

EX-Q Reteaching Guide

IMPORTANT - When upgrading a robot mapping sensor from a HAMA LABS or CyberOptics Semiconductor model DD, DX, WX, ZX, or EX to the EX-Q model wafer mapping sensor, the robot's Z, Theta, and Radius coordinates **MUST** be reteached prior to wafer mapping. Failure to reteach these robot coordinates may result in false wafer placement reports.

1 Reteach the robot's Z-stroke coordinates for the EX-Q (see Figure 1 on reverse)

Model	Z-Offset Starting Position (Compared to DD, DX, WX, ZX or EX offset)
EX-43Q	0.10" (2.7mm) (approx) lower
EX-73Q	0.13" (3.4mm) (approx) lower
EX-83Q	0.17" (4.4mm) (approx) lower
EX-93Q	0.25" (6.4mm) (approx) lower

2 Reteach the robot for correct Radius coordinate (scan distance) for the EX-Q

Model	Standoff (Distance from front of sensor to wafer edge)	Maximum Detecting Range
EX-43Q	1.5" (38mm)	1.4" to 1.6"
EX-73Q	2.2" (56mm)	2.05" to 2.35"
EX-83Q	3.0" (76mm)	2.8" to 3.2"
EX-93Q	4.5" (114mm)	4.2" to 4.8"

3 Verify and if necessary reteach for the EX-Q Working Angle Range

Model	Working Angle Range (Please see section 7.4 of <i>EX-Q Wafer Mapping Sensors - Instructions for Installation and Use</i> for more detail)
EX-43Q	+16 to -16 degrees relative to the sensor's front surface
EX-73Q	+11 to -11 degrees relative to the sensor's front surface
EX-83Q	+8 to -4 degrees relative to the sensor's front surface
EX-93Q	+8 to -4 degrees relative to the sensor's front surface



Figure 1. EX-Q Sensor Profile Dimensions (inches)

Note: For complete installation instructions please refer to the *EX-Q Wafer Mapping Sensors - Instructions for Installation and Use*.

- * **Free Alignment Tool:** CyberOptics Semiconductor provides free alignment cards to assist in mapper setup and retooling. Contact Technical Support to request your free card.
- * **Free Technical Support:** CyberOptics Semiconductor offers free technical support on all legacy HAMA LABS and CyberOptics Semiconductor brand wafer mapping sensors. If you have questions regarding the proper setup and use of these wafer mapping sensors, contact CyberOptics Semiconductor Technical Support.

Support:

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For information about
 CyberOptics' offices and
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