

RV Audio Connections Illustrated

This guide is intended to assist Heartland Owners in making connections from their Televisions to their Surround Sound so that Television audio can be played through the Surround Sound speakers.

Important Notices

Who created this document?

This document has been created by Heartland Owners independently of the Heartland RV Company, and is posted to the Heartland Owners Forum as a service to the owner community.

Errors and Omissions

Because the authors are Heartland owners, not engineers or service technicians, it's possible that this document could contain errors or omissions. Readers are advised to also review the manufacturers' product documentation for more complete information and guidance.

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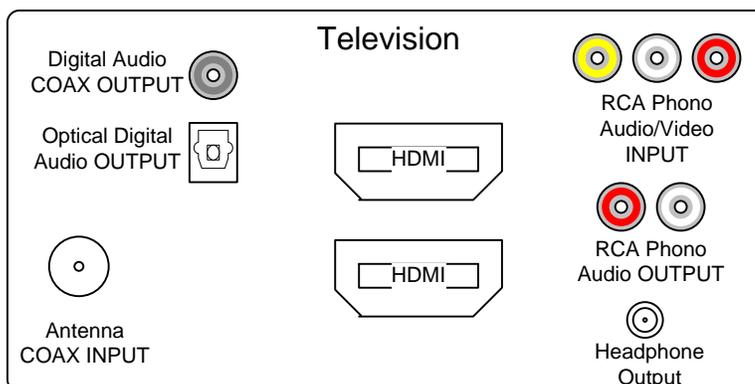
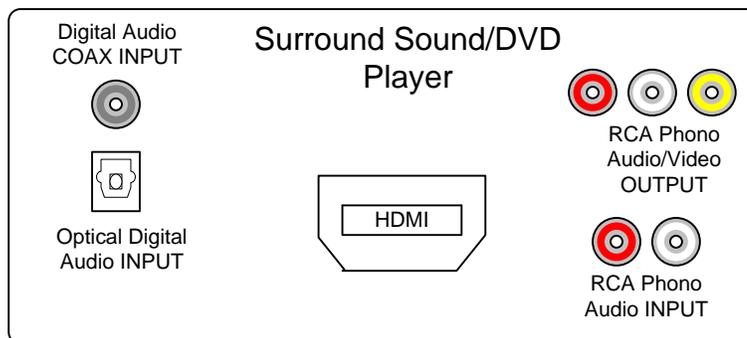
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Playing TV Audio through the Surround Sound system

On RVs that have Surround Sound, or combination Surround Sound/DVD Players, owners often want to be able to play audio from the Television through the Surround Sound. This may be due to a desire for higher quality audio, or it may be to achieve higher volume levels to counter noise from air conditioning. The main challenge is to determine how to best make the required connections between devices, and where to obtain the cables.

Connector Types

Here's an example of the connectors that may be found on Televisions and Surround Sound devices. Actual connectors vary considerably from device to device.



The typical connectors on the equipment back panels will look like this:



On the top left are digital connectors using RCA Digital Audio COAX. On the bottom left, Optical Digital Audio. The connectors on the right are standard RCA Phono Audio connectors, such as have been used on stereos for many years. Many televisions will also have a headphone jack, such as you would find on a Smartphone or iPod.

Cable Types

The cables that plug into these connectors look like this:



Optical Digital Audio



Digital Audio COAX

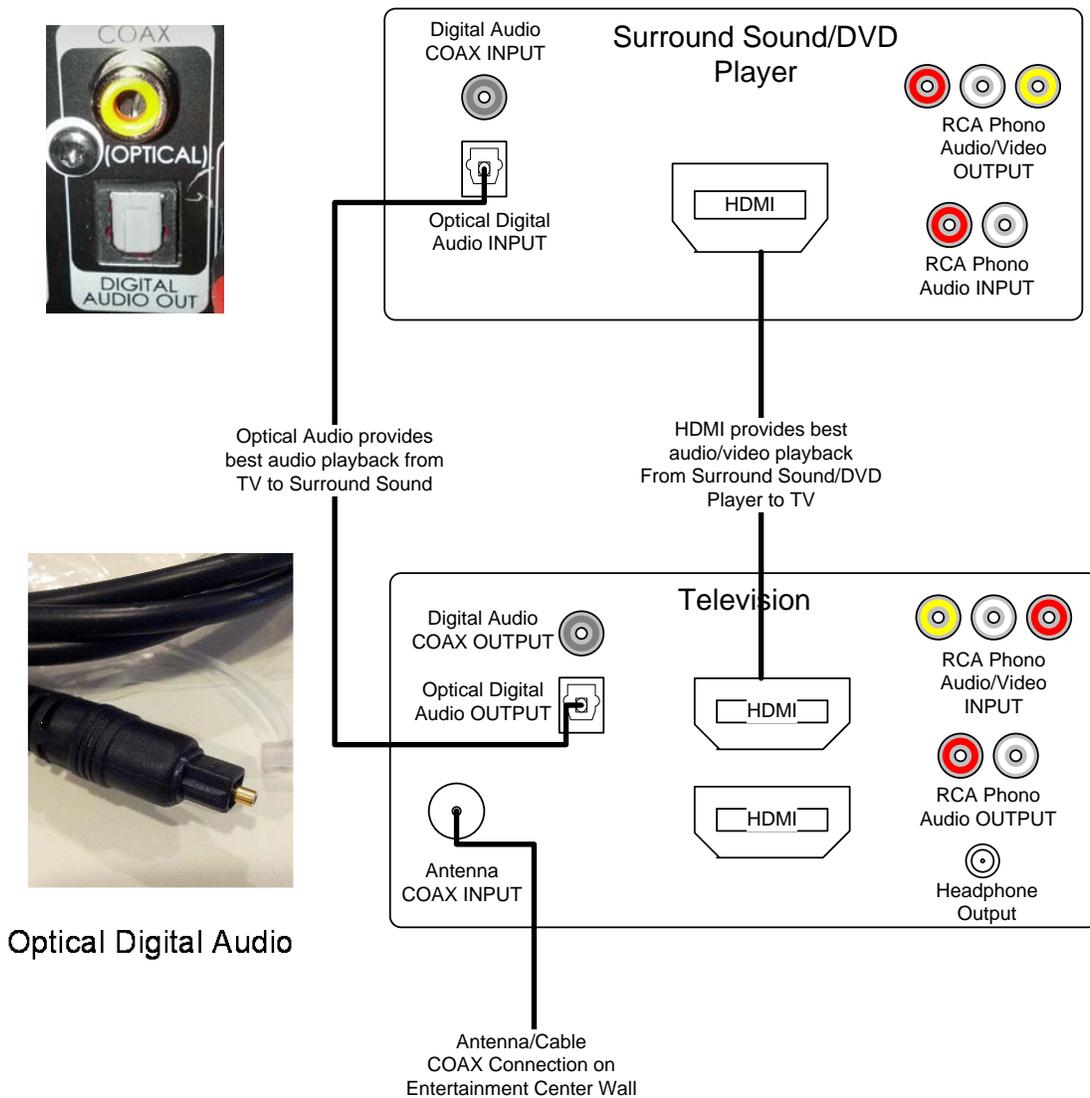
(notice solid sleeve)



RCA Phono Audio

If the Television and Surround Sound devices have matching inputs and outputs, connecting them is straightforward. It's just a matter of getting the right cable. The following pages show various ways to connect the devices, with information about the required cable.

Optical Digital Audio Connection



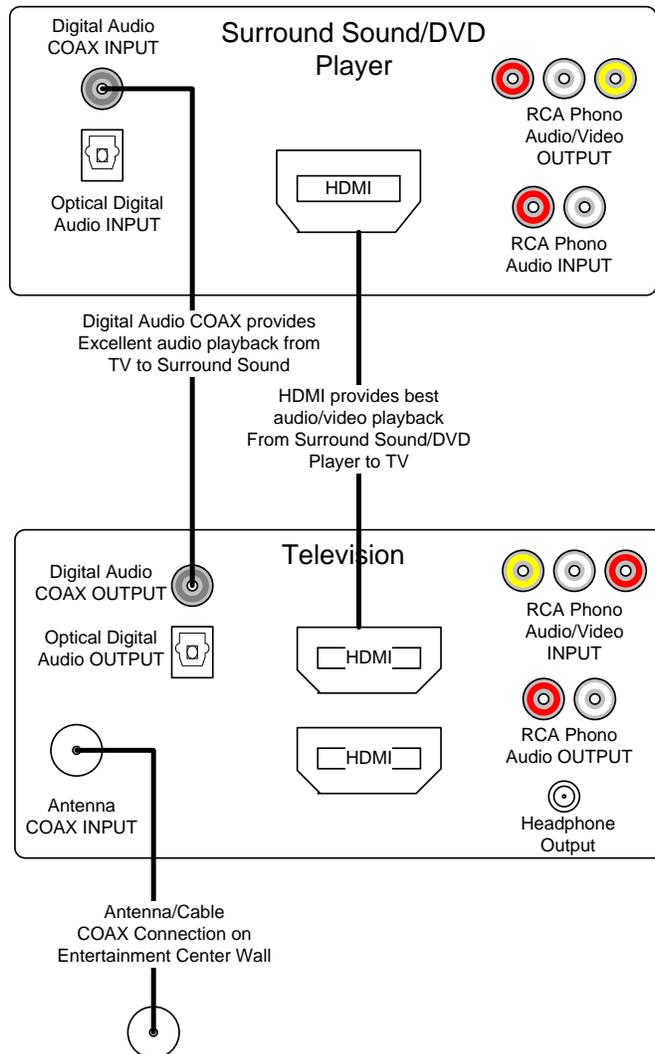
Optical Digital Audio

Optical Digital Audio cables are also sometimes called Optical TOSLink cables. The best price I've found is about \$2.00 at Monoprice.com; [item #1419](#).

Digital Audio COAX Connection



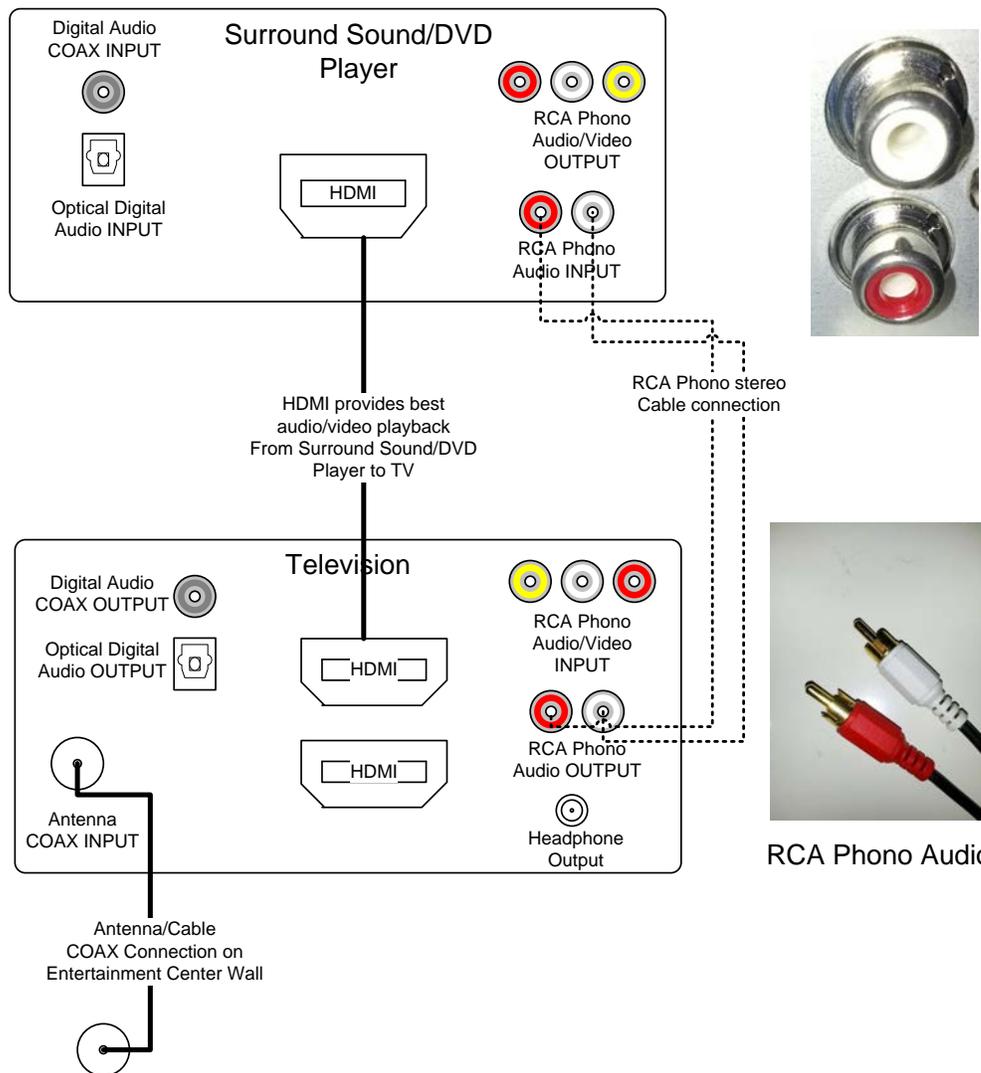
Digital Audio COAX
(notice solid sleeve)



Digital Audio COAX Cables are also known as RCA Digital Audio COAX. Again, the best price I've found is about \$1.50 at Monoprice.com. [Item #619](#)

Notice that while this looks somewhat like a conventional RCA Phono connector, the metal sleeve is solid around its circumference whereas RCA Phono connectors have a segmented sleeve.

RCA Phono Connector to RCA Phono Connector

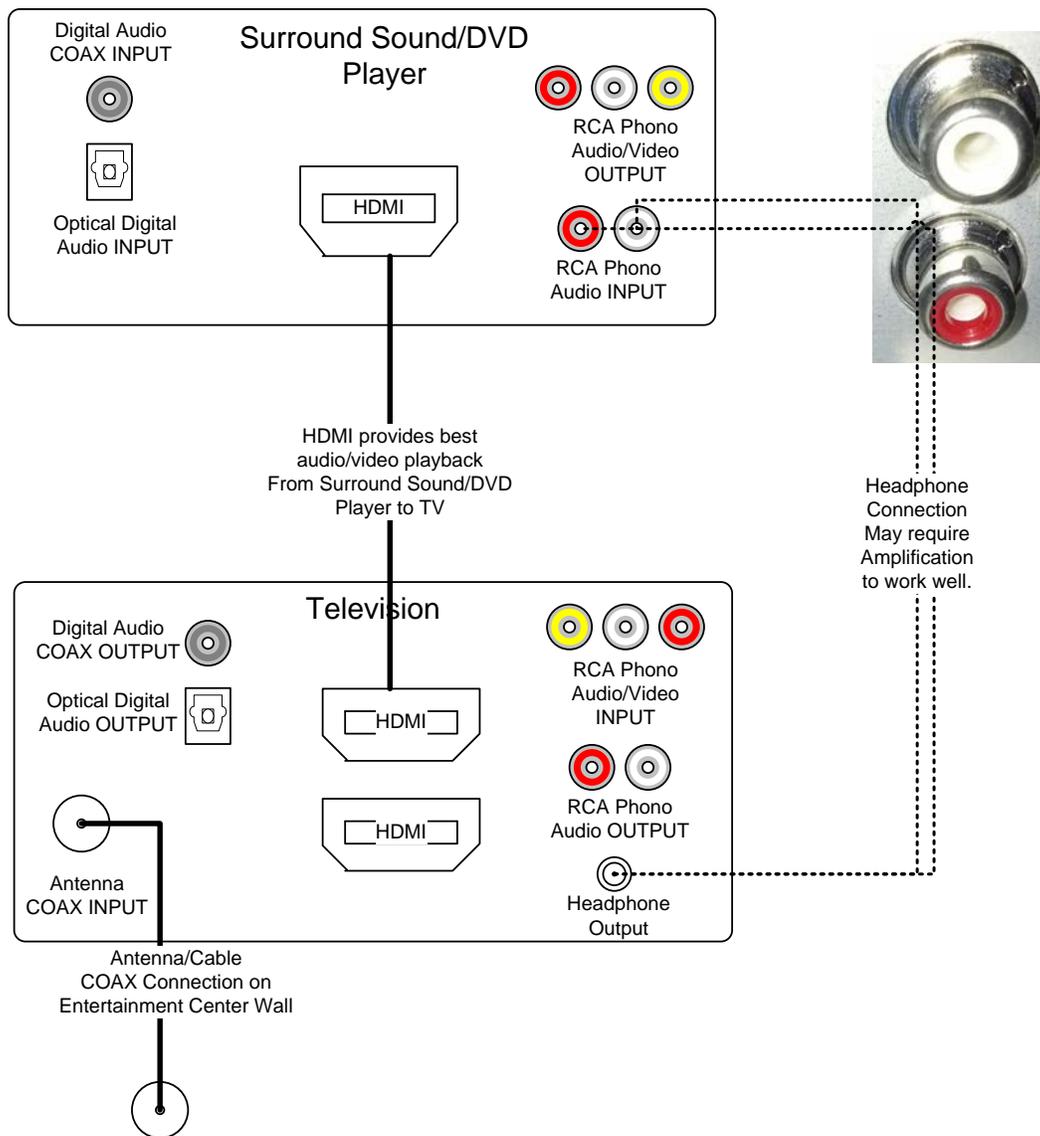


If the Television has RCA Phono Audio OUTPUT connectors, and the Surround Sound has RCA Phono Audio INPUT connectors, a standard RCA Phono Stereo cable is all that's needed.

Monoprice.com has these for about \$1.00. [Item # 659](#).

It's important to make certain that you are plugging into a set of OUTPUT connectors on the Television and a set of INPUT connectors on the Surround Sound. If they're not marked, consult the respective user manuals to find out what you're plugging into. Also note that some Surround Sound devices may have a single set of RCA Phono connectors that can function as either INPUT or OUTPUT. If in doubt, check the manuals.

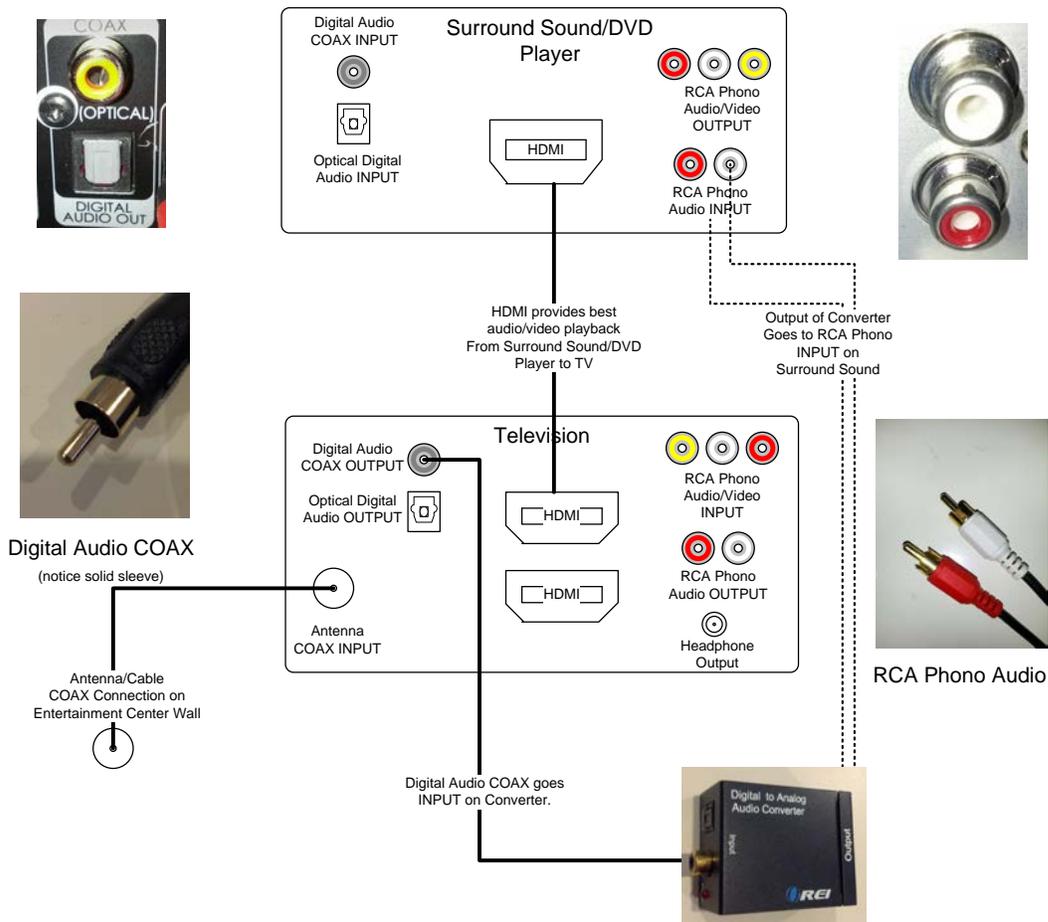
Television Headphone Jack to Surround Sound RCA Phono Input



This configuration appears simple, but can present some problems. The signal level of a headphone jack is usually very low, whereas the input on the Surround Sound is usually expecting a higher level signal. It may be necessary to turn the volume on the Surround Sound to a very high setting, and even then, the audio may not be as loud as desired. **Because the results will vary on different equipment, this configuration may be unsatisfactory, and should be avoided if possible.**

Monoprice.com sells 3.5mm to RCA Phono cables for about \$3.00. [Item # 5598](#)

Digital Audio COAX to RCA Phono Audio Inputs



Most newer Televisions have a Digital Audio COAX OUTPUT. If there is no matching INPUT on the Surround Sound, with the help of a converter box, the RCA Phono Audio INPUT on the Surround Sound can be used. The converter box accepts either Digital Audio COAX or Optical Digital Audio connections as INPUTS, so that is another option.

The Monoprice.com item #s for this configuration are:

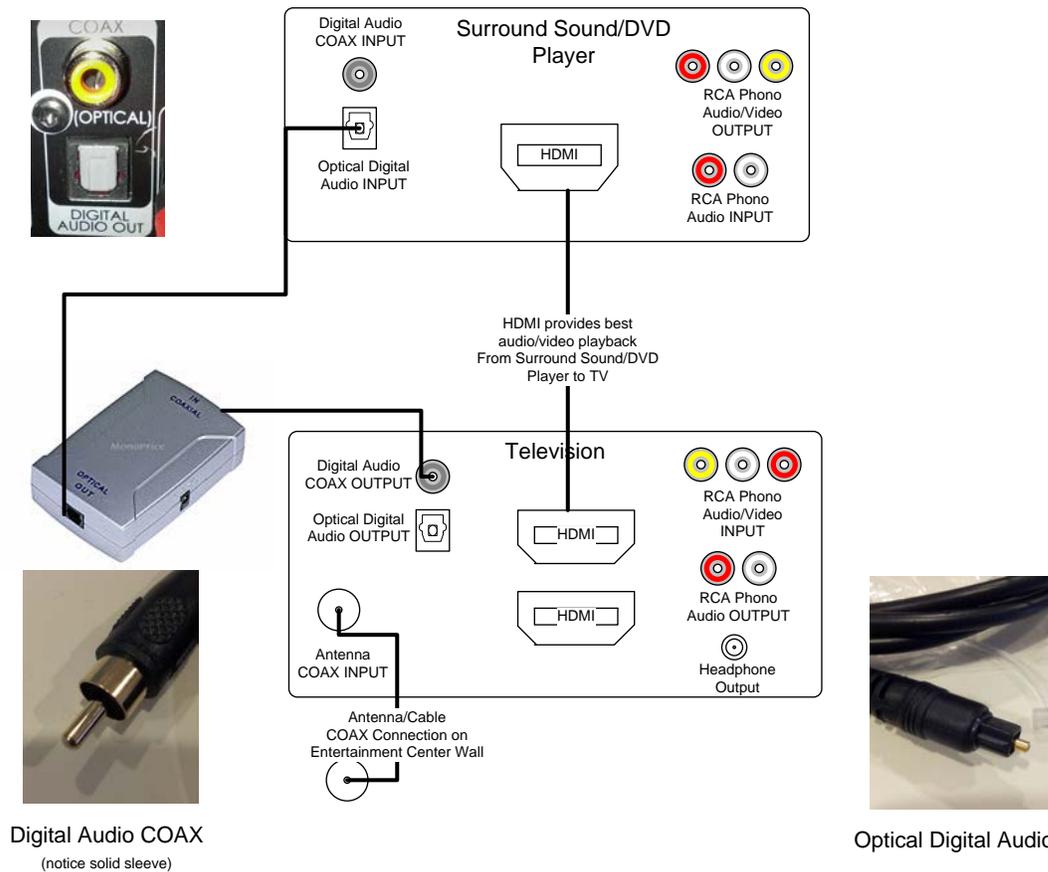
Digital Audio COAX Connector, about \$1.50 [item #619](#)

Digital to Analog Audio Converter, about \$20.00 [item #6884](#)

RCA Phono to RCA Phono, about \$1.00, [item #659](#)

If using Optical Digital Audio connections instead of Digital Audio COAX, get [item #1419](#) instead of item #619.

Digital Optical Audio OUTPUT to Digital Audio COAX INPUT



Another possible configuration is to start with the Digital Audio COAX OUTPUT on the Television. If there is an Optical Digital Audio INPUT on the Surround Sound, with the help of a converter box, the two can be connected.

The Monoprice.com item #s for this configuration are:

Digital Audio COAX Connector, about \$1.50 [item #619](#)

Coaxial to Optical Audio Converter, about \$12.00, [item #2947](#)

Optical Digital Audio Cable, [item #1419](#)