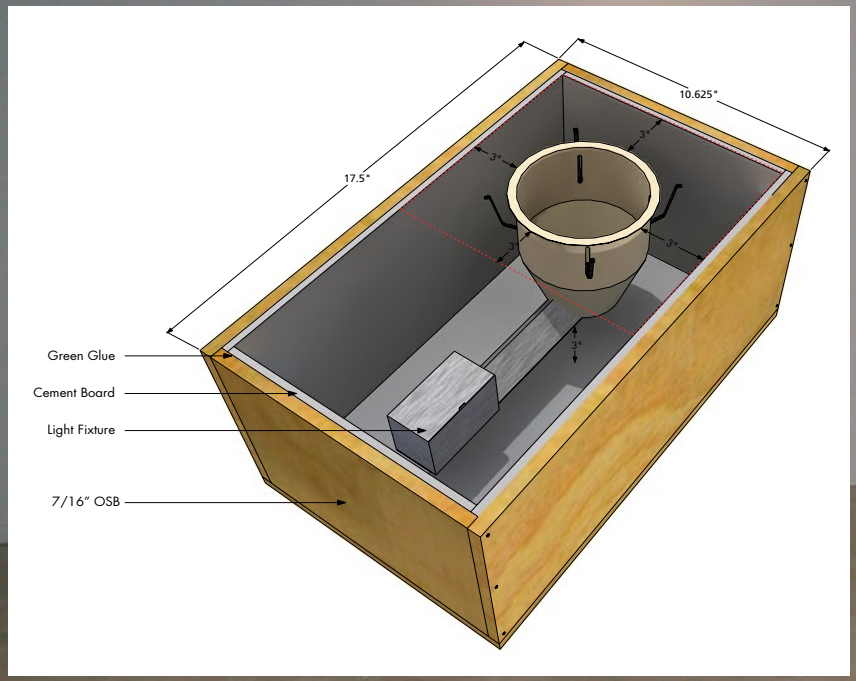
BACKER BOX INSTALLATION & BUILDING GUIDE



Soundproofing COMPANY INC
Noise control for real life

Building a Backer Box

We all love the look of the light from an array of recessed ceiling cans. Be warned that a great deal of sound will travel through these thin metal cans. What can be done?

Generally, the best method of encapsulating the sound coming through the can is to build a Backer Box. There are two main schools of thought on building Backer Box.

1. Cut a rectangular hole and slide a Backer Box up in the joist cavity.

2. Have a Backer Box up in the ceiling already, then drywall and cut a round hole for the light following manufacturing specifications.

Remodeling Light-Can
Halo - H99RT (4" Aperture)

Both have difficulties. However, number 2 is clearly better for drywall finishing. We will pursue that option through this guide.

The trick is having the Backer Box in the ceiling while not attaching any part of the light-can to existing structure (joists).

Note: Backer Boxes can also be used for sealing up wall sconces, multi-gang outlets and other large drywall penetrations.

The Soundproofing Company, presents these construction concepts with the understanding that local Building Codes vary. It is the responsibility of the installer to ensure that these concepts meet local Building Codes. The Soundproofing Company is not liable for mis-installation or non-compliance with local Building Codes.

CLIENT:

Project:
Backer Box Installation and Building Guide

Description:

Revision:

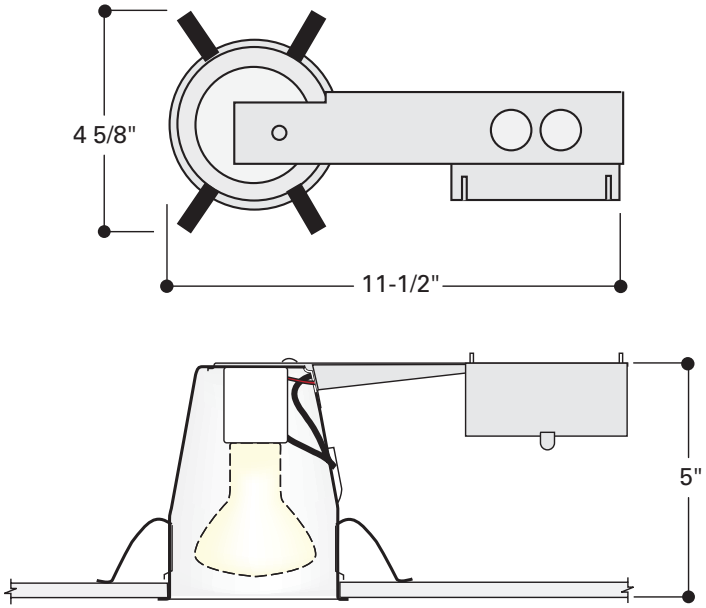
Installation must comply with local, state and national building codes.

LIGHTING SELECTION:

Use a remodel light-can rather than a new construction light-can. Use the smallest diameter light-can available. This generally is 3-4" in diameter.

Remodeling Light-Can

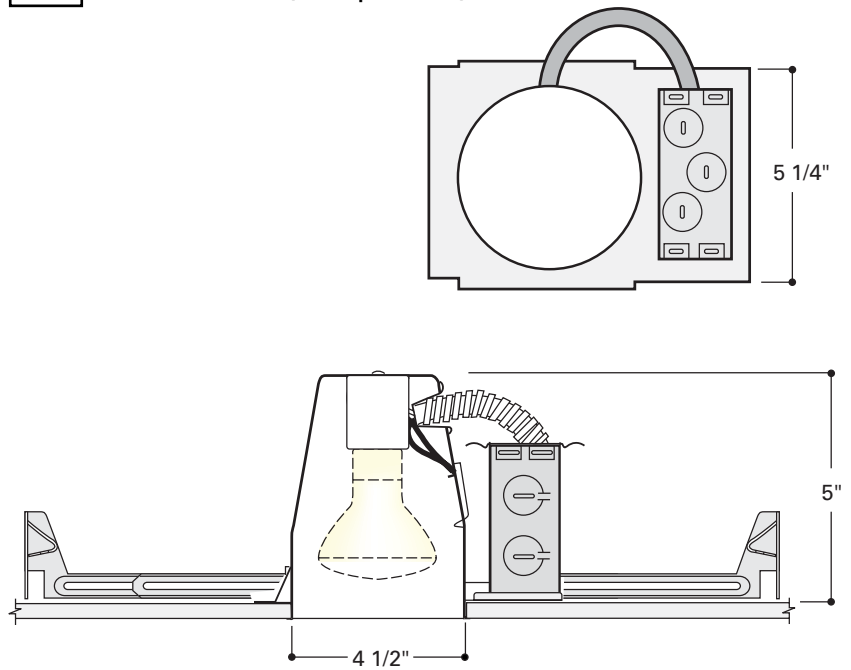
Halo - H99RT (4" Aperture)



The remodel light-can will be attached to the drywall. The Backer Box will be sealed to the top surface of the ceiling drywall, eliminating any flanking path.

New Construction Light-Can

Halo - ET400 (4" Aperture)

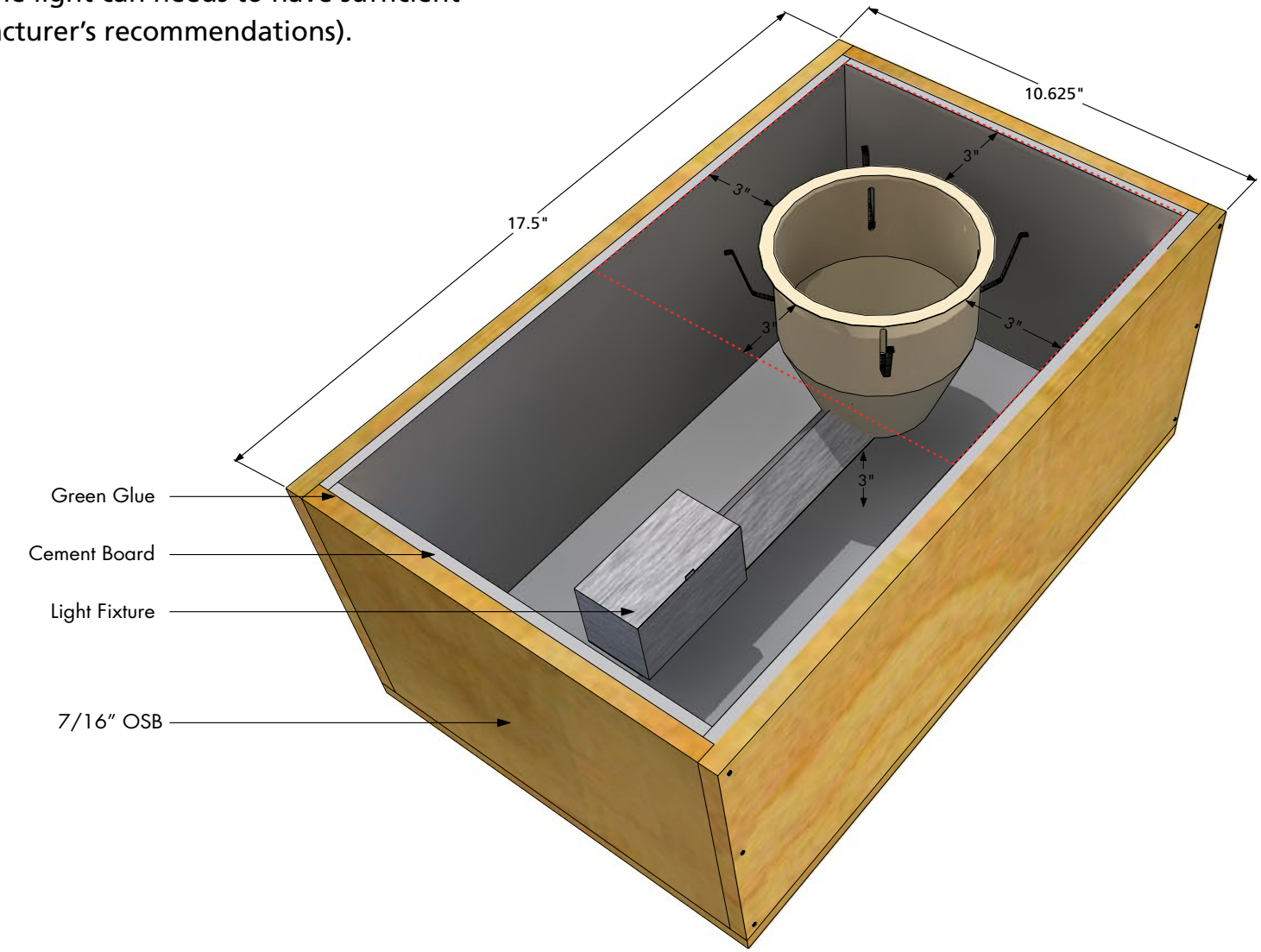


The telescoping arms of the new Construction-Light will allow sound to travel into the ceiling joists. We want to avoid this.

Installation must comply with local, state and national building codes.

BOX DIMENSIONS:

Consider the location where the Backer Box will be placed. Backer Boxes in your project may have different space limitations. Following the lighting manufacturer recommendations to determine how large the Backer Box should be. The light can needs to have sufficient clearance space (see manufacturer's recommendations).



Installation must comply with local, state and national building codes.

The outside of box is built first, made from 7/16" OSB or plywood. Screw the panels together.

Cut 1/4" or 3/8" cement board to line the inside of the OSB box. Apply Green Glue to the back side of Cement Board and then apply.

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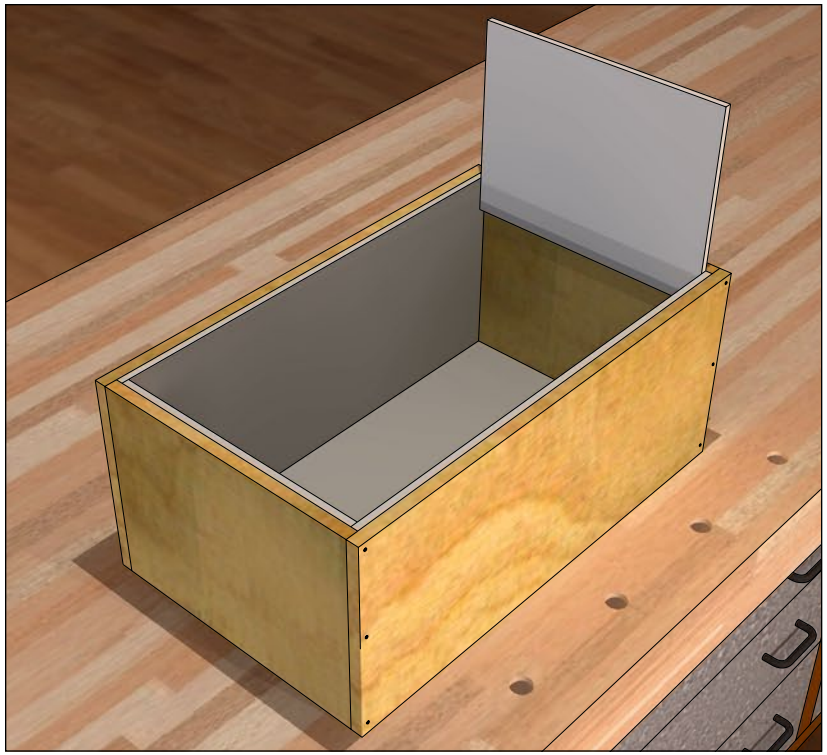

Install the bottom and the four sides of the Cement Board to the OSB/Plywood box. Screw Cement Board into place compressing the Green Glue between the OSB/Plywood and Cement Board.

Seal the Cement Board edges with SilenSeal Acoustical Sealant.

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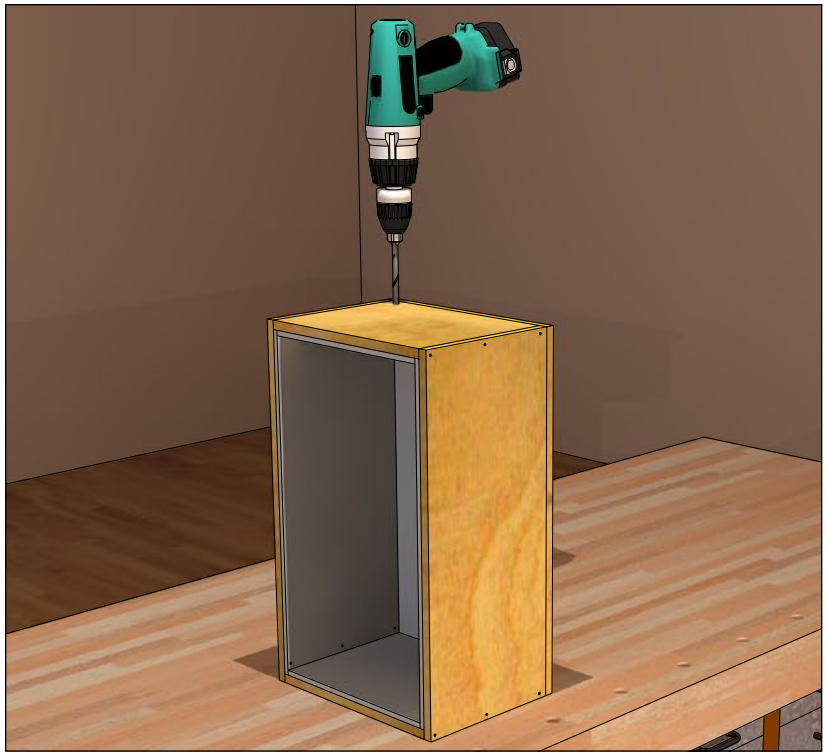

Drill access hole for the electrical wiring. Make the hole just large enough to thread the wiring. Later we will seal this hole with SilenSeal Acoustical Sealant or Putty Pad.

Apply SilenSeal Acoustical Sealant around the top edge of the box.

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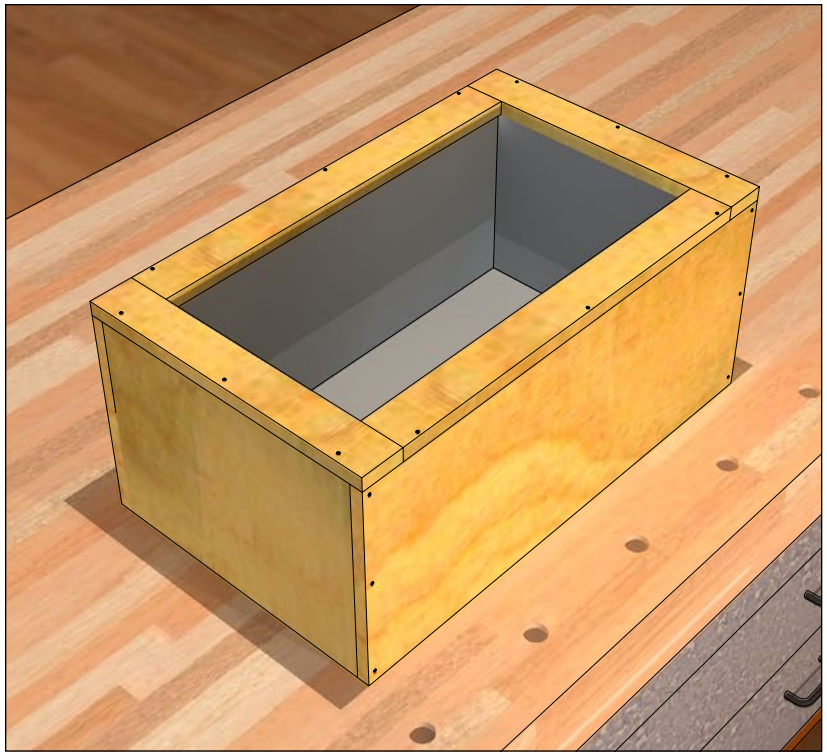
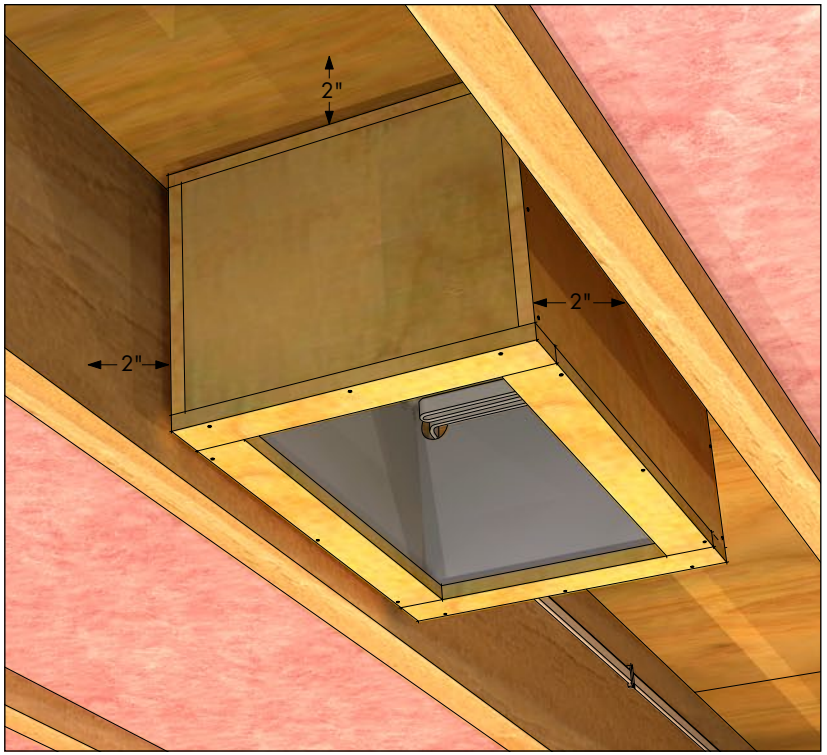


Add a small nailing flange to the box. That flange will accommodate the SilenSeal Acoustical Sealant later.



The Backer Box cannot contact any original framing, pipe, duct, etc.

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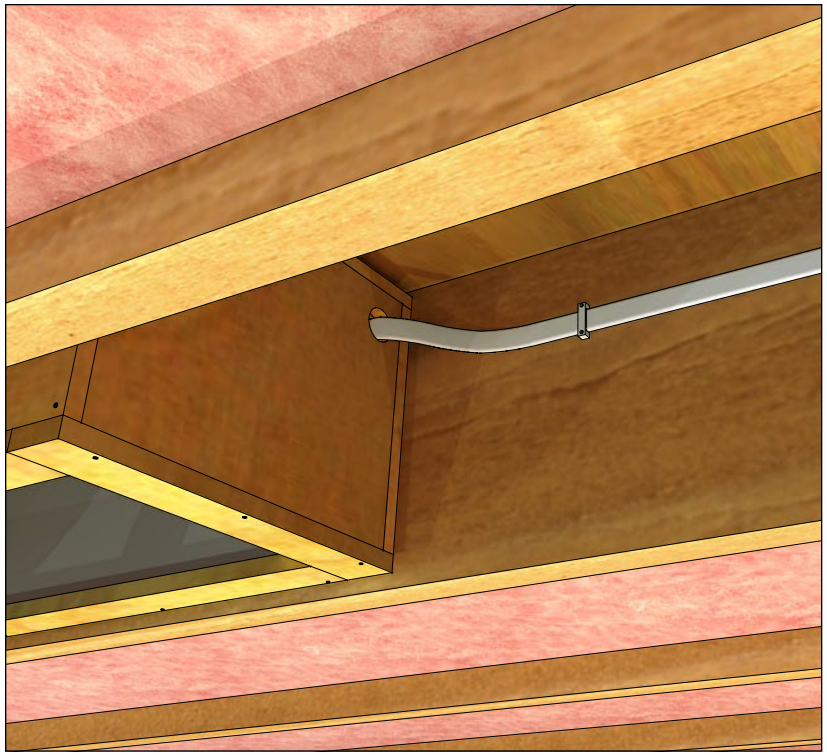

Run electrical wire according to local building codes. Leave the wire 24" longer than necessary inside the box.

Run the wire through the boxes. Bend the wires so the wires won't slip back through the hole in the box.

The wires are now temporarily holding the box in place in the joist cavity.

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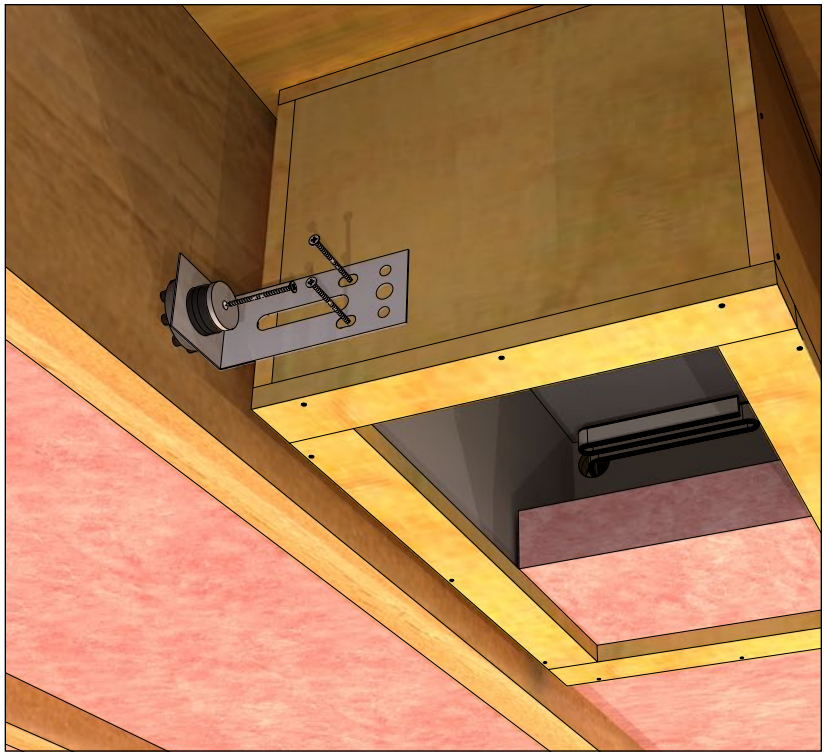
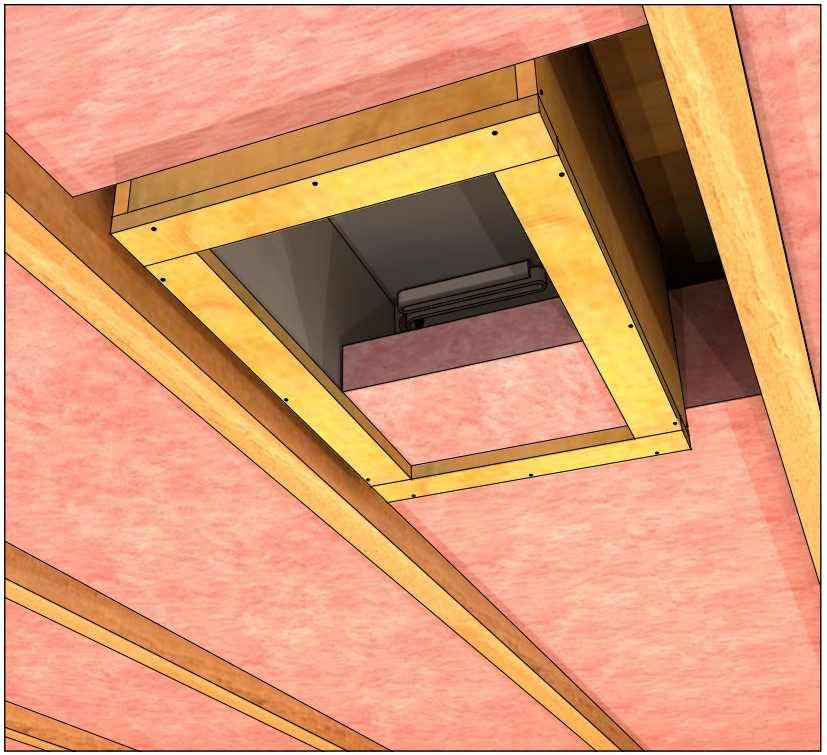


You can use a DC-04 Clip to secure the box to the joist. This will allow your Backer Box to remain in position without creating an additional flanking path. If your budget allows, this will help ease installation of finished drywall. (Make sure the Backer Box is installed at the same height of your joists or furring channel. The Backer Box needs to sit tight to the drywall.)



Add a small amount of fiberglass insulation (no paper face) into the box. The location isn't a concern, but some absorption in the box to reduce resonance is preferred.

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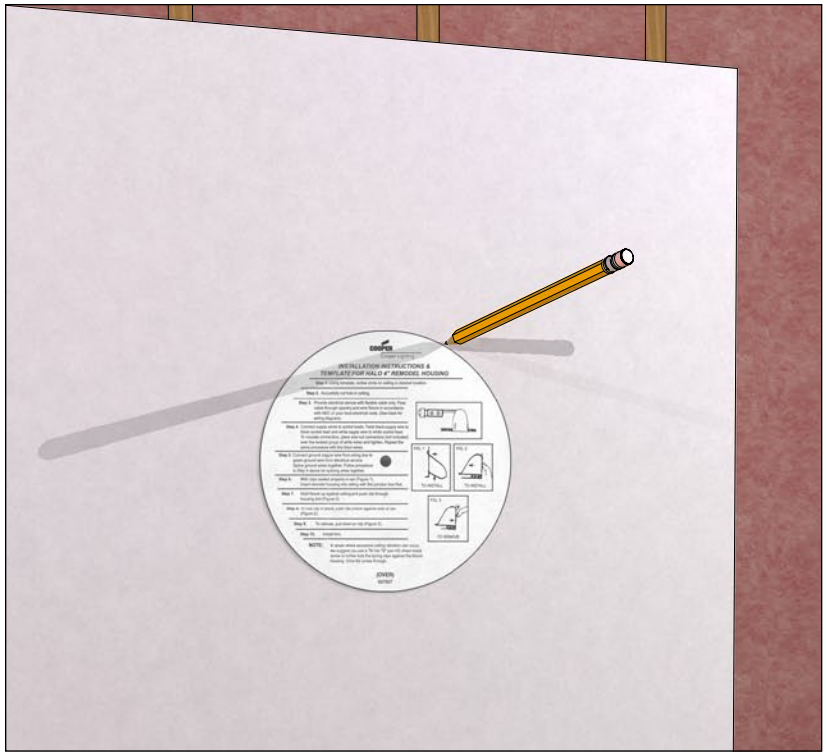

When you are ready to install the ceiling drywall, pre-mark the holes for the ceiling-can. Use the manufactures template to acquire a tight fit. Double check with a dry fit and then cut the hole before installing the drywall.

Apply a heavy dose of SilenSeal Acoustical Sealant to the bottom of the Backer Box flange before installing drywall.

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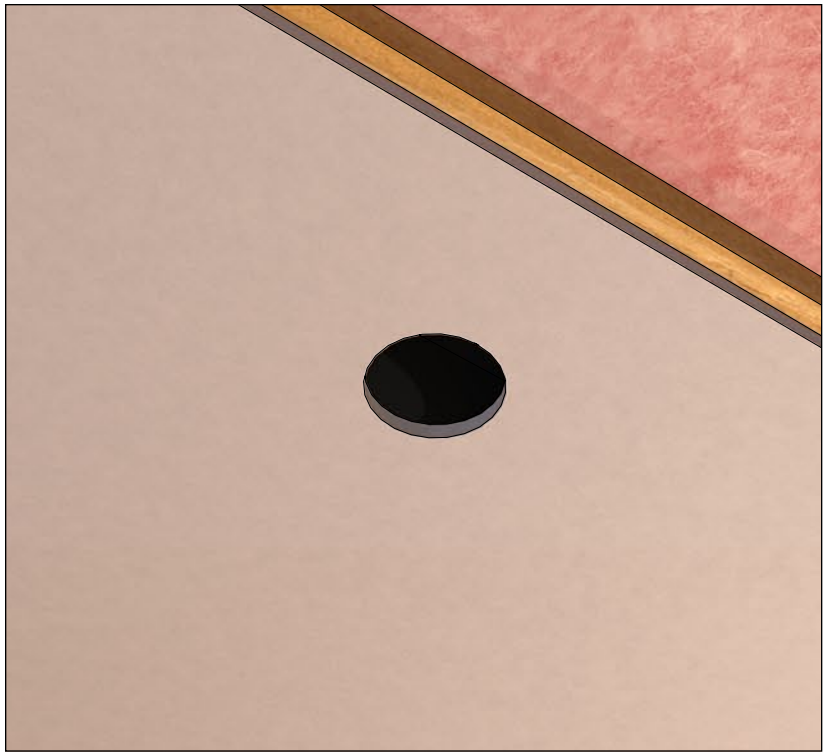
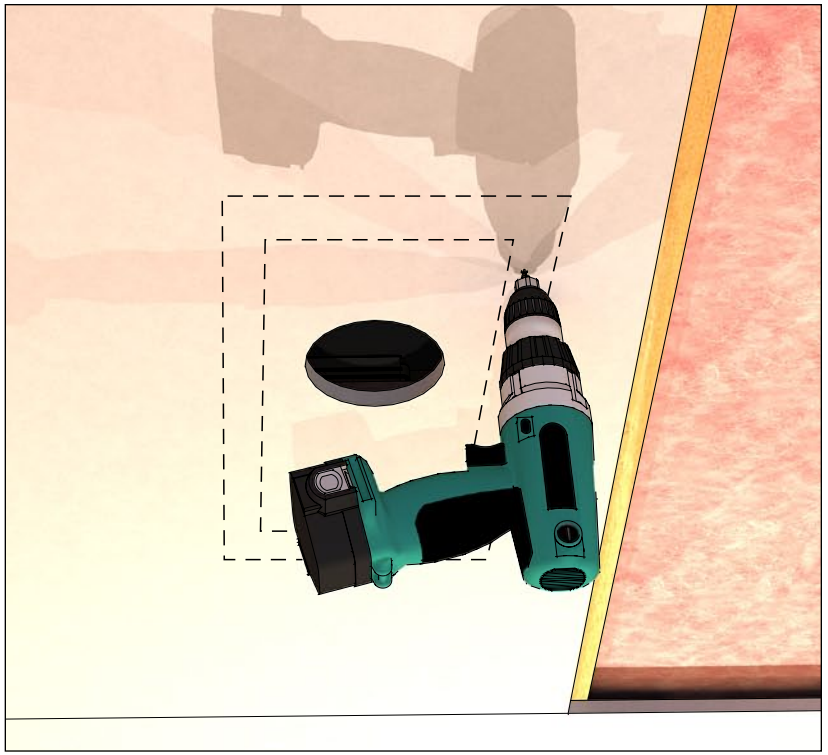


Adjust the final Backer Box location. You should easily be able to move the box where it needs to go (you have 24" of extra wire to adjust the Backer Box).



Secure the Backer Box flange with drywall screws. This will securely seal the Backer Box and SilenSeal Acoustical Sealant to the ceiling drywall.

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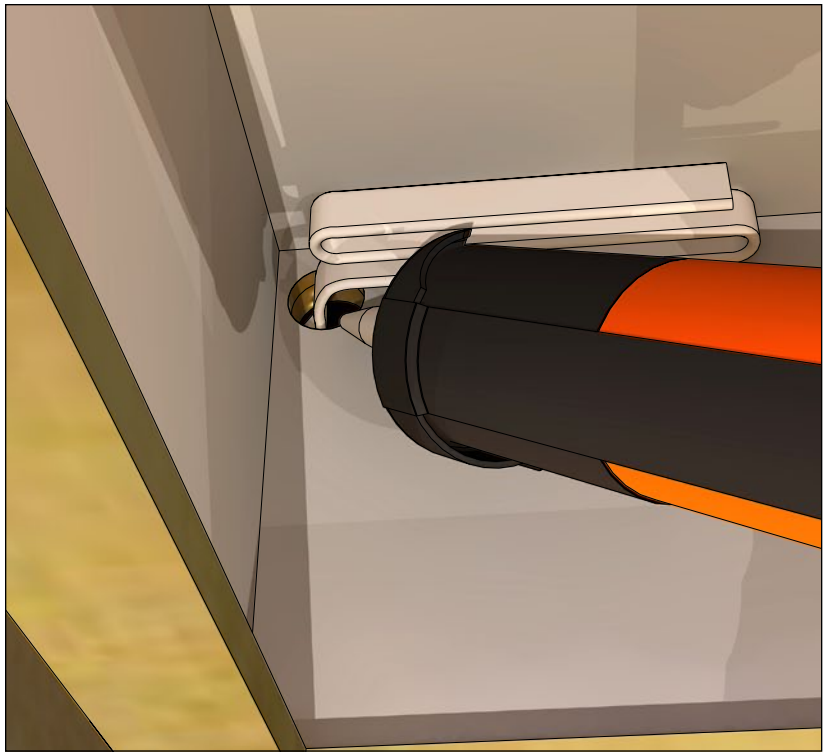

Seal the hole where the wire enters the box with SilenSeal Acoustical Sealant.

Connect electrical wiring to light-can's junction box. Follow manufactures specifications for installation.

With remodeling clips seated properly in can, insert the junction box into the Backer Box.

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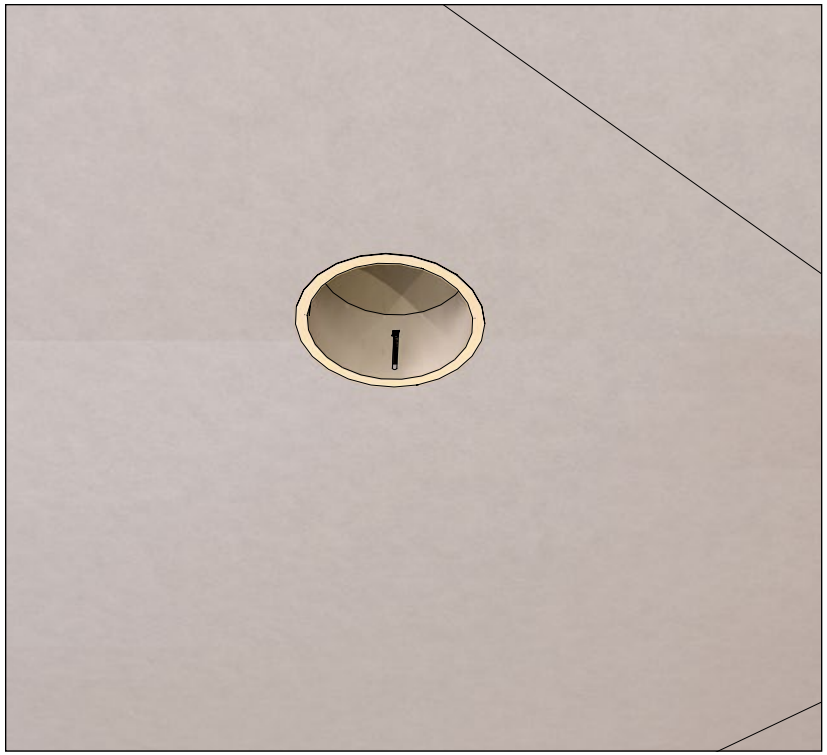

Hold light fixture against ceiling and push clips through the drywall hole.

Lock clips into place by pushing flat portion against side of can (depending model).

After drywall is finished and painted, install trim kit and bulb.

Note: Backer Boxes can also be used for in-wall speakers, wall sconces and multi-gang outlets.

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