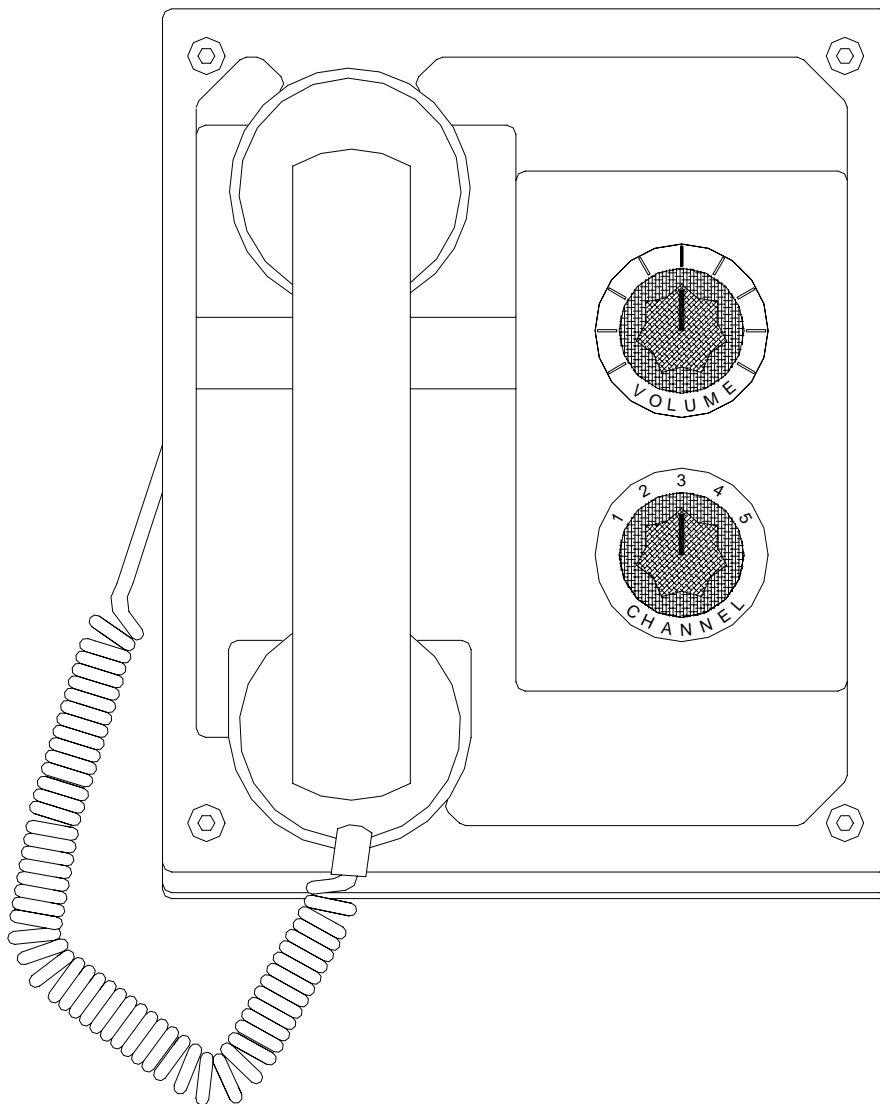


# Page/Talk Industrial Desk Stations

Models DTP-1 and DTP-5

Installation & Operation



## **Table of Contents**

Package Contents .....	2
Overview .....	3
Features .....	3
Electrical Connection Details.....	6
Installing the DTP-1/-5 Desk Station .....	7
Accessing the Interior of the DTP-1/-5 Desk Station .....	7
Operating the DTP-1 Single Line Station .....	8
Operating the DTP-5 Multi Line Station.....	8
Troubleshooting.....	9
Engineering Specifications .....	10
Warranty .....	11
Disclaimer.....	11
Warning.....	11
Service Telephone Number.....	11
Feedback.....	11
Guardian Product Return .....	12
Page/Talk Product Series Description.....	13
Appendix A – Circuit Board Layout - Typical.....	14
Appendix B – Typical Installation .....	15

## **Table of Figures**

Figure 1 - DTP-1/-5 Features .....	4
Figure 2 - DTP-1/-5 Dimensions.....	4
Figure 3 - Junction Box & Power Supply Features.....	5
Figure 4 - Junction Box & Power Supply Dimensions .....	5
Figure 5 - Junction Box Wiring .....	6
Figure 6 - Electrical Connections.....	6

## **Package Contents**

- One (1) Page/Talk Desk Station
- One (1) Junction Box and Power Supply Enclosure
- One (1) Installation & Operation Manual

## Overview

### ***DTP-1/-5 Page/Talk Desk Stations***

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 party line.

Models DTP-1 (Single Line) and DTP-5 (Multi Line) desk stations are described in this manual. The sets consist of two components; a desktop station and a junction box/power supply enclosure. The enclosure houses the wiring board and a power converter board. A single customized cable supplied with the set provides the connection between the enclosure and the desktop station.

Desktop stations are equipped with a 5 Watt speaker with volume control, and a noise reducing microphone handset. A press bar switch on the handset enables one-hand paging operations.

Guardian's stations and related equipment are compatible with systems provided by most other manufacturers.

### **Features**

#### ***Desk Set Enclosure***

- cover black PVC
- base 16 gauge steel, zinc dichromate plated and powder coated

#### ***Junction Box and Power Supply Enclosure***

- 16 gauge steel, zinc dichromate plated and powder coated

#### ***Connectors***

- removable screw and plug Combicon connectors allow for ease of installation
- simply screw wires into plug and reinsert plug into PCB socket

#### ***Handset***

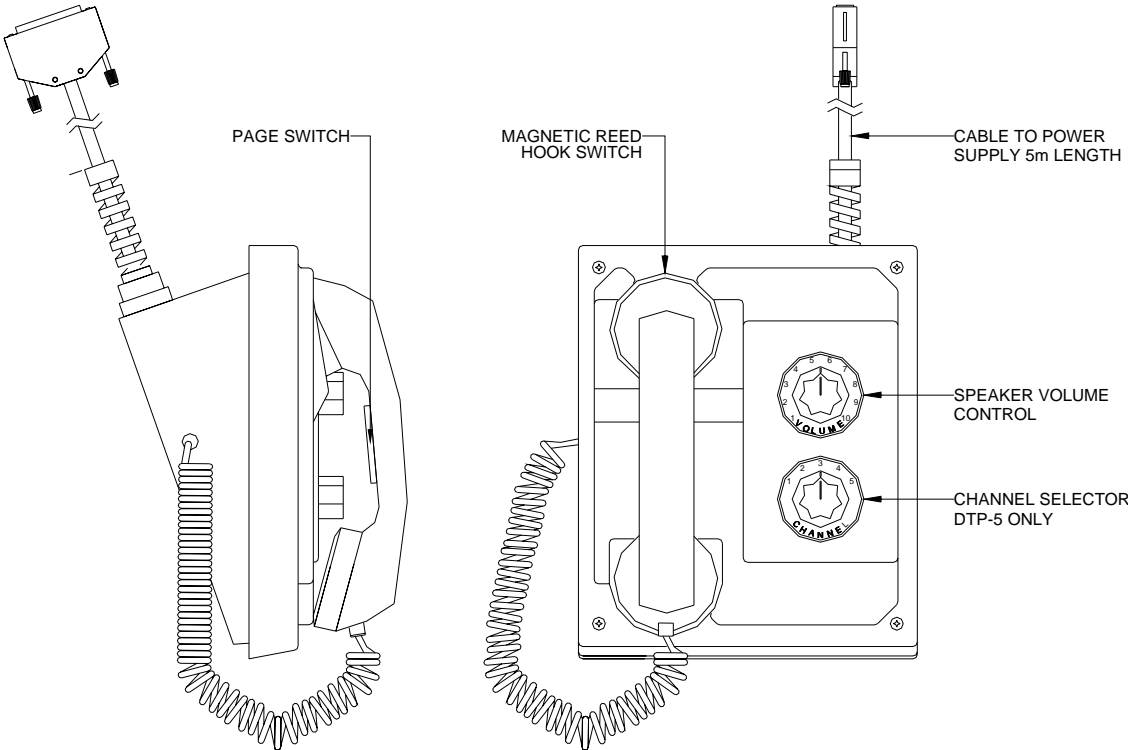
- page switch on handset
- noise reducing microphone
- electronic hook switch provides durability

#### ***Headset***

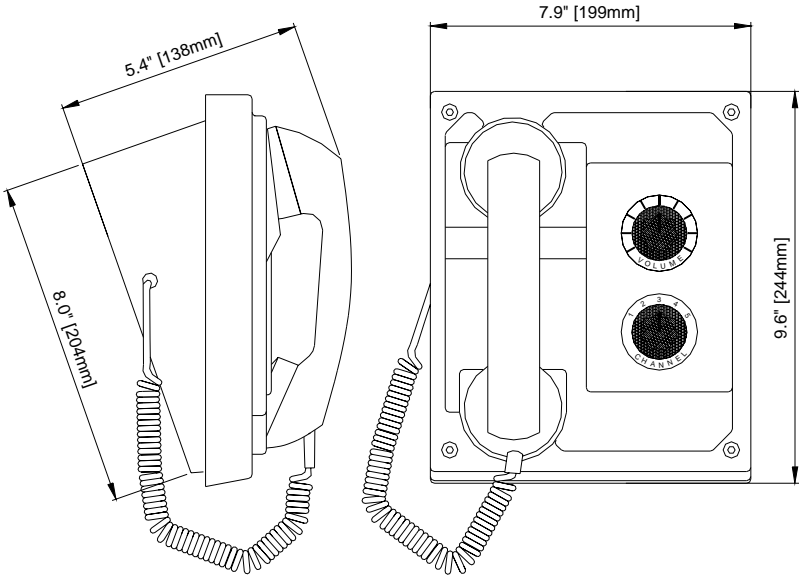
- optional plug in headset

#### ***Controls***

- speaker volume - externally accessible
- microphone gain
- receiver volume
- side tone adjustment



**Figure 1 - DTP-1/5 Features**



**Figure 2 - DTP-1/5 Dimensions**

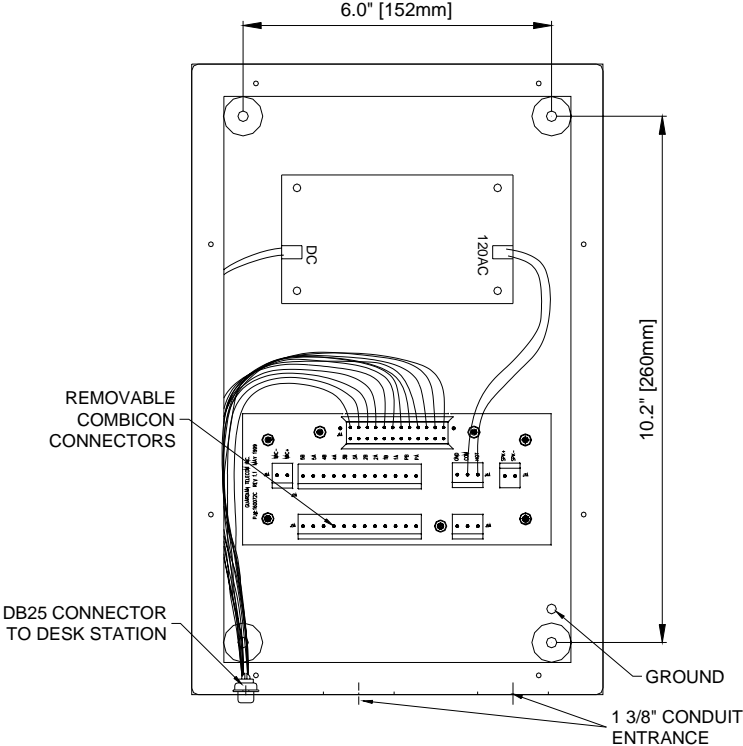


Figure 3 - Junction Box & Power Supply Features

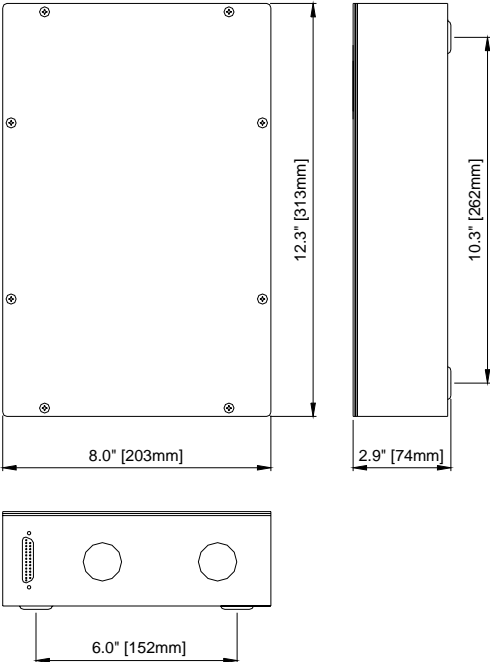


Figure 4 - Junction Box & Power Supply Dimensions

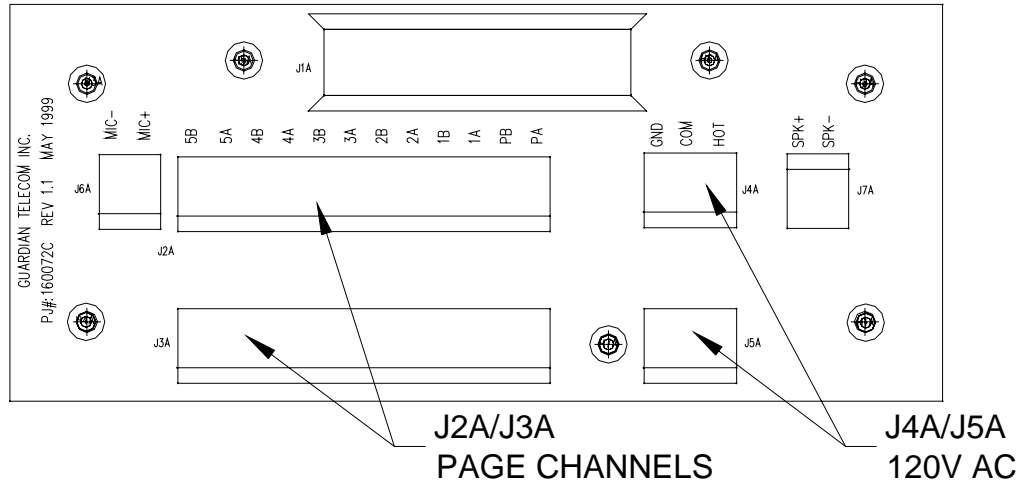


Figure 5 - Junction Box Wiring

Electrical Connection Details

Assignment	Designation	Description	Jacket Color	Stripe Color
System Power	J4A/J5A J4A/J5A J4A/J5A	HOT COM GND	Black White Green	Yellow
*Ambient Noise Microphone	J6A J6A	MIC + MIC -	n/a n/a	n/a n/a
*Speaker	J7A J7A	SPK + SPK -	n/a n/a	n/a n/a
Page Line	J2A/J3A J2A/J3A	PA Page Line PB "	Brown White	Brown
Channel	J2A/J3A J2A/J3A	1A Channel 1 1B "	Red White	Red
	J2A/J3A J2A/J3A	2A Channel 2 2B "	Purple White	Purple
	J2A/J3A J2A/J3A	3A Channel 3 3B "	Red Blue	Blue Red
	J2A/J3A J2A/J3A	4A Channel 4 4B "	Yellow White	Yellow
	J2A/J3A J2A/J3A	5A Channel 5 5B "	Blue White	Blue
Group Muting of Loudspeakers	J2A/J3A J2A/J3A	Mute Park	Brown	

**Note:** Channels 2 to 5 connections remain empty for DTP-1 hookup.  
\* No connection with DTP-1/-5

Figure 6 - Electrical Connections

### Installing the DTP-1/-5 Desk Station

**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.
- Remove the screws on the junction box/power supply enclosure faceplate and remove the faceplate.
- Ensure that the power supply in the enclosure is set up for the correct input voltage.
- Mount the junction box/power supply enclosure within 5 meters of where the desk set will be stationed. The location should be free of obstructions and with space to make the necessary connections. Use the template provided to locate and drill holes for the enclosure mounting screws.
- Ensure that none of the electrical connection circuits are live.
- Bring cable(s) into the enclosure through the cable entrance(s) and attach individual wires to the Combicon connector(s). Attach the first or only cable to the bottom connector. Make connections to terminals 1A and 1B for the single line DTP-1.
- Plug the connectors into the receptacle on the interface PCB.
- Ensure all connections are secure.
- Replace the cover
- Plug the desk set cable plug into the enclosure connector and ensure the connection is secure.
- Apply power to the system.
- Adjust speaker volume to the desired level using the control on the face of the desk set.
- Test the installation by making a call as described in the operating section.

**Tip:** Check the label on the circuit board cover.

**Tip:** The desk unit is equipped with a 5-meter cable terminated with a connector that plugs into the bottom of the enclosure.

**See:** Figure 5 - Junction Box Wiring and Figure 6 - Electrical Connections

### Accessing the Interior of the DTP-1/-5 Desk Station

Follow these instructions should it be necessary to access the interior of the DTP-1/-5 for adjustments or repairs.

- Unplug the desk station cable at the junction box.
- Remove all faceplate cover screws.
- Lift off the faceplate cover.
- Perform the necessary adjustments or repairs.
- Replace the faceplate.
- Reconnect the desk station to the power supply enclosure.

**See:** Figure 1 - DTP-1/-5 Features

**Note:** Be careful when removing the faceplate. The circuit board is on the faceplate.

### Operating the DTP-1 Single Line Station

#### **Initiating a Call**

- Remove the handset.
- Ensure that the line is free

#### **Broadcasting a Page**

- Press and hold the **Page** button on the handset.
- Broadcast the page. (e.g. "Joe, I need to talk to you, pick up a handset.")

#### **Connecting with a Second Party**

- When the second party picks up their handset, both parties are connected and can carry on a conversation.

#### **Freeing the Line**

- Place the handset back on the cradle.

**Note:** There is one talk line on the DTP-1.

**Note:** Continue holding down the Page button while broadcasting the page.

**Note:** The second party can be located at any other station.

### Operating the DTP-5 Multi Line Station

#### **Initiating a Call**

- Remove the handset.
- Select a free line using the **Line** selector.

#### **Broadcasting a Page**

- Press and hold the **Page** button on the handset.
- Broadcast the page that includes the number of the line you are using. (e.g. "Joe, talk to me on line one.")

#### **Connecting with a Second Party**

- When the second party picks up their handset, both parties are connected and can carry on a conversation.

#### **Freeing the Line**

- Place the handset back on the cradle.

**Note:** There are five talk lines on the DTP-5.

**Note:** Continue holding down the Page button while broadcasting the page.

**Note:** The second party can be located at any other station.



### Troubleshooting

**Note:** If access to the interior of the DTP-1/-5 is required refer to the appropriate section.

#### **Station Is Dead But Speaker Is Working**

- No Repair Possible, Return Desk Set For Repair.

#### **Station Is Dead And Speaker Is Not Working**

- Ensure power is being supplied to the station.
- Check the fuses located on the circuit boards in the desk set and in the power supply enclosure and replace if necessary. Correct the problem that caused the fuse to fail.

#### **Handset Microphone Volume Too Low**

- Adjust TX level control on circuit board.

#### **Handset Receiver Volume Too Low**

- Adjust RX level control on circuit board.

#### **Feedback Or Distortion**

- Adjust sidetone level control on circuit board.
- Inspect the line and connections for shorts and grounds.

#### **Sidetone**

- Adjust sidetone level control on circuit board.

#### **Station Stays On or Off Hook**

1. Ensure power is being supplied to the station.
2. Test the proximity switch in the handset receiver cradle by moving a small, permanent magnet over the area while listening on the handset for the line to open and close.
3. If the movement of the magnet switches the on/off hook condition, the magnet in the receiver cartridge of the handset may be weak – try another handset. It is not necessary to wire in the new handset to perform this test – if the new handset switches the on/off hook condition, replace the existing handset with the new unit.
4. If the movement of the magnet does not appear to switch the on/off hook condition the handset itself may be defective – try another handset.
5. If these remedies do not correct the problem return the station for repair.

#### **Excessive Noise on Line**

- Verify no other station's handset is off the hook.

#### **Crosstalk**

- Inspect wire terminations for crossed wire pairs.

**See:** Accessing the Interior of the DTP-1/-5

**See:** Warranty and Product Return

**See:** Engineering Specifications for correct fuse rating

**See:** Warranty and Product Return

<b>Engineering Specifications</b>	
<b><i>ELECTRICAL REQUIREMENTS POWER SUPPLY</i></b>	
INPUT VOLTAGE	120/240VAC
INPUT FREQUENCY	50/60HZ
INPUT CURRENT	120VAC 0.1AMP, 240VAC 0.05 AMP
FUSE	120VAC 0.5AMP, 240 VAC 0.25 AMP - 2AG FAST BLOW
<b><i>ELECTRICAL REQUIREMENTS DESK SET</i></b>	
INPUT VOLTAGE	24VDC
<b><i>HANDSET AMPLIFIER</i></b>	
OUTPUT LEVEL	1.5VRMS NOMINAL INTO 33 OHM LOAD
OUTPUT LIMITER	1.5VRMS NOMINAL
TRANSMIT GAIN	50dB
FREQUENCY RESPONSE	250 – 4000HZ
DISTORTION	1.5% MAXIMUM THD @ 1000HZ
<b><i>SPEAKER AMPLIFIER</i></b>	
OUTPUT LEVEL	5 WATTS TO 45 OHM SPEAKER
SOUND PRESSURE LEVEL (SPL)	1.5 VAC AT 80dB @ 1 METER
FREQUENCY RESPONSE	250 – 4000HZ
DISTORTION	1.5% MAXIMUM THD @ 1000HZ 3 WATTS
INPUT IMPEDANCE	200K OHMS, NOMINAL
<b><i>MECHANICAL</i></b>	
CONSTRUCTION - DESKTOP STATION	COVER PVC. BASE 16 GAUGE STEEL, ZINC DICHROMATE PLATED AND POWDER COATED
- POWER SUPPLY ENCLOSURE	16 GAUGE STEEL, ZINC DICHROMATE PLATED AND POWDER COATED
DIMENSIONS - DESKTOP STATION	7.9X9.6X5.4 INCHES (199X244X138MM)
- POWER SUPPLY ENCLOSURE	8.0X12.3X2.9 INCHES (203X313X74MM)
NET WEIGHT - DESKTOP STATION	6.0 LBS/2.7 KG
- POWER SUPPLY ENCLOSURE	7.0 LBS/3.2 KG
MOUNTING - DESK SET	HORIZONTAL DESK OR VERTICAL WALL
- POWER SUPPLY ENCLOSURE	VERTICAL WALL
CONNECTION METHOD - DESK SET	5 METER CABLE SUPPLIED WITH DESK SET
- POWER SUPPLY ENCLOSURE	TWO 1 3/8" CABLE ENTRY OPENINGS
<b><i>COMPLIANCE</i></b>	
CANADIAN STANDARDS ASSOCIATION (CANADA & USA)	CSA C22.2 No.205 SIGNAL EQUIPMENT
	CSA C22.2 No. 60950 SAFETY OF INFORMATION TECHNOLOGY EQUIPMENT
	UL464 AUDIBLE SIGNAL APPLIANCES

### **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**

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

### **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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Fax. (403) 253-4967  
[www.guardiantelecom.com](http://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.

<b>Guardian Product Return</b>
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.
<b>Step I - On-Site Correction</b>
<ul style="list-style-type: none"><li>• 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.</li></ul>
<ul style="list-style-type: none"><li>• 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.</li></ul>
<b>Step II - Return Materials Authorization (RMA)</b>
<ul style="list-style-type: none"><li>• 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 <a href="http://www.guardiantelecom.com">www.guardiantelecom.com</a>, or by calling the service telephone number given in this manual.</li></ul>
<ul style="list-style-type: none"><li>• 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.</li></ul>
<ul style="list-style-type: none"><li>• 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.</li></ul>
<ul style="list-style-type: none"><li>• (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.")</li></ul>
<b>Step III - Factory Authorized Service</b>
<ul style="list-style-type: none"><li>• 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.</li></ul>
<ul style="list-style-type: none"><li>• 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.</li></ul>

### **Page/Talk Product Series Description**

Guardian's Page/Talk Systems provide reliable and easy to use paging and communication within industrial environments and hazardous locations, such as plants, mills and factories. Wall and desk stations are available in both single line and multi line models. Individuals can be paged from any station and two or more persons can communicate on any available line. With the addition of a Merge/Isolate Cabinet up to 12 zones are supported.

These systems provide quality paging and communication functions, and with the telephone interface unit, communication outside the system. Speaker amplifier units provide the capability of adding extra speakers without the need for a Page/Talk station. The alarm tone generator provides synthesized audio alarm signals for plant safety systems and can be programmed to activate strobe lights for additional warning in noisy environments.

Guardian's Stations and related equipment are compatible with systems provided by most other manufacturers.

### **Page/Talk System Models and Options**

#### **Standard Stations**

P5901 SIP-1 Single Line Wall Station  
P5906 SIP-5 Multi Line Wall Station  
P5950 SIA Amplifier Unit  
P5911 DTP-1 Single Line Desk Set  
P5916 DTP-5 Multi Line Desk Set  
P5921 WTP-1 Single Line Weather Proof Wall Station, NEMA 4X  
P5926 WTP-5 Multi Line Weather Proof Wall Station, NEMA 4X  
P5922 WTA Weather Proof Amplifier Unit, NEMA 4X

#### **Hazardous Location and Explosion Proof Stations**

P5900 SIP-H-1 Single Line Wall Station, Class I, Div.2  
P5905 SIP-H-5 Multi Line Wall Station, Class I, Div.2  
P5951 SIA-H Amplifier Unit, Class I, Div. 2  
P5910 DTP-H-1 Single Line Desk Set, Class I, Div.2  
P5915 DTP-H-5 Multi Line Desk Set , Class I, Div.2  
P5920 WTP-H-1 Single Line Weather Proof Wall Station, NEMA 4X, Class I, Div.2  
P5925 WTP-H-5 Multi Line Weather Proof Wall Station, NEMA 4X, Class I, Div.2  
P5957 WTA-H Weather Proof Amplifier Unit, NEMA 4X, Class I, Div. 2  
P5930 EXP-1 Explosion Proof Single Line Wall Station, Class I, Div.1  
P5935 EXP-5 Explosion Proof Multi Line Wall Station, Class I, Div.1  
P5956 EXA Explosion Proof Amplifier Unit, Class I, Div. 1

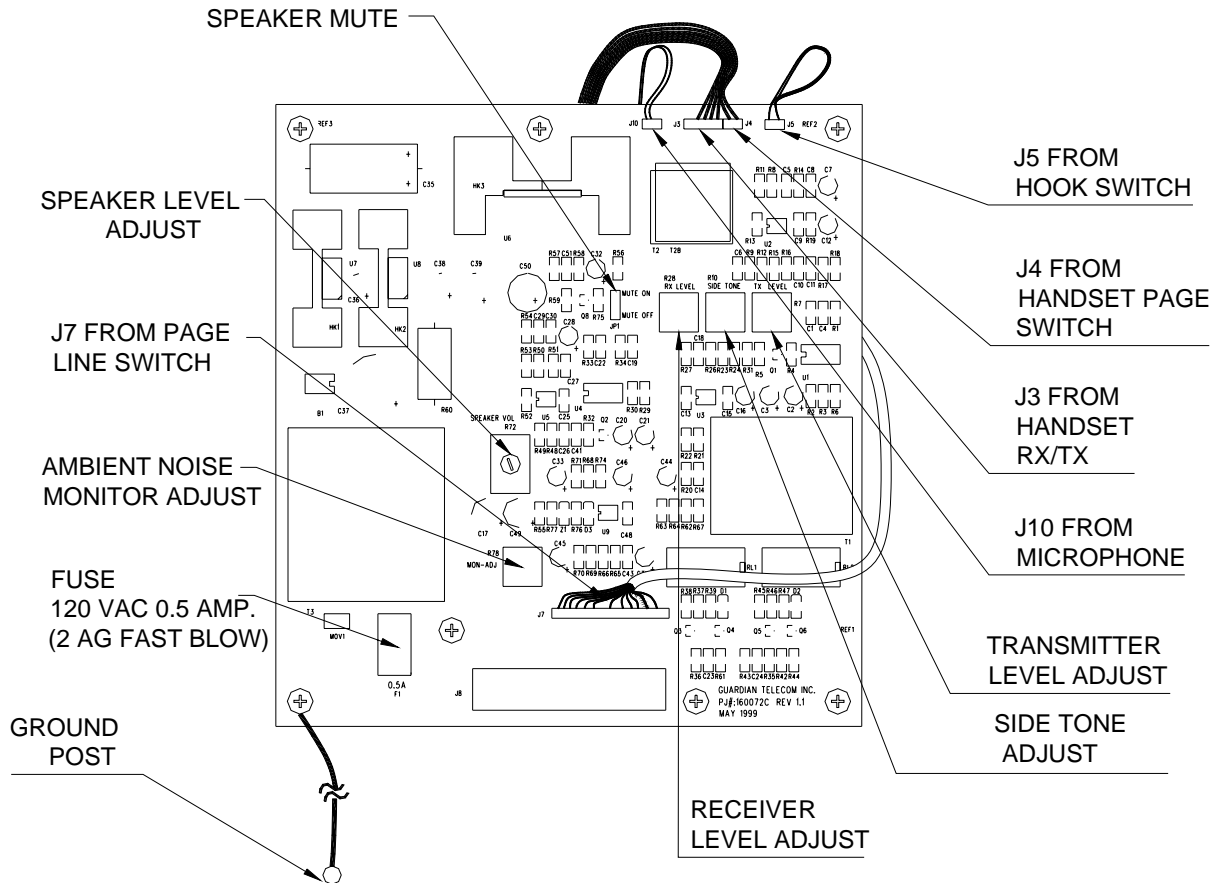
#### **Options**

P5940 PTI Telephone Interface Unit  
P5980 PTL Line Balance Assembly  
P5970 AG17 Alarm Tone Generator  
P5960 AG17 Alarm Tone Generator, (with optional relay board.)

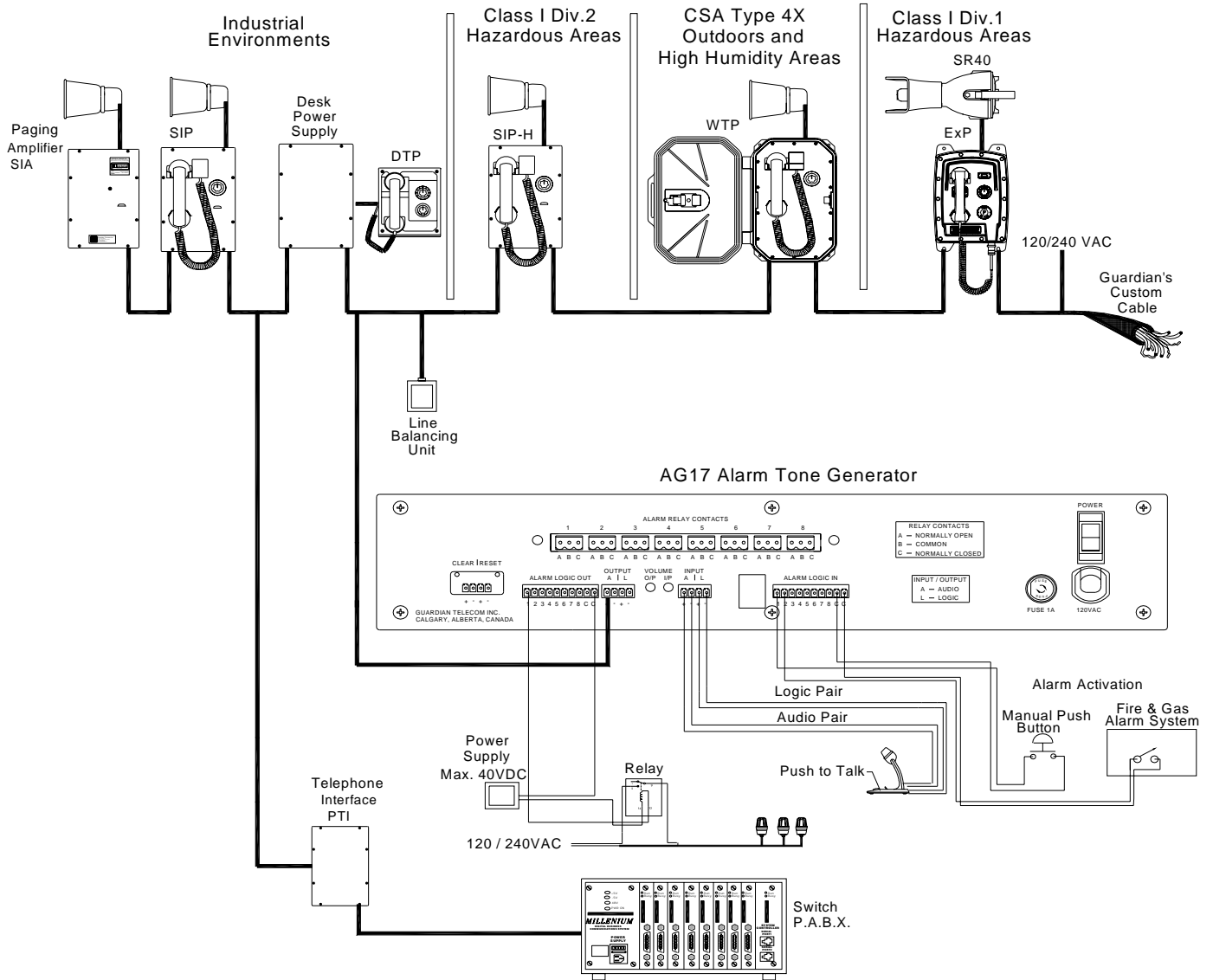
#### **Cable**

P005219 Standard 16 Conductor  
P005366 Heavy Duty 16 Conductor

Appendix A – Circuit Board Layout - Typical



Appendix B – Typical Installation





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