Command:ENSYNC (ES)

MS2000 or RM2000 syntax

Shortcut	ES
Format	ENSYNC [axis] = [position in mm]...
Units	Position in millimeters
Remembered	Using SS Z

Tiger syntax

Shortcut	ES
Format	ENSYNC [axis] = [position in mm]...
Units	Position in millimeters
Type	Axis-Specific
Remembered	Using [addr#]SS Z

This command lets the user set a position, in millimeters - absolute, which will toggle the TTL-level SYNC output when the stage crosses that position. When ENSYNC is issued, the SYNC output is reset low. Whenever the stage crosses the ENSYNC position, the output will toggle low to high and if crossed again, from high to low. ENSYNC will only work with one axis at a time, either X or Y and depends on how JP1 is jumped (JP4 on Tiger/LX cards).

Note that the position “wraps” every 2^{24} encoder counts, which is only a concern for very long travel stages and/or for very fine encoders.

See the SCAN MODULE documentation for more details.

Minus

If you send the command with the minus sign ES <axis>- it will set the SYNC output to low.

This feature is available on MS2000 v9.52 and Tiger v3.46 firmware.

On MS2000

The TTL SYNC output is available on SV1 Pin 7.

MS-2000 Board Jumpers		Fast Axis	
Function	**Jumper**	**X**	**Y**
Sync Flag	JP1	1-2	2-3

Contact ASI for additional details on these modifications.

On Tiger

Dual Axis Card Rev F3 and above required (TGDCM2). The SYNC signal is routed to the backplane (C13 or C14) and is also available directly from JP4 for LX cards. Additional hardware is needed to expose the signal.

Contact ASI for additional details on these modifications.

Note: the position is reported in millimeters rather than tenths of microns.

Warning: prior to MS-2000 v9.52, ES <axis>? was expressed in encoder counts, not millimeters.

Warning: prior to MS-2000 v9.55, ES <axis>=# would set the value in encoder counts, not millimeters. This only applies to the CRISP focus axis. Other axes are still set in millimeters.

commands, tiger, ms2000