Industrial Ringdown/Autodialer Telephone
Model HR71

Installation & Operation
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Package Contents

(1) HR71 Telephone
(1) Installation & Operation Manual
Overview

HR 71 Industrial Ringdown/Autodialer Telephone
The HR71 is a rugged industrial telephone designed to provide safe, reliable, point to point communication in harsh environments such as refineries, mills, plants, warehouses or areas with high humidity.

The HR71 Telephone may be supplied with an optional Auto Dialer or dialing may be programmed through a PABX. If an Auto Dialer is ordered with the HR71 refer to the manual for the Auto Dialer for instructions on programming and for compliances.

Features

Enclosure
• 16 AWG steel, zinc chromate plated and powder coated

Epoxy Resin Coating
• encapsulates all parts on main circuit board
• resistant to corrosive agents (eg. H₂S, SO₂, and NH₃), and high humidity

Magnetic Reed Hook Switch
• no moving parts

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

Noise Reducing Microphone
• allows a high level of intelligibility in locations with high background noise.

Heavy Duty Handset Cord
• withstands abusive use

Hearing-Aid Compatibility
• compatible with inductively coupled hearing-aid devices
Figure 1 - Overall Dimensions

Figure 2 - Installation
Installing the HR71

- 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 4 lbs. (1.8 kg) and any additional foreseeable load.
- 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 plugs.
- Attach the back box to the wall at the desired location using four (4) #8 screws. If weather resistance is important in your application select washers that will assist in sealing the mounting holes.
- Connect cable or conduit (1/2 inch trade size) to the entrance at the bottom of the unit.
- Connect an approved earth ground to the terminal block.
- Bring cable into the enclosure through the conduit entrance and attach individual wires from the exchange (Tip/Ring/Ground) to the connector (Tip & Ring are not polarity sensitive). If a conduit hub is used, ensure it is grounded to the ground stud.
- Apply power to the system.
- The HR71 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 HR71, refer to the manual for the Auto Dialer for instructions on programming and for compliances.
- Test the unit by calling to and from another unit on the exchange.

Operating the HR71

- The HR71 Ringdown/Autodialer phone is designed for automatic calling simply by removing the handset from the cradle.
## Engineering Specifications

### Electrical Performance

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Audible Range Frequency Response</td>
<td>300 – 3400 Hz</td>
</tr>
<tr>
<td>Transmit Objective Loudness Rating (TOLR)</td>
<td>-41 +/- 4 dB</td>
</tr>
<tr>
<td>Receive Objective Loudness Rating (ROLR)</td>
<td>Typical 52 +/- 3 dB</td>
</tr>
<tr>
<td>Side Tone Objective Loudness Rating (SOLR)</td>
<td>Typical 11 +/- 4 dB</td>
</tr>
<tr>
<td>Ringer Output</td>
<td>&gt;80 dB</td>
</tr>
<tr>
<td>FCC Ringer Equivalence</td>
<td>0.9B</td>
</tr>
<tr>
<td>Set Impedance</td>
<td>600 OHMS Nominal</td>
</tr>
<tr>
<td>Maximum Loop</td>
<td>15,000 FEET (4,600 METERS) OF 22 AWG COPPER</td>
</tr>
</tbody>
</table>

### Electrical Requirements

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ringer Sensitivity</td>
<td>40 – 100 V, 16 – 25 Hz</td>
</tr>
<tr>
<td>Line Voltage</td>
<td>24 – 56 VDC</td>
</tr>
<tr>
<td>Loop Current</td>
<td>20 - 120 mA</td>
</tr>
<tr>
<td>Connection Method</td>
<td>Surge Arrestor / Terminal Block</td>
</tr>
</tbody>
</table>

### Environmental

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weatherproof</td>
<td>ENCLOSURE NEMA 3R</td>
</tr>
<tr>
<td>Temperature</td>
<td>-40°C TO +50°C</td>
</tr>
</tbody>
</table>

### Mechanical

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hook Switch (Cradle Switch) Life</td>
<td>&gt;1 000 000 OPERATIONS</td>
</tr>
<tr>
<td>Body Construction</td>
<td>16 GAUGE STEEL, ZINC CHROMATE PLATED AND POWDER COATED</td>
</tr>
<tr>
<td>Dimensions</td>
<td>9 X 5 X 5.2 INCHES (229 X 127 X 132 MM)</td>
</tr>
<tr>
<td>Net Weight</td>
<td>4 LBS (1.82 KG)</td>
</tr>
<tr>
<td>Handset Material</td>
<td>HIGH IMPACT ABS</td>
</tr>
<tr>
<td>Microphone</td>
<td>NOISE REDUCING ELECTRET</td>
</tr>
<tr>
<td>Optional Microphone</td>
<td>NOISE CANCELING DYNAMIC</td>
</tr>
<tr>
<td>Receiver</td>
<td>HEARING AID COMPATIBLE</td>
</tr>
<tr>
<td>Standard Mounting</td>
<td>VERTICAL WALL</td>
</tr>
<tr>
<td>Connection Fittings</td>
<td>7/8” Diam. OPENING FOR OWNER SUPPLIED FITTING</td>
</tr>
<tr>
<td>Hardware Material</td>
<td>STAINLESS STEEL</td>
</tr>
</tbody>
</table>
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.

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Calgary, Alberta, Canada T2E 8W1
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.
Notes:

Model No.

Part No.

Serial No.

Date of Purchase