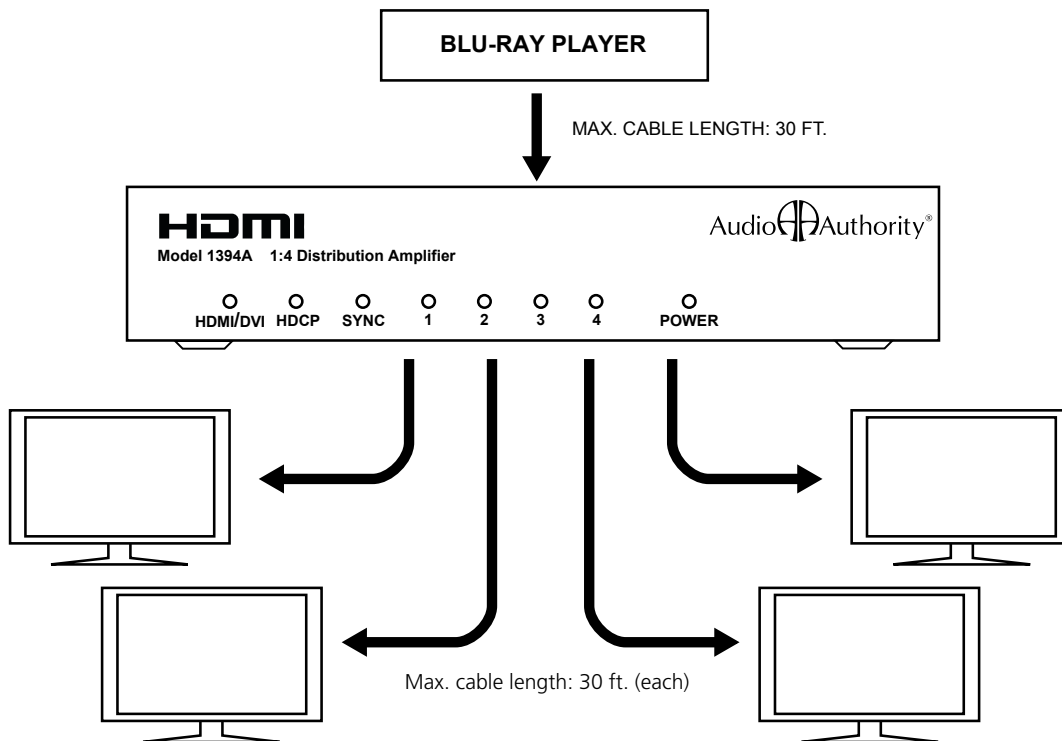


HDMI technology is now able to meet the demands of the audio/video showroom. Using Audio Authority® products and expertise, your showroom can display 1080p, Deep Color, and all of the other benefits of HDMI 1.3. Follow these guidelines to ensure a smooth installation.

1. Each display should be tested with the source(s) being used to ensure basic compatibility before connecting them to a distribution amp and/or switcher. Not all HDMI components and displays are compatible.
2. Since all of the displays will be receiving the same video signals from the source, make sure the source is set up to output the highest resolution that all of the displays can accept. For instance, if one of the displays connected to the distribution system can only accept a maximum resolution of 720p, all of the displays must receive only 720p video signals. You may consider creating two or three different distribution systems with separate source outputs at different resolutions so that you can adequately demonstrate each HDTV at its highest resolution.
3. Audio Authority HDMI distribution amplifiers allow up to 30 feet of premium cable between the source and the amplifier input, and up to 30 feet of premium cable between the outputs of each distribution amp to each display. Use of high resolutions, refresh rate, or deep color may limit maximum cable lengths. If greater cable lengths are required, the Model 1391A Extender with DDC correction can be inserted into any signal path to increase the distance up to 130 feet. If coaxial cables are available, Model HCX-11 can be used to extend signals up to 330 feet.
4. Since HDMI connectors can sometimes become loose, use locking cables or mount switchers and distribution amplifiers to a flat surface and add strain relief tie-downs a few inches away from every HDMI cable connector.
5. If you plan to install a very large HDMI signal distribution network, you should carefully plan to work within the HDCP system limitations (see page 4). Each system is limited to 127 HDCP Rx “nodes”. Every HDMI device with an HDCP Rx chip counts as one node, including TVs, distribution amps, and switchers. Audio Authority can help you correctly calculate the nodes and create a system optimized for maximum capacity.

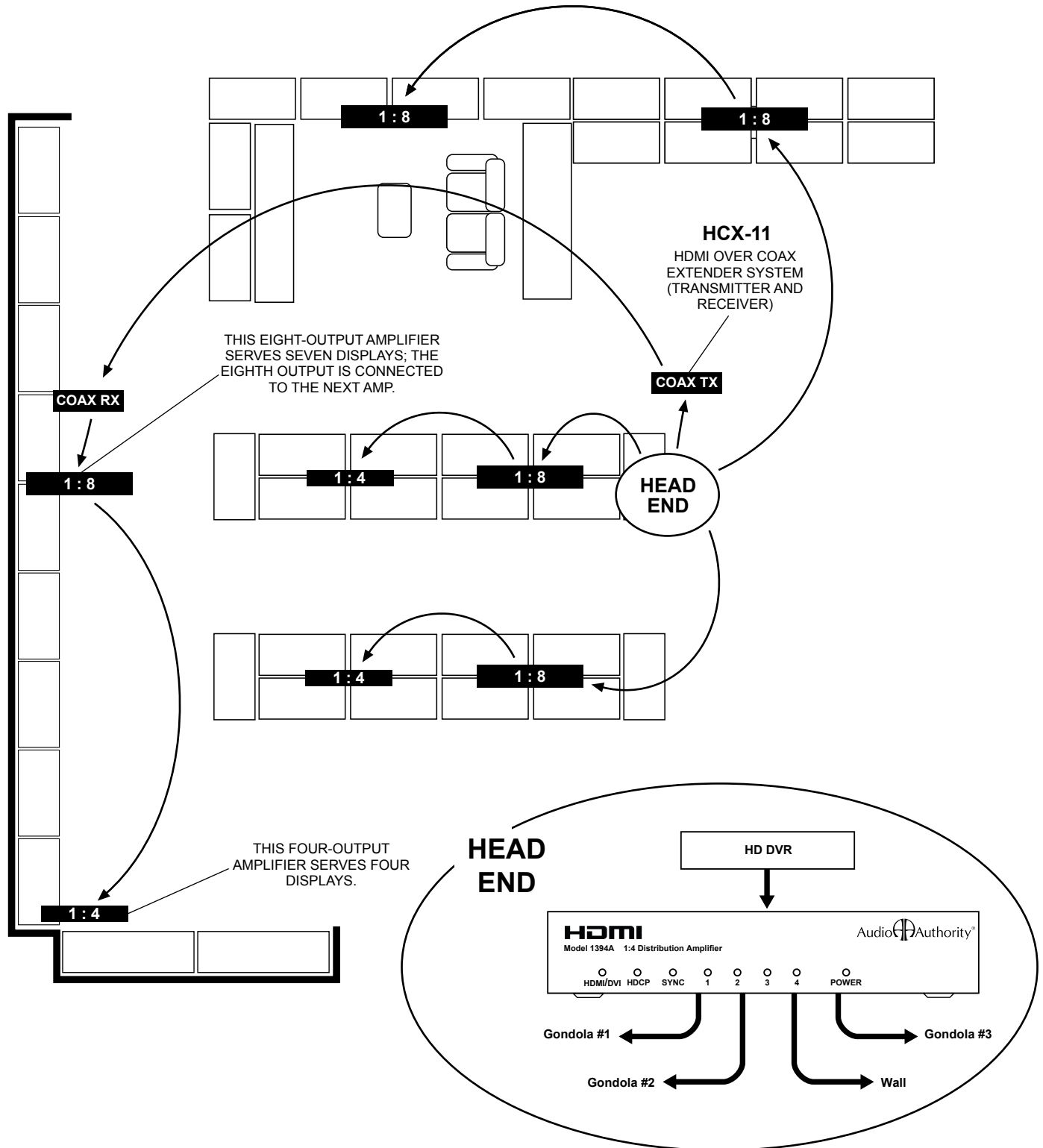
## Application #1

This simple system distributes the HDMI signals from an HD source, in this case a Blu-ray disc player, to four HDTVs. Connect the source output to the input of an HDMI distribution amplifier, then connect HDMI cables to each TV.



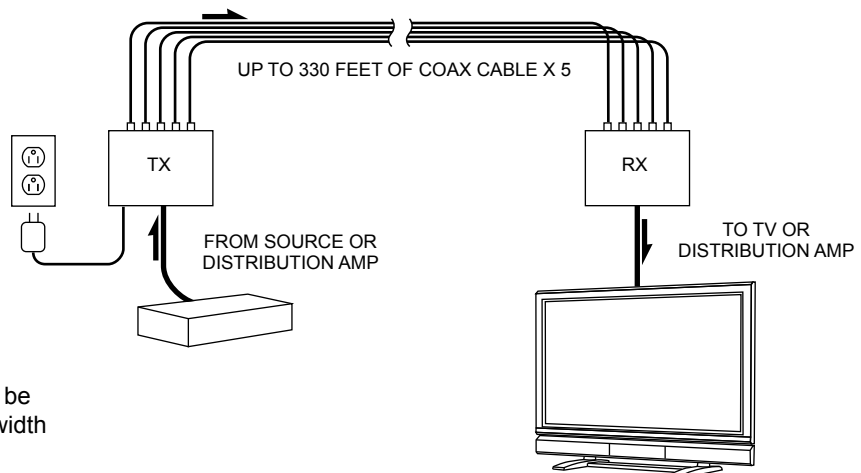
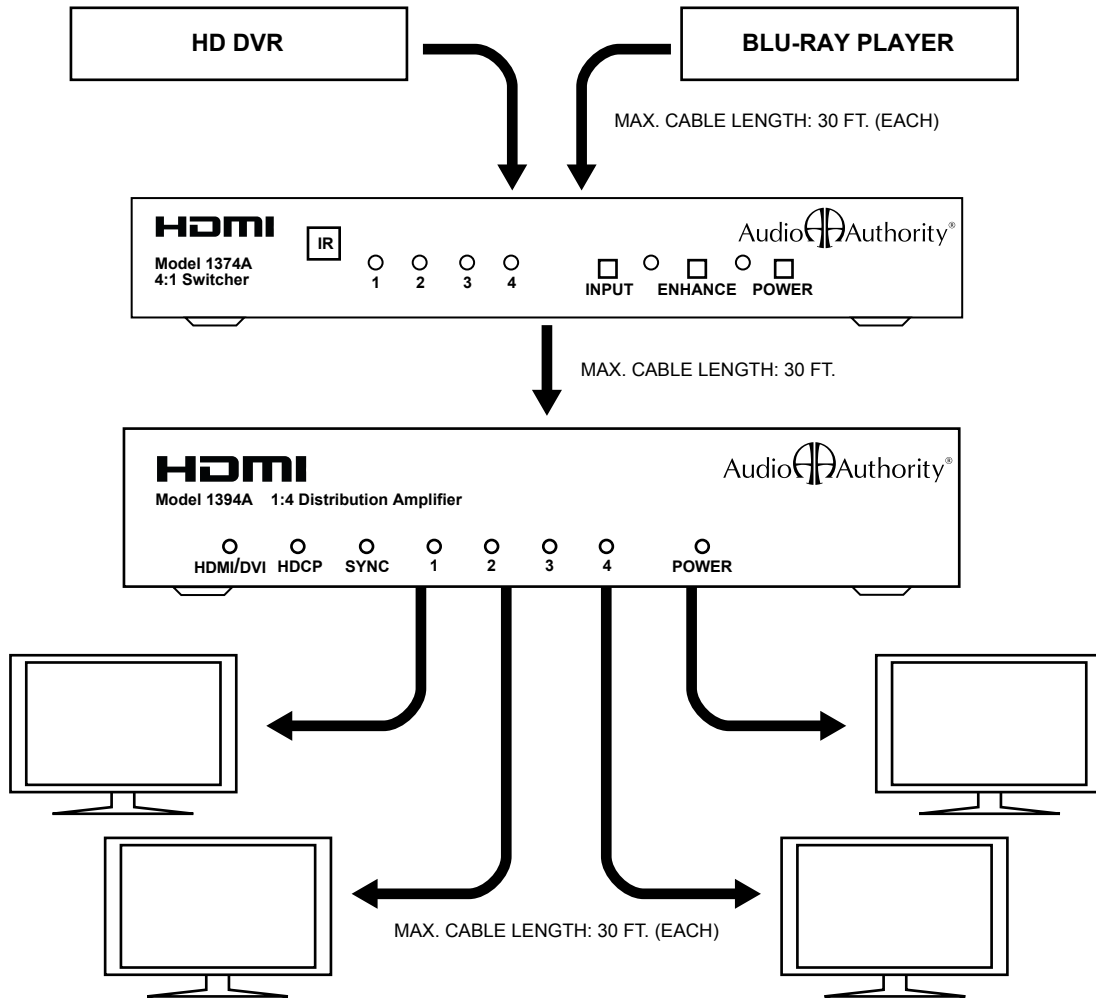
# Application #2

1. Define zones of up to 15 displays each, e.g. gondola or wall sections. The example below contains four zones, so a Model 1394A is used to distribute HDMI signals from the head end to the first amp in each zone.
2. Place a four or eight output distribution amp near the televisions they will serve. Remember that if any amp output connects to the input of another amp, you must subtract one from the number of outputs available for video displays. This system has 56 nodes, but eight of those nodes serve other DAs; therefore this system has a capacity of 48 TVs.
3. If any of the cables must be longer than 30 feet, use a Model 1391A Extender to increase the maximum distance to 130 feet (depending on resolution, etc) or use HCX-11 Transmitter/Receiver system to increase the maximum distance to 330 feet. See extender manuals for detailed specifications.



## Application #3

There are many instances where it is desirable to demonstrate HDTVs using two or more sources. Connect the sources to an HDMI switcher and then connect the output of the switcher to the input of an HDMI distribution amplifier.

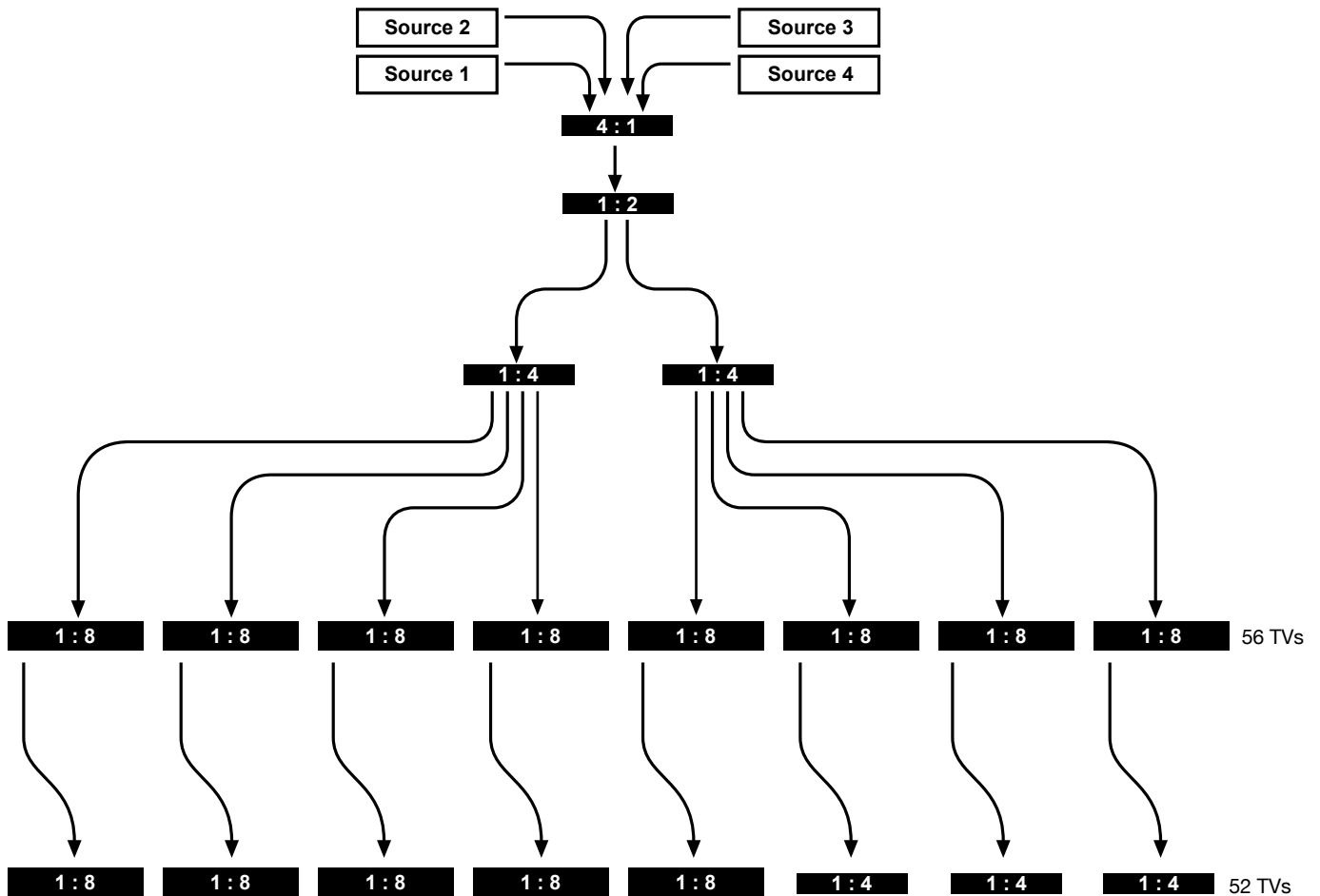


### Model HCX-11

This HDMI over coax extender transmitter/receiver system should be used when transmitting high bandwidth HDMI signals over long distances.

# Application #4

A distribution system feeding the highest number of displays possible is shown below. The total number of video displays is 108. The distribution amplifiers add up to 17 HDCP Rx nodes, and the source is one node, so the total number of downstream nodes in this system is 127. Audio Authority can help you design a distribution system that suits your needs and is easy to install and operate.



### System Architecture Notes

1. HDCP protected signals are limited to 127 downstream nodes. A “node” is any device that has an HDCP Rx chip.
2. Switchers, distribution amplifiers, repeaters and TVs contain an HDCP Rx chip; however, the Model 1391A Extender/DDC Corrector does not contain an HDCP Rx chip.
3. When calculating a system’s TV capacity, subtract one from the number of TVs each distribution amp serves for every output used to feed another amp.
4. The first switcher or amplifier in the signal path is not counted toward the 127 total downstream HDCP Rx nodes.



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