

Navigator 500

Transmitter



Installing and using software upgrade kits

Measurement made easy

Navigator 500 transmitter

1 Introduction

This publication details the procedure for installing and using the Navigator 540 transmitter software upgrade equipment. These procedures must be carried out by a trained technician only.

The contents of the software upgrade kit are shown in Table 1:

Description	Part No.	Qty.
Debugger assembly	B13179	1
Cable assembly – transmitter	CM30/0071	1
PCB assembly	CM30/0375	1
This publication – Installing and using software upgrade equipment	INF13/120-EN	1

Table 1 Software upgrade kit AW500 030

2 For more information

Further information is available from:
www.abb.com/analytical

or by scanning these codes:



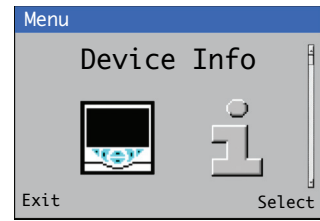
Sales



Service

3 Identification

The issue of the board fitted is identified in the *Device Info / Hardware Version* menu:



Transmitter
Serial Number
Date of manufacture
Hardware Revision
Software Revision

Warning.

- Isolate all high voltage supplies to the transmitter before performing these procedures.

4 Assembling the upgrade kit

4.1 Transmitter

1. Unpack the upgrade kit.

Referring to Fig. 4.1:

2. Connect transmitter ribbon cable (A) to PCB assembly (B) and debugger assembly (C).
3. Connect USB cable (D) to debugger assembly (C).

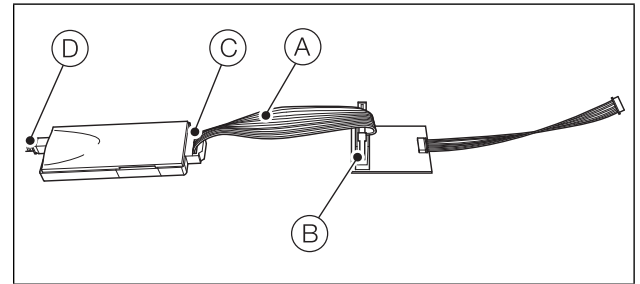


Fig. 4.1 Assembling the upgrade kit – transmitter

5 Installing the software

1. Plug the de-bugger assembly into a PC using the USB connector supplied.
2. Insert E8a emulator software CD into the PC's CD / DVD ROM drive.
3. Double-click *Setup.exe* to install the software.

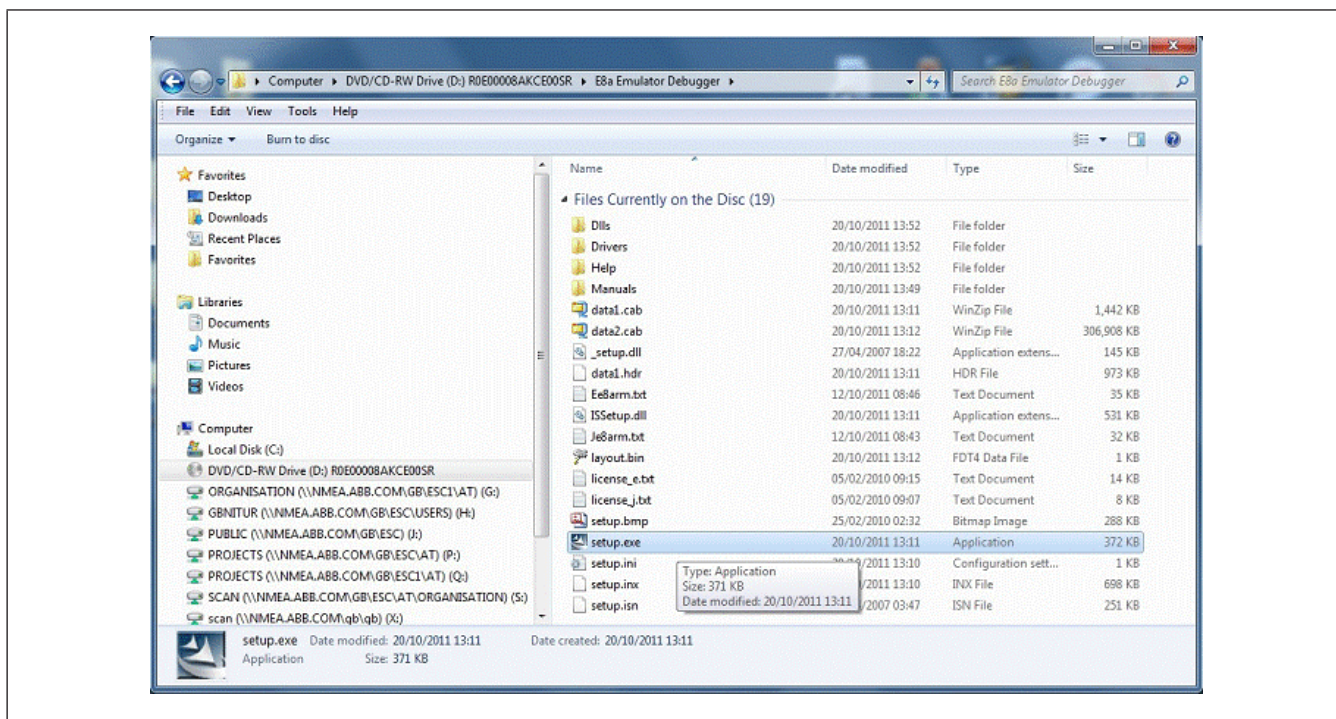


Fig. 5.1 Installing the software

4. When installation is complete, install the Flash Development Toolkit from the CD.

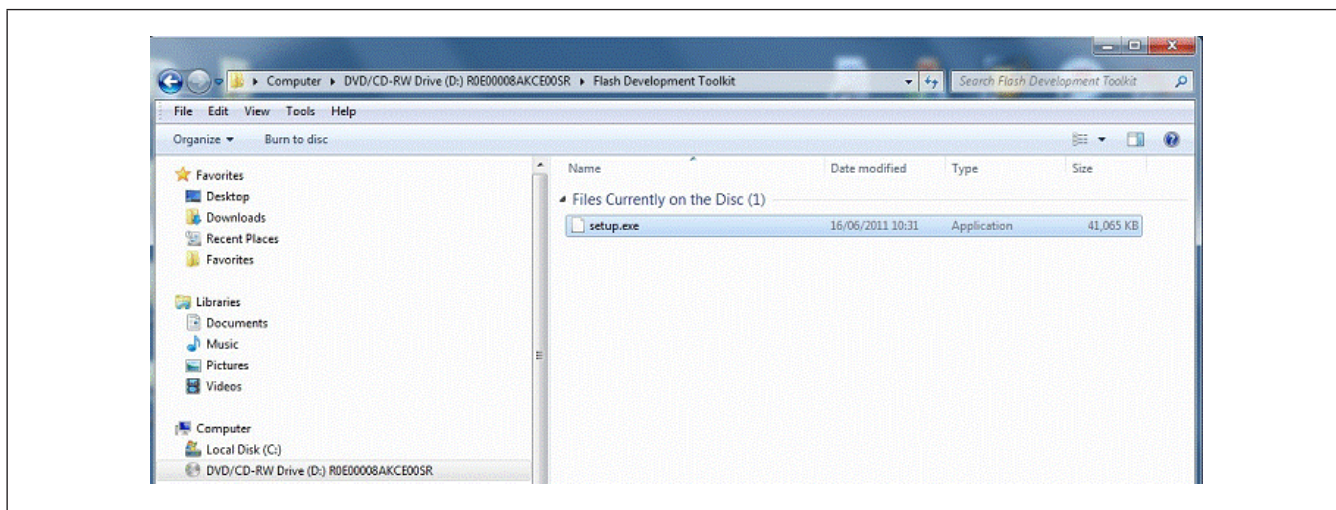


Fig. 5.2 Installing the Flash Development Toolkit software

6 Connecting the programming assembly – transmitter

Note. Isolate all high voltage supplies to the transmitter before proceeding.

1. Connect the E8a programmer assembly to the PC using the USB cable.

Referring to Fig. 6.1:

2. Using a pozi-drive screwdriver, turn the (captive) electronics section door retaining screw (A) 1/4 turn counter-clockwise and open the door.
3. Referring to Fig. 6.1, open the transmitter door and remove the display cover (B) by unscrewing the 6 Torx (T8) screws (C):

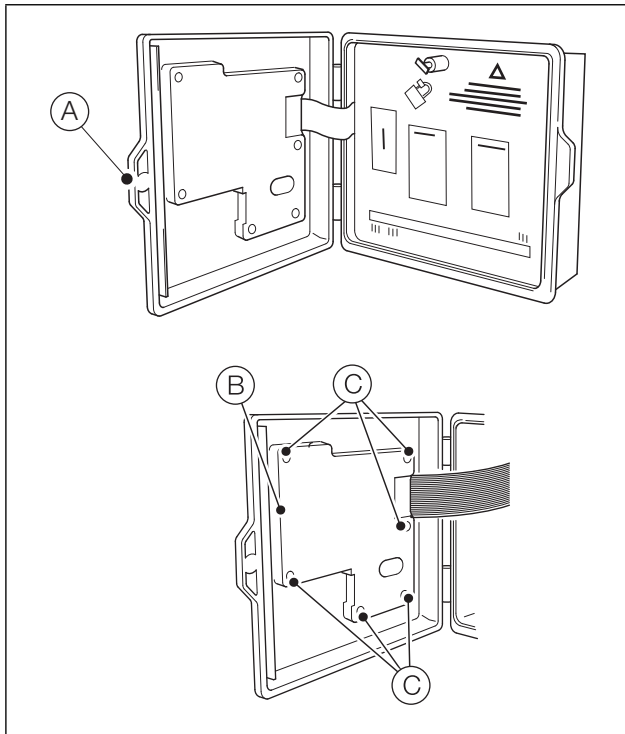


Fig. 6.1 Removing the display cover

Referring to Fig. 6.2

4. Connect the processor board to be programmed to the E8a Programmer using the red 10-way cable (A):

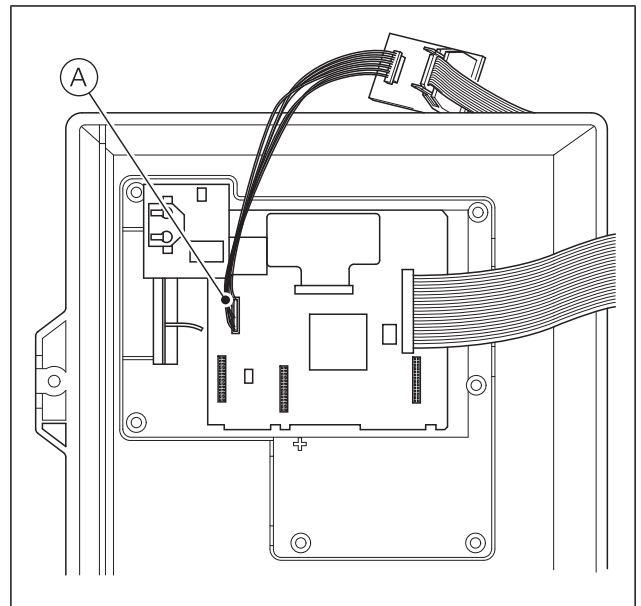
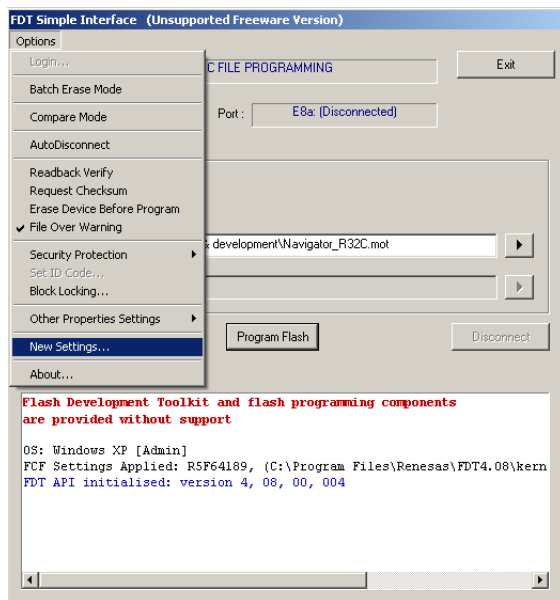


Fig. 6.2 Connecting the 10-way ribbon cable

7 Using the software

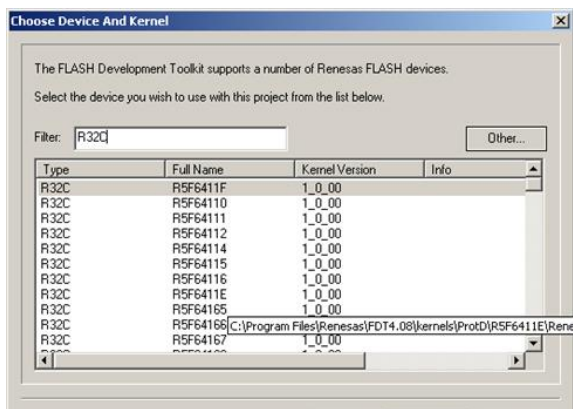
1. From the Windows *Start* menu select the *Flash development toolkit* in the Renesas folder.

The *FDT Simple Interface* dialog is displayed:



2. From the *Options* menu, select *New Settings*.

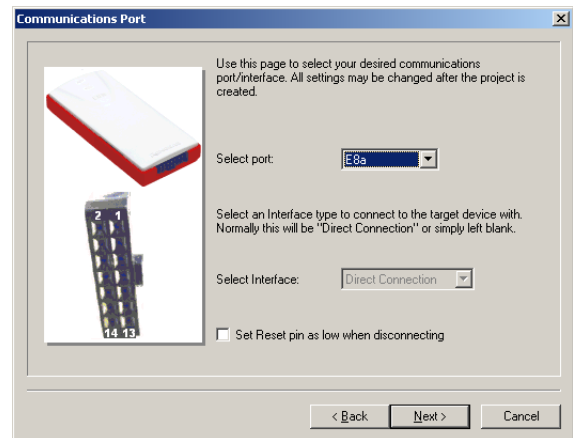
The *Choose Device and Kernel* dialog is displayed:



Select each device as follows:

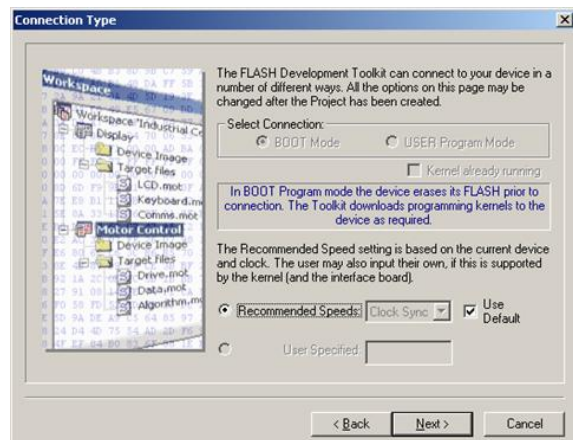
- transmitter: type *R32C* in the *Filter* field, select R5F64169 from the list of supported devices and click *Next*.
- wet-section: type *M16C* in the *Filter* field, select M30260F8 from the list of supported devices and click *Next*.

The *Communications Port* dialog is displayed:



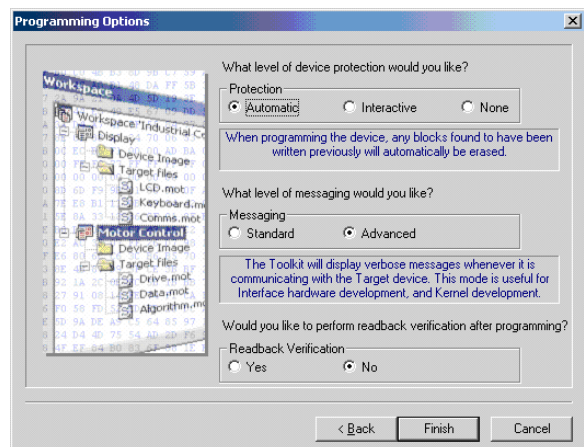
3. Select *E8a* from the *Select Port* drop-down and click *Next*.

The *Communications Port* dialog is displayed:



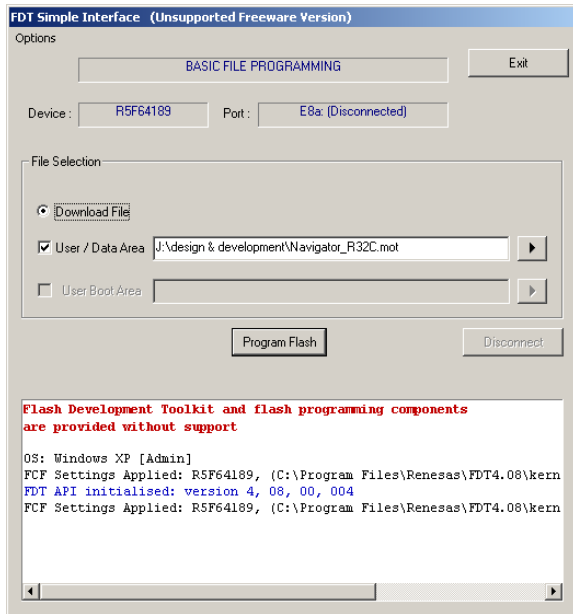
4. Set *Recommended Speeds* to *Use Default* by ticking the check-box and click *Next*.

The *Programming Options* dialog is displayed:



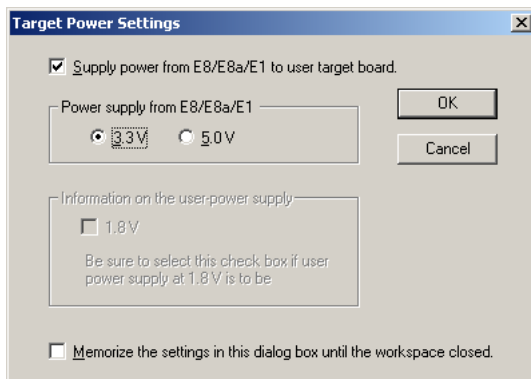
- Ensure the *Automatic*, *Advanced* and *No* radio buttons are selected and click *Finish* to exit the configuration (the board can now be programmed).

The *FDT Simple Interface* dialog is displayed:



- Ensure the *User / Data Area* check-box is ticked and click the  button to browse for the required .mot file.
- When the .mot file has been selected, click *Program Flash* to begin programming the selected device.

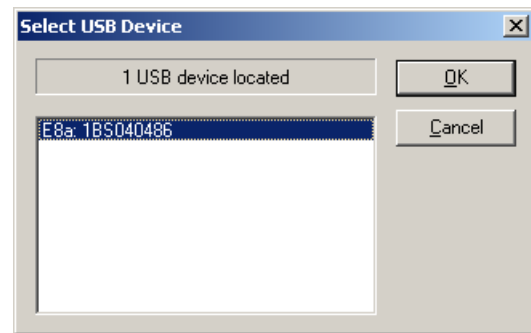
The *Target Power Settings* dialog is displayed:



Select the power requirement for each device as follows:

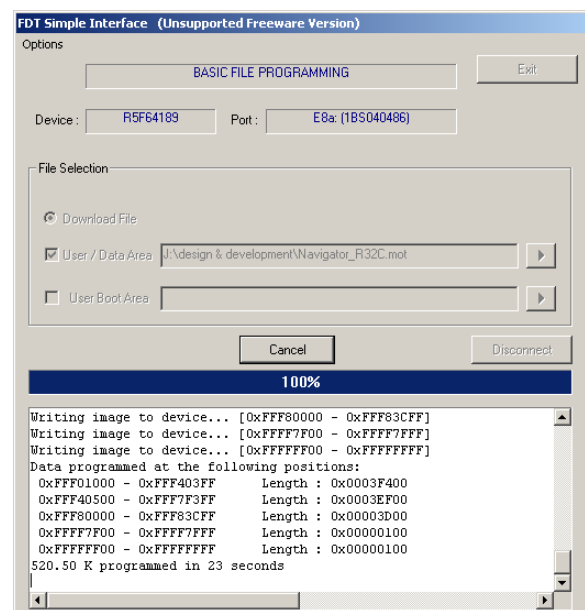
- transmitter: click the *Supply power from E8/E8a/E1 to user target board* and 3.3V radio buttons and click OK.
- wet-section: click the *Supply power from E8/E8a/E1 to user target board* and the 5.0V radio buttons and click OK.

The *Select USB Device* dialog is displayed:



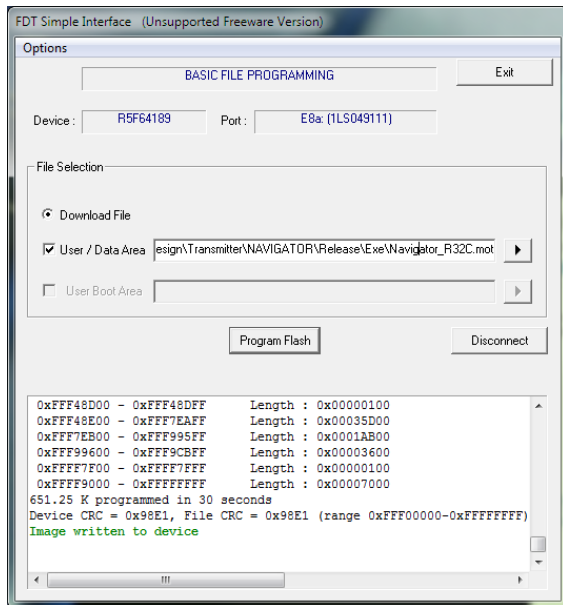
- Select *E8a* from the list of available devices and click *OK*.

The *FDT Simple Interface* dialog is displayed and programming commences:



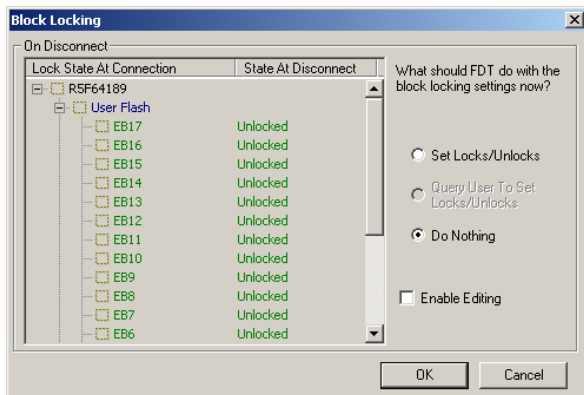
When programming is complete the *FDT Simple Interface* dialog is refreshed and the *Disconnect* button is enabled.

Programming commences:



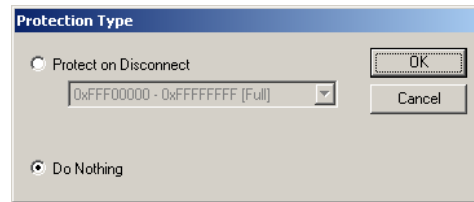
9. Click *Disconnect*

The *Block Locking* dialog is displayed:



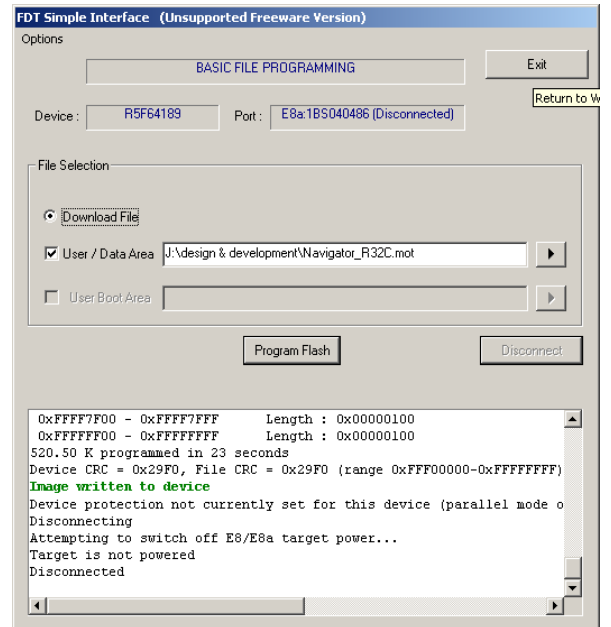
10. Select the *Do Nothing* radio button and click *OK*.

The *Protection Type* dialog is displayed:



11. Select the *Do Nothing* radio button and click *OK*.

Programming is now complete and the *FDT Simple Interface* dialog is displayed:



12. Click *Exit* to quit the FDA application.

13. Disconnect the E8A programmer and refit the PCB covers in the reverse order of removal:

- transmitter: see Section 6, page 4.
- wet-section: see Section 5, page 3.

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