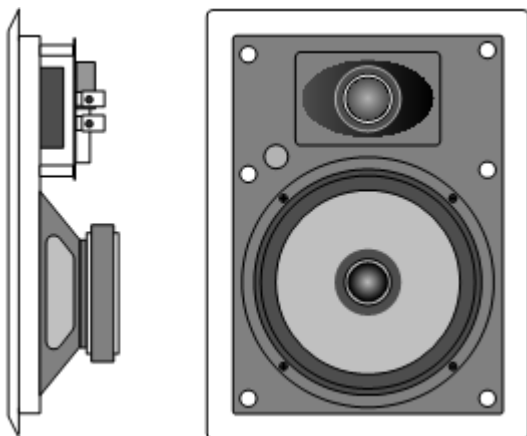


# Eco-Series

## In-Wall



**Congratulations!** You have purchased a high quality stereo loudspeaker. When matched to comparable electronic equipment, expect years of quality high fidelity sound. Our belief is that music matters and we are focused on delivering superlative music reproduction everywhere in your home.

The following manual is designed to give you, the installer or owner, basic information as to the speaker's installation and operation. It is beyond the scope of this manual to go into all the details that must be taken into consideration in a sophisticated high fidelity system.

If you have any questions regarding this speaker which are not answered by this manual, contact your local dealer for assistance. For the most current information please visit [www.ditopro.com](http://www.ditopro.com).

### GENERAL DESCRIPTION

These two-way speakers have specially designed woofers with linear long throw butyl rubber surrounds for long life and superior damping. Dome tweeters are utilized for excellent high frequency dispersion throughout your entire listening environment. The frame and grille can be custom painted to match the room decor.

### SHIPPING DAMAGE

Each speaker is thoroughly tested before it leaves the factory. However, in shipment, accidents may occur. Please inspect your speakers carefully when you receive them to make sure there is no damage. If there is, please notify your dealer or supplier immediately for assistance. If you received your speakers by public transportation, report the damage immediately to the shipping company.

### AMPLIFIER OPERATION

These speakers will perform well with amplifiers from 5 to 125 Watts RMS. However, damage to the speakers can be done by amplifiers of nearly any power rating if the amplifier is overdriven into clipping. "Amplifier clipping" is a phrase used to describe a condition when, because of the volume demand, an amplifier is being asked for more power than it can give. Clipping cause distortion of the audio signal. If you should hear an unusual amount of distortion at high listening levels then consider reducing the volume. **DAMAGE TO A SPEAKER BY CLIPPING IS NOT COVERED UNDER THE WARRANTY.**

### SPEAKER PLACEMENT

Placement of Wall Mounted Speakers should be carefully considered. Ideally, the speakers should be located where they will provide the best possible sound and ease of installation. It is beyond the scope of this publication to discuss all of the various aspects of speaker placement. Please contact a professional for assistance if you are uncomfortable with the planning or installation process.

Note: Though these speakers are referred to as "wall mount", they are also suitable for installations in ceilings and custom cabinetry.

### WIRING

To achieve maximum performance we strongly suggest the use of good quality stereo cable. There are many good brands available. We recommend that the cable be at least 16 gauge or larger for runs of over 50 feet and that the wire be double insulated. This is often referred to as "jacketed" speaker cable. "Zip cord", which is single insulated and is often made with clear insulation, should be avoided as it is not as durable. It is important when installing the wiring and speakers that you adhere to all local codes and regulations. We suggest that a professional be consulted in order to maximize your system's performance. The following, however, are some useful suggestions.

|                 | Overall         | Cut-Out (Round x Depth) |
|-----------------|-----------------|-------------------------|
| <b>PRO-650W</b> | 6-5/8" x 9-1/4" | 6-1/2" x 2-3/8"         |

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PRO

[www.ditopro.com](http://www.ditopro.com)

Try to keep the wire length to a minimum. However, allow about 2½ feet of free wire at the speaker cut-out and sufficient length at the electronics to aid in the ease of installation. Adding extra wire later is tedious and time consuming.

Avoid bundling speaker cables parallel to electrical cables for extended lengths. Though the impedance is low and likelihood of interference low, this may help reduce hum and RF interference. When securing the wire, use care not to staple or nail the electrical conductors. Doing so could result in a short that might damage the electronics.

More than two pair of these speakers can be connected to one amplifier. However, we suggest that you consult a professional if you are installing more than two pair.

When connecting your speakers, make sure proper polarity (phasing) is maintained. Simply put, this means being sure the same wire which is hooked to the positive terminal of the amplifier has its other end hooked to the positive terminal of the speaker. It is important to check this on all speakers. If the connections on one of the speakers are reversed, (out of phase) the quality of your bass will be seriously impaired.

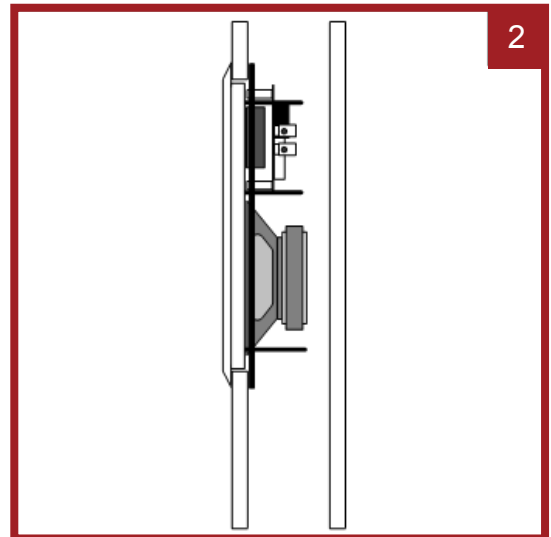
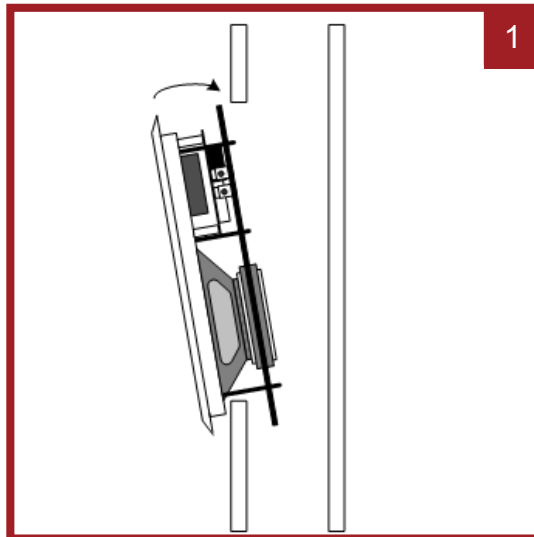
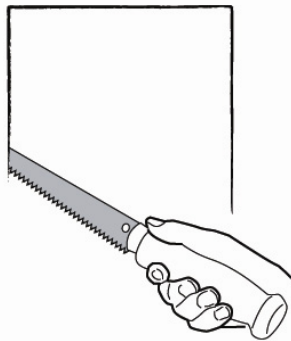
### INSTALLATION

As the diagram shows, the speakers utilize a metal mounting ring which, after tightening with the screws provided, act as a clamp to hold the speakers in place.

To aid in speaker performance, a fibrous material, such as fiberglass or polyester fiber, may be placed behind the speaker. This may also help to reduce unwanted sound from being transmitted into adjoining rooms.

Once you determine where you wish the speakers to be placed, do the following:

Using the paper template provided, mark the speaker cut-out location making sure that where you wish the speakers to be placed will not be obstructed by a stud or other material hidden in the wall. Proper use of an electronic stud-finder is invaluable for this operation. Using the proper equipment, cut the appropriate sized hole in the wall.



On drywall, the cleanest cuts will be made with a drywall saw.

Next, verify that the speaker fits properly into the cut-out by passing the black mounting ring through the cut-out as illustrated. (See figure 1) The speakers should fit comfortably in the cut-out hole. If the hole should have been cut a little too large the flange on the frame should cover this. Remove the speaker from the hole.

If the wire has not yet been run, do so, now that you have access to the wall's interior. Once the speaker wire has been run, pull the end of the wire out of the wall, strip back a section of the jacket as needed, and then expose ½" of each conductor. Connect the wire to the terminals on the back of the speaker assembly, observing polarity (+ & -).

Install the speaker in the wall and gently tighten all of the screws so that the mounting ring clamps against the back side of the wall board. (See figure 2) If your speaker has six screws begin with the middle pair. Avoid over-tightening the screws or it may later become difficult to install the grille.

Install the grilles after testing the operation of the speakers. The grilles are installed by gently working the edge of the grille into the frame of the speaker beginning at one corner and working one or both directions around to an adjacent or opposite corner.