



Meridian G61, A350i, And G41

Digital Controller, In-Wall Loudspeakers, And Powered Crossover/Amplifier

Gary Altunian

When you consider spending big bucks on high-end audio components, you expect excellent sonic performance, solid build quality, and a logical and intuitive user interface. It must sound great, it should be designed and built well, and it should be easy to use—precisely the qualities I found in the Meridian G61 Digital Surround Controller. The G61 is an outstanding component and one I can enthusiastically recommend. I am using the G61 (and the Meridian G41 Multichannel Crossover/Amplifier) as part of a review of the Meridian A350i In-wall Loudspeakers, and prior to installing the loudspeakers and connecting the G41 Powered Crossover/Amplifier, I connected the controller to my existing system for a test drive.

One of the best features of the G61 is the Meridian Configuration Wizard, which is used to configure the controller. The Wizard is very intuitive, and the few questions I had were answered easily in the well-written installation guide. I have found that many audio controllers are overly complex and illogically organized with many of the menu control functions not found where they're expected. In order to use some products, you must first read a user's guide that is written as poorly as the menus are designed. The Meridian G61 was a welcomed change. As it should be, the most commonly used controls and adjustments appeared at the top of each

menu, while less frequently used controls were found deeper in the menu structure. For example, settings for loudspeaker sizes, matching sources with the wide selection of inputs, and adjusting channel levels are easily found in the Wizard, while less frequently used, or "set-once," features, such as lip-sync (audio delay), trigger levels, source renaming, and others, are easily bypassed until needed. A "Reset Settings" item is first in the menu, a useful feature if you want to start over. Although I didn't use a stopwatch, I think the entire setup process took less than 15 minutes with zero frustration and minimal required reading.

The G61 is a rather plain, industrial-looking component, an appearance that belies its sophistication and quality. The front panel features a lighted standby button (with a master power switch on the rear panel), a display button (identifies input signal characteristics and dims/shuts off the display), a volume control, and six buttons for source and DSP mode selection and Wizard activation (only available when the controller is off). Two of the six buttons are "hard keys," one labeled Home—which returns the controller to the top of the menu system—and the other labeled More—which exposes additional functions and controls.

Meridian's design philosophy is such that audio controllers are for audio components and video controllers are for video components, and as a result, the G61 has no video connectivity. It is a multichannel digital

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G61 Digital Controller

Digital Inputs: TOSLink optical (5); Coaxial (6); 6-channel MHR coaxial (2)
 Analog Inputs: stereo (5); 6-channel analog (1)
 Outputs: Main L/R Centre/Sub, sides rears (Digital S/PDIF coaxial); Main L, Main R, Rear L, Rear R, Centre, Sub (Analog RCA)
 Control: DIN (2) and BNC Meridian Comm (1); +12 Volt, 150 mA Trigger (3); IR in; USB; RS232
 Processing: 3 Freescale 56367s and a 56371
 Conversion: 24-bit Sigma-Delta A-D and D-A converters operating at up to 96kHz on analogue inputs and outputs

Price: \$5,495

A350i In-Wall Loudspeaker

System: 2-way in-wall unit with dual bass drivers and passive ABRs (Auxiliary Bass Radiators). Supplied with G41 crossover card. Van den Hul internal wiring throughout
 Drivers: Two 6.5in/165mm high-energy metal coned bass-mid drivers; wide-dispersion ribbon tweeter; two 8in/200mm ABRs
 Impedance: Nominal 4 Ohms

Price: \$4,150 each
Rough In Kit: \$400 eachG41 Crossover Amplifier
Specifications available upon request from Meridian

Price: \$5,495

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in the musical presentation was distinct—taut, well defined but not punchy bass, outstanding midrange clarity (especially vocals), and sweet, smooth high frequencies. Brushes on cymbals, bows on violin strings, and every vocal detail sounded crisp, clear, clean, and balanced with other musical elements. Imaging was pinpoint—you could almost reach out and touch the various elements in the soundstage.

Meridian G41 Powered Crossover/Amplifier

After evaluating the G61 Digital Controller separately, I installed the Meridian amplifier and loudspeakers. The G41 Powered Crossover/Amplifier is designed for use with Meridian Active Speaker systems, such as the A350i In-wall Loudspeakers. It provides eight channels of amplification at 100 watts, into 8 ohms, driven in four HF/LF (high-frequency, low-frequency) pairs. Each Meridian Active loudspeaker comes with a dedicated active crossover card with equalization that attaches to the back of the amplifier. The active crossovers consist of Burr-Brown op-amps, mounted on cards with pins that attach to a PC board on the back of the amplifier. The G41 amplifier also comes with one full-range crossover card for a pair of non-Meridian loudspeakers. This unique design deserves further explanation.

Typically, passive crossovers are built into the loudspeaker, not the amplifier, which means they operate at higher power and are more subject to distortion and impeded driver control and damping. Meridian's active approach advances a different idea—process the audio signal in lower power-active crossovers, which are located upstream from the loudspeaker. Simply stated, this active system architecture is capable of far greater control, lower coloration, and higher dynamic output and accuracy than can be achieved in a passive crossover.

A350i Installation

The Meridian A350i Active In-wall Loudspeakers have sealed enclosures made of damped extruded aluminum, with very solid construction quality, and are unusual in the way they are mounted to the wall. Most in-walls use multiple dogleg clamps that affix the loudspeaker to the drywall or sheetrock, which, although secure, couples the loudspeaker directly to a source of resonance or vibration. Especially with large loudspeakers, additional screws and/or glue between the drywall and the studs are often

required to avoid vibrations and rattles. The Meridian A350i is attached directly to the vertical studs in the wall, via an optional mounting or rough-in kit. The steel rough-in kit, a rectangular frame, is attached to the studs with six steel flanges. New drywall is installed over the box and flanges, and then the loudspeaker is secured to the mounting kit with eight screws. The mounting kit does not act as a back-box or enclosure, only as a method of securing the A350i to the studs. Each loudspeaker is already in an enclosure before it is inserted into the mounting kit. The advantage of this system is that the entire loudspeaker system is coupled to the studs, not the drywall, a more solid and secure installation; in effect, the drywall is sandwiched between the loudspeaker and the mounting kit, reducing the chance of vibrations. The disadvantage is that installation is not as simple as cutting a hole in the wall and mounting the loudspeaker—a portion of the drywall needs to be removed to expose the studs, the mounting kit is installed, then new drywall must be replaced, patched, and painted, followed by the installation of the loudspeaker. If you're considering a high-end in-wall loudspeaker system like the Meridian A350i, however, drywall replacement is not a factor, particularly if they are installed during new construction, not in a retrofit installation. Either way, it's an intelligent mounting system and worth



consideration. By comparison to other in-walls I have installed, I heard no vibrations, and the walls did not need glue or additional screws. All three models are also available in a flush-mount version, without the bezel for installations where the loudspeakers will be concealed behind cloth or a perforated video screen.

The A350i is a very solid loudspeaker, with a tuned enclosure and a thick, laminated wood and metal baffle combined with damping material, which results in a very rigid, well-damped enclosure. It is a two-way system with dual 6.5-inch metal-coned bass drivers, two 8-inch passive ABRs (Auxiliary Bass Radiators), and a wide-dispersion ribbon tweeter. The loudspeakers feature Van den Hul internal wiring throughout, an indication that no details were overlooked, based on the price of Van den Hul cables. During my listening tests of the A350i, I used Tributaries Silver Series Speaker Cables. Based on my evaluation of the Tributaries cables in my own system, they, no doubt, contributed to the transparent sound quality of the Meridian A350i.

Listening Tests

First up, *The World's Greatest Audiophile Vocal Recordings*, a new release from Chesky Records (always a reliable label for great recordings). This disc features some of the finest recordings I've heard and shows off the finest qualities of the Meridian A350is. Without a doubt, the Meridian A350i loudspeakers possess outstanding vocal clarity and presence with all genres of music. Male and female vocalists are presented with a closeness and immediacy that was instantly apparent, with complete transparency between the vocalist and listener. If I were a recording engineer, I might even be able to identify the microphone and voice screen used for each recording. In particular, Laverne Butler's vocal presence in *Isn't It A Pity* (Chesky Records) was striking, delivering a live performance in the room with pinpoint imaging and a deep, though not particularly broad, soundstage presentation. Vocals sounded so good that I reached for the best of my vocalist discs: Chet Atkins's and Mark Knopfler's *Neck And Neck* (Columbia Records), a very well-recorded disc with two guitars, bass, drums, and the two vocalists. In addition to great vocal clarity, the loudspeakers had excellent transient response and dynamic range, especially when reproducing the guitars. Each pluck of the string was clean with very quick attack. Clearly, the A350i has exceptional openness in the midrange, nothing veiled or concealed in any recording I heard. In fact, there were times I'd wished for a little less presence and directness in the midrange. Diane Schuur's voice in her live recording with the Count Basie Orchestra (GRP Records) tended to be a bit strident, or "in-your-face," when listening at higher volume levels. After requesting speaker grilles from Meridian (which were not shipped with the review samples), any hint of overkill in the midrange disappeared. These grilles do make a difference. Meridian states that the A350i's sound quality is based on use with a grille, but, if a customer does not want to use a

grille, Meridian will supply a special plug-in module. Now that's service!

I have two reference discs I use for reviews, Renee Olsted's *Renee Olsted* (Reprise Records) and Monica Mancini's *The Ultimate Mancini* (Concord Records), both outstanding recordings. Renee Olsted (fifteen years old when she recorded her first album) has a vocal range and quality with plenty of detail that makes it useful for evaluation. The details in her voice were reproduced with startling clarity using the Meridian A350i loudspeakers. The same qualities were apparent in Monica Mancini's voice.

Bass response, specifically mid-bass, was tight and well defined, but not punchy. The Meridian A350i needs a subwoofer, as it cannot reach the lowest frequencies on its own, but mid-bass definition is excellent. Carlos Franzetti, whose deep voice I've grown to appreciate, sounded outstanding on the A350i loudspeakers, especially when performing "Once Upon A Summertime" from *Songs For Lovers* (Chesky Records). His deep, full voice clearly demonstrated the adept mid-bass capabilities of the Meridians.

Summary

It's difficult to be brief when summarizing the sonic characteristics of the Meridian A350i loudspeakers—they do a lot of things very well. But, I would conclude that vocal clarity and detail, pinpoint imaging, dynamic range, and firm mid-bass are the high points. These are loudspeakers that will provide many years of musical enjoyment. When used with the Meridian G61 Digital Controller and G41 Crossover/Amplifier, it's a winning combination.

Along with the 350i Active, or Passive, series loudspeakers, Meridian has also introduced the A330 and A320 series in both active and passive versions. The active models are designed specifically for use with the Meridian G41 powered crossover/amp while the passive models can be powered with the amplifier of your choice. Each is available as an in-wall or on-wall model.

If you're digging deep in your wallet for an audio system, be sure you put Meridian on your list. **WSR**

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controller for music and film soundtracks, so if you're looking for HDMI inputs, video switching, and built-in scalars, look elsewhere—this is an audio component. Logically, audio circuits should be separated from video circuits for the best audio-signal-to-noise ratio and a minimum chance of signal interference. That is Meridian's philosophy and mine as well.

While ease of use is excellent, the sound quality of the G61 is exceptional. Its main feature is a powerful DSP engine, driven by four Freescale processors—three 56367 DSPs and a single 56371—each running at 150 MHz, for a total processing speed of over 500 MIPS (Millions of Instructions Per Second), a reliable way of objectively measuring an audio controller's capabilities. Incoming analog signals are converted to digital with a 96 kHz sampling rate and 24 bits of signal resolution, and incoming digital signals are re-clocked to minimize signal jitter. Although a simplified explanation, reduced clock jitter contributes to enhanced high-frequency reproduction, better instrument separation, and a more precise soundstage, among other easily heard sonic characteristics.

The first and most noticeable sound characteristic of the G61 is the level of detail that it is capable of resolving. The higher audio resolution was instantly apparent throughout the frequency spectrum. Each element