

# PCI-HC10m Quick Start Guide

## Package Contents:

1 x PCI-HC10m Herriott cell

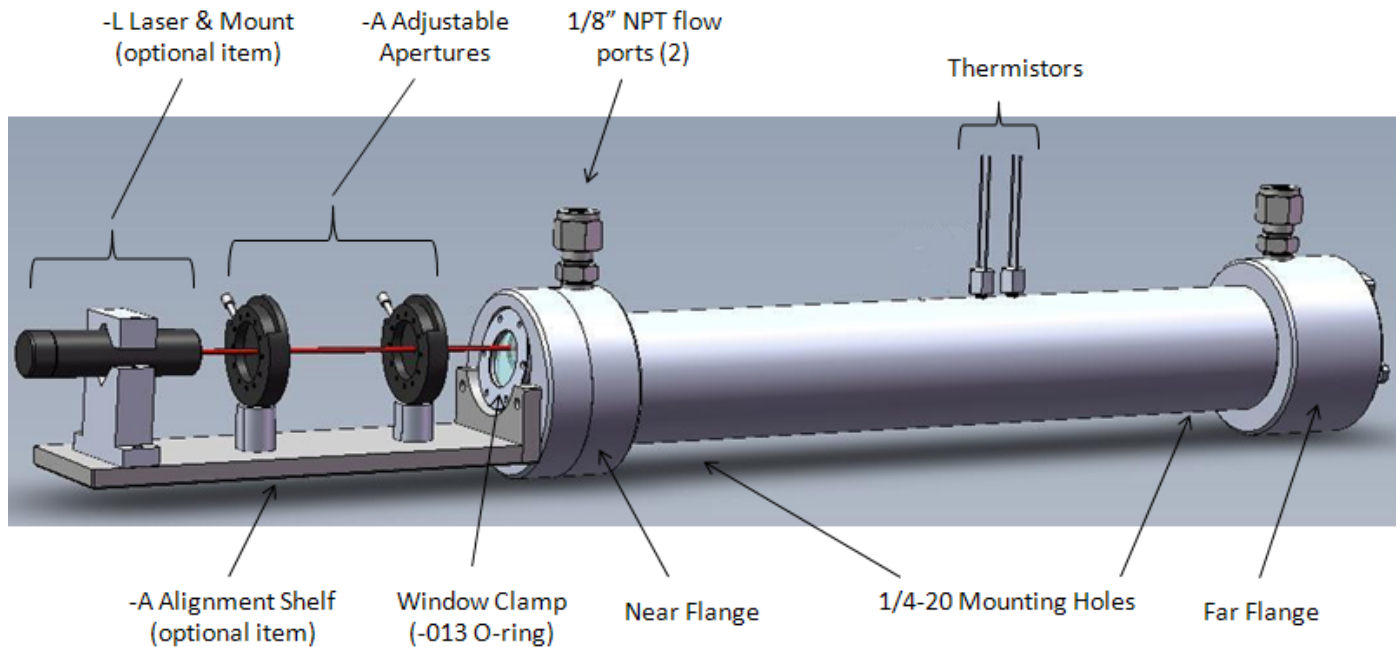
1 x Accessory kit containing:

- 1) 1 x 5/64 allen key
- 2) 1 x 7/64 allen key
- 3) 1 x mirror adjuster tool (or 3/8" hex key)
- 4) 2 x 10K thermistors with M4 threads and nuts
- 5) 1 x -013 spare O-ring (for coupling window)
- 6) 1 x -029 spare O-ring (for near mirror flange)
- 7) 1 x -030 spare O-ring (for far mirror holder)
- 8) 2 x 1/4-20 set screws (for lower mounting holes)
- 9) 2 x 1/8" NPT adapters for using 1/4" OD flow tubing



(\*See [www.portcityinstruments.com/downloads.php](http://www.portcityinstruments.com/downloads.php) for this document, and user manual)

## PCI-HC10m 10.1m Herriott Cell



[www.portcityinstruments.com](http://www.portcityinstruments.com)

# Initial Setup

**Note:** *The Herriott cell may be shipped with a clear plastic cover over the window port. This is not an optical window and must be replaced with a suitable window for use at the wavelength region of interest.* If the sapphire window (-W option) is ordered, it will be installed prior to shipping.

- 1) Upack Herriott cell and inspect for any shipping damage. Refer to the diagram on page 1 for the locations of the various cell ports and accessories.
- 2) Install two 1/4-20 set screws to cell mounting holes on lower side of the cell tube if mounting to an optical table using standard posts and bases.
- 3) Attach thermistors to the partial depth threaded holes at the top side of the cell if using the thermostating kit, or if the cell temperature is to be monitored. Place nuts on thermistors first, then screw into the M4 threaded holes in the cell.
- 4) Using the 5/64 allen key, remove the clamp ring holding the clear plastic shipping window over the cell coupling hole, and replace with a suitable optical window (2 - 7 mm thickness ... thinner is better).
- 5) Two 316 stainless steel 1/8" NPT-to-Swagelock adapters are provided for use with 1/4" OD flow tubing (use teflon sealing tape on the threads and tighten securely). For other tubing options use an appropriate adapter with 1/8" NPT tapered threads.
- 6) The (optional) -A alignment accessory can be attached to the near flange using the supplied 6-32 socket head cap screws. This "shelf" contains apertures which define the correct entrance beam path relative to the axis of the cell. Note that final, optimum alignment of an IR beam will generally require small adjustments to the entrance angles relative to the aperture holes due to stack-up errors in the assembled components. However, initial alignment through the apertures should be adequate to produce an exit beam to work with.
- 7) -T thermostating kit (optional): Attach the (adhesive-backed) kapton heater to the cell by wrapping it tightly around the cell to cover the center tube length (note that the standard heater covers the 1/4-20 mounting holes and the cell must be mounted using alternative mounts). Position the heater so that the gap occurs at the thermistor locations at the top of the cell. Insulate per requirements.

© 2013-2015, Port City Instruments, LLC • 2764 N Green Valley Pkwy, #538  
Henderson, NV 89014 USA • [www.portcityinstruments.com](http://www.portcityinstruments.com)