

# **Application Note**

Delta DSP40 and Delta40: Using the Speaker Backup Inputs

#### Introduction

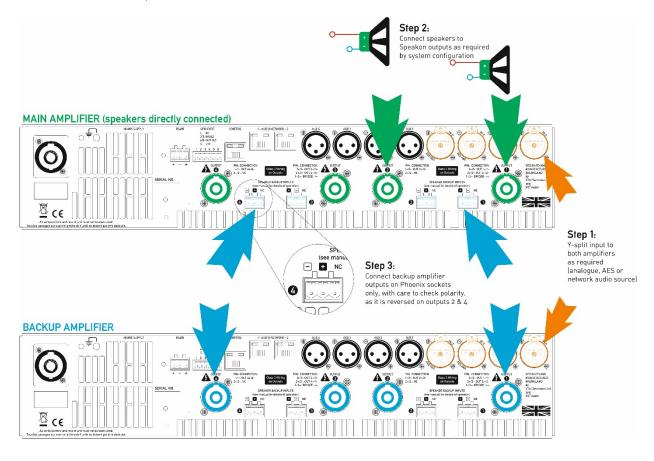
It is possible to configure a secondary amplifier as a backup device for use in safety-critical applications, which will automatically be switched into circuit should there be a failure of the main amplifier.

Failure could include loss of power, over-temperature protection or accidental remote enabling of standby.

To use this feature, the backup amplifier must also be an XTA DPA40, an  $MC^2$  Delta DSP40, or the non-DSP equivalent (Delta 40 or XTA DNA40). Do NOT attempt to use another manufacturer's amplifier or any Delta/DNA/DPA amplifier that is not fitted with this feature.

## Delta DSP40 Connections

Connect the two amplifiers as shown below:

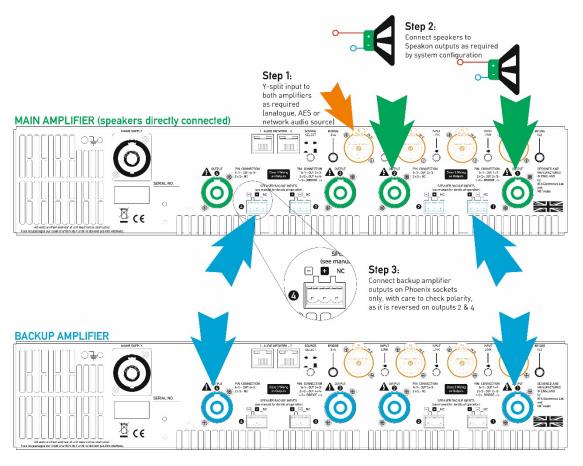




#### Delta DSP40 and Delta40: Using the Speaker Backup Inputs

## Delta40 Connections

Connect the two amplifiers as shown below:



Step 1: Connect both amplifiers inputs to the required sources and make sure both amplifiers are configured the same for routing, and source (analogue/AES/network).

Step 2: Connect speakers up the MAIN amplifier as normal in the required configuration.

Step 3: Connect link cables from the Speakon outputs of the BACKUP amplifier to the Backup inputs of the MAIN amplifier, being careful to observe the correct polarity on the Backup inputs which are **reversed for channels 2 and 4**.

Both amplifiers must remain powered up and out of standby at all times. Should the main amplifier fail, its output relays will disengage and in doing so, connect the outputs from the backup amplifier directly to the Speakon speaker outputs via the Phoenix inputs.

