CRESTRON DSP-860 Avia Digital Signal Processors User Guide

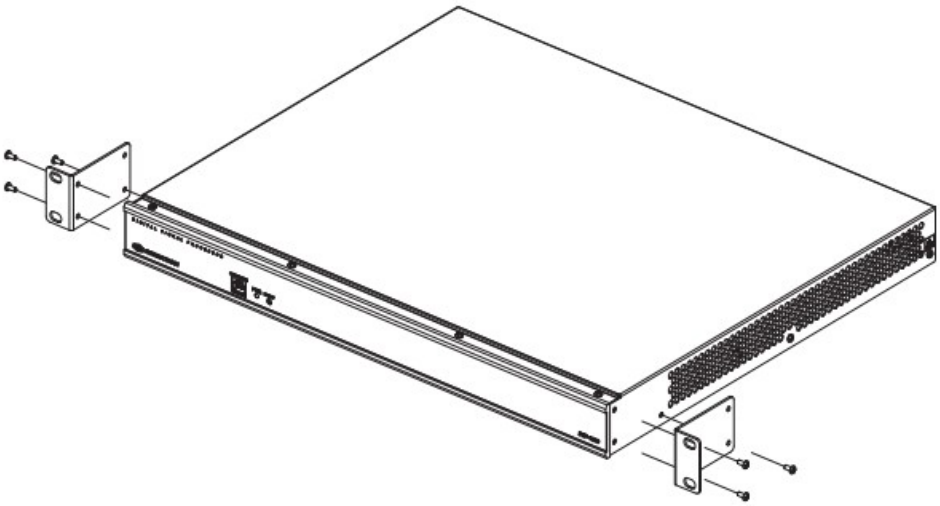
DO GUIDE
DSP-860/DSP-1280/DSP-1281/DSP-1282/DSP-1283
Crestron AviaTM Digital Signal Processors

The Crestron Avia™ DSP-860, DSP-1280, DSP-1281, DSP-1282, and DSP-1283 series of digital signal processors are functionally similar with varying capabilities. For simplicity within this guide, the term “DSP” is used except where noted.

Contents

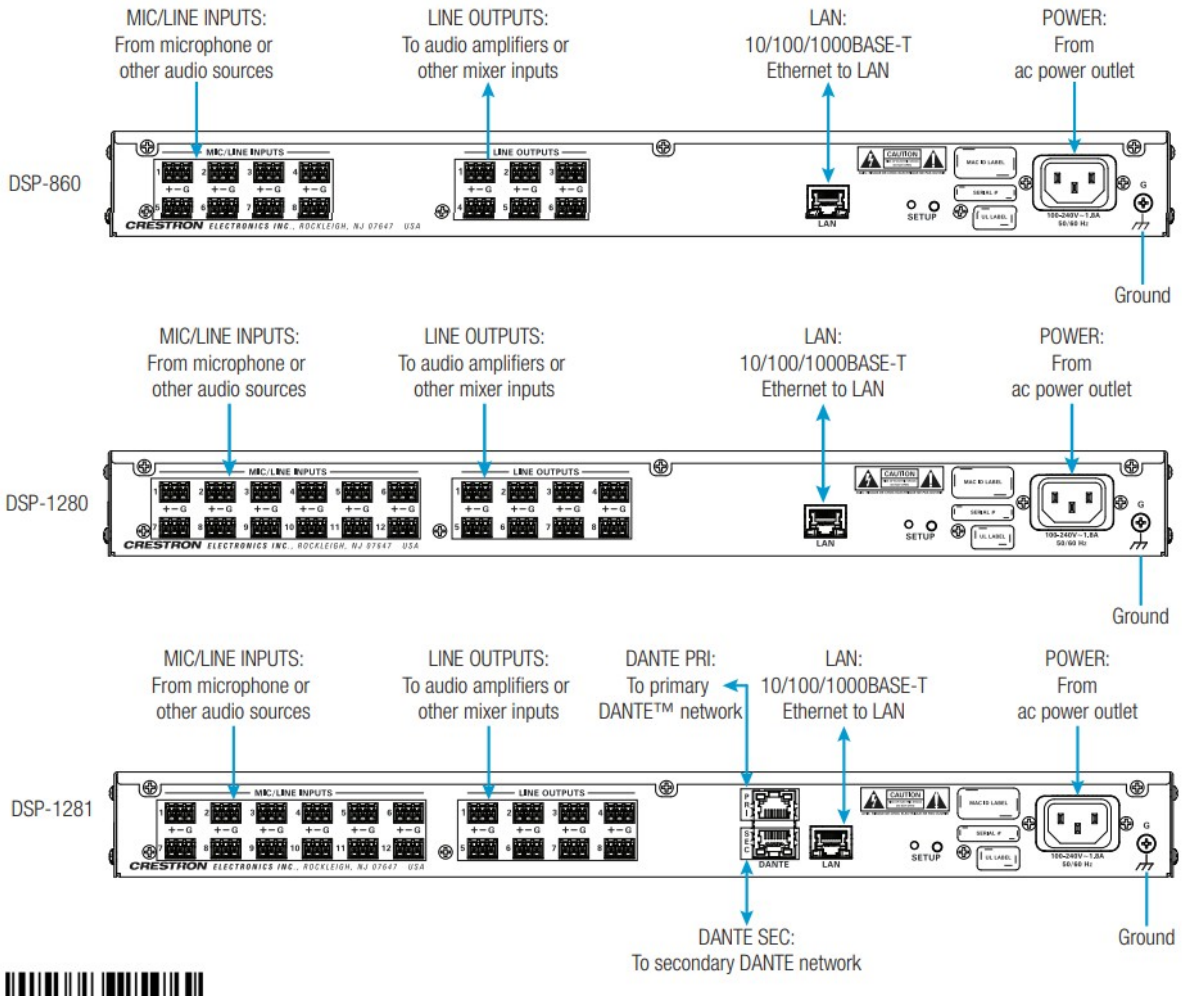
DO Install the Device

These devices occupy 1U of rack space. Use a #1 Phillips screwdriver to attach the two included rack ears to the device, and then mount the device into the rack using four mounting screws (not included).



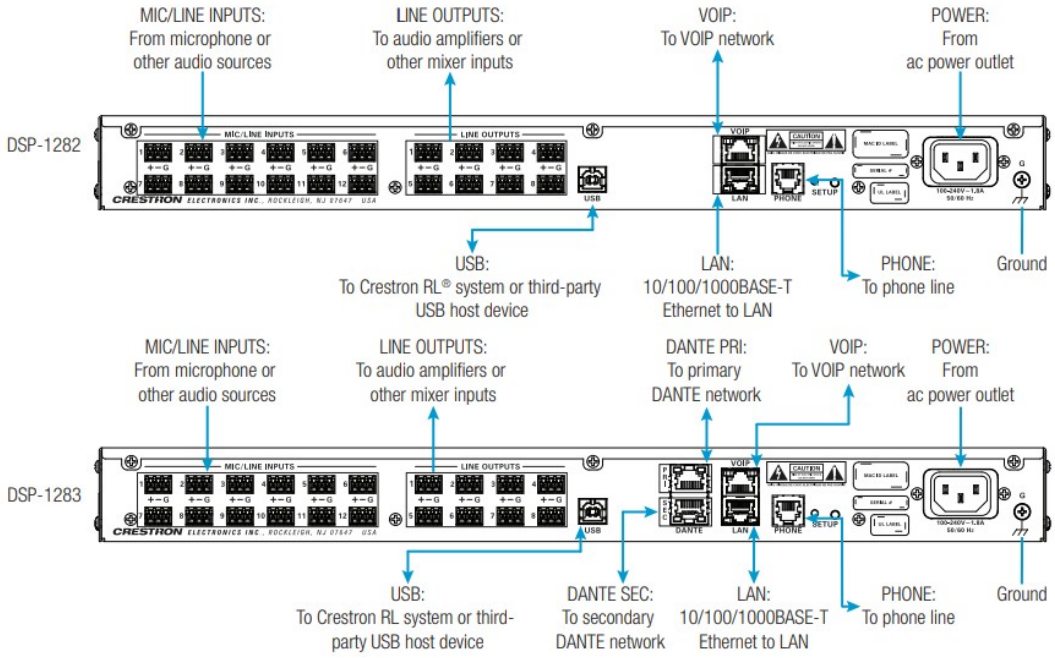
DO Connect the Device

Make the necessary connections as called out in the following diagrams. Connect power last.
Rear Panel



DO Check the Box

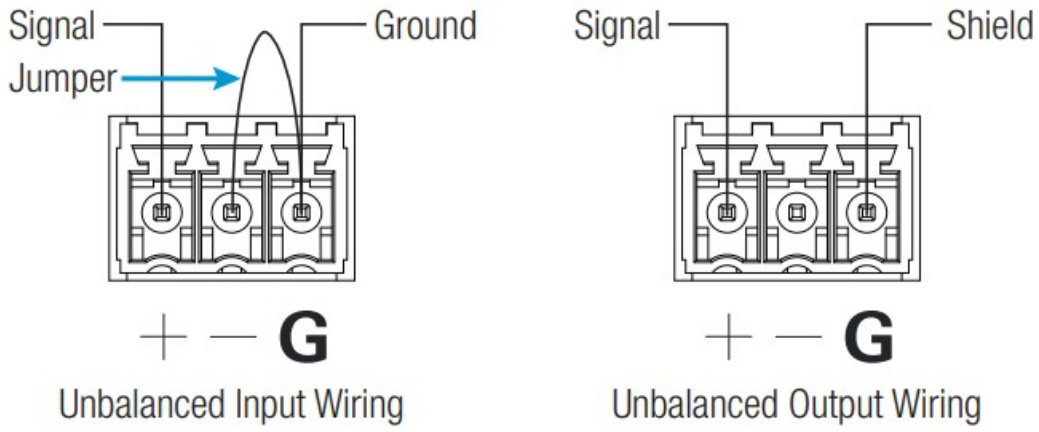
QUANTITY	ITEM	PART NUMBER
2	Bracket, Rack Ear, 1U	2032122
1	Cable, USB 2.0, A – B, 6’ (1.83 m)	2014966
1	Power Cord, 6′ 7″ (2 m)	2001134
	DSP-860 Only	
14	Connector, 3-Pin	2003575
	DSP-1280, DSP-1281, DSP-1282, and DSP-1283 Only	
20	Connector, 3-Pin	2003575



NOTE: Ensure that the computer that is running the Crestron Avia Audio tool and the DSP are on the same subnet.
Observe the following when connecting devices that are equipped with Dante network capability (DSP-1281 and DSP-1283):

- DANTE PRI ports should be connected to a gigabit switch serving the primary Dante network.
- (Optional) DANTE SEC ports should be connected to a gigabit switch serving the secondary Dante® network.
- The primary Dante network should never mix with the secondary Dante network.

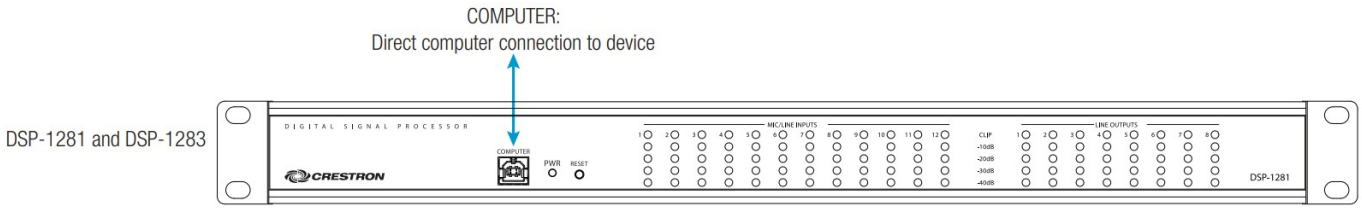
If unbalanced connections are required, refer to the following diagrams.



Front Panel

CAUTION: When connecting a Windows® 7 or Windows 8 computer to the COMPUTER port for the first time, make sure the computer has a live connection to the Internet. For more information, refer to Answer ID 5745 in the Online Help section of the Crestron website (**support.crestron.com**).

NOTE: The front panel's COMPUTER port can be used to directly connect a computer running the Crestron Avia Audio tool, bypassing the LAN connection.



DO Download the Crestron Avia Audio Tool

DSPs use the Crestron Avia Audio tool for configuration and operation. Download the Crestron Avia Audio tool from **www.crestron.com/software**.

DO Configure the Device

Once the DSPs are connected to the same subnet as the host PC running the Crestron Avia Audio tool, start the Crestron Avia Audio tool and perform thfollowing:

1. Click Add New Network DSP, located in the left-hand work space.
2. Click Ethernet to launch the device discovery function. A list of units found on the subnet is displayed.

NOTE: If a DSP is not listed, verify that all connections have been made and that all devices and the computer running the Crestron Avia Audio tool are on the same subnet.

DO Operate the Device

Apply Power

When power is applied to the device, the PWR LED on the front panel displays the following:

- Green – Normal operation.
- Amber – Device is booting up.
- Amber/Green (Cycling) – No network connection.

Adjust Settings

Use the Crestron Avia Audio tool to control the device.
NOTE: When connecting to the DSP over Ethernet, ensure that the computer and device are on the same subnet.
Monitor Input and Output Levels (DSP-1281 and DSP-1283 Only)
Use the front panel's analog VU meters to monitor input and output levels.

Reset the Device

Press RESET on the front panel to restart the device.

DO Connect to Crestron XiO Cloud Service (Optional)

The Crestron XiO Cloud™ service allows supported Crestron devices across an enterprise to be managed and configured from one central and secure location in the cloud. Supported devices are preconfigured to connect to the service. Use of the service requires a registered Crestron XiO Cloud account.
NOTE: The device can be disconnected from the service from the Cloud Services tab in Crestron Toolbox™ software (Functions > Device Info > Cloud Services). For details, refer to the Crestron Toolbox help file.
To connect the device to the Crestron XiO Cloud service:

1. Record the MAC address and serial number that are labeled on the shipping box or rear panel of the device. The MAC address and serial number are required in order to add the device to the Crestron XiO Cloud environment.

2. Do either of the following:
   - Access the Crestron XiO Cloud service at **https://portal.crestron.io**.
   - Register for a Crestron XiO Cloud account at **www.crestron.com/xiocloud**.

For detailed information about using the Crestron XiO Cloud service, refer to the Crestron XiO Cloud Service User Guide (Doc. 8214) at **www.crestron.com/manuals**.

DO Learn More

Visit the website for additional information and the latest firmware updates. To learn more about this product, use a QR reader application oyour mobile device to scan the QR images.

Crestron Electronics
15 Volvo Drive, Rockleigh, NJ 07647
888.CRESTRON | **www.crestron.com**

https://www.crestron.com/en-US/Products/Featured-Solutions/Avia-Audio-DSP

CE As of the date of manufacture, the products have been tested and found to comply with specifications for CE marking.

c UL us This product is Listed to applicable UL® Standards and requirements tested by Underwriters Laboratories Inc.

Ce produit est homologué selon les normes et les exigences UL applicables par Underwriters Laboratories Inc.

Federal Communications Commission (FCC) Compliance Statement

This device complies with part 15 of the FCC Rules. Operation is subject to the following conditions:

(1) This device may not cause harmful interference and (2) this device must accept any interference received, including interference that may cause undesired operation.

CAUTION: Changes or modifications not expressly approved by the manufacturer responsible for compliance could void the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

FCC Compliance Information (DSP-1283 and DSP-1282 only)

- Consult the dealer or an experienced radio/TV technician for help.
- This equipment complies with Part 68 of Federal Communications Commission (FCC) rules and requirements adopted by America's Carriers

  Telecommunications Association (ACTA). Each registered interface has a label that contains, among other information, a product identifier in the format

  US: CTUMM00BDMPS3300AEC. If requested, provide this information to the telephone company.
- If this equipment causes harm to the telephone network, the telephone company may temporarily discontinue service. If possible, advance notification is given; otherwise, notification is given as soon as possible. The telephone company will advise the customer of the right to file a complaint with the FCC.
- The telephone company may make changes in its facilities, equipment, operations, or procedures that could affect the proper operation of this equipmentAdvance notification and the opportunity to maintain uninterrupted service are given.
- If experiencing difficulty with this equipment, please contact manufacturer for repair and warranty information. The telephone company may require this equipment to be disconnected from the network until the problem is corrected, or it is certain the equipment is not malfunctioning.
- This unit contains no user-serviceable parts.
- This equipment is designed to connect to the telephone network or premises wiring using an FCC-compatible modular jack, which is compliant with Part 68 and requirements adopted by ACTA.
- The ringer equivalence number (REN) is useful in determining the quantity of devices you may connect to your telephone line and still have all of those devices ring when your number is called. In most areas, the sum of the RENs of all devices should not exceed five. To be certain of the number of devices you may connect to your line as determined by the REN, call your telephone company to determine the maximum REN for your calling area.
- This equipment may not be used on coin service provided by the telephone company. Connection to party lines is subject to state tariffs. Contact your state public utility commission or corporation commission for information.

Industry Canada (IC) Compliance Statement
CAN ICES-3(B)/NMB-3(B)
REN IC 0.1 (DSP-1283 and DSP-1282 only)
This product meets the applicable Industry Canada technical specifications.
The Ringer Equivalence Number (REN) is an indication of the maximum number of devices allowed to be connected to a telephone interface. The termination of an interface may consist of any combination of devices subject only to the requirement that the sum of the RENs of all the devices not exceed five.

ACTA Compliance Information
REN US 0.1B (DSP-1283 and DSP-1282 only)
The Ringer Equivalence Number (REN) indicates the maximum number of devices allowed to be connected to a telephone interface. The termination of an interface may consist of any combination of devices subject only to the requirement that the sum of the RENs of all the devices not exceed five.
Rack Mounting Safety Precautions

- Elevated Operating Ambient Temperature: If installed in a closed or multi-unit rack assembly, the operating ambient temperature of the rack environment may be greater than room ambient temperature. Therefore, consideration should be given to installing the equipment in an environment compatible with the maximum ambient temperature (Tma) specified by the manufacturer.
- Reduced Airflow: Installation of the equipment in a rack should be such that the amount of airflow required for safe operation of the equipment is not compromised.
- Mechanical Loading: Mounting of the equipment in the rack should be such that a hazardous condition is not

achieved due to uneven mechanical loading.

- Circuit Overloading: Consideration should be given to the connection of the equipment to the supply circuit and the effect that overloading of the circuits might have on overcurrent protection and supply wiring. Appropriate consideration of equipment nameplate ratings should be used when addressing this concern.
- Reliable Earthing: Reliable earthing of rack-mounted equipment should be maintained. Particular attention should be given to supply connections other than direct connections to the branch circuit (e.g., use of power strips).

Electrical Connection
“This product must be connected to an earthed mains socket-outlet.”

- Finland: “Laite on liitettävä suojamaadoituskoskettimilla varustettuun pistorasiaan.”
- Norway: “Apparatet må tilkoples jordet stikkontakt.”
- Sweden: “Apparaten skall anslutas till jordat uttag.”

DOC. 7647G (2040694) 06.18
Specifications subject to change without notice.

Documents / Resources

	**CRESTRON DSP-860 Avia Digital Signal Processors** [pdf] User Guide DSP-860 Avia Digital Signal Processors, DSP-860, Avia Digital Signal Processors, Digital Signal Processors, Signal Processors, Processors

References

- **User Manual**