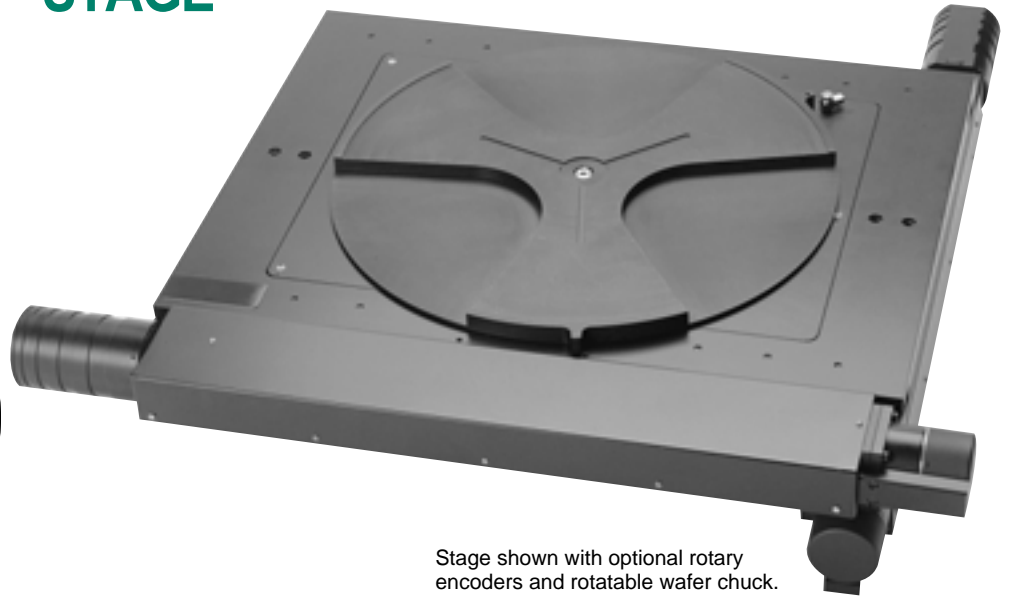


# PRIOR H112 12" x 12" TRAVEL, PROGRAMMABLE, MOTORIZED STAGE



Stage shown with optional rotary encoders and rotatable wafer chuck.

## ***Precision Programmable Stages For Semiconductor Wafers***

Now add the highest quality, precision motorized stage to your semiconductor inspection microscopes: the Prior H112. The H112 is perfect for scanning a wide range of semiconductor wafers, photo masks, flat panel displays, and printed circuit boards. The H112 can easily accommodate 12" (300 mm) wafers, and works with many robot arm wafer loaders. The H112 can also be used for transmitted light applications with a 250 x 250mm transmitted light travel area. A variety of sample holders are available and stage inserts can be customized for many applications.

### **The H112 features:**

- Travel 302 mm x 302 mm (12" x 12")
- The H112 is available with stepper motors or D.C. servo motors for high speed applications
- Optional linear scales or rotary encoders provide precise and exact positioning, with repeatabilities to 0.1  $\mu\text{m}$  and accuracies to 1  $\mu\text{m}$
- The step size (resolution) of the H112 stage can be as small as 0.1  $\mu\text{m}$ , depending on stage and controller configuration
- The H112 is available with a 2 mm or 5 mm pitch ball screw
- Stages customized to fit virtually any 300 mm upright microscope or optical system

Prior Stages have a well-deserved reputation for quality and repeatability. They are manufactured using the highest-quality components: crossed roller ways, zero backlash recirculating ball screws, X and Y limit switches, two high-precision stepper or servo motors even – a tough, scratch-resistant coating. Stages can be driven by the Prior ProScan series of motor controllers or compatible systems in existing OEM configurations. For the H112 and all its products, Prior provides full support and service – both direct and indirect – through a professional, knowledgeable and extensive dealer network.

# H112

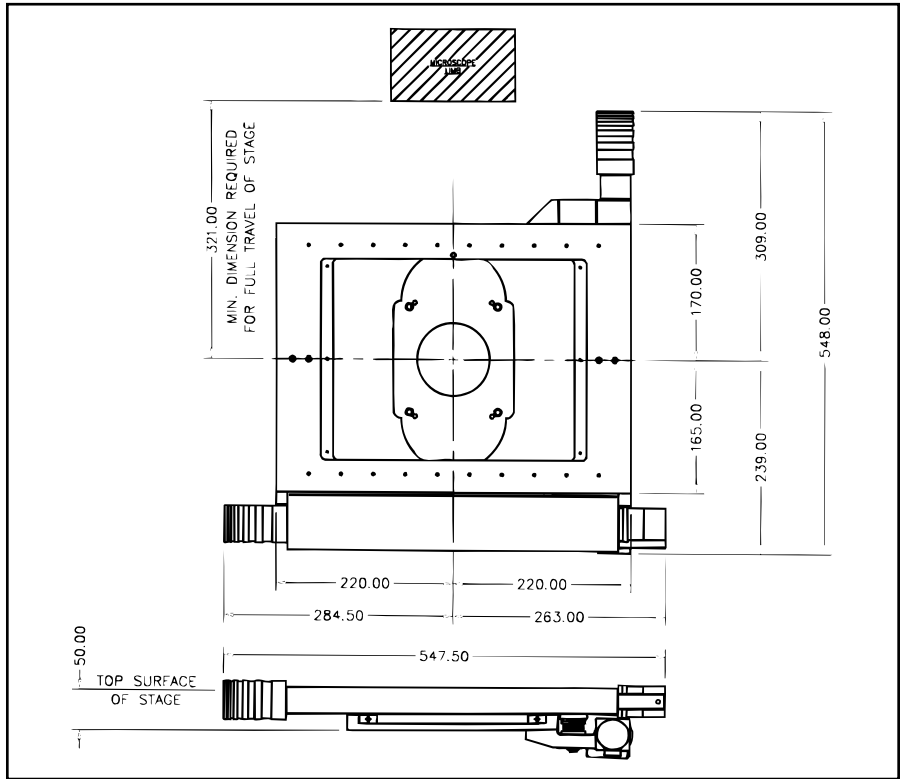
## 12" x 12" PROGRAMMABLE, MOTORIZED STAGE FOR UPRIGHT MICROSCOPES

### Standard Sample Holders

500-H221	Glass Plate
500-H233	Solid Aluminum Plate
500-H149	Chuck, Wafer, Spring Loaded for 300 mm Wafers
500-HHWC30S	Chuck, Wafer, Rotatable with steps for 200 and 300mm Wafers
500-HWC30V	Chuck, Wafer, Rotatable, with Vacuum for 300 mm Wafers
500-HWC112	Chuck, Wafer Pod, Vacuum

### Ordering Information

500-H112/2ST	Stage with 2 mm pitch screws and step motors
500-H112/5ST	Stage with 5 mm pitch screws and step motors
500-H112/2DC	Stage with 2 mm pitch screws and DC servo motors
500-H112/5DC	Stage with 5 mm pitch screws and DC servo motors
/S	Add linear scales
/E	Add rotary encoders



Dimensions in millimeters. Drawings shown with optional rotary encoders.

### General Specifications

#### Travel Range

302 mm x 302 mm (12" x 12")

#### Repeatability\*

± 4 µm  
± 0.3 µm with linear scales

#### Step Size (Resolution)

0.04 through 10µm

#### Load Capacity

25 kg (55 lbs)

#### Motors

High precision stepper or D.C. servo

#### Linear Slides

Crossed 4mm roller bearings

#### Drive Screws

Zero backlash, recirculating ball screws; 2mm or 5mm pitch

#### Limit Switches

X and Y standard

#### Stage Profile

Approximately 50 mm (2.0") with solid plate installed

#### Weight

14.5 kg (32 lbs)

#### Finish

Electrophoretic black plate

#### Accuracy

± 20 µm to ± 1 µm with linear scales

#### Speed\*

Up to 400mm/sec.

#### Flatness

5µm

\*Specifications valid only if used with Prior motor controller.  
Specifications subject to change without notice.

**Prior Scientific Inc.**  
80 Reservoir Park Drive  
Rockland, MA 02370  
800-877-2234  
781-878-8442  
Fax: 781-878-8736

**Prior Scientific Instruments, Ltd.**  
Unit 4, Wilbraham Road, Fulbourn  
Cambridge CB1 5ET, UK  
Tel. (0 1223) 881711  
Fax (0 1223) 881710

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