

Revel<sup>®</sup>  
**CONCERT**<sup>™</sup>*a*

IW65/IW80 In-Wall Loudspeakers  
IC65/IC80/IC6T2 In-Ceiling Loudspeakers

Owner's Manual



## DOCUMENTATION CONVENTIONS

This document contains general safety, installation and operation instructions for the Revel® Concerta™ IW65/IW80 in-wall loudspeakers and the IC65/IC80/IC6T2 in-ceiling loudspeakers. It is important to read this document before attempting to use these products. Pay particular attention to safety instructions.

### **WARNING!**

**Calls attention to a procedure, practice, condition or the like that, if not correctly performed or adhered to, could result in injury or death.**

### **CAUTION!**

**Calls attention to a procedure, practice, condition or the like that, if not correctly performed or adhered to, could result in damage to or destruction of part or all of the product.**

*Note:*

*Calls attention to information that is essential to highlight.*

# ABOUT THE REVEL® CONCERTA™ IW65/IW80 IN-WALL AND IC65/IC80/IC6T2 IN-CEILING LOUDSPEAKERS

Since 1996, the Revel name has stood for the best in loudspeaker design and performance. Backed by Harman International's extensive research and design facilities, Revel loudspeakers benefit from cutting-edge development tools such as:

- a **multichannel listening lab** for double-blind, position-independent listening tests
- a **laser interferometer**, which enables detailed driver and baffle/frame analysis
- multiple **large anechoic chambers**, which allow for precise tests and measurements
- **finite element analysis**, utilized for advanced loudspeaker modeling
- a **stereo lithography apparatus**, which helps achieve extraordinarily tight tolerances

The Revel Concerta IW65/IW80 in-wall and IC65/IC80/IC6T2 in-ceiling loudspeakers draw upon the same research, resources and unique perspectives that put all Revel loudspeakers in a class by themselves. Revel Concerta Series loudspeakers provide unparalleled value and are known for their standard-setting low coloration and freedom from distortion over an extraordinarily wide dynamic range.

The Revel Concerta IW65/IW80 in-wall and IC65/IC80/IC6T2 in-ceiling loudspeakers provide audibly superior performance, validated by our state-of-the-art listening facilities, that far outclasses comparable products from our competitors.

## HIGHLIGHTS

- 6-1/2" (165mm) or 8" (200mm) woofer with a Micro Ceramic Composite (MCC) cone for high output with low distortion.
- 1" (25mm) angle-adjustable tweeter with Micro Ceramic Composite (MCC) dome and integrated waveguide provide optimized response both on- and off-axis.
- High-order crossover network with premium-quality components for exceptionally accurate timbre reproduction.
- Boundary Compensation switch maintains accuracy when placed near a secondary boundary (wall or ceiling).
- Three-position Tweeter-Level control provides optimum response, whether used with or without grilles.

## PRODUCT REGISTRATION

Please register your IW65/IW80 in-wall or IC65/IC80/IC6T2 in-ceiling loudspeakers **within 15 days of purchase**. To do so, register online at [www.revelspeakers.com](http://www.revelspeakers.com). Retain the original dated sales receipt as proof of warranty coverage.



# INSTALLATION CONSIDERATIONS

Loudspeaker fidelity depends on the following factors:

- Loudspeaker accuracy and placement
- Listening-room acoustics

But not all listening spaces can accommodate the ideal conditions for these two factors. Therefore, careful attention to the placement of your Revel in-wall and in-ceiling loudspeakers will have the most significant impact on the general performance of the loudspeakers.

The advanced design features of Revel loudspeakers allow the Concerta in-wall and in-ceiling loudspeakers to achieve the best possible sound quality in any listening space. Revel loudspeakers also provide a level of control not usually available over the sound of the speaker. The Boundary Compensation switch and the High-Frequency-Level control provide fine-tuning ability, even after the speaker has been installed.

## Boundary Compensation Control

The Boundary Compensation switch controls the level of bass output of the speaker to accommodate for the greater reflection of bass caused by a close secondary wall.

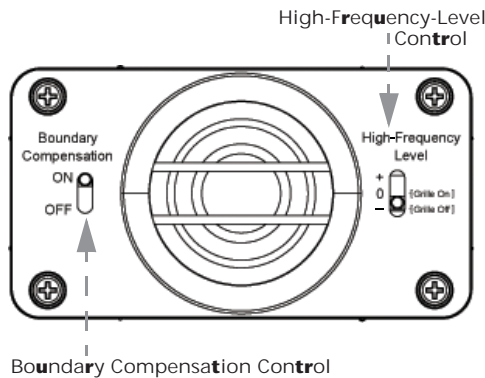


Figure 1: IW65/IW80 control locations

When possible, avoid placing the loudspeakers within two feet of an adjacent wall or ceiling. If the loudspeaker must be placed less than two feet from a secondary boundary (wall or ceiling), turn the Boundary Compensation switch to the "On" position.

## High-Frequency-Level Control

The High-Frequency-Level control allows for the fine-tuning of the tweeter output level. This three-position switch provides the listener with the ability to adjust the high-frequency range for various acoustical environments.

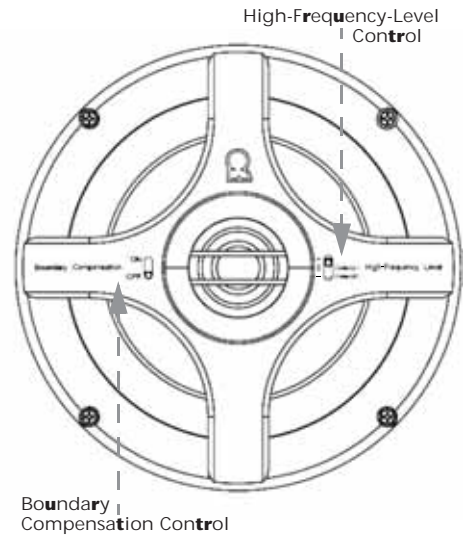


Figure 2: IC65/IC80 control locations

The High-Frequency-Level control has three positions:

- Set the High-Frequency-Level control to the center "0" position if the speaker will be used with the grille on. This is the normal setting.
- Set the High-Frequency-Level control to the lower "-" position if the speaker will be used without a grille.
- Set the High-Frequency-Level control to the upper "+" position if an increased high-frequency level is desired.

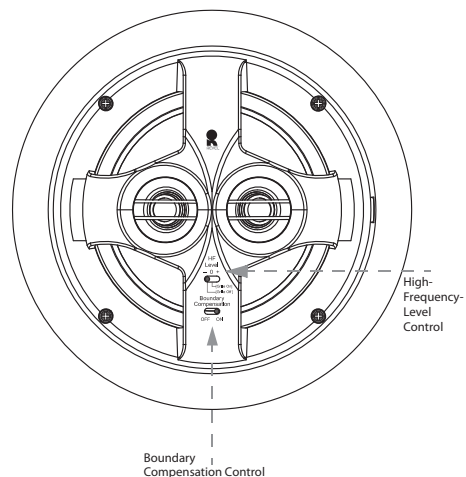


Figure 3: IC6T2 control locations

# LOUDSPEAKER PLACEMENT

The following general placement suggestions are accompanied by diagrams for recommended loudspeaker locations.

## IW65/IW80 IN-WALL LOUDSPEAKER PLACEMENT – 2-CHANNEL STEREO

Before installing the loudspeakers, survey the listening area, keeping the following points in mind and using Figure 4 as a guide:

- Place the left and right loudspeakers as close to the same distance from the primary listening area as possible, and also at an equal distance from the side walls.

Ideally, the distance between the left and right loudspeakers should be slightly less than their distance from the primary listening area. The distance between the left and right loudspeakers should also be the same distance as from the loudspeakers to the side walls.

- When installing in the wall, position each speaker so that the tweeter is as close to ear level as possible.

**Note:**

*Avoid placing the woofers at the 1/4, 1/2 or 3/4 wall height positions to prevent low-frequency cancellation.*

- Refer to the following “Home Theater” placement section if you also plan to use the speakers in a home theater system.

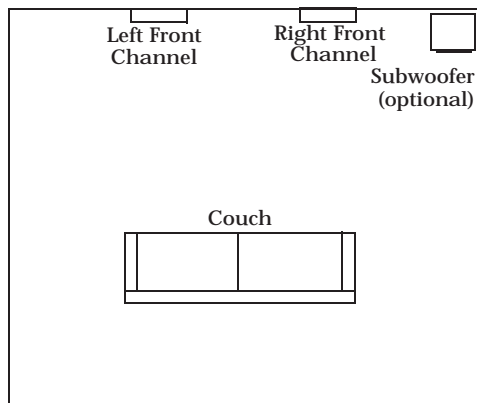


Figure 4: IW65/IW80 in-wall loudspeaker placement – 2-channel stereo

## IW65/IW80 IN-WALL LOUDSPEAKER PLACEMENT – HOME THEATER

Before installing the loudspeakers, survey the listening area, keeping the following points in mind and using Figures 5 and 6 as guides:

- For front-channel use, place one speaker on the left and another on the right along either side of the video screen.

Left and right front loudspeakers should be relatively close to the sides of the video screen. For example, left and right loudspeakers used with a 50-inch video screen should generally not be more than 80 inches apart.

- A center channel speaker should go directly above or below the video screen and can be an in-wall, on-wall, in-ceiling or freestanding center channel.

- When installing in the wall, position each speaker so that the tweeter is as close to ear level as possible.

**Note:**

*Avoid placing the woofers at the 1/4, 1/2 or 3/4 wall-height positions to prevent low-frequency cancellation.*

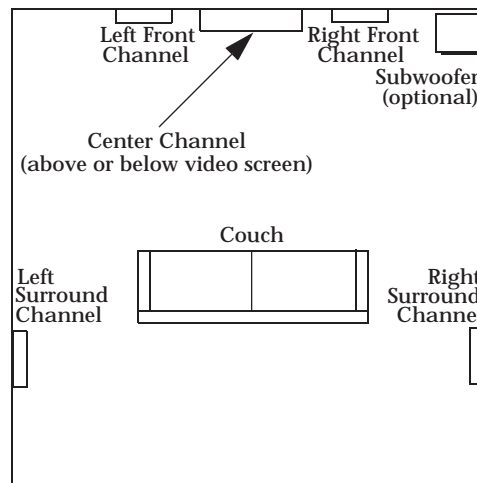


Figure 5: IW65/IW80 in-wall loudspeaker placement – 5.1-channel system

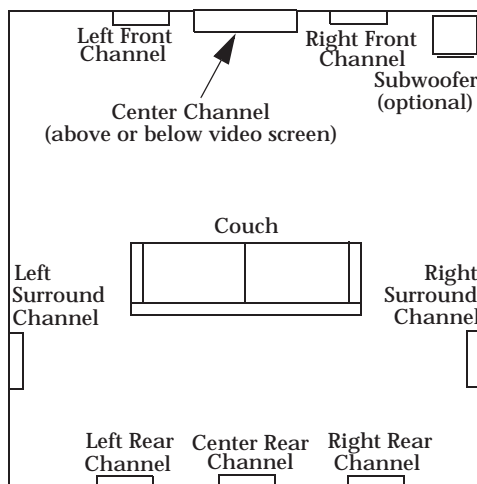


Figure 6: IW65/IW80 in-wall loudspeaker placement – 6- or 7.1-channel system

## IC65/IC80 IN-CEILING LOUDSPEAKER PLACEMENT

The placement of the in-ceiling loudspeakers depends upon the intended application. Please refer to the section below that best describes your application.

### Distributed Sound – General Sound Throughout an Area

- Place the loudspeakers as uniformly as possible throughout the area.
- Place the left and right loudspeakers roughly the same distance from the primary listener locations.
- To avoid “hot spots,” plan to use more loudspeakers, each set to a lower volume.

### 2-Channel Stereo Sound

- Place the left and right loudspeakers as close to the same distance from the primary listening area as possible, and also at an equal distance from the side walls.

Ideally, the distance between the left and right loudspeakers should be slightly less than their distance from the primary listening area. The distance between the left and right loudspeakers should also be the same distance as from the loudspeakers to the side walls.

## Home Theater Sound

- Left, center and right front loudspeakers should be centered relative to the video screen.
- Left, center, and right front loudspeakers should not be dramatically closer to the main listening area than the video screen is. For example, if the video screen is 10 feet from the main listening area, the loudspeakers should not be less than 6 feet from the main listening area.
- Left and right front loudspeakers should be relatively close to the sides of the video screen. For example, left and right loudspeakers used with a 50-inch video screen should generally not be more than 80 inches apart.
- The center front loudspeaker should go directly above or below the video screen and can be an in-wall, in-ceiling or freestanding center channel.
- Left and right side surround loudspeakers should be as far from the main listening area as possible, while keeping them at least 2 feet from side and rear walls.
- In a 5-, 6- or 7.1-channel system, in-ceiling side surround loudspeakers should be located to the sides of (directly to the sides of or up to 10 degrees behind) the primary listening area.
- In a 7.1-channel system, left and right rear surround loudspeakers should be equidistant from the primary listening area and generally as far away as possible, while keeping them at least 2 feet from the side and rear walls.

## IC6T2 IN-CEILING LOUDSPEAKER PLACEMENT

The placement of the in-ceiling loudspeakers depends upon the intended application. Please refer to the section below that best describes your application.

### Distributed Sound – General Sound Throughout an Area

- Place the loudspeakers as uniformly as possible throughout the area.
- Place the left and right loudspeakers roughly the same distance from the primary listener locations.
- To avoid “hot spots,” plan to use more loudspeakers, each set to a lower volume.

## 2-Channel Stereo Sound

- Place the left and right loudspeakers as close to the same distance from the primary listening area as possible, and also at an equal distance from the side walls.

Ideally, the distance between the left and right loudspeakers should be slightly less than their distance from the primary listening area. The distance between the left and right loudspeakers should also be the same distance as from the loudspeakers to the side walls.

## MOUNTING INSTRUCTIONS

The Concerta Series in-wall and in-ceiling speakers were designed to be simple to install. However, if you are unable to clearly and fully understand and follow the instructions in this manual, or if you are unsure of your ability to properly install these loudspeakers, please contact your Revel dealer or a qualified installer.

Each loudspeaker comes with an integral wall/ceiling mounting system, designed for installation into the wallboard between the studs or rafters using the supplied hardware.

### WARNING!

**Harman International Industries, Incorporated, assumes no responsibility for improper installation of hardware or for any personal injuries or product damage resulting from improper installation or a loudspeaker that has fallen.**

### CAUTION!

**Do not substitute mounting hardware! The supplied hardware is part of a factory-tested mounting system that works on wallboard only. To obtain additional hardware, contact your authorized Revel dealer.**

The tools required to properly install the in-wall or in-ceiling speakers are:

- Pencil
- Measuring tape
- Carpenter's level

- Phillips-head #2 screwdriver – DO NOT use a powered screwdriver of any kind
- Utility knife
- Awl
- Level

## REMOVE POWER

The speaker wires must be connected before the speaker is fully installed. To protect the audio system and the installer from accidental electrical shorting and surges during installation, turn all audio system power off before starting the speaker installation.

## SPEAKER WIRES

Using high-quality speaker wire will maintain the best sound quality from your Revel in-wall or in-ceiling speakers. For distances of 100 feet or less, use at least #16-gauge speaker wire with polarity coding. For distances of greater than 100 feet, use at least #12-gauge wire or heavier. The side of the wire with a ridge or other coding is usually considered positive (+) polarity. Also consult the owner's manuals that were included with your amplifier or receiver to confirm proper connection procedures.

Observe polarities when making speaker connections. Connect each positive terminal on the back of the amplifier or receiver to the respective positive or "+" (red) terminal on each speaker. Connect the negative or "-" (black) terminals in the same way.

### CAUTION!

**Do not reverse polarities (i.e., + to - , or - to +) when making connections. Doing so will cause poor imaging and diminished bass response. Be certain that positive and negative wire strands are completely isolated to avoid short circuits that may damage your equipment.**

Use high-quality loudspeaker cable with a maximum total loop resistance of 0.07 ohms or less (for each wire run). Refer to the table on the next page to determine the appropriate maximum wire gauge.

All in-wall speaker wires must be UL-listed for use with in-wall applications.



**CAUTION!**  
**Be sure to comply with local wiring codes. Harman International Industries, Incorporated, is not responsible for any damages or injuries that may result from faulty wiring.**

**MAXIMUM WIRE GAUGE**

Gauge (AWG)	Length (Feet)	Length (Meters)
6	87	27
7	69	21
8	58	18
9	43	13
10	34	10
11	27	8
12	22	7
13	17	5
14	14	4
15	11	3
16	9	3
17	7	2
18	5	2

**NEW CONSTRUCTION**

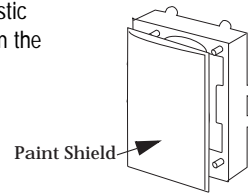
If you wish to preinstall a rough-in bracket before the drywall is installed, you will need to purchase the correct rough-in bracket kit for your loudspeaker model. Detailed instructions are supplied with the rough-in kit.

**INSTALLATION  
 IW65/IW80 IN-WALL**

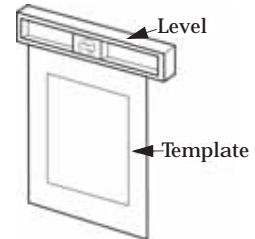
To add the IW65/IW80 in-wall loudspeakers to finished construction, proceed with the following instructions.

**CAUTION!**  
**Ensure that all audio-system power is off before beginning the installation.**

1. Remove the plastic paint shield from the speaker frame.

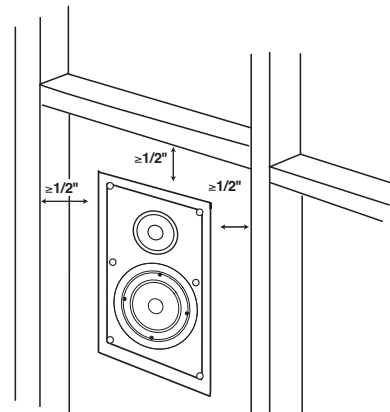


2. Determine the correct speaker location and use the template included in the packing materials and a level to mark the drywall.

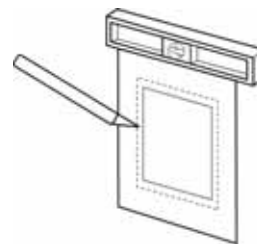


Always allow at least a 1/2" between the wall stud and the speaker cutout or the locking tabs will not have the space to swivel into place.

3. Ensure that the drywall, plywood or other appropriate wallboard is at least a 1/2" thick and capable of withstanding the weight of the speaker being installed.

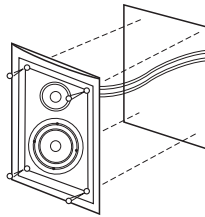


Cut the drywall along the speaker template marks made in Step 2.

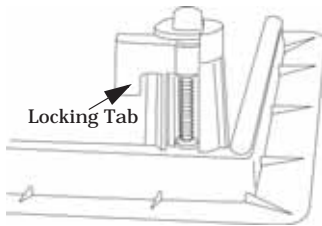




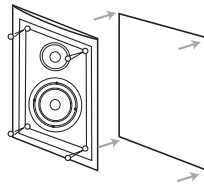
4. Connect the speaker wires to the speaker. Ensure that the polarity of each connection is correct.



5. Ensure that all four locking tabs are properly positioned against the locking-tab stops, located on the speaker frame.

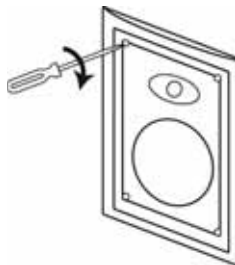


Carefully place the frame assembly into the wall, ensuring that there is no more than 1/8" play between the frame and the wall cutout.



After positioning the speaker into the mounting location, back each screw out one full turn counterclockwise.

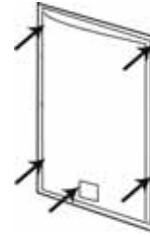
6. Screw down each of the four Phillips-head screws, alternating between the four screws.



The locking tabs will swivel into place and secure the unit to the rear surface of the wall panel. Hand-tighten with a nonpowered, straight-handle Phillips-head screwdriver only. Ensure that the speaker is securely held in place and that all four locking tabs are firmly resting against the wall panel.

**Note:**  
Do not use a socket wrench, powered screwdriver, drill or any other powered tool.

7. Attach the metal grille and logo.

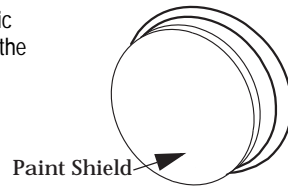


## INSTALLATION IC65/IC80/IC6T2 IN-CEILING

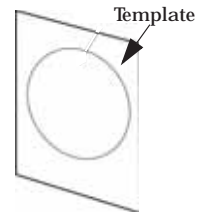
To add the IC65/IC80/IC6T2 in-ceiling loudspeakers to finished construction, proceed with the following instructions.

### CAUTION! Ensure that all audio-system power is off before beginning the installation.

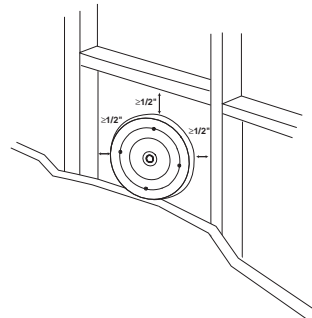
1. Remove the plastic paint shield from the speaker frame.



2. Determine the correct speaker location and use the template included in the packing materials to mark the ceiling.

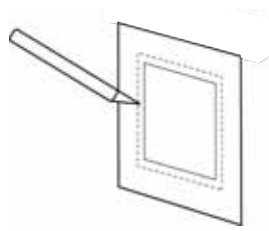


Always allow at least a 1/2" between the ceiling rafters and the speaker cutout, or the locking tabs will not have the space to swivel into place.

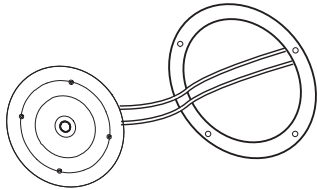


3. Ensure that the drywall, plywood or other appropriate ceiling material is at least a 1/2" thick and capable of withstanding the weight of the speaker being installed.

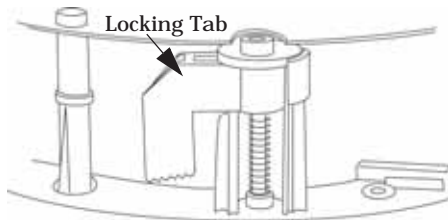
Cut the drywall along the speaker template marks made in Step 2.



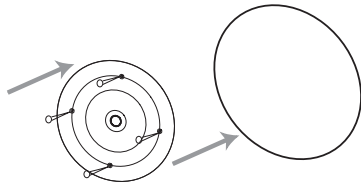
4. Connect the speaker wires to the speaker. Ensure that the polarity of each connection is correct.



5. Ensure that all four locking tabs are properly positioned against the locking-tab stops, located on the speaker frame.

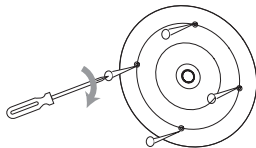


Carefully place the frame assembly into the ceiling, ensuring that there is no more than 1/8" play between the frame and the ceiling cutout.



After positioning the speaker into the mounting location, back each screw out one full turn counterclockwise.

6. Screw down each of the four Phillips-head screws, alternating between the four screws.

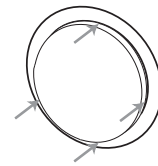


The locking tabs will swivel into place and secure the unit to the rear surface of the ceiling panel. Hand-tighten with a nonpowered, straight-handle Phillips-head screwdriver only. Ensure that the speaker is securely held in place and that all four locking tabs are firmly resting against the ceiling material.

*Note:*

*Do not use a socket wrench, powered screwdriver, drill or any other powered tool.*

7. Attach the metal grille and logo.



## Painting the Speaker Frame and Grille

The Revel IW65/80, IC6T2 and IC65/80 loudspeakers can be painted to match any décor. If you wish to change their color, the satin finish on the grille and frame will function as a primer coat. Follow these instructions for proper painting procedure:

1. Before beginning, carefully remove the grille (if installed), and install the supplied plastic paint shield securely into the recess in the baffle. The paint shield will protect the speaker components and baffle from paint residue.
2. Gently remove the scrim cloth from the grille before painting.
3. Use a high-quality spray paint and apply a thin coat of color.

**CAUTION!**  
**Ensure that the grille perforations remain free of paint. Filling them with paint will diminish the sound quality.**

4. A replacement scrim cloth is supplied. After the paint has dried, apply a light coat of spray adhesive to the inside of the perforated grille and attach a new scrim cloth.
5. Remove the paint shield from the baffle and attach the grille.

## LOUDSPEAKER OUTPUT LEVELS

High-order filters result in steep cutoffs to reduce potential damage from "out-of-band" frequencies. Combined with custom-designed transducers and high-quality filter network components, this approach helps the IW65/80, IC6T2 and IC65/80 loudspeakers to maintain their performance under extreme operating conditions. However, all loudspeakers have limits when it comes to continuous playback. To extend these limits, avoid playback at volume levels that result in distorted or strained sound.

If a subwoofer is in use in the system, the in-wall or in-ceiling loudspeakers should have crossovers at 80Hz or above. Some A/V receivers or processors are set by identifying the loudspeakers as "small."

## OBTAINING SERVICE

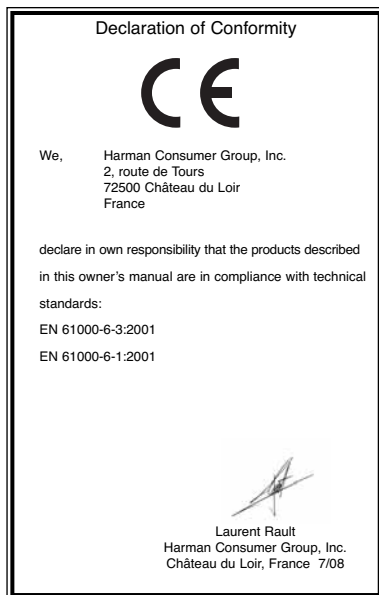
To obtain warranty or nonwarranty service, contact an authorized Revel dealer. Refer to the included Revel warranty card for warranty information.



# SPECIFICATIONS

Specification	IW65	IW80	IC65	IC80	IC6T2
Frequency Response (2 $\pi$ anechoic)	50Hz to 40kHz, $\pm$ 3dB	40 Hz to 40 kHz, $\pm$ 3dB	50Hz to 40kHz, $\pm$ 3dB	45Hz to 40kHz, $\pm$ 3dB	55 Hz to 22 kHz, $\pm$ 3dB
Recommended Amplifier Power Range	10 – 125 Watts	10 – 135 Watts	10 – 125 Watts	10 – 135 Watts	10 – 125 Watts (Total)
Sensitivity (2.83V, 2 $\pi$ anechoic)	89dB	89dB	89dB	89dB	88dB (Both channels driven)
Nominal Impedance	8 Ohms	8 Ohms	8 Ohms	8 Ohms	6 Ohms
Crossover Frequency	3,000Hz; 24dB/Octave	2,400Hz; 18dB/Octave	2,500Hz; 18dB/Octave	2,500Hz; 18dB/Octave	2000Hz; 24dB/Octave
Low-Frequency Driver	6-1/2" (165mm) Micro Ceramic Composite (MCC) cone	8" (200mm) Micro Ceramic Composite (MCC) cone	6-1/2" (165mm) Micro Ceramic Composite (MCC) cone	8" (200mm) Micro Ceramic Composite (MCC) cone	6-1/2" (165mm) Micro Ceramic Composite (MCC) cone
High-Frequency Driver	1" (25mm) Micro Ceramic Composite (MCC) dome	1" (25mm) Micro Ceramic Composite (MCC) dome	1" (25mm) Micro Ceramic Composite (MCC) dome	1" (25mm) Micro Ceramic Composite (MCC) dome	Dual 3/4" (19mm) Micro Ceramic Composite (MCC) domes
External Dimensions (W x H)	8-1/2" x 11" (216mm x 280mm)	10-1/4" x 13-7/16" (259mm x 341mm)	Diameter: 9-1/4" (235mm)	Diameter: 10-7/8" (275mm)	Diameter: 9-1/4" (235mm)
Mounting Cutout Size (W x H)	7" x 9-1/2" (178mm x 241mm)	8-3/4" x 11-3/4" (221mm x 297mm)	Diameter: 7-7/8" (200mm)	Diameter: 9-1/2" (241mm)	Diameter: 7-7/8" (200 mm)
Mounting Depth	3-1/2" (89mm)	4" (102mm)	4-1/8" (104mm)	4-3/4" (121mm)	4-1/8" (104mm)
Recommended Optimum Enclosure Volume	Infinite Baffle (full stud bay)	88 liters	Infinite Baffle (full stud bay)	88 liters	Infinite Baffle (full stud bay)
Weight (Net)	3.5 lb (1.6kg)	5.9 lb (2.7kg)	3.5 lb (1.6kg)	5.8 lb (2.6kg)	3.5 lb (1.6kg)

**Specifications are subject to change without notice.**



## LIMITED WARRANTY

A valid serial number is required for warranty coverage. This Revel warranty protects the original retail purchaser for a period of five (5) years (parts and labor) from any failure as a result of original manufacturing defects, so long as:

1. The Revel products were purchased within the 50 United States, its territories or Canada.
2. The dealer from whom the Revel products were purchased was authorized to sell such products at the time of the original purchase.
3. The original, dated Bill of Sale is presented whenever service is required during the warranty period.

The balance of this warranty is transferable only if the used product is purchased from an authorized Revel dealer. This warranty is only valid for service within the United States, its territories and Canada; please contact an authorized Revel dealer for warranty and service information.

Any Revel product not performing satisfactorily may be returned to the factory for evaluation. Return authorization must first be obtained by either calling or writing Customer Service prior to shipping the product. The customer is responsible for shipping charges to the factory. Customer

Service will pay return shipping charges within the United States only in the event that the product is found to be defective, as mentioned above. There are other stipulations that may apply to shipping charges.

There is no other express warranty on this product. Neither this warranty nor any other warranty, express or implied, including implied warranties of merchantability and fitness, shall extend beyond the warranty period. No responsibility is assumed for any incidental or consequential damages, so that the above exclusion or limitation may not apply.

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