INSTRUCTION / INSTALLATION SHEET
evōQ™ 5000 Angled In-Ceiling Speaker

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IS-0384 Rev. O

1. Introduction

On-Q/Legrand offers a 6.5", Angled, In-Ceiling, evōQ™ 5000 series speaker for Home Theater applications. The evōQ™ 5000 Angled In-Ceiling Speaker (P/N HT5655) employs drivers mounted at a 15° angle (see ***Figure 1***) to the ceiling surface. This allows the speaker to have identical performance characteristics as the evōQ™ 5000 In-Ceiling 6.5" Speaker (P/N 364660-01), from any listening position in the room. The speaker is optimized for the demands of home theater sound. It employs a 2-way design that features a Poly Cone woofer and a UFLC (Urethane Film Laminated Cloth) Dome tweeter with swivel capability. It comes with dual templates with center markings and paint rings. Optional speaker pre-construction brackets are available.

Figure 1
(shown with grill removed)

NOTE: Although this speaker uses a 6.5" driver, it is mounted in an 8" speaker frame, which means it requires an 8" speaker pre-construction bracket (P/N 364673-02).

Disclaimer: Make sure you are in compliance with local building codes before installing this speaker. This On-Q/Legrand evōQ™ 5000 In-Ceiling Speaker is suitable for moisture rich environments such as bathrooms or saunas, but not outdoor applications.

2. Description

The On-Q/Legrand evōQ™ 5000 speakers are made of a tough semi-flexible plastic frames that feature a built in foam gasket to minimize vibration and maximize seal-ability. They also feature a perforated metal grill with an acoustically transparent scrim cloth to enhance the speakers appearance once installed. All evóQ speakers, except sub woofers, are paint-able. They also come with painting shields to protect the drivers while painting. These speakers are suitable for moisture rich environments. They also feature flip out tabs for easy installation and removal.

3. Installation

Installation of this evōQ™ 5000 speaker is best accomplished at multiple times during new construction, at "Rough-in" before the drywall is installed, and at "Trim-out" after the drywall is installed and painted.

A. "Rough-in" steps:

NOTE: It is recommended that a minimum of 16 gauge, 4 conductor wire be used for most applications from the amplifier or volume control to this speaker. Different gauges can, and should, be used based upon the distance of the intended run or quality of installation (**see *Figure 2***).

NOTE: All On-Q/Legrand lyriQ™ Audio components accommodate wire gauges from 18 to 14.

Speaker Wire Gauge Selection Chart

Distance	Gauge
<10 Feet	18
10-50 Feet	16
>50 Feet	14

Figure 2

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1. Run x/4 conductor (x=gauge preference) stranded speaker wire from the distribution/volume control to the speaker location (pre-wiring).

2. If an On-Q Speaker Pre-Construction Bracket is to be used, skip to ***Step "5"*** and refer to IS-0243 for detailed instructions.

3. If pre-wiring without using the On-Q Pre-Construction Speaker Brackets, leave 4 to 6 feet of wire at the speaker's intended location. Use a strip of cardboard stapled to the joints/studs with a hole through it as a wire place holder for the drywall installers if installation of the speakers is intended (***see Figure 3***).

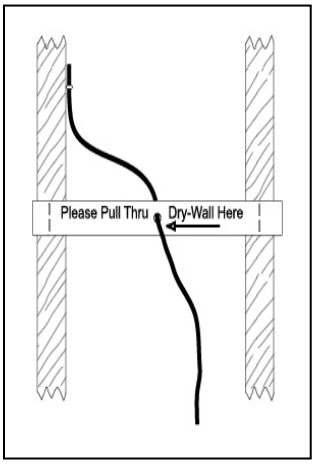

Figure 3

4. After drywall and/or painting is complete, push wire through hole, center template over hole, mark with a pencil and cut out with a dry-wall knife.

5. When using the On-Q Pre-Construction Bracket (***see Figure 4***), leave a coil of speaker wire on top of the bracket coiled around the speaker mounting hole. There are clips on the corner of the bracket to secure the speaker wire. Leave enough speaker wire to be able to pull the wire through the bracket and comfortably connect the wire to the speaker after the drywall is installed. Strip off 3 inches or so of the speaker cable jacket to expose the positive and negative insulated wires. Strip 3/8-1/2 inch of insulation off of these conductors.

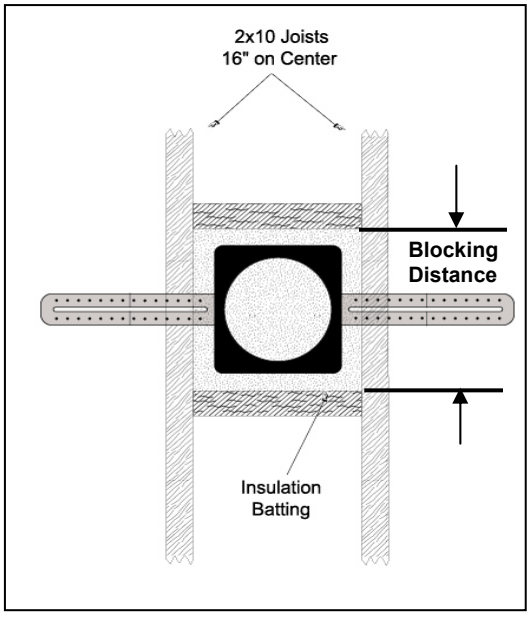

Figure 4

6. It is recommended to place insulation behind the speaker to provide some damping for the woofer driver. This will yield the best possible sound. On-Q recommends using poly-encapsulated insulation such as Johns Manville Comfort Therm®. If a defined, consistent sound is desired from the speaker in a space, blocking can be installed to yield the ideal cubic footage for the driver. Insulation would then be put in this space during speaker installation. **Refer to blocking chart for details.**

7. If installing the speaker in a space with an attic above it is recommended that the speaker be boxed in with 1/2 inch MDF (medium density fiber board) or plywood with insulation installed. This will provide a defined acoustic space and protect the speaker. The best possible sound will be achieved by doing this. **Refer to the blocking chart for details.**

Note: Make sure you are in compliance with local building codes before installing this speaker in an attic space.

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B. "Trim-out" steps:

1. After drywall and/or painting is complete, push the speaker wire through hole, center template over hole, mark with a pencil and cut out with a dry-wall knife.

2. Hold the speaker with one hand, (if speaker grill is off, pay careful attention **not** to push on the woofer's cone, this can cause permanent contortion of the voice coil, thus producing a mechanical rubbing sound or speaker failure), push in the speaker terminal connectors and insert wires; remove speaker grill. Be sure to have the positive wires in the RED terminals and the negative wires in the BLACK terminals.

NOTE: Wiring both drivers of this speaker identically as the above instruction states will yield a speaker whose drivers are "in phase". If one speaker driver is wired opposite of the other, the speaker drivers will be "out of phase" with one another. If the speaker drivers are "out of phase" the sound might appear smeared (canned) and a significant loss of bass might be noticeable due to phase cancellation. Make sure every installed speaker is correctly phased.

3. Rotate the speaker driver towards the listening area and use one hand to push the speaker into the cut out (again, pay careful attention ***not*** to push on the woofer's cone, this can cause permanent contortion of the voice coil, thus producing mechanical rubbing sound or speaker failure) and the other to turn the screws that engage the installation tabs (see ***Figure 5***). Tighten the tabs in a cross or X-pattern until "snug". Be careful not to over tighten the tabs or damage could result. The speaker should appear flush to the surface.

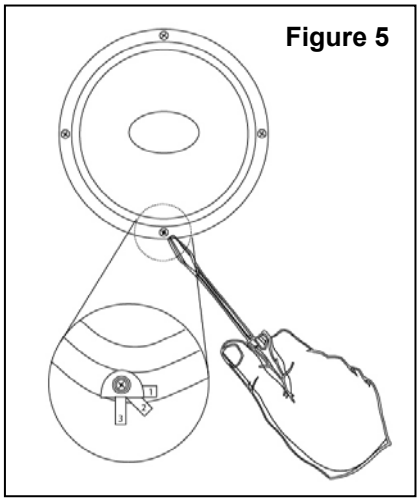
NOTE: If using a cordless drill/screwdriver, it is suggested that the screws be turned until almost tight, then finish tightening via a hand screwdriver.

evōQ™ Speaker Blocking Chart

6.5" Speaker (0.7 CuFt)	Blocking Distance
16" on Center, 2x4	24.00"
16" on Center, 2x6	15.25"
16" on Center, 2x8	11.50"
16" on Center, 2x10	9.00"
16" on Center, 2x12	7.50"
24" on Center, 2x4	15.50"
24" on Center, 2x6	10.00"

8" Speaker (2.1 CuFt)	Blocking Distance
16" on Center, 2x4	71.50"
16" on Center, 2x6	45.50"
16" on Center, 2x8	34.50"
16" on Center, 2x10	27.00"
16" on Center, 2x12	22.25"
24" on Center, 2x4	46.00"
24" on Center, 2x6	29.50"

Figure 5



NOTE: A strip of grill adhesive is provided to more securely attach the speaker grills on final installation. Simply insert several short strips evenly around the grill slot prior to installing the grill cover. Prior to final installation of the grill, adjust the tweeter for optimum sound at the listening area.

Speaker Specifications

	evōQ™ 5000 ANGLED IN-CEILING SPEAKER
Size/Type	6.5" In-Ceiling
Efficiency	90dB
Power (RMS/Peak)	75W/150W
Frequency Response	60-20K
Woofer Type	Poly
Tweeter Type	UFLC Adjustable
Drywall Hole Size	9.5" dia.

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