Command:HERE (H)

The 'here' command differs on a TGPMT card from our other systems.

Actuators, Piezos, MicroMirror etc

MS2000 or RM2000 syntax
The HERE command sets the current reported position(s) of the axis(es) provided.

Shortcut	H
Format	HERE [axis]=[position in 1/10 microns]...
Units	1/10 microns
Remembered	Automatically

Tiger syntax

Shortcut	H
Format	HERE [axis]=[position in 1/10 microns] or see below for clocked devices
Units	1/10 microns
Type	Axis-Specific
Remembered	Automatically

Assign the specified number to the axis's current position buffer. If no position is specified, 0 is assumed. For non-clocked devices, the unit of measurement is in tenths of microns. This defines the current position to be a specific distance from the origin (0).

Clocked Devices:

On clocked devices (filter slider, turret, mirrored port switch, etc), you can *change position #1* or you can *change the spacing between positions*.

Change position #1"

1. Remove all axes from either the joystick or a knob (for example, the Z-axis from the Z-knob J Z=0).
2. Assign the clocked device axis to that joystick or knob (for example, the M-axis to the Z-knob J M=22).
3. Use the joystick or knob to adjust the axis to the desired position.
4. Issue the 'here' command to set the position (for example, the M-axis H M=1).
5. Restore (assign and unassign) the desired axes to the joystick / knobs as desired (for example, the M-axis from and the Z-axis to the Z-knob J M=0 Z=22).

Change the spacing between positions:

1. Move to position #2 (for example, the M-axis M M=2).
2. Remove all axes from either the joystick or a knob (for example, the Z-axis from the Z-knob J Z=0).
3. Assign the clocked device axis to that joystick or knob (for example, the M-axis to the Z-knob J M=22).

4. Use the joystick or knob to adjust the axis to the desired position.
5. Issue the 'here' command to set the spacing (for example, the M-axis H M+.
6. Restore (assign and unassign) the desired axes to the joystick / knobs as desired (for example, the M-axis from and the Z-axis to the Z-knob J M=0 Z=22).

Only available on MS2000 version 9.2m and above, TG1000 version 3.28 and above.

If there are no errors, the positive reply :A will be sent back from the controller

> ⚠️ DOES NOT WORK FOR PIEZOS AND MICROMIRRORS.
> ~~DOES NOT WORK FOR "CLOCKED DEVICES" SUCH AS FILTER SLIDERS AND TURRETS.~~

Example

```
H X=1234 Y=4321 Z
:A
```

The X position will change to 123.4 microns from the origin, Y will change to 432.1 microns, and the Z will be zeroed. *Example*

```
H X=1234 Y=4321 Z
:A
```

The X position will change to 123.4 microns from the origin, Y will change to 432.1 microns, and the Z will be zeroed.

TGPMT usage

Shortcut	H
Format	HERE [axis] or HERE [axis]=0
Type	Axis-Specific
Remembered	Automatically

On a TGPMT card, this command this used to Zero the PMT signal reported by the RDADC command. When this command is issue, the current PMT signal is saved, and the controller begins subtracting it from the current PMT signal. Users can use this as a background subtract or offset feature.

User can cancel the zeroing by issuing HERE [axis]=0. Readings reported by RDADC command will not be altered anymore.

Only the readings reported by the RDADC command are altered. 0-4V Analog PMT signal on the BNC connector is not altered.

This is a card wide-settings, both PMT0 and PMT1's reading are altered.

More details here.

Example

```
h m
:A
```

If the TGPMT card axis char is **m**. Saves the current PMTs readings and starts subtracting them from RDADC commands reported readings.

```
h m=0
:A
```

If the TGPMT card axis char is **m**. Clears the saved PMTs readings and stops subtracting them from RDADC commands reported readings.

commands, tiger, ms2000, tgpmt