CS800D FIRMWARE UPDATE

November 2017

This firmware update sets up the CS800D to support 130K contacts, and corrects some firmware bugs in the radio. Please note that this is a multi-step update process, so get comfortable. The procedure must be followed in the order presented below. Please read through this first, and if you have any questions wait until they can be answered before performing the updates. We can be reached via email or phone call. An improper firmware update will render the radio inoperable. While it can be fixed, it will need to be sent in to Connect Systems to have the MCU cleared and reprogrammed.

You will need:

Your radio, power supply, computer, and both programming cables – DB15 to USB and RJ45 to USB
FlashBurn3.00_CSI.exe and FPUT.exe
DM6500_Bootloader_R2.04D.bin
CS800D_Host_RCDB_MS.20.05_Use_Flashburn3.0_Upgrade.bin
CS800D_LCD_V2.00.08.fot
CSI(CS800D) CPS R4.02.03setup.exe
VoicePacket2015-03-23.fv

Download the programs and files from the CSI website for the CS800D software. Place them all in a directory where you will be able to find them easily.

Connect both the DB15 to USB and RJ45 to USB cables to your computer. Make a note of the COM port assigned to the RJ45 to USB cable. Connect your radio to the power supply.

Install CPS version 4.02.03 on your computer by running 'CSI(CS800D) CPS R4.02.03setup.exe'.

Connect your radio to the computer with the DB15 cable and turn the radio on normally.

Run the new CPS, and read the data from your radio. Save it as a backup, but leave the code plug available in the program. Minimize the CPS and leave it running. You will need it soon.

Run the FlashBurn3.00 program. Press and hold the P1 button on the radio and turn the radio on. The radio will enter Program Mode, the LED will flash red and green, and FlashBurn will indicate that the device has been connected.

Click the 'Select' button on the FlashBurn program and navigate to 'DM6500_Bootloader_R2.04D.bin'. Select this file and click the 'Flash' button. The progress bar will move to the right. NOTE: The new bootloader must be loaded into the radio BEFORE the firmware. Listen and watch for the radio to disconnect and reconnect after the upload, then turn the radio off manually after the upload completes.

AFTER the bootloader has been updated, **press and hold the power button until the radio turns on**. NOTE: The display will not light or show any information. You will only know that the radio has turned on by hearing the computer connection sound and watching FlashBurn for the message 'The device has been connected!' Turn the radio off.

Now press and hold the P1 button on the radio and turn it on again. The radio will enter Program Mode, the LED will flash red and green, and FlashBurn will indicate that the device has been connected.

Click the 'Select' button and find 'CS800D_Host_RCDB_MS.20.05_Use_Flashburn3.0_Upgrade.bin'. Select this file and click the 'Flash' button. The progress bar will move to the right. Listen and watch for the radio to disconnect and reconnect after the upload, then turn the radio off manually after the upload completes.

Press and hold the power button until the radio turns on. The screen will illuminate and display the power on message. When the radio comes on it will be full volume, and display 'Unprogrammed' and emit a tone. You may want to cover your speaker during this power on sequence and be ready to turn the volume down.

Maximize the CPS and write your code plug to the radio. It will restart when complete, but the volume will now come on where you left it. Yes, this much requested feature has finally been enabled. Turn the radio off.

Leave FlashBurn3.00 running, and now run FPUT.exe. Check the entry next to 'Serial Port' in the FPUT program. It should match the COM port number for the RJ45 to USB cable you made note of earlier. If it does not match, select the proper COM port number from the pulldown list. Leave the Baud at 38400, and click the button with '....' to the right of MCU Rewrite. Find and select 'CS800D_LCD_V2.00.08.fot'.

Plug the RJ45 connector into the microphone port on your radio's front panel. Press and hold the knob at the top left of the front panel (usually volume, but it may be set for other features) and turn the radio on. The radio will enter Program Mode, the LED will light solid red, and the FlashBurn3.00 program should indicate the device has been connected.

When the radio is connected as indicated by FlashBurn3.00, go back to the FrontBoard Upgrade Tool 1.5 (FPUT) program and click the 'Flash' button. (Do not click Flash on the FlashBurn3.00 again). The red LED will flash and the progress bar will move to the right in the FPUT program. The radio display will go blank, but it will still be on. Manually power off after the upload completes.

Close FlashBurn3.00 and the FPUT programs, and remove the RJ45 to USB connector from the mic jack. Leave the DB15 to USB cable connected.

Turn the radio on normally. In the CPS, select Tools > Load Fixed Voice Data. In the window that opens, click the button with '....' next to the Write Fixed Voice Data field. Navigate to and select 'VoicePacket2015-03-23.fv' Click the OK button to write the data to the radio. When the data upload completes, turn the radio off and disconnect it from the computer.

Turn the radio on. It should operate properly and as it did previously with your existing code plug. You will now be able to load the entire DMR-MARC contacts database again, for those who enjoy having all of the contact names available.