Command:LOAD (LD)

MS2000 or RM2000 syntax

Shortcut	LD
Format	LOAD [Axis]=### ...
Units	Position in 1/10 microns
Remembered	Not saved
Firmware Module Required	RING BUFFER

Tiger syntax

Shortcut	LD
Format	LOAD [Axis]=### ...
Units	Position in 1/10 microns
Type	Axis-Specific
Remembered	Not saved
Firmware Module Required	RING BUFFER

The LOAD function places a set of position coordinates in the next available internal ring-buffer memory location. The position values are expressed as floating point numbers representing tenths of a micron, the same as the MOVE command. If a + is specified instead of =###, then the current position of the axis is stored in the ring buffer (as of Tiger firmware v2.81 and MS2000 firmware v9.2g). For example, the command LOAD X+ Y+ Z=0.1 would store the current position of the X and Y axes and the Z position of 10nm to the ring buffer. The ring buffer contains 50 positions by default; contact ASI for the option of having 250 positions in the ring buffer (but this entails certain tradeoffs).

The coordinates for the next move may be queried by using the command LD X? Y? Z?. Setting the current buffer position and initiating moves to locations stored in the buffer can be done using the RBMODE command (see below), or by using a front panel button. The LOAD operation increments the number-of-positions counter accessed using RM X? (see the RBMODE command). In TG-1000 the ring-buffer is stored and executed on a per-card basis. If positions for one or more axes on one card are specified but others are not, the position of the unspecified axes during the ring buffer execution will not be well-defined. To clear the buffer, type RM X=0.

The current stage position (for all axes with RING_BUFFER firmware) may be loaded into the ring-buffer by pressing the Joystick button for 3 seconds and releasing.

As of Tiger 3.41 and MS2000 9.2o+ an error code is returned when the ring buffer is full, the old behavior was to always return :A even when no positions are open.

Expected Response:
:N-5 → position not loaded
:A → position loaded

> **CAUTION:** If you are using TTL mode 12 (see the TTL command), the values entered into the ring buffer using the LOAD command represent RELATIVE coordinates, not ABSOLUTE coordinates. You must drive the stage to the appropriate starting position before triggering any ring buffer sequence.

commands, tiger, ms2000, ringbuffer