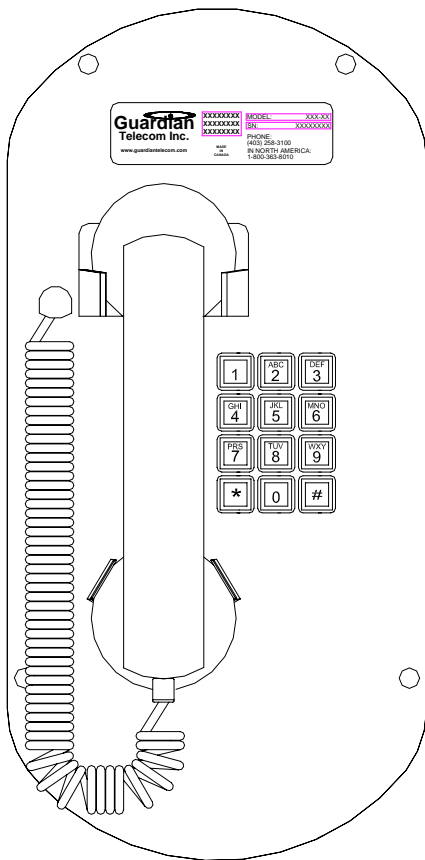


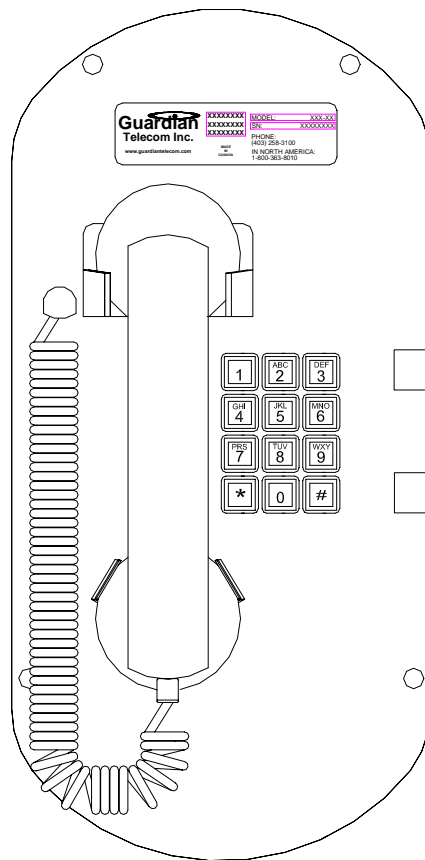
Heavy Duty Weather Proof Telephone Panel Insert Model SP70

(Replaces Insert in Northern Telecom and Guardian Telecom Enclosures)

Installation & Operation



Standard Faceplate for Northern Telecom or
Guardian Telecom Enclosures



Faceplate for Earlier Northern Telecom
Locking Enclosures

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Package Contents

- One (1) SP70 Telephone Panel Insert
- One (1) Installation and Operation manual

Models and Options

- P5400** Model SP70 Telephone Panel Insert for earlier Northern Telecom, locking door enclosure with internal ribs on right side
- P5401** Model SP71 Ringdown Telephone Panel Insert for earlier Northern Telecom, locking door enclosure with internal ribs on right side
- P5402** Model SP70 Telephone Panel Insert for locking or non-locking door enclosure without internal ribs on right side
- P5403** Model SP71 Ringdown Telephone Panel Insert for locking or non-locking door enclosure without internal ribs on right side

Accessories

- P7225** Weatherproof ring detect relay
- P7229** Weatherproof off-hook detect relay

Overview

SP70 Heavy Duty Telephone Insert

The SP70 Heavy Duty Telephone Insert replaces the insert in Northern Telecom or Guardian Telecom weatherproof telephones. The insert uses up-to-date circuitry, is simple to install and requires no changes to the original enclosure or the wiring leading to the enclosure. This upgrade is economical and ensures many additional years of trouble free service, provided that the original enclosure is in good condition.

Features
<i>Enclosure</i>
<ul style="list-style-type: none">utilizes the original Northern Telecom or Guardian Telecom weatherproof enclosure
<i>Keypad</i>
<ul style="list-style-type: none">Metal KeypadStandard 3 x 4 matrix
<i>Encapsulated Circuitry</i>
<ul style="list-style-type: none">circuit boards are resistant to corrosive agents (e.g. H₂S, SO₂ and NH₃) and environments with high humidity
<i>Magnetic Reed Hook Switch</i>
<ul style="list-style-type: none">no moving parts
<i>Fuse</i>
<ul style="list-style-type: none">prevents damage to the electronic circuits in the event of a lightning strike or a high voltage spike on the telephone line
<i>Noise Reducing Microphone</i>
<ul style="list-style-type: none">allows a high level of intelligibility in locations with high background noise
<i>Tone/Pulse Selectable</i>
<ul style="list-style-type: none">may be set to operate with either tone or pulse dial system
<i>Heavy Duty Handset Cord</i>
<ul style="list-style-type: none">withstands excessive use (armored cord available)
<i>Hearing-Aid Compatible</i>
<ul style="list-style-type: none">compatible with inductively coupled hearing-aid devices

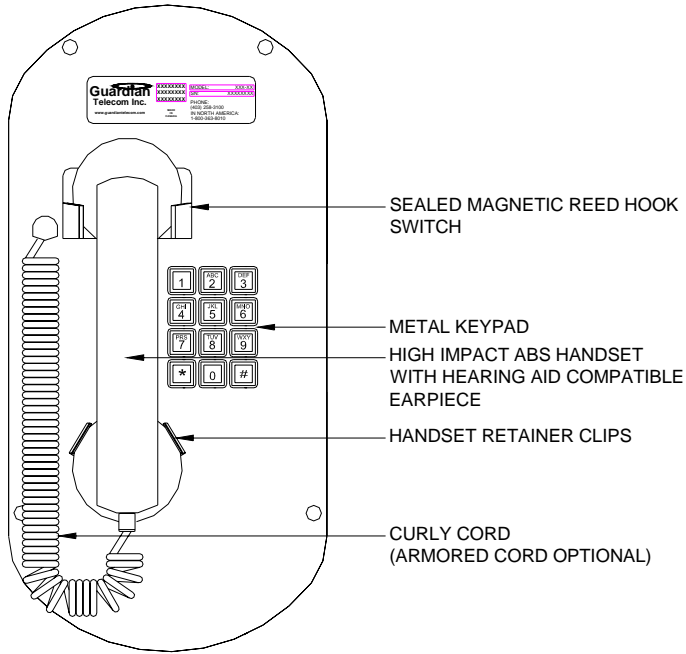


Figure 1 - Features

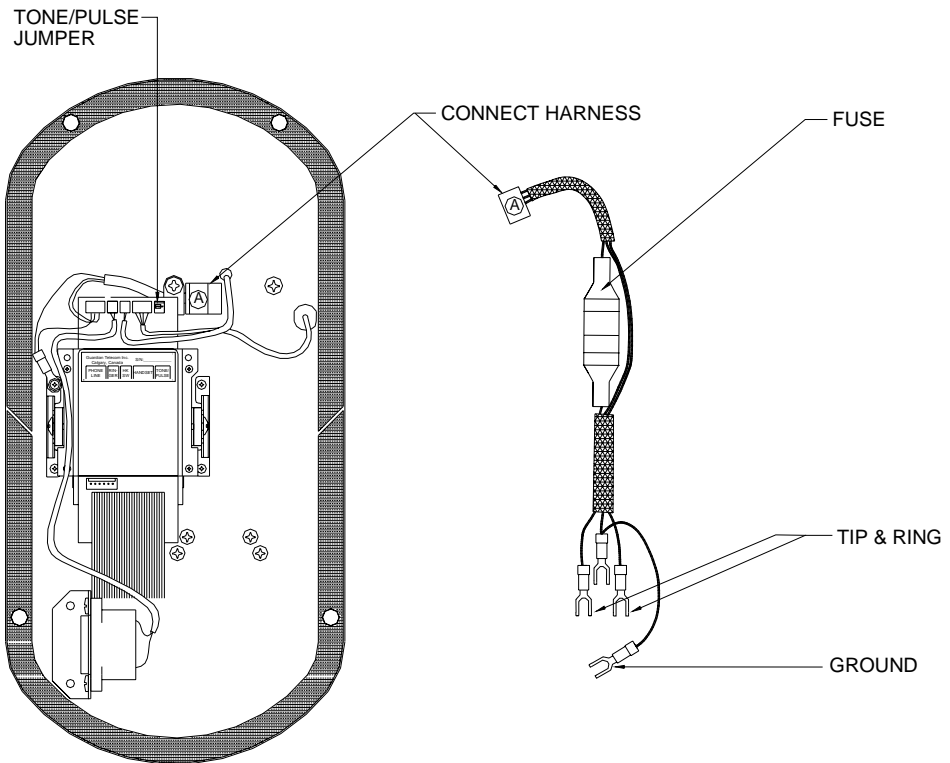


Figure 2 - Electrical Connections

Installing the SP70 Telephone Insert

- Follow all appropriate electrical codes and use only approved electrical fittings for the installation.
- Ensure that none of the electrical connection circuits are live.
- 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.
- Remove the old faceplate from the telephone and retain the four mounting screws.
- For telephones equipped with a surge arrestor, attach the blue and orange wires to the two outside terminals of the surge arrestor. Attach one green wire to the center terminal on the surge arrestor. Attach the second green wire to the surge arrestor mounting screw.
- For telephones without a surge arrestor, cut off the terminal lugs on the orange and blue wires and connect them to the tip and ring lines using either crimp connectors or wire nuts. Attach one green wire to a ground screw in the housing and the second to an incoming ground wire if supplied.
- Insert the new faceplate into the housing and secure using the four mounting screws previously removed.
- Test the unit by calling to and from another unit on the exchange.

See: Government Certification.

Tip: The SP70 is factory preset for DTMF tone.

See: Figure 2 - Electrical Connections.

See: Figure 1 - Features.

Field Repairs

Note: All repairs or alterations except tone/pulse selection and fuse replacement must be carried out by Guardian Telecom or an Authorized Service Depot. **See Warranty and Disclaimer for details.**

See: Figure 2 - Electrical Connections

Engineering Specifications	
<i>Electrical Performance</i>	
Audible Frequency Range	300 – 3400 Hz
Dialing Method	IEEE DTMF or 40/60 Pulse, 10 PPS
Transmit Objective Loudness Rating	-38 +/- 4 dB
Receive Objective Loudness Rating	52 +/- 3 dB
Side Tone Objective Rating (SOLR)	11 +/- 4 dB
Ringer Output	Max 65 dB
FCC Ringer Equivalence (REN)	0.8 B
Set Impedance	600 Ohms Nominal
Maximum Loop	15,000 Feet (4,500m) of 22 AWG Copper
<i>Electrical Requirements</i>	
Ringer Sensitivity	40 – 100 V, 16 – 25 Hz
Line Voltage	24 – 56 VDC
Loop Current	20 – 120 mA
Connection Method	Surge Arrestor Terminal Block
<i>Microphone</i>	
Environmental	
Temperature	-40° to +50° C (-40° to +122° F)
Humidity	0 – 95% RH Non Condensing
Mechanical	
Faceplate	Steel, Zinc Chromate Plated and Powder Coated
Net Weight	4 lbs./1.8 Kg
Handset cord	Alcryn Cold Temperature
Handset Material	High Impact ABS
Hardware Material	Stainless Steel

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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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.
<i>Step I - On-Site Correction</i>
<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 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.
<i>Step II - Return Materials Authorization (RMA)</i>
<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.")
<i>Step III - Factory Authorized Service</i>
<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.



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