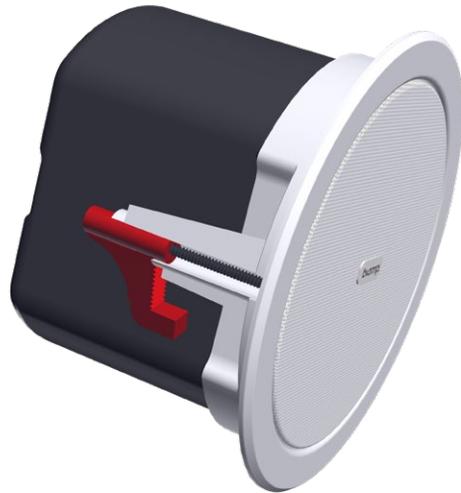


# Commercial Loudspeakers CM10TB Ceiling Loudspeaker

## Installation & Operation Guide



CM10TB

## PRODUCT INFORMATION

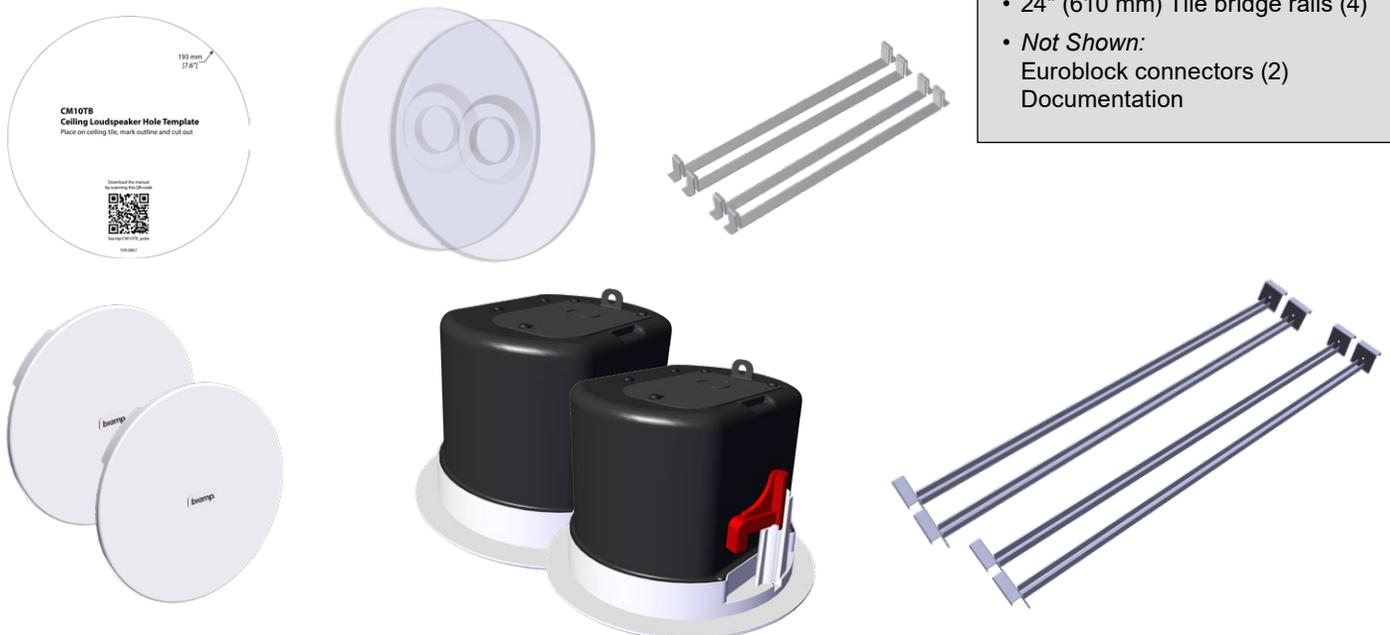
Commercial Ceiling Loudspeakers are engineered and manufactured to be rugged and are carefully packed in sturdy cartons. However, it is wise to thoroughly inspect each unit after it has been removed from the packaging, as damage could occur during shipping.

All CM ceiling loudspeakers are shipped in pairs. Below is a representation of what is included.

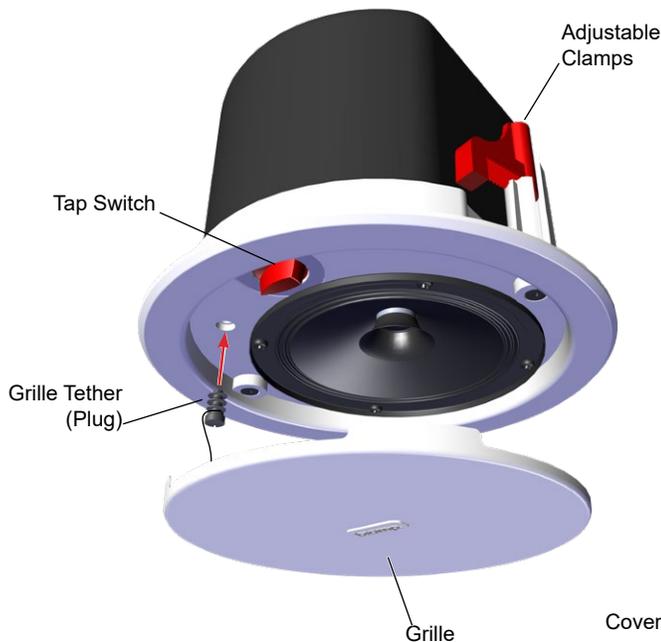
### Box Contents:

#### CM10TB

- Ceiling loudspeakers (2)
- Grilles (2)
- Cutout template (1)
- Paint masks (2)
- Rail Spacers (4)
- 24" (610 mm) Tile bridge rails (4)
- *Not Shown:*
  - Euroblock connectors (2)
  - Documentation



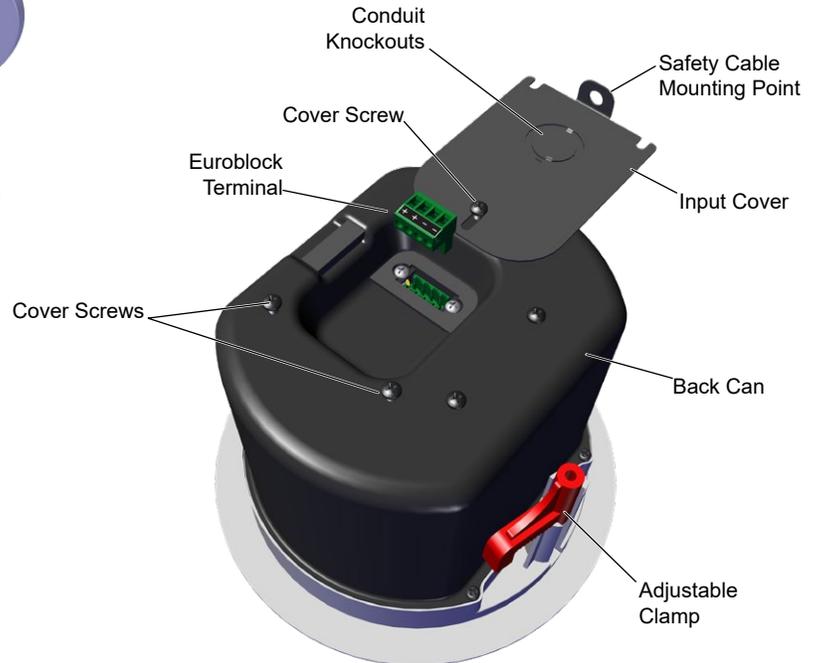
# PRODUCT REPRESENTATION



Paint masks are shipped on the loudspeakers. Place the masks on the loudspeakers once they are installed if the ceiling is not yet finished. Once the ceiling is finished, remove the paint masks, tighten in the ceiling if necessary, and continue the installation.

## Tools Needed

- Standard Phillips head screwdriver
- Small flat screwdriver
- Wire stripper
- Conduit punch and cutter (for conduit installations)



**NOTE:** The installer is responsible for sourcing the proper safety cable to meet all applicable local building codes and standards.

## RIGGING AND ELECTRICAL SAFETY



**IMPORTANT:** The loudspeakers described in this manual are designed and intended to be mounted to differing building surfaces using a variety of rigging hardware, means and methods. Installation of loudspeakers should only be performed by trained and qualified personnel. All electrical connections must conform to applicable city, county, state, and national (NEC) electrical codes.



**DANGER:** It is possible to experience severe electrical shock from a power amplifier. Always make sure that all power amplifiers are in the "OFF" position and unplugged from an AC Mains supply before performing electrical work.



**IMPORTANT:** Refer to the sections on installation and connections later in this manual for additional information on rigging and electrical safety.



**IMPORTANT:** Please review the safety guide accompanying this product and these installation instructions prior to installing this loudspeaker.



**CAUTION:** Installation of Biamp 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.



**DANGER:** It is advised that a safety cable be secured to a suitable load-bearing point separate from the primary loudspeaker mounting point, with as little slack as possible so as not to develop undue kinetic force if the primary mount were to fail.



**IMPORTANT:** This loudspeaker is approved for use in plenum air handling spaces.

## INSTALLATION

The CM10TB ceiling loudspeaker is designed to be installed with or without above ceiling access in drop ceilings. Prewiring and installation of optional New Construction Bracket (SPA-NC100) allows the loudspeaker to be installed in new drywall ceilings. CM10TB loudspeakers can be mounted in larger pre-existing cutouts using optional ceiling trim rings (SPA-TR100).

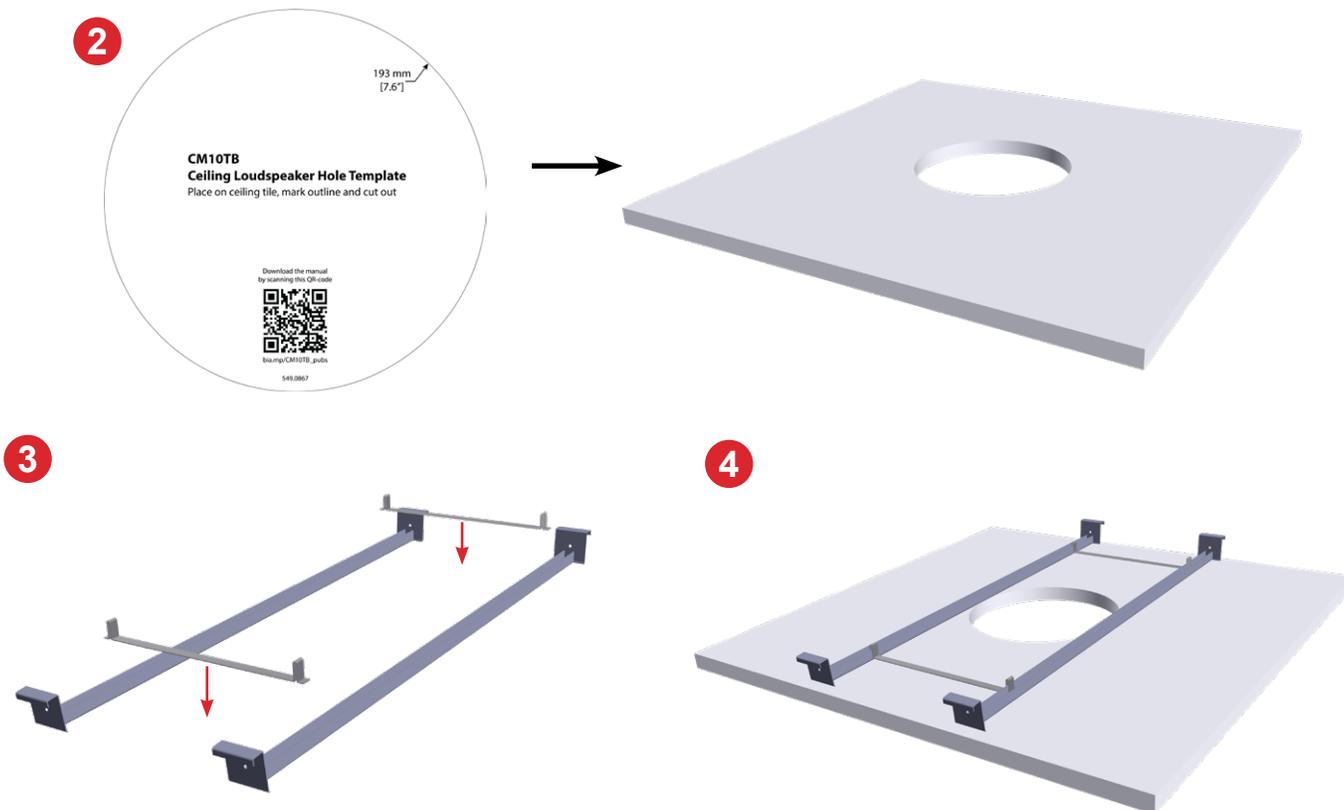
Once the loudspeaker is mounted, rotate the face-mounted tap switch to select the appropriate tap setting before any audio is passed through the loudspeaker. Do not change the setting on the tap switch while the loudspeaker is in use.

### Installation in drop (suspended) ceiling (typical)

1. Run wires to the loudspeaker locations.
2. Remove the ceiling tile and use the template to cut a hole in the center of the tile. Remove any debris from around the hole.
3. Place the tile rails on the grid, and fit the spacers onto the rails. (*Ceiling grid not shown*).
4. Reinstall the ceiling tile and align tile rails on either side of the opening.



**NOTE:** All electrical installation connections for loudspeaker lines are subject to all applicable governmental building and fire codes. The selection of appropriate electrical hardware to interface with the loudspeaker lies solely with the installation professional. Biamp recommends that an appropriately licensed engineer, electrician, or other professional identify and select the appropriate conduit, fittings, wire, etc. for the installation.



### Installation in a drop (suspended) ceiling with conduit

Prepare the ceiling tile as shown above. Access to the loudspeaker through an adjacent tile space is necessary to attach the conduit after the unit is installed in the ceiling tile. The included wiring cover has two knockouts on the top to fit 1/2" and 3/4" NPT conduit (22mm [0.875"], 29mm [1.14"]). Conduit fittings are not included. Use flexible conduit close to the loudspeaker to make alignment and connections easier. Run wires and conduit to the loudspeaker locations.

**NOTE:** Conduit use may be required for some plenum spaces and should also be used in damp spaces. Using the cover with conduit wiring will comply with the City of Chicago requirements.

## INSTALLATION (CONTINUED)

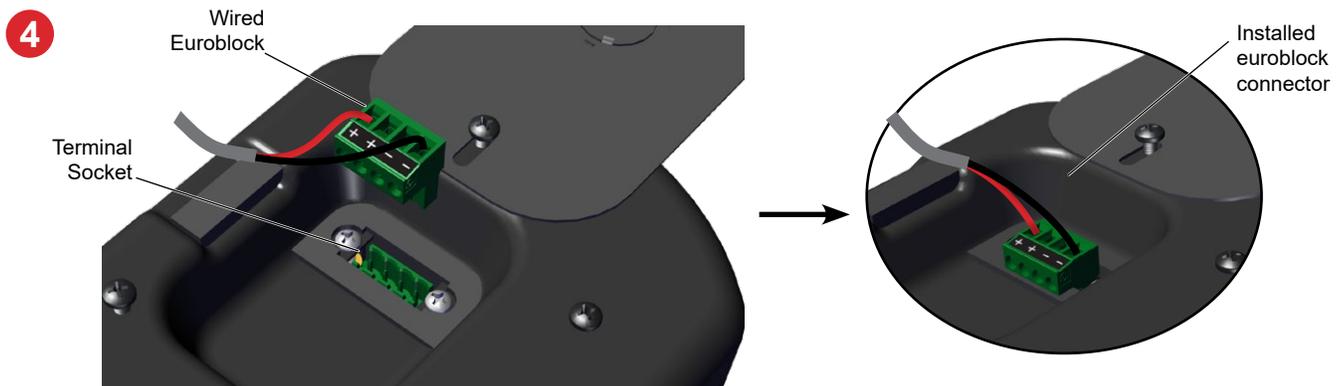
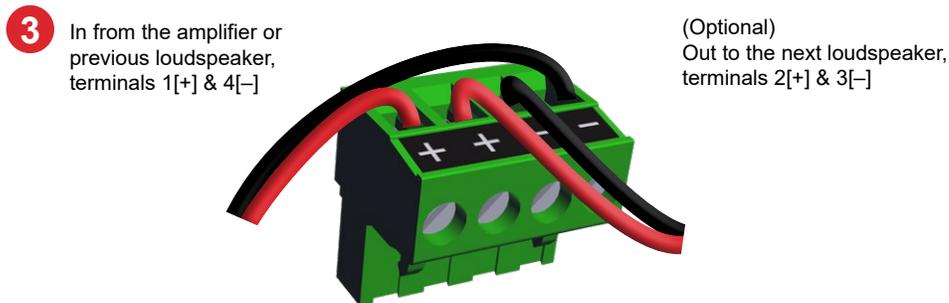
### Wire the loudspeaker

The cover acts as a strain relief for wiring connections. This can be accomplished in 2 ways; sandwiching the wires between the cover and the foam on the side of the input area, or using a cable clamp or conduit fitting in the knockout and routing the wiring through it. The second option is described in the grey box on the bottom of the next page.

1. Loosen the screws (circled) holding the cover enough to allow it to move.
2. Move the cover up to clear the lower screws and rotate it around to expose the euroblock socket.

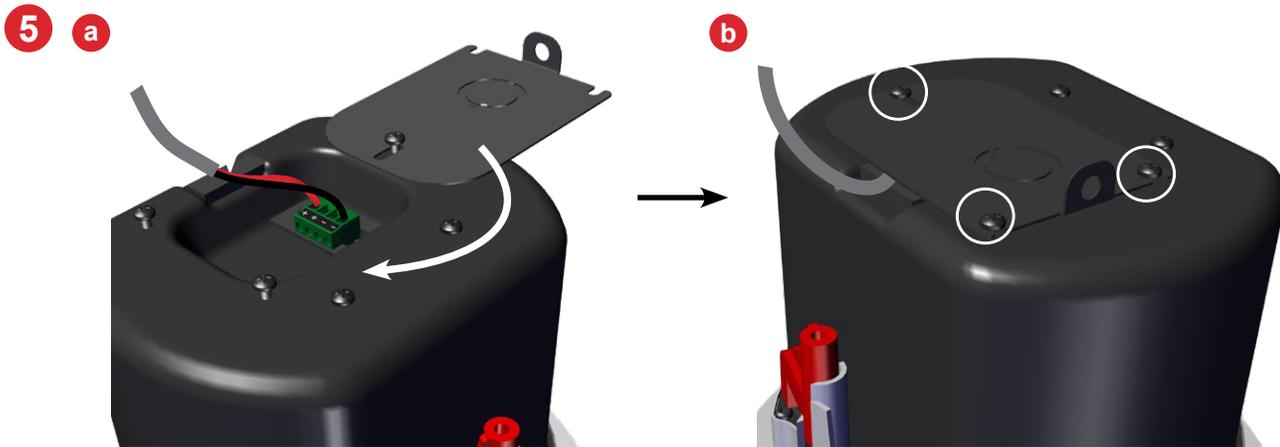


3. Wire the Euroblock connector as shown. Loudspeakers may be daisy-chained by using the second set of terminals.
4. Insert the wired connector into the socket and route the wires to the side.



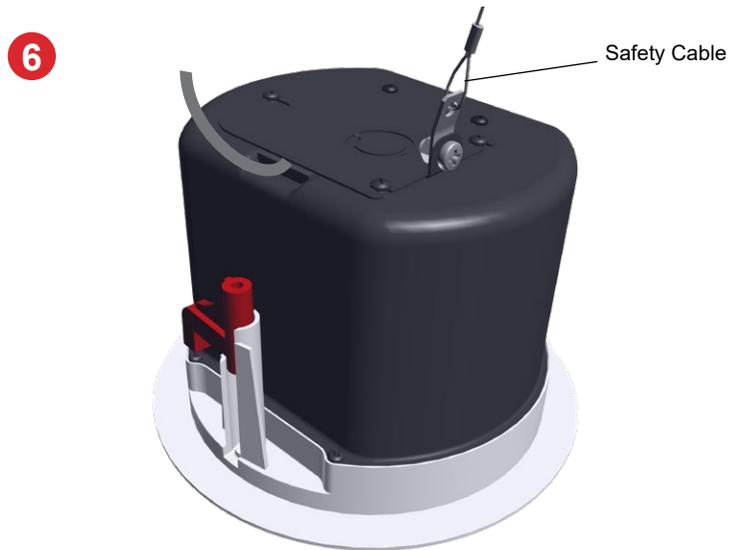
## INSTALLATION (CONTINUED)

5. Re-install the cover as shown (a-b) and secure by tightening the circled screws.



6. \*Secure a safety cable to the safety tab on the cover. Attach the cable to a secondary structural point directly above the seismic safety tab to minimize impact force and swing in the event of a ceiling failure. Make the cable as short as possible.

**\*NOTE:** This can also be done after installing the unit if there is access in the ceiling.

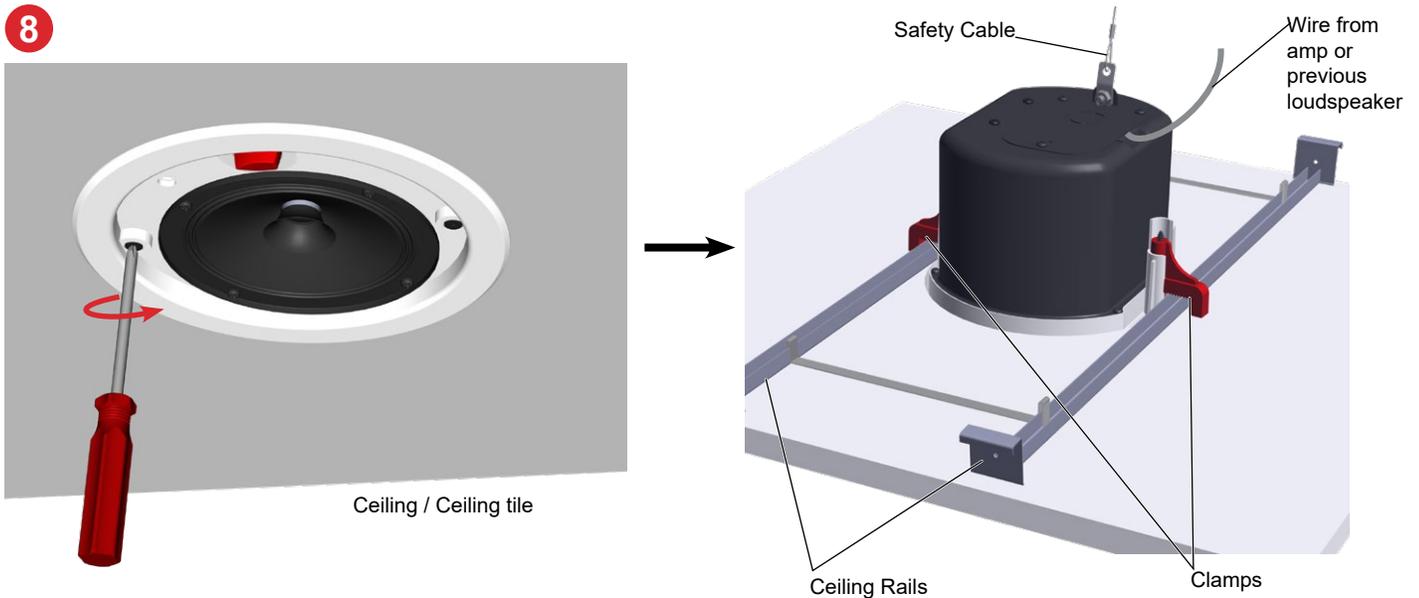
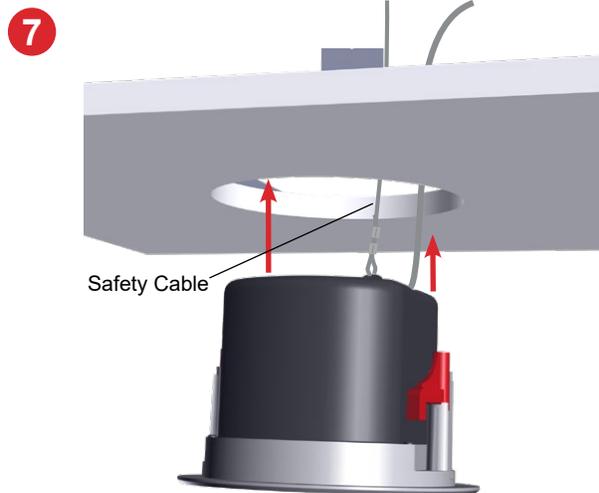


### Cable Clamp or Conduit Applications - Input Cover

1. Remove the cover by unscrewing the center screw.
2. Remove the cover knockout and install a cable clamp or conduit fitting (not included). For conduit applications, using flexible conduit at the loudspeaker location is recommended for easier installation.
3. Thread the cable or wires through the clamp (or fitting) and wire the euroblock connector as shown. Loudspeakers may be daisy-chained by using the second set of terminals.
4. Re-install the cover and secure. If using a cable clamp, tighten the clamp screws around the cable to provide strain relief.

## INSTALLATION (CONTINUED)

7. Insert loudspeaker into the ceiling hole.  
**IMPORTANT:** The loudspeaker must be fully supported until the clamps have been rotated out and over the tile rails.
8. Push the loudspeaker up with the rim against the ceiling tile and tighten the screws, to fully secure it in the ceiling. Wire the loudspeaker and attach the safety cable if it wasn't done previously. See Steps 3-6.



**!** **IMPORTANT:** For closed ceiling applications all connections (wiring and safety cable) must be made with the input cover installed before inserting the unit in the ceiling.

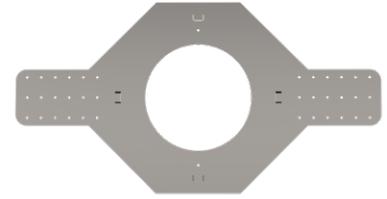


## INSTALLATION OPTIONS

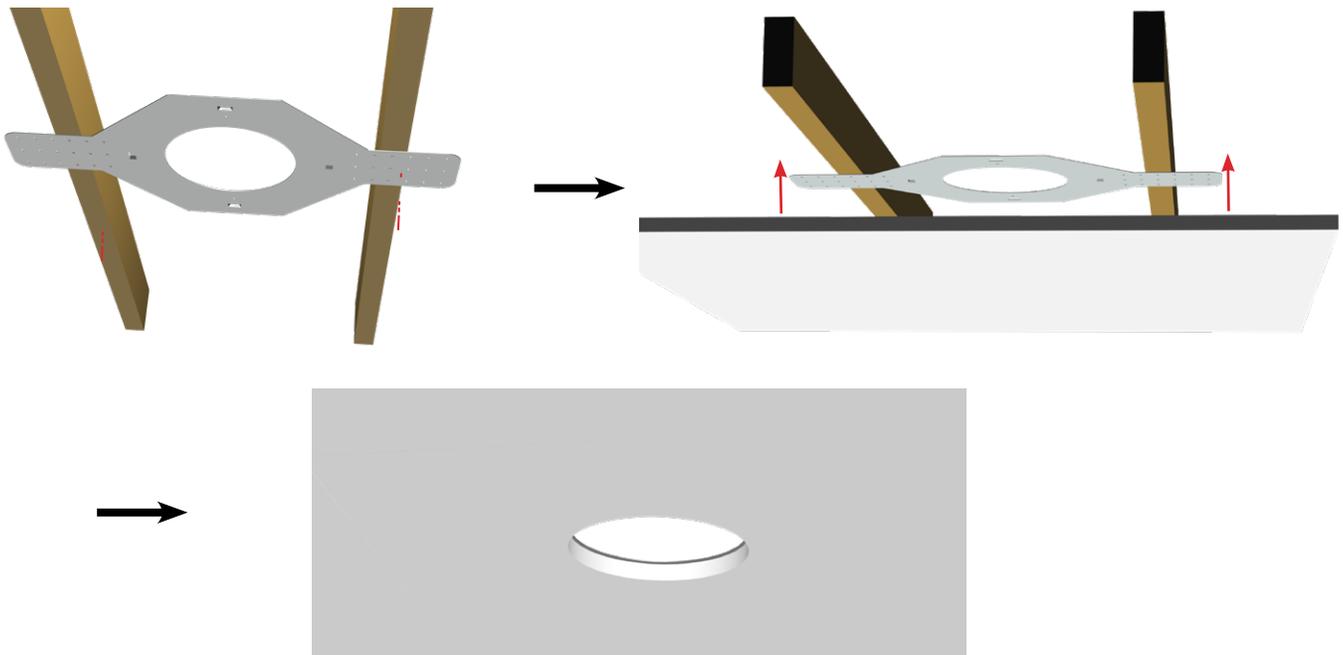
### Installation in a drywall [sheet rock] ceiling

Adequate distance above the drywall should be available to accommodate the depth of the back can.

1. New construction brackets (SPA-NC100) should be utilized and secured to the ceiling structure.  
**NOTE:** Use a stretched string or laser to align the brackets, rather than aligning to the truss.
2. Run wiring to each bracket location allowing sufficient length to allow for connection to the back can. There is a cleat to secure the wiring to keep it accessible at the hole location.
3. A safety cable should be attached to the structure with sufficient length to allow for connection to the back can. Make it as short as possible while still allowing for connection before loudspeaker installation.
4. Install the drywall and cut out the hole inside the bracket. Allow wires and cable to hang through the hole or be accessible in the ceiling
5. After the ceiling is finished, install the loudspeaker (steps 1-8 of this guide - [pages 4-6](#)). Screwing down the clamps will secure the loudspeaker in the ceiling.
6. Finish the installation by setting the tap switch and installing the grille (steps 9-10 - [page 7](#)).



Model	Fits
SPA-NC100	CM10TB, CM20, CM30



## LOUDSPEAKER REMOVAL

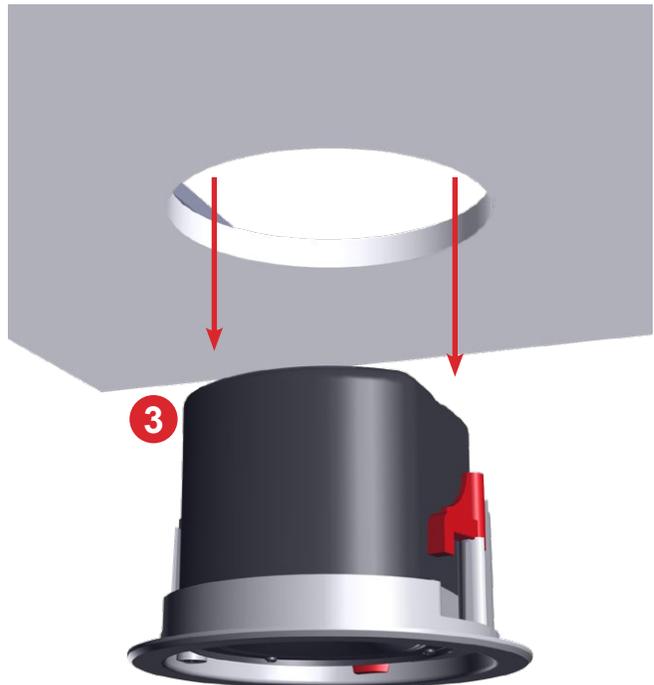
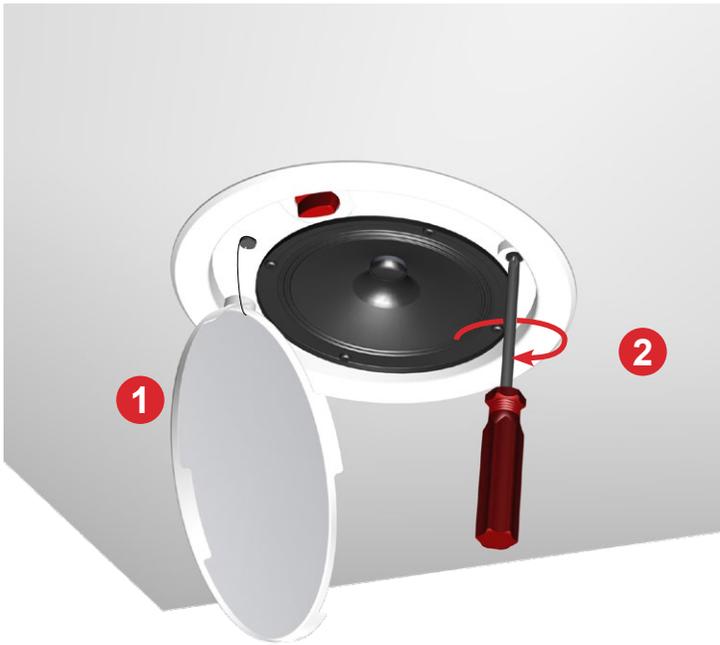
If there is a wired conduit connection to the loudspeaker, it must be disconnected first, by disconnecting the safety cable, rotating the cover out of the way, and removing the euroblock connector.

Follow steps below to remove the loudspeaker from the ceiling.

1. Carefully pry the grille off, and let it dangle from the tether.
2. Loosen the clamps by turning each screw counter-clockwise until it stops. The clamp will travel up the screw and turn against the can. Repeat for both screws.

**CAUTION:** The loudspeaker must be fully supported as the clamps are turned to prevent it from falling as the clamps move up and in.

3. Remove the loudspeaker from the ceiling. Detach the safety cable and wiring, if it wasn't removed previously.



## PAINTING INSTRUCTIONS

The grille and loudspeaker rim may be painted to match room decor. Do NOT paint the grille when on the loudspeaker. Remove the scrim material (cloth) prior to painting.

1. Purchase a citrus-based label/adhesive remover spray (PRF Label Off<sup>®</sup>, Goo Gone<sup>®</sup> or similar).
2. Gently remove the grille from the loudspeaker. Remove the tether plug from the face, do not bend the grille.
3. Gently pry the logo from the grille using a non-metallic tool, or fully mask the logo. Use a sharp knife to trim the masking material close to the edges of the masked areas.
4. Remove the grille cloth (scrim material) by spraying all of the fabric with the adhesive remover.
5. Wait a few minutes to allow the fabric to fully absorb the spray.
6. Carefully peel off the grille cloth, taking care not to rip or stretch the fabric.
7. Once the cloth and logo have been removed, some glue residue may remain on the grille. If so, apply additional adhesive remover to remove the glue.
8. Fully mask the loudspeaker face inside the rim.
9. Thoroughly clean and degrease the grille and loudspeaker rim before painting. Do not use a solvent (see Cautions above).
10. Paint the rim and grille with several light coats of spray paint at twice the recommended distance from the grille. Do not clog the grille perforations with paint.
11. Allow the paint to fully dry and cure.
12. Remove all masking materials from the face.
13. If necessary, reattach the grille cloth. Use a light coat of simple spray adhesive. Avoid clogging the grille perforations with any adhesive. Press and smooth the cloth on the grille.
14. Reattach the tether plug to the grille.
15. Reattach the logo if required.
16. Insert the grille into the loudspeaker face per the installation instructions.



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

**IMPORTANT:** Take care not to bend or damage the grille on removal or reinstallation.

**IMPORTANT:** Blocking the grille holes with paint or getting any paint on the drivers or internal parts will affect loudspeaker performance and void the warranty.

**IMPORTANT:** For applications where UL1480A or UL2043 certification is required, ensure that relevant information on the product labels are not painted over.

**You will need:**

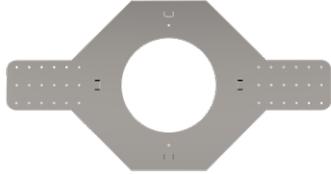
- Removable masking tape or painter's tape
- Machinist scribe tool or knife
- Phillips head screwdriver

**Useful Tips**

Use a sharp knife to trim the masking material close to the edges of the masked areas.

## CEILING ACCESSORIES

A variety of ceiling accessories are available to aid differing types of installations and applications. Full installation guides for each type are also available on the Biamp website.

<b>SPA-NC100</b>	New construction bracket for drywall or sheet rock ceilings.	
<b>SPA-TR100</b>	Trim ring to allow CM10TB models to fit in oversize holes up to 279 mm [11"].	
<b>SPA-SCC100</b>	Safety cable 1.2mm 7x7 strand galvanized steel cable Length: 4.5m (14.7') WLL: 50 lbs at 5:1 rating	

## CONTACT US

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**Safety & Compliance:** [biamp.com/compliance](https://biamp.com/compliance)



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