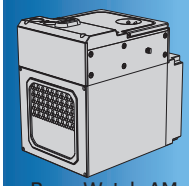
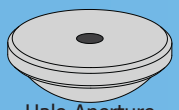
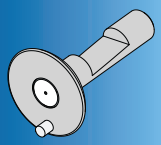
Quick Start Ophir® BeamWatch AM

Equipment

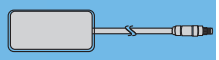

BeamWatch AM


Halo Aperture

Software Installation Disc


Alignment tool

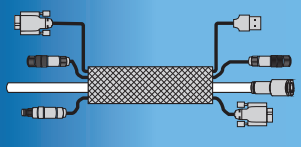

Power Supply Cable


Power Supply Adapter


Interlock Cable


Y-Distributor for Interlock


Juno USB Interface



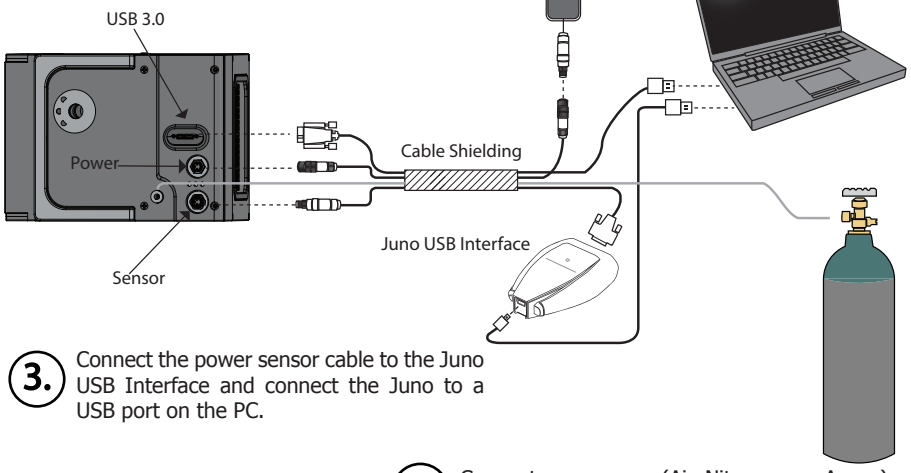
Wiring Harness:
- USB 3.0 Cable
- Power Cable
- Polyurethane Tubing
- Power Sensor Cable

Setup

2. Connect the power cable to the power supply adapter and connect the adapter to the power source.

1. Connect the data, power sensor cables, and the polyurethane tubing to their respective ports on the BeamWatch AM unit.

4. Connect the remaining end of the data cable into a USB port on the PC.



3. Connect the power sensor cable to the Juno USB Interface and connect the Juno to a USB port on the PC.

5. Connect a purge gas (Air, Nitrogen, or Argon)

Continued

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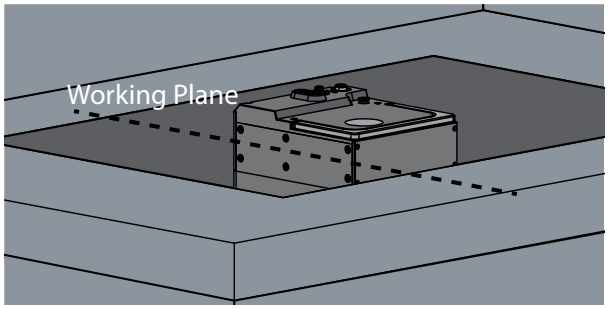
6. Install the BeamWatch software on the PC and launch the program.

7. Place the BeamWatch AM unit on the build plate and lower it by the distance found on the calibration sticker. The working plane should be level with the camera axis.

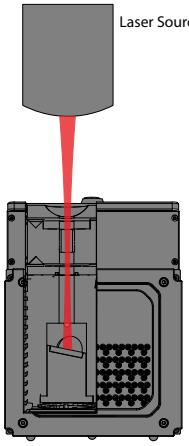


8. Supply at least 3 LPM of the purge gas and open the shutter from the software. ***Do not apply the laser when the shutter is closed***.

9. Direct the guide beam into the aperture on the top of the unit. See the BeamWatch AM Alignment Tool User Note.

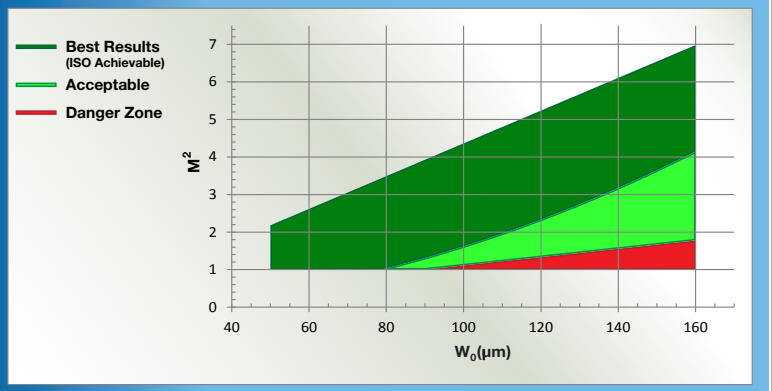
10. Switch the guide beam for the high power beam. Make sure the focus spot is as close to the camera axis as possible.

11. Adjust the purge gas until there is a minimum amount of particulates. Particulates appear as a streak of saturation in the display.



Operating Space Limits

BeamWatch AM Operating Space



If BeamWatch is operated outside of the indicated space, it may be difficult to see the curvature of the caustic, or the beam may be large enough at the edges of the image that it is out of focus.

- Best results yield the strongest measurements and may be ISO when 3 Rayleigh lengths can be seen by the camera's detector.
- Acceptable results do not meet ISO requirements, but can still be strong, accurate measurements.
- Avoid applying lasers that fall within the Danger Zone as these results may lead to damaging fine components in the BeamWatch AM unit.