

No. **INF01/48**

Date: **February 2002**

Product: **SM2000 Videographic Recorder**

Manual: **IM/SM2000**

SM2000 SmartMedia Hardware Installation

1 Introduction

This information sheet describes the procedure for fitting SmartMedia hardware to SM2000 instruments.



Note. The SmartMedia upgrade requires 2002 issue 8.0 or later Application Code and 1002 issue 6.0 or later System Code to function correctly – see Fig. 1.1 for details of checking the Code versions. This information sheet also details the procedure for downloading and installing the Application and System Code.



Note. When installing SmartMedia hardware, the Main Board in instruments manufactured prior to January, 2002 must be modified by fitting a 47µF capacitor. This work must be carried out by a Company Approved Service Engineer to avoid invalidating the instrument's warranty.

2 Tools Required

- Medium, flat-bladed screwdriver
- No. 1 Pozidriv screwdriver
- Fine-tipped soldering iron

The **SmartMedia Service Pack**, GR2000/0702, includes the following items:

| Description | Part No. | Qty |
|---|--------------|-----|
| SmartMedia Sub-Assembly | GR2000/0061 | 1 |
| M2.5 x 10 Screw | B11823 | 2 |
| PCB Link | B9250 | 2 |
| 47µF 16V Tantalum Capacitor | B6651 | 1 |
| Information Sheet – SM2000 SmartMedia Hardware Installation | INF01/48 | 1 |
| Manual – SmartMedia Handling and Care | IM/SM1000-SM | 1 |

Application Code Version →

System Code Version →

Instrument Status
28/01/02

| VERSION | | CJ TEMPERATURES | |
|----------|--------|-----------------|----------|
| Software | 2002/8 | A | Not Used |
| System | 1002/6 | B | Not Used |

ARCHIVING

Group 1 filename: Process Group 1 – OFF

Group 2 filename: Process Group 2 – OFF

% Memory used: 80.5%

Time left: 5 days

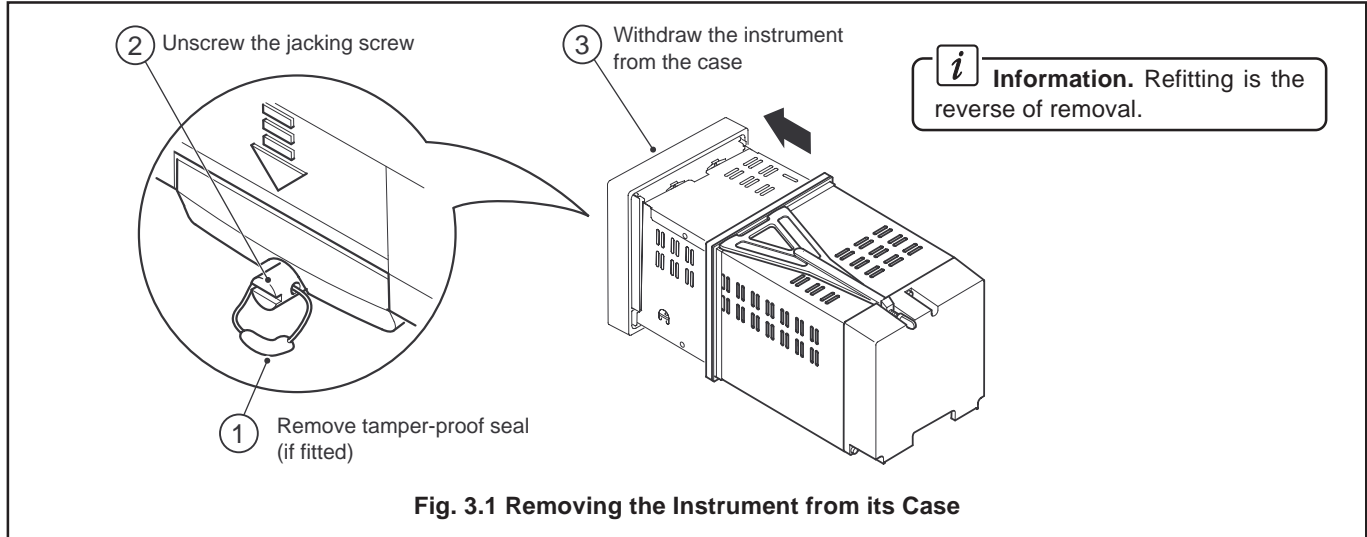
Use the Group key to select the Status View →

Fig. 1.1 Checking the Instrument Operating Software Versions

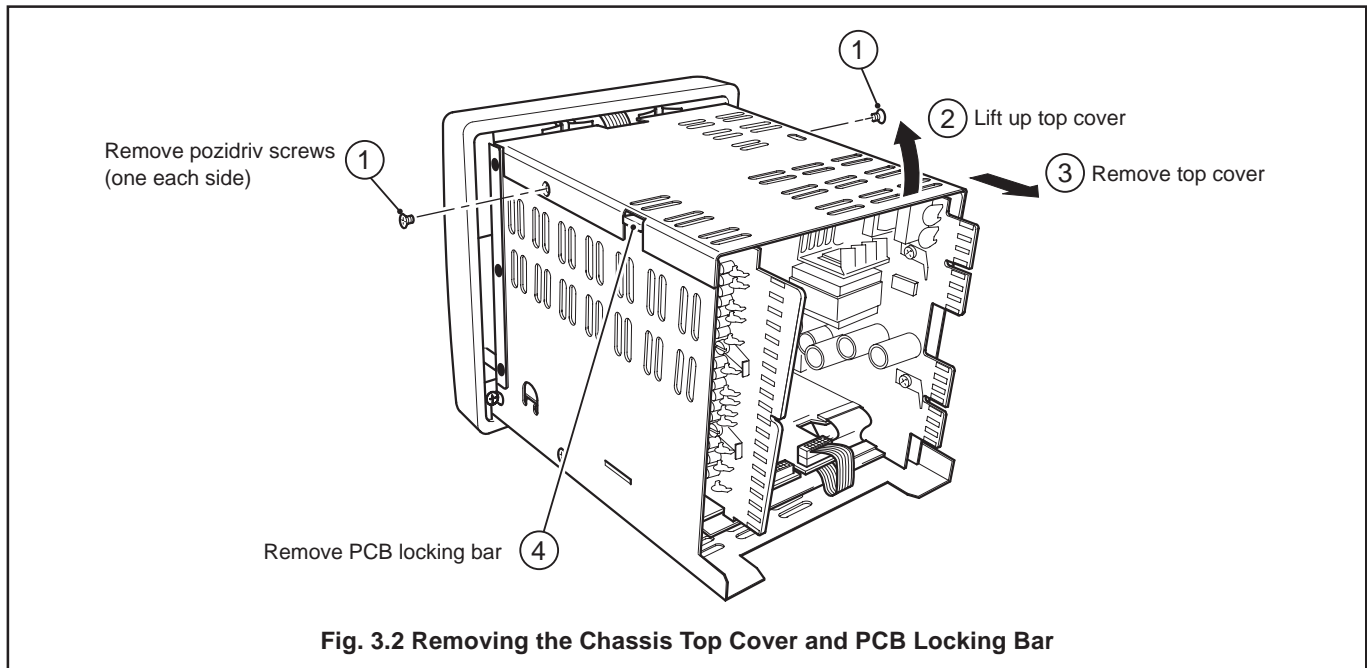
3 Fitting Media Board Sub-Assembly – Figs. 3.1 to 3.7

Caution. The instrument is vulnerable to electrostatic damage. Wear an anti-static strap or dismantle the unit on an anti-static workbench.

- 1) Isolate the instrument from the power supply.
- 2) Remove the instrument from its case – see Fig. 3.1.

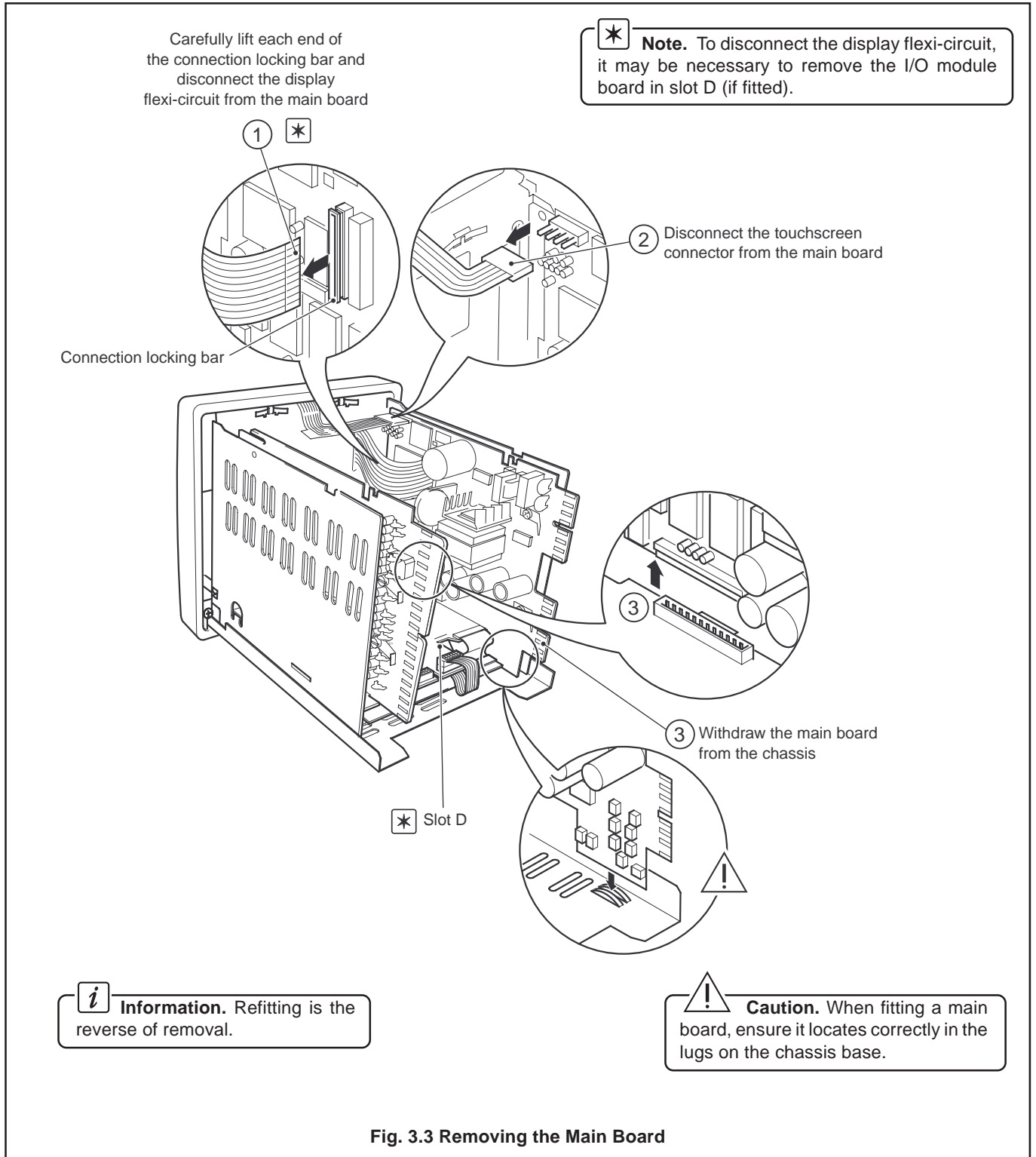


- 3) Remove the chassis top cover and PCB locking bar – see Fig. 3.2.



...3 Fitting Media Board
Sub-Assembly – Figs. 3.1 to 3.7

4) Remove the Main Board – see Fig. 3.3.

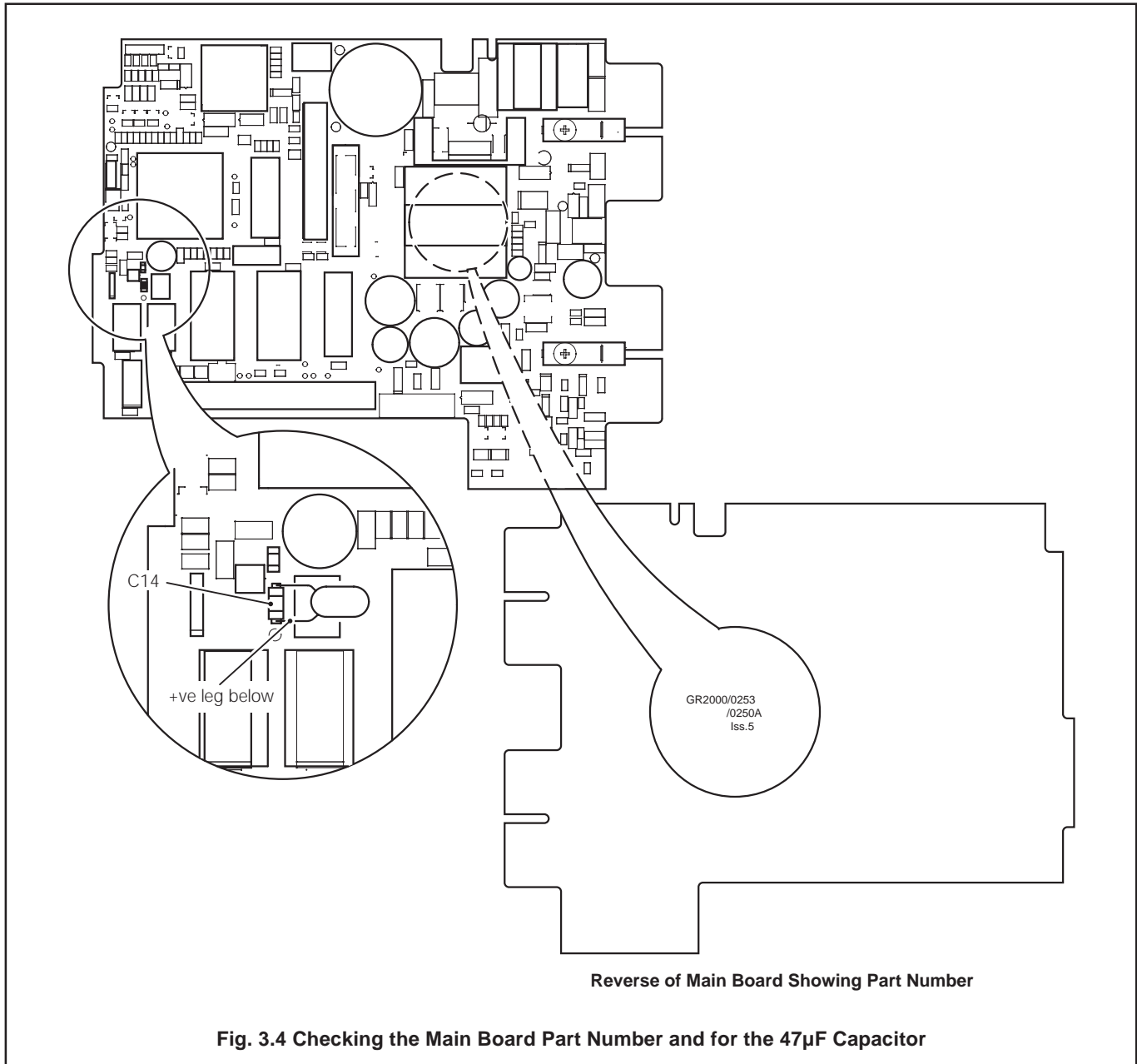


Continued...

...3 Fitting Media Board

Sub-Assembly – Figs. 3.1 to 3.7

5) Refer to Fig 3.4 and check the part number of the Main Board.



* **Note.** Steps 6) and 7) are applicable only if the Main Board is Part no. GR2000/0253.

6) Refer to Fig 3.4 and check that a 47µF capacitor is fitted across capacitor C14.

* **Notes.**

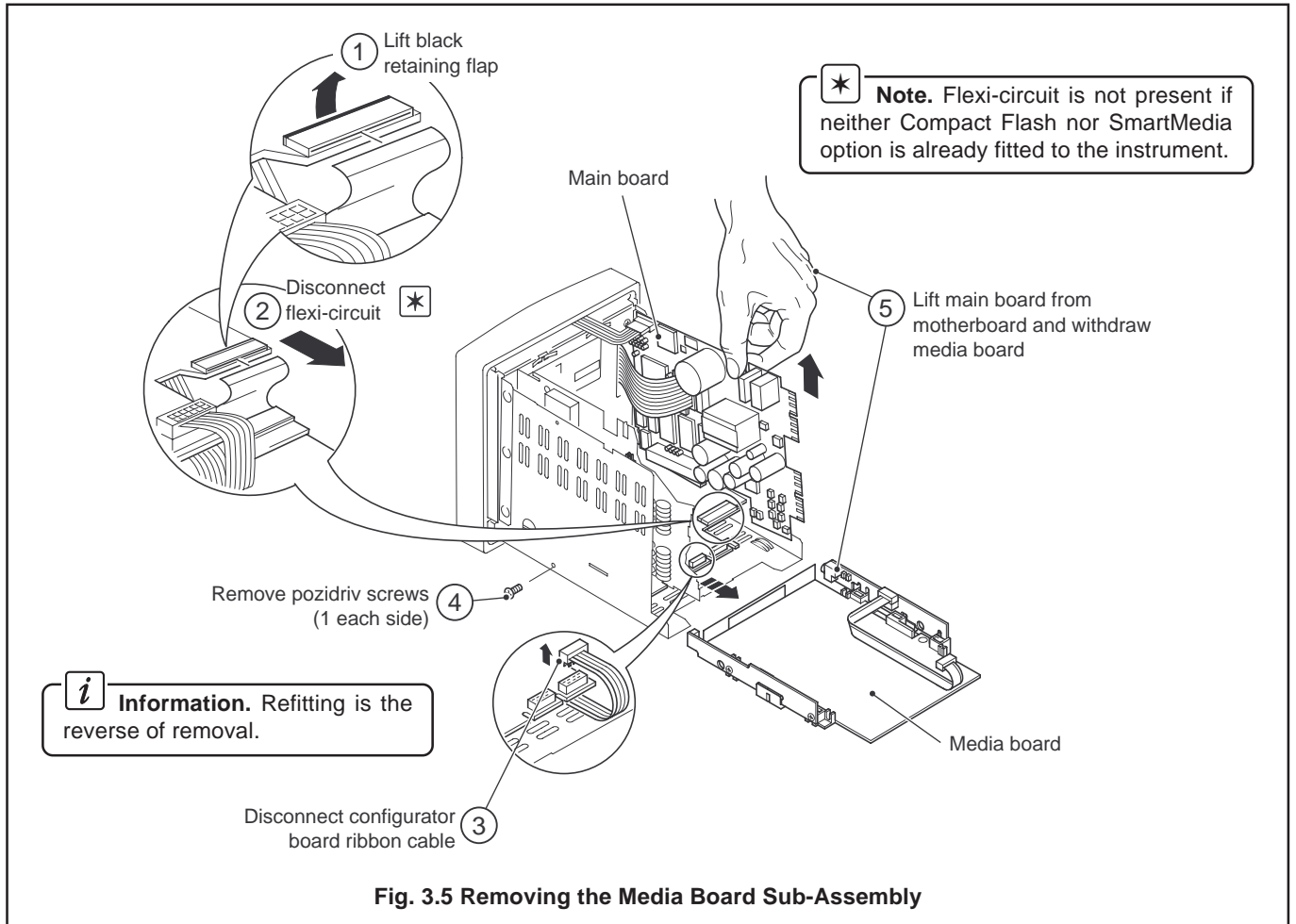
- Step 7) is applicable only if the 47µF capacitor is not fitted.
- Step 7) must be carried out by a Company Approved Service Engineer.

7) Carefully solder the 47µF capacitor part no. B6651 across capacitor C14 ensuring correct polarity – see Fig. 3.4.

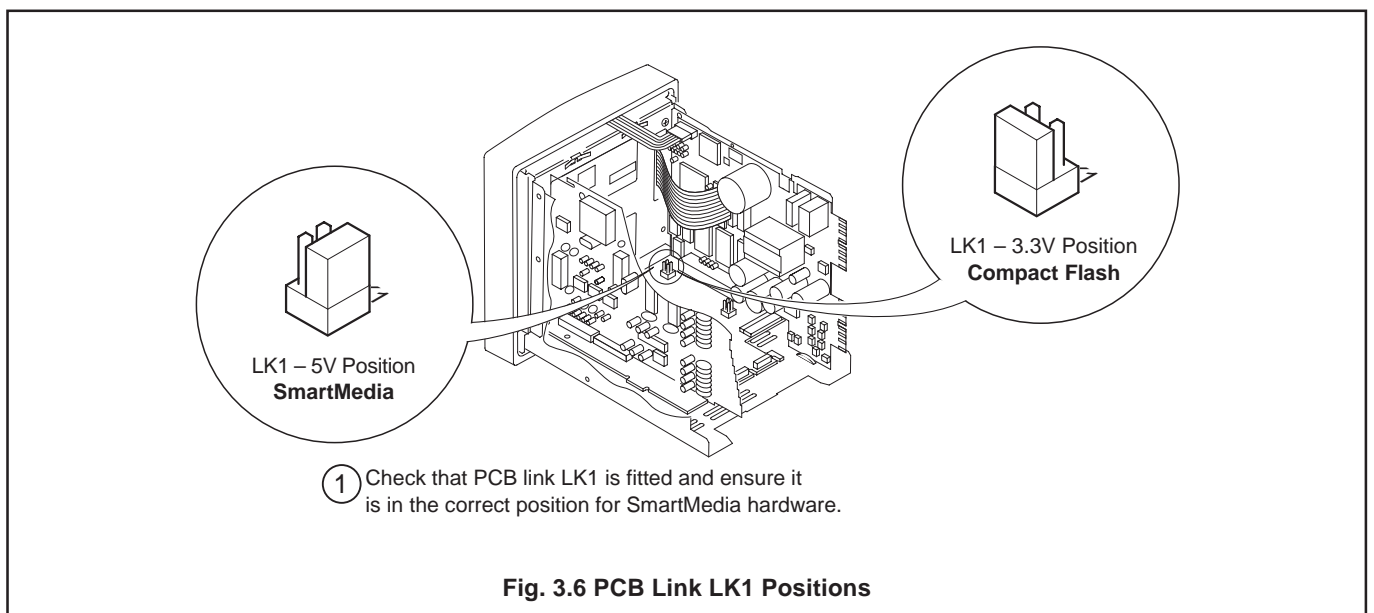
8) Refit the Main Board – see Fig. 3.3

...3 Fitting Media Board
Sub-Assembly – Figs. 3.1 to 3.7

9) Remove the existing media board sub-assembly – see Fig. 3.5.



10) Check the position of PCB link LK1 – see Fig. 3.6.



Continued...

...3 Fitting Media Board

Sub-Assembly – Figs. 3.1 to 3.7

- 11) Fit the new media board sub-assembly – see Fig. 3.5.
- 12) Refit the PCB locking bar and chassis top cover – see Fig. 3.7.

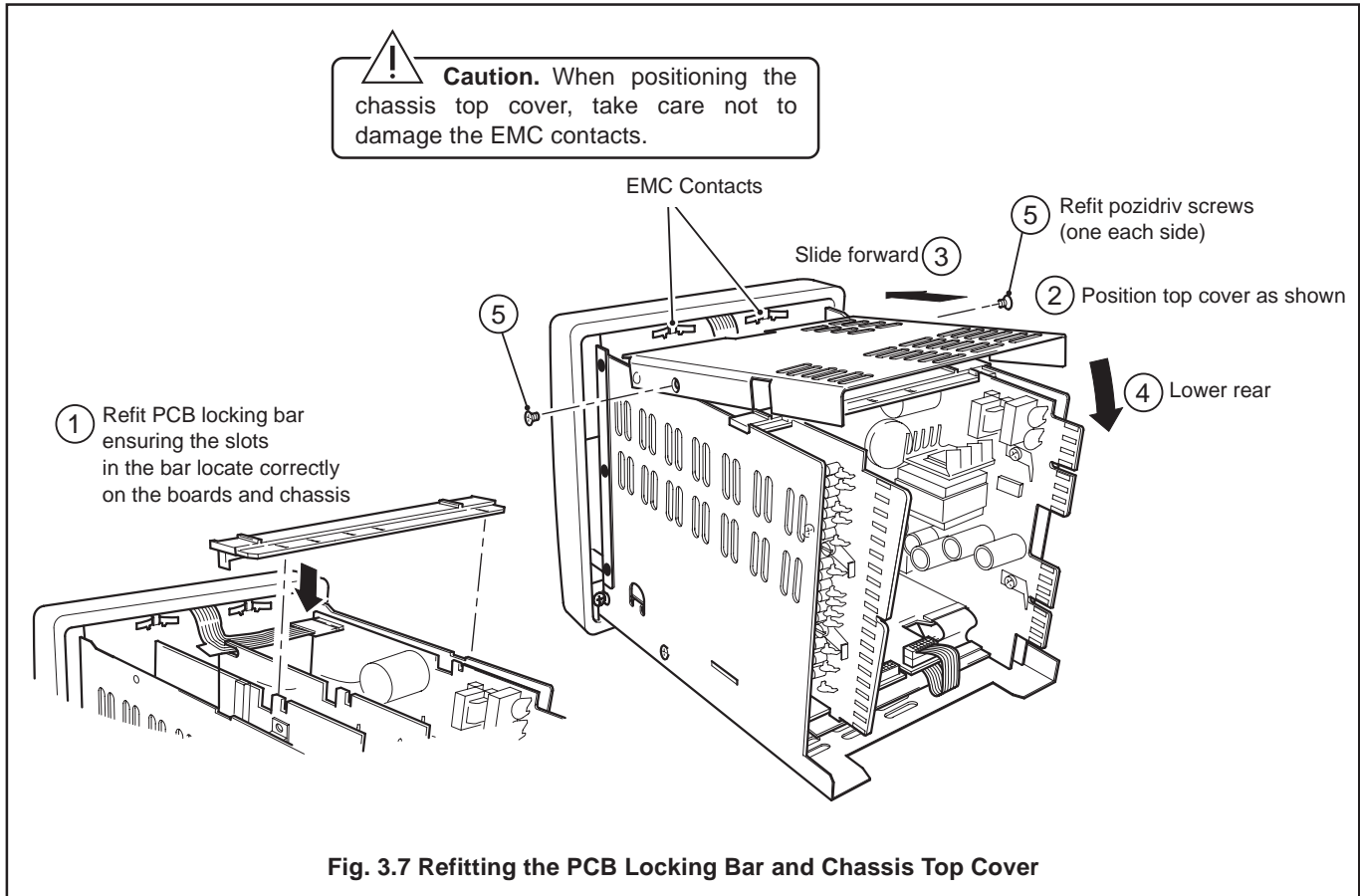


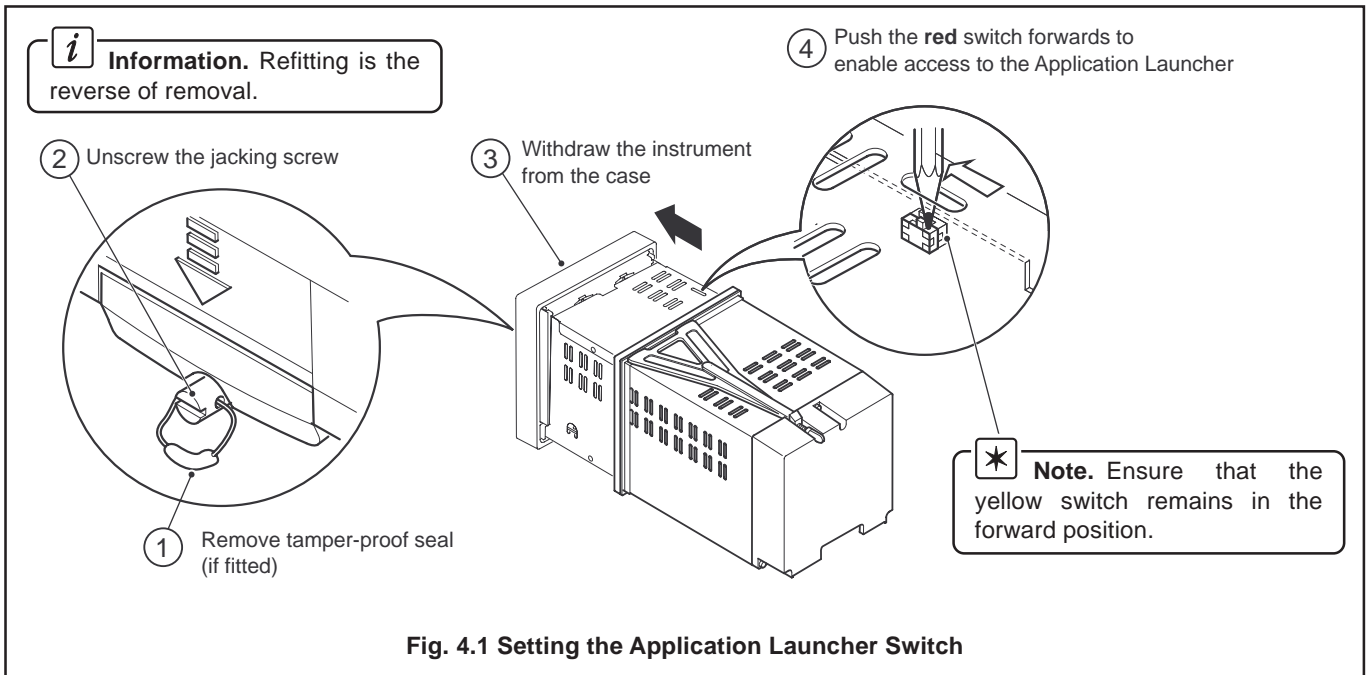
Fig. 3.7 Refitting the PCB Locking Bar and Chassis Top Cover

- 13) Refit the instrument to the case – see Fig. 3.1.
- 14) Restore the power supply to the instrument.

4 Downloading and Installing the Operating System Software – Figs. 4.1 to 4.5

* **Note.** This section is applicable only if the instrument Operating System requires upgrading to 2002 issue 8.0 or later Application Code and 1002 issue 6.0 or later System Code – see Fig. 1.1 for details of checking the Code versions.

- 1) Isolate the instrument from the power supply.
- 2) Remove the instrument from its case – see Fig. 4.1.
- 3) Push the red switch forwards – see Fig. 4.1.



Continued...

...4 Downloading and Installing the Operating System Software – Figs. 4.1 to 4.5

- 4) Refit the instrument to the case – see Fig. 4.1.
- 5) Restore the power supply to the instrument.
- 6) Follow the on-screen instructions and perform touchscreen calibration.



Caution. Do not use sharp objects such as screwdrivers, pen nibs etc. to operate the touch screen.

- 7) Save configuration files to removable media, as required, and delete the binary partition – see Fig. 4.2.

Note. If no configuration files are required to be saved to removable media, proceed to step 9.

1 Press the 'File Viewer' button.

2 Insert a memory card containing a folder named 'SM2000'

3 Press the 'Internal File View' button.

4 Highlight a configuration to save to removable media.

5 Press the 'Operation' key.

6 Press the 'Copy to Storage Card' option on the pop-up menu.

7 Repeat steps 4 to 6 to save other configurations as required.

8 Press the 'Exit' key twice to return to the Application Launcher screen.

9 Press the 'Delete Binary Partition' button.

10 Wait for dialog to appear indicating that this operation was successful.

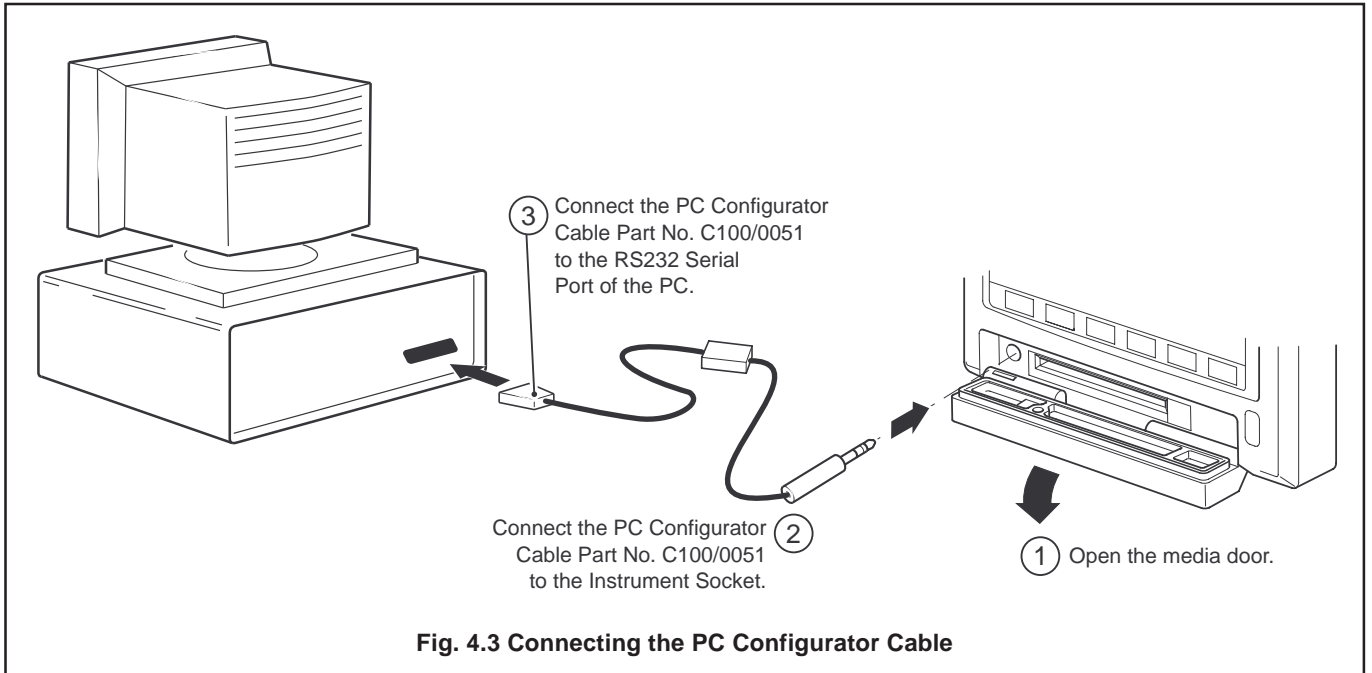
11 Isolate the instrument from the power supply.

| Name | Size | Modified |
|----------------------|-------|------------------|
| AELog.lgf | 25616 | 28/01/2002 16:24 |
| TotLog.lgf | 21904 | 25/01/2002 10:24 |
| AudLog.lgf | 11792 | 23/01/2002 11:33 |
| Company standard.cfg | 30776 | 23/01/2002 11:39 |
| SM2000.cfg | 30776 | 28/01/2002 11:33 |
| QSDemo.cfg | 30776 | 23/01/2002 11:39 |
| QSTHC_C.cfg | 30776 | 23/01/2002 11:39 |
| QSTHC_F.cfg | 30776 | 23/01/2002 11:39 |
| QSRTD_C.cfg | 30776 | 23/01/2002 11:39 |
| QSRTD_F.cfg | 30776 | 23/01/2002 11:39 |

Fig. 4.2 Saving Configuration Files and Deleting the Binary Partition

...4 Downloading and Installing the Operating System Software – Figs. 4.1 to 4.5

- 8) Connect the instrument to a PC on which the PC Configurator Software has been installed – see Fig. 4.3



...4 Downloading and Installing the Operating System Software – Figs. 4.1 to 4.5

9) Start 'downloader.exe' software on the PC.

10) Select the '.sre' file to download (e.g. SM2000_3002_8.sre) – see Fig. 4.4.



Note. The software can be downloaded from either:

- Assistant database in 'Service Information' – 'Videographic Recorders' – 'SM2000'
- or
- ABB Library at <http://inside.abb.com/library> in 'Instrumentation' – 'Recording and Control' – 'Recorders' – 'Paperless Chart Recorders'.

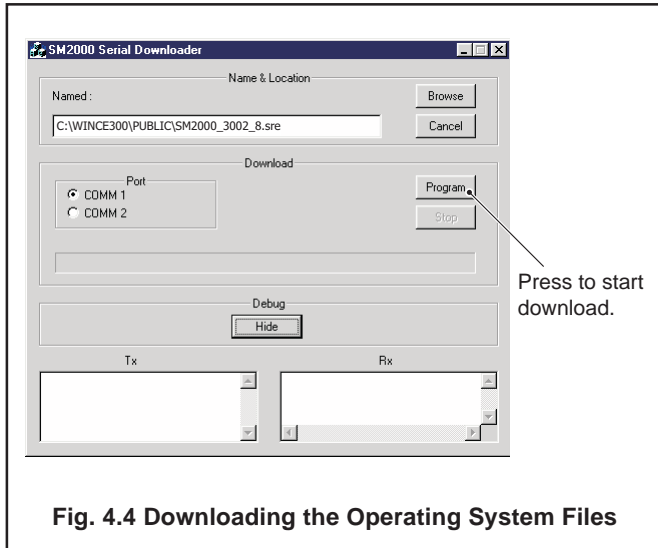


Fig. 4.4 Downloading the Operating System Files

11) Restore the power supply to the instrument and start the download of the new software by clicking on the 'Program' button on the SM2000 Serial Downloader screen – see Fig. 4.4.



Notes.

- The download must start within 15 seconds of applying power to the instrument.
- The download will take approximately 25 minutes to complete.

12) On completion of the download, follow the on-screen instructions and perform touchscreen calibration.



Caution. Do not use sharp objects such as screwdrivers, pen nibs etc. to operate the touch screen.

13) Create the Binary Partition – see Fig. 4.5.

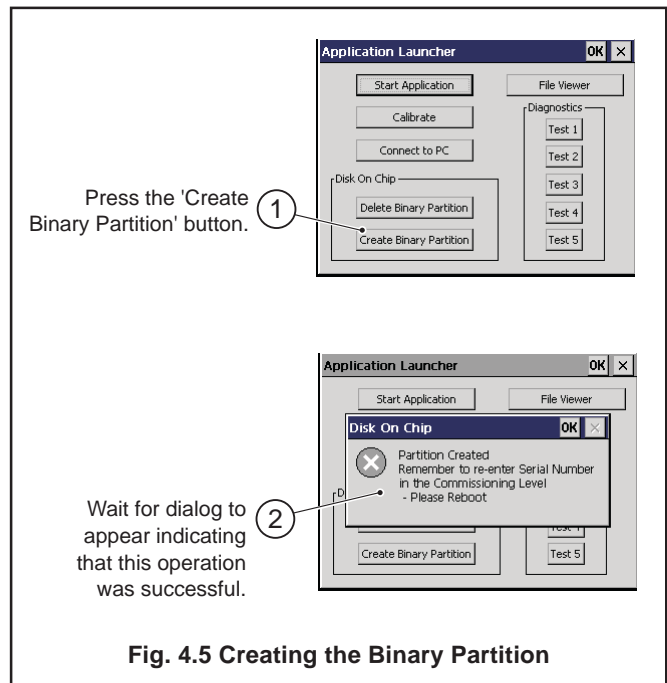


Fig. 4.5 Creating the Binary Partition

...4 Downloading and Installing the Operating System Software – Figs. 4.1 to 4.5

- 14) Isolate the instrument from the power supply.
- 15) Remove the instrument from its case – see Fig. 4.1.
- 16) Push the red switch rearwards – see Fig. 4.1.
- 17) Refit the instrument to the case – see Fig. 4.1.
- 18) Restore the power supply to the instrument.
- 19) Follow the on-screen instructions and perform touchscreen calibration.



Caution. Do not use sharp objects such as screwdrivers, pen nibs etc. to operate the touch screen.



Note. This final calibration must be very accurate as it is the calibration which will be saved by the recorder and used from this point forward to operate the instrument.

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