

## S-503, S-570, SX15-45 and SX15-45M 45 OHM TALKBACK SPEAKERS



**S-503 Ceiling Speaker**



**S-570 Doorplate Speaker**



**SX15-45 Talkback Horn**



**SX15-45M Talkback Horn  
(Marine Version)**

### INTRODUCTION

These instructions contain the specifications and information necessary to install, operate and maintain the 45 Ohms Talkback Speakers, manufactured by Clarity.

The S-503 Ceiling Speaker, the S-570 Doorplate Speaker, and the SX15-45 and SX15-45M Talkback Horns, are for use with "handsfree" talkback control units.

# SPECIFICATIONS

## ***Applications***

The 45 Ohm talkback speakers are designed to be used with "handsfree" talkback control units. In combination with these units, the speakers provide both loudspeaker and talkback functions.

### Environment

- Temperature: -20 to +55 Degrees C
- Humidity: 0 to 95% non-precipitating

## ***Power Requirements***

- None

## ***Coverage***

The distance you can be away from a speaker and still have good talkback depends on the type of speaker and ambient noise level. In a typical office environment, these speakers will cover approximately 600 square feet (Talkback from 25').

**Remember: The speaker is no better than your ears. If you cannot carry on a conversation at normal voice levels over the required talkback distance, then talkback page equipment will not function satisfactorily.**

The speaker should be as close as possible to the area where talkback is desired. It should not be mounted close to, or pointed at, noise producing equipment such as fans, air conditioners, machinery or compressors.

## ***Limitations***

- One talkback speaker maximum per zone when used with the DL-24A System
- 800 feet maximum cable length to speaker  
NOTE: Do not split pairs to speakers
- Do not use talkback in noisy areas (80dB or greater)

# Individual Units -

## ***S-503 - Ceiling Speaker***

The S-503 is a Ceiling Speaker designed to be used with "handsfree" talkback control units. This speaker is for interior use only and measures approximately 13" diameter x 3" deep.

### Features:

- 45 Ohm impedance
- Eight inch speaker
- Easy hook-up (Two connections using CAT3 or better twisted pair cabling)

### Mounting / Connections:

- To install speaker assembly, measure and cut an 8.5" hole in center of ceiling tile (If using a S-550 and S-551, Bridge and Backbox, cut a 10" hole in center of ceiling tile).
- Mount speaker as close to primary talkback area as possible. Ideal mounting height should be between 7 and 23 feet.
- Connect station or other suitable wire to proper speaker terminals per Figure 1.

## ***S-570 - Doorplate Speaker***

The S-570 is a Doorplate Speaker used to provide handsfree talkback from an outside door or entryway location. It is equipped with a push-button switch for connection to customer provided signaling equipment.

The doorplate speaker measures 4.5"W x 4.5"H x 2"D and mounts to a 2-gang 4" x 4" electrical box.

### Features:

- 45 Ohm input impedance
- SPDT switch contacts rated at 1 Amp
- Easy hook-up using CAT3 or better twisted pair cabling (Cable runs should be limited to 800 feet)

### Mounting / Connections:

- Connect speaker out from page control to speaker Tip. Speaker common to speaker Ring.
- Connect push-button switch to customer provided signaling equipment (See Figure 2).
- Mount the doorplate speaker to the electrical box at a convenient height for talkback.

### ***SX15-45 - Talkback Horn***

The SX15-45 is a Talkback Horn for use with "handsfree" talkback control units. This horn functions as a microphone when in the listening mode and as a loudspeaker when in the paging mode.

Features:

- 45 Ohm input impedance
- Universal mounting base (Fits any electrical box)
- Easy connection using twisted cabling
- "C" clamp included

Mounting / Connections:

- Connect station or other suitable wire to proper speaker terminals per Figure 1.

### ***SX15-45M - Talkback Horn (Marine Version)***

The SX15-45M is a Talkback Horn for use with "handsfree" talkback control units in a nautical atmosphere. This horn functions as a microphone when in the listening mode and as a loudspeaker when in the paging mode.

Features:

- Stainless steel hardware
- Sealed housing
- White finish with UV inhibitors
- 45 Ohm input impedance
- Universal mounting base (Fits any electrical box)
- Easy connection using twisted cabling
- "C" Clamp included

Mounting / Connections:

- Connect station or other suitable wire to proper speaker terminals per Figure 1.

### ***SX15-45 and SX15-45M - Attaching Speaker to Base***

NOTE: For ease of installation, the base can be attached to the speaker before or after the base is mounted.

- Loosen position adjustment knob.
- Insert the ball of the base into the socket of the speaker.
- Tighten the position adjustment knob.

SX15-45 and SX15-45M - Mounting / Positioning:

Mount the horn to a suitable surface using the hardware provided. These units can be mounted to a wall, a beam or an electrical box.

- Mount the base to a wall using the holes provided. Knockout holes are provided for punch out should additional holes be required.
- A "C" clamp is provided with the horns to allow mounting to a beam. Place the bolt through the hole in the bottom of the base to secure the "C" clamp to the beam (See Figure 3).
- Connection to an electrical backbox is accomplished by channeling wire through the ball of the base (See Figure 4) and making appropriate connections. The base has holes punched for a double-gang square box, but by punching out additional knockout holes, the base can be mounted to a single-gang or octagon box.

The horns may be rotated or moved up and down to obtain the desired position by loosening the knob at the bottom of the unit approximately 1 turn. Make required adjustments and re-tighten knob.

## TECHNICAL ASSISTANCE

When trouble is reported, verify the unit is turned on and there are no broken connections leading to the unit.

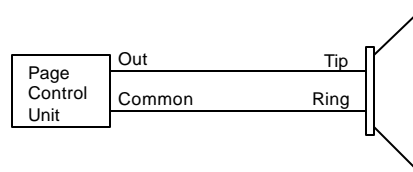
Assistance in troubleshooting is available from the factory. When calling, you should have a VOM available and be calling from the job site. Call (540) 563-2000 and ask for Technical Support or call (540) 767-1555 for Clarity 24-hour Faxback System or visit our website at <http://www.clarity-com.com>.

CLARITY equipment is not field repairable. Clarity maintains service facilities in Roanoke, VA. Should repairs be necessary, attach a tag to the unit clearly stating your company name, address, phone number, contact person and the nature of the problem. Send the unit:

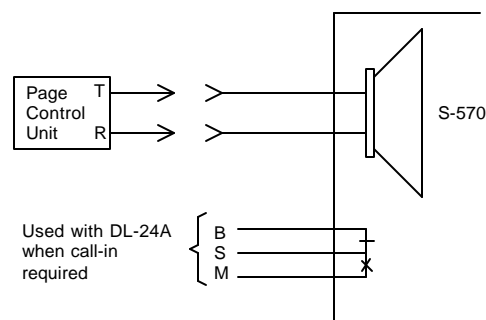
**Clarity**  
**Repair and Return Dept.**  
**5614 Hollins Road**  
**Roanoke, VA 24019-5056**

**TABLE 1**  
**TROUBLESHOOTING CHART**

Problems	Probable Causes and Corrections
No Sound in Page Mode	<ol style="list-style-type: none"> <li>1. Check Tip and Ring for audio at speaker.</li> <li>2. Check Tip and Ring at control unit.</li> </ol>
Low Sound in Page Mode	<ol style="list-style-type: none"> <li>1. Check volume controls at page control.</li> </ol>
Poor Listening in Talkback Mode	<ol style="list-style-type: none"> <li>1. Check talkback volume controls at page control. Set control at minimum suitable listening level.</li> </ol>



**FIGURE 1**  
**Connections for the S-503, SX15-45 and SX15-45**



**FIGURE 2**  
**Connections for the S-570**

### **LIMITED WARRANTY**

**Clarity** warrants its products to be free from defects in materials and workmanship under conditions of normal use and service for a period of one year from the date of shipment. The obligation under this warranty shall be limited to the replacement, repair or refund of any such defective device within the warranty period, provided that:

1. Inspection by Clarity indicates the validity of the claim;
2. the defect is not the result of damage, misuse, or negligence after the original shipment;
3. the product has not been in any way repaired by others and that factory sealed units are unopened (A service charge plus parts and labor will be applied to units defaced or physically damaged);
4. freight charges for the return of products to Clarity are prepaid;
5. all units "out of warranty" are subject to a service charge. The service charge will cover minor repairs (Major repairs will be subject to additional charges for parts and labor).

**This warranty is in lieu of and excludes all other warranties, expressed or implied, and in no event shall Clarity be liable for any anticipated profits, consequential damages, loss of time or other losses incurred by the buyer in connection with the purchase, operation, or use of the product.**

This warranty specifically excludes damage incurred in shipment. In the event a product is received in damaged condition, the carrier should be notified immediately. Claims for such damage should be filed with the carrier involved in accordance with the F.O.B. point.

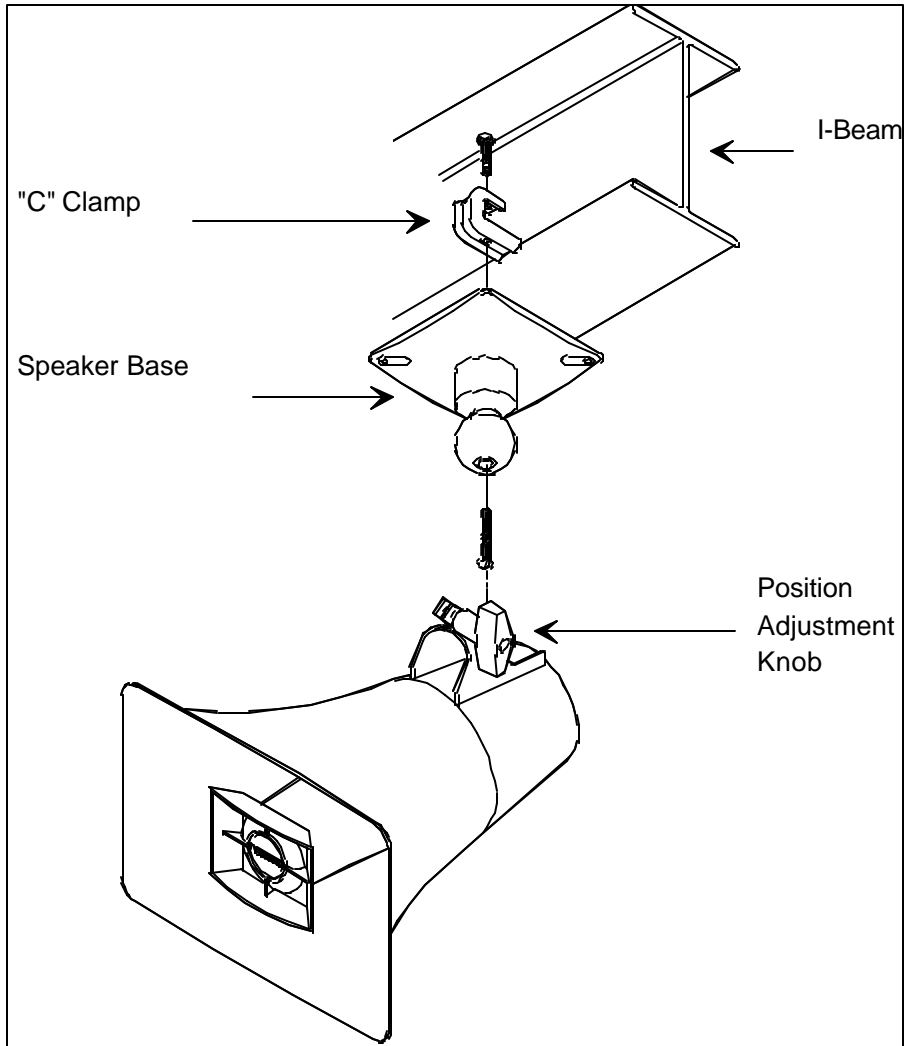


Figure 3 - Mounting to a Beam with a "C" Clamp

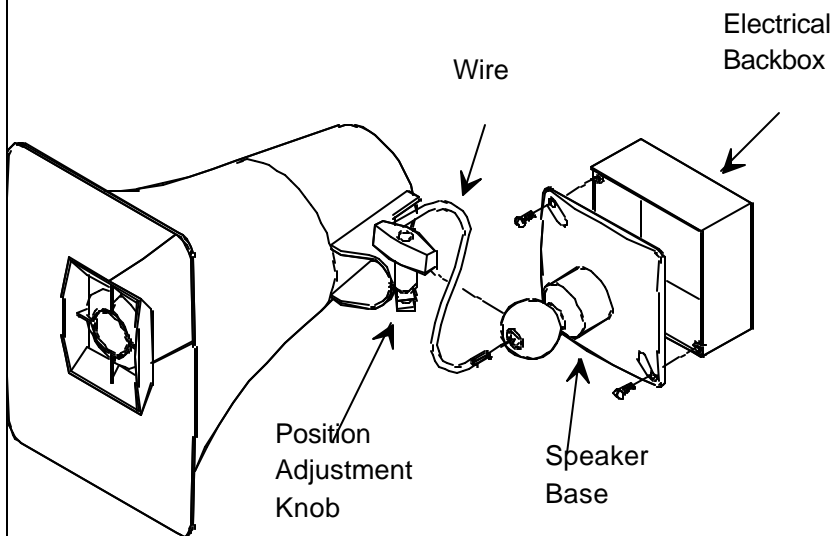


Figure 4 - Mounting to an Electrical Backbox