

# CS 440RC

Solid De-icer Controller Flash Programming Manual



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# 1 CS-440 Flash Programmer Specifications

## 1.1 Description

This programmer is designed to flash both the MC/RC and the Display processors with updated firmware.

## 1.2 Specifications

	Specifications
Dimension	W – 2.5” H – 4.0” D – 0.9”
Weight	220 Grams
Operating Voltage	10-26 VOLTS
Operating Temperature	-40degC – -125degC
Operating Consumption (TYP.)	50 mA

**Note:** If the battery supply voltage drops below 10V, the unit will fail to program the MC/RC processor.

## 1.3 Features

- Toggle switch to select desired processor to be flashed
- LED lights to indicate the flash mode
- Power jack to accept an automotive accessory plug

## 1.4 Operation

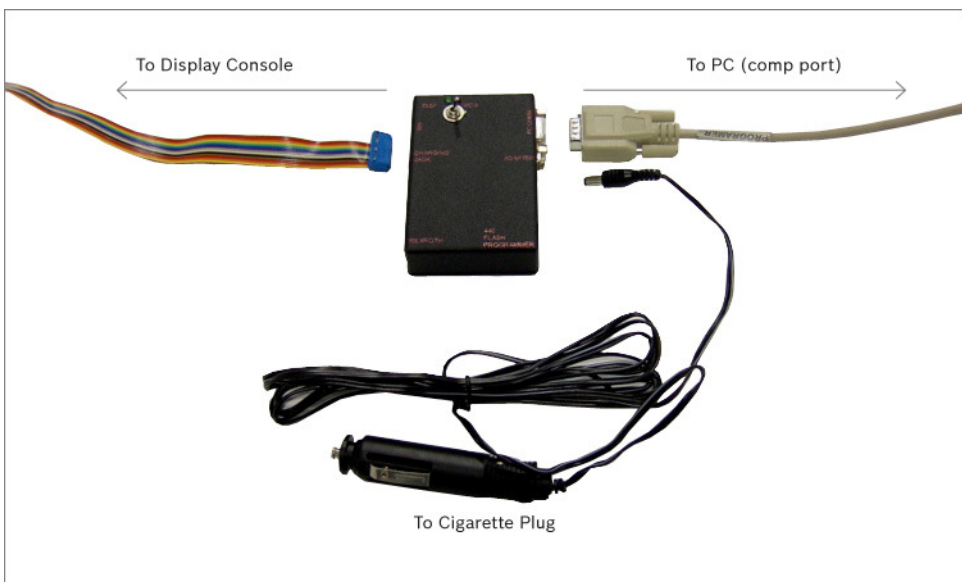
1. Remove the Programming cover on the CS-440's right side.
2. Plug the 1:1 data cable (included) into the computer COM port and the programmer. Shown below.
3. Plug the ribbon cable (included) with the conductors facing downward on the programmer and forward on the CS-440.

Note: The RED conductor must be on the bottom on both the CS-440 and the programmer.

4. **FIRST** plug the 2.1mm jack (included) into the programmer then the adapter into the cigarette lighter of the vehicle.

Note: This is only required when programming the MC/RC.

5. Switch the selector to the desired processor.
6. Follow the programming instructions.



## 2 Programming Instructions

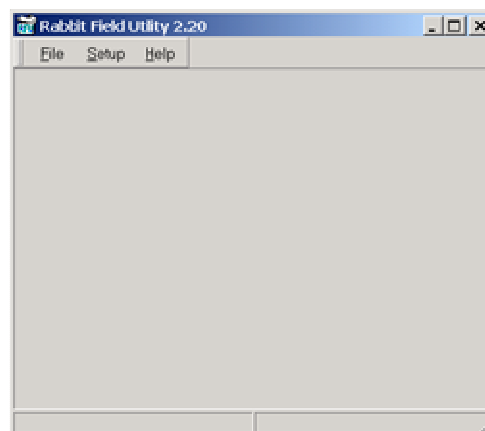
### 2.1 Display Console

1. With the flash programmer connected, switch the selector to DISPLAY.
2. Switch on the CS 440 - The green light should illuminate.
3. Select the RFU utility on your PC (the one with the rabbit).
4. Pull down the File menu and select the updated file.
5. A status bar will display the progress. (The process should take less than a minute.)

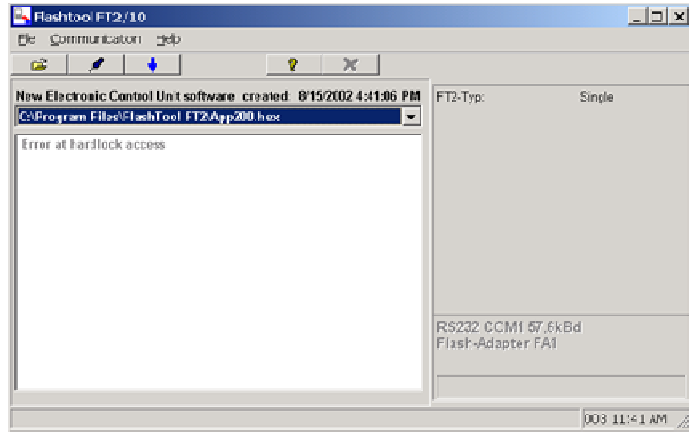
### 2.2 MC/RC Controller

1. With the flash programmer connected, switch the selector to MC/8.
- Caution: Plug in the 2.1mm adapter before the cigarette plug.**
2. Open the FT2 utility on the PC. (A square box with a red arrow in it.)
  3. Press F7 immediately (within ¼- ½ second) after powering up the CS 440. Several tries may be required to get the timing correct. If a blue text box appears, the timing was off. (The timing step is not necessary if the MC/8 is ver. E/13 or later.)
  4. A progress bar will display the communication success.
  5. After 100% communication is achieved, press the blue down arrow. The selected file will now be downloaded into the MC/RC controller.
  6. The screen will flash several messages that can be ignored (i.e. error at hardback access, erasing flash and flash erased). Then the Downloading stage – the progress bar will then count up the download percentage.
  7. If there is a failure during the programming. Restart the program and repeat steps 2-6.

Display Programming Screen shown below.



MC/RC Programming Screen shown below.



Notes: