

Note No.	SVC-FSB-0026
Release Date	08/12/2015
Contact	ngceoservice@ngc.com

eDrive Front Panel Programming with Renesas E8a

Summary

The eDrive front panel utilizes a Renesas microcontroller that requires Flash programming during the production process. Older tools to program the device are deprecated and no longer available. This tech note describes the process for programming the Flash using the new E8a programming adapter from Renesas.

History

The eDrive front panel historically has been programmed with the Flash over USB (FoUSB) software and the MSV-FoUSB-MON programming adapter. This product is no longer available. As a replacement, Renesas has introduced the E8 and E8a adapters.

Configuration

This tech note is written to address the configuration consisting of the E8a programming adapter and the 14-pin to 10-pin connector adapter. These parts are available from vendors as follows:

Description	Part Number
E8a programming adapter	R0E00008AKCE00
14-pin to 10-pin connector adapter	R0KZC000000002R

Software Installation

The E8a kit includes a CD with all of the necessary software to program many devices. The front panel only utilizes the M16C family so all other families may be unchecked during the installation phase.

Hardware Setup

After software installation is complete, the E8a adapter may be connected to the host computer via the included USB cable. The device should be recognized automatically. Attach one end of the ribbon cable to the E8a and the connector adapter to the other end. Connect the adapter to the front panel programming connector, J11, being careful to observe pin orientation. Align the pin 1 indicator (usually a white triangle) with the pin marked as "1" on the front panel J11.

The adapter can program the microcontroller by supplying power to it or by using the power of the front panel. To avoid contention of power supplies, do not supply power to the front panel and command power to the adapter simultaneously. The front panel may be programmed stand-alone by delivering power to the front panel via the E8a programming adapter.

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Software Operation

1. Locate and run the **Flash Development Toolkit 4.07 Basic**. This can be found in the Renesas folder of the Windows start menu. On the first execution, the **Choose Device And Kernel** window appears.

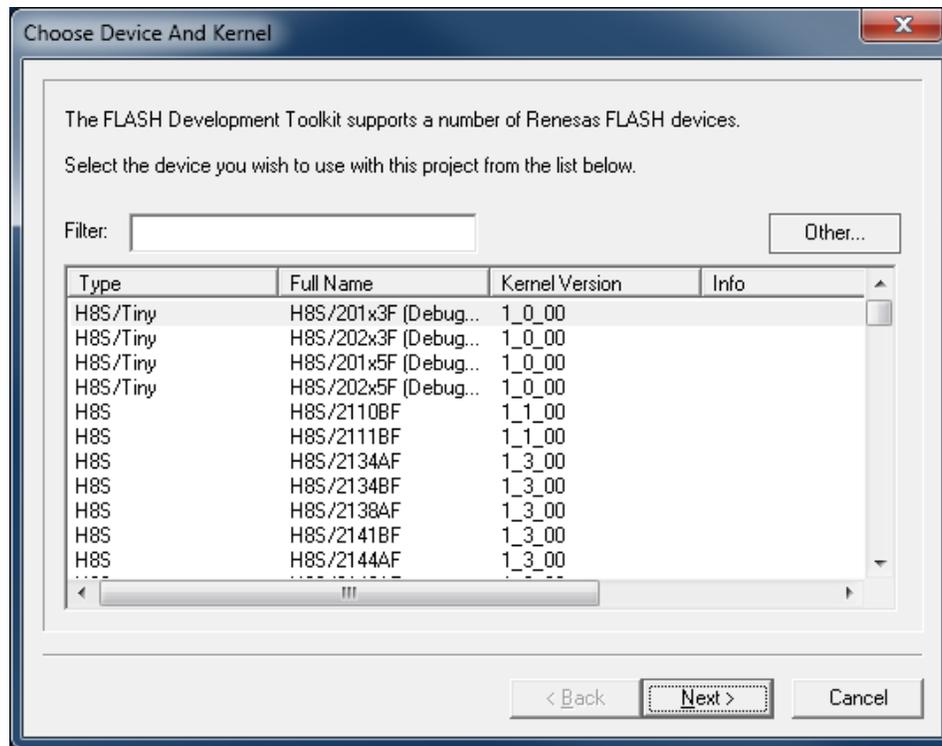
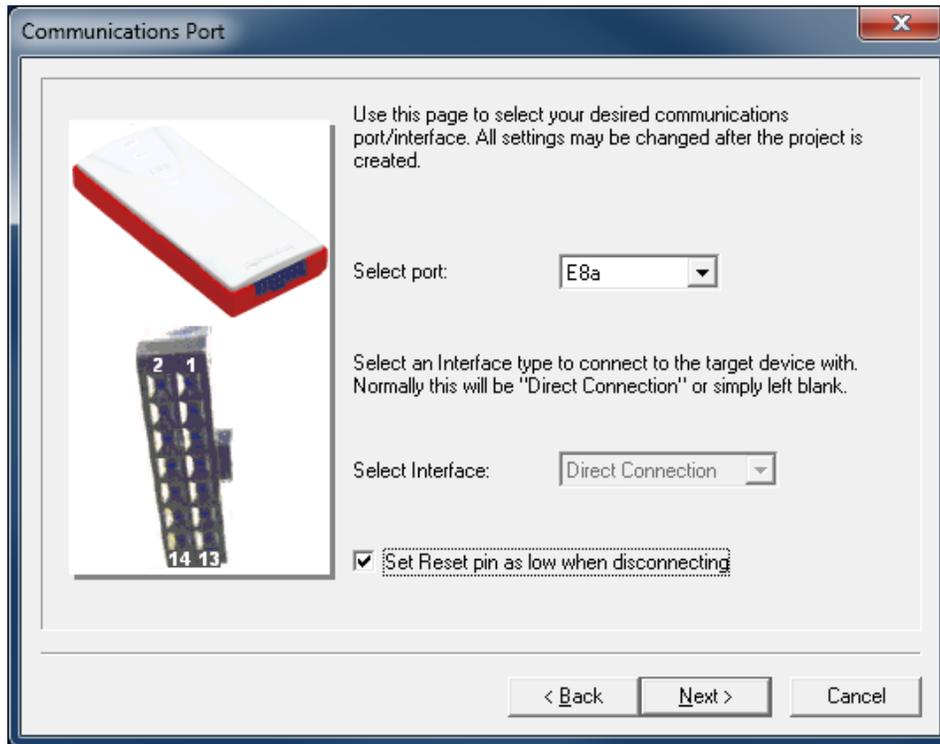


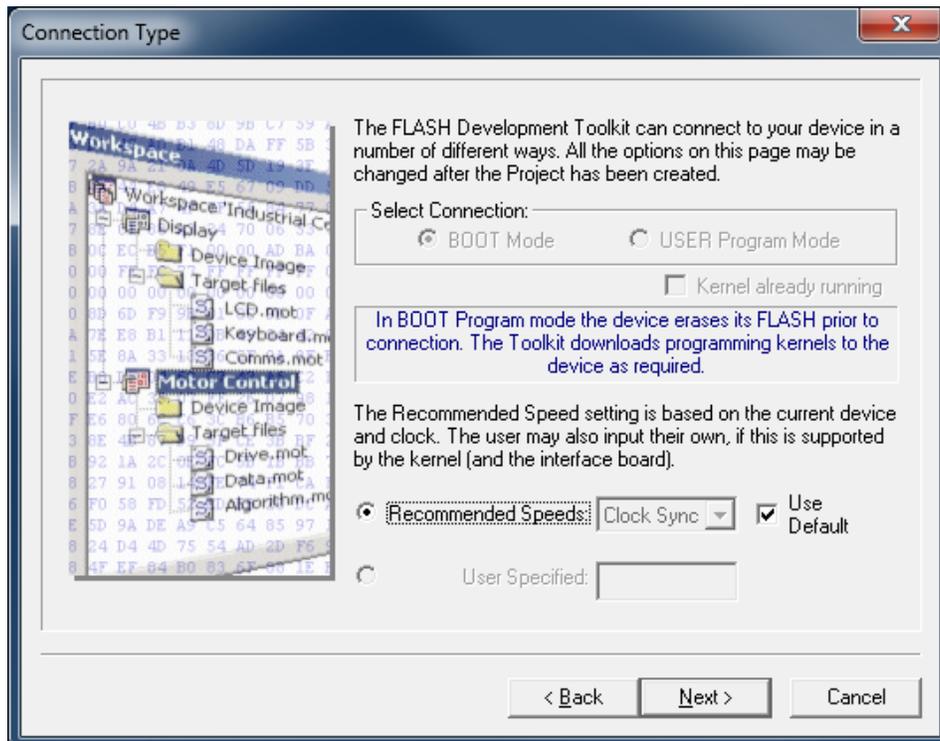
Figure 1-1

2. In the **Filter** field, type “M3026” to obtain a filtered list of the parts. Select the “M30260F3” option and click **Next**.
3. The **Communications Port** window appears. Select “E8a” in the **Select port** field. Check the **Set Reset pin as low when disconnecting** checkbox. Click **Next**.

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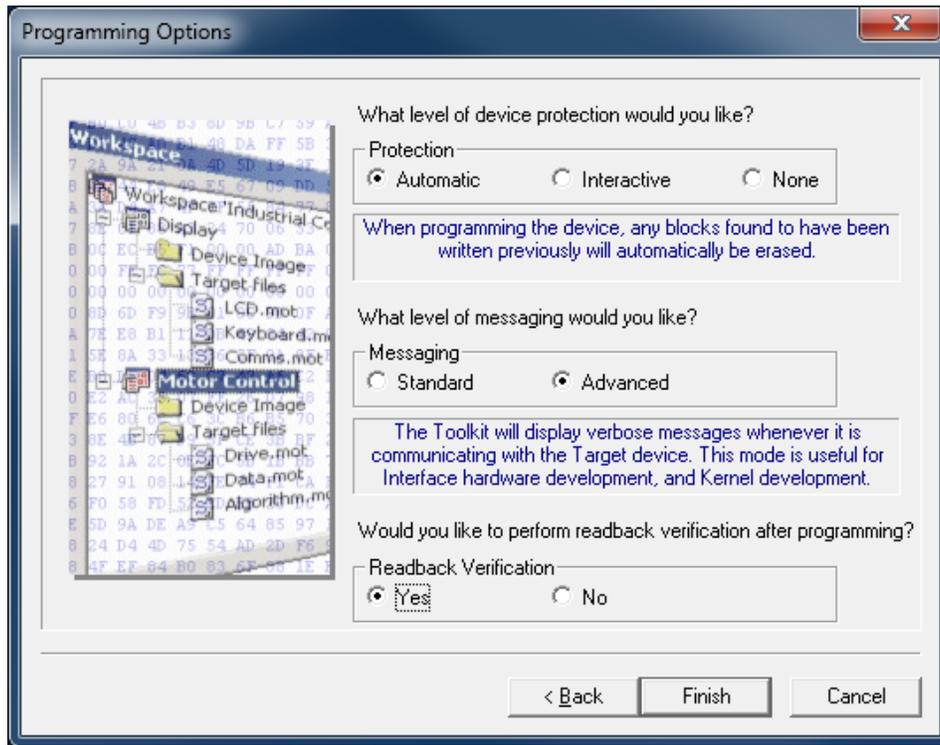


4. The **Connection Type** window appears. Click **Next**.



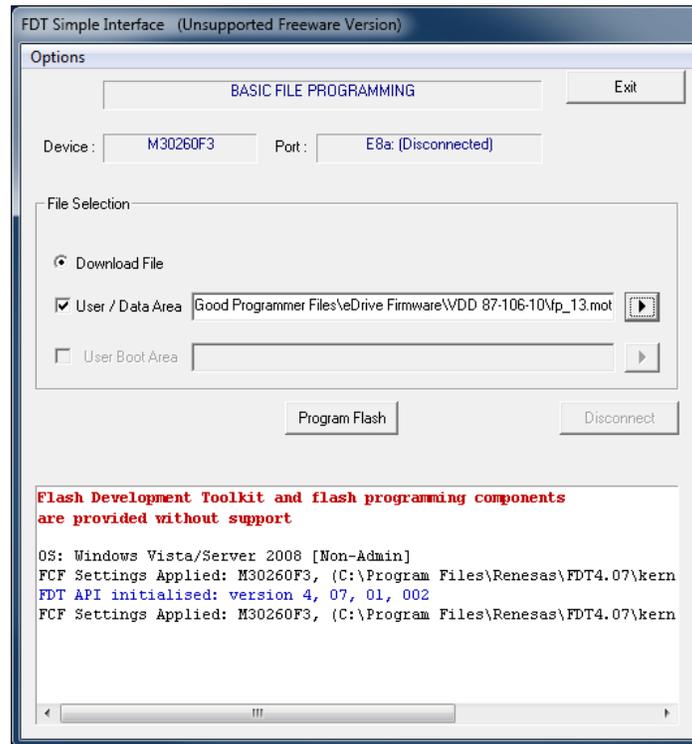
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5. The Programming Options window appears. Set Readback Verification to “Yes”. Click Finish.

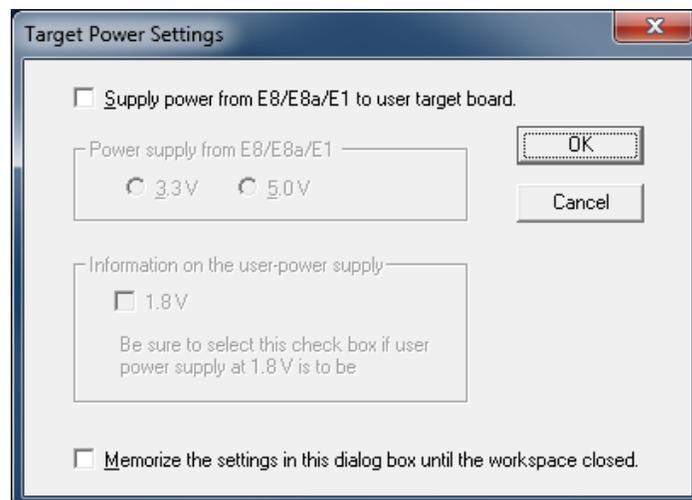


6. The **FDT Simple Interface** window appears. Check the **User / Data Area** checkbox and enter the path to the programming file needed. Click the **Program Flash** button.

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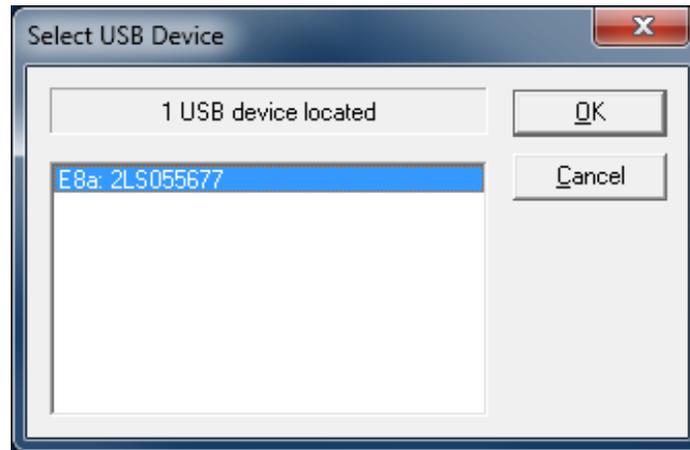


7. The **Target Power Settings** window appears. If the front panel is already connected to the controller and the power supply is fully connected, click **OK**. Otherwise, select **Supply power from E8/E8a/E1 to user target board**.



8. The **Select USB Device** window appears. It should have an E8a programming adapter already identified. Click **OK**.

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- The focus switches back to the **FDT Simple Interface** window. Observe the process status in the bottom pane of the window. Note whether programming is successful and verification is complete. Click the **Disconnect** button. Click **Exit** to terminate program.

