# Appendix C: Specifying the Head Type for Quantum and non Quantum Platesetters

**Important:** The head type must be defined according to the head installed.

**WARNING: Check the head type BEFORE entering the configuration settings. If you enter incorrect settings, the platesetter will not be able to expose any media; you will not be able to re-enter new configurations; and the head will have to be replaced!**

## Identifying the Head Type

Identify the type of head installed on the platesetter before entering the configuration settings.
Located on the rear lower panel of the platesetter is an adhesive label enabling you to identify the type of head installed on the platesetter.
The **DESC** line on the label either contains the letter **Q** or the Roman numerals **II**:

- **Q** represents Quantum SquareSpot and indicates that a **P22** head is installed on the platesetter.
- **II** represents a Lotem 800 II platesetter and indicates that a **P33** thermal head is installed on the platesetter.



## Defining the Head in the TMCE Board

**Note:** The above command is context sensitive; make sure to upper case the relevant letters in the command.

After the head type has been identified, it is necessary to define the head in the TMCE board.

**To define the head, do the following:**

1. Open Service Shell.
2. Type the following:
   QUANTUM>>**access dev**
   QUANTUM>>**config**
   A list containing all the available Quantum modes and their corresponding codes appears on the monitor.
   QUANTUM>>Config AVerySecretPassword [head type]
   Change the head type as required (a mismatch will cause the exposure to fail):

   **Note:** Although **Lotem Defaul**t appears in the list, it is not an available option. Select either **LotQU** or **LotII**, as described below:

   - For P22 heads, the head type is **LotQU**.
   - For P33 heads, the head type is **LotII**.

**Note:** The above command is context sensitive; make sure to upper case the relevant letters in the command.

## Defining the Head Model

After the head type has been defined, verify that the information you entered in Service Shell is correct, and if required, define the head model.

**Verifying the head type information:**

To verify the head type information, type the following command:

QUANTUM>>**access dev**
QUANTUM>>**ceh head info**
Exposure Head Type = Thermal 2
Firmware Build = Release
Firmware Version = 1.04d
Serial Number = T00531
Head Model = Standard
*** Command Complete

The above output indicates that the **Head Model** is **standard** (last line) meaning that it is a **P22** head. For a **P33** head the last line would be:
Head Model = Entry Level

**Defining the head model:**

If the Thermal Head 2 is not defined as P33, type the following command:

`TH2>>`**sys model p33**
The following screen message will be displayed:

```
WARNING! Configuring a P33 head will degrade plot quality, and
could disable the head. This command must only be run on P33
heads installed on non-Quantum engines.
Proceed with P33 configuration (Y/N)
```

**WARNING: If you type Y (Yes) the action is irreversible.**

Type **Y**
To ensure that the head protocol is set to **True**, type the following:
`Quantum>>`**set ehi protocol**
The following screen message will be displayed:

```
ehi protocol true
```

To change the status from **False** to **True**, type the following:
`Quantum>>`**set ehi protocol true**

**Note:** The above actions ensure that the head works correctly.
If the head protocol is not set to true, several scripts will be effected and the head will not work.

**Important:** The P33 head does not support thermal compensation. Therefore, the thermal compensation detector must be bypassed in the TMCE board, otherwise the **AI_Engine Temp** error message will be displayed.
**To bypass the thermal compensation detector:**

1. Type the following in Service Shell:
   `Quantum>>`**scan groups**
2. Navigate to the line **AI_EngineTemp.** If the letter **b** appears next to this line, then the detector is not bypassed. (The **b** informs the MCE not to bypass the detector.) To overcome this problem, type the following:
   `Quantum>>`**scan AI_EngineTemp bon**
   `Quantum>>`**reset**
   Then type `Quantum>>`**scan groups**.
   The letters **xb** will appear next to the **AI_EngineTemp** line. (The letters **xb** inform the MCE to bypass the detector.)

```
QUANTUM>> scan groups
Group Name              Status Value
DI_Group0                      00000000h
DI_Group1                      00000000h
DI_Group2                      0000F004h
DI_Group3                      00000022h
DI_Group4                      00009D90h
DO_Group0                      00000000h
DO_Group1                      00000000h
DO_Group2                      00000020h
AI_EngineTemp                xb 00000159h
AI_MainBoardTemp              b 000001C5h
```