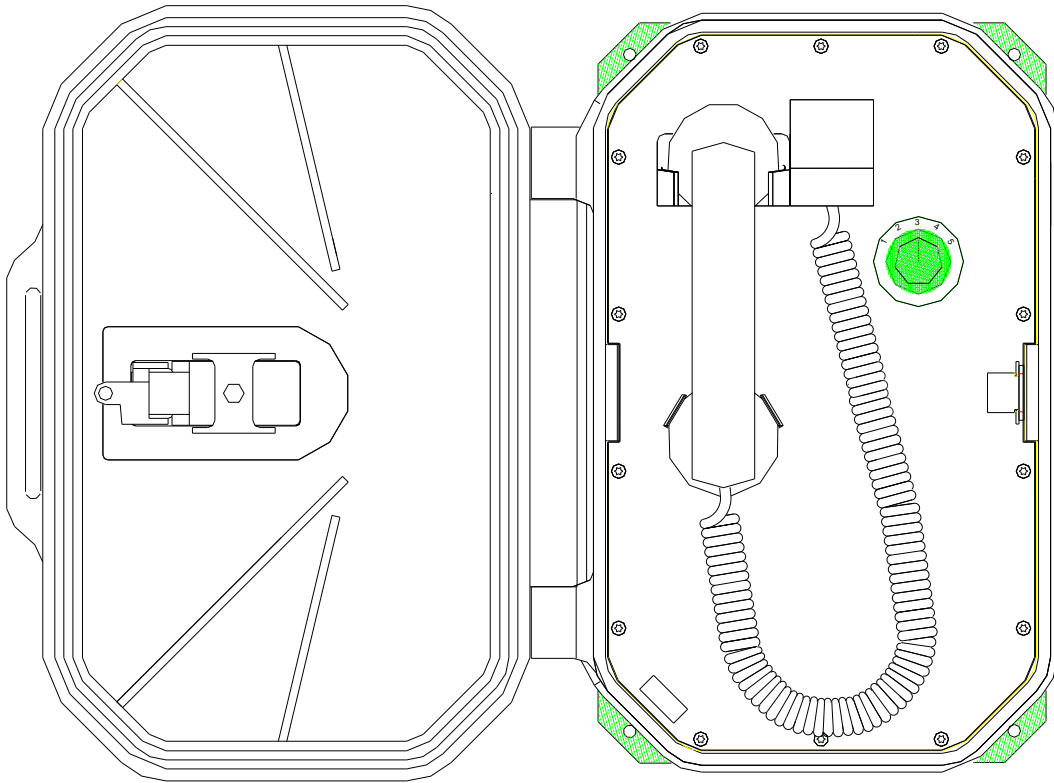




# Guardian Telecom Inc.

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## Page/Talk Weatherproof Wall Stations Models MLW80 and MLW85



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## Overview

### ***MLW80/85 Page/Talk Wall Stations***

These Page/Talk Wall Stations are designed to provide communication in exposed environments. They provide easy to operate paging with the versatility of one or five party lines. Individuals can be paged from any station and two or more people can communicate simultaneously on any available party line.

### **Features**

#### ***Enclosure***

- water proof and dust-resistant
- urethane housing
- 16 gauge steel faceplate

#### ***Finish***

- durable powder coat

#### ***Ambient Noise Monitor***

- monitors the ambient noise and adjusts speaker volume accordingly
- initial level adjusting on faceplate

#### ***Connectors***

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

#### ***Handset***

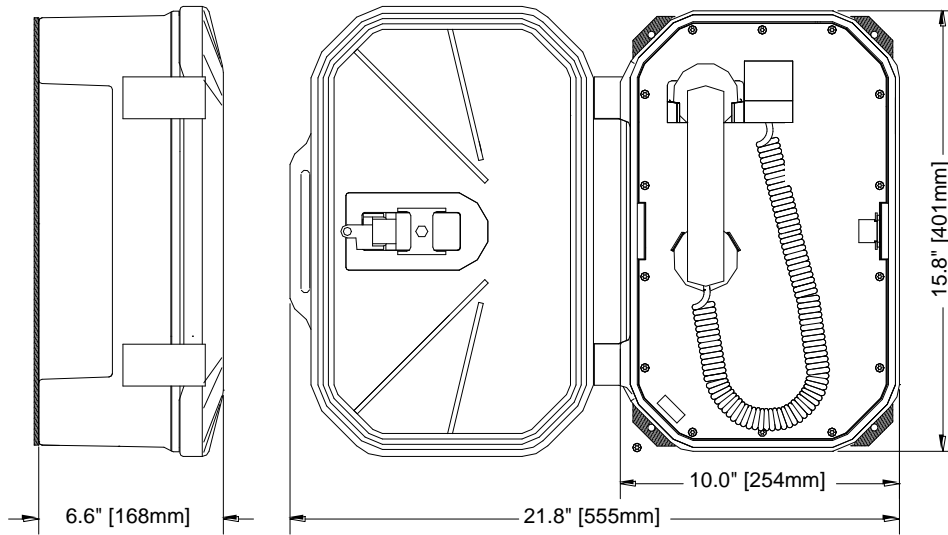
- page switch on handset
- noise canceling microphone
- electronic hook switch provides durability

#### ***Headset***

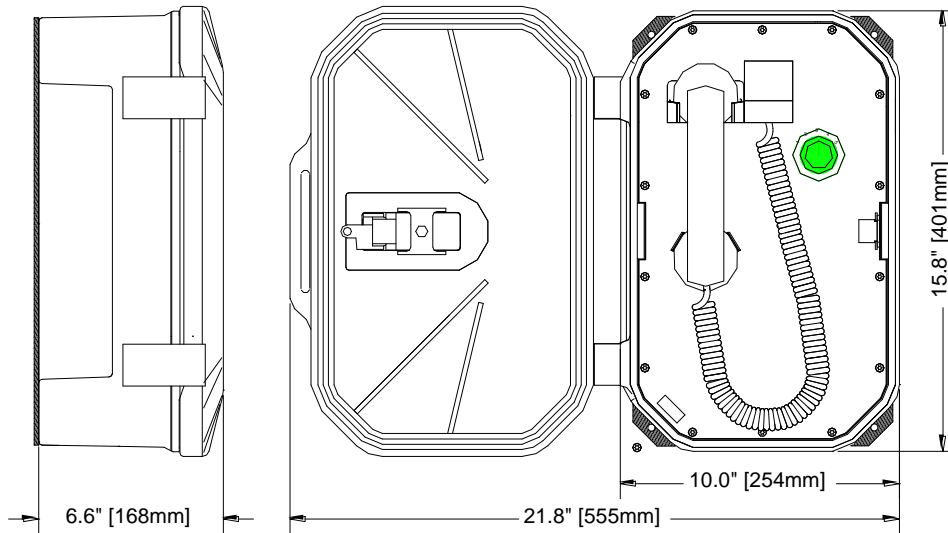
- optional plug in headset

#### ***Controls***

- speaker volume control
- ambient noise level
- microphone gain
- receiver volume
- side tone adjustment



**Figure 1 - MLW80 Configuration**



**Figure 2 - MLW85 Configuration**

### Package Contents

One (1) Page/Talk Wall Station  
Fourteen (14) Faceplate Screws  
Installation and Operation Manual

#### Installing the MLW80/85

- Follow all appropriate electrical codes and use only approved electrical fittings for the installation.
- Choose a wall location that is free of obstructions and permits space for conduit or wire.
- Ensure mounting can support 11 lbs./5 kg.
- Ensure that none of the electrical connection circuits are live.
- Use the template provided to locate and drill holes for mounting screws.
- Remove the screws on the faceplate and remove the faceplate.
  
- Secure the unit to the wall.
- Bring cable into the enclosure through the conduit entrance and attach individual cable wires to the Combicon connector.
- Plug the connectors into the receptacle on the interface PCB.
- Ensure all connections are secure.
- Replace the faceplate.
- Apply power to the system.
- Adjust speaker volume to the desired level using the potentiometer accessible through the faceplate.

**See:** *MLW Drawings, above.*

**See:** *Insert - Template*

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

**See:** *Figure 3 Wiring and Figure 4 Electrical Connections, below.*

**Note:** *Adjust speaker volume while ambient noise at the station is at a minimum.*

### Operating the MLW80 Single Line Station

#### **Initiating a Call**

- Remove the handset.
- Ensure 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 MLW80.

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

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

### Operating the MLW85 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 MLW85.

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

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

### Maintaining the MLW80/85

- Do not allow any equipment maintenance except fuse replacement.
- Remove power from the wall station.
- Remove all faceplate cover screws.
- Lift off the faceplate cover.
- Replace the fuse.
- Put the faceplate cover back on and secure the cover screws.
- Apply power to the wall station.

**Note:** All repairs must be done by Guardian Telecom or its authorized service depot.  
**See:** Warranty and Disclaimer.

**See:** configuration drawings.

### Troubleshooting

If you experience operational problems with the Page/Talk Wall Station, contact Guardian Telecom Inc. for assistance.

**Outgoing volume level is too low:**

- Adjust TX level control

**Incoming volume level is too low:**

- Adjust RX level control

**Station stays on or off hook:**

- Inspect proximity switch for continuity

**Feedback or distortion:**

- Adjust receiver sidetone
- Inspect the line and connections for shorts and grounds

**Sidetone:**

- Adjust receiver sidetone
- Inspect the line and connections for shorts and grounds

**Excessive noise on channel:**

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

**Crosstalk:**

- Inspect wire terminations for crossed wire pairs

**See:** Service Telephone Number.

Mounting Drawings

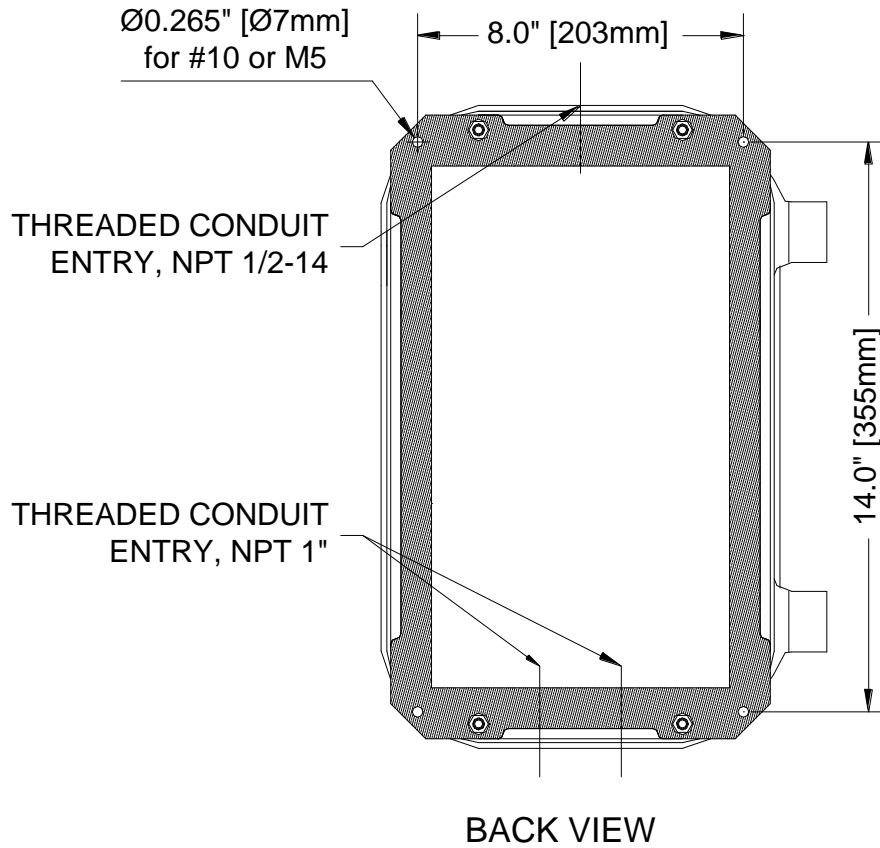


Figure 3 - Mounting

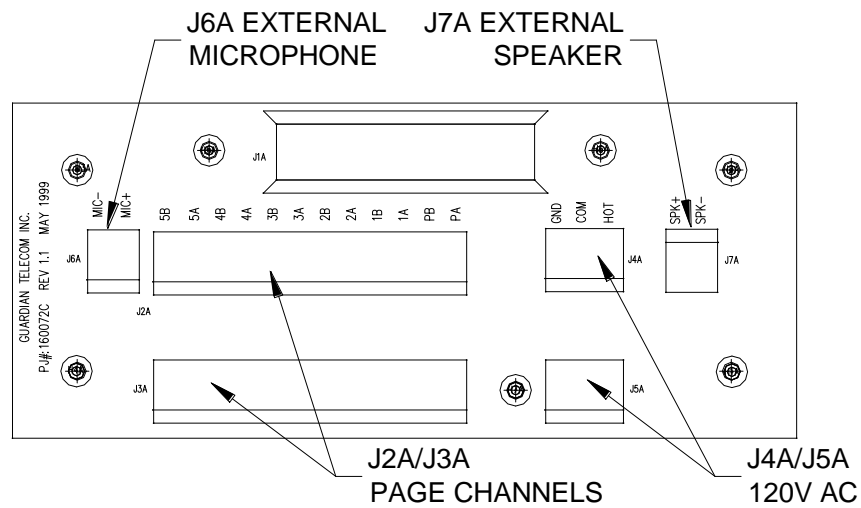


Figure 4 - Wiring



**Electrical Connection Details**

<i>Source</i>	<i>Designation</i>	<i>Description</i>
120/240VAC	J4A/J5A	HOT
	J4A/J5A	COM
	J4A/J5A	GND
External Ambient Noise Microphone	J6A	MIC +
	J6A	MIC -
Speaker	J7A	SPK +
	J7A	SPK -
Channel	J2A/J3A	PA Page Line
	J2A/J3A	PB “
	J2A/J3A	1A Channel 1
	J2A/J3A	1B “
	J2A/J3A	2A Channel 2
	J2A/J3A	2B “
	J2A/J3A	3A Channel 3
	J2A/J3A	3B “
	J2A/J3A	4A Channel 4
	J2A/J3A	4B “
	J2A/J3A	5A Channel 5
	J2A/J3A	5B “

**Figure 5 - Electrical Connections**

<b>Engineering Specifications</b>	
<b><i>Electrical Requirements</i></b>	
Input voltage	120/240VAC
Input frequency	50/60Hz
Input current	0.5A
<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	1.0% Maximum THD @ 1000HZ
<b><i>Speaker Amplifier</i></b>	
Output level	10 Watts with nominal voltage
Amplifier gain	0.5VRMS at rated output
Frequency response	250 – 4000KHZ
Distortion	1% Maximum THD @ 1000HZ 10Watts
Input impedance	200K Ohms, nominal
<b><i>Environmental</i></b>	
Weather Tight	enclosure gasket and door
Dust Tight	enclosure gasket and door
<b><i>Mechanical</i></b>	
Body Construction	Urethane
Dimensions	10x15.8x6.6 (254x401x168mm)
Net Weight	11 lbs./5 Kg
Standard Mounting	vertical wall
Connection Fittings	conduit fitting

**Figure 6 - Specifications**

### **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.

### **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.

### **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 Inc.  
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[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.

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

Guardian Telecom's Page/Talk Series is designed to provide dependable communications in harsh environments and hazardous areas. The wall and desk page/talk stations are available in single line or multi line models to meet the needs of a complete industrial communication system. These systems provide quality paging and party line functions and, with the telephone interface unit, quality communication outside the system. Speaker amplifier units provide the capability to add extra speakers without the need for a page/talk station. The alarm tone generator provides synthesized audio alarm signals for plant safety systems.

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

#### **Standard Stations**

- P5901 MLW10 Single Line Wall Station
- P5906 MLW15 Multi Line Wall Station
- P5910 MLD20 Single Line Desk Set
- P5915 MLD25 Multi Line Desk Set
- P5921 MLW80 Single Line Weather Proof Wall Station
- P5926 MLW85 Multi Line Weather Proof Wall Station

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

- P5900 MLW100 Single Line Wall Station, Class 1, Div.2
- P5905 MLW150 Multi Line Wall Station, Class 1, Div.2
- P5910 MLD200 Single Line Desk Set, Class 1, Div.2
- P5915 MLD250 Multi Line Desk Set , Class 1, Div.2
- P5920 MLW800 Single Line Weather Proof Wall Station, Class 1, Div.2
- P5925 MLW850 Multi Line Weather Proof Wall Station, Class 1, Div.2
- P5930 MLX300 Single Line Wall Station, Class 1, Div.1
- P5935 MLX350 Multi Line Wall Station, Class 1, Div.1

#### **Options**

- P5940 MLI15 Telephone Interface Unit
- P5950 MLA13 Amplifier Unit
- P5951 MLA130 Amplifier Unit, Class 1, Div. 2
- P5956 MLA330 Amplifier Unit, Class 1, Div. 1
- P5970 AG17 Alarm Tone Generator
- P5960 AG17 Alarm Tone Generator, (with optional relay board.)