Ring Detect Relays

Model RDR

Installation & Operation

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One (1) Model RDR Ring Detect Relay
One (1) Installation and Operation manual

Models and Options

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- P7252 Potted ring detect relay - low ring signal
    - Ringers
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Overview

Ring Detect Relays

Guardian's Ring Detect Relays can be utilized to activate signaling devices, to complement or replace ringers built into associated telephones. The relays are available as a module to fit into customer's equipment, or they can be enclosed in weatherproof or explosion-proof housings.
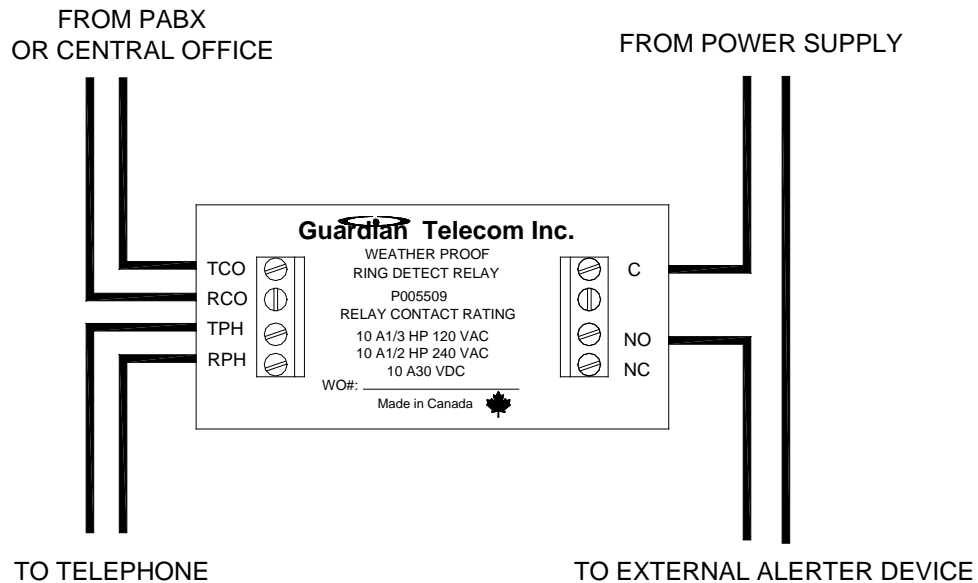
Features
Encapsulated Circuitry
• The module is resistant to corrosive agents (e.g. H_2S, SO_2, and NH_3), and environments with high humidity
Enclosures
• Available in weatherproof and explosion proof enclosures
Sensitivity
• 40 - 110 Volts, 16 - 25 Hz
Line Voltage
• 24 - 56 VDC
Loop Current
• 20 - 120 mA
Relay
• Rated at 10 Amps

P7224 48V RDR Ring Detect Relay Module

This relay <u>must</u> be installed following appropriate electrical codes.

Installation
1. Mount the RDR module in a suitable enclosure.
2. Ensure that the wiring to be connected is not live.
3. Connect Tip/Ring from the telephone to the terminals marked TPH/RPH.
4. Connect Tip/Ring from Central Office or PBX to terminals marked TCO/RCO.
5. Connect Common (C) and Normally Open (N/O) terminals in series with the Alerter line.
6. Ensure all connections are secure.
7. Apply power to the system
8. To test, call this telephone from another telephone on the exchange. The external ringer will ring.

FROM PABX
OR CENTRAL OFFICE   FROM POWER SUPPLY

Guardian Telecom Inc.
WEATHER PROOF
RING DETECT RELAY
P005509
RELAY CONTACT RATING
10 A1/3 HP 120 VAC
10 A1/2 HP 240 VAC
10 A30 VDC
WO#: _____
Made in Canada

TCO
RCO
TPH
RPH

C
NO
NC

TO TELEPHONE   TO EXTERNAL ALERTER DEVICE

Legend:
TPH   - Tip connection of telephone
RPH   - Ring connection of telephone
TCO   - Tip connection from central exchange
RCO   - Ring connection from central exchange
C   - Common
NO   - Normally open contacts
NC   - Normally closed contacts

Figure 1 - Module and Wiring Connections

P7225 Weatherproof Ring Detect Relay

This Weatherproof Ring Detect Relay must be installed according to local electrical codes.

GENERAL INSTALLATION

The Weatherproof Ring Detect Relay is supplied ready to connect Tip and Ring wires from the central exchange and wires going to the external ringing device and telephone. The two outlets will accommodate 3/4" conduit.
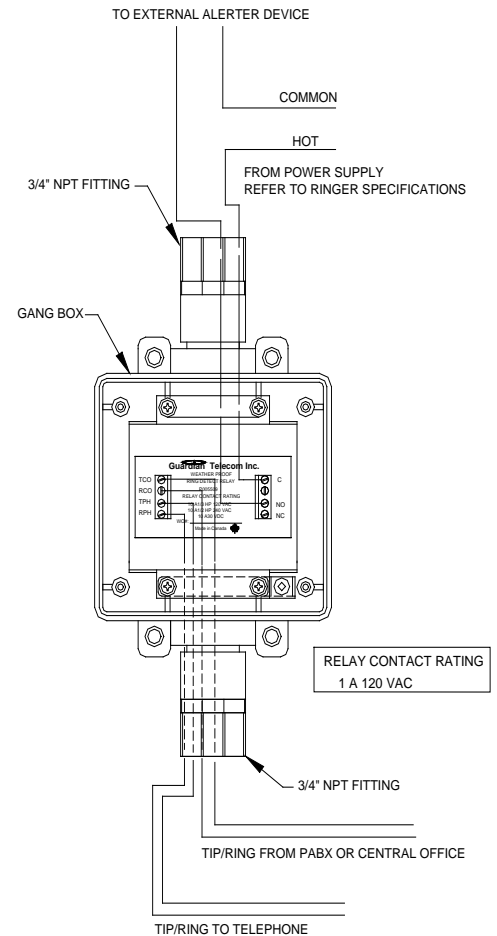
Run Tip and Ring wires from the central exchange into the relay box, connecting the Tip wire to TCO and Ring wire to RCO. Connect the Tip and Ring wires to the telephone to TPH and RPH respectively. Both of these sets of wires extend out of the bottom conduit fitting.

Run one of the wires from the external alerter and the hot lead from the power supply into the upper entrance of the relay box. Connect the power lead to the terminal marked C and the ringer lead to the terminal marked NO. Ensure all wires have a good connection to the terminals.

To test, call this telephone from another telephone on the exchange. The external ringer will ring.

Legend:
TPH   - Tip connection of telephone
RPH   - Ring connection of telephone
TCO   - Tip connection from central
            exchange
RCO   - Ring connection from central
            exchange
C   - Common
NO   - Normally open contacts
NC   - Normally closed contacts

P7226 Explosion Proof Ring Detect Relay

This Explosion-proof Ring Detect Relay must be installed according to local electrical codes.

GENERAL INSTALLATION

The Explosion-proof Ring Detect Relay is supplied ready to connect Tip and Ring wires from the central exchange and wires going to the external ringing device and telephone. The two outlets will accommodate 3/4" conduit.
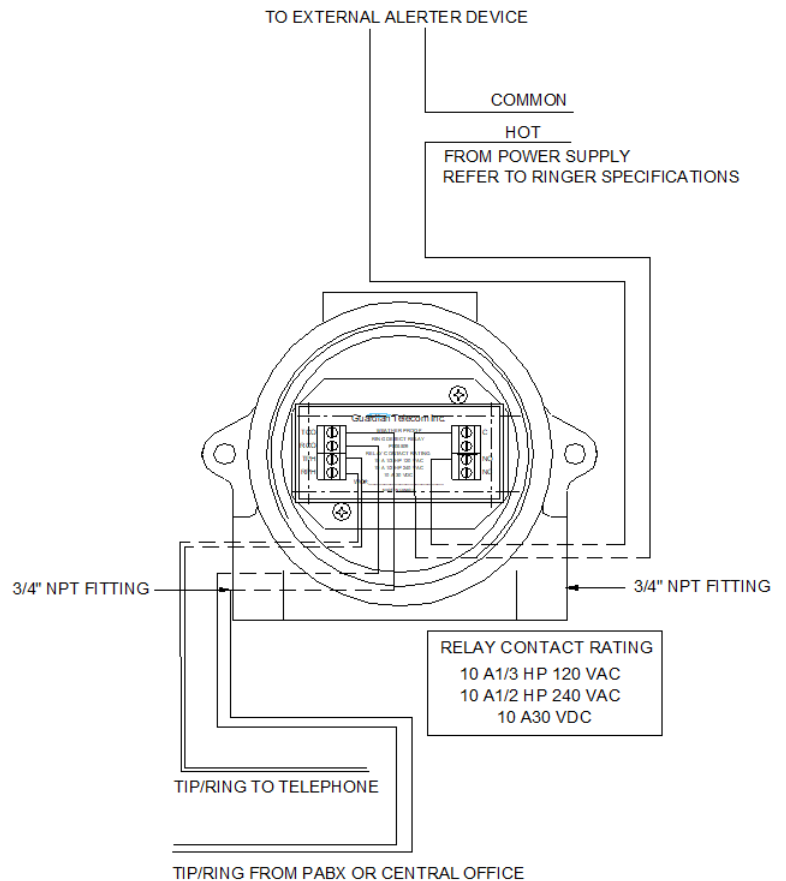
Run Tip and Ring wires from the central exchange into the relay box, connecting the Tip wire to TCO and Ring wire to RCO. Connect the Tip and Ring wires to the telephone to TPH and RPH respectively. Both of these sets of wires extend out of the left conduit fitting.

Run one of the wires from the external ringer and the hot lead from the power supply into the right entrance of the relay box. Connect the power lead to the terminal marked C and the ringer lead to the terminal marked NO. Ensure all wires have a good connection to the terminals.

To test, call this telephone from another telephone on the exchange. The external ringer will ring.

Legend:
TPH   - Tip connection of telephone
RPH   - Ring connection of telephone
TCO   - Tip connection from central
            exchange
RCO   - Ring connection from central
            exchange
C   - Common
NO   - Normally open contacts
NC   - Normally closed contacts

TO EXTERNAL ALERTER DEVICE

COMMON

HOT
FROM POWER SUPPLY
REFER TO RINGER SPECIFICATIONS

3/4" NPT FITTING   3/4" NPT FITTING

RELAY CONTACT RATING
10 A1/3 HP 120 VAC
10 A1/2 HP 240 VAC
10 A30 VDC

TIP/RING TO TELEPHONE

TIP/RING FROM PABX OR CENTRAL OFFICE

Specifications	
48 VOLT RING DETECT RELAY (P7224)	
RINGER SENSITIVITY	40 - 155 VAC, 20 - 25 Hz
LINE VOLTAGE	24 - 56 VDC
LOOP CURRENT	20 - 120 mA
CONNECTION METHOD	TERMINAL BLOCKS
FCC RINGER EQUIVALENCE (REN)	0.9 A
IMPEDANCE	600 OHMS NOMINAL
MAXIMUM LOOP	15,000 FT (4,600 M) of 22 AWG COPPER
WEATHERPROOF HOUSING	
TEMPERATURE	-40° TO +60° C (-40° TO +140° F)
CONNECTIONS	¾" NPT FITTINGS TOP & BOTTOM
EXPLOSION PROOF HOUSING	
TEMPERATURE	-40° TO +60° C (-40° TO +140° F)
CONNECTIONS	¾" NPT LEFT AND RIGHT

Replacement Parts

Part No.	Description
P005509	PCBA Ring Detect Relay

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.

*

Warranty

Guardian Telecom warrants your product to be free of defects in material and workmanship for a period of three years. 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

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, a division of Circa Enterprises Inc.
Toll-free 1-800-363-8010
Ph. (403) 258-3100
Fax. (403) 253-4967
www.guardiantelecom.com
E-mail: mailto:sales@guardiantelecom.com
(Click to open message box)

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 an RMA form online at https://www.guardiantelecom.com/support/rma/, 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

Tough. Trusted. True.