

Loading factory presets into your Martin Audio 2in/6out DX1.5 Loudspeaker Management System



The file DX15load.zip contains loader software and current DX1.5 binary files.

Extract the contents to your hard disk. Do not run the programme from the zip folder.

Warnings

Loading presets will overwrite previously loaded factory presets - and any changes to them (e.g. channel gain, delay, primary limiter and ClipLim settings).

To make a permanent record of changes to the user-editable parts of a preset, you must save the preset in one of the lower number memory locations.

Make sure you have a full set of .bin files before proceeding so that you can reload your original presets if you need to.

If you are not familiar with the Martin Audio DX1.5, please read the DX1.5 User Guide.

You should have extracted the following files to a suitable folder on your hard drive:

MartinFlashLoader.exe – The binary preset loader software

General presets

MARTN15RLib5.bin – The general family of binary presets for most regular Martin Audio loudspeakers and stage monitors. Line array systems have separate preset families - see below...

Line array presets

Note that we recommend the 4in/8out remote controllable DX2 for more complex systems (e.g. band-zoned Longbow + W8LD + W8LS).

MARTN15RLB02.bin – Binary presets for W8L Longbow

MARTN15RLCDLC3.bin – Binary presets for W8LC + W8LCD

MARTN15RLM21802.bin – Binary preset for W8LM/LMD + WS218X/W8LS

MARTN15RLMLX01.bin – Binary preset for W8LM/LMD + WLX

MARTN15RLMMX03.bin – Binary presets for W8LM/LMD+WMX

(Note that preset libraries may have been updated since this user guide was published. Updated presets may show slight title variations)



You will need a 9 pin male-to-female, fully wired, pin-to-pin RS232 cable

Note: this lead should be pin-to-pin – not the null modem type.

To load the latest presets into your DX1.5

1. Connect the 9-pin male to 9-pin female DEE type serial lead from your computer to the external socket on the rear of the unit.



2. On the DX1.5 use the blue *Menu*, *Back*, *Next* and *Enter* keys to go into the Interface Sub-menu and then into **External Interface**.

3. Once entered, setup as follows:

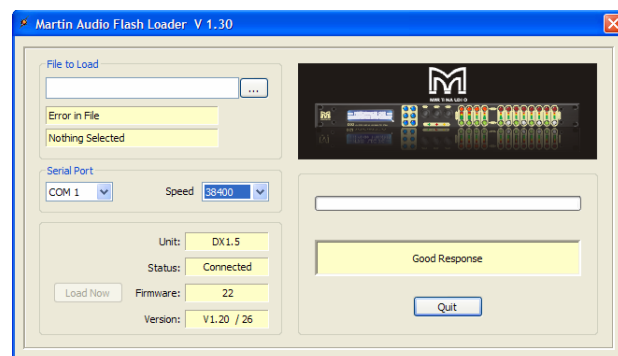
Serial Speed: 38400

Press *Enter* to confirm

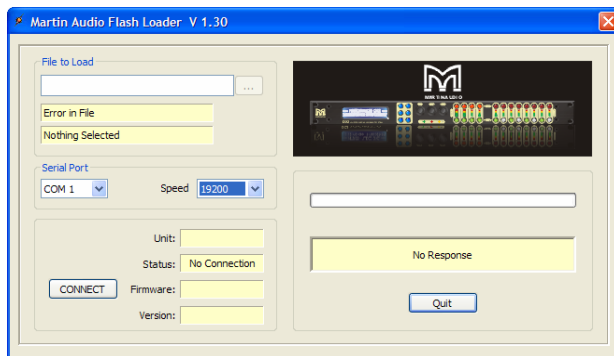
4. Run the programme **MartinFlashLoader.exe**.

5. Set the Serial Port **Speed** to 38400.

The bottom right hand window should indicate **Good Response**.



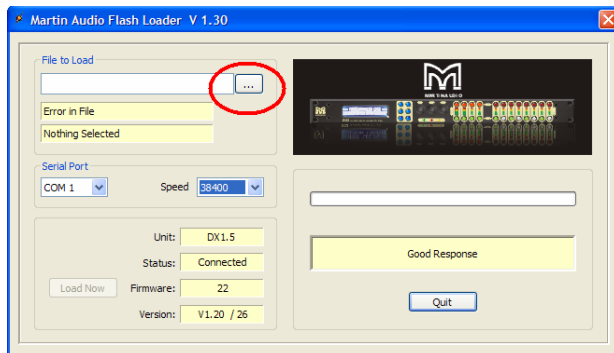
If the **Serial Speed** number is not set to 38400 to match the DX1.5 speed, the software lower right window may indicate **No Response**.



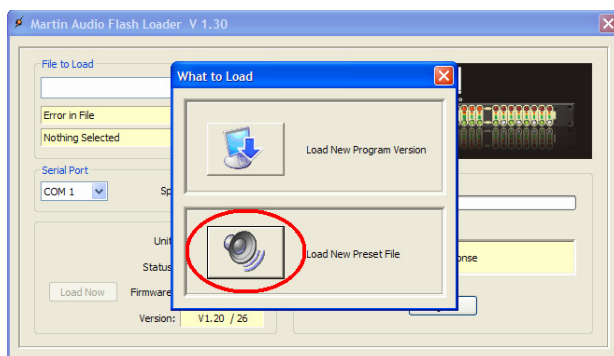
Make sure that the Serial port **Speed** on your pc screen is set to 38400 to match the DX1.5.

If that fails to fix the problem, try adjusting the **Com (Serial Port) number** and clicking the **Connect** button again. It is usually quicker to do this by trial and error as Com port numbering can be a mystery to the average PC user!

6. Click on the **File to Load** button (circled)

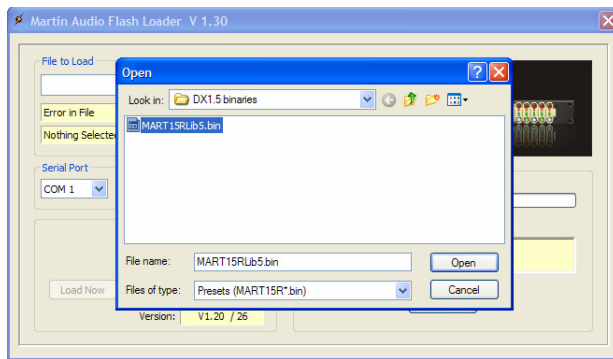


7. Click on the **Load New Preset File** button (circled)

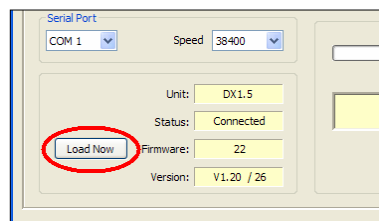


8. Browse to find the files you extracted earlier.

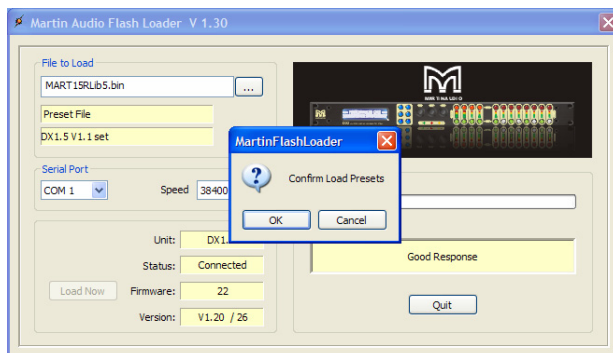
Click on the preset required (to highlight it) and click **Open**.



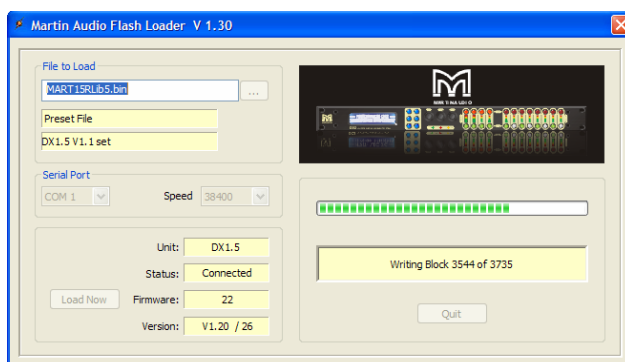
9. Click **Load Now** (circled)



10. The programme will communicate with the DX1.5 and ask for confirmation.



Click **OK**.



You'll see the green block writing progress bar proceeding from left to right

and

on the DX1.5 front panel you'll see graphics shuffling from right to left...followed by an indicator test (all LEDs on)...and a short delay...and then a wake-up procedure.

Selecting a specific preset

Each binary file will load a family of presets into your DX1.5.

Please note that the DX1.5 will retain its current preset until instructed to change to one of the newly loaded ones.

Change the DX1.5's settings to one of the newly loaded presets as follows:

Press the blue *Menu* button, then the *Back* and *Next* buttons to find the **Global Memory Sub Menu** and press *Enter*.

Use the *Back* and *Next* buttons to find the **Recall a Memory** and press *Enter*.

Use the *Back* and *Next* buttons to find the **Crossover only** and press *Enter*.

Browse for the appropriate preset using the *Back* and *Next* buttons or the **Frequency** knob.

Note that the DX1.5 will default to its previous condition if the above operations are not completed and no buttons are pressed for 20 – 30 seconds.

Input parameters

Input parameters are not usually specified within standard Martin Audio presets – hence the **Crossover only** selection above.

When configuring a new system always ensure that there are no input gain, base delay or input eq settings left on the input sections by previous users.

Press the input **EDIT** buttons and scroll through the parameters for that input using the blue *Back* and *Next* buttons. See section 14) *Editing Audio Parameters – Input Channels* for operating details...

Amplifier power, amplifier gain, DX1.5 primary limiter and ClipLim settings

Amplifier power

We suggest you specify an amplifier capable of meeting the loudspeaker's peak power rating – as long as you use the correct Martin Audio limiter recommendations.

Primary limiters

The primary **Limiter** parameters protect the loudspeaker from rms heating effects whilst the correct amplifier power specification and **ClipLim** settings protect the loudspeaker from transient overloads and clipping.

Primary **Limiter** thresholds are factory preset for new products and recommended in the user guide CD controller spreadsheets for older products. Factory preset primary **Limiters** are set for power amplifiers with the pro-audio voltage gain* standard of 32dB (x40). Spreadsheet recommendations for older products show a range of primary **Limiter** settings depending on your chosen amplifier gain/sensitivity.

* We recommend using power amplifier voltage with known gain settings if at all possible. Manufacturers' *sensitivity* settings are not very useful as the resulting gain figures will vary from model to model depending on their power specifications causing spectral imbalance when using mixed amplifier set-ups.

If you have to use a power amplifier set to a different gain standard, make absolutely sure that you adjust the 32dB standard factory preset or spreadsheet recommendation as follows:

Power amplifier gain	Primary limiter threshold adjustment from 32dB preset standard
23dB	Add 9dB (e.g. +4dBu becomes +13dBu)
24dB	Add 8dB
25dB	Add 7dB
26dB (Crown standard)	Add 6dB (e.g. +4dBu becomes +10dBu)
27dB	Add 5dB
28dB	Add 4dB
29dB	Add 3dB
30dB	Add 2dB
31dB	Add 1dB (e.g. +4dBu becomes +5dBu)
32dB (Industry standard)	Martin Audio preset standard
33dB	Decrease by 1dB (e.g. +4dBu becomes +3dBu)
34dB	Decrease by 2dB
35dB	Decrease by 3dB
36dB	Decrease by 4dB (e.g. +4dBu becomes 0dBu)
37dB	Decrease by 5dB
38dB	Decrease by 6dB
39dB	Decrease by 7dB
40dB	Decrease by 8dB (e.g. +4dBu becomes -4dBu)

ClipLims

The **ClipLim** settings protect the loudspeaker from transient overloads (and protects against amplifier clipping if the amplifier is capable of supplying the loudspeaker's rated peak power).

All Martin Audio loudspeakers are designed to professional AES power ratings that allow for 6dB signal peaks above the rated AES power. This means that Martin Audio loudspeakers have peak power handling capabilities that are 6dB above (4x) their AES power ratings – when the correct controller settings are used.

Note that the ClipLims default to **Medium 2dB Above** the primary limiter thresholds if not set up. To take advantage of your power amplifier's and loudspeaker's peak capability, set the **ClipLims** as follows:

Subwoofers	Slow 6dB Above
Low mid/LF	Medium 6dB Above
High mid/HF	Fast 6dB Above

If you have specified an amplifier smaller than the loudspeaker's peak power rating you may need to reduce the **ClipLim** settings by a dB or two to prevent amplifier clipping as it runs out of headroom.

You must, of course, set the recommended primary **Limiter** threshold before adjusting the ClipLim level to prevent amplifier clipping.

If you end up setting the **ClipLim** as low as **2dB Above** in an attempt to prevent significant amplifier clipping, and the amplifier still clips, you probably need a bigger amplifier. If budgets don't allow for a bigger amplifier you may need to reduce the primary **Limiter** threshold settings to prevent the amplifier from clipping at the 2dB Above ClipLim setting.

System configurations

Your Martin Audio DX1.5 Loudspeaker Management System must be correctly patched.

There are a large number of Martin Audio factory presets and configurations and these are being expanded all the time. It is always sensible to check your DX1.5 output channel allocations for the particular preset you have chosen to use before patching your system. This will ensure that the appropriate band is being routed to each loudspeaker section.

You can do this by pressing each yellow output channel **EDIT** button and noting the output channel allocations (e.g. Low, MidHi) indicated on the DX1.5's display panel.