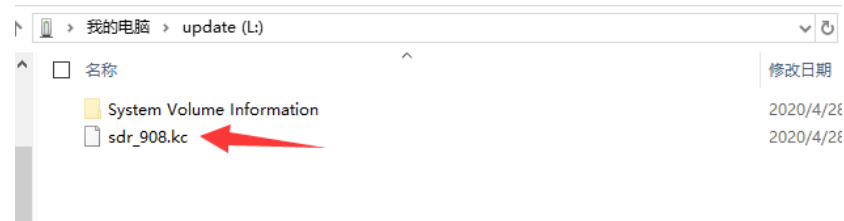# KC908 Firmware Upgrade Steps

This article describes the operation procedure of firmware upgrade with TF card. KC908 does not identify the firmware version, you can install newer firmware or older firmware.

1. Preparation materials
    a. KC908, the battery voltage should be above 7V, using battery power.
    b. TF card, up to 32GB capacity, FAT32 file system.
    c. Card reader, computer and so on.

2. Store the firmware (sdr_908.kc) in the root directory of the TF card.

3. Insert the TF card into the TF card slot on the left side of the KC908, pay attention to the electrode side upwards.

4. Press the POWER button to start the KC908 and wait for the power-on to complete.

5. Press the FUNC button to enter the system menu.

6. With the knob or "+", "-" button, so that the cursor highlights "System Update", press ENTER. Or you can also directly in the soft menu, select "System Update".
    After entering, if the TF card reading fails, the right side will show file parsing failure. It may be because the TF card is not inserted correctly, poor contact, file system error, or the file itself has problems, such as incorrect file name, file is not the firmware of KC908, etc. You can do a targeted check according to the above reasons. Exit the system update interface and enter again, you can refresh the display.
    If the TF card reads normally, you can see the updated version on the right side.

7. After confirming that there is no error, press the "Upgrade" option, it will again ask if you want to update, press the "OK" button, the update will start

immediately.

The update will take a long time, half a minute or more depending on the version, so please be patient and do not force your computer to shut down during the process.

8. When the update is complete, the progress bar prompts for 100%, the soft menu appears with options, press the OK button, and the device reboots.

9. If there is some rare abnormality, the device crashes after the update operation, or the device stays in the boot interface or crashes after startup due to a serious system error, etc., and you can't enter the system update interface according to the above mentioned normal process, you can deal with it in the following way:

Insert the TF card with firmware according to step 1~3, then press and hold the three menu selection keys on the right side, press the RST key once, and keep the three keys on the right side pressed until the instrument is turned on. KC908 will finish the firmware update automatically. If there is still no movement after three minutes, it means the upgrade firmware cannot be found, please check the TF card and try again. Please contact your dealer if multiple attempts are unsuccessful.

Note: Although you can read and write to the TF card after connecting the KC908 to the computer with a USB cable, the KC908 will not be able to read and write files from the TF card normally because the USB is occupying the TF card. **When updating, please do not use the USB cable to connect to the computer.** In addition, if in external power supply state, reboot can not be fully reset, so do not charge when rebooting.

Firmware can be upgraded or downgraded, if you need to restore the old version, you can load the old firmware. But please be sure to note: **Any downgrade, you must first restore the factory settings, that is, clear all user data. Otherwise, the old version may not be compatible with the new version of the data, which may lead to equipment failure, and need to return to the factory to be lifted.**

Before upgrading, please make sure the device is fully charged (above 7.5V) and unplug all charging lines and USB cables. Upgrading while charging may result in the need to return to the factory to re-flash the underlying firmware.