

NORTHSTAR™

190 BATH/SPA TV

Installation Instructions



IMPORTANT SAFETY INSTRUCTIONS

Must be installed by a qualified electrician
Read these instructions. Keep these instructions for future use.
Install in accordance with manufacturer's instructions.

This product is suitable for wet locations. Clean only with water, mild soap and soft cloth. Do not clean with harsh detergents.

Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (Including amplifiers) that produce heat.

Do not defeat the safety purpose of the grounding-type plug.
A grounding-type plug has two blades and a third grounding prong.
The third prong is provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.

Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and where they exit from the appliance.

Only use attachments/accessories specified by the manufacturer.

Unplug this apparatus during lightning storms or when unused for long periods of time.

Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as: power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

Terminals that are marked with a lightning flash are hazardous. Any external wiring connections to these terminals requires installation by an electrician.

CAUTION

READ ALL INSTRUCTIONS PRIOR TO INSTALLATION

WARNING:

TO PREVENT INJURY, THE BATH/SPA TV MUST BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS

CAUTION: NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED PERSONNEL. BEWARE OF STATIC SENSITIVE PARTS.

UNPACKING YOUR BATH/SPA TV

Verify Contents

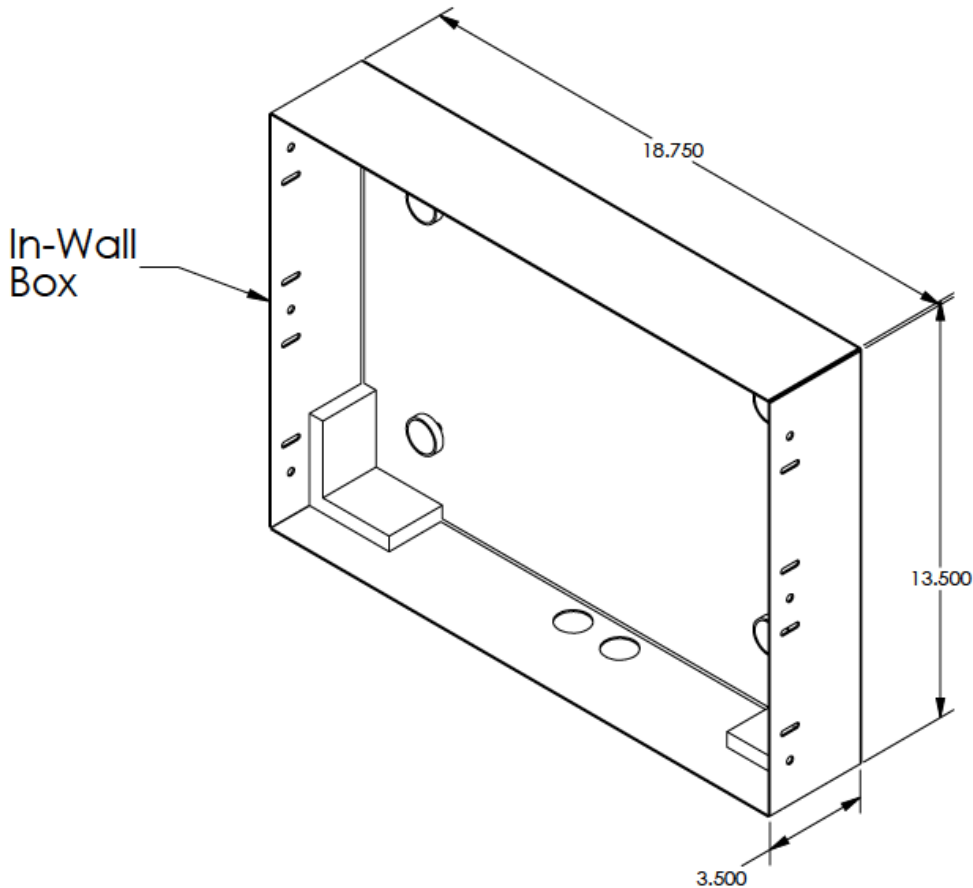
Prior to installation unpack items and verify contents. The Bath/Spa TV comes with the following components:

1. In-Wall box with right angled plastic L-channel pieces
2. A NRTL Approved Power Supply, 15 Watts AC/DC, 90-264 Volts input and 12 Volts output
3. Power cord
4. HDMI cable
5. RF Cable
6. LCD-TV with glass face and stainless steel bezel
7. Remote Control

INSTALLATION

Please note that all electrical installations should be carried out by a fully qualified electrician in conformance with the National Electrical Code.

Cut a 20-7/8" x 13-1/2" x 3-1/2" deep recess in the wall board to accommodate the In-Wall Box. The recess in the wall should be open below the In-Wall Box to allow cables to enter the bottom of the unit. The wall should be of suitable strength to support the weight of the Bath/Spa TV (32.5 lbs). Vertically mounted 2" x 4" wall studs may be used to provide extra support to the wall board.



CABLING AND ELECTRICAL INSTALLATION

Please note, all electrical installation should be carried out by a fully qualified electrician in conformance with the National Electrical Code.

Electrical Outlets

The LCD-TV requires a GFCI receptacle in which to plug the 12-120V AC/DC adapter. Install a receptacle for this adapter. The receptacle should be located in a readily accessible area in a dry location.

FAILURE TO DO SO MAY RESULT IN DEATH OR SERIOUS INJURY

Plug the power supply cable of the AC/DC adapter into the outlet. The power adapter is not waterproof and therefore must be positioned in a dry, well-ventilated, accessible area away from water, moisture or heat source. The 12V side of the AC/DC adapter powers the Northstar LCD-TV. The AC/DC adapter to the LCD-TV is fitted with a 25' low voltage cable that should be fed behind the wall to the LCD-TV. Make sure there are two (2) feet of extra slack at the LCD-TV to allow the power connector to be plugged into the TV for installation. The low voltage cable should not be cut, shortened or lengthened in any way. Doing so may cause damage to the unit and voids all warranty.

Audio Connection

The Bath/Spa TV will use a ceiling speaker (see speaker specification for installation). Place speaker cable behind wall running from the Bath/Spa TV to the ceiling speaker.

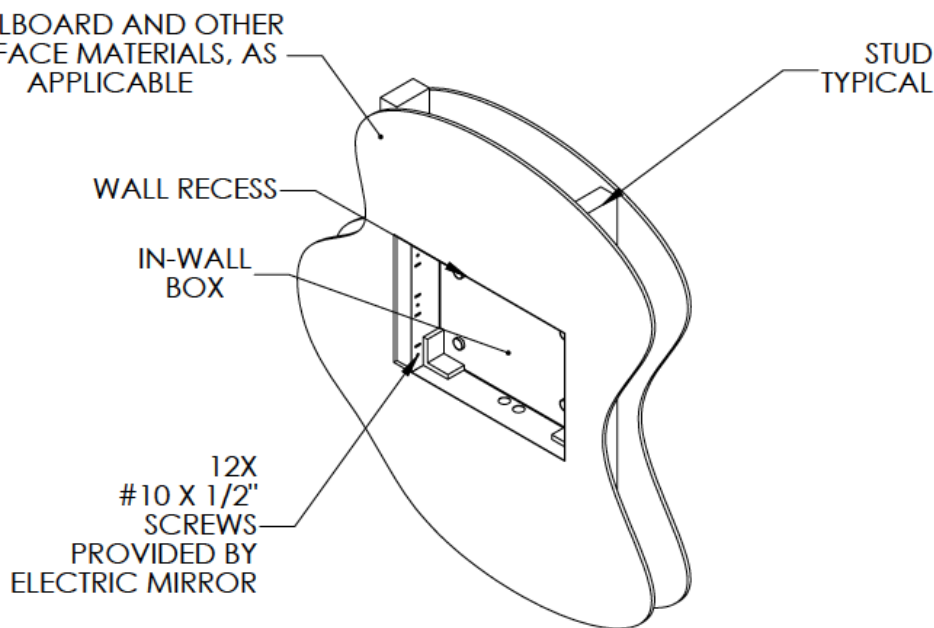
Video Connection

The Northstar LCD-TV has the following video input options:

- RF Connection
- Composite Connections
- S-Video Connection
- VGA Connection
- HDMI Connection

INSTALLING THE MOUNTING BRACKET

Level and attach the In-Wall Box into the wall using the twelve (12) screws provided.

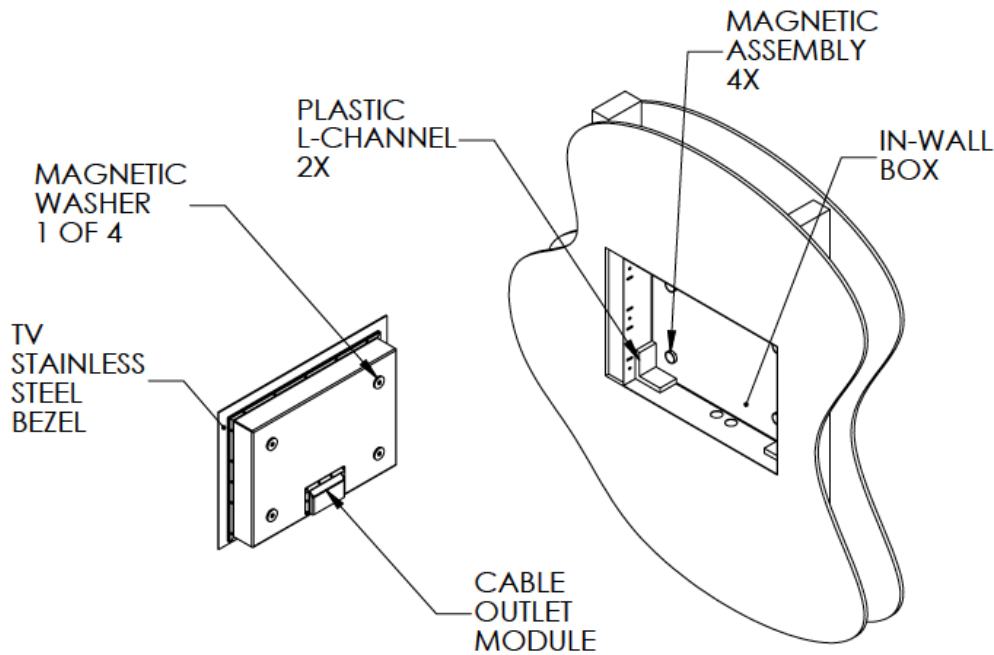


CUT-AWAY WALL VIEW

INSTALLING THE LCD-TV

Remove the Northstar 190 LCD-TV from its packaging. The back of the TV has a cable outlet module with cables configured to the customer's requirements. In the proper orientation the cables exit downward out of the module. Make sure the appropriate cables and their connectors are present. These cables include a low-voltage power cord and audio/video source connectors.

Fit the Northstar 190 LCD-TV into the In-Wall Box by aligning the unit on the plastic L-Channel pieces. Push the TV towards the back of the In-Wall Box until the magnetic force is apparent. Be careful with your hand placement to avoid having your fingers in between the stainless steel bezel and the wall when the magnetic force takes full effect.

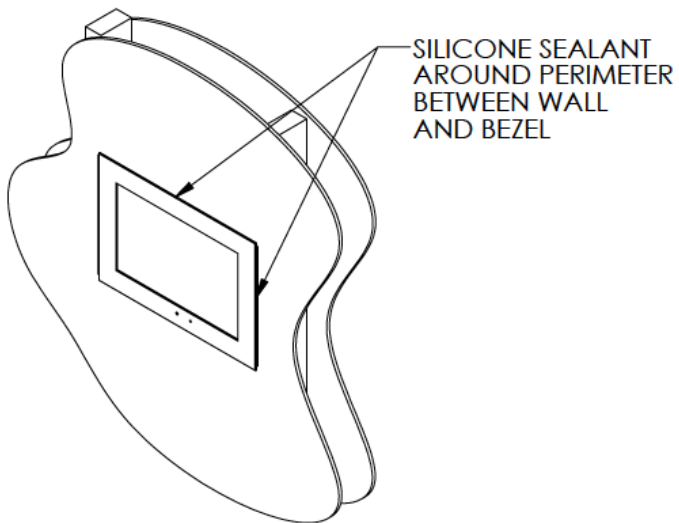


Test the LCD-TV

Prior to sealing the unit, turn on the LCD TV and make sure it is operating properly.

Seal the LCD-TV

When you are sure that the unit is installed and operating correctly, turn the TV off and apply a clear non-corrosive* silicone sealant to the joint between the edges of the stainless steel bezel and the wall surface material. Ensure that the silicone is applied into the gap evenly and is applied without any gaps, bubbles, etc. Wipe away and excess silicone. This seal is of the greatest importance to the reliability and safe operation of the unit and must be water tight.



*Recommended Silicone Sealants

Loctite: 51388 Superflex

Dow Corning: Any of their neutral-cure flow able silicone adhesives.

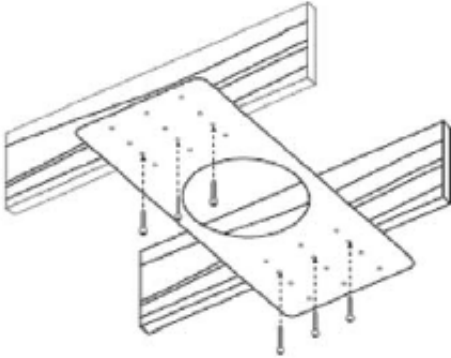
BOSE™ SPEAKER INSTALLATION

If using the ceiling Bose™ FreeSpace® ceiling mount options:
Select Rough-In Pan location on the ceiling. See below for installation steps.

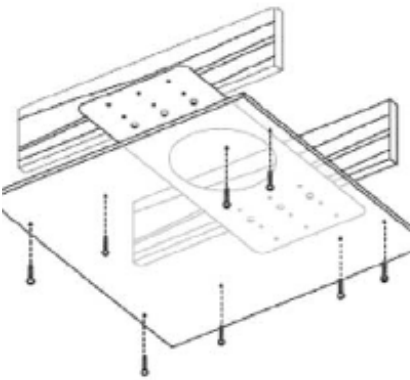
If using the Bose™ wall mount options:
Mark the location of the bracket plate on the wall. See below for installation steps.

The following steps explain how to install the Mirror TV speaker on the ceiling/wall.
There are 3 options when installing a Bose™ speaker on a sheet rock ceiling/ wall, depending on building code requirements:

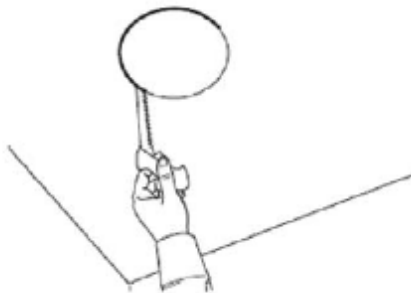
a) Direct Wiring



1. Align metal pan on ceiling/wall wood support and screw the pan in place. NOTE: The metal pan is not included with this package.



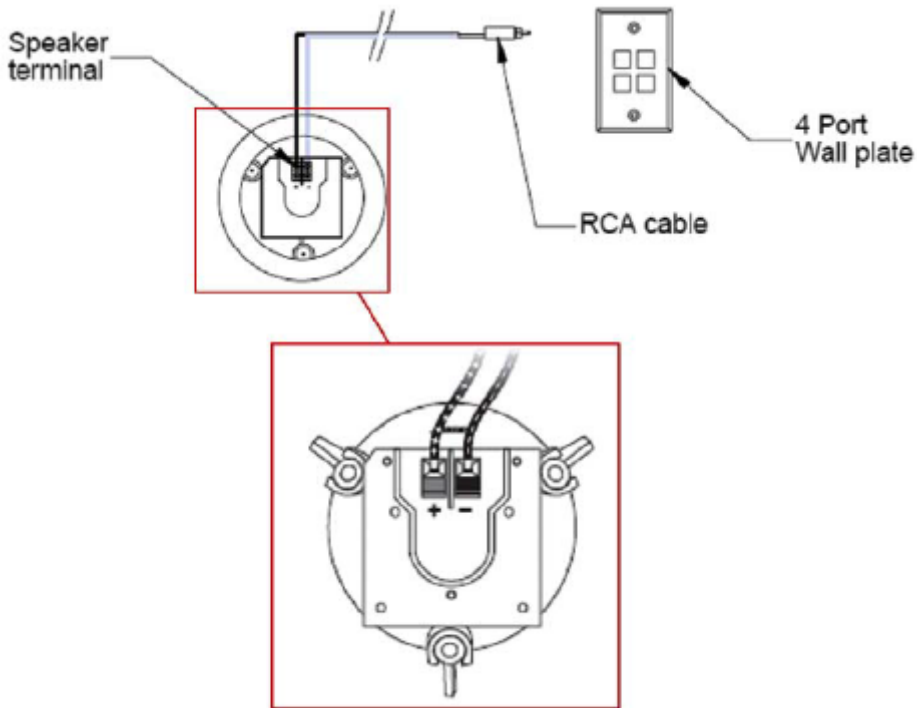
2. Place sheet rock underneath the pan and screw it onto the wood.



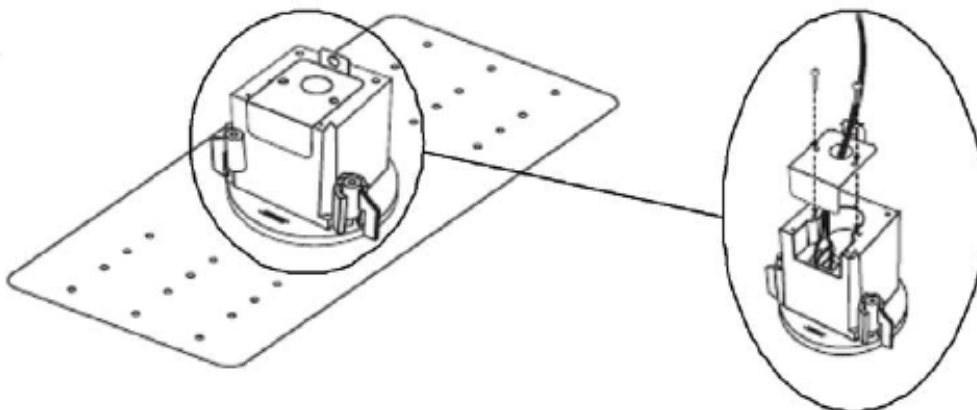
3. Cut a circular hole out of the sheet rock to match the circular hole in the metal pan.



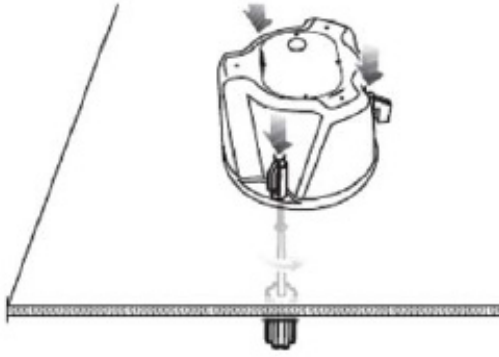
4. Insert the Bose™ speaker through circular cut out.



5. Connect the RCA cable to the speaker terminal. The live wire (black) is connected to the positive terminal and the neutral wire (white) is wired to the negative terminal. Connect the RCA cable to the speaker source on the 4 port wall plate.

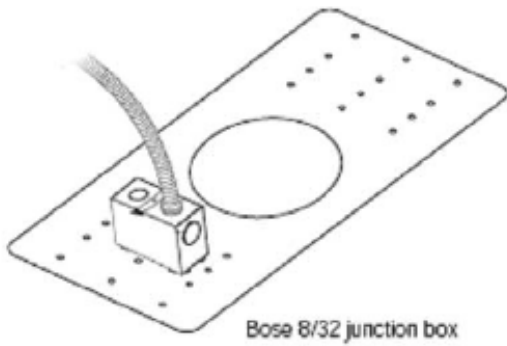


6. Screw the security bracket onto the back of the speaker.

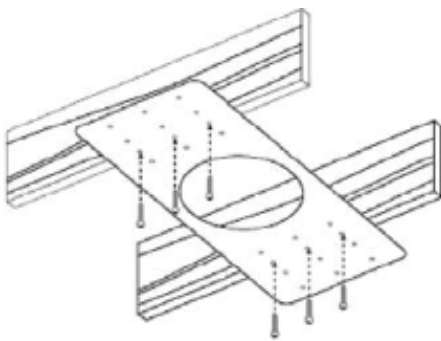


7. Secure the speaker by tightening all screws. The screws will pull the speaker lock-down and secure the speaker in place.

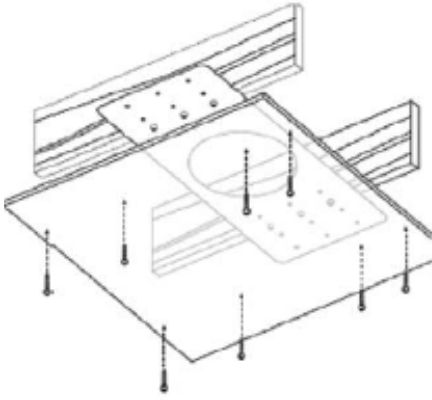
CONDUIT WITHOUT PLENUM COVER



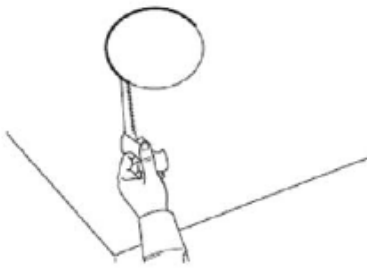
1. Install the Bose™ 8/32 junction box onto the metal pan. Connect the conduit with RCA cable inside, to 4-port wall plate.



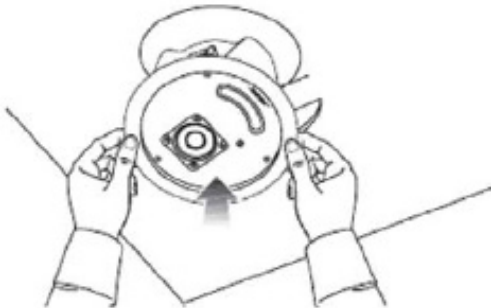
2. Align the metal pan on a ceiling/wall wood support and screw the pan in place.



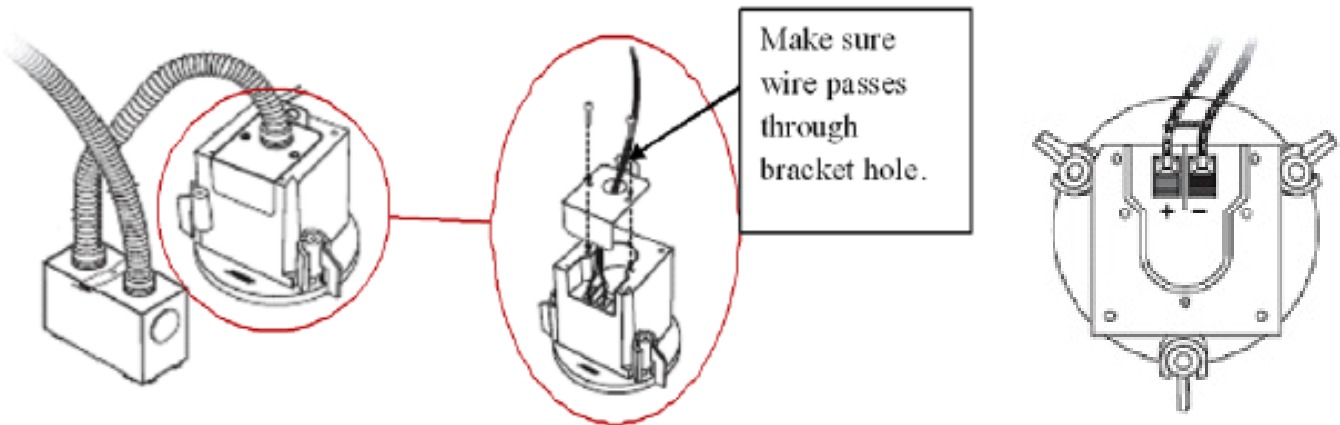
3. Place sheet rock underneath the pan and screw it onto the wood.



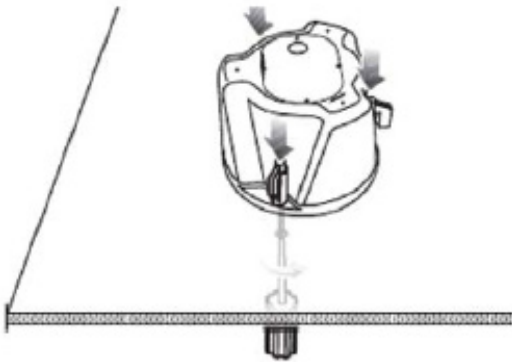
4. Cut a circular hole out of the sheet rock to match the circular hole in the metal pan.



5. Insert the Bose™ speaker through the circular cut out.



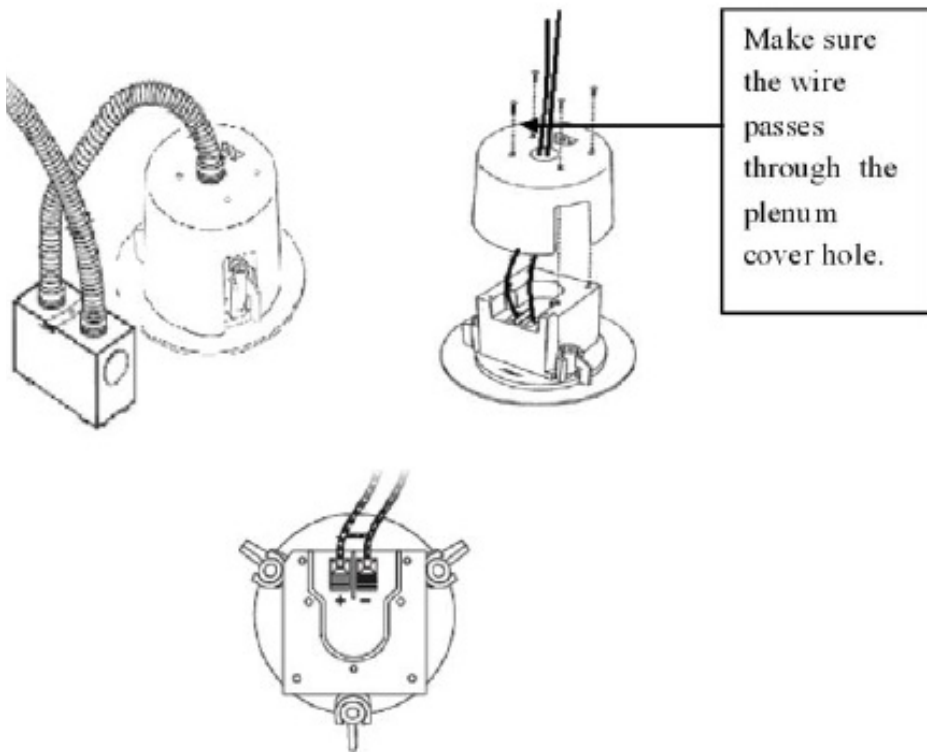
6. Connect the wire from the junction box cable (covered with conduit) to the speaker terminal. The live wire (black) is connected to the positive terminal and the neutral wire (white) is wired to the negative terminal. Screw the security bracket onto the back of the speaker.



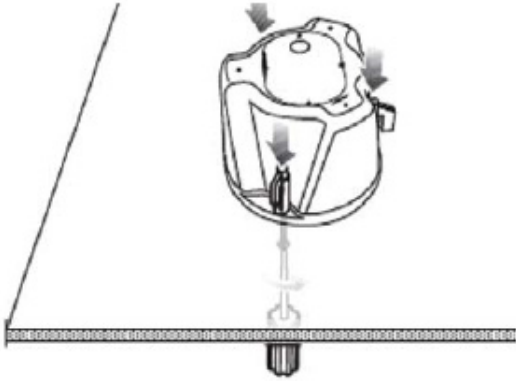
7. Secure the speaker by tightening all screws. The screws will pull the speaker locks-down and secure the speaker in place.

CONDUIT WITH PLENUM COVER

1-5 follow step the same as in: "Conduit without speaker cover installation."

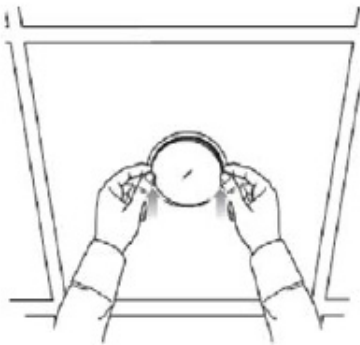


6. Connect the wire from the junction box cable (covered with conduit) to the speaker terminal. The live wire (black) is connected to the positive terminal and the neutral wire (white) is wired to the negative terminal. Screw the plenum cover onto the top of the speaker.

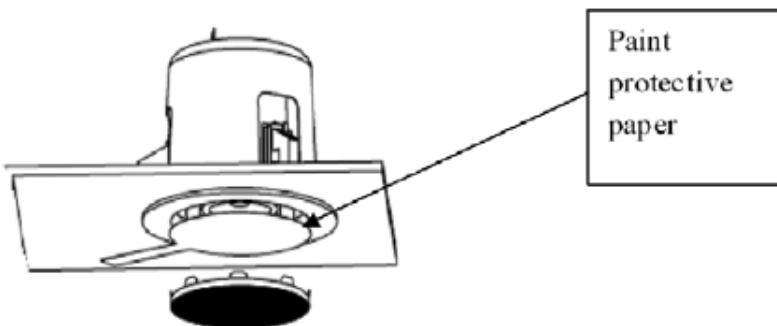


7. Secure the speaker by tightening all screws. The screws will pull the speaker lock-down and secure the speaker in place.

INSERTING SPEAKER COVER



1. The speaker cover can be installed straight to the speaker if the sheet rock ceiling/wall does not need any additional painting.



2. Use paint protective paper if the exposed speakers area needs to be painted.