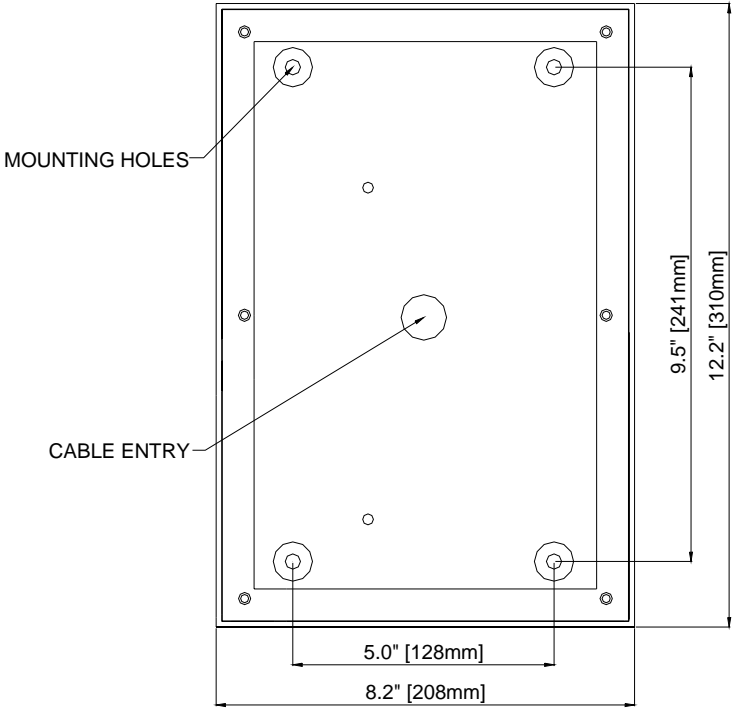


Figure 3 - Mounting

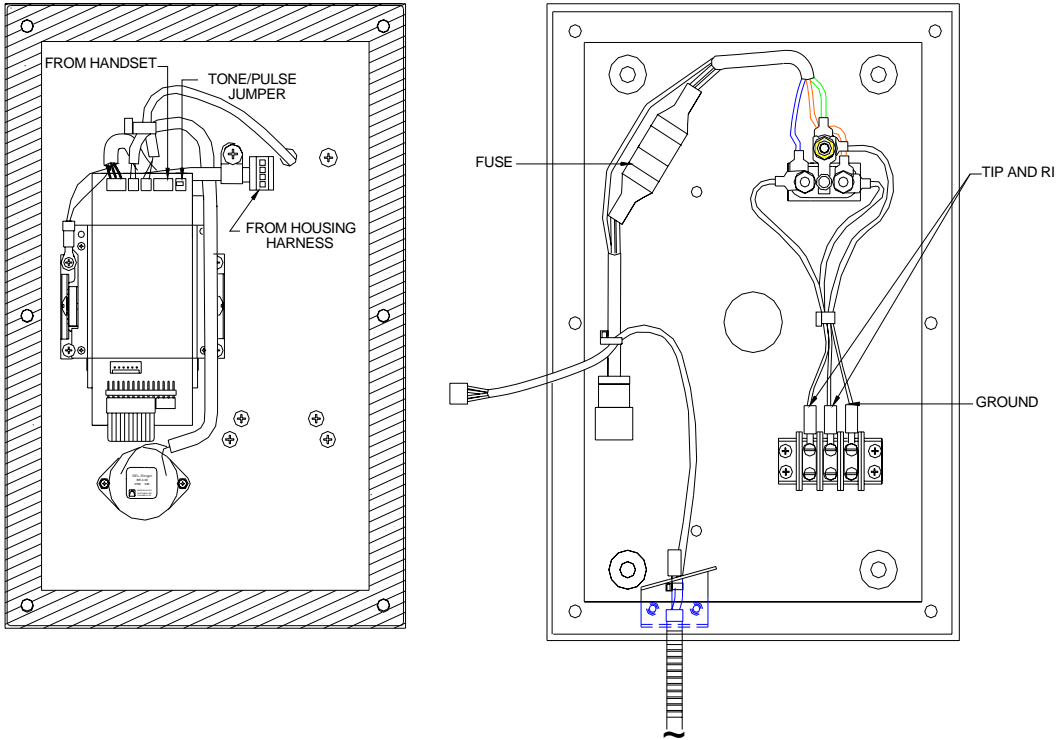


Figure 4 - Electrical Connections

### Installing the VR70

- 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 mounting and wiring.
- Ensure mounting can support 14lbs (6.4kg) plus any additional, foreseeable load.
- Ensure that none of the electrical connection circuits are live.
- Remove the two Phillips screws from the faceplate and remove the faceplate.
- Disconnect the faceplate from the enclosure by unplugging the connectors.
- Use the enclosure as a template to locate and drill holes for mounting screws.
- Install the telephone lines and ground wire from the local exchange into the housing, to be attached after mounting.
- Secure the unit to the wall.
- Connect an approved earth ground to the ground terminal.
- Connect the TIP/RING wires from the PABX or CO to the Orange and Blue wires on the terminal strip. (The unit is not polarity sensitive.)
- To change the Tone/Pulse setting to pulse, if required:
  - Move the jumper from pins 1 & 2 of the Tone/Pulse connector to pins 2 & 3.
  - To change the setting back to tone move the jumper back to pins 1 & 2.
- Ensure all connections are tight, then replace the faceplate and secure with six Vandal Resistant screws using the drive bit provided.
- Connect the telephone line wiring into the system.
- Test the unit by calling from another unit on the exchange.
- Store the vandal resistant screwdriver bit in a secure place for future use.

**See:** Figure 2 - Dimensions

**Note:** Be careful when removing the faceplate. The circuit board is on the faceplate.

**See:** Figure 3 - Mounting.

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

**Tip:** The VR70 is factory preset for DTMF tone.

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

### 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

<b>Engineering Specifications</b>	
<b><i>Electrical Performance</i></b>	
AUDIBLE RANGE FREQUENCY RESPONSE	300 – 3400 Hz
DIALING METHOD	DTMF OR 40/60 PULSE AT 10 PPS
TRANSMIT OBJECTIVE LOUDNESS RATING (TOLR)	-41 +/- 3 dB
RECEIVE OBJECTIVE LOUDNESS RATING (ROLR)	
-AT NOMINAL VOLUME LEVEL	50 +/- 3 dB
-AT MAXIMUM VOLUME LEVEL	42 +/- 3 dB (ONLY AVAILABLE ON MODEL P5012)
-AT MINIMUM VOLUME LEVEL	55.5 +/- 3 dB ( " " " " " )
SIDE TONE OBJECTIVE LOUDNESS RATING (SOLR)	
-AT NOMINAL VOLUME LEVEL	11 +/- 4 dB
-AT MAXIMUM VOLUME LEVEL	7 +/- 4 dB (ONLY AVAILABLE ON MODEL P5012)
-AT MINIMUM VOLUME LEVEL	14 +/- 4 dB ( " " " " " )
RINGER OUTPUT	>85 dB
FCC RINGER EQUIVALENCE	0.8A
SET IMPEDANCE	600 OHMS NOMINAL
MAXIMUM LOOP	15,000 FT (4,600 M) OF 22 AWG COPPER
<b><i>Electrical Requirements</i></b>	
RINGER SENSITIVITY	40 – 100 V, 16 – 25 Hz
LINE VOLTAGE	24 – 56 VDC
LOOP CURRENT	20 - 120 MA
CONNECTION METHOD	SURGE ARRESTOR / TERMINAL BLOCK
<b><i>Environmental</i></b>	
WEATHERPROOF	ENCLOSURE 3R
TEMPERATURE	-40° TO +140° F (-40° TO +60° C)
HUMIDITY	0 TO 95% RH
DUSTPROOF	FULL ENCLOSURE GASKET
<b><i>Mechanical</i></b>	
HOOK SWITCH (CRADLE SWITCH) LIFE	>1 000 000 OPERATIONS
BODY CONSTRUCTION	12 AWG STEEL, ZINC DICHROMATE PLATED AND POWDER COATED
DIMENSIONS	8.2 x 12.2 x 4.6 INCHES (208 x 310 x 114 MM)
NET WEIGHT	14 LBS (6.25 KG)
HANDSET MATERIAL	HIGH IMPACT ABS
MICROPHONE	NOISE REDUCING ELECTRET
OPTIONAL MICROPHONE	NOISE CANCELING DYNAMIC

RECEIVER	HEARING AID COMPATIBLE
STANDARD MOUNTING	VERTICAL WALL
CONNECTION ACCESS	THROUGH 7/8" CONDUIT HOLE IN BACK OF ENCLOSURE
HARDWARE MATERIAL	STAINLESS STEEL
<b>Compliances</b>	
DOC	1012 6721 A
FCC	HQHCAN-22517-TE-E



### **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 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.

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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.

<b>Guardian Product Return</b>
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.
<b><i>Step I - On-Site Correction</i></b>
<ul style="list-style-type: none"> <li>• 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.</li> <li>• 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.</li> <li>• Connecting a telephone to a standard power source, rather than tip &amp; 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.</li> </ul>
<b><i>Step II - Return Materials Authorization (RMA)</i></b>
<ul style="list-style-type: none"> <li>• 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 <a href="http://www.guardiantelecom.com">www.guardiantelecom.com</a>, or by calling the service telephone number given in this manual.</li> <li>• 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.</li> <li>• 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.</li> <li>• (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.")</li> </ul>
<b><i>Step III - Factory Authorized Service</i></b>
<ul style="list-style-type: none"> <li>• 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.</li> <li>• 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.</li> </ul>



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