

# VL-1230C SUPERVISED DUAL INPUT 5 WATT PAGING HORN/AMPLIFIER ASSEMBLY

## INTRODUCTION

This instruction contains the specifications and information necessary to install, operate and maintain the VL-1230C Supervised Dual Input 5 Watt Paging Horn/Amplifier Assembly.

## SPECIFICATIONS

### Description

The VL-1230C is a self-contained 5 Watt paging system with a dual input 5 Watt amplifier. This unit incorporates a high efficiency horn with a single master volume that controls both audio inputs.

### Applications

- Compatible with Valcom Services monitored wire (supervised) paging systems
- Expanding the capability of telephone systems which contain limited paging capabilities
- Mixes two audio signals to the same horn.

### Nominal Specifications

Input Impedance (per input): 1000 Ohm nominal  
 Input level: -10dB nominal  
 Current at -24VDC: 300mA

### Dimensions & Weight

- 7.40"H x 10.00"W x 10.50"D  
(18.79cm x 25.40cm x 26.67cm)
- 4.8 lbs (2.17kg)

### Environment

- Temperature: -20 to +55° C (-4 to 131° F)
- Humidity: 0 to 95% non-precipitating

## VL-1230C Horn Spacing

(coverage per horn shown in parenthesis)

AMBIENT NOISE LEVEL	SPACING – (COVERAGE)
Quiet	110' - (12,000 sq. ft.)
Moderate	80' - (6,400 sq. ft.)
Noisy	50' - (2,500 sq. ft.)
Very Noisy	30' - (900 sq. ft.)

Example: In a quiet environment, VL-1230C 5 Watt horns would be spaced 110 feet apart side to side and would provide good quality sound 110 feet in front of each horn approximately 12,000 sq. ft. of coverage.

### Definitions:

**Quiet: 50-65dB.** This would include areas such as waiting rooms, doctors' examination rooms, stock areas, etc.

**Moderate: 65-80dB.** This includes areas such as warehouses, shipping areas, or light manufacturing.

**Noisy: 80-90dB.** This includes machine shops or heavy manufacturing.

**Very Noisy: Greater than 90dB.** This would include any areas where talking to another person is very difficult. Workers may be required to wear earplugs.

### Audio Wire Runs

When a remote power unit is used, the audio pair runs should be limited to 5000 ft. and a maximum of 4 horns when using 24 AWG wire.

## Power Wire Run

For good quality sound, the distance recommended between the power supply and horns should be adhered to.

NUMBER HORNS PER POWER RUN	WIRE RUN LENGTH (FT.)	
	24 AWG	22 AWG
VL-1230C		
16	30	50
8	60	100
4	125	200
2	250	400
1	500	800

See the Valcom power run gauge guide for additional wire gauges and distances.

## INSTALLATION

### Wiring Connections

Twisted pair wire (standard telephone wire) should be used for connections.

- Red - Audio Input 1
- Green - Audio Input 1 & 2 Common
- Brown - Audio Input 2
- Black - Ground
- White - (-24VDC)

### 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.

### Mounting

These horns should be mounted 15 to 20 feet above the floor to allow for best sound distribution. The horn base can be mounted to a wall, a beam, or an electrical box.

- Mount the base to a wall using the two holes provided. Knockout holes are provided for punch out should additional holes be desired.

- A "C" clamp is provided with the horn 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 1). It is suggested that the horn be mounted to the underside of the "I" beam so as to provide the maximum of positioning adjustments.
- Connection to an electrical backbox is accomplished by channeling the wire through the ball of the base and making the 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 (See Figure 2).

The horns may be rotated or moved up and down to obtain the desired position by loosening the position adjustment knob (See Figures 1 and 2) at the bottom of the unit approximately 1 turn. Make required adjustments and re-tighten knob.

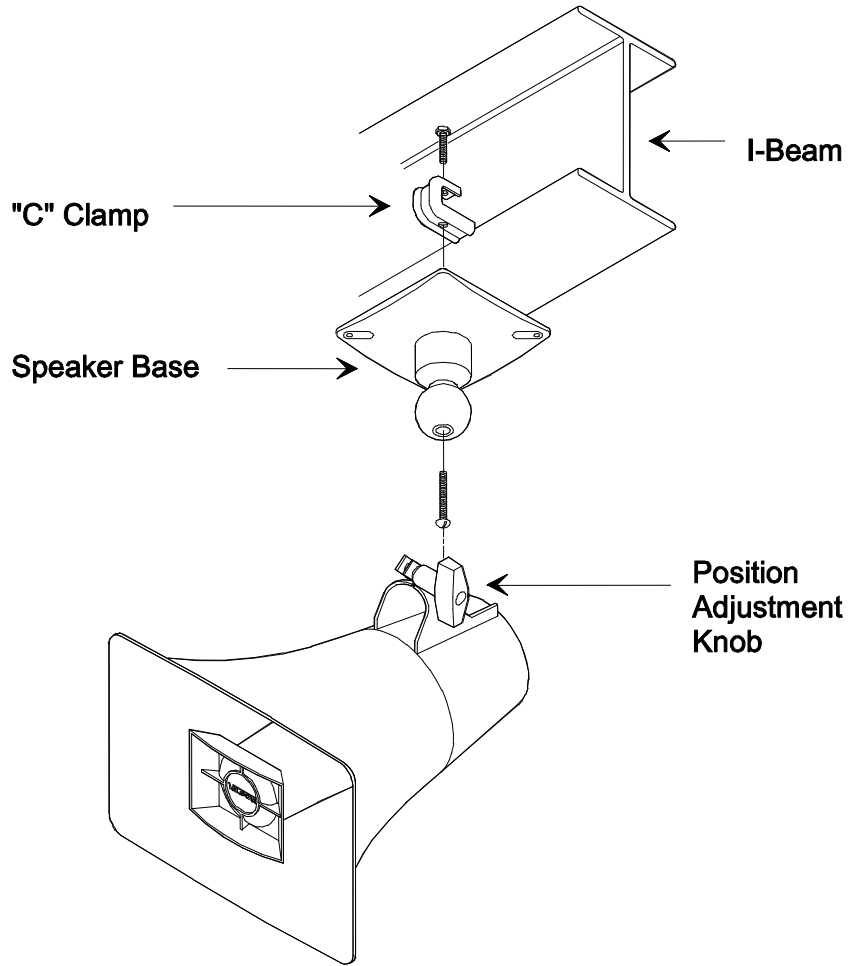
## TECHNICAL ASSISTANCE

When trouble is reported, verify the unit is properly connected and there are no broken connections leading to this unit. Ascertain volume control is turned up.

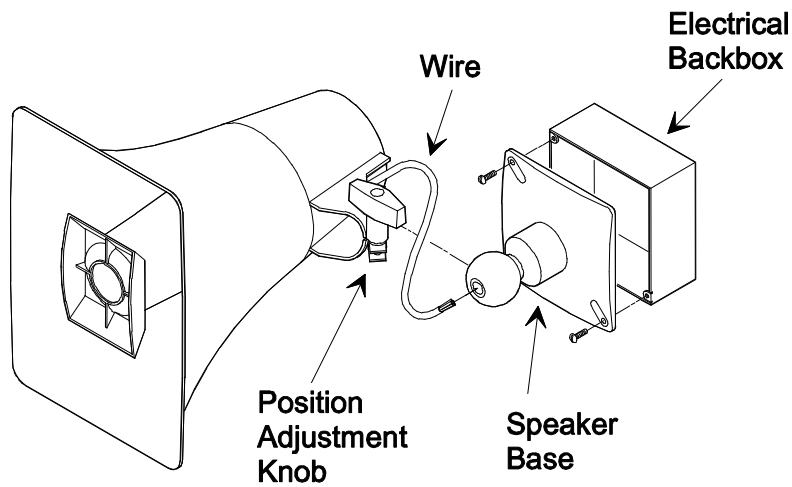
Assistance in troubleshooting is available from the factory. When calling, you should have a VOM, a test set and call from the job site. Call (540) 427-2400 or visit our website at <http://www.valcomservicesllc.com>.

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

**Valcom Services L.L.C.  
Repair and Return Dept.  
5614 Hollins Road  
Roanoke, VA 24019-5056**



**Figure 1 - Mounting to a Beam with a "C" Clamp**



**Figure 2 - Mounting to an Electrical Backbox**

<b>TROUBLESHOOTING CHART</b>	
<b>PROBLEMS</b>	<b>PROBABLE CAUSES AND CORRECTIONS</b>
No Sound	<ul style="list-style-type: none"> <li>- Check that volume control is turned up (clockwise).</li> <li>- Check presence and polarity of -24VDC and GND.</li> <li>- Using a telephone test set, check for the proper audio level on the Audio Input leads and if necessary also at the source.</li> </ul>
Low Volume	<ul style="list-style-type: none"> <li>- Check that volume control is turned up (clockwise).</li> <li>- Check voltage at the horn when in use, -18 to -24VDC required.</li> <li>- Using a telephone test set, check for proper audio level on each audio input leads. It is possible that some low level audio will be heard with only one side of an Audio input connected.</li> </ul>
Loud Squeal	<ul style="list-style-type: none"> <li>- Lower volume of horn.</li> <li>- Aim horn in different direction.</li> <li>- Increase the distance between the telephone and horn.</li> <li>- Install a confidencer on the telephone in severe problem areas.</li> </ul>

**VALCOM SERVICES L.L.C. LIMITED WARRANTY**

Valcom Services L.L.C. warrants its products only to the original purchaser, for its own use, 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. This Limited Warranty obligation shall be limited to the replacement, repair or refund of any such defective device within the warranty period, provided that:

1. inspection by Valcom Services L.L.C. 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 altered in any way or 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 Valcom Services L.L.C. 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 Limited Warranty is in lieu of and excludes all other warranties, expressed or implied and in no event shall Valcom Services L.L.C. be liable for any anticipated profits, consequential damages, loss of time or other losses incurred by the buyer in connection with the purchase, operation, maintenance, installation, removal or use of the product. The maximum liability of Valcom Services L.L.C. under this warranty is limited to the purchase price of the specific Product covered by the warranty.**

**Disclaimer.** Except for the Limited Warranty provided herein, the product is provided "as-is" without any warranty of any kind whatsoever including, without limitation, any **WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR NON-INFRINGEMENT.**

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.

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