

# m908

## 2.1.x SD Card Flashing Procedure

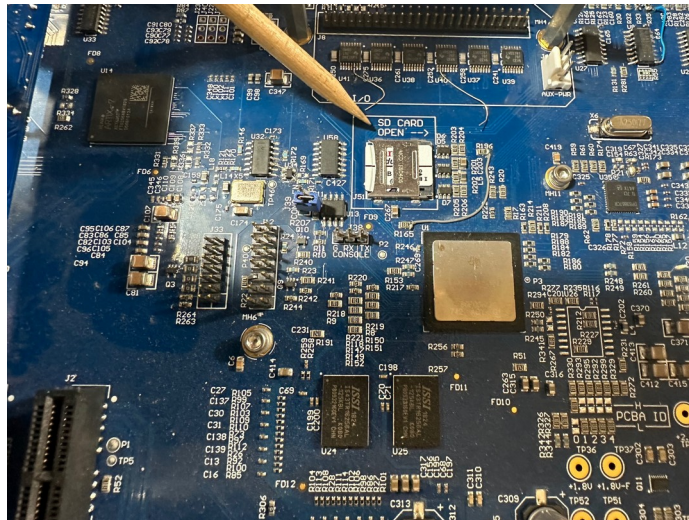
m908 firmware 2.1.x is a major update for the m908 that enables the web UI for configuration and control of the m908. The nature of the update has changed from previous updates as the entire operating system in the m908 is replaced. If the USB 2.1 migration upgrade process fails the m908 SD card can be flashed with the 2.1 image directly using this procedure.

### Preparing for the update:

1. Back up all of your workflows using a USB flash drive plugged in to the RCU USB port. The upgrade process will DELETE your workflows.
2. Obtain a micro SD card reader that can be connected to a computer.

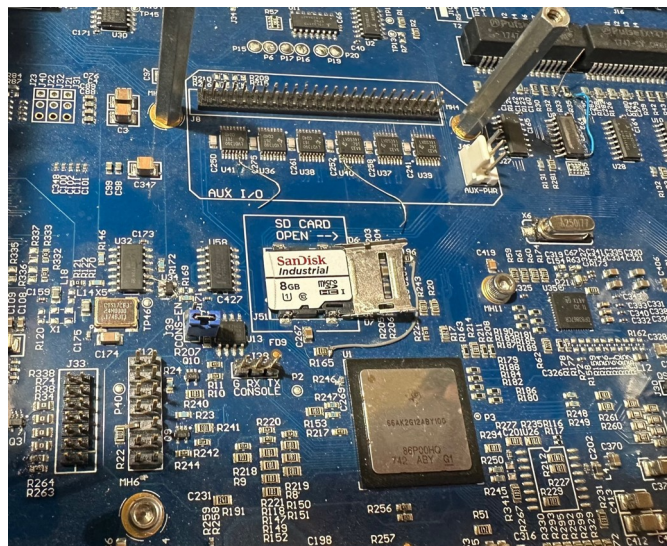
### Remove the m908 SD Card

1. Turn off the power to the m908 and disconnect the AC power cable from the DC power supply.
2. With a #2 phillips screwdriver remove the 8 screws securing the ACU top cover.
3. Locate the SD card socket on the main pcba. When looking at the m908 from the front the SD card will be near the middle of the right hand pcb.



*Illustration 1: SD Card Socket Location*

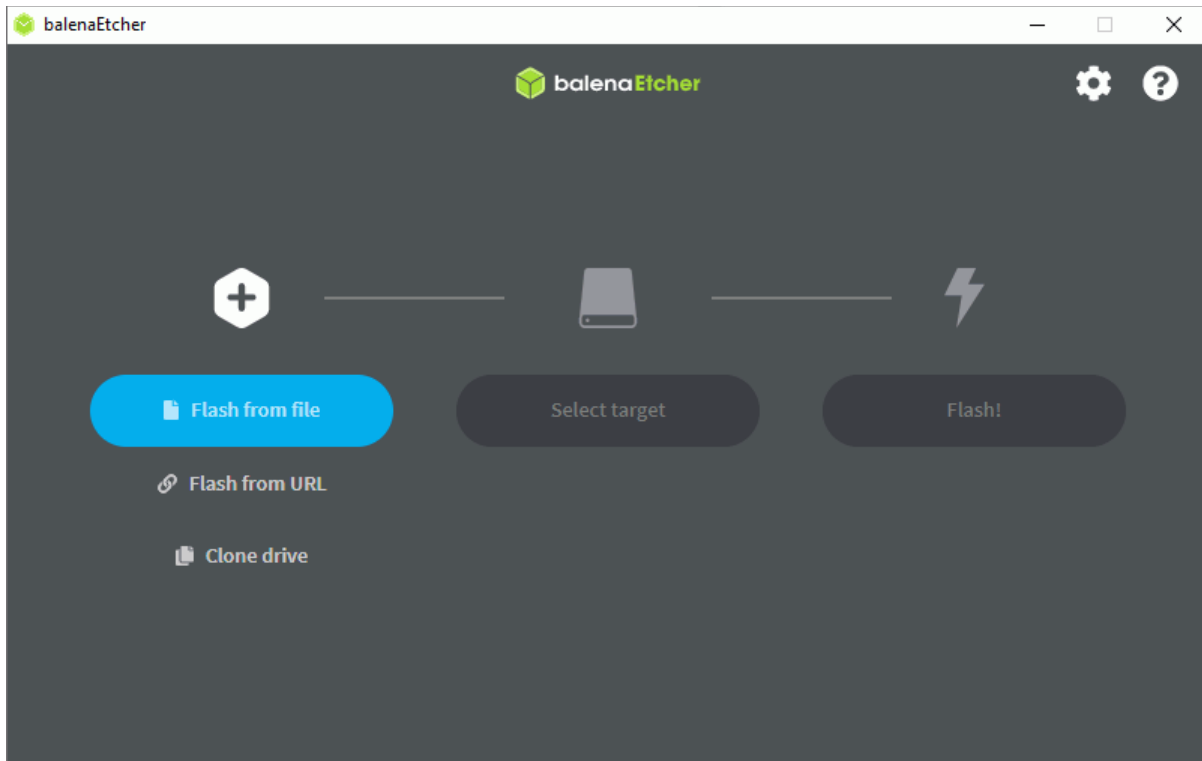
4. Push the metal cover on the SD socket in the direction of the arrow to unlock it. Then flip it over to the right to access the SD card.



*Illustration 2: SD Card Socket Opened*

5. Remove the SD card and insert it in to the SD card reader. Ignore messages from your computer about the drive needing to be formatted.
6. Download and install Balena Etcher. The application can be downloaded from <https://balena.io/etcher>

- Download the m908 2.1.x SD card image from the Grace Design web page:  
m908-image-2.1.0-r1-m908-20221222191635.rootfs.wic.gz
- Run Balena Etcher

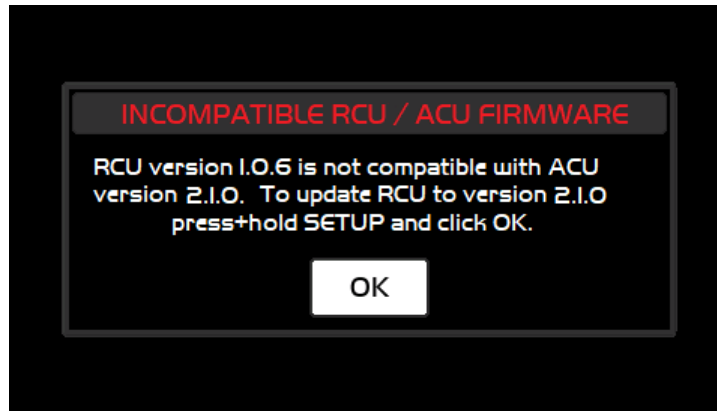


*Illustration 3: Balena Etcher*

- Click on "Flash from file" and select the m908 2.1.x SD card image.
- Click "Select target" and choose the drive that is the SD card in the card reader. Be sure you are selecting the proper drive! **The selected drive will be completely overwritten!**
- Click "Flash!" to start the image writing process.
- After the image burn is complete, remove the SD card from your computer.
- Put the SD card back in the m908 and carefully close the socket door. Push the socket door to the left to lock it.
- Replace the m908 top cover and reconnect the power.

## Upgrade the RCU

1. Power on the m908 and wait for the RCU upgrade prompt.



*Illustration 4: Incompatible RCU / ACU Firmware*

2. In this message the current RCU firmware version is displayed along with the new firmware version. Since system firmware 2.x.x requires a new version of RCU firmware the RCU firmware must be updated. To enter the RCU firmware updater, the SETUP button must be held until the LED boot sequence has completed. Once this happens, the m908 RCU bootloader will show up on the LCD. At this point you can release the SETUP button. The RCU firmware update will take approximately 8 minutes. Once it completes, the RCU will reboot and the system will start running.
3. DO NOT DISRUPT SYSTEM POWER DURING THIS PROCESS!
4. Set the unit serial number in the factory setup menu. Press Setup then push-hold the solo/mute switches L, C, and R at the same time. When in the Factory setup menu set the serial number to match the last non-zero digits of the m908 serial number.
5. Exit Setup and wait for 10 seconds. Then reboot the m908.
6. Import your workflows from the USB flash drive in the RCU or import them from a computer using the web UI.

<b>Manual Revision History</b>			
<b>Rev.</b>	<b>Description</b>	<b>Date</b>	<b>Initials</b>
A	Initial Release	12/29/2022	MBG