Page/Talk Indoor Junction Box

Model PTJ
Installation & Operation

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One (1) P8700 Page/Talk Indoor Junction Box
One (1) Installation & Operation Manual

Overview

Page/Talk Junction Box

Guardian's Page/Talk Systems provide reliable and easy to use paging and communication within industrial environments such as plants, mills and factories. Individuals can be paged from any station and two or more persons can communicate on any available line.

The PTJ Terminal Junction Box described in this manual provides a convenient method of branching out from one to five legs of Page/Talk system wiring from one location. The unit also includes one system test port.

Features

Construction
- Fiberglass reinforced polyester enclosure, self extinguishing and halogen free

Cable Entrances
- Solid surfaces for punching holes to customer requirements

Mounting
- Mounts to any vertical surface

Connectors
- removable screw and plug Combicon connectors allow for ease of installation, simply screw wires into plug and reinsert plug into PCB socket
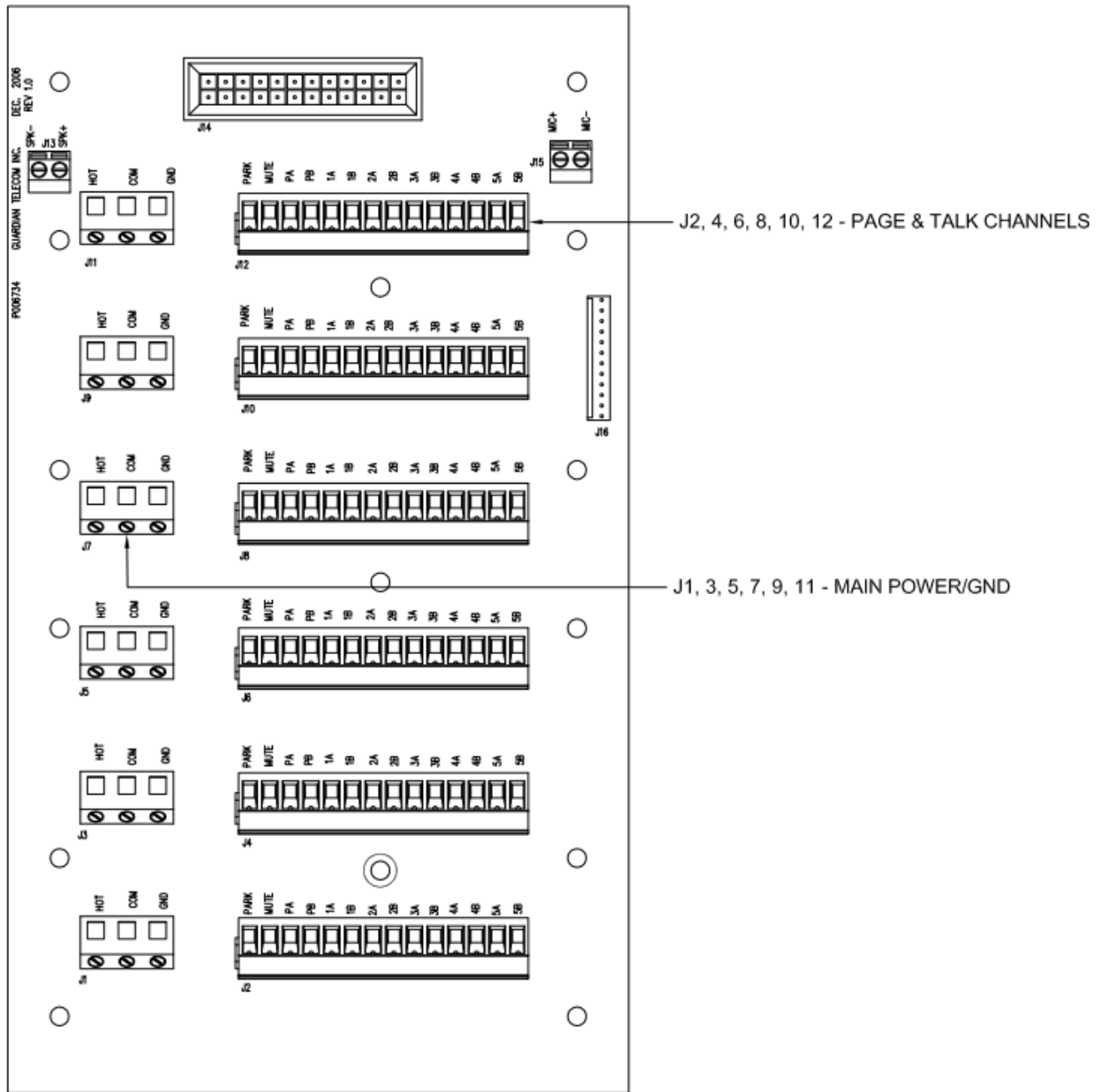
Capacity
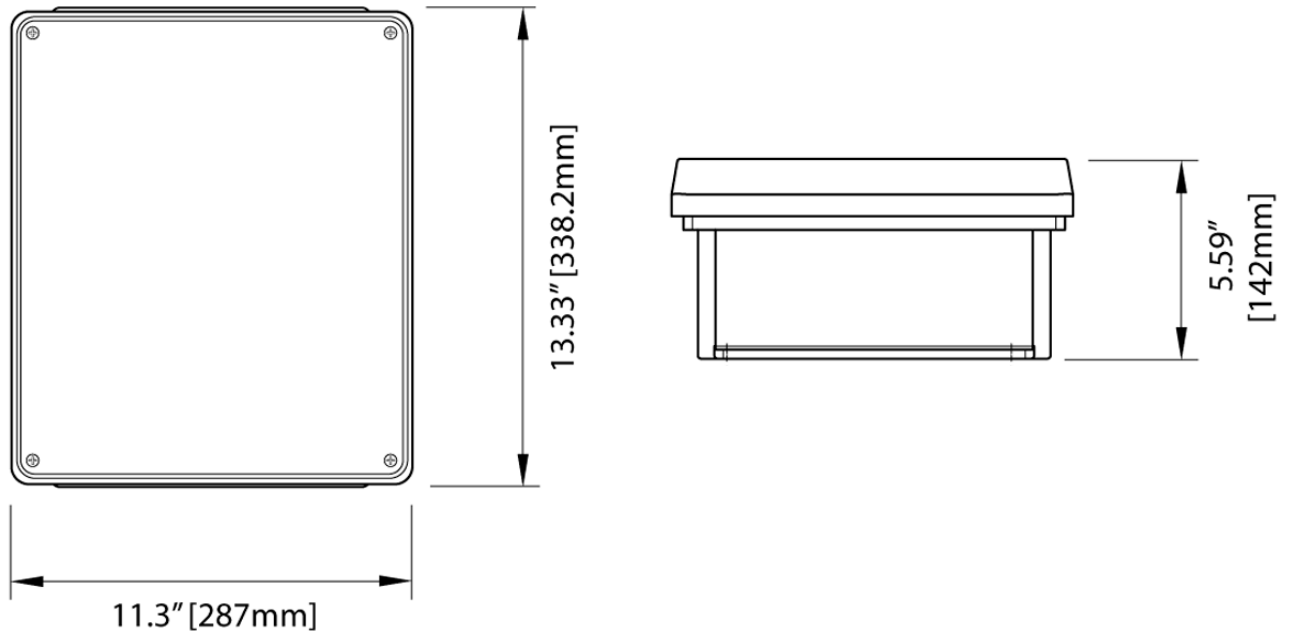- Six cables (1 in/5 out)

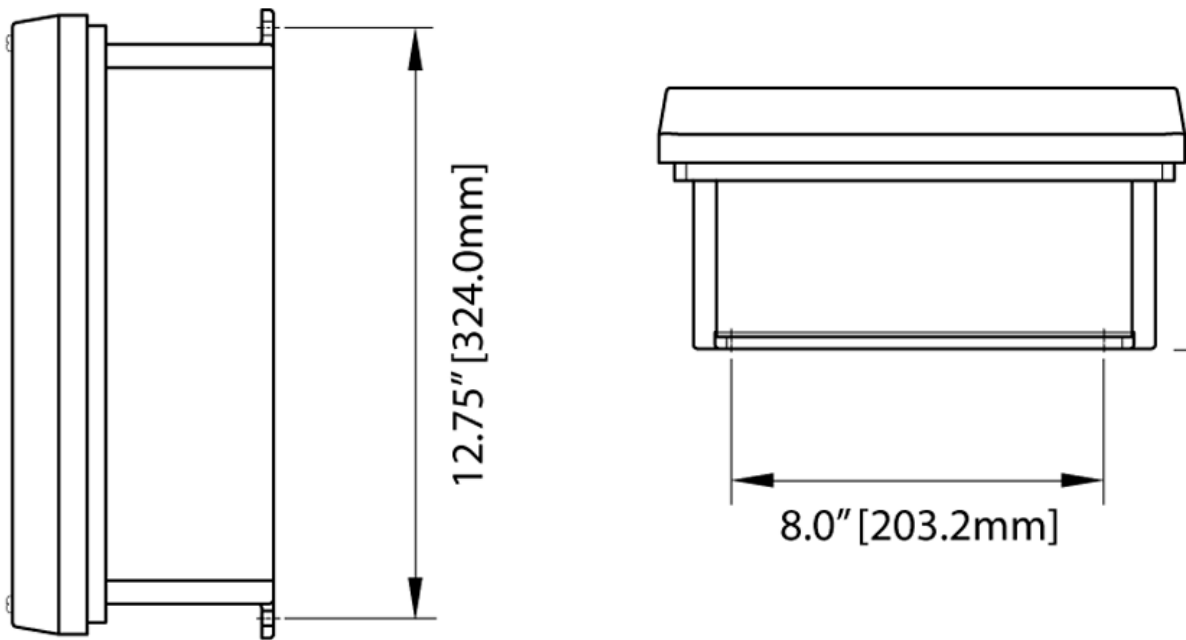*Figure 1 - Wiring*

Figure 2 - Dimensions

Figure 3 - Mounting

WIRE TERMINATION (16 CONDUCTOR CABLE)					
ASSIGNMENT	DESIGNATION	DESCRIPTION	JACKET COLOUR	STRIPE COLOUR	WIRE GAUGE
SYSTEM POWER	J1/J3/J5/J7/J9/J11	HOT	BLACK	BLACK	14 AWG
	J1/J3/J5/J7/J9/J11	COM	WHITE	WHITE	14 AWG
	J1/J3/J5/J7/J9/J11	GND	GREEN	GREEN	14 AWG
AMBIENT NOICE MICROPHONE	J15	MIC+	N/A	N/A	N/A
	J15	MIC-	N/A	N/A	N/A
SPEAKER	J13	SPEAKER+	N/A	N/A	N/A
	J13	SPEAKER-	N/A	N/A	N/A
PAGA LINE	J2/J4/J6/J8/J10/J12	PA	BLUE	RED	18 AWG
	J2/J4/J6/J8/J10/J12	PB	RED	BLUE	18 AWG
CHANNEL 1	J2/J4/J6/J8/J10/J12	1A	RED	-----------	18 AWG
	J2/J4/J6/J8/J10/J12	1B	L. BROWN	RED	18 AWG
CHANNEL 2	J2/J4/J6/J8/J10/J12	2A	VIOLET	-----------	18 AWG
	J2/J4/J6/J8/J10/J12	2B	L. BROWN	VIOLET	18 AWG
CHANNEL 3	J2/J4/J6/J8/J10/J12	3A	BLUE	-----------	18 AWG
	J2/J4/J6/J8/J10/J12	3B	L. BROWN	BLUE	18 AWG
CHANNEL 4	J2/J4/J6/J8/J10/J12	4A	BROWN	-----------	18 AWG
	J2/J4/J6/J8/J10/J12	4B	L. BROWN	BROWN	18 AWG
CHANNEL 5	J2/J4/J6/J8/J10/J12	5A	YELLOW	-----------	18 AWG
	J2/J4/J6/J8/J10/J12	5A	L. BROWN	YELLOW	18 AWG
GROUP MUTING OF LOUDSPEAKERS	J2/J4/J6/J8/J10/J12	MUTE	ORANGE	-----------	18 AWG
	J2/J4/J6/J8/J10/J12	PARK			
SPARE	N/A	EXTRA	ORANGE	-----------	12 AWG

NOTES:

1. CHANNELS 2 TO 5 CONNECTIONS REMAIN EMPTY FOR SINGLE TALK HOOKUP.
2. IF THE CABLE IS 18 CONDUCTOR TYPE, TWO WIRES WILL BE WHITE/RED AND WHITE/BLACK. DO NOT CUT THESE WIRES CLOSE TO THE CABLE ENTRY, CONNECT WHITE/RED TO ALL OTHER WHITE/RED WIRES AND WHITE/BLACK TO ALL OTHER WHITE/BLACK WIRES AND INSULATE THEM.
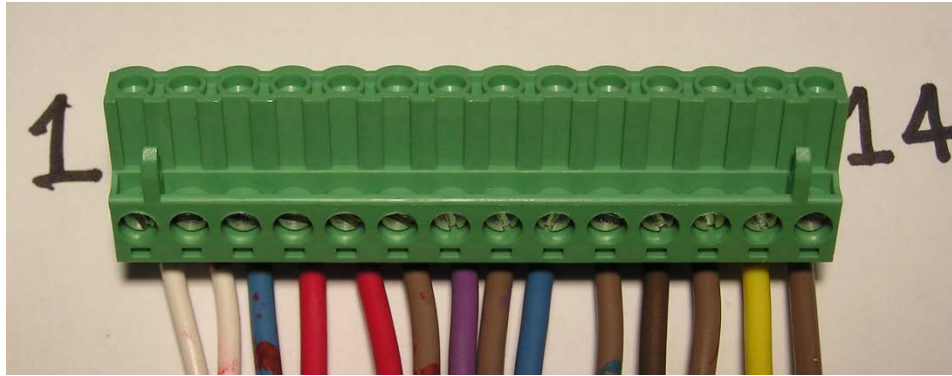
Figure 4 - Electrical Connections

Figure 5 - Bus connector wiring at SJB relays, SJB, CTI and LET

The Page/Talk Communications cable is normally sheathed in a bright yellow plastic armored jacket.

In the Communications cable there are:

- 13 or 15 of the 18 gauge wires.
- 3 of 14 gauge wires.

The three 14 gauge wires used for AC are ground, AC neutral and AC live and these are not connected on the Bus connector. The AC wires are terminated at either a terminal strip or an AC breaker mounted on a DIN rail in the cabinet.

WIRE TERMINATION FOR 16 CONDUCTORS

PIN #	COLOR OF 18 AWG WIRE	ABREV.	FUNCTION
1	ORANGE	TA	TEST A
2	JUMPER TO 12 (4B)	TB	TEST B
3	BLUE/RED	PA	PAGE A
4	RED/BLUE	PB	PAGE B
5	RED	1A	LINE 1A
6	LIGHT BROWN/RED	1B	LINE 1B
7	VIOLET	2A	LINE 2A
8	LIGHT BROWN/VIOLET	2B	LINE 2B
9	BLUE	3A	LINE 3A
10	LIGHT BROWN/BLUE	3B	LINE 3B
11	BROWN	4A	LINE 4A
12	LIGHT BROWN/BROWN	4B	LINE 4B
13	YELLOW	5A	LINE 5A
14	LIGHT BROWN/YELLOW	5B	LINE 5B
	NOTE 14 AWG WIRES AS FOLLOWS:		
	GREEN	SAFETY GROUND	
	WHITE	LINE NEUTRAL	
	BLACK	LINE LIVE	

Note the 18 AWG ORANGE wire on pin 1 is not used for Page/Talk local mute.

Figure 6 - Select System connector wiring for 16 wires

WIRE TERMINATION FOR 18 CONDUCTORS

PIN #	COLOR OF 18 AWG WIRE		FUNCTION
1	WHITE/RED	TA	TEST A
2	WHITE/BLACK	TB	TEST B
3	BLUE/RED	PA	PAGE A
4	RED/BLUE	PB	PAGE B
5	RED	1A	LINE 1A
6	LIGHT BROWN/RED	1B	LINE 1B
7	VIOLET	2A	LINE 2A
8	LIGHT BROWN/VIOLET	2B	LINE 2B
9	BLUE	3A	LINE 3A
10	LIGHT BROWN/BLUE	3B	LINE 3B
11	BROWN	4A	LINE 4A
12	LIGHT BROWN/BROWN	4B	LINE 4B
13	YELLOW	5A	LINE 5A
14	LIGHT BROWN/YELLOW	5B	LINE 5B
	NOTE 14 AWG WIRES AS FOLLOWS:		
	GREEN	SAFETY GROUND	
	WHITE	LINE NEUTRAL	
	BLACK	LINE LIVE	

Note the 18 AWG ORANGE wire is not terminated, and is used for Page/Talk local mute.

Figure 7 - Select System connector wiring for 18 wires

Notes:
- The above color scheme is for **background / marking**. For example BLUE / RED is a blue background with a red marking.
- Terminal and Breaker mean Terminal Block.
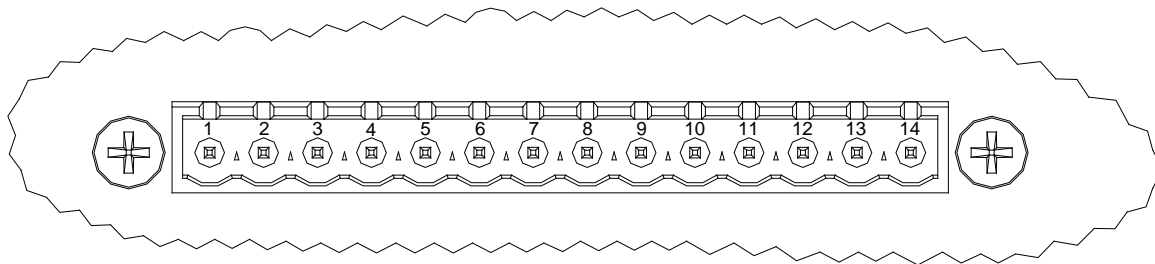

BUS COMBICOM CONNECTOR

Figure 8 - Combicon 14 pin connector top view

Installing the Junction Box

WARNING - high voltages are present in this equipment when it is connected to the power source.

- Follow all appropriate electrical codes and use only approved electrical fittings for the installation.
- Punch holes in the sides of the enclosure for cable fittings.
- Install suitable fittings in the cable entrances.
- Choose a wall location that is free of obstructions and permits space for conduit or wire.

  See: Figure 2 - Dimensions

- Ensure mounting can support 6.6 lbs. / 3 kg (with module installed), and any additional foreseeable load.
- Use the housing to locate and drill holes for mounting screws.
- Secure the unit to the wall.

- Ensure that none of the electrical connection circuits are live.
- Bring cable(s) into the enclosure through the conduit entrance(s) and attach individual wires to the Combicon connector(s). Make Talk channel connections to terminals 1A and 1B for a single line station.

  See: Figure 4 - Electrical Connections

- Plug the connector(s) into the receptacle(s) on the interface board.
- Ensure all connections are secure.

Specifications

ENVIRONMENTAL	
WEATHER TIGHT	ENCLOSURE GASKET
DUST TIGHT	ENCLOSURE GASKET
TEMPERATURE RANGE	-58˚ to +300˚F (-50˚ to +150˚C)
INGRESS PROTECTION NEMA RATING	IP66 4X
MECHANICAL	
CAPACITY	SIX CABLES TO COMBICON CONNECTORS
CONSTRUCTION	FIBERGLASS REINFORCED POLYESTER ENCLOSURE, SELF EXTINGUISHING AND HALOGEN FREE
DIMENSIONS (H X W X D)	13.33 X 11.3 X 5.59 INCHES / 338 X 287 X 142 MM
NET WEIGHT	6.6 LBS/3KG
SHIPPING DIMENSIONS	14 X 12 X 7 INCHES / 355 X 305 X 177
SHIPPING WEIGHT	8 LBS/3.6KG
MOUNTING	VERTICAL SURFACE
WIRING ACCESS	SOLID SURFACES FOR PUNCHING HOLES TO CUSTOMER REQUIREMENTS
COMPLIANCE	
CSA ("C" and "US")	CSA 1289924
	Canada: Class I Division 2 Groups A, B, C, D; Class II Groups E, F, G; T6
	United States: Class I Division 2 Groups A, B, C, D; Class II Groups E, F, G; Class I Zone 2, T6
ELECTRICAL SAFETY CE	60950

Replacement Parts

Part No.	Description
P006736	PCB Assembly

Installation Cable Listing

Part No.	Description	Part No.	Description
P006183	2 Conductor 18AWG Armored Speaker	P005863	8 Conductor Armored (Single Line System)
P006184	2 Conductor 18AWG Standard Speaker	P005916	8 Conductor Standard (Single Line System)
P006217	4 Conductor 18AWG Armored Speaker	P005366	16 Conductor Armored (Five Line System)
P006216	4 Conductor 18AWG Standard Speaker	P005219	16 Conductor Standard (Five Line System)
		P006218	17 Conductor Armored (Five Line System)

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

High voltages may be present in this product, ensure that power is removed before installing, performing maintenance or making repairs.

Service Telephone Number

1-800-363-8010 Toll Free in North America

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 (7:30AM-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.

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.

Cleaning Tips for Guardian Telephones

Guardian Telephones may occasionally need to be cleaned to maintain appearance. Generally, wiping the surface with a clean, water dampened cloth will remove most films or residues. If the soiling is too stubborn for plain water, a mild detergent solution may be used. Be sure to wipe away any detergent residue with a plain water dampened cloth. The Telephone may be cleaned with any general-purpose household glass and surface type cleaner. Do not spray the telephone directly! Spray the cleaner on a soft cloth then wipe the surface. Pre-treated cloths, such as those used for eyeglasses or cameras, may be used to clean the Telephone. Premoistened towelettes may also be used, however avoid those containing lanolin or aloe as they will leave a slippery residue. The handset and surface of the telephone may be cleaned with disinfectants used for general cleaning in a medical environment. Isopropyl alcohol may be used applied with a cloth. Avoid using alcohol on silicon based keypads, since doing so may significantly degrade legibility.

- Do not use furniture polishes, waxes or plasticizer-based cleaner (Armor All etc.)
- Do not use lanolin, aloe, glycerin or other skin care type products.
- Do not apply any solvent such as acetone, mineral spirits etc.
- Do not directly spray or immerse the handset.

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:
    - o Remove product from packaging (including plastic bags) and store on shelf in open air.
    - o 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.
    - o 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.

Notes:

Model No.	
Part No.	
Serial No.	
Date of Purchase	

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