



Tip #34 Why isn't the IWTS-30 LCR a Closed Box Speaker?

By now, you know all the advantages of Atlantic's remarkable In-Wall Closed Box (IWCB) speakers: Complete immunity from the acoustic variability of the wall cavity, ease of installation, refined "audiophile" sound quality, and a full compliment of sound-optimization controls.

So, the natural question is this: If the IWCB's—with their resonant-free sealed-box enclosures—are so good (and they ARE!), why isn't Atlantic's top-of-the-line THX Ultra2 IWTS-30 LCR a Closed Box design?

Well, the short answer is—*it is!* One way or the other, a Closed Box assures the 30's best performance. The IN-BOX-30 LCR is *required* for the 30 LCR to achieve its THX certification, but for convenience reasons, it's packaged and sold separately. The IN-BOX-30 LCR is a bit bigger than the IWCB enclosures and the speaker-to-wall mounting procedure is different between the Closed Box models and the 30 LCR. (see figure 1)

Note that the Closed Box models IWCB-727, the IWCB-626, AND the IWTS-30 LCR all use the same grille/frame assembly, the GFR-626. That greatly simplifies the installer's inventory situation, and maximizes installation efficiency, since the speaker-to-frame mounting method is the same for all.

The IN-BOX-30 LCR performs three important functions that are critical to serious installations:

1. It optimizes the acoustic environment for the IWTS-30 LCR's 8" woofer, just like the enclosures do for the Closed Box series. Without this box, there's no guarantee that you're getting the performance from the 30's 8" woofer that you're supposed to.
2. The Back Box assures a sealed box 2nd-order rolloff bass response for the system. This means that the 30 LCR will have the proper low-end rolloff

characteristics to mate up correctly with a THX-certified subwoofer low-pass filter.

Together, 1 and 2 are absolutely required for THX certification.

3. The IN-BOX-30 LCR also provides significant acoustic isolation, preventing excessive sound "bleed through" from one room to another.

OK, what happens if you don't use the IN-BOX-30 LCR Back Box? Will the speaker still work? Will it sound OK?

Yes, of course it will work, and it will sound great, if you install it correctly.

If you choose not to use the IN-BOX, follow these steps:

- Block off a section of the stud bay with horizontal cross-studs above and below the speaker cutout to create an "enclosure" for the 30 LCR. Enclose a volume of about .75-1.0 cu. ft. (For 16"-on-center 2 x 4" studs, it's a box 26" high; for 2 x 6" studs, it's 22" high.)
- Treat the wall cavity with acoustic insulation, such as our IN-WALL DAMPING KIT.
- Be certain that all extraneous wires, etc. in the wall cavity are securely "buttoned down," so there is no unwanted vibration or rattling after the speaker is installed.
- Make the wall cavity as airtight as practical. Seal all the stud-drywall seams (both front and rear) and all cross-stud to vertical stud seams with a flexible silicon caulk. (see figure 2)

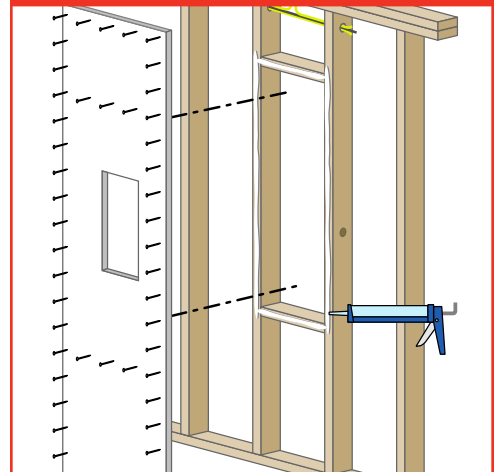
Either way—using the IN-BOX-30LCR or "making" an enclosure in the stud bay—the IWTS-30 LCR sounds its best with the proper enclosure.

Figure 1



The IWCB—complete with integral enclosure—slides through GFR frame; with the IWTS-30 LCR, the frame mounts to the wall/IN-BOX first, then the speaker goes into the frame.

Figure 2



If 30 LCR Back Box isn't used, create your own "enclosure," seal it off, and use acoustic dampening filler

Other Tech Tips:

Tip 30: All in the Family

Tip 31: 'Local' Delivery

Tip 32: LCR Speaker Placement

Tip 33: Surround Speakers – Explained!