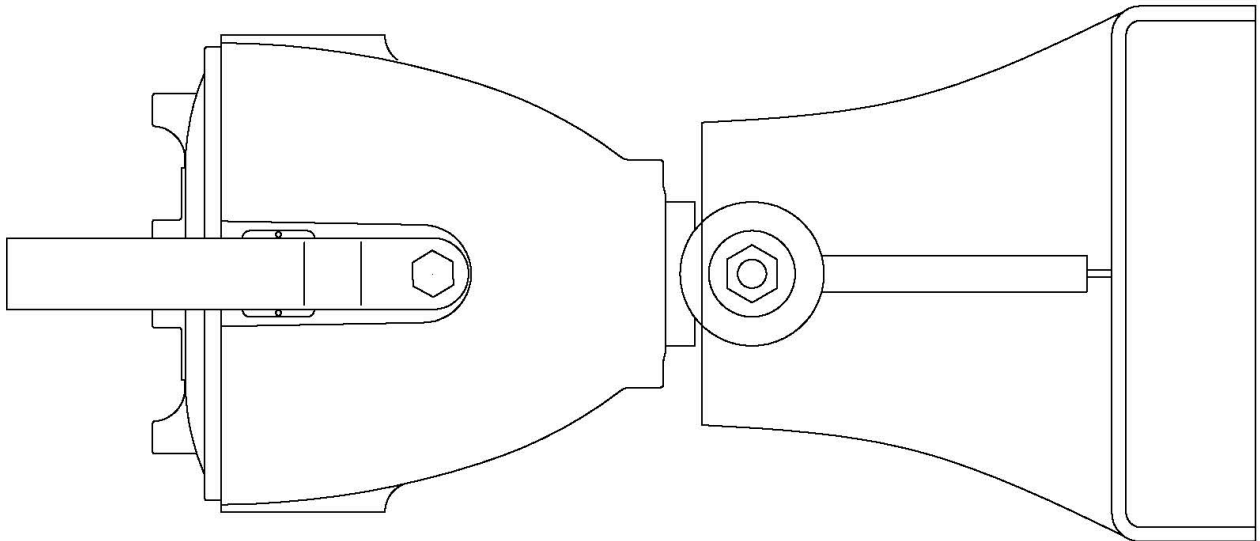




Explosion Proof Speaker

Models SR40-F&G

Installation & Operation



P007546 Rev. D 220405 4/20/2022 4:08 PM

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Package Contents

One (1) SR40-F or SR40-G Speaker

SR40 F & G Models

- P7263 SR40-F, 15 Watt 16 Ohm Paging Loudspeaker
- P7264 SR40-G, 15 Watt, 70V Paging Loudspeaker with DC Filter Circuit for Monitoring Line Integrity

Overview

SR40-F&G Explosion Proof Speaker

Guardian Telecom's rugged SR40-F&G Hazardous Area Speakers are approved for use in hazardous areas, making them ideal for use in harsh, industrial environments. Speakers generate a minimum of 85 dB SPL at 1 meter and have a 15 Watt input limit.

SR40-F&G speakers are designed to provide security against ignition of the surrounding atmosphere. All parts of the apparatus, which might produce an electrical spark, are completely enclosed. All passages to the outside are made such that any spark or flame will be cooled to a temperature below the ignition threshold before reaching the outside atmosphere.



Model P7263 is a 15 Watt 16 Ohm speaker only.


Model P7264 is a 15-Watt 70V speaker with DC filter circuit to monitor line integrity. The speaker is designed to operate on a 70 Volt audio system and comes factory set to 15 Watts. A jumper setting on the circuit board is used to select lower wattage levels.


Features
<i>Body and Cap Construction</i>
<ul style="list-style-type: none">• Cast, copper free aluminum• Powder coated
<i>Compliance</i>
<ul style="list-style-type: none">• Hazardous areas• Weatherproof
<i>Sound Pressure Level (SPL)</i>
<ul style="list-style-type: none">• 85 dB min at one meter


Important Pre-Installation Warnings and Precautions

Hazloc Certification Warning

○	P005326 REV. D		MADE IN CANADA 	○
<p>CAUTION: TO REDUCE THE RISK OF IGNITION OF HAZARDOUS ATMOSPHERES, DISCONNECT FROM THE SUPPLY CIRCUIT BEFORE OPENING. KEEP TIGHTLY CLOSED WHEN IN OPERATION.</p> <p>WARNING: CONDUIT RUNS MUST HAVE A SEALING FITTING INSTALLED WITHIN 18 INCHES OF THIS ENCLOSURE.</p> <hr/> <p>ATTENTION: POUR RÉDUIRE LE RISQUE D'EXPLOSION, OUVRIR LE CIRCUIT AVANT D'ENLEVER LE COUVERCLE. GARDER LE COUVERCLE BIEN FERMÉ TANT QUE LES CIRCUITS SONT SOUS TENSION.</p> <p>AVERTISSEMENT: LES CONDUITS DOIVENT ÊTRE SCELLÉS A MOINS DE 18 POUCES DE CE BOÎTIER.</p> <hr/> <p>ADVERTENCIA: EL TENDIDO DE CABLES TIENE QUE TENER ACCESORIOS SELLADOS, INSTALADO DENTRO DE LAS 18 PULGADAS DEL GABINETE.</p> <p>ATENCIÓN: PARA REDUCIR LOS RIESGOS DE IGNICIÓN DENTRO DE UNA ATMÓSFERA DE CIRCUITOS PELIGROSOS. DESCONECTE DESDE EL SUMINISTRO DE CIRCUITOS. ANTES DE ABRIR. MANTENGALO SUMAMENTE CERRADO MIENTRAS ESTÉ EN OPERACION.</p>				
○				○

 GENERAL ALERT ALERTE GÉNÉRALE	<p>Warning</p> <p><i>Electrical Hazard:</i> This product should be installed by a licensed electrician according to all electrical and building codes.</p> <p>Avertissement</p> <p><i>De danger électrique :</i> Ce produit doit être installé par un électricien agréé selon tous les codes électriques et du bâtiment.</p>
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 GENERAL ALERT ALERTE GÉNÉRALE	<p>Warning</p> <p><i>Dislocation Hazard:</i> To prevent injury, this apparatus must be securely attached to the floor/wall in accordance with the installation instructions.</p> <p>Avertissement</p> <p><i>Risque de dislocation:</i> Pour éviter les blessures, cet appareil doit être solidement fixé au plancher/mur conformément aux instructions d'installation.</p>
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 GENERAL ALERT ALERTE GÉNÉRALE	<p>Warning</p> <p><i>Hazardous Area:</i> Before opening the enclosure ensure that the area is safe and/or that the power conductors are not live.</p> <p>Avertissement</p> <p><i>Zone dangereuse:</i> Avant l'ouverture de l'enceinte, assurez-vous que la zone est sécuritaire et/ou que les conducteurs de courant ne sont pas sous tension.</p>
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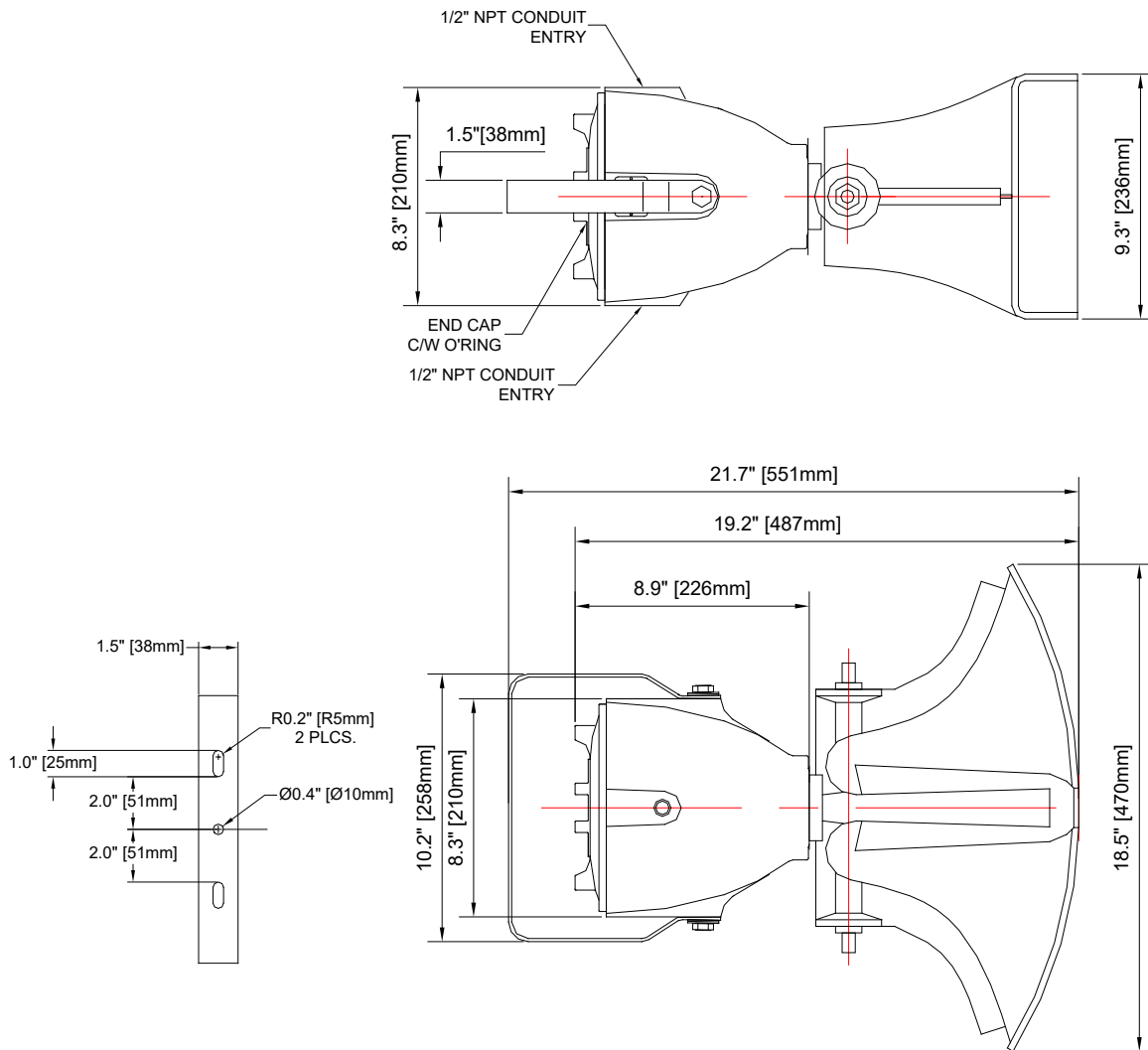


Figure 1 - Overall Dimensions

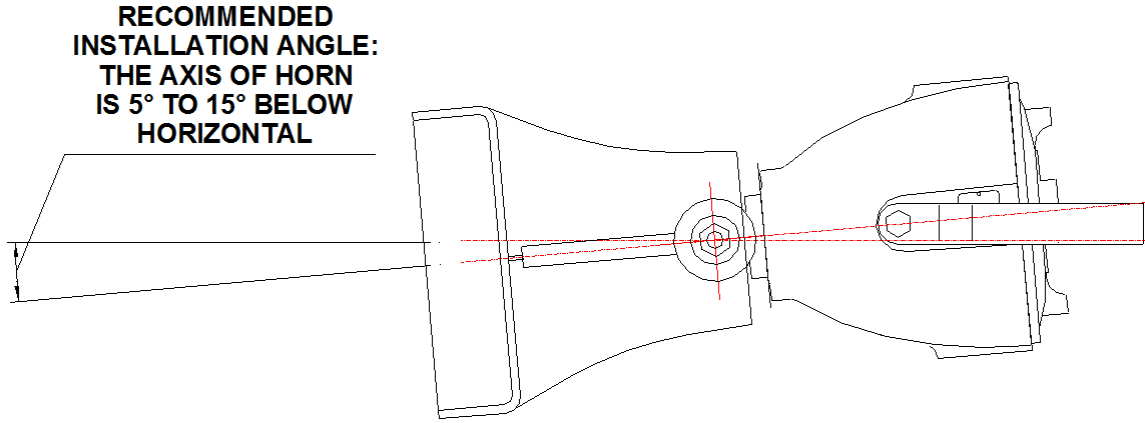


Figure 2 - Recommended Mounting Angle

NOTE: If the angle below horizontal is less than shown, draining the horn may be necessary.

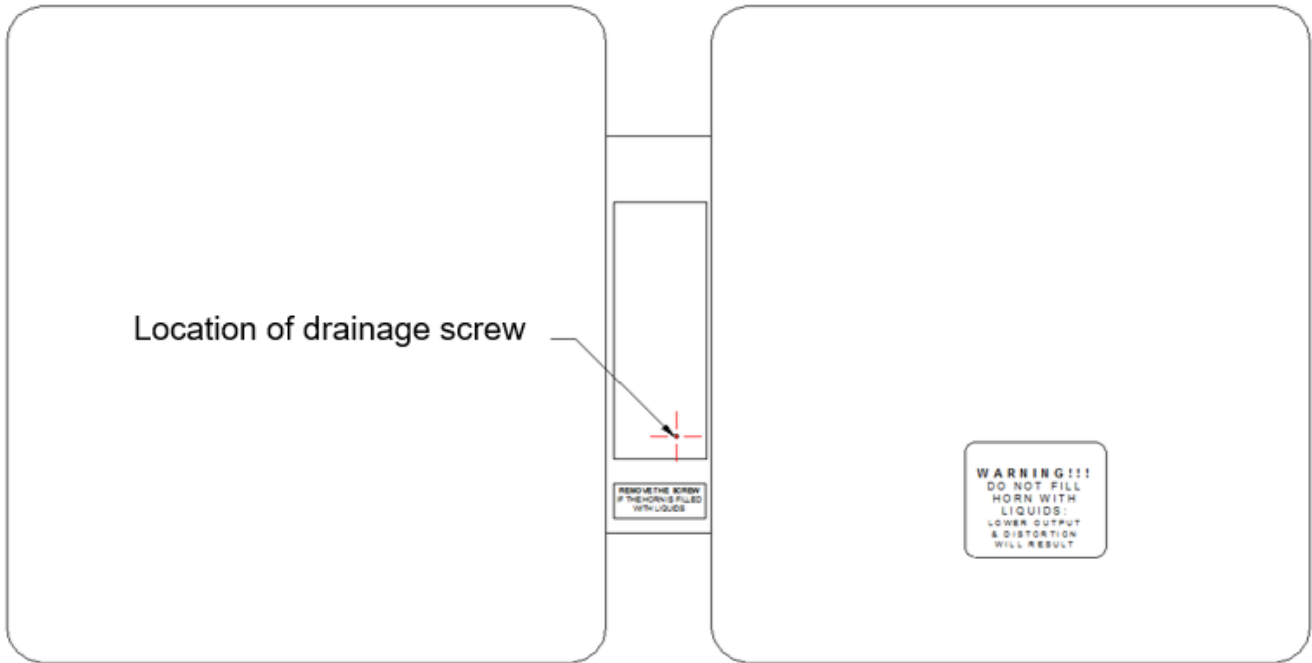


Figure 3 - Location of Drainage Screw

Installing the SR40-F&G

- **Declassify the hazardous location or disconnect wiring in a safe area before proceeding with any installation or electrical wiring.**
- Ensure that none of the electrical connection circuits are live.
- Install the SR40-F&G according to appropriate electrical codes using approved electrical fittings.

Note: This device must be wired using NFPA codes and standards.

- Choose a wall location that is free of obstructions and permits space for 1/2" NPT conduit runs or other approved wiring methods.
- When selecting the mounting method consider the need to access the interior of the speaker later.
- Ensure mounting can support 20lbs. (9kg).
- Mount the Cobraflex II horn onto the metal body with the threads on the metal body.
- Make any required checks and adjustments before mounting the speaker.
- Mount with two 3/8" bolts or equivalent
- Run wiring into the body of the device.
- Make wiring connections as instructed on the following pages.
- Ensure that threads and sealing surfaces are clean and undamaged.
- Replace the end cap and tighten firmly ensuring that the faces of the end cap and the body are in contact.
- Ensure that the axis angles downward away from the metal body at least 5 to 15 degrees below horizontal, so that the speaker cone opening is facing downwards. If the angle is less than 5 degrees below horizontal, ensure that the drainage screw hole is at the lowest point and remove the drainage screw.
- Apply power to the system.
- Test the unit by making a paging call.

Caution: Installation or electrical wiring in a hazardous location could result in serious injury to personnel or damage to property.

See: Figure 1 - Overall Dimensions.

See: Figure 3 - Location of Drainage Screw

CAUTION: To Reduce The Risk Of Ignition Of Hazardous Atmospheres, Disconnect From The Supply Circuit Before Opening. Keep Tightly Closed When in Operation.

WARNING: Conduit Runs Must Have A Sealing Fitting Connected Within 18 in. of This Enclosure.

P7263 SR40-F 15 Watt 16 Ohm Speaker

- **Note: If the speaker is to be installed in proximity to a telephone that is to be used for paging, an off hook detect relay or other methods may be required to prevent acoustic feedback.**
- Attach the amplifier output lines to the designated terminals on the circuit board.

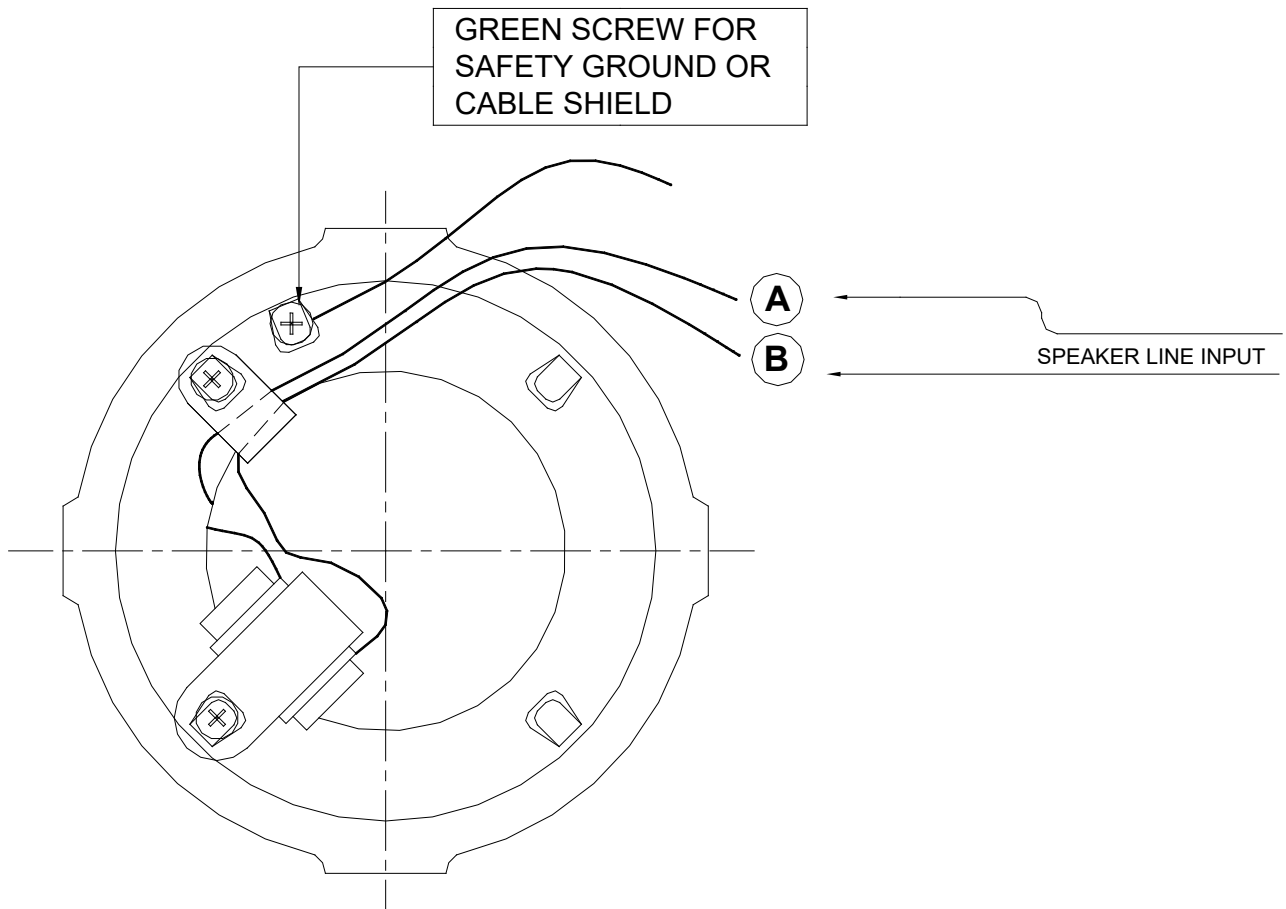


Figure 4 - Speaker Wiring

P7264 SR40-G 70V Paging Speaker with DC Filter Circuit

- **Note: If the paging speaker is to be installed in proximity to a telephone that is to be used for paging, an off hook detect relay or other methods may be required to prevent acoustic feedback.**
- The P7264 Paging Speaker is configured to be part of a system that monitors the integrity of connecting wiring. It contains circuitry that can be set with a jumper on the circuit board to either conduct or inhibit DC current. To be effective circuitry is required at the paging amplifier to impress and detect a 24 VDC bias voltage on the paging line. The monitoring system requires that all speakers on the line, except the last one must inhibit DC current; therefore, they must all be model P7264.
- Place jumper J2 in the "ON" position (ON-Center terminal) for the End of Line Unit. All other units on a common line set Jumper J2 in the "OFF" position (Off-Center terminal).
- Attach the 70-Volt paging lines to the designated terminals on the circuit board.
- If Paging Speaker power is to be less than factory set 15 Watts, move the jumper to the desired power level.

*See: Figure 5 - SR40-G
Paging Speaker with DC
Filter*

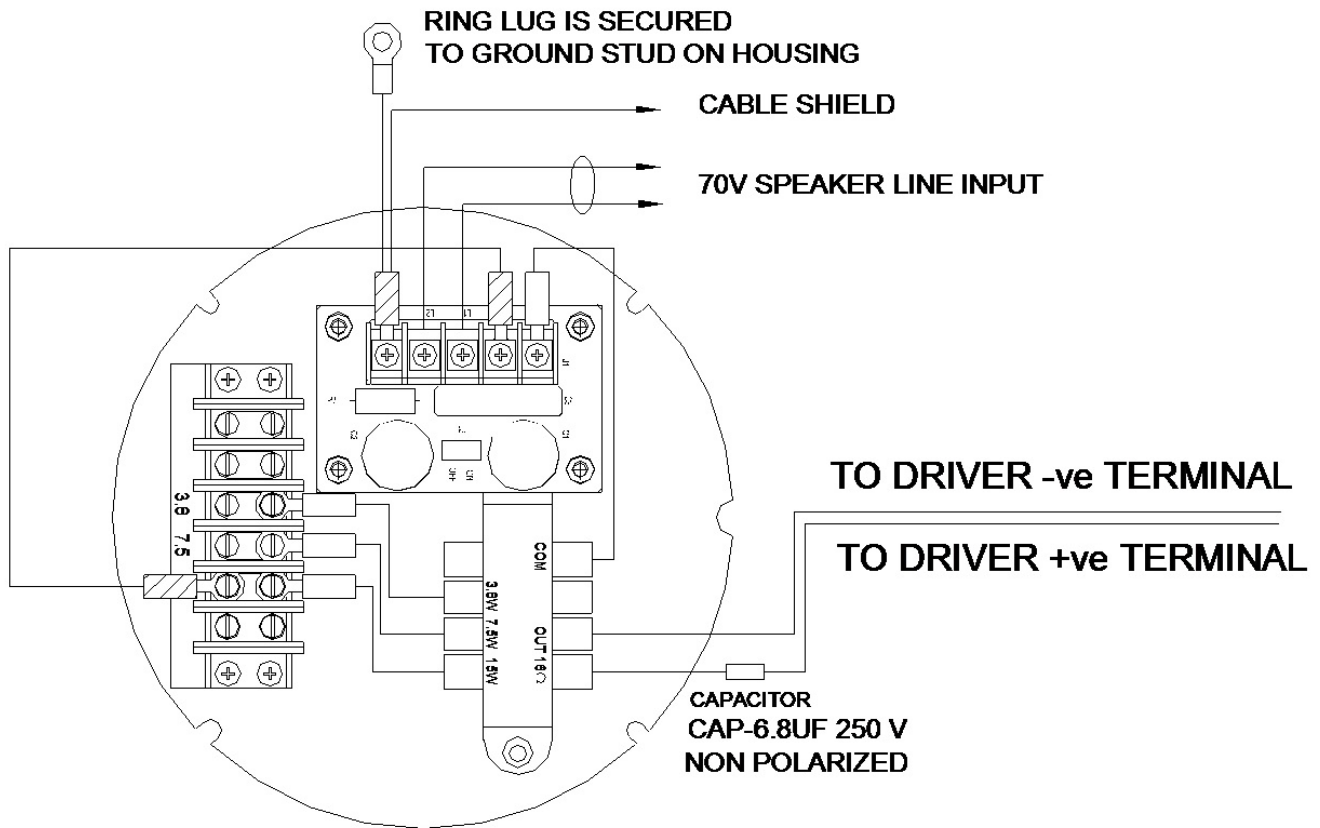


Figure 5 - SR40-G Paging Speaker with DC Filter

Maintenance

- **Note: Follow these instructions to access the interior of the Speaker/Ringer to make adjustments.**
- Disconnect the voltages supplied to the speaker/ringer before removing the end cap.
- Use a small diameter rod to remove the end cap.
- Make any necessary repairs or adjustments.
- Replace the end cap and tighten firmly ensuring that the faces of the end cap and the body are in contact.
- Apply power to the system.
- Test the unit by making a call to the amplifier system to which the speaker is connected and/or making a paging call.
- Ensure that equipment and wiring in a hazardous location complies with regulations and standards applicable to that location.
- **Note: This device must be wired using NFPA codes and standards.**
- Inspect periodically for broken or worn parts and correct any abnormal condition immediately.

SR40-F&G Replacement Parts

Part No.	Description
P007548	Speaker Cone – Cobraflex II
P004417	Circuit Board Assembly (G Model only)
Parts within the metal housing are not field repairable, only P004417 may be replaced.	

CAUTION: To Reduce The Risk Of Ignition Of Hazardous Atmospheres, Disconnect From The Supply Circuit Before Opening. Keep Tightly Closed When in Operation.

WARNING: Conduit Runs Must Have a Sealing Fitting connected within 18 inches Of This Enclosure.

SR40-F&G Specifications & Classification	
Driver	
SOUND PRESSURE LEVEL (SPL) DELIVERED (PROJECTION HORN INSTALLED)	85dB AT ONE METER MIN AT 15 WATTS 95dB SPL FOR MAXIMUM
SR40-F 15 Watt 16 Ohm Speaker	
	Speaker Driver With Series Capacitor
SR 40-G 70 Volt Paging Speaker	
LINE MATCHING TRANSFORMER	70 VOLT; 15 WATT (TAPS FROM 3.8 TO 15 WATTS)
Mechanical	
BODY & CAP CONSTRUCTION	COPPER FREE CAST ALUMINUM WITH EPOXY POWDER COAT
FLAME ARRESTOR	HASTALOY (OR BRASS FOR U.S.A.)
PROJECTION HORN	ABS
DIMENSIONS (FULLY ASSEMBLED)	21.7X18.5X9.3 INCHES (551X470X236 MM)
WEIGHT	9 KG (20 LBS.)
TEMPERATURE	-40° TO +60° C (-40° TO +140° F)
HUMIDITY	0 - 95 % RH
DUSTPROOF	GASKETED & THREADED JOINTS
Compliances	
HAZARDOUS LOCATION PERMISSIONS	CSA 158194
	CLASS I, DIV. 1, GROUPS B, C & D
	CLASS II, DIV. 1, GROUPS E, F & G
	CLASS III
	TEMP. CODE: T5
	ENCLOSURE TYPE: 3R
	UL E165888
	CLASS I, DIV. 1, GROUPS B, C & D
	CLASS I, ZONE 1, GROUP IIB+H2
	ENCLOSURE TYPE: 4X
	TEMP. CODE: T5
	AMBIENT TEMPERATURE -40° TO + 40°C
FIRE RATED PAGING SPEAKER	CAN/ULC-S541 COMPLIANT SPEAKER

Warranty

Guardian Telecom, a division of Circa Enterprises Inc. warrants that its products are free from defective workmanship and materials. Guardian Telecom will, within five years from the date of final sale to the customer, replace or repair any such products provided they are returned to our facilities for examination. Freight costs (including brokerage if applicable), both to and from Guardian, are the sole responsibility of the customer. This warranty does not extend to any items that are deemed to have been misused, modified, neglected, improperly specified, improperly installed, or used in violation of instructions or specifications approved by Guardian Telecom. Guardian Telecom, a division of Circa Enterprises Inc. shall not be liable for incidental or consequential damage of any kind caused by any defect in our product. The total liability shall not, under any circumstances, exceed the purchase price of the products furnished by Guardian Telecom, a division of Circa Enterprises Inc.

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

Under no circumstances shall the End Cap be opened or removed without first disconnecting the voltages supplied to the speaker.

It is the responsibility of the installer to ensure that equipment and wiring in a hazardous location complies with regulations and standards applicable to that location.

All apparatus shall be completely assembled and properly sealed before connecting power.

Note: For Group B applications ensure that suitable fittings are installed.

Service Telephone Number

1-800-363-8010 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 (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, a division of Circa Enterprises Inc.

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

Ph. (403) 258-3100

Fax. (403) 255-255-2595

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. • 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 circuitry that is intended to receive a telephone signal to a standard power source may destroy the component.
<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 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.")
<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. • 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.

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

Cleaning Tips for Guardian Products

Guardian Products 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, like 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.



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