

Preliminary



Desono™ DX-IC Ceiling Loudspeakers Installation & Operation Guide

Connecting people through extraordinary audiovisual experiences™



Models
DX-IC4LP, DX-IC4, DX-IC6, DX-IC6B,
DX-IC8, DX-IC10, DX-IC10SUB

PRODUCT INFORMATION

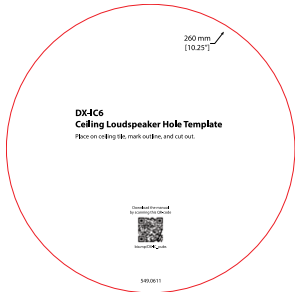
Desono DX Ceiling Loudspeakers are engineered and manufactured to be rugged and are carefully packed in sturdy cartons. However, it is wise to thoroughly inspect each unit after it has been removed from the packaging, as damage could occur during shipping.

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

Box Contents:

Models: DX-IC4LP, DX-IC4, DX-IC6, DX-IC6-B, DX-IC8, DX-IC10, DX-IC10SUB

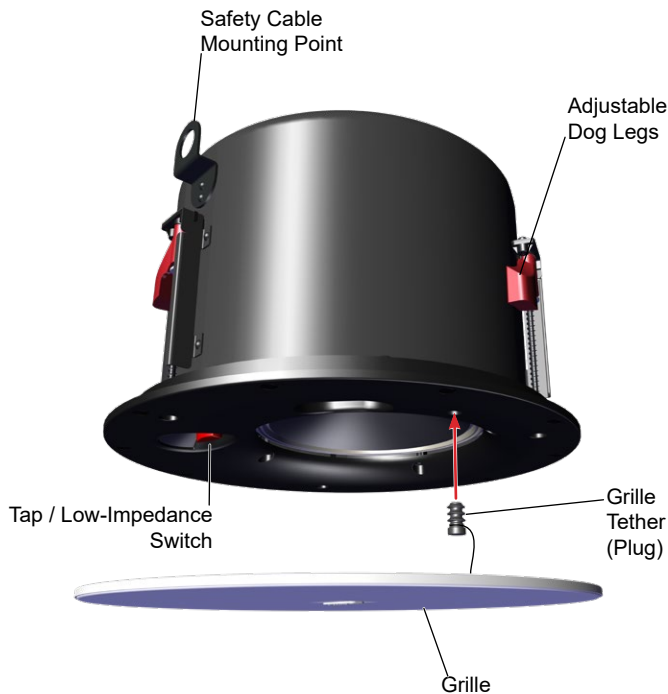
- Ceiling loudspeakers & covers (2)
- Grilles (2)
- C-ring support plates (2)
- Cutout template (1)
- Paint masks (2)
- 24" (102mm) Tile bridge rails (4)
- Euroblock connectors (2) *not shown*



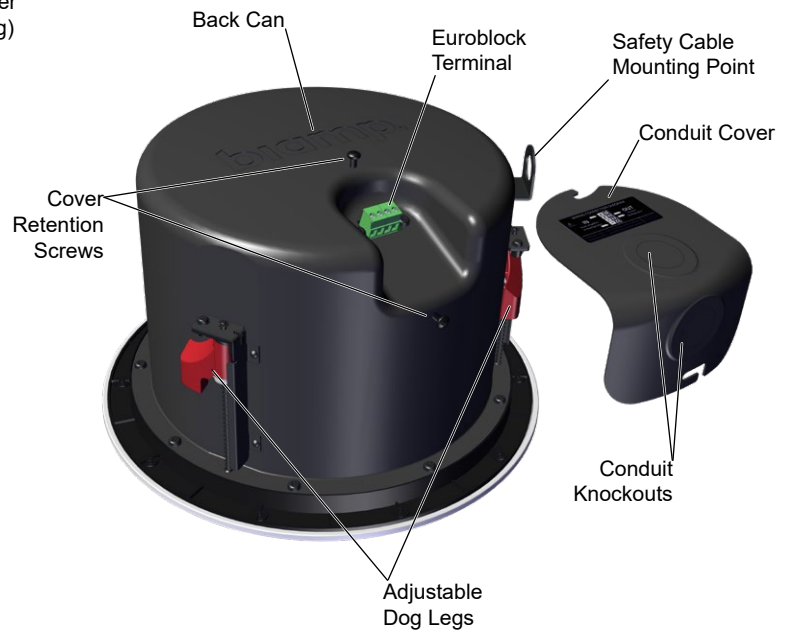
A: 9300 S.W. Gemini Drive Beaverton, OR 97008 USA

W: www.biamp.com

PRODUCT REPRESENTATION



Paint masks are shipped on the loudspeakers. You can leave the masks on if the loudspeakers need to be installed before the ceiling is finished. After installation, cover the 3 screwdriver access holes in each with painter's tape before painting. Once the ceiling is finished, remove the paint masks, tighten in the ceiling if necessary, and continue the installation.



DX-IC-6 Model shown

Tools Needed

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

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.

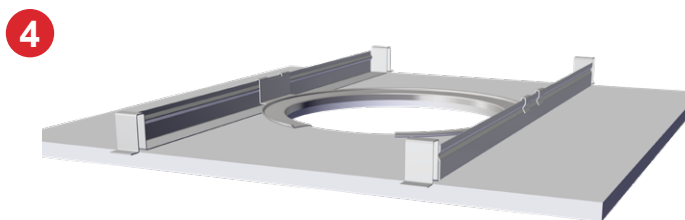
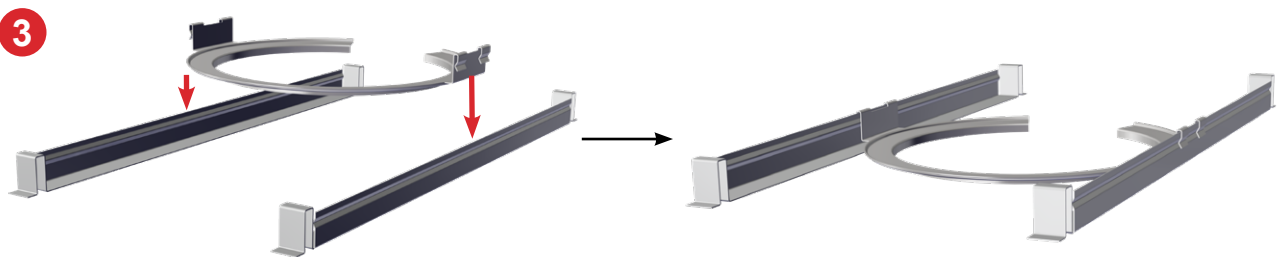
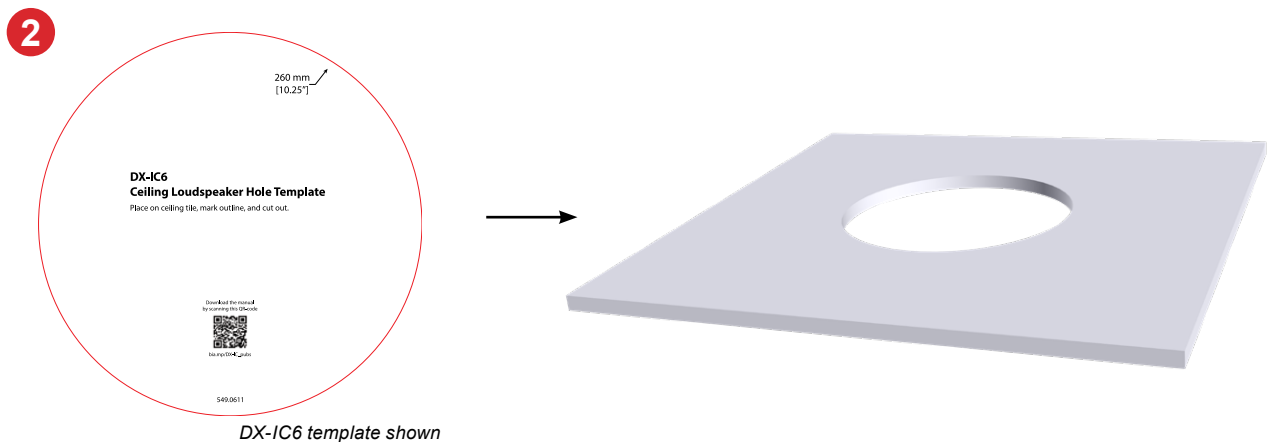
INSTALLATION

The DX ceiling loudspeaker family is designed to be installed with or without above ceiling access in drop ceilings. Prewiring and installation of optional New Construction Brackets (SPA-NCxxx) allows DX-IC loudspeakers to be installed in new drywall ceilings. DX-IC loudspeakers can be mounted in larger cutouts using optional ceiling trim rings (SPA-TRxxx).

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 - no conduit)

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 C-ring tabs onto the rails.
4. Reinstall the ceiling tile and align C-ring with the opening.



INSTALLATION

Install the loudspeaker in the ceiling

5. Wire the euroblock terminal as shown in Figure 1.

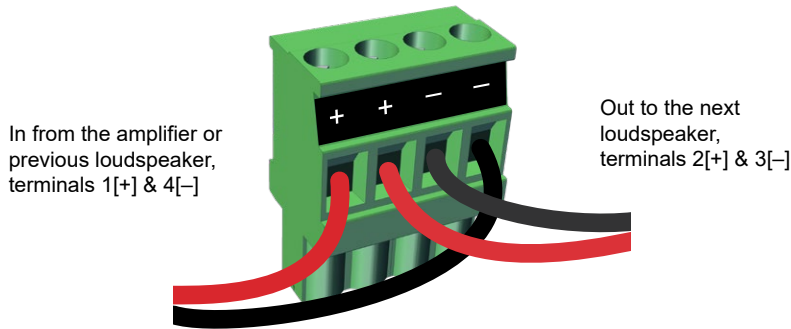


Figure 1. Wire euroblock terminal



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.

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

6. If necessary, adjust spring clamps (with a Phillips head screwdriver) to allow slightly more space between the rim and the bottom of the spring clamp than the depth of the ceiling tile and C-ring together. They should all be at the same height (Figure 2).
7. Plug the wired euroblock into the socket in the top of the loudspeaker making sure that it is fully seated (Figure 2 detail).
8. Secure a safety cable to the seismic safety tab. The cable should be mounted to a secondary structural point close to the loudspeaker to avoid any kinetic force if the ceiling grid should fail.

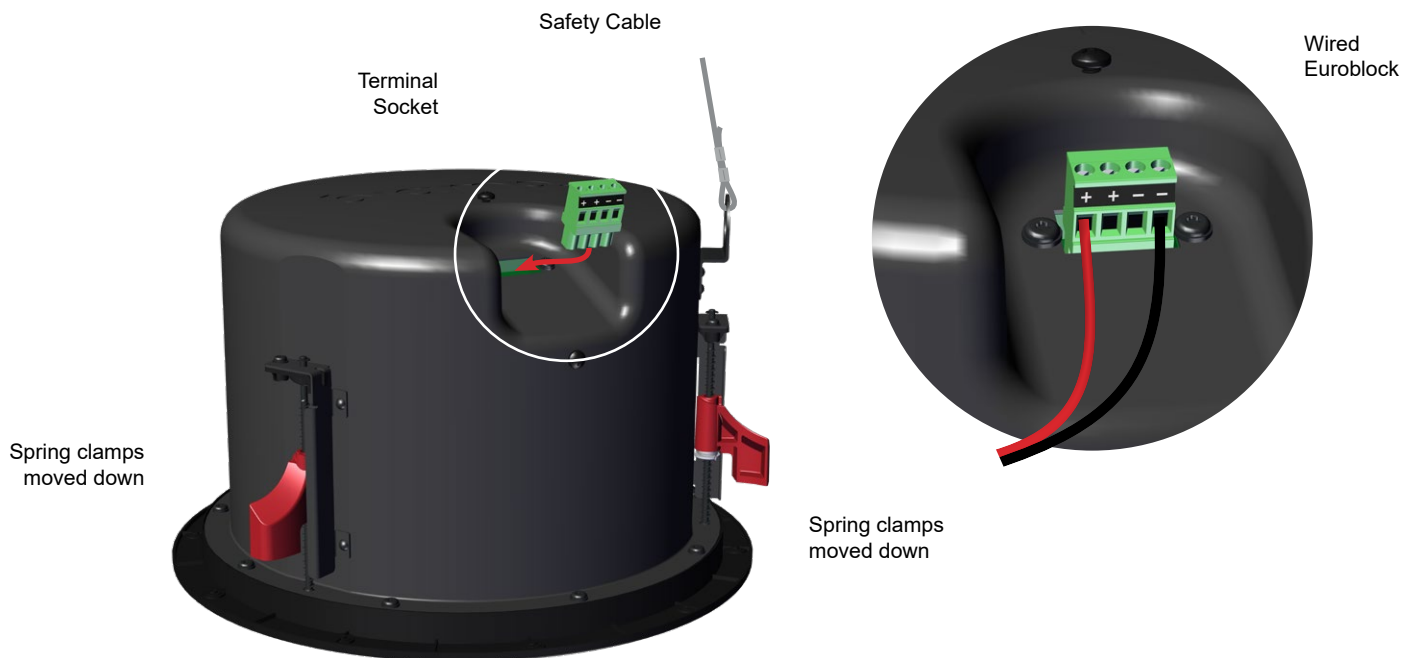


Figure 2.

INSTALLATION (continued)

9. Insert the loudspeaker into the hole and rotate clockwise to collapse the clamps as it is lifted into place. Once the spring clamps have cleared the C-ring they will rotate out to hold the loudspeaker in place. See Figure 3.

IMPORTANT: The loudspeaker must be fully supported until the clamps have rotated back out above the ceiling.

10. Push the loudspeaker up with the rim against the ceiling tile and tighten the screws (opposing sides first), to lower the spring clamps to secure the loudspeaker.

NOTE: Do not overtighten. If the ceiling tile is deformed, the grille may not stay on.

11. Set tap switch to appropriate setting (Figure 4).

IMPORTANT: Do not change the setting on the tap switch while the loudspeaker is in use or powered.

12. Push grille tether plug fully flush in the loudspeaker face (Figure 5 white arrow). The grille should dangle and not fall.

13. Press the grille up against the face (Figure 5 red arrows). The magnets will hold it in place.

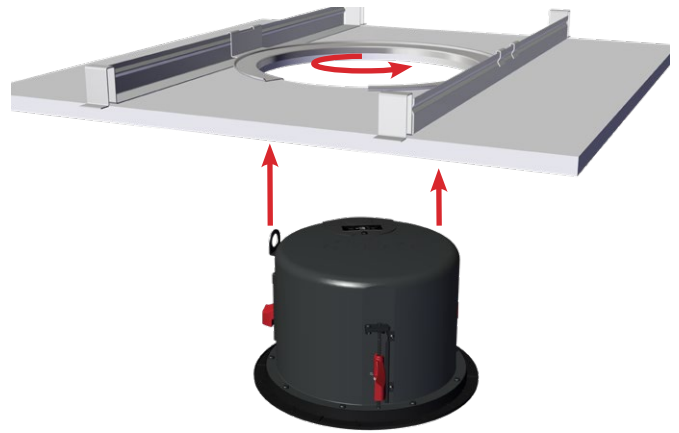


Figure 3. Insert and rotate loudspeaker



Figure 4. Set tap

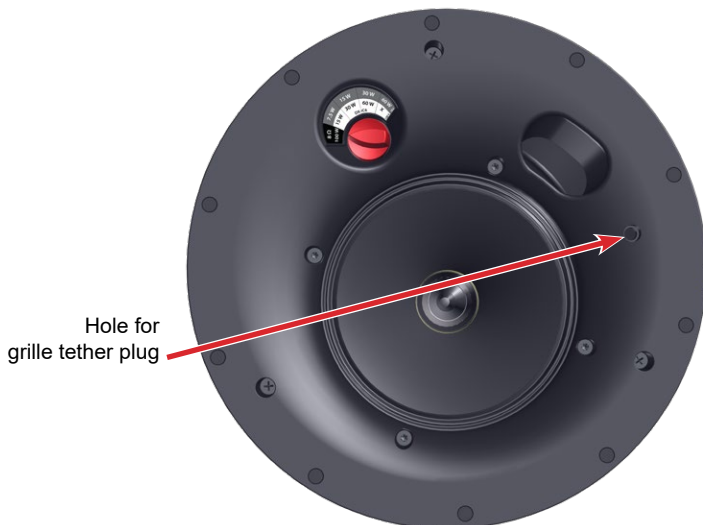


Figure 5. Attach grille

INSTALLATION OPTIONS

Installation in a drop (suspended) ceiling (using conduit)

Access to the speaker through an adjacent tile space is necessary. The included wiring cover has knockouts on the side and top (22.2 mm [0.875"]). Conduit fittings are not included. Use flexible conduit close to the loudspeaker to make alignment and connections easier.

Exception: DX-IC4LP only has one knockout on the side to maintain a low profile. 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.

1. Run wires and conduit to the loudspeaker locations.
2. Install the loudspeaker per the instructions on the previous pages. Fully support loudspeaker until spring clamps hold it in the ceiling.
3. Remove the appropriate knockout in the wiring cover and install conduit fitting.
4. Thread the wire through the cover/fitting and connect the wiring to the euroblock terminals observing the polarity (Figure 6). Loudspeakers may be daisy-chained by using the second set of terminals.
5. Fit the cover onto the speaker as shown with both cover retention screws fully in the slots on the cover (Figure 7-1, 7-2).
6. Tighten screws (circled) to secure the cover and compress the gasket (Figure 7-3).



Figure 6. Wire loudspeaker (conduit not shown)



Figure 7 (1-3). Attach cover (wires/conduit not shown)

INSTALLATION OPTIONS (continued)

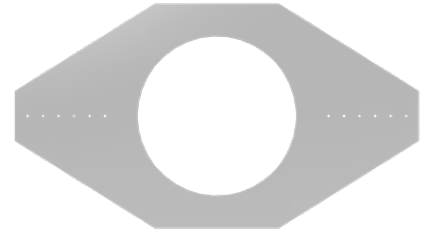
Installation in a drywall [sheet rock] ceiling

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

1. The appropriate size of new construction brackets (SPA-NCxxx) should be utilized and secured to the ceiling structure (Figure 8-1).

NOTE: Use of a stretched string or laser to align the brackets, rather than aligning to the truss is recommended.

2. Run wiring to each bracket location allowing sufficient length to allow for connection to the back can.
3. A safety cable should be attached to the structure with sufficient length to allow for connection to the back can.
4. Install the drywall and cut out the hole inside the bracket. Allow wires and cable to hang through the hole (Figure 8-2, 8-3).
5. After the ceiling is finished, install the loudspeaker per steps 5-10 on pages 4-5 of this guide. Screwing down the spring clamps will secure the loudspeaker in the ceiling.
6. Finish the installation by setting the tap switch and installing the grille (steps 11-13 on page 5).



Model	Fits
SPA-NC300	DX-IC4, DX-IC4LP
SPA-NC400	DX-IC6
SPA-NC500	DX-IC8
SPA-NC600	DX-IC10, DX-IC10SUB

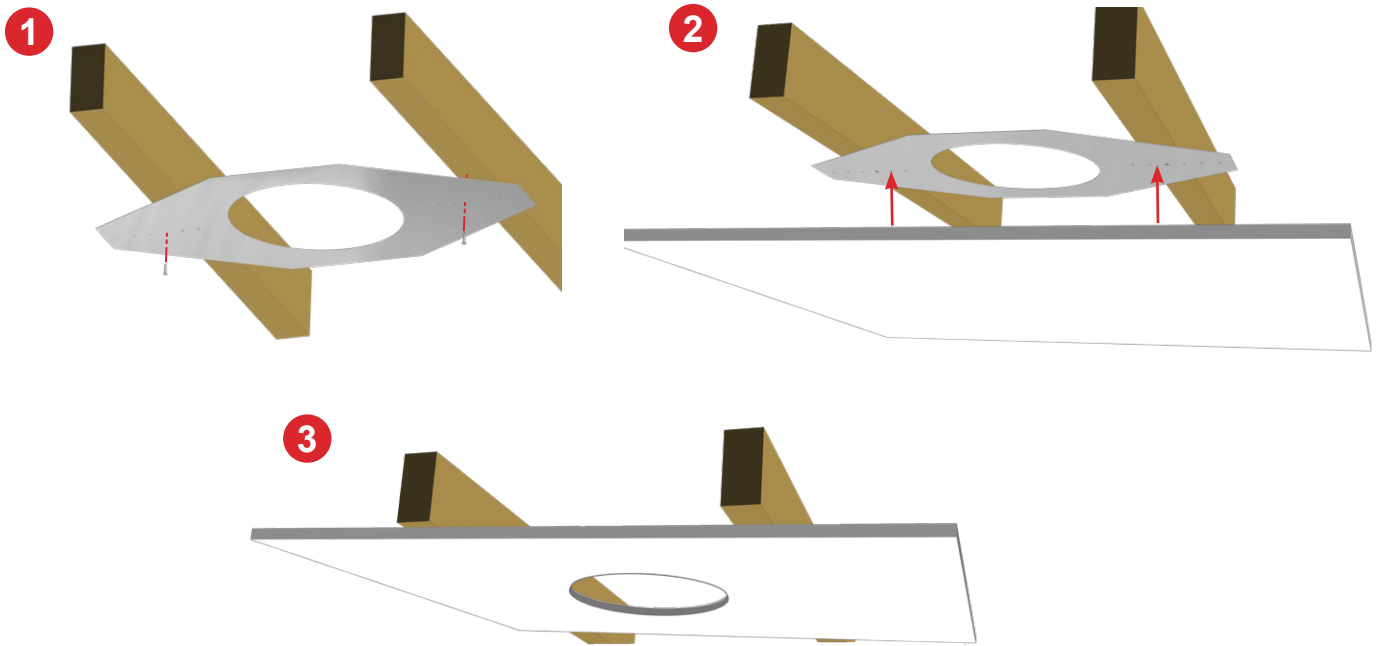


Figure 8. Install bracket and drywall or sheet rock

LOUDSPEAKER REMOVAL

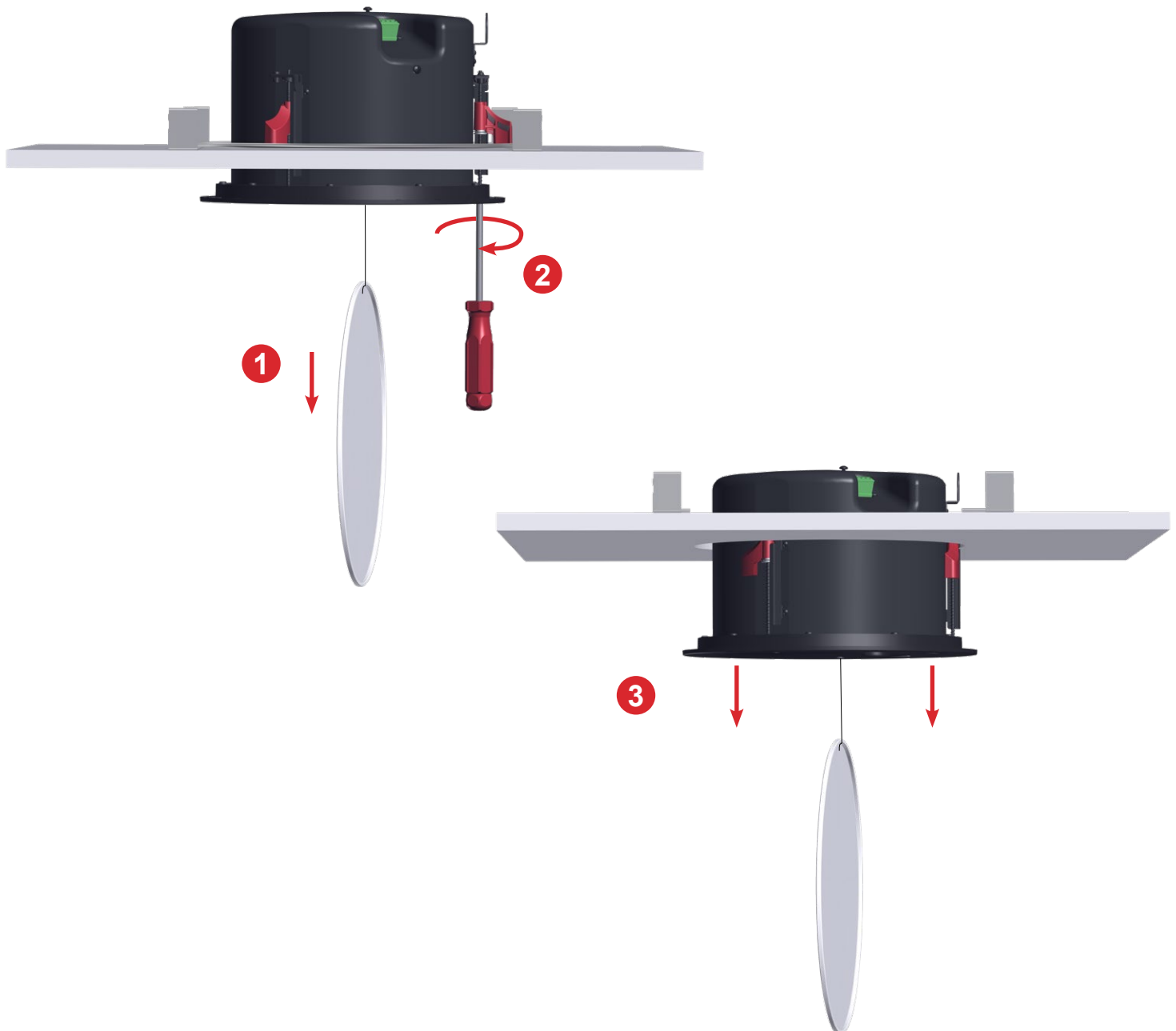
If there is a wired conduit connection to the loudspeaker, it must be disconnected first, by removing the cover and terminal block.

Follow steps below to remove the loudspeaker from the ceiling.

1. Pull the grille down until the magnets let go, and let it dangle from the tether.
2. Loosen the spring clamps by turning the screws counter-clockwise until it stops. The spring clamp will travel up the screw and turn against the can. Repeat for all screws.






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

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



DESONO CEILING ACCESSORIES

A variety of ceiling accessories are available to aid differing types of installations and applications. A complete reference guide noting part numbers and what they fit is available [here](#). Full installation guides for each type are also available on the website.

<p>SPA-GRBxxx Install Guide</p>	<p>Black accessory grilles</p>	
<p>SPA-GHHxxx Install Guide</p>	<p>High humidity grilles</p>	
<p>SPA-NCxxx Install Guide</p>	<p>New construction bracket for drywall or sheet rock ceilings.</p>	
<p>SPA-RAIL48 Install Guide</p>	<p>48" tile rails for installation in ceilings using 48" tiles</p>	
<p>SPA-TRxxx Install Guide</p>	<p>Trim rings to allow DX-IC4, DX-IC4LP, or DX-IC6 models to fit in oversize holes</p>	

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