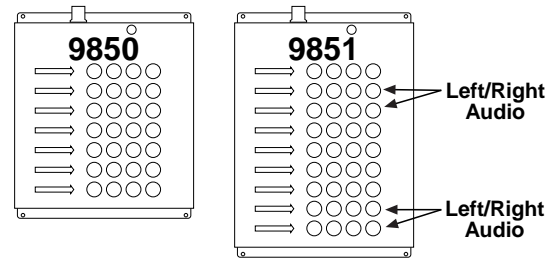
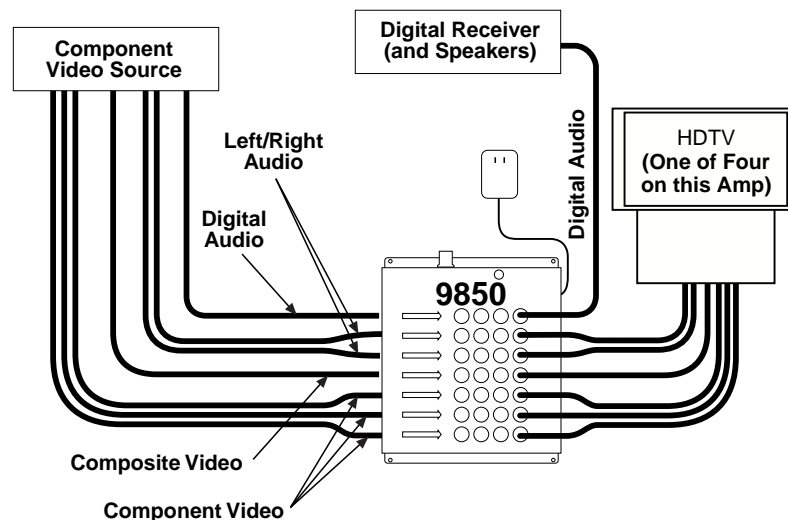


How To Use Model 9850/9851 Universal Distribution Amplifiers

Model 9850 and Model 9851 provide a simple solution to the problem of distributing video and audio signals among multiple video displays or monitors over long distances. To overcome the bandwidth-robbing losses of coaxial cables, the 9850/9851 have cable-length compensation that can be adjusted for up to 500 feet of cable. The 9850 amplifier's 7-channel-wide architecture enables simultaneous distribution of digital audio, analog audio, composite video and component video. Model 9851 is similar to the 9850, with the addition of two more analog audio channels.



Multiple 9850s can be bussed together to create large distribution systems using RCA plugs (Model 9850 and 9851) or F connectors (Model 9850F and 9851F) on the bus cables.



Note: Model 9850 is pictured throughout the manual, but all information applies to Model 9851 as well.

Single Amplifier Installation (Four or Fewer Video Displays)

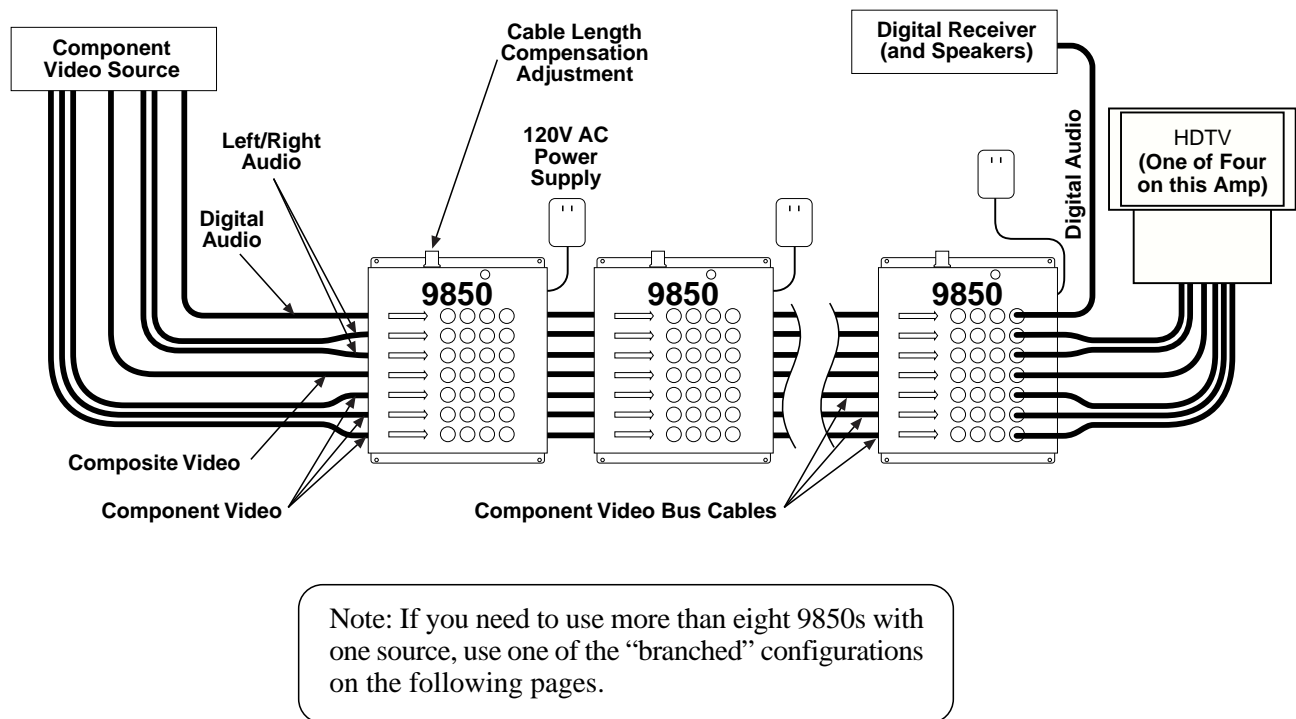
Mount the 9850 near the video displays and audio system. Use high-quality 75-ohm coaxial cable, such as Audio Authority part numbers 871-070 (standard DTV cable) or 871-074 (plenum-rated DTV cable) to route signals from the audio/video source to the Bus Input jacks of the amplifier. No terminations are required on the Bus Output connectors. Connect each set of main outputs to a video display and/or audio system using good quality coaxial cable for video and digital audio, and standard patch cords for analog audio.

Adjust the Cable Length Compensation control equal to the length of the cable run from the source to the amplifier. This control is calibrated in feet and meters (m). For example, if the length of the cable is 150 feet, set the pointer midway between the 100 and 200 foot marks. This setting restores the bandwidth lost in 150 feet of cable. Note: the bus output is not cable-length compensated and therefore is not recommended as a product output.

Power the 9850 from the supplied power pack. In the event of hum bars or other picture disturbance, adjust the Ground switch to minimize the symptom.

Multi-Amplifier Inline Installation (More Than Four Video Displays)

This configuration supports up to 32 video displays (eight 9850 amplifiers). Mount each 9850 near the video displays (and audio systems) they are to serve. Use high-quality 75-ohm coaxial cable, such as Audio Authority part numbers 871-070 (standard DTV cable) or 871-074 (plenum-rated DTV cable) to route signals from the audio/video source to the Bus Input jacks of the amplifier. Connect the Bus Output jacks of the first amplifier to the Bus Input jacks of the second amplifier, and so on. No terminations are required on the Bus Output connectors of the last amplifier. Connect each set of main outputs to a video display and/or audio system using good quality coaxial cable for video and digital audio, and standard patch cords for analog audio.



On each amplifier, adjust the Cable Length Compensation control equal to the total length of the bus cable run from the source to that amplifier. For example, if the length of cable to the first amplifier is 150 feet, set the control of the first amplifier midway between the 100 and 200 foot marks. If the length between the first and second amplifier is 50 feet, set the control on the second amplifier to $150 + 50 = 200$ feet. Note: the bus output is not cable-length compensated and therefore is not recommended as a product output.

Power each 9850 from a supplied power pack. In the event of hum bars or other picture disturbance, adjust the Ground switch to minimize the symptom.

Multi-Amplifier, Two-Branch Installation (More Than 32 Video Displays In a Row)

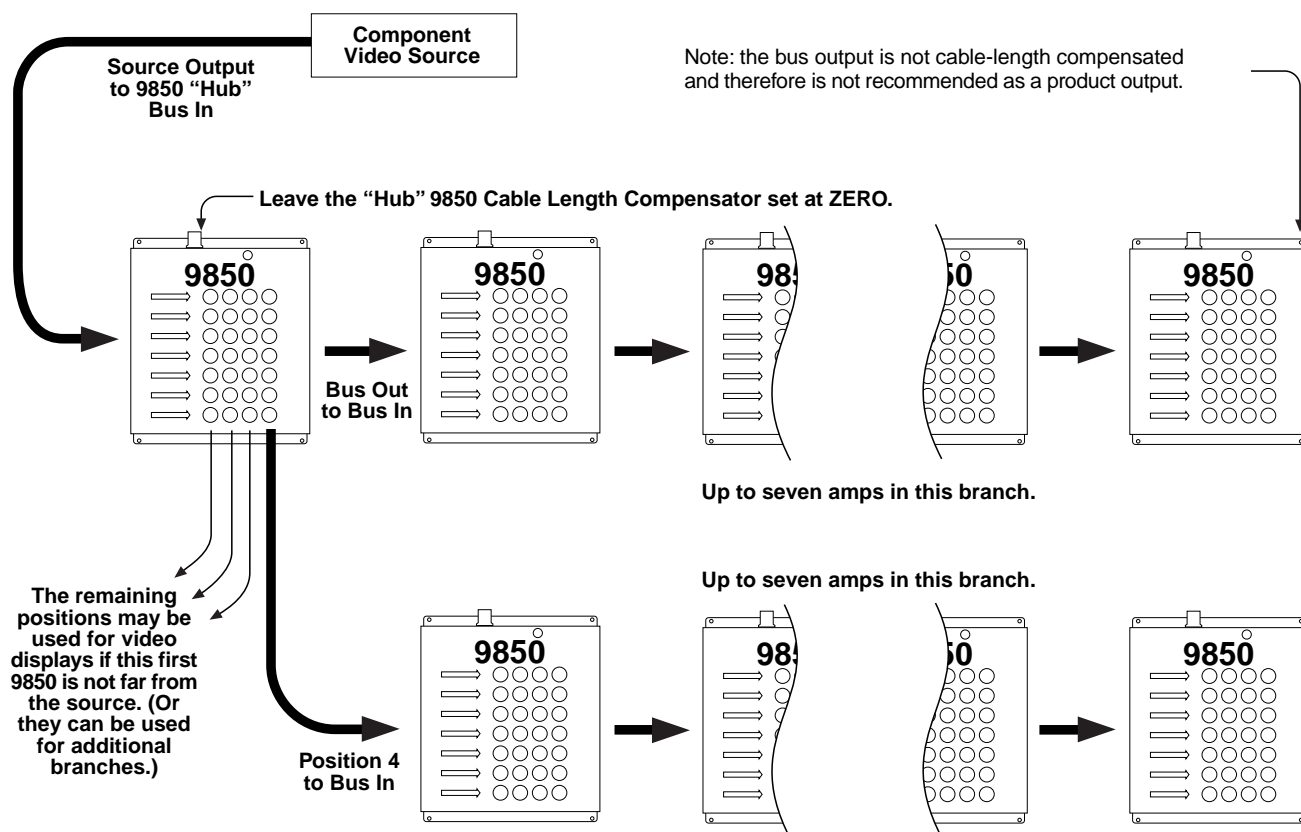
When more than 32 video displays must receive the same source material, you may use an extra 9850 to split the source signal into several “branches”. Branched configurations can support up to 140 video displays using as many as 36 9850 amplifiers (see next page). The diagram below shows a configuration which supports up to 59 video displays, using 17 Model 9850 amplifiers.

Mount a 9850 near the center of the video displays and audio systems it is to serve. This is the “hub” 9850. Connect the Bus Output jacks of the first amplifier to the Bus Input jacks of the second amplifier and so on, forming the first branch of the system. To create the second branch, connect bus cable to a product position on the amplifier nearest the source, instead of the bus output (see diagram below). Connect additional amplifiers via the bus jacks as you did the first branch.

No terminations are required on the Bus Output connectors of the last amplifier. Use high-quality 75-ohm coaxial cable, such as Audio Authority part numbers 871-070 (standard DTV cable) or 871-074 (plenum-rated DTV cable) to route signals from the audio/video source to the Bus Input jacks of the amplifier. Connect each set of main outputs to a video display and/or audio system, using good quality coaxial cable for video and digital audio (RG-59 or RG-6). Make sure the Y Pb Pr cables are exactly the same length. Use standard patch cords for analog audio.

On each remote amplifier, adjust the Cable Length Compensation control equal to the total length of the bus cable run from the source to that amplifier. For example, if the length of cable to the first amplifier is 150 feet, set the control of the first amplifier midway between the 100 and 200 foot marks. If the length between the first and second amplifier is 50 feet, set the control on the second amplifier to $150 + 50 = 200$ feet. Leave the Cable Length Compensation control at 0 feet on the 9850 used as a signal splitter. Note: the bus output is not cable-length compensated and therefore is not recommended as a product output.

Power each 9850 from the supplied power pack. In the event of hum bars or other picture disturbance, adjust the Ground switch to minimize the symptom.



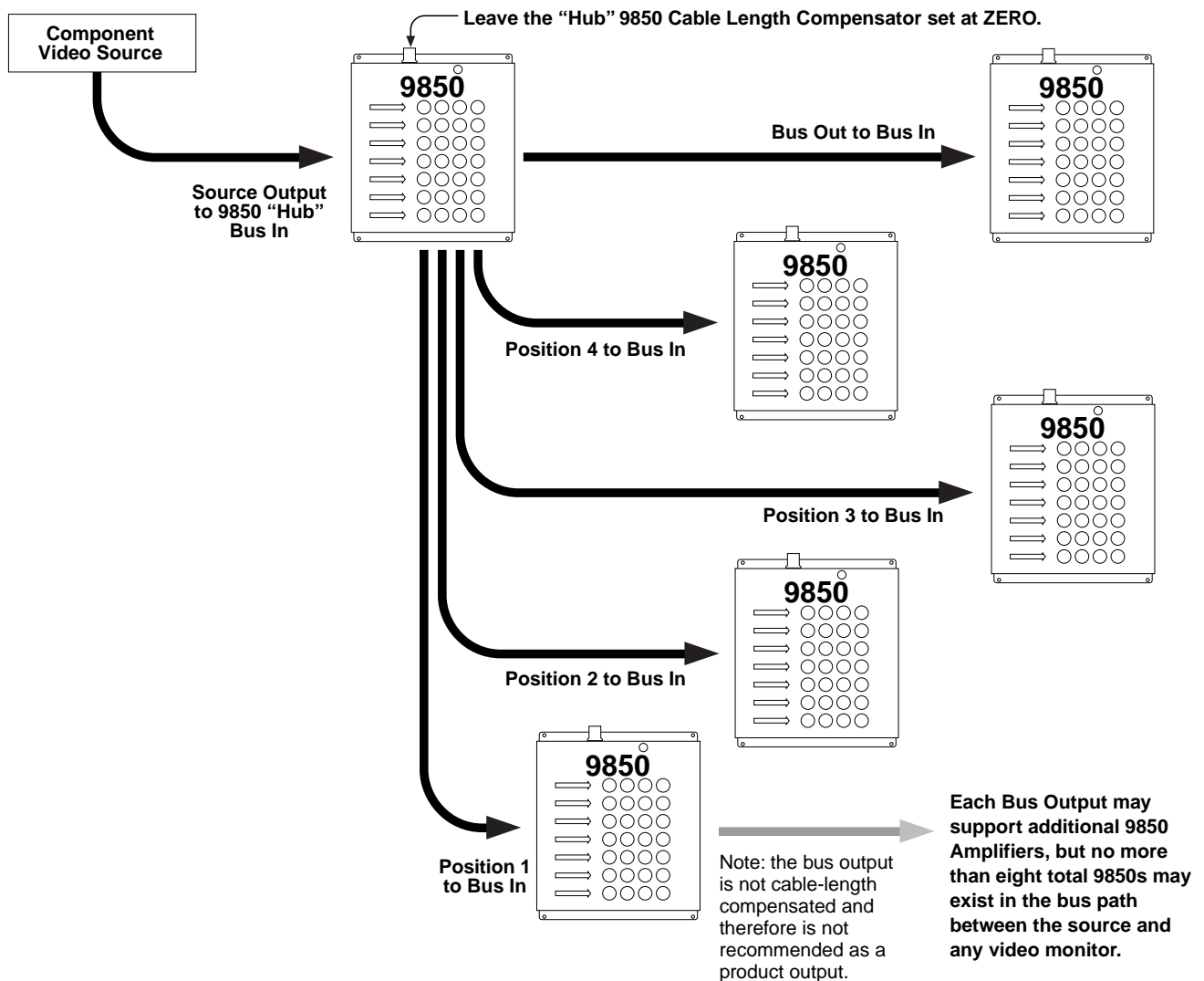
Multi-Amplifier Branched Installation (Multiple Video Displays In a Wide Area)

When the video displays are widely spaced, cable may be saved by dividing the distribution system into geographic sections. Use an extra 9850 to split the source signal and place it near the center of the areas of use. This is the "hub" 9850. Make up to five branches by connecting a set of bus cables to the jacks in each product position in addition to the bus jacks (see diagram below). Each branch may have up to seven more 9850 amplifiers connected in-line. You may make smaller branches off of the main branches when necessary, provided the total number of 9850 modules in any given bus path does not exceed eight.

Refer to the previous page for setup instructions.

In Case of Difficulty

Call Audio Authority Technical Service at 800-322-8346 for assistance.



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