

# **SAFE-AID**

## **FIRMWARE MANAGER**

### **Installation & User Manual**



**THE FOLLOWING MANUAL WILL AID IN THE INSTALLATION & PROCESS FOR UPDATING ALL THE SAFE-AID BOARDS FIRMWARE VIA USB FLASH DRIVE**

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## FIRMWARE MANAGER SOFTWARE SETUP FOR PC

All the Safe-Aid PC boards Firmware and operating software is managed and updated using the Firmware Manager PC software. Data is loaded onto the USB flash drive and then can automatically be uploaded on to the relevant Safe-Aid PC board.

Full software support is available for the following operating systems:

- Windows 7
- Windows 8 & 8.1
- Windows 10

The **Firmware Manager** software application setup can be downloaded from the website: <http://www.cranesafety.co.za/Downloads/software%20downloads.html>

Save the file locally before running e.g. Save to c:\Users\<(username)\Desktop and then run the application.

Once the application has started correctly a **Welcome** screen will appear (**Figure 1**), click **Next** to continue to the **Installation Folder** screen (**Figure 2**). The application will automatically create a folder **Elec-Mech\FirmwareManager** or select **Change** to select a different folder. 9.0MB of space is required for installation and the available space is shown, make sure there is enough space before continuing.

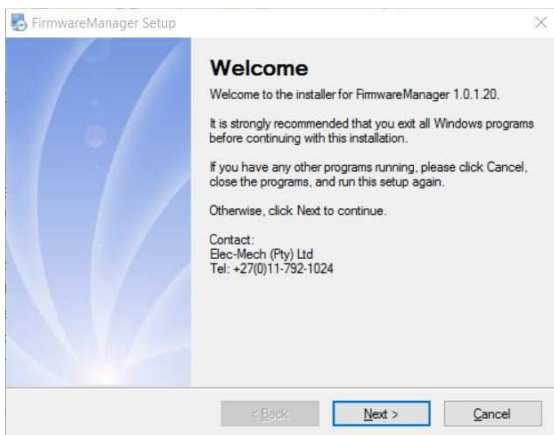


Figure 1

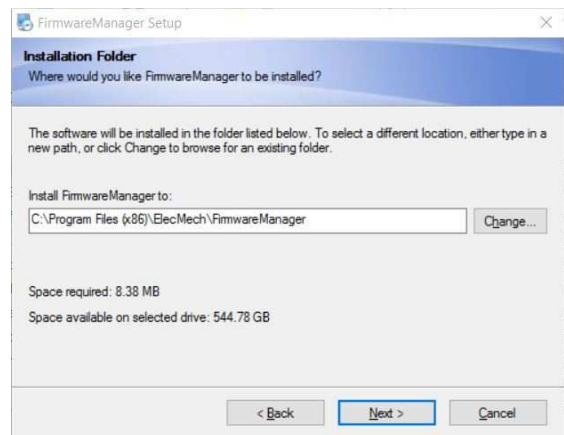


Figure 2

Click **Next** to continue to the **Shortcut Folder** screen (**Figure 3**). The shortcut will be placed on the desktop and can be made available for the current user or all users; this is selectable on this screen using one of the two options provided.

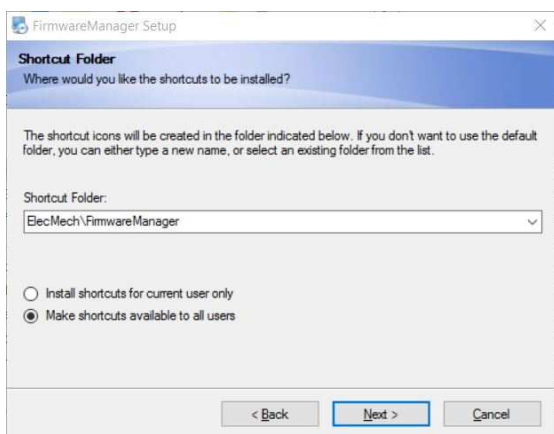


Figure 3

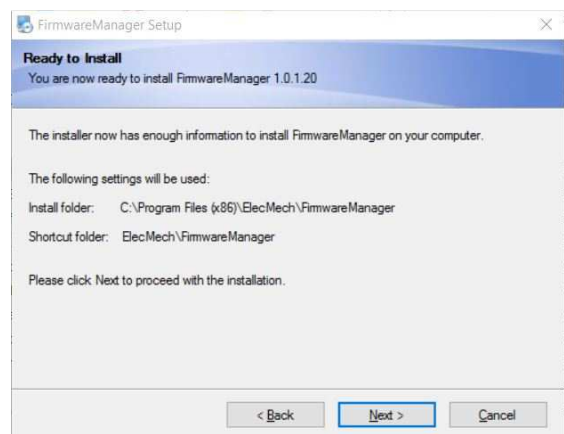


Figure 4

Before the installation starts all the selected information is displayed again on the **Ready to Install** screen (**Figure 4**). Confirm all the selections made are correct and click **Next** to continue.

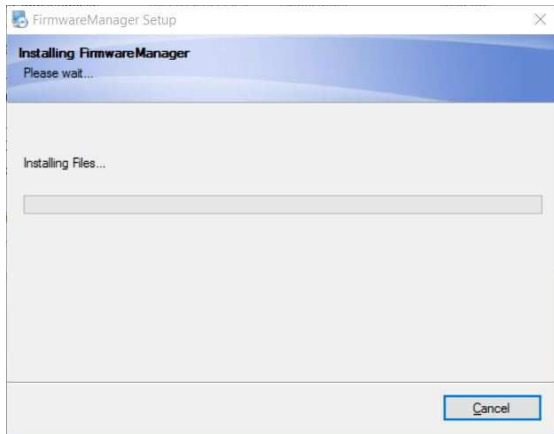


Figure 5

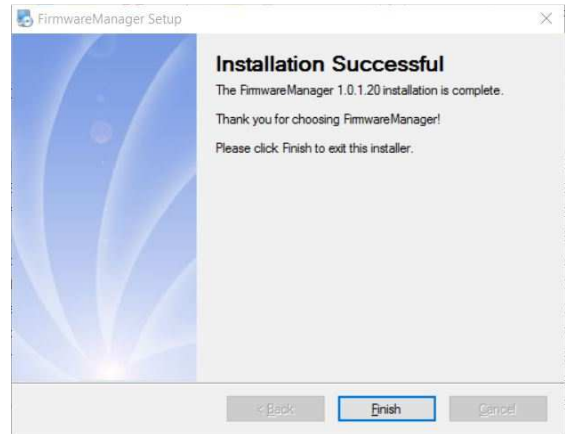


Figure 6

The application will now install and a progress bar will be displayed (**Figure 5**), once complete the Installation screen will be displayed (**Figure 6**). Click **Finish** to complete installation and exit the Firmware Manager Installation.

Once the **Firmware Manager** program is installed open the program on the PC using the shortcut on the desktop and insert a USB flash drive into the PC,

If an internet connection is present Firmware Manager automatically will try and update when started (**Figure 7**).



Figure 7



Figure 8

If updates are found (**Figure 8**), click **Yes** to download update files (**Figure 9**) and follow the on screen instructions, the program will then download and restart.

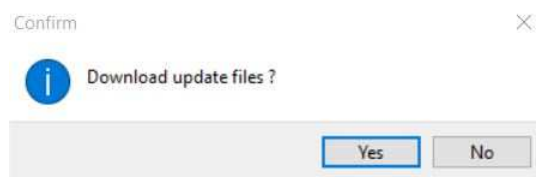


Figure 9

Any software queries contact your authorized distributor or email the factory at:

- [info@cranesafety.co.za](mailto:info@cranesafety.co.za)

## BASICS OF THE FIRMWARE MANAGER SOFTWARE


The following functions can be done with Firmware Manager:


- Tools
  - Install Operating Software on TS7000 Display Units (D1200)
  - Upgrade Firmware on A400 Amplifier Boards
  - Upgrade Firmware on M400 Mother Boards
  - Upgrade Firmware on R400 I/O Boards
  - Install Operating Software on TS350 Display units (DT400)
  - Email Data Files to Manufacturer
- Web Update – Update Firmware Files

Files are automatically overwritten when a new file is loaded onto the USB flash drive but multiple files for different board options can be programmed simultaneously.

### WEB UPDATE

All files should be updated before programming (internet connection required) by using the Web Update feature.

Click on the Web Update tab in the top left hand corner  then

click the refresh button .

A list of all the web files will be displayed (**Figure 10**)

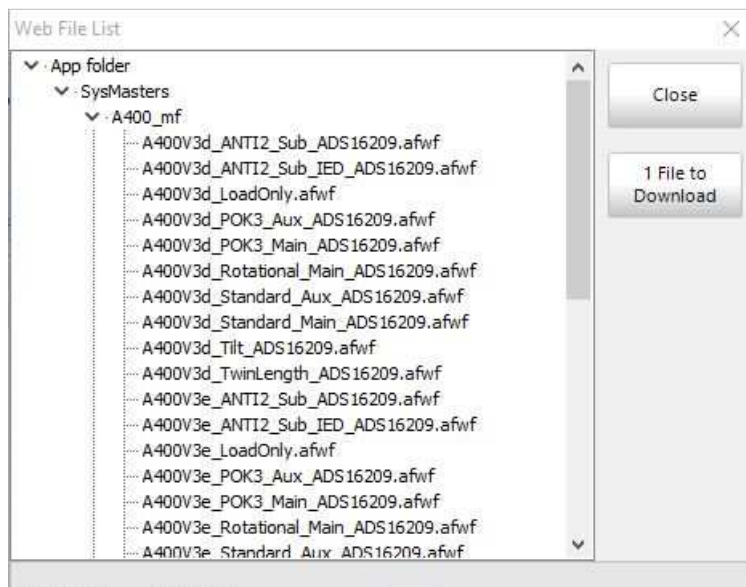

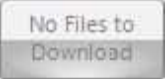



Figure 10

If any files need to be updated the button on the right hand side  will be activated and show the number of files to be updated. Click to update the files; if no files

need to be updated the button will be greyed out.  Press the close  button once all files have been updated.

## D1200 – TS7000 SOFTWARE UPLOAD

The Firmware Manager is used to update the operating software on the TS7000 display unit; the display units all have unique serial numbers so make sure the serial number is recorded before proceeding. The display serial number can be found imprinted on the display board or by powering the display up and going into Test Menu / System Information.

Select the D1200 Options (TS7000) tab (**Figure 11**).

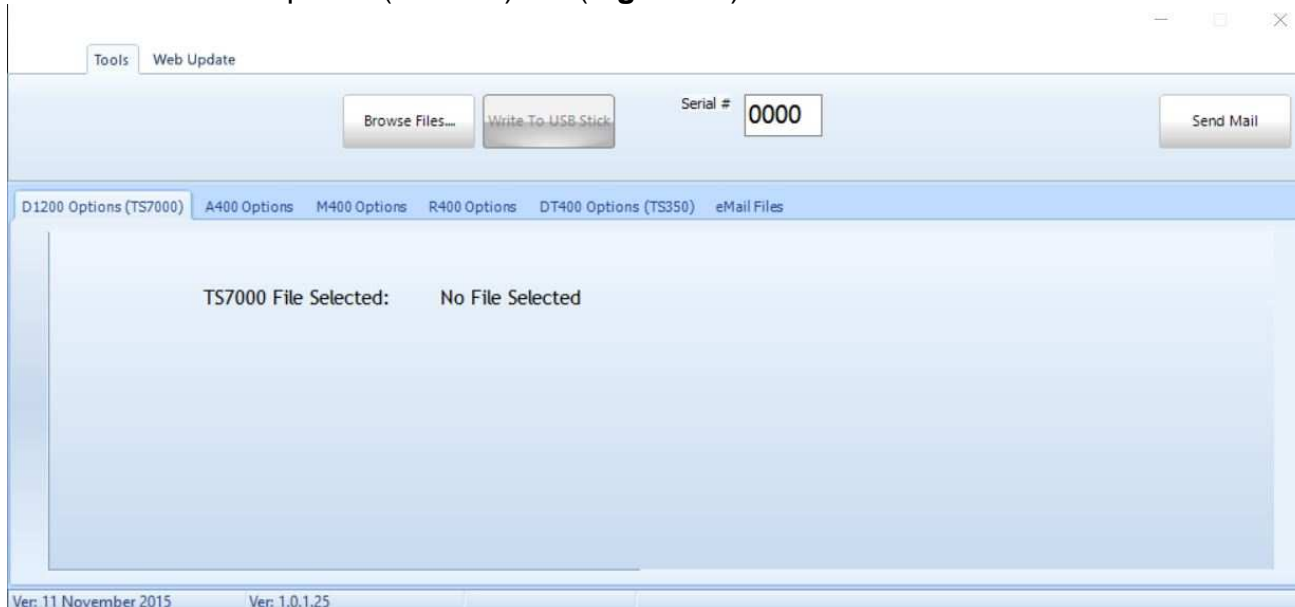


Figure 11


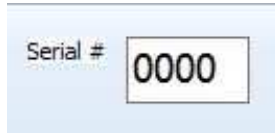
Use the browse files button  to select the location and file to be loaded onto the TS7000 display unit. The software will display the file selected (**Figure 12**).



Figure 12

Once the file has been selected, type in the serial number of the TS7000 display unit to be



programmed in the serial number box. It is imperative that the serial number must match the software or else an error will be displayed (**Figure 13**)



Figure 13

Insert the USB flash drive to be used and the Write to USB will turn from a greyed out



button that cannot be clicked to a normal button.



Click the button and the file will be written to the USB flash drive (**Figure 14**).



Figure 14

Remove the USB flash drive from the PC and insert into the USB port on the TS7000 display unit with the power off. Power up the display unit and wait for the new software to load. A progress bar will run across the screen from right to left (**Figure 15a**) while checking for software on the USB flash drive, if software is found the bar graph will run left to right (**Figure 15b**) while the software is loading. Do not remove USB or remove power from display unit.

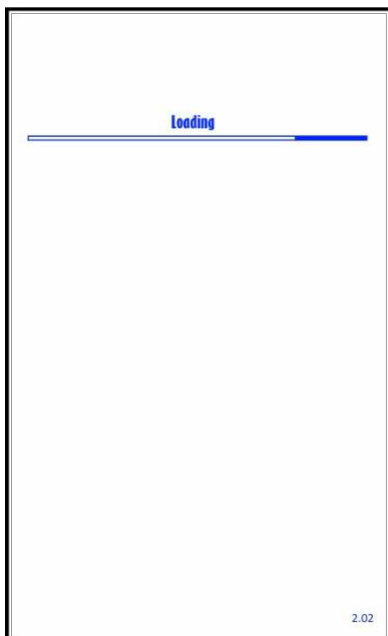


Figure 15a

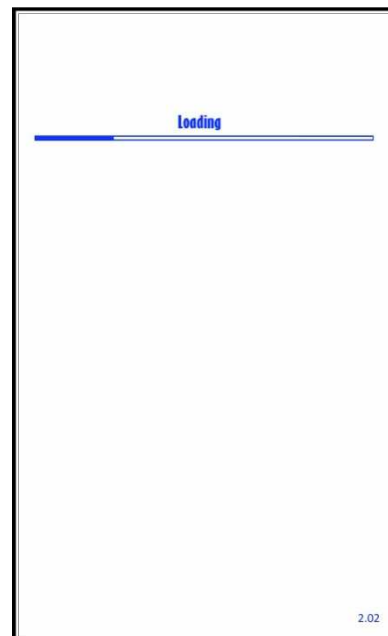


Figure 15b

## A400 – FIRMWARE UPGRADE

The Firmware Manager is used to update the firmware on the A400 amplifier boards; the A400 boards are used for multiple functions and therefore are required to be programmed accordingly. Select the A400 Options tab (**Figure 16**).

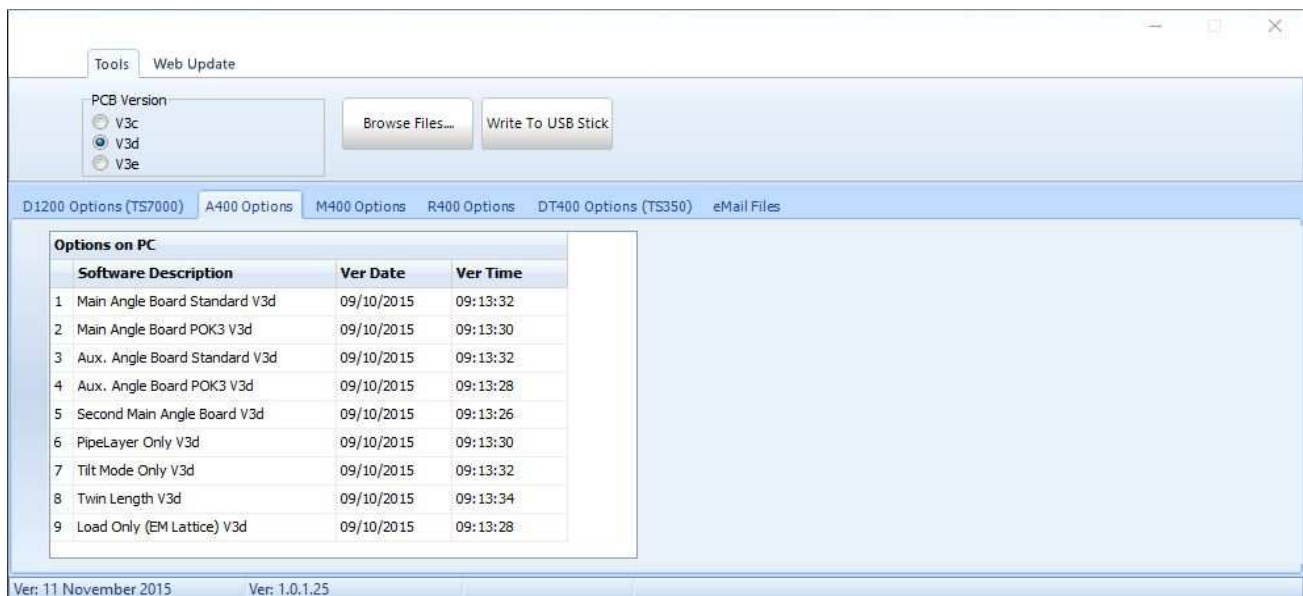


Figure 16

Select the correct PCB version of the board to be programmed (**Figure 17**). The PCB version can be found imprinted on the top of the A400 board.



Figure 17

Once the correct PCB version has been selected highlight the correct software selection in the window (**Figure 18**) required for the board to be programmed (See Installers Manual).

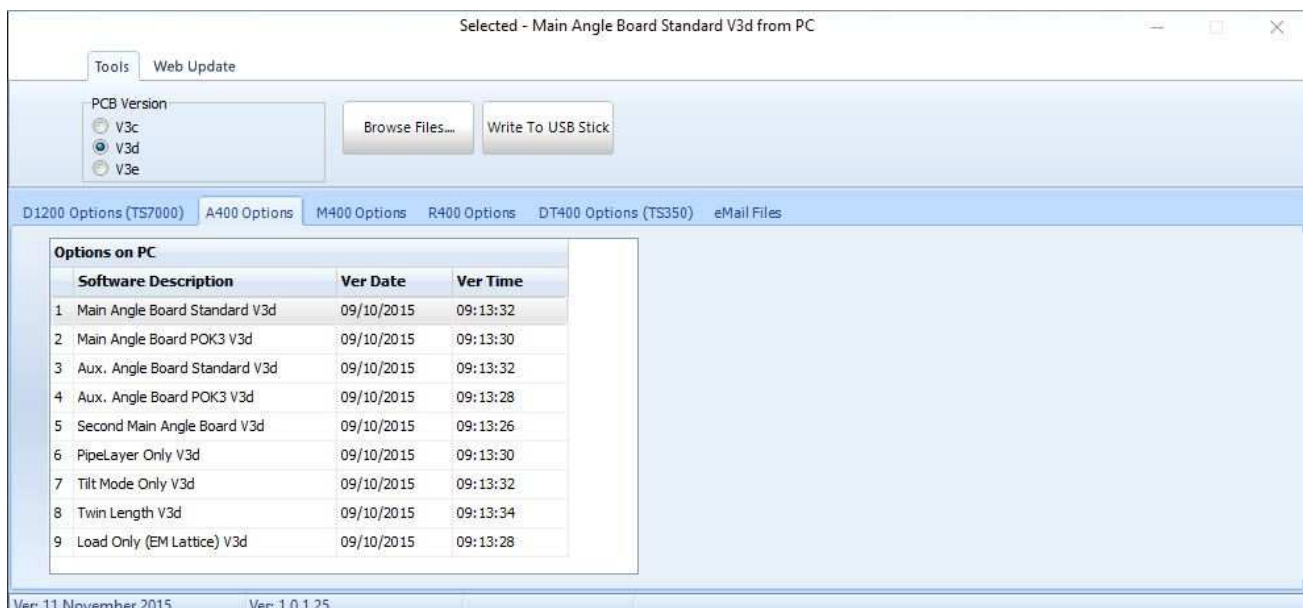


Figure 18



The correct software is extremely important as the inputs are used differently and will not give the correct setup.

Insert the USB flash drive to be used and the Write to USB will turn from a greyed out



button  that cannot be clicked to a normal button.  Click the button and the file will be written to the USB flash drive (**Figure 19**).



Figure 19

Remove the USB flash drive from the PC and insert into the USB port on the A400 amplifier with the power off. Power up the amplifier, the new software will load in a few seconds automatically.

## M400 – FIRMWARE UPGRADE

The Firmware Manager is used to update the firmware on the M400 Motherboards; the M400 boards are programmed for backwards compatibility and different machine types therefore are required to be programmed accordingly. Select the M400 Options tab (**Figure 20**).

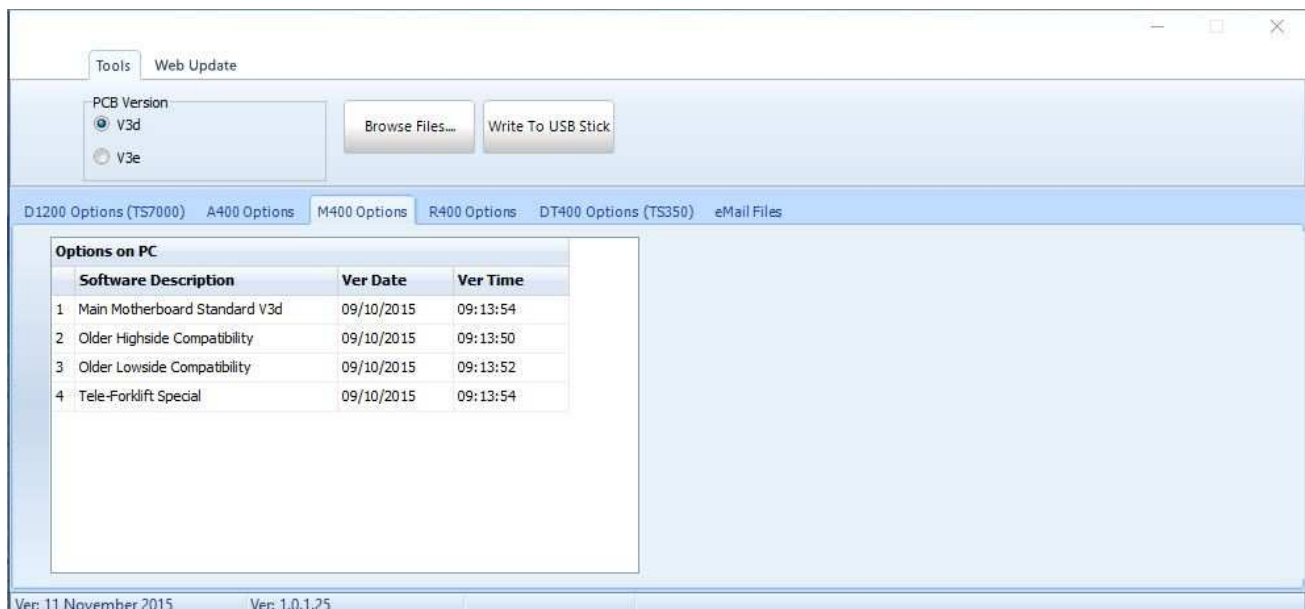


Figure 20

Select the correct PCB version of the board to be programmed (**Figure 21**). The PCB version can be found imprinted on the top of the M400 board.



Figure 21

Once the correct PCB version has been selected highlight the correct software (**Figure 17**) required for the board to be programmed (See Installers Manual).

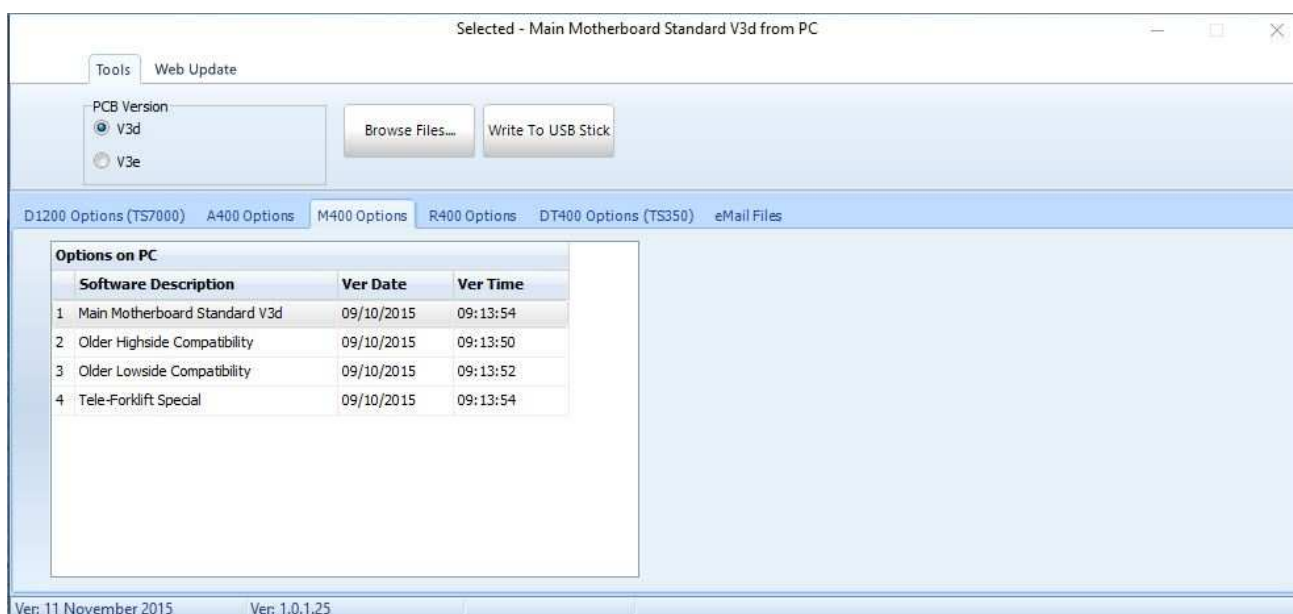


Figure 22

The correct software is extremely important as the TS7000 display software may not be compatible.



Insert the USB flash drive to be used and the Write to USB will turn from a greyed out button  that cannot be clicked to a normal button.  Click the button and the file will be written to the USB flash drive (**Figure 23**).



Figure 23

Remove the USB flash drive from the PC and insert into the USB port on the M400 Motherboard with the power off. Power up the motherboard, the new software will load in a few seconds automatically.

## R400 – FIRMWARE UPGRADE

The Firmware Manager is used to update the firmware on the R400 relay boards; the R400 boards can be programmed for special functions and therefore are required to be programmed accordingly. Select the R400 Options tab (**Figure 24**).

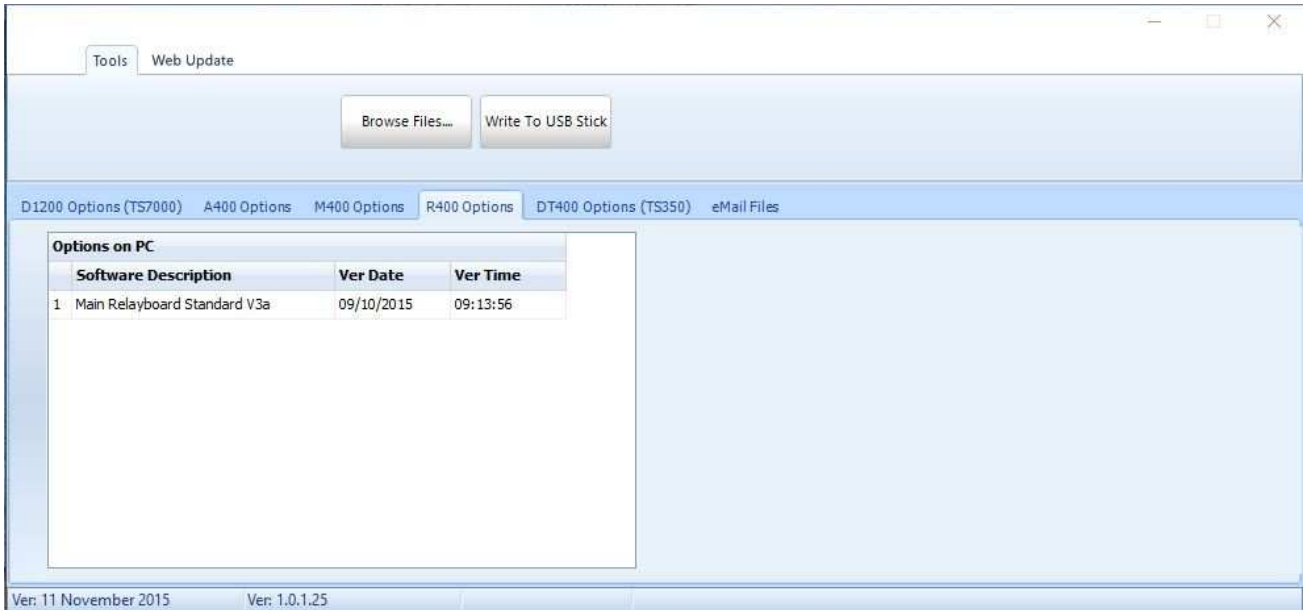


Figure 24

Highlight the correct software (**Figure 25**) required for the board to be programmed (See Installers Manual).

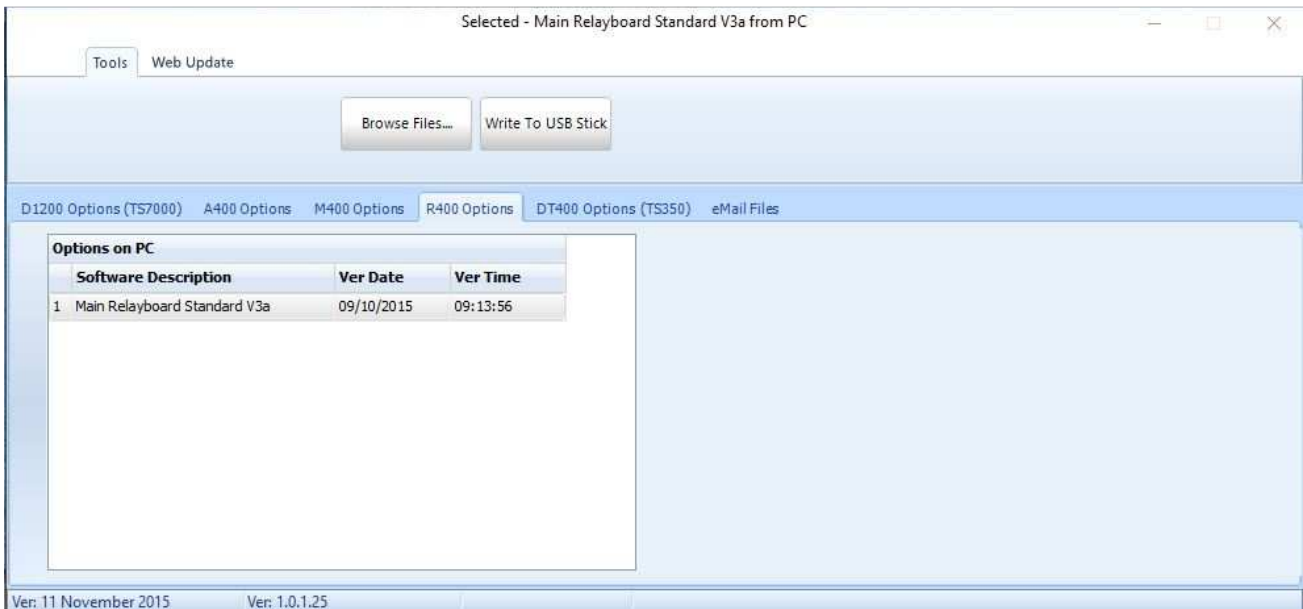




Figure 25

Insert the USB flash drive to be used and the Write to USB will turn from a greyed out

button  that cannot be clicked to a normal button.  Click the

button and the file will be written to the USB flash drive (**Figure 26**).



Figure 26

Remove the USB flash drive from the PC and insert into the USB port on the R400 Relay board with the power off. Power up the Relay board, the new software will load in a few seconds automatically.

## DT400 - TS350 SOFTWARE UPLOAD

The Firmware Manager is used to upload the software on the TS350 display units; the TS350 can be programmed for different system types and therefore should be programmed accordingly. Select the DT400 Options (TS350) tab (**Figure 27**).

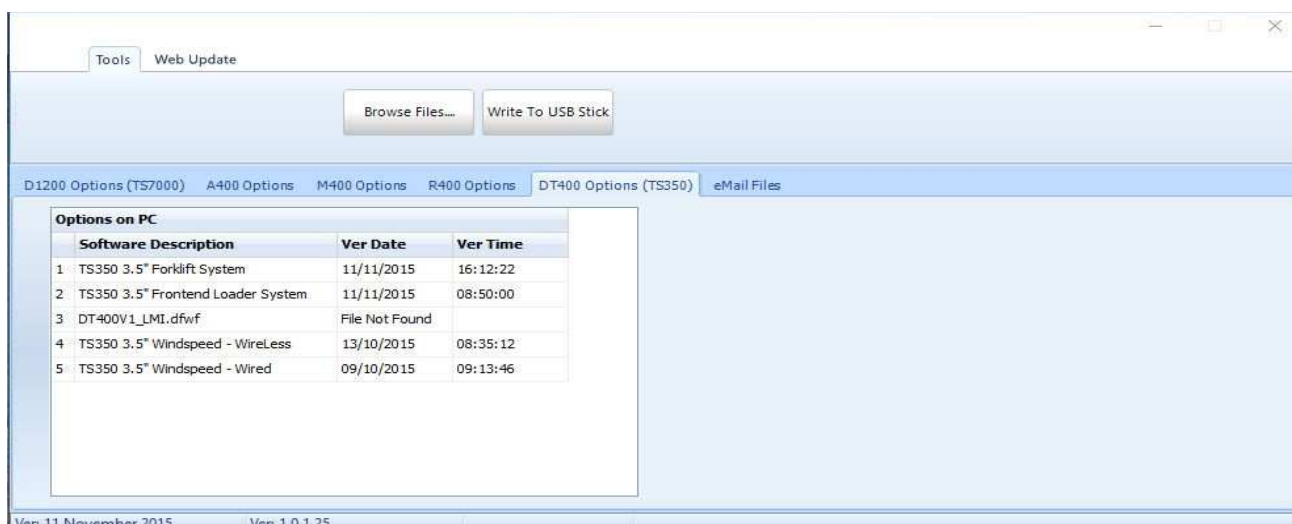


Figure 27

Highlight the correct software (**Figure 28**) required for the board to be programmed.



Figure 28



Insert the USB flash drive to be used and the Write to USB will turn from a greyed out button  that cannot be clicked to a normal button.  Click the button and the file will be written to the USB flash drive (**Figure 29**).



Figure 29

Remove the USB flash drive from the PC and insert into the USB port on the TS350 display unit with the power off. Power up the display unit and wait for the new software to load. A progress bar will run across the screen from right to left (**Figure 30a**) while checking for software on the USB flash drive, if software is found the bar graph will run left to right (**Figure 30b**) while the software is loading. Do not remove USB or remove power from display unit.

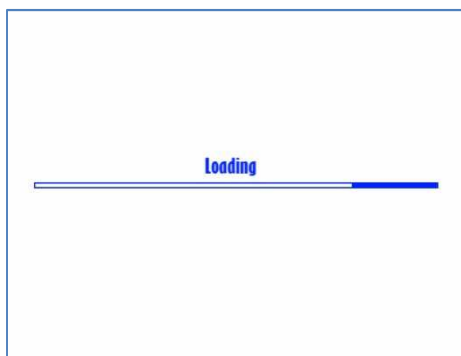


Figure 30a

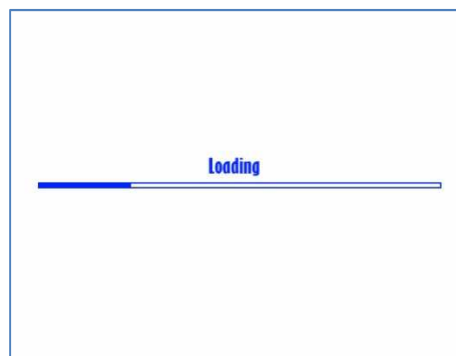


Figure 30b

## E-MAIL FILES

The Firmware Manager can also be used to email the offices with data files if required (**Figure 30**).

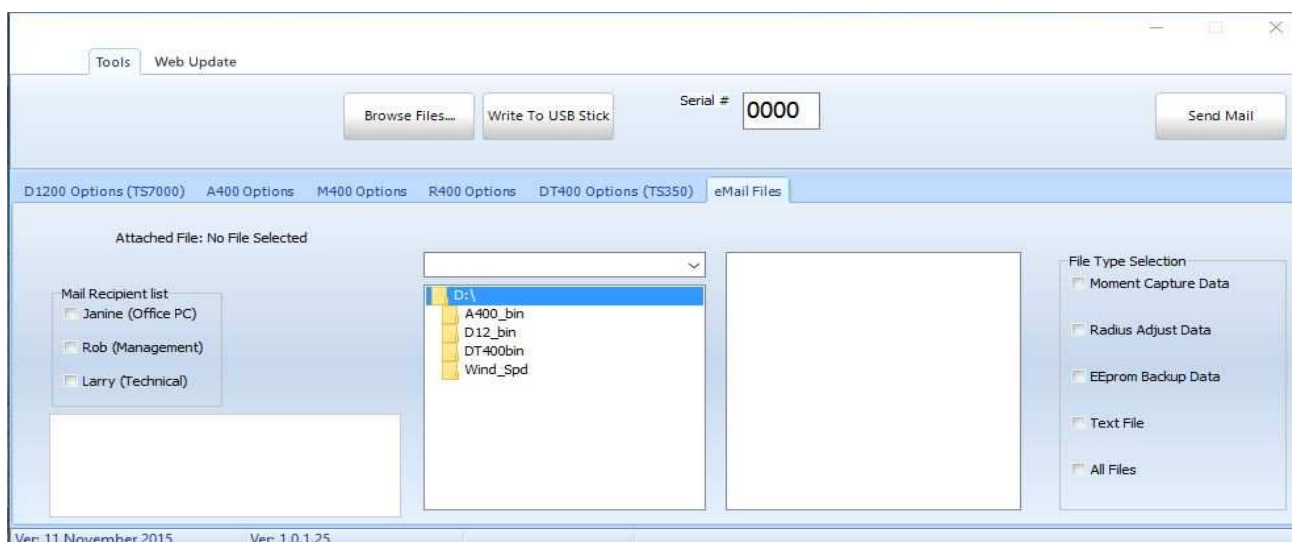
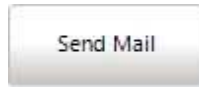


Figure 27

Select the following:

- Mail Recipient
- File Type
- File



Press the send mail button once selected.