SUPERSEDES: NONE

37717B PDH/SDH/Jitter Test Set

Serial Numbers: N/A

Firmware Revision:

Below A.01.10 (Disc-Drive Fitted) Firmware Revision: Below A.00.69 (Disc-Drive NOT Fitted)

Upgrading the Instrument Firmware

To be Performed by: Qualified Service Personnel

Parts Required

Description	Where Used	P/N	Quantity
EEPROM (A5 U1)	Non-disc Drive Models only	37717-80109	01
EEPROM (A5 U2)	Non-disc Drive Models only	37717-80110	01
Firmware Upgrade Discs	Disc-Drive Models Only Contact Product Support		1 Set

Continued

DATE: August 1996

ADMINISTRATIVE INFORMATION

MODIFICATION RECOMMENDED

ACTION CATEGORY:	IMMEDIATELY ON SPECIFIED FAILURE AGREEABLE TIME	STANDARDS: LABOR 0.5 Hours			
LOCATION CATEGORY:	CUSTOMER INSTALLABLE ON-SITE SERVICE CENTER	SERVICE INVENTORY:	RETURN SCRAP SEE TEXT	USED PARTS:	RETURN SCRAP SEE TEXT
AVAILABILITY:	PRODUCT'S SUPPORT LIFE	AGILENT RESPONSIBLE UNTIL: August 1997			
AUTHOR: DBG	ENTITY: E610	ADDITIONAL INFORMATION:			

Agilent Technologies

Situation

A new revision of firmware is available for the 37717B. This revision adds the following new features:

- Full operational capability of the disc-drive (where fitted).

- Operation of the Centronics Printer Interface (Option A3B or A3D).

- Operation of the LAN Interface where fitted (Option A3B).

- Elimination of a number of minor bugs which were present in earlier versions.

It is recommended that all units with firmware Revision Number below that listed above be upgraded with new firmware.

NOTE

If option A3B is fitted, this will need to be enabled after the firmware has been upgraded to get the LAN Interface capability.

Procedure

The method used to upgrade the firmware will depend on whether the instrument has an internal disc drive fitted.

To check if a disc-drive is fitted, look on the right-side of the instrument and compare with Item 11 in Figure 1.

If Item 11 is a metal plate secured with 2 pozidrive screws, upgrade the firmware using the eeproms in Table 1 above. If Item 11 has a slot for a 3.5 inch floppy disc, upgrade the firmware using the set of discs in Table 1 above.

Checking Firmware Revision

Before updating the firmware, confirm the Revision fitted to your instrument.

The FIRMWARE REVISION number appears on the [REMOTE/PRINTER] options page.

Access this page as follows:

1. Press the OTHER key then [MORE] softkey until a softkey labeled [OPTIONS] is displayed.

2. Press the [OPTIONS] softkey then select [REMOTE/PRINTER] Options.

The MAIN and AUX firmware numbers will be displayed at the bottom of this page.

3. Check the Main Firmware Revision Number. If this is in the affected range, use the following upgrade procedure to install the new firmware.

Upgrading the Firmware

Procedure A : NON-DISC DRIVE MODELS ONLY

CAUTION

Suitable anti-static precautions must be observed when handling eeproms. Ensure your work-area conforms to Corporate Standard 741.808.

1. Switch off the instrument and disconnect the power cord.

2. Remove the two screws securing the ROM Drawer Cover to the CPU Module (see Fig 1 below) and carefully extract this drawer out of the module.

3. Remove eeproms from their sockets and fit new eeproms as shown in Figure 2.

4. Fit the ROM Drawer Assembly with new eeproms back into the instrument, replace the ROM Drawer cover and secure with the two screws.

The firmware upgrade is now complete.

Procedure B : DISC DRIVE MODELS ONLY.

1. Power on the instrument and check for a valid display.

2. Press OTHER key, then [MORE] softkey then select the [CALIBRATION] function.

3. Select CALIBRATE PASSWORD and using the DECREASE DIGIT and INCREASE DIGIT softkeys set the password to [1243]

4. Select CALIBRATION ITEM : [FIRMWARE UPGRADE].

5. Fit Disc 1 (from the set of discs supplied in this kit) into the disc drive slot with the disc label facing towards the instrument Front Panel.

6. Answer each question displayed on the screen using the appropriate keys. When you have answered all questions, the instrument will commence downloading data from Disc 1. This process will take from 5-10 minutes.

NOTE

Select <Program> when asked if you want to verify the discs.
Verification is not required.

When data transfer from Disc 1 is complete, the display will show:

Insert next disc & press any key

Use <single error key> to abort update.

7. Repeat steps 5 to 7 with the other discs supplied in the Retrofit Kit.

When data transfer from the last disc is complete, the display will show:

To use new code press any key

Use <Single error key> to abort update.

8. Press TRANSMIT key to initialize the instrument.

9. After initialization. press TRANSMIT key again to restart the instrument.

The firmware upgrade is now complete.

Enabling the LAN Interface (Option A3B)

If an option A3B label is fitted on the instrument rear panel, then the LAN Interface hardware will already be fitted. To use the hardware, you will need to DISABLE the option A3D in the instrument memory and ENABLE the option A3B instead.

Do this as follows:

Disabling A3D

1. Switch on the instrument.

2. Make the following key sequence to obtain the OPTION ENABLE display.

   Press [OTHER]; [<^]; [MORE]; [<^]; [MORE]; [<^]; [MORE]; [OTHER].

   Press [MORE] until OPTION ENABLE appears in the softkey menu.

3. Press OPTION ENABLE softkey.

4. Move cursor down one place and select the option to be added.

5. Move cursor down one place and select [NOT FITTED].

6. Move cursor to CODEWORD field and insert the special codeword into this field using the [<],[>], and [INCREASE DIGIT], [DECREASE DIGIT] softkeys.

   ```
   37717B SERIAL NUMBER................................
   OPTION TO BE REMOVED.....  A3D .....................
   CODEWORD...........................................
   ```

   NOTE

   This CODEWORD is unique to every 37717B unit and can only be obtained by contacting the Agilent TNTD Product Support Engineer.

7. Move the cursor to TOGGLE TO SET OPTION field and enable the option by pressing the [SET OPTION] softkey. The display will flash momentarily and the message "Option Structure Changed" will be displayed. The unit will assume Default Settings.

8. Press the OTHER key then [MORE] softkey until softkey labeled [OPTIONS] is displayed.

9. Press the [OPTIONS] softkey and ensure that A3D has been removed.

Adding A3B

1. Switch on the instrument.

2. Make the following key sequence to obtain the OPTION ENABLE   display.

   Press [OTHER]; [<^]; [MORE]; [<^]; [MORE]; [<^]; [MORE]; [OTHER].

   Press [MORE] until OPTION ENABLE appears in the softkey menu.

3. Press OPTION ENABLE softkey.

4. Move cursor down one place and select the option to be added.

5. Move cursor down one place and select [NOT FITTED].

6. Move cursor to CODEWORD field and insert the special codeword into this field using the
   [<],[>], and [INCREASE DIGIT], [DECREASE DIGIT] softkeys.

```
37717B SERIAL NUMBER.................................
OPTION TO BE ADDED.....  A3B ........................
CODEWORD............................................
```

<div align="center">NOTE</div>

> This CODEWORD is unique to every 37717B unit and can only
> be obtained by contacting the Agilent TNTD Product Support
> Engineer.

7. Move the cursor to TOGGLE TO SET OPTION field and enable the option by pressing the
   [SET OPTION] softkey. The display will flash momentarily and the message "Option
   Structure Changed" will be displayed. The unit will assume Default Settings.

8. Press the OTHER key then [MORE] softkey until softkey labeled [OPTIONS] is displayed.

9. Press the [OPTIONS] softkey and ensure that A3B has been added.

Checking the LAN Interface MAC Address (Option A3B only)

Every instrument shipped with Option A3B LAN interface has a unique MAC address associated
with it. This address is stored in the instrument memory at the factory and should not require
changing during the life of the instrument.

Check the MAC address in memory after enabling option A3B by carrying out the following
procedure:

1. Switch on the instrument and press the OTHER key then [MORE] softkey. Select the
   [CALIBRATION] function.

2. Select CALIBRATE PASSWORD and set to [1243] using the INCREASE DIGIT and
   DECREASE DIGIT softkeys.

3. Select the calibration item [SET MAC ADDRESS].

The MAC Address is displayed at the bottom of this page.

```
37717B SERIAL NUMBER...............................
MAC ADDRESS........................................
```

If the MAC Address displayed on the instrument is different to that shown here, then you will
need to change it as follows:

4. Move the cursor to the [MAC ADDRESS EDIT] field and change the address to that shown
   above using the INCREASE DIGIT and DECREASE DIGIT softkeys.

5. Move the cursor to the [ACCEPT CHANGES] field and press the ON softkey.

6. Ensure the change is reflected at the bottom of the display.

Testing

1. Power on the instrument and check for a valid display.

2. Obtain a pass on all instrument Selftests.

The instrument is now ready for use.

Figure 1 - Location of Disc-drive or Rom Drawer in the 37717B

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          |        |     | | | | | | | | | | | || |     |   / \   |
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FRONT---> |        |     | | | | | | | | | | | || |     | | |  _  | |
          |        |     | | | | | | | | | | | || |     | | |_| | |
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          |        |     | | | | | | | | | | | || |     | |__13_| |
          |        |     | | | | | | | | | | | | ---    |         |
          |        |     | | | | | | | | | | | |        |         |
          |    ___.------------------------------------------’
          ----         1   2 3 4 5 6 7 8 9 10        12

10 .... CPU/REMOTE
11 .... Disc-Drive or ROM Drawer
12 .... Line Input Assembly
13 .... Line ON/OFF Switch


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          |  4321          37714-60005   |
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          | |x x | s1                    |
          | |_x_x|                        |
          |  open                        |
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          | |   | |   | |   |  |   |     |
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          | |   | |   | |   |  |   |     |
          | |   | |   |42|-^-|142|-^-|1 |
          | ’---’ ’---’ ’---’  ’_ _’     |
          |   u4    u3    u2     u1      |
          -------------------------------
        Figure 2 - Location of EEPROMS in ROM Drawer.
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