



PARASOUND

Frequently Asked Questions about the Zhd and HDMI

There is a lot of confusion and incomplete or inaccurate information regarding HDMI. These FAQs will give you a better understanding of HDMI technology and the Zhd.

Q: How do I connect the Zhd to my Halo C 1, C 2 or New Classic 7100 Surround Controller?

A: Simply connect the included link cable between the RS-232 ports on the Zhd and your Parasound 7.1 Surround Sound Controller. Now when you change sources on the surround controller the Zhd will automatically switch HDMI inputs. Please note that if you need a longer link cable you must use a "Null-modem" or "crossover" type cable. See the third page of this document on more details about the link feature.

Q: What do you mean by "seamless" switching with a Parasound C 1, C 2 or 7100?

A: It means you don't have to pay any attention to it. As you select video sources 1-5 on your Parasound surround controller the Zhd will select its HDMI inputs 1-5 automatically. We even supply the correct RS-232 cable for this purpose.

Q: If the RS-232 port on my Surround controller is already being used, how do I link the Zhd?

A: If the RS-232 port on your surround controller is already in use by a Crestron, AMX or similar system the link feature can not be used. In this case, you must run an additional RS-232 cable to the Zhd from your house controller and program the system according to the RS-232 protocol.

Q: Why is my TV screen blank or it flashes for a few seconds when the Zhd switches from one input to another?

A: This is not a fault of the Zhd. An HDMI TV and HDMI source (DVD player, Sat/Cable box, etc.) must be in constant two-way communication with each other. When you switch from one HDMI source to another, the devices might need several seconds to reestablish communication. While that is happening you might see a blank screen or a quick flash. Some brands or models of TVs and sources are faster and less likely to flash.

Q: How long can the HDMI cable be from the Zhd to my TV?

A: The maximum HDMI cable distance will vary significantly between cable brands. Not all brands are HDMI-certified and some may use inferior materials, making long runs impossible. When an HDMI cable run is too long you may see pixels dropping out (snow over the picture) or the picture may be completely blank. We have tested the Zhd with cable runs of over 100 feet (33 Meters) with some cable brands. The switchable boost function of your Zhd changes the signal characteristics and it might help with longer runs, but sometimes the picture will be better with it turned off.

Q: How do I turn on the Boost feature of the Zhd?

A: Press and hold button 1 and then press button 5 simultaneously. This must be done from the front panel and not on the remote handset. The boost feature is only intended for use with HDMI cables longer than 15 feet between the Zhd and the TV. The boost may not show improvement with some HDMI cables and components.



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Q: Why is your HDMI switcher a separate unit instead of built-in to a C 1, C 2 or 7100?

A: There are three reasons...

1. Installing an HDMI switching module in an existing Halo C 1, C 2, or NewClassic Model 7100 surround controller would have required owners to remove the set from their home theater system, pack up the controller and ship it to us. Selling our HDMI switcher as a separate unit avoids the inconvenience of being without your surround controller for three weeks and the risk of damage during shipping.

2. *We wanted it to have five HDMI inputs. There wasn't enough room to build this many into the C 1, C 2 or 7100.*

3. There's a real need for an HDMI product that really works. A free-standing HDMI switcher that works in any system has more applications than a built-in module. The Zhd is in a class of its own for useful features and guaranteed performance.

Q: But I don't have room for it in my setup and I don't want to look at yet another component.

A: You don't need to see it or touch it because it switches automatically when you select inputs on your Parasound surround controller. Therefore you can tuck it out of the way behind your components, where you won't see it.

Q: I've heard of HDMI compatibility problems between AV receivers and cable company boxes. What about the Zhd?

A: The Zhd does not have any problem because it does not decode HDMI audio. In fact, the problem is solved when the Zhd, rather than an AV receiver, is used to switch HDMI sources.

Q: What are HDMI standards 1.0, 1.1 and 1.2?

A: The Parasound Zhd is compatible with all current HDMI standards.

- HDMI 1.0 supports HD digital video and multi-channel audio over a single cable.
- HDMI 1.1 also supports high resolution DVD-Audio.
- HDMI 1.2 also supports single bit digital audio formats, such as SACD (Super Audio CD) and DSD (Direct Stream Digital).

Q: Is the Zhd HDMI compatible with DVI?

A: A TV with an HDMI input will display video from sources with DVI outputs. A TV with a DVI input can display video from HDMI sources, as long as the TV is also HDCP compliant (see below). TVs with DVI inputs which are not HDCP compliant may not work with recent HDMI sources. Ask your TV's maker if it is HDCP compliant. DVI does not support Audio.

Q: What is HDCP?

A: HDCP (High-bandwidth Digital Content Protection) is a technology used with DVI and HDMI to prevent unauthorized duplication of digital video and audio content. HDCP compliance is required on all HDMI equipment and is an option with DVI equipment.



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Using the Zhd with a Parasound 7.1 Surround Sound Controller

The Zhd inputs are selected automatically if its RS-232 Control port is connected to the RS-232 port of a Parasound 7.1 Channel Surround Controller (C 1, C 2, 7100). Selecting the Video 1 source on the C 1 or C 2 ("DVD" source on the 7100) will instruct the Zhd to select HDMI Input 1. Selecting the Video 2 source on the C 1 or C 2 ("SAT" source on the 7100) will instruct the Zhd to select HDMI Input 2, and so on. To use the automatic feature, connect the supplied RS-232 serial link cable between your Parasound controller and the Zhd. The supplied cable or equivalent "null-modem" (crossover) cable must be used. The Zhd will switch its HDMI input according to the source you have selected on your Parasound 7.1 Channel Surround Controller, according to this chart:

<u>C1 and C2 Source</u>	<u>7100 Source</u>	<u>Zhd input that gets selected</u>
Video 1	DVD	1
Video 2	SAT	2
Video 3	VCR	3
Video 4	IN 4	4
Video 5	IN 5	5
Video 6	IN 6	No Change

Remember, you might have renamed the source input on your C 1, C 2 or 7100. If you need to associate different Zhd inputs and surround controller sources than shown above you must operate the Zhd manually or program an IR macro into your system's master remote.

Note for Crestron or AMX users: If the RS-232 port on your Parasound 7.1 Channel Surround Controller is already connected to a Crestron or AMX type house controller you can not use this automatic selection feature. In this case you must run an additional serial cable from your house controller to the Zhd and program the house controller according to the Zhd's RS-232 protocol, which are supplied with the unit and also available at our website, www.parasound.com.