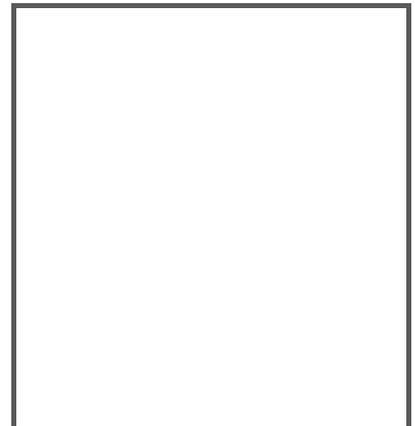


MANUAL

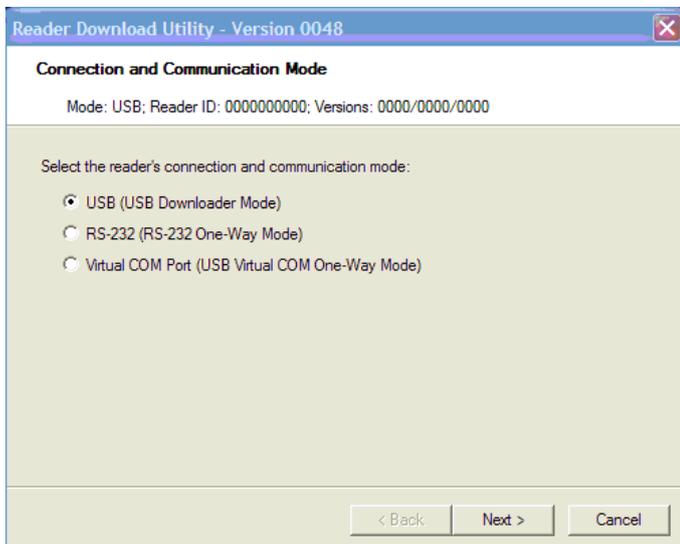
**MAH\***  
**FIRMWARE UPGRADE**  
**INSTRUCTIONS**



With regard to the supply of products, the current issue of the following document is applicable: The General Terms of Delivery for Products and Services of the Electrical Industry, published by the Central Association of the Electrical Industry (Zentralverband Elektrotechnik und Elektroindustrie (ZVEI) e.V.) in its most recent version as well as the supplementary clause: "Expanded reservation of proprietorship"

## Reader Download Utility (RDU) for Upgrading Firmware

1. Unzip and run the file **ReaderDownloadUtility.exe** You will see this screen:



2. Scan the **USB Downloader Code (M133\_01)**, followed by the **Save Settings Code (M188\_02)**:

**USB Downloader**



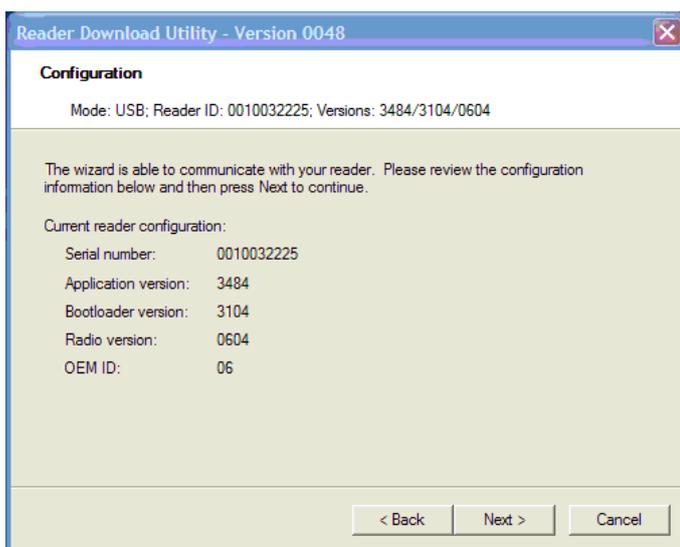
M133\_01

**Save Settings**



M188\_02

3. Attach the reader to the PC using the provided USB cable. Select **"Next"**. The reader will now connect to the PC and you will see this screen:



**NOTE:** Your reader must already be using the following versions of Firmware and Bootloader in order to use the Reader Download Utility:

- MAH200/MAH300 Firmware: 2016 (or greater)
- MAH120 Firmware: any version
- MAH200/MAH300 Bootloader: 2170 (or greater)
- MAH120 Bootloader: any version

If your current Bootloader version does not match the second set of 4 numbers, \*\_boot.bdl in the '.bdl' file, scan the following **Bootloader Mode Code\*** (M692\_01).

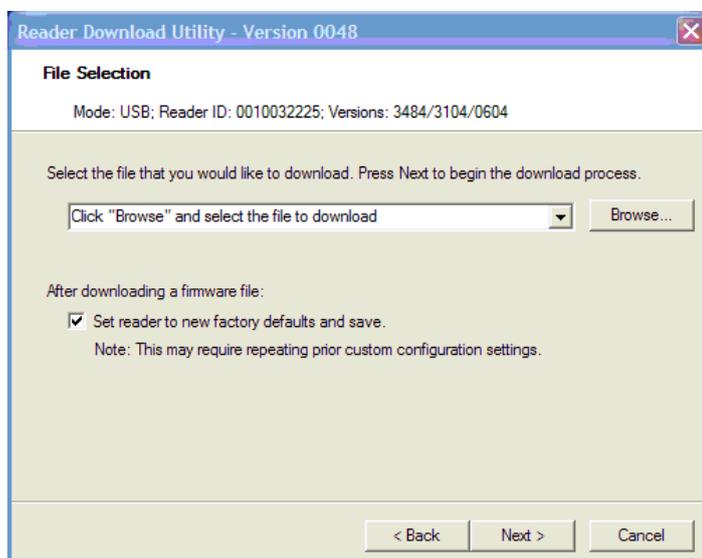
### Bootloader Mode

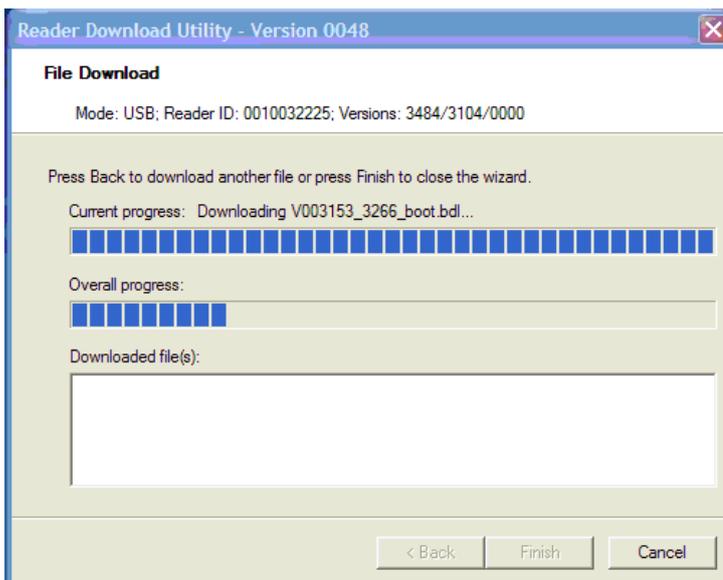
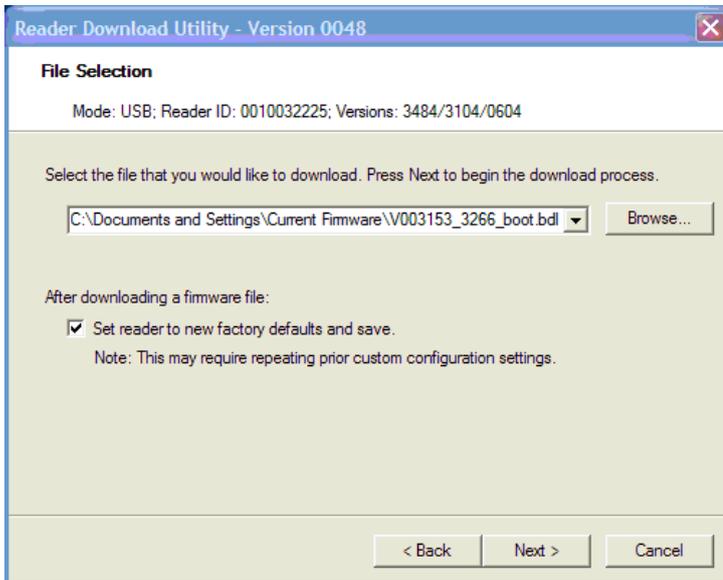


M692\_01

*\*Older versions of firmware may require the reader to manually be place in Bootloader mode. See Appendix A for instructions.*

4. Select **"Browse"** and find the file named \*\_boot.bdl. If firmware is earlier than 3000, find the file name **C002200\_3266\_boot\_2422\_upboot\_ForPreVer12Hardware.dl**.





5. Select “**Next**” to update the Bootloader version before updating the Firmware file.

If you have the updated Bootloader version on your reader, or after a successful download for the current Bootloader file, select “**Back**”, and scan the **Bootloader Mode Code\*** (M692\_01).

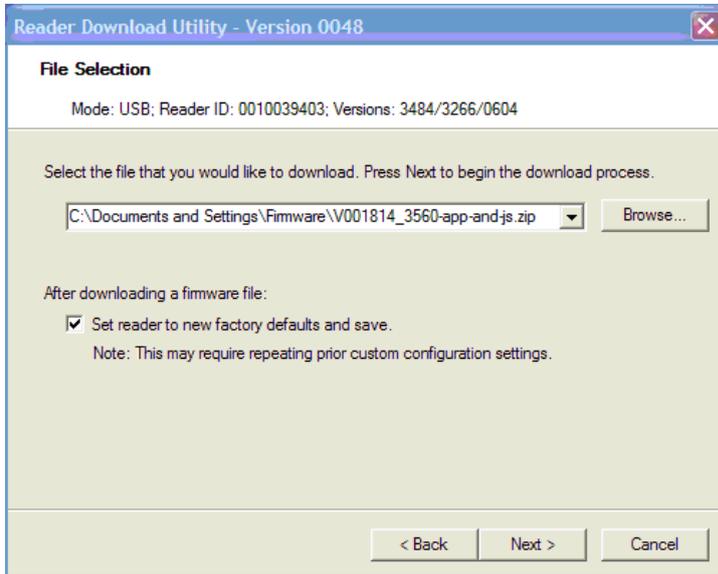
### Bootloader Mode



M692\_01

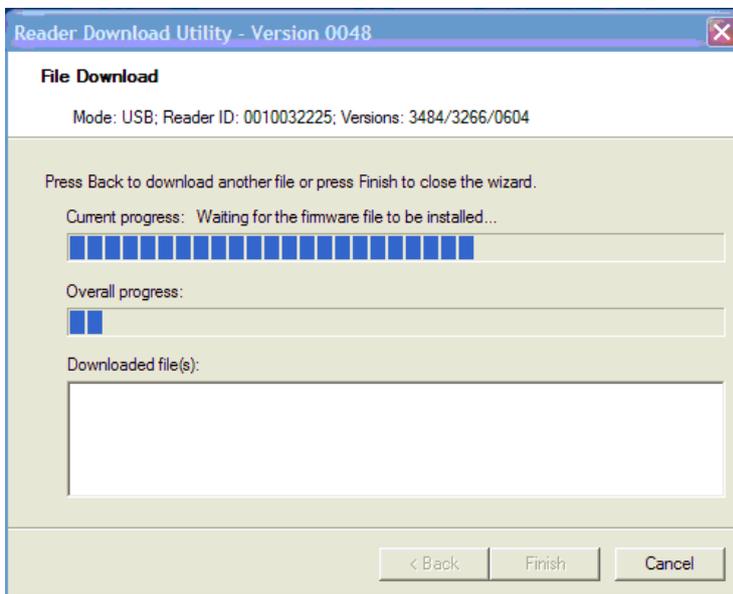
\* Older versions of firmware may require the reader to manually be place in Bootloader mode. See Appendix A for instructions.

6. Select **"Browse"** in the following screen to find the file you would like to download to the reader. Locate the zipped folder called **\*-app-and-js.zip**.

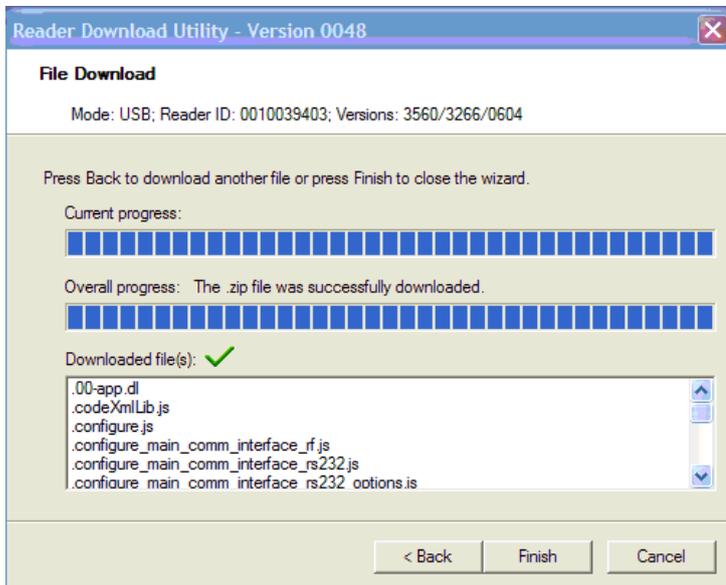


7. Please select **"Next"**.

You can now see the download progress of the File Download Wizard Window:

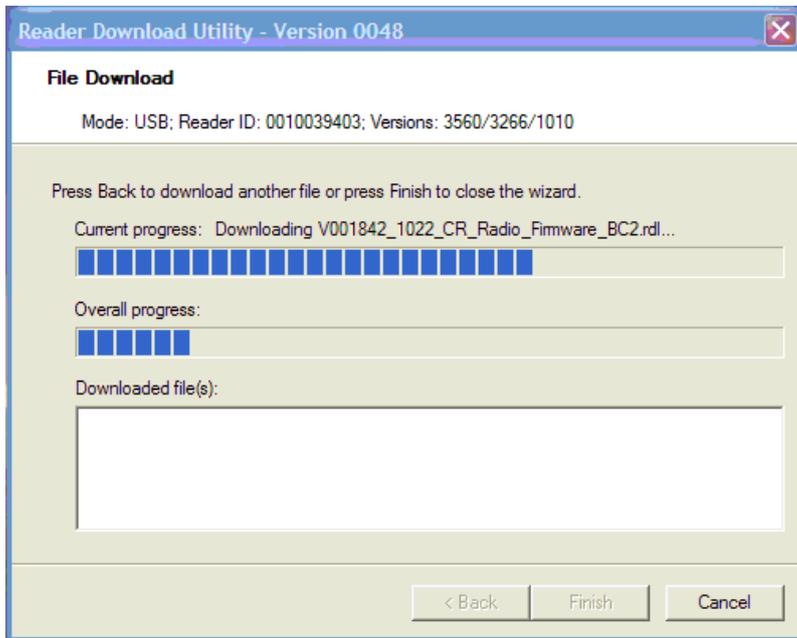


Once the file download is complete, a message is displayed indicating download completion of the Application file:



8. If reader contains a Bluetooth Radio, select “**BACK**” and “**Browse**” for the file named \***\_CR\_Radio\_Firmware\_Combined.zip**, else go to step 9.

Select “**Next**” to update the Radio Firmware. The \*.zip file will open and load the proper files onto the reader.



9. Finally, scan the following codes:

**Clear all CodeXML Rules**



M052\_01

**Reset to USB Factory Defaults**



M049\_03

**Save Settings**



M188\_02

**Your reader is now upgraded to the latest firmware.**

**NOTE:** Remember to reload any custom codes or other programming codes required for your specific application at this time.

**Your reader is now ready to scan.**

## Appendix A

To manually put a MAH200 and/or MAH300 into Bootloader Mode:

1. Remove the battery.
2. Reinsert the battery while holding down both red trigger buttons simultaneously.
3. As soon as the unit beeps, release the buttons.

Once in boot mode, both LEDs on the reader will be on. Either both will be red or one will be red and the other green. The green LED on the right of the MAH200/MAH300 indicates USB mode and red indicates RS232/Serial mode. If the right LED is red, press one of the trigger buttons to change the LED to green and into USB mode.

# FACTORY AUTOMATION – SENSING YOUR NEEDS



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