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.

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

<table>
<thead>
<tr>
<th>Description</th>
<th>Part No.</th>
<th>Qty</th>
</tr>
</thead>
<tbody>
<tr>
<td>SmartMedia Sub-Assembly</td>
<td>GR2000/0061</td>
<td>1</td>
</tr>
<tr>
<td>M2.5 x 10 Screw</td>
<td>B11823</td>
<td>2</td>
</tr>
<tr>
<td>PCB Link</td>
<td>B9250</td>
<td>2</td>
</tr>
<tr>
<td>47 µF 16V Tantalum Capacitor</td>
<td>B6651</td>
<td>1</td>
</tr>
<tr>
<td>Information Sheet – SM2000 SmartMedia Hardware Installation</td>
<td>INFO1/48</td>
<td>1</td>
</tr>
<tr>
<td>Manual – SmartMedia Handling and Care</td>
<td>IM/SM1000-SM</td>
<td>1</td>
</tr>
</tbody>
</table>

2 Tools Required

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

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

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

Carefully lift each end of the connection locking bar and disconnect the display flexi-circuit from the main board.

**Note.** To disconnect the display flexi-circuit, it may be necessary to remove the I/O module board in slot D (if fitted).

**Information.** Refitting is the reverse of removal.

**Caution.** When fitting a main board, ensure it locates correctly in the lugs on the chassis base.

Fig. 3.3 Removing the Main Board
5) Refer to Fig 3.4 and check the part number of the Main Board.

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

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

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

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

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

**Note.** Flexi-circuit is not present if neither Compact Flash nor SmartMedia option is already fitted to the instrument.

**Information.** Refitting is the reverse of removal.

Check that PCB link LK1 is fitted and ensure it is in the correct position for SmartMedia hardware.

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**Fig. 3.5 Removing the Media Board Sub-Assembly**

**Fig. 3.6 PCB Link LK1 Positions**

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.

**Caution.** When positioning the chassis top cover, take care not to damage the EMC contacts.

1) Refit PCB locking bar ensuring the slots in the bar locate correctly on the boards and chassis
2) Position top cover as shown
3) Slide forward
4) Lower rear
5) Refit pozidriv screws (one each side)

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.

Information. Refitting is the reverse of removal.

Fig. 4.1 Setting the Application Launcher Switch

Note. Ensure that the yellow switch remains in the forward position.

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.

Press the 'File Viewer' button.
Insert a memory card containing a folder named 'SM2000'
Press the 'Internal File View' button.
Highlight a configuration to save to removable media.
Press the 'Copy to Storage Card' option on the pop-up menu.
Press the 'Exit' key twice to return to the Application Launcher screen.
Press the 'Delete Binary Partition' button.
Wait for dialog to appear indicating that this operation was successful.
Repeat steps 4 to 6 to save other configurations as required.
Isolate the instrument from the power supply.

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

Fig. 4.2 Saving Configuration Files and Deleting the Binary Partition
8) Connect the instrument to a PC on which the PC Configurator Software has been installed – see Fig. 4.3
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’

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. 4.4** Downloading the Operating System Files

**Press to start download.**

**Fig. 4.5** Creating the Binary Partition

**Press the ‘Create Binary Partition’ button.**

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