

DDI-11

Installation Guide



TD-000181-00-B



EXPLANATION OF SYMBOLS

The term "**WARNING!**" indicates instructions regarding personal safety. If the instructions are not followed the result may be bodily injury or death.

The term "**CAUTION!**" indicates instructions regarding possible damage to physical equipment. If these instructions are not followed, it may result in damage to the equipment that may not be covered under the warranty.

The term "**IMPORTANT!**" indicates instructions or information that are vital to the successful completion of the procedure.

The term "**NOTE**" is used to indicate additional useful information.



The intent of the lightning flash with arrowhead symbol in a triangle is to alert the user to the presence of un-insulated "dangerous" voltage within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to humans.



The intent of the exclamation point within an equilateral triangle is to alert the user to the presence of important safety, and operating and maintenance instructions in this manual.



IMPORTANT SAFETY INSTRUCTIONS



WARNING!: TO PREVENT FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS EQUIPMENT TO RAIN OR MOISTURE.

- Keep these instructions.
- Heed all warnings.
- Follow all instructions.
- Do not use this apparatus near water.
- Clean only with a dry cloth.
- Do not block any ventilation opening. Install in accordance with the manufacturer's instructions.
- Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- Only use attachments/accessories specified by the manufacturer.
- Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
- Adhere to all applicable, local codes.

Warranty (USA only; other countries, see your dealer or distributor)

QSC Audio Products 3 Year Limited Warranty

QSC Audio Products, LLC ("QSC") guarantees its products to be free from defective material and/or workmanship and will replace defective parts and repair malfunctioning products under this warranty when the defect occurs under normal installation and use, provided the unit is returned to our factory, one of our authorized service stations or an authorized QSC International Distributor via pre-paid transportation with a copy of proof of purchase (i.e., sales receipt). This warranty provides that the examination of the return product must indicate, in our judgment, a manufacturing defect. This warranty does not extend to any product which has been subjected to misuse, neglect, accident, improper installation, or where the date code has been removed or defaced. QSC shall not be liable for incidental and/or consequential damages. This warranty gives you specific legal rights. This limited warranty is freely transferable during the term of the warranty period. The warranty on QSC products is NOT VALID if the products have been purchased from an unauthorized dealer/online e-tailer, or if the original factory serial number has been removed, defaced, or replaced in any way. Damage to, or loss of any software or data residing on the product is not covered. When providing repair or replacement service, QSC will use reasonable efforts to reinstall the product's original software configuration and subsequent update releases, but will not provide any recovery or transfer of software or data contained on the serviced unit not originally included in the product.

Customers may have additional rights, which vary from state to state or from country to country. In the event that a provision of this limited warranty is void, prohibited or superseded by local laws, the remaining provisions shall remain in effect.

The QSC limited warranty is valid for a period of three (3) years from date of purchase in the United States and many (but not all) other countries.

For QSC warranty information in countries other than the United States, contact your authorized QSC international distributor. A list of QSC International distributors is available at www.qscaudio.com.

To register your QSC product online, go to www.qscaudio.com and select "Product Registration". Other questions regarding this warranty can be answered by calling, e-mailing or contacting your authorized QSC distributor.

Phone: 1-800-854-4079 within US and Canada, +1-714-754-6175 international, **Email:** warranty@qscaudio.com, **Website:** www.qscaudio.com.

Technical Assistance

If you suspect that your DDI-11 card is defective, check your system configuration and connections to determine the origin of the problem. In many cases, incorrect audio interfacing, poor cabling, or other system level impairments are the causes of problems in audio systems. For technical assistance beyond the information given in this manual, contact the QSC Technical Services department.

Factory Service

If your DDI-11 card ever requires factory service, contact the QSC Technical Services department for return instructions and a Return Material Authorization (RMA) number. QSC is not responsible for products returned without an RMA number, or follow the return instructions at http://www.qscaudio.com/support/technical_support/factory_services.htm.

Introduction

The DDI-11 DataPort Accessory Card is designed for use with QSC amplifiers equipped with a DataPort connector. It provides an easy way to exploit the features of the DataPort without using QSControl or an accessory. In addition, the DDI-11 can be used on a DataPort outputs of a Basis or Q-Sys I/O card to provide access to the audio signals. Refer to **Outputs** below.

Refer to **Figure 1** and **Figure 2**.

Through a terminal block with eight screw clamps on the DDI-11, the DataPort offers these connections:

- Balanced input to Channel 1 of an amplifier, or output of Basis or Q-Sys I/O card.
- Balanced input to Channel 2 of an amplifier, or output of Basis or Q-Sys I/O card.
- Analog (signal) ground.
- Chassis ground.
- Standby control of an amplifier; connecting this terminal to chassis ground shuts off the power supply, except on ISA Series amplifiers.
- +15 volts (at up to 300 mA) from amplifier, except on ISA and the original PowerLight Series¹ amplifiers.

The screw clamp terminals can accept stranded wire as large as 17 AWG (1 mm²) or solid wire as large as 16 AWG (1.5 mm²).

The DDI-11 card mounts onto the DataPort connector on the back of the amplifier, Basis or Q-Sys I/O card, and secures with two screws. A small sheet of insulating fish paper protects the underside of the card.

To guard against oxidation, corrosion, or contamination, the circuit board is treated with non-toxic protectants. Therefore, it may have a slight odor and a slightly oily-feeling residue. Do not wash the protectant off the circuit board.

Inputs

Each channel of the amplifier has a balanced input connection on the terminal block (see **Figure 2**). Each input comprises two terminals, + (in polarity) and - (out of polarity). For optimum immunity to noise, use a balanced connection whenever it is possible.

For an unbalanced connection, connect the signal conductor of the cable to the + input and the shield to the - input; also, connect a short jumper wire between the - input and the analog ground terminal.

With the amplifier channel at full gain, the input sensitivity (for 8-ohm loads) of the DataPort input is approximately 3 volts rms (+11.8 dBu).

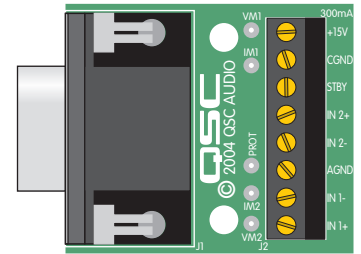
Outputs

The DDI-11 may also be used to connect to any DataPort connector on QSControl MultiSignal Processors, Basis, and Q-Sys products. Used this way, the DDI-11's four signal input terminals now become signal **outputs**, allowing you to use the audio signals for whatever purpose you require. The standby and power supply terminals cannot be used in this application.

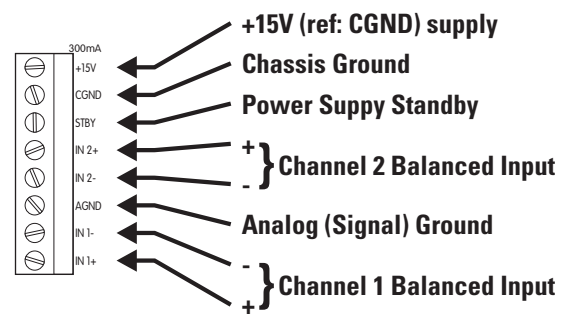
On/Off Control

A switch closure between the chassis ground and the standby terminals will put the amplifier's power supply in standby for all DataPort amplifiers except the ISA. Opening the closure will restart the power supply, with no inrush current surge. The standby terminal is isolated through a diode, so you can gang together any number of amplifiers equipped with DDI-11 cards to be controlled by a single switch closure. ISA Series amplifiers, however, do not have this feature.

1. The original PowerLight Series comprises the models PL 1.0, PL 1.0^{HV}, PL 1.4, PL 1.5^X, PL 1.6^{HX}, PL 1.8, PL 2.0^{HV}, PL 2.4^{MB}, PL 3.4, PL 4.0, PL 6.0^{PFC}, PL 6.0 II, and PL 9.0^{PFC}. It does not include the PowerLight 2 & 3 Series, which can be used to provide accessory power.



– **Figure 1** – The DDI-11 and its control/monitoring connections



– **Figure 2** – Eight screw clamp terminals offer connections for audio, remote on/off control, and a 15-volt DC supply.

Power Supply

The +15 volt output is referenced to the chassis ground terminal and will provide up to 300 mA from the amplifier to power custom accessories or other devices. The output is protected from short circuits or excessive current draw by a self-resetting polyswitch fuse.

The +15 volt terminal on ISA and original PowerLight Series¹ amplifiers, however, cannot provide enough current to power external circuitry. Doing so may damage an ISA amplifier or an original PowerLight amplifier.

Installation

Packing List

QSC part # FG-000951-00

- DDI-11 board
- Two #4-40 × 1/4" black screws
- Installation guide

Procedure

1. Turn off the amplifier, Basis, or Q-Sys device.
2. Plug the card into the DataPort. Use the two screws on each side of the DataPort to secure it; do not overtighten them.
3. To attach wires to the DDI-11 terminal strip, strip about 5 mm (0.2") of insulation from the wire. Twist the exposed wire strands together and make sure there are no stray ones. Turn the screw on the terminal counterclockwise until you can fully insert the wire end into the terminal. Turn the screw clockwise until the terminal clamps the wire securely. Repeat for all the wires needed. The terminal can accept stranded wire up to 17 AWG (1 mm²) or solid wire up to 16 AWG (1.5 mm²) in size.

The device is ready for use.



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