



DSP-3 Input/Output Polarity Issue (Hardware)

Summary

When using a DSP-3's Dataport output connection to the input of a QSC amplifier, the output at the speaker terminals of the amplifier will be inverted *with respect to the DSP-3 Euro-style inputs and outputs*. This effects units with serial numbers **0900XXXXX** and earlier. This situation can easily be corrected with a little careful wiring or manipulation of the DSP-3 software. The DSP-3 is being redesigned to correct this problem. We apologize for any inconvenience.

Note: If DataPorts ONLY are used there is no problem; if Euro-style connections ONLY are used, there is no problem.

Input Connections

There are two exclusively separate methods of applying input to the DSP-3:

- 1- using the Euro-style green INPUT connectors, or
- 2- by attaching a CM16a, DCM, or similar device to the DataPort INPUT connector.

Output Connections

There are three possible methods of using the outputs of the DSP-3:

- 1- using the Euro-style green OUTPUT connectors to supply audio to any amplifier (or other device), or
- 2- using the DataPort OUTPUT connector to attach directly to a QSC DataPort-equipped amplifier, or
- 3- in combination, to connect to a QSC DataPort-equipped amplifier while using the Euro-style OUTPUT connectors to supply audio to other amp(s) or device(s).

The various combinations of inputs and outputs could lead to a polarity reversal situation. The exact solution will depend on the particular combination of inputs/outputs used. Refer to the matrix below for the solution(s) to your situation:

		OUTPUTS		
		Euro-style ONLY	DataPort ONLY	DataPort AND Euro-style
INPUTS	Euro-style	A	Either C or D (but not both!)	Both B and C (do both!)
	DataPort Device	Either B or D (but not both!)	A	B

Solutions:

- A) Do nothing! The speaker outputs will have the correct polarity with respect to the audio input of the device.
- B) Reverse the +/- wires of the OUTPUT Euro-style connectors.
- C) Reverse the +/- wires of the INPUT Euro-style connectors.
- D) Change the polarity in software using Signal Manager (so you will not have to re-wire):
 - 1- Start Signal Manager, then choose the "Configuration>Edit" menu.
 - 2- Select the POLARITY tool from the INPUTS AND OUTPUTS PALETTE (toolbar).
 - 3- With the mouse pointer over the signal path, click the left mouse button to add the POLARITY object to each signal path.
 - 4- When finished adding one POLARITY to each path, revert to the SELECT mode.
 - 5- Double-click on each POLARITY object until a negative symbol (-) is displayed.

If you have any questions or comments please contact the QSC Sales Department at (800) 854-4079, or call QSC Technical Services at (800) 772-2834.