MS-2000 and MS-8000 stage

This manual pertains to ASI's MS-2000 and MS-8000 stage system. The MS-8000 is a 8" (200 mm). Both stages are compact, highly functional, computer-controlled stage system that can be configured in several different ways, depending upon the needs of the user. The basic system consists of the MS 2000 control unit and an MS-8000 XY stage. ASI's precision Z-axis focus controller can be incorporated to create an integrated XYZ system. For ultimate accuracy and repeatability of positioning, the MS-2000 and MS-8000 can be configured with precision linear encoders on any axis. Autofocus and laser focus feedback options are also available for automated processes and ergonomic ease of use.

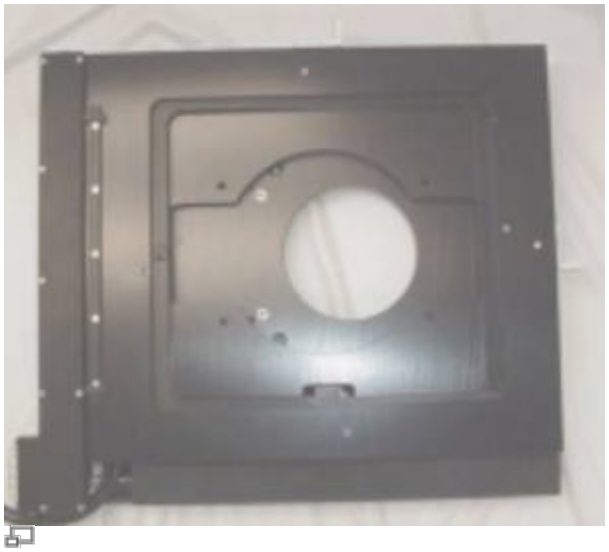
This manual will describe the installation, operation, and programming for basic system components, plus sections for applicable options. Please contact ASI regarding addition options if you wish to upgrade your system.

Features and Capabilities of an MS-8000 System

- Closed-loop DC servo motor control of the X, Y, and Z axes for precise positioning and highly repeatable focusing
- Micron-scale repeatability on all axes
- Wide dynamic speed range with adjustable trapezoidal move profiles
- Compact ergonomic tabletop control unit is 3½ x 9 x 6½ inches (9 x 23 x 16½ cm)
- Back-lit LCD display shows X, Y, and Z coordinates
- Smooth adjustable dual-range joystick control
- Microprocessor control with RS232-C serial and USB communications
- Hall-effect limit sensors on X and Y axes
- Electronic torque limit on drives minimizes damage by runaway stage
- Configurable autofocus parameters
- "Zero" button for setting "Home" position
- Other functions including programmable positioning patterns and scans

Notes

Stage with Wafer holder



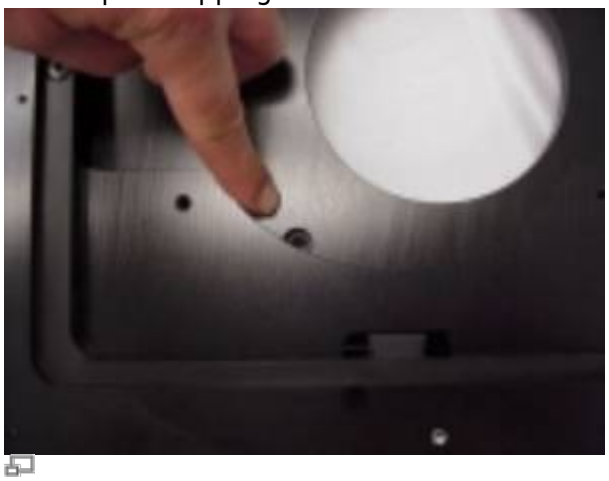
Stage with no insert

The stage can be provided with a wafer holder that provides a vacuum chuck & a rotating base, or with no insert, as shown above. The stage will also accept a 232 x 257 x 5mm (L x W x D) insert that will allow it to sit flush with the top of the stage.

Four screws are used to attach wafer holder

The wafer holder is held in place with four screws that are accessible via an access hole near the edge of the loader slot on the holder. To remove the wafer holder rotate the holder to the four positions noted above and remove the screws. Installation is in the reverse order.

Close up of shipping bracket to remove before use



Location of one of four M6 clearance holes used for attaching stage to Nikon Optiphot 200.
xystage, common, ms8000