



Commercial Design Series™

Surface Mount Loudspeakers

Installation and Operation Manual



Model	Driver Diameter	Description
CS4	4.5" (114.3mm)	Full-Range
CS6	6.5" (165.1mm)	Full-Range
CS8	8.0" (203.2mm)	Full-Range

Introduction & Product Description

Thank you for your choice of Community *Commercial Design Series™ Surface Mount Loudspeakers*. This series is comprised of the following models:

Model	Description
CS4	4.5" 2-way surface-mount*
CS6	6.5" 2-way surface-mount*
CS8	8" 2-way surface-mount*

**All models are available in black or white.*

The *Commercial Design Series Surface Mount Loudspeakers* have a unique, modern looking streamlined design. The black or white cabinets are easy to customize since they accept a wide variety of paints. For durability and improved sonic quality, the cabinets have thick-walls and internally-reinforced ABS plastic construction. This high-impact strength construction and internal ribbing reduces resonances.

Each model is shipped as a matched pair of completely assembled loudspeakers, including everything needed for standard installations. All models are full-range, each with high and low frequency drivers and built-in crossovers.

You can use 8-ohm or constant voltage distribution with the built-in 70V/100V autoformer. Power is easy to adjust using a front-accessible power tap switch.

We urge you to read these instructions carefully and familiarize yourself with the features and installation methods before using this product. If you have any questions or concerns, please contact Community.

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IMPORTANT SAFETY INSTRUCTIONS

Always follow these basic safety precautions when using or installing *Commercial Design Series Surface Mount Loudspeakers* and accessories:

- Read these instructions.
- Keep these instructions.
- Heed all warnings.
- Follow all instructions, particularly those pertaining to rigging, mounting, hanging and electrical connections.
- Clean only with dry cloth.
- Do not block any ventilation openings. Install in accordance with the manufacturer's instruction.
- Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- Only use attachments/accessories that are specified and approved by the manufacturer.
- Refer all servicing to qualified service personnel.

The terms caution, warning, and danger may be used in this manual to alert the reader to important safety considerations. If you have any questions or do not understand the meaning of these terms, do not proceed with installation. Contact your local dealer, distributor, or call Community directly for assistance. These terms are defined below:

CAUTION: describes an operating condition or user action that may expose the equipment or user to potential damage or danger.

WARNING: describes an operating condition or user action that will likely cause damage to the equipment or injury to the user or to others in the vicinity.

DANGER: describes an operating condition or user action that will immediately damage the equipment and/or be extremely dangerous or life threatening to the user or to others in the vicinity.



CAUTION: Installation of Community loudspeakers should only be performed by trained and qualified personnel. It is strongly recommended that a licensed and certified professional structural engineer approve the mounting. Severe injury and/or loss of life may occur if this product is improperly installed.



CAUTION: All electrical and mechanical installation connections for loudspeaker lines are subject to all applicable governmental building and fire codes. The selection of appropriate electrical and mounting hardware to interface with Commercial Design Series Surface Mount Loudspeakers lies solely with the installation professional. Community recommends that an appropriately licensed engineer, electrician, or other professional identify and select the appropriate conduit, fittings, wire, etc. for the installation.

Packing List and Feature Identification

Community *Commercial Design Series Surface Mount Loudspeakers* are engineered and manufactured to be rugged and they are carefully packed in sturdy cartons. However, it is wise to thoroughly inspect each unit after it has been removed from the packaging, as damage could occur during shipping.

Please note that once the shipment has left your dealer or the Community factory, the responsibility for damage is always borne by the freight company. If damage has occurred during shipping, you must file a claim directly with the freight company. It's very important to contact the freight company as soon as possible after receiving your shipment, as most freight companies have a short time limit within which they will investigate claims. Make sure to save the carton and the packing material, as most claims will be denied if these materials are not retained.

Although we illustrate a single loudspeaker below to show the included parts, in fact these loudspeakers are shipped in pairs. For a given model, the following items are included:

- Surface Mount Loudspeakers (Qty 2)
- Yoke Assembly (Qty 2)
- Input Cover (Qty 2)
- 4-Pin Terminal Connector (Qty 2)
- Wall Mount Plate (Qty 2)
- Wall Mount Pinch Plate (Qty 2)
- Vertical 2-Position Rubber Plug (Qty 4)
- Horizontal 3-Position Rubber Plug (Qty 4)
- Rubber Yoke Washer (Qty 4)
- Yoke Knob (Qty 4)
- M8 x 25mm Hex Head Bolt, SS (Qty 2)
- 8mm Flat Washer, SS (Qty 2)
- 8mm Lock Washer, SS (Qty 2)
- M3 x 13 Philips Screw (Qty 8)
- Green Screwdriver (Qty 1)

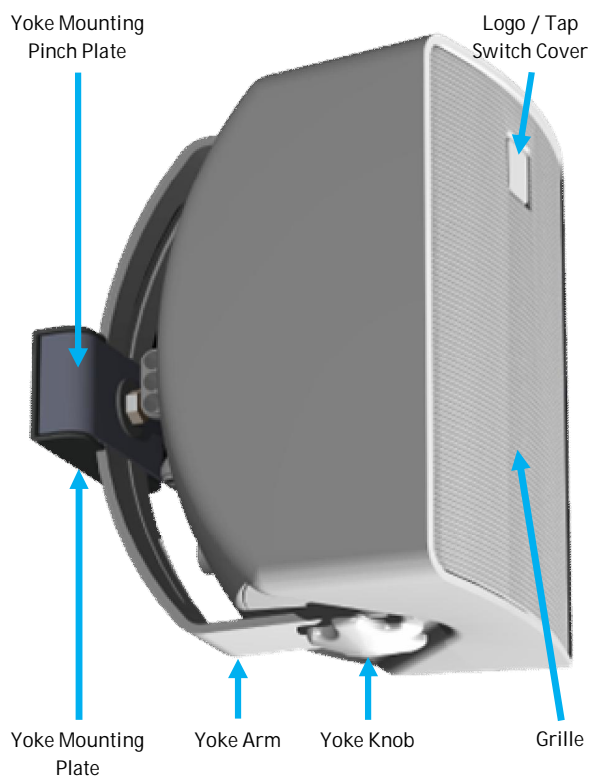


Fig. 1 - Loudspeaker Components

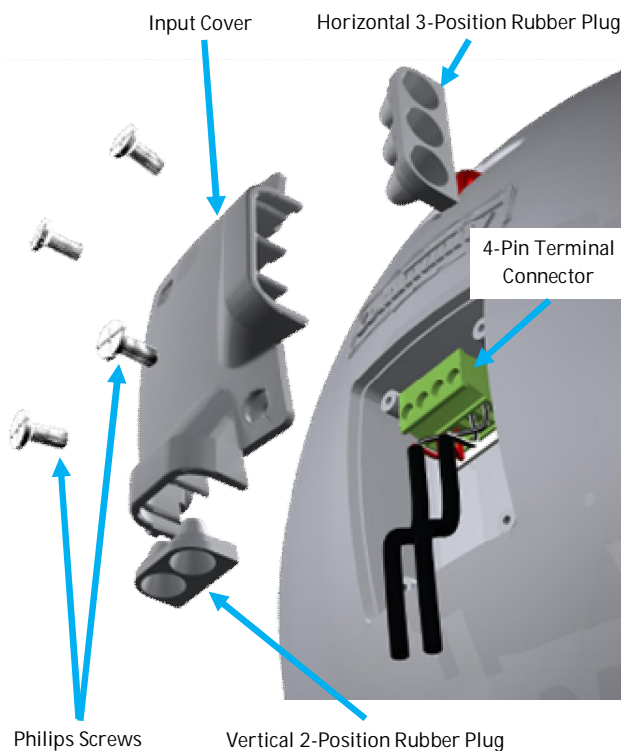


Fig. 2 - Loudspeaker Input Panel Components

Mounting System

Commercial Design Series Surface Mount Loudspeakers include a Vari-Tilt yoke mounting system, which allows low profile mounting and precise aiming over a broad pan-tilt range.

The yoke design allows for pan adjustments by sliding the yoke arm through the mounting plate and the tilt adjustments at the yoke-cabinet mounting knobs. The cabinet may be installed either horizontally or vertically and is adjustable in both directions, in either orientation. See page 10 for aiming angles achievable in each orientation.

The wiring for the loudspeaker is achieved through the use of a 4-Pin Euroblock connector that is inserted into the recessed input connector area on the back of the cabinet. The wiring is routed through the 2 or 3 wire sealing plugs prior to terminating into the Euroblock. The selection of these gaskets is dependent on two factors: the orientation of the cabinet, and whether the cabinet wiring is being daisy-chained to other loudspeakers or terminated to a single loudspeaker. Refer to page 7 to determine the correct wiring procedure for your installation to ensure weather-resistant protection is provided.

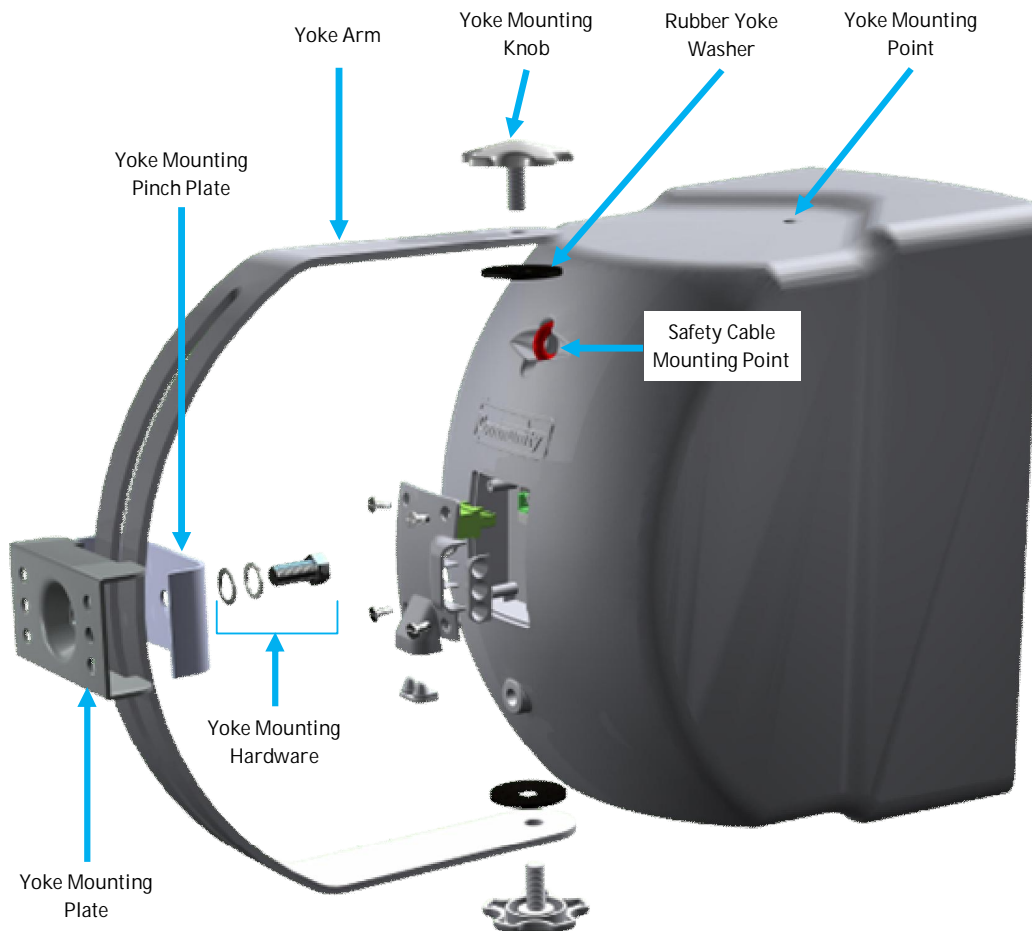


Fig. 3 - Loudspeaker Mounting Yoke Components

Installation



NOTE - Community does not provide hardware for mounting the wall mount plate to the install surface. This hardware is customer supplied and subject to local codes and requirements. It is strongly recommended that a licensed and certified professional structural engineer approve the mounting. Severe injury and/or loss of life may occur if this product is improperly installed. The provided mounting yoke may not be suitable for all mounting orientations or environmental conditions.

Refer to figures 4 and 5 when following these mounting procedures.

1. Attach wall-mount plate (item A) to mounting surface using customer supplied hardware. (See "NOTE" above) Take care to install the mounting plate at the correct orientation to ensure correct cabinet orientation.
2. Pre-load M8 x 25mm bolt (item B), 8mm lock washer (item C), and 8mm flat washer (item D) through hole on wall mount pinch plate (item E).
3. Position pinch plate / bolt assembly from step 2 through slot on yoke (item F) on the cabinet side of yoke arm.
4. Position the yoke assembly to the wall-mount plate (item A), ensuring the yoke arm (item F) rests squarely inside the notches on the mounting plate. Lightly finger-tighten the M8 bolt (item B) to loosely hold the yoke assembly together. (**NOTE** - Do not tighten the yoke bolt until final aiming is complete.)
5. Prior to lifting the loudspeaker into place, proceed to page 7 and complete the wiring preparation.

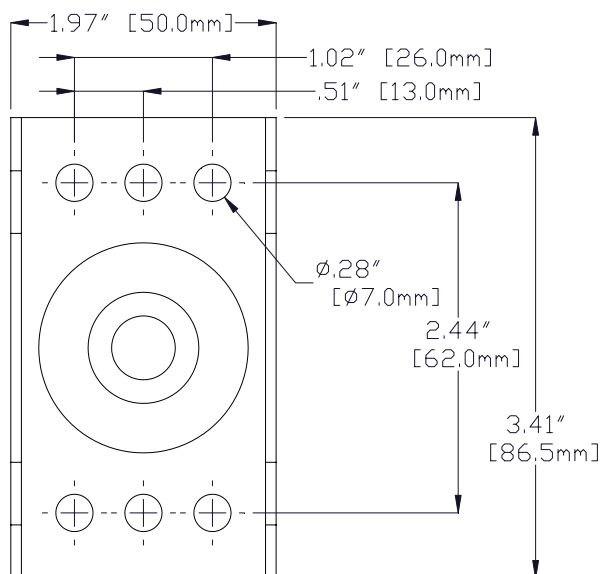


Fig. 4 - Yoke Mounting Plate Dimensions (All Models)

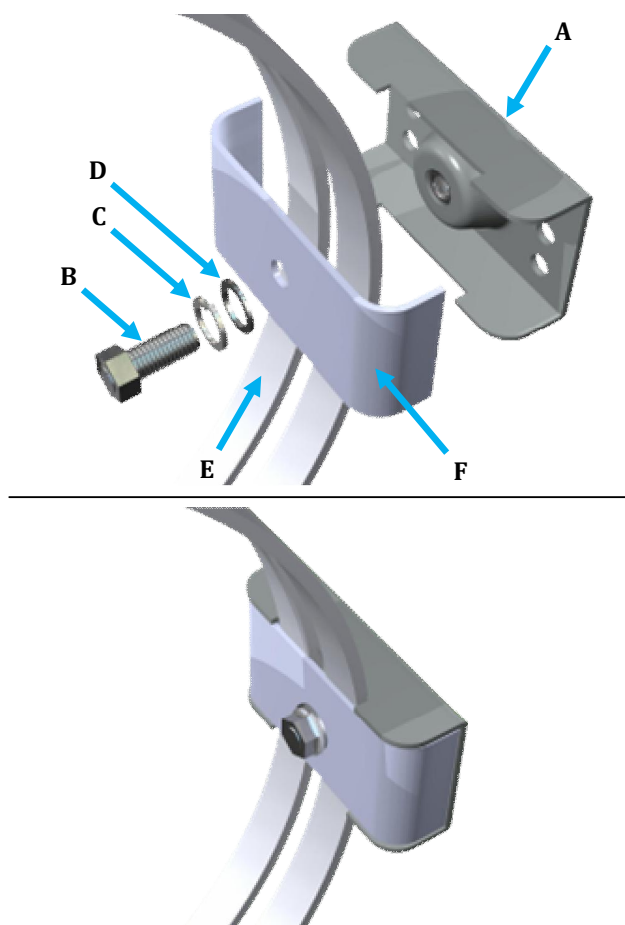


Fig. 5 - Yoke Assembly Mounting (Vertical Shown)

Wiring

Refer to figures 6 and 7 when following these wiring procedures.

The provided 4-Pin Euroblock connector, required to wire the loudspeaker, allows for individual unit wiring or "loop-thru" wiring for connecting multiple loudspeakers in parallel. The provided input panel cover allows for multiple pairs of wires in and out of the sealed ingress. It is IP56 rated.

Determining the correct wiring location

Depending on the mounting direction of the cabinet, you will need to use one of the two provided rubber wiring plugs. Refer to the following descriptions to determine which plug is needed. An extra pair of rubber plugs is provided in case a mistake is made during installation.

A. Horizontal Mounting

For horizontal mounting, always use wiring cover ingress locations along the long edge of the cover. To allow for sufficient wiring bend radius in the wiring cavity, always use the ingress points that are as far away from the Euroblock connector as possible (see figure 6.1).

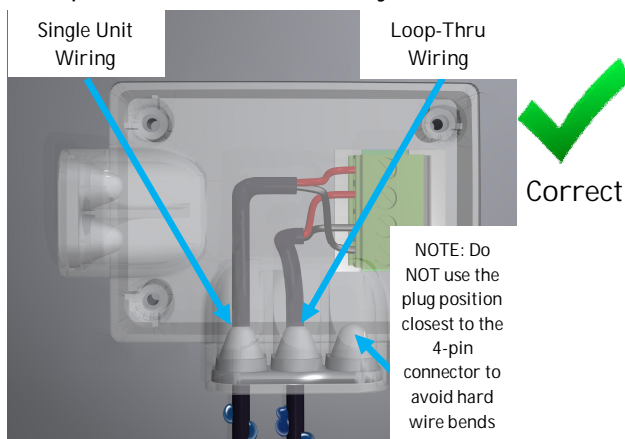


Fig. 6.1 - Horizontal Mounting Wiring

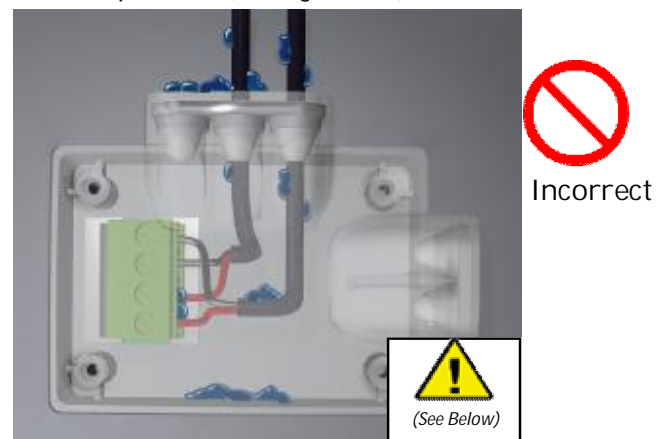


Fig. - 6.2 - Incorrect Horizontal Mounting Wiring

B. Vertical Mounting

For vertical mounting, always use wiring cover ingress locations along the short edge of the cover (see figure 7).

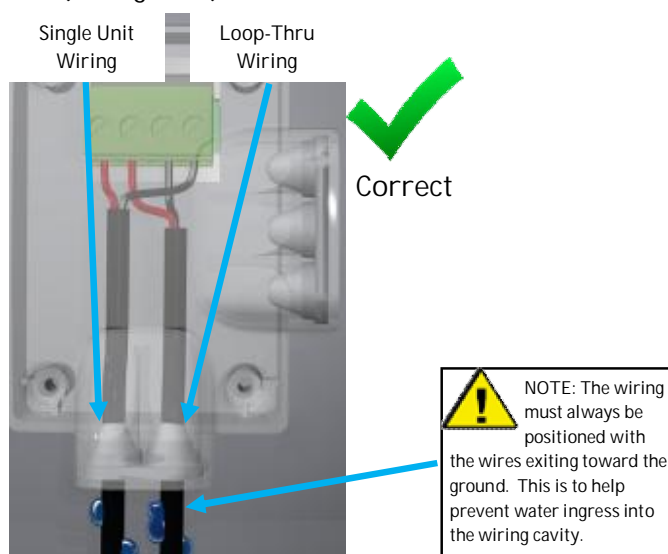


Fig. 7.1 - Vertical Mounting Wiring

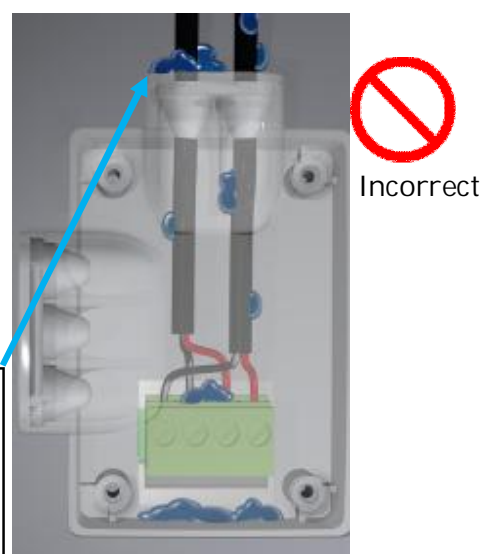


Fig. 7.2 - Incorrect Vertical Mounting Wiring

Wiring (continued)

Refer to figures 8 and 9 when following these wiring procedures.

The rubber plugs are designed to grip cables from approximately 0.125"(3.175mm) to 0.3"(7.62mm) in diameter to prevent water ingress.

For cables 0.3" (7.62mm) up to 0.34" (8.64mm), (roughly the size of most standard 16-2 and 14-2 SJOW cables), the cable may be passed through the cover without using the rubber plugs. However, in order to preserve the IP56 rating and prevent water ingress, use of a silicone sealant around the cable is recommended. Cables with a diameter larger than 0.35" (8.9mm) cannot be used with the rear cover.

Connecting and Routing Wiring

- Leave approximately 6" (15 cm) of cable coming out of the wall at the install point.
- Prepare the rubber plugs by clipping the end of the rubber cone to create an opening slightly smaller than the diameter of the cable. This will allow the rubber to stretch slightly and seal around the cable jacket. A sharp razor blade or wire cutters can be used to cut the cone tip (see figure 8).
- Split the cable jacket approximately 1" (2.54 cm) (see figure 8).
- Route the cable(s) through their respective cones in the rubber plug (see figure 8).
- Strip each conductor insulation back approximately 0.25" (0.64 cm) (see figure 8).
- Connect the (+) wire to position #1 and the (-) wire is connected to position #4 on the Euro connector. If the next loudspeaker is to be connected in daisy-chain fashion, connect its wires to position #2 (+) and position #3 (-) (Refer to figure 9).



NOTE: The rubber plug openings are designed to receive cables, not individual conductors. This means that one plug opening should be used for a single cabinet and two would be used for a loop-thru install. Also be sure to only use one cable per plug opening. Do not attempt to route two cables in a single opening.

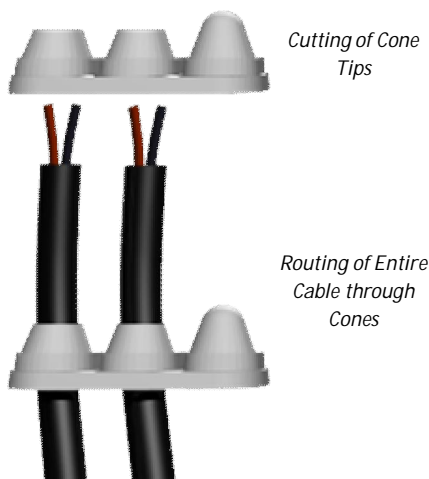


Fig. 8 - Cutting of Cones for Wiring



NOTE: When wiring WITHOUT the rubber plugs, remove only the plugs required for wiring access and install the remaining plugs to cover open spots.



CAUTION: We recommend applying a silicone based weather-proof sealant if not using the wiring plugs or to supplement the plugs in severe weather and extended outdoor use.

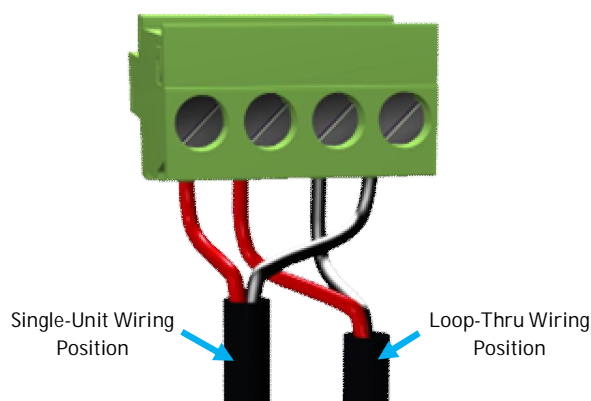
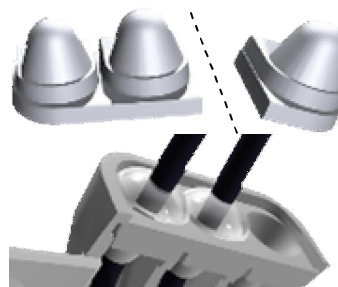


Fig. 9 - Wiring Connections



Wiring (continued)

Refer to figures 10 and 11 when following these wiring procedures.

Connecting and Routing Wiring (continued)

- G. Lift the loudspeaker up to the installation location, and referencing page 7, position the cabinet into its final position.
- H. Press both the 2-position and 3-position rubber plugs into position on the weather cover ingresses.
- I. Proceed to connect the 4-pin Euroblock connector into the receptacle on the cabinet.
- J. Maintaining cabinet orientation, use the 4 weather cover screws to secure the weather cover to the back of the cabinet (reference page 7).

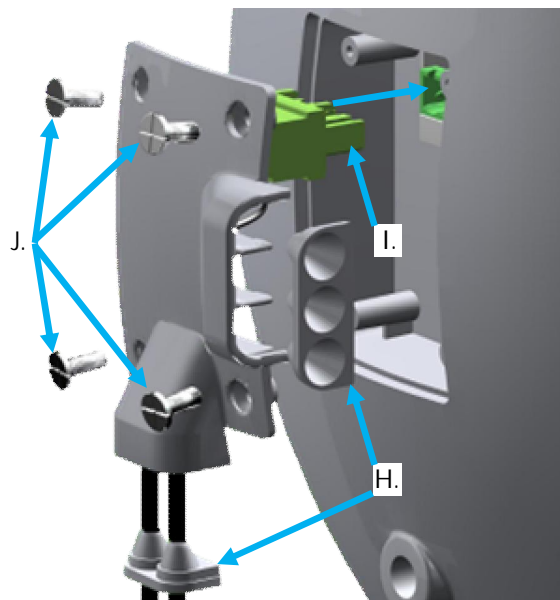


Fig. 10 - Final Connections for Wiring

- K. Attach the loudspeaker (item 1) to the yoke (item 2) using the supplied yoke washers (item 3) and yoke knobs (item 4).

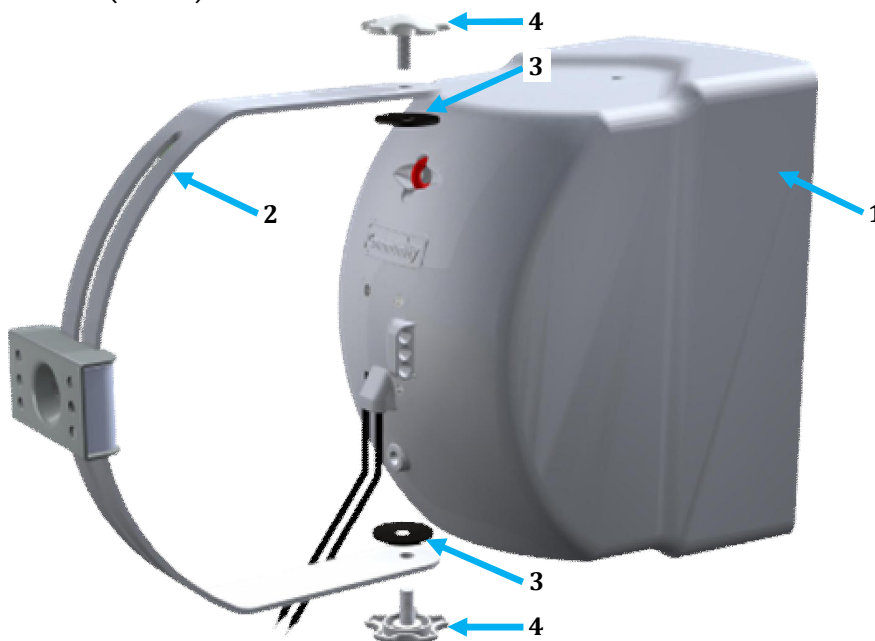


Fig. 11 - Installing Loudspeaker to Yoke

- L. Refer to page 10 for final aiming procedures.

Aiming

Refer to figures 12, 13, 14 and 15 and tables 1 and 2 when following these aiming procedures.

The Vari-Tilt yoke assembly allows for horizontal and vertical aiming adjustments of the loudspeaker. The adjustment ranges are shown in tables 1 and 2 below.

Aiming the Loudspeaker

- Supporting the weight of the cabinet, gently rotate the yoke through the yoke mounting plate / pinch plate assembly until the desired aiming angle is achieved.
- Once in position, use an open-ended wrench and tighten the yoke bolt firmly to lock the yoke into position (see figure 12).

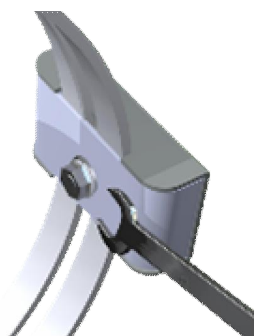


Fig. 12 - Locking the Yoke Bolt Into Position

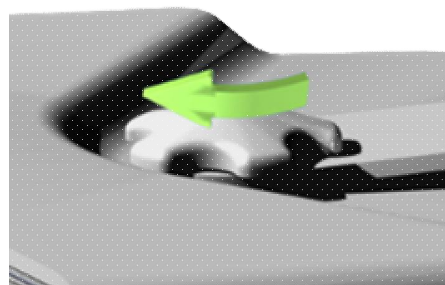


Fig. 13 - Locking the Yoke Knobs Into Position

- Loosen the two loudspeaker yoke knobs and rotate the loudspeaker until the desired aiming angle is achieved.
- Once in position, re-tighten the loudspeaker yoke knobs by hand to secure the loudspeaker (see figure 13). *Use of tools on these knobs is not recommended.*
- A safety cable attachment loop is built into the rear of the loudspeaker cabinet.



Always use a safety cable! The safety cable must be connected directly to the loudspeaker enclosure and terminated at a secondary mounting point.

Horizontal Mount Maximum Aiming Angle			
	CS4	CS6	CS8
A	33°	50°	40°
B	33°	50°	40°
C	52°	56°	56°

Table 1 - Horizontal Mount Maximum Aiming Angles

Vertical Mount Maximum Aiming Angle			
	CS4	CS6	CS8
A	52°	56°	56°
B	52°	56°	56°
C	33°	50°	40°

Table 2 - Vertical Mount Maximum Aiming Angles

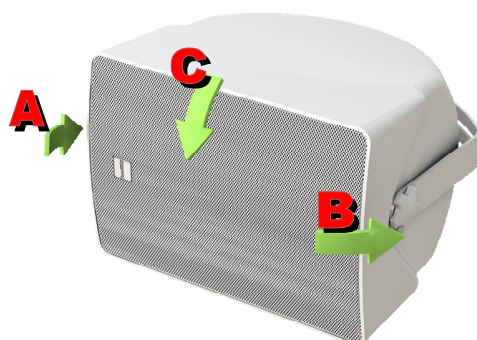


Fig. 14 - Horizontal Mount Maximum Aiming Angles

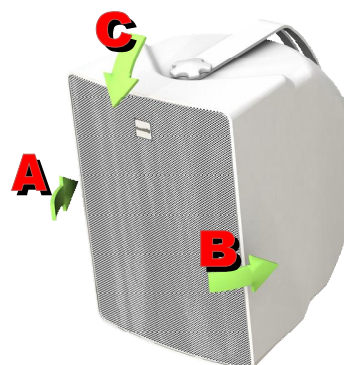


Fig. 15 - Vertical Mount Maximum Aiming Angles

Finalizing the Installation

Refer to figures 16 and 17 when following these adjustment procedures.

The final installation step is to verify the tap-position switch is correctly set for system requirements.

! **IMPORTANT:** Adjustment of the tap-position switch should be done before applying power to the loudspeaker.

! **CAUTION:** Adjustment of the tap-position switch should only be performed without power to the loudspeaker to prevent potential damage to internal components.

Adjusting the Tap-Position Switch

- Using the provided flat-blade screwdriver, carefully pry the logo plate away from the loudspeaker grille.
- Referencing the Tap Position Switch label behind the logo, use the flat-blade screwdriver to adjust and verify the correct setting for the system (See figures 16 and 17 for an example of a switch label).
- Taking note of the cabinet orientation, re-install the logo plate into position so it is legible.
- If necessary, a dry cloth can be used to remove fingerprints and light dirt or dust that may have resulted during installation.

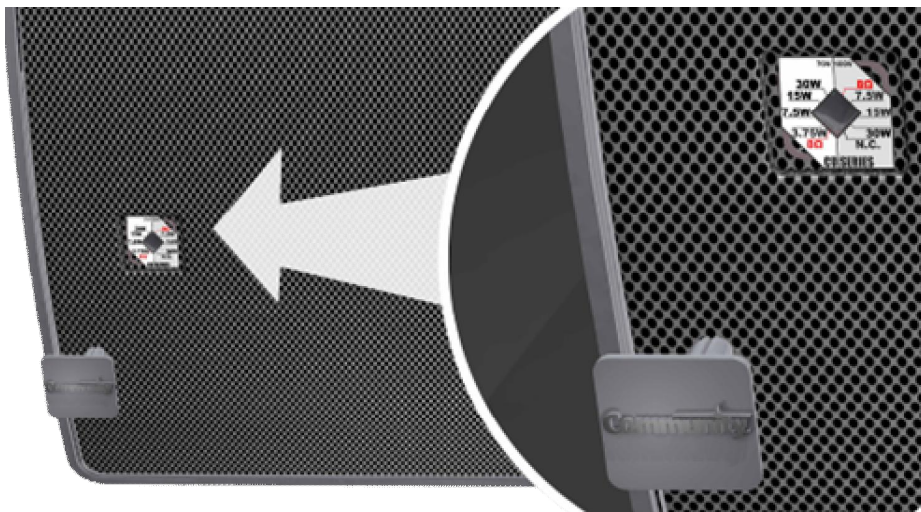


Fig. 16 - Tap Position Switch Access

! **NOTE:** This enlarged label shows the 70-volt/100-volt and 8-ohm power tap settings for the Commercial Design Series Surface Mount Loudspeakers.

! **IMPORTANT:** With 100-volt distribution, do not use the N.C. setting.

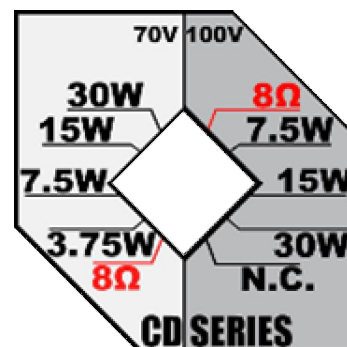


Fig. 17 - Tap Position Switch Detail

Painting the Loudspeaker

Type of Paint

These loudspeakers' ABS plastic cabinets accept almost any type of latex or enamel (oil-based) paint. We recommend application of two coats. Note however that painting the grille requires spray painting.

Painting Process

Follow these procedures to obtain the best results:

1. Remove the grille.
2. Clean the grille assembly and the loudspeaker cabinet by rubbing them with a lightly dampened cloth. Do not use abrasives such as sandpaper or steel wool.
3. Mask the loudspeakers so that the surrounds, cones and center areas will not receive any paint. We advise against using conventional masking tape and NEVER use duct tape in this application; these kinds of tape generally leave adhesive residue that can be difficult to remove and that may actually cause damage. Painters tape is best.

4. After cleaning, apply two or more thin coats of either latex or oil-based paints. Latex paint will adhere better if an oil-based primer is used first. Apply the paint with a roller or brush, or spray it on, except as noted below.
5. Use ONLY spray paint on the grille assembly; using a roller or brush to paint the grille is apt to cause its metal perforated holes to become clogged with paint. The grille should be painted separately, when it is not in place on the loudspeaker.
6. After applying the paint, the grille foam can be re-attached to the interior of the grille with a multipurpose high tack spray adhesive such as 3M Industrial Spray Adhesive. Apply adhesive to grille foam only to prevent clogging of grille perforations. Replacement grille foam can be ordered from the factory if necessary.



CAUTION: NEVER use abrasives, gasoline, kerosene, acetone, methyl ethyl ketone (MEK), paint thinner, harsh detergents, or other chemicals. These chemicals and agents may permanently damage the finish. Some are also toxic and highly flammable.

Specifications

Model	CS4	CS6	CS8	
Loudspeaker Type	Full-Range Coax	Full-Range Coax	Full-Range Coax	
Description	4.5" Standard	6.5" Standard	8.0" Standard	
Operating Range (-10 db)	70 Hz - 13.5 kHz	65 Hz - 13.5 kHz	45 Hz - 13.5 kHz	
Max Input Rating (8 ohm) Continuous/Program	60W / 150W	60W / 150W	60W / 150W	
Sensitivity (1 W/1 meter)	90 dB	90 dB	89 dB	
Available 70V Taps (watts)	30W, 15W, 7.5W, 3.75W	30W, 15W, 7.5W, 3.75W	30W, 15W, 7.5W, 3.75W	
Available 100V Taps (watts)	30W, 15W, 7.5W	30W, 15W, 7.5W	30W, 15W, 7.5W	
Nominal Impedance	8Ω	8Ω	8Ω	
Enclosure Finish	Matte finish ABS, available in white or black			
Input Connections	4-screw Euroblock connector for two pair of 2-wire leads, uninterrupted whether loudspeaker is connected or not. Connections covered with screw-on IP56 weather cover.			
Dimensions:	H	6.4" (162mm)	7" (177mm)	9.7" (247mm)
	W	9.6" (243mm)	11.8" (300mm)	13.8" (351mm)
	D	6.5" (164mm)	10.7" (272mm)	12.4" (315mm)
Environmental	Conforms to Mil Spec 810 for humidity, salt spray, temperature and UV. IP55 rated loudspeakers - IP56 rated connector cover.			
Footnotes:				
1. Watts: All wattage figures are calculated using the rated impedance				
2. Sensitivity: Half space measurement at 3.28ft (1m), calculated using input of 2.83 Volts RMS				

Table 3 - Specifications

Transferable Warranty "(Limited)"

Commercial Design Series™ Surface Mount Loudspeakers are designed and backed by Community Professional Loudspeakers. For complete Community warranty information within the USA, please refer to the Warranty Card enclosed with the product. In other areas of the world please contact your local Community distributor.

Field Service Station:

Please call (610) 876-3400 for the nearest Authorized Field Service Station.

For Factory Service:

Please call (610) 876-3400 and obtain a Return Authorization (R/A) number before shipping any product to us.

Notes

Notes



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