Appendix A: Firmware for Version 3.80.16

There are three options:

The following firmware versions are to be loaded in the TMCE board and TH2 when installing version 3.80.16. The corresponding file name is in parenthesis:

- **TMCE firmware: 1.32.03** (QuantumFMW13203.bin)
  a. **Head firmware 1.04d** (th2fmw104d.bin)
  b. **Xilinx firmware: 2.23** (mcelca0223.bin)
  c. **Boot Code: 1.09** (MCREBOOT109.BIN)
  d. **Post Code: 1.05** (mcepost105.BIN)
  e. **BBR: 1.03** (mcerec103.bin)
  f. **Pattern Data: 1.01** (mcedata0101.bin) for Spectrum platesetters only.

Note: To identify the correct firmware versions, navigate to the Tools folder: **C:\TH2\Tools** (The Tools folder contains the firmware files in binary format.)

To load any required firmware, type the following command in Service Shell:
`QUANTUM>>`**download c:\TH2\Tools\<filename>.bin**

Information about firmware versions loaded in the TMCE and TH2 can be obtained by typing the following commands in Service Shell:
`QUANTUM>> fw dir (or: list version all)`

Verify the correct firmware versions are displayed:

```
QUANTUM>>
fw dir
QUANTUM>> fw dir
Name          Version  Start     Sctr Length  Checksum Used Free
------------- -------  --------  ---- ------- -------- ---- ----
MCE BBR  Code 1.03     00000000    1    6832 Passed     5% 95%
MCE NVS Parms n/a      00020000    2  262144 n/a      100%  0%
MCE BOOT Code 1.09     00060000    2  108096 Passed    41% 59%
MCE FW Dir    1.00     000A0000    1  131072 n/a      100%  0%
MCE MAIN Code 1.32.03  000C0000   16 1463148 Passed    69% 31%
MCE OVWR Data n/a      002C0000    2       0 n/a        0% 100%
MCE POST Code 1.05     00300000    2   75294 Passed    28% 72%
MCE Xilinx    2.23     00340000    6  218976 Passed    27% 73%
------------- -------  --------  ---- ------- -------- ---- ----
Totals:                           32 2265562          54% 46%
*** Command Complete
```

`QUANTUM>> th2 "ver"`

```
QUANTUM>>
th2 ver
QUANTUM>> th2 ver
*** Command Complete
TH2 > ver
Project:          Thermal II
Firmware:         1.04d Release
Build:            2494
Date:             Feb 23 2004 11:20:49
Control board:    3
Xilinx:           30
*** Command Success ***
```