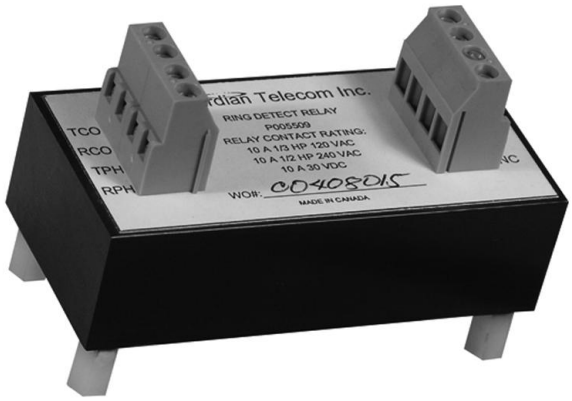
Guardian Telecom Inc.

Industrial Communications Worldwide

Off Hook Detect Relays

Model OHDR

Installation & Operation



Module

Weather Proof

Explosion Proof

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ISO 9001 CERTIFIED

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Package Contents

One (1) Model OHDR Off Hook Detect Relay
One (1) Installation and Operation manual

Models

- P7227 48 Volt Potted Off Hook Detect Relay
- P7228 24 Volt Potted Off Hook Detect Relay
- P7239 48 Volt Weather Proof Off Hook Detect Relay
- P7229 24 Volt Weather Proof Off Hook Detect Relay
- P7233 48 Volt Hazardous Area Off Hook Detect Relay
- P7231 24 Volt Hazardous Area Off Hook Detect Relay

Options

- Ringers
- Strobe Lights

Overview

Off Hook Detect Relays

Guardian's Off Hook Detect Relays are commonly used to disconnect a paging speaker in the vicinity of a telephone, to prevent acoustical feedback when the telephone is used to make a paging call. These relays are available as a potted module for installation in a customer's enclosure or pre-packaged in weatherproof or explosion proof enclosures.
Both 48 Volt for normal conditions and 24 Volt for low voltage situations are available.

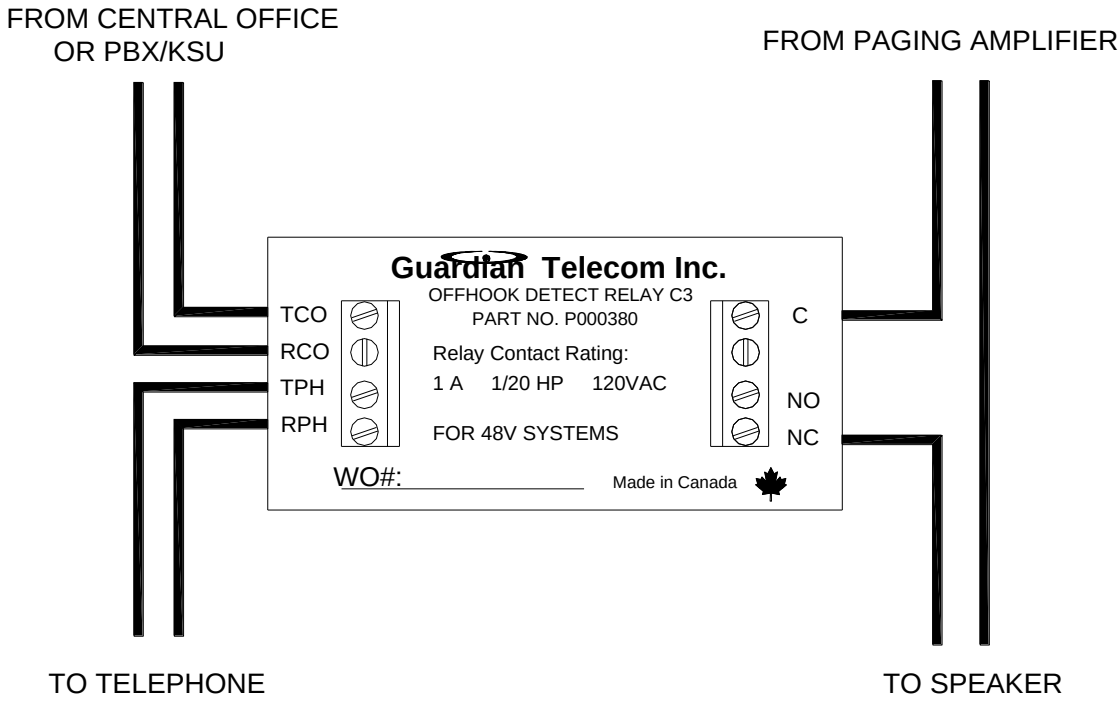
Features
Encapsulated Circuitry
• The module is resistant to corrosive agents (e.g. H_2S, SO_2, and NH_3), and environments with high humidity
Enclosures
• Available in weatherproof and explosion proof enclosures
Sensitivity 48 Volt Version
• 40 - 110 Volts, 16 - 25 Hz
Line Voltage
• 24 - 56 VDC
Loop Current
• 50 - 120 mA
Relay
• Rated at 10 Amps @ 30 VDC or 5 Amps @ 250 VAC
Sensitivity 24 Volt Version
• 40 - 110 Volts, 16 - 25 Hz
Line Voltage
• 24 - 56 VDC
Loop Current
• 25 - 60 mA
Relay
• Rated at 10 Amps @ 30 VDC or 5 Amps @ 250 VAC

Module Installation

This relay must be installed following appropriate electrical codes.

Installation

1. Mount the OHDR 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 Closed (NC) terminals in series with the Page line.
6. Ensure all connections are secure.
7. Apply power to the system and test by making a paging call from the telephone to which the relay is connected.



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

Weatherproof Relay Installation

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

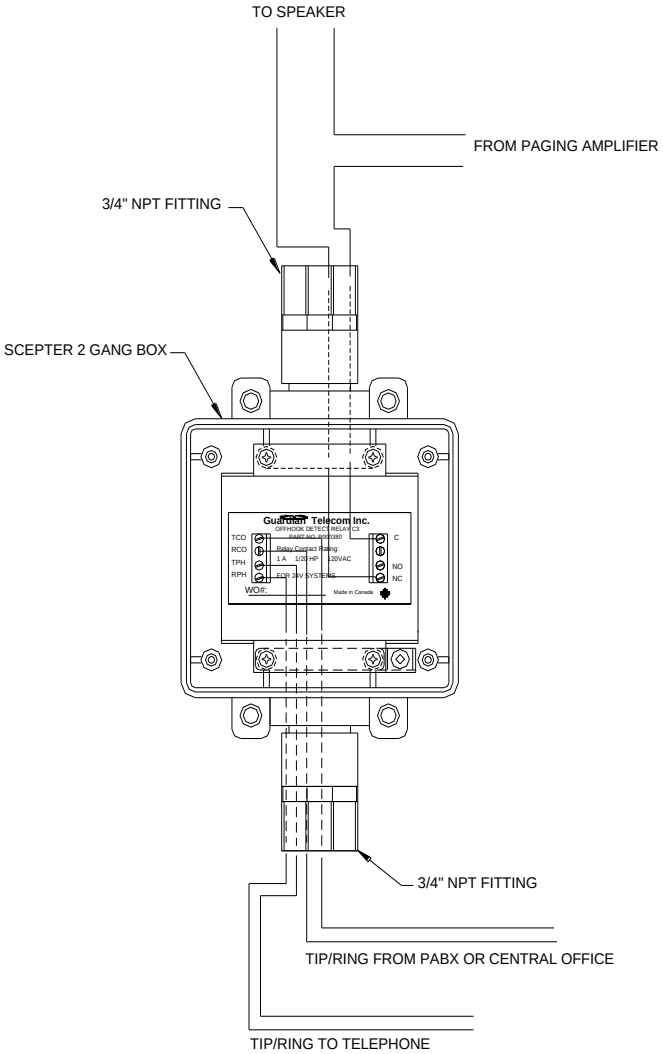
GENERAL INSTALLATION

The Weatherproof Off Hook Detect Relay is supplied ready to connect Tip and Ring wiring from the central exchange to the telephone and from the amplifier to the paging speaker. The two outlets will accommodate 3/4" conduit.

1. 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.

2. Connect Common (C) and Normally Closed (NC) terminals in series with the page line. Ensure all wires have a good connection to the terminals.

3. Apply power to the system and test by making a paging call from the telephone to which the relay is connected.



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

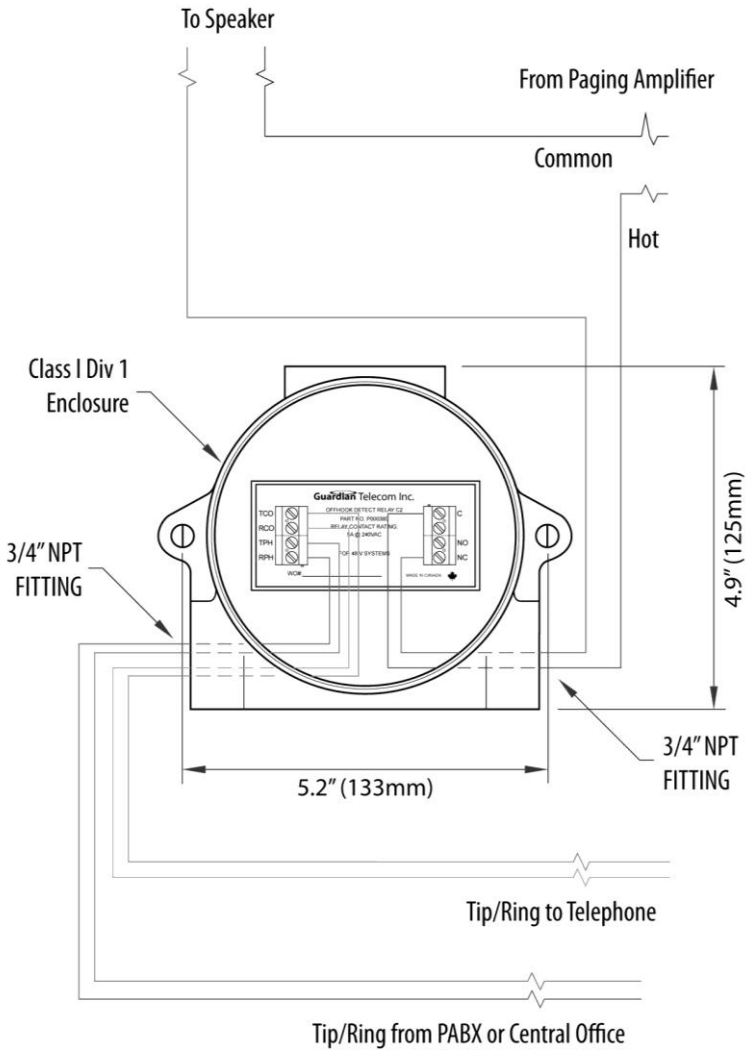
Explosion Proof Relay Installation

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

GENERAL INSTALLATION

The Explosion Proof Off Hook Detect Relay is supplied ready to connect Tip and Ring wiring from the central exchange to the telephone and from the amplifier to the paging speaker. The two outlets will accommodate 3/4" conduit.

1. 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.
2. Run one wire from the paging amplifier and one from the speaker into the right entrance of the relay box. Connect to the Common (C) and Normally Closed (NC) terminals. Ensure all wires have a good connection to the terminals.
3. Inspect the enclosure cap for damage and replace, ensuring that the mating faces are in contact.
4. Apply power to the system and test by making a paging call from the telephone to which the relay is connected.



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

Engineering Specifications	
48 VOLT OFF HOOK DETECT RELAY	
RINGER SENSITIVITY	40 - 110 VAC, 16 - 25 HZ
LINE VOLTAGE	24 - 56 VDC
LOOP CURRENT	50 - 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
24 VOLT OFF HOOK DETECT RELAY	
RINGER SENSITIVITY	40 - 110 VAC, 16 - 25 HZ
LINE VOLTAGE	24 - 56 VDC
LOOP CURRENT	25 - 60 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
RELAY	
RELAY CONTACTS RATING	10 Amps @ 30 VDC or 5 Amps @ 250 VAC
WEATHERPROOF HOUSING	
TEMPERATURE	-40° TO +60° C (-40° TO +140° F)
CONNECTIONS	¾" NPT TOP & BOTTOM
EXPLOSION PROOF HOUSING	
TEMPERATURE	-40° TO +60° C (-40° TO +140° F)
CONNECTIONS	¾" NPT LEFT AND RIGHT

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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

This device may be opened and reassembled by qualified personnel only, for the purposes of installing the product and replacing components, 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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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

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