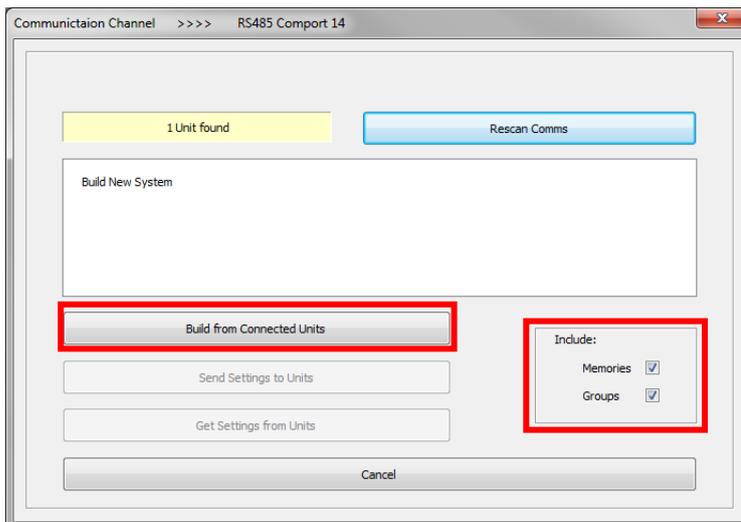## Introduction

This upgrade will require you to perform a factory reset of your amplifier, which will result in the loss of any user memories you have stored. It is important that you follow the instructions below step by step, so that your data is backed up correctly before you upgrade and can be re-installed to your Delta amplifier once the upgrade is completed.

Please do **NOT** skip any of the steps; doing so could result in a loss of data from your system which cannot be recovered.

Backing Up User Memories

This section only contains information relevant to backing up user memories from your Delta amplifiers prior to performing the firmware update. For a detailed explanation of how to connect to your Delta amplifiers using Audiocore Amped Edition 9.23 please refer to the 'Starting Audiocore & Getting Online Application Note' here: http://www.mc2-audio.co.uk/wp-content/uploads/Amped-Edition-Starting-AudioCore-and-Getting-Online.pdf

Once you have made the physical connections between your PC and the Delta amplifiers the instructions below assume you are starting from a blank work space in Audiocore:
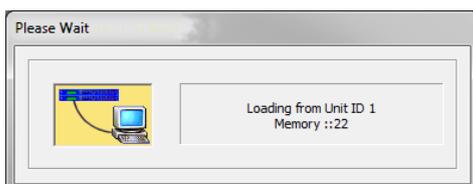

Pressing the Online button will display the Comms Control window, which shows the current connection type in the title bar and a variety of status and options.

As there are no pre-existing units in the workspace, the only option is to "Build System from Connected Units" — the yellow pane in the example shows that one has been discovered, you may see more units depending on how many you have connected in your system

The status window shows that the Build New System is available.

Note the two tick boxes to include unit memories and group data in the upload which will start when the "Build System From Connected Units" button is pressed.

To back up the unit memories to your Audiocore file you must make sure the "Memories" tick box checked. If you have not used grouping before or are unsure, leave "Groups" unchecked.

After pressing the "Build..." button a progress window will appear. The units will connect and the memories will be downloaded in Unit ID sequence. Make sure that each Unit ID appears in this window. Once complete it will close and the units will appear in the workspace.

At this point save the Audiocore file, as a back-up, to a convenient place on your PC. You can then click the 'On Line' button again to disconnect Audiocore and then close it down.

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Page 1

Upgrading Firmware

Loading new firmware uses the same "Flash Loader" utility (v5.52) that is bundled with the firmware "bin" (binary) file. Firmware (or Program) files have the prefix "LTAM". As part of the ZIP file download you should have all the V1.20 firmware files required.
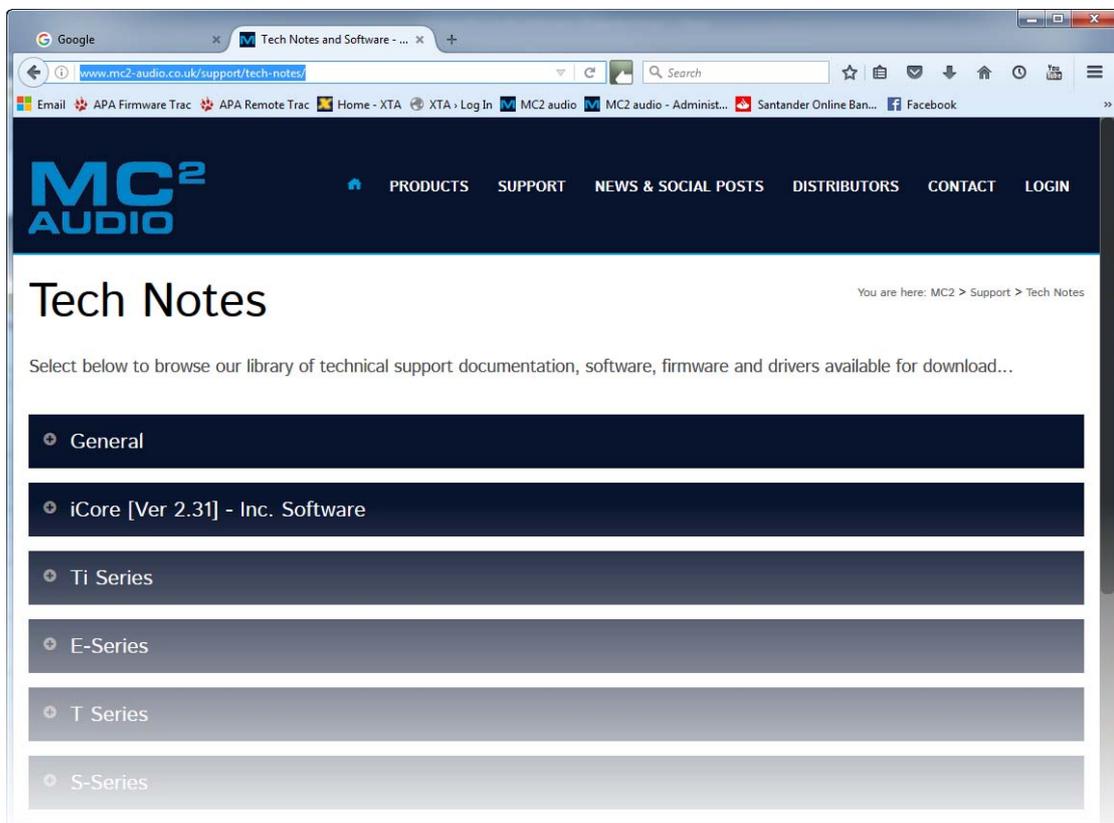
Amplifier Communications Set-up

Updates can be performed through an Ethernet, USB or RS485 connection. Choose the correct port on the amplifier and configure it accordingly through the Interface Sub-menu. See **page 51** of the User Manual for more info on choosing the interface.

Download the Files

Go to the Support > TechNotes section of the MC2 website to find the latest firmware (V1.20) – these will be bundled with the "Flash Loader" application that is used to connect and update your amplifier.
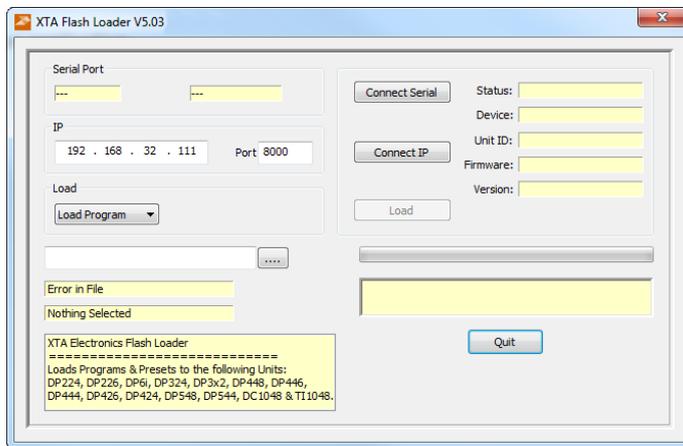
http://www.mc2-audio.co.uk/support/tech-notes/

Unzip the files – you will have the loader application, and the firmware files as appropriate.

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Page 2

Connect To The Amplifier

Plug in the appropriate cable according to your chosen connection method. Remember – you will need to make sure your amplifier is set to ID1 for the loader to find it.
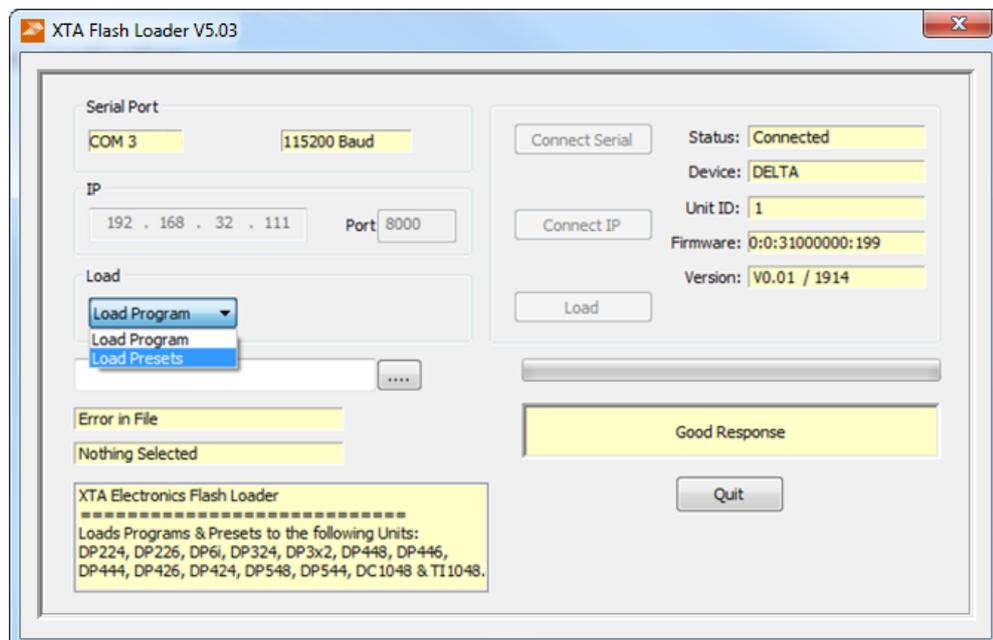
Start the loader application:

Press the "Connect Serial" button if using USB or RS485, or "Connect IP" if using an Ethernet connection. **We recommend you choose either a USB or wired Ethernet connection.**

After a few seconds, the unit should be located and its status and type should be displayed, along with the current firmware and some other information.

Choose What To Load

From the drop-down list under "Load" choose "program" (firmware), and then locate the correct file by pressing the "…" button.
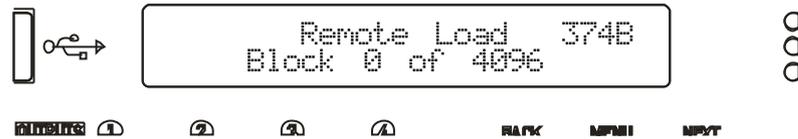

The file type will have been filtered for you – LTAM*.bin for firmware (program) files.

Start The Update!

Just before you press the "Load" button – please close any other applications running on the PC – interruptions in the process could render your amplifier inoperable. Do not disconnect the cable, turn off the power or attempt to close the loader app once loading has begun!

Now that you have been warned (!) – press the "Load" button. Confirm the load, and the amplifier will switch to Standby and begin to load the new firmware. A message detailing progress will accompany the bar on the loader app:

```
Remote Load   374B
Block  0  of  4096
```

Upon completion, the app will close and your amplifier will restart.

Once the amplifier has restarted turn the power off.

Factory Reset (Please no NOT skip this step)

After the new firmware has been installed it is very important that a factory reset of the amplifier is performed.

Turn the amplifier on with the BACK and ENTER keys held. The display will show:

```
Enter  Setup  Code:
      [     ]
```

Use the EDIT and MUTE keys to represent the characters A, B, C D for EDITs and 1, 2, 3, 4 for MUTEs.
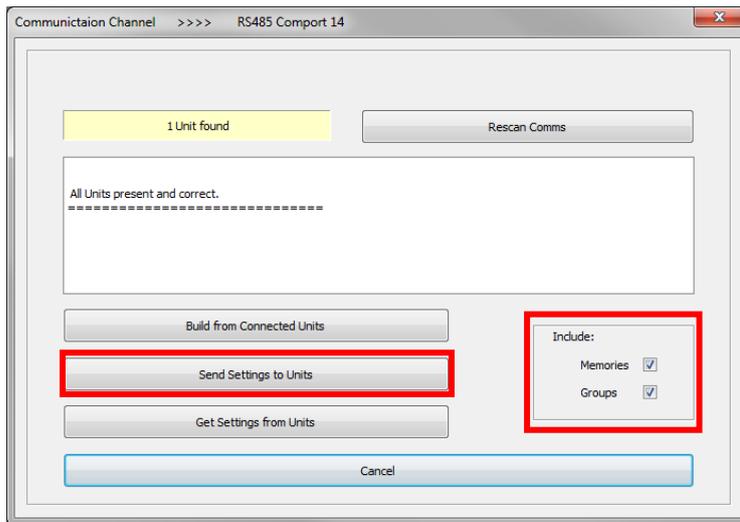
Type in one of the following codes to initiate a setup function:

D4B13D – clear **all user memories** and reset to defaults, keeping security and factory alignment settings

After entering the code above your unit will restart again and you will be ready to reconnect to Audiocore and upload your User Memories.

Remember to check the remote interface settings and unit ID's for each amplifier as these will have been reset to factory defaults as part of the reset process.

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Page 4

Re-installing User Memories

After checking the interface settings and Unit ID's you can now use the Audiocore file you saved earlier to upload the user memories back to your amplifiers.

Open Audiocore Amped Edition and load the file you saved earlier.

Check that you have the correct Comms mode selected in Audiocore.

As before click the 'On Line' button. Make sure that the number of units found is the same as the number of units in the workspace.

Make sure that the 'Memories' tick box is checked and use the 'Send Settings to Units' button.

This will send all the User Memories and reinstall them in each Unit ID.

Finally, you should power cycle your unit to complete the changes.

Congratulations!!!
The Upgrade Is Now Complete.

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Page 5