

User guide

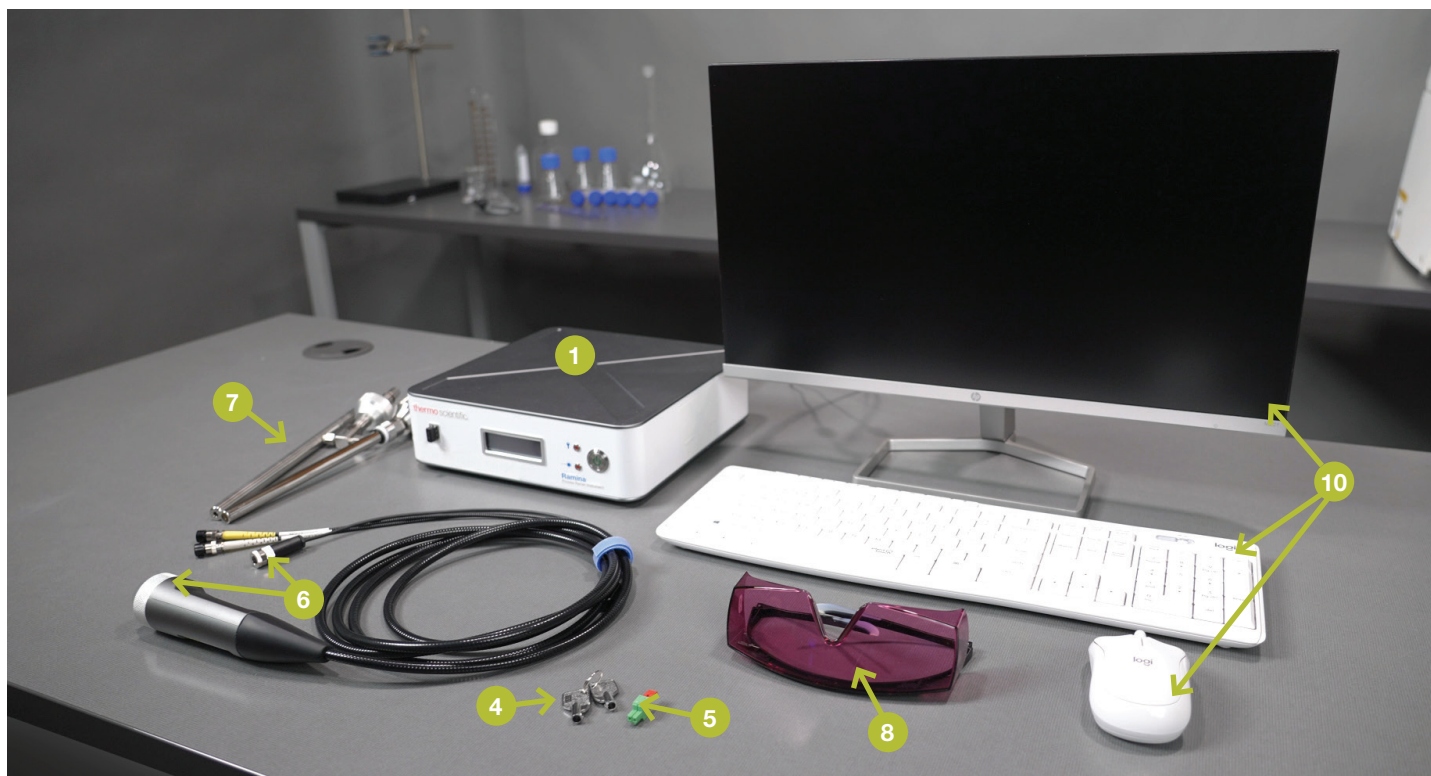
Ramina — Quick start guide

Consult the electronic Ramina User Guide for detailed safety information, operation, and software instructions for this Class 3B Laser Product.

What's in the box?

1. Ramina Process Analyzer
2. Ramina 12V Power Supply & Cable (not shown)
3. Laser Control Device Pack consisting of items 4, 5 and 6
4. Master Control Key (Quantity 2)
5. Remote Interlock Connector Jumper (Quantity 1)
6. FiberHead with Remote Indicator Connector (Quantity 1)
7. Ramina Probe (probe may differ depending on what you ordered)
8. Laser Safety Glasses
9. Flash Drive with Electronic User Guide (not shown)
10. Benchtop Peripherals:
 - Monitor (includes Power Supply not shown)
 - HDMI Cable (not shown)
 - Keyboard
 - Mouse

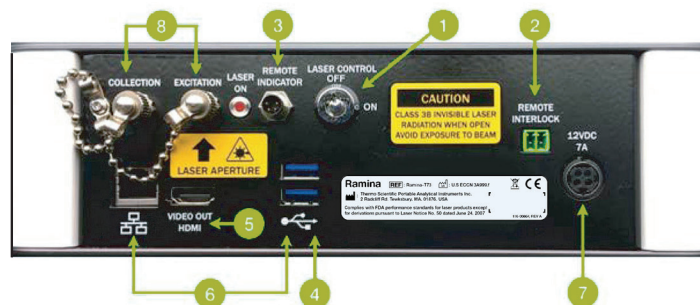
*Not shown: Documentation envelope that contains packing list and performance report.



First time setup

1. Insert **Remote Interlock Connection Jumper** into the **REMOTE INTERLOCK** port (2) with the green tabs up.
2. Insert probe **Remote Indicator Connector** (Connector from the FiberHead cable labeled as 'Interlock LED') into **REMOTE INDICATOR** port (3).
3. Insert batteries into the **Keyboard** and **Mouse**. Insert the **Wireless Keyboard & Mouse Dongle** into one of the USB ports (4). See the USB Keyboard and Mouse packaging for details.
4. Insert one end of the **HDMI Cable** into the rear of the **Monitor**, and the other end into the **VIDEO OUT HDMI** port (5) of the **Ramina** system. Connect the **Monitor Power Cable** to the **Monitor** and to a power outlet.
6. (OPTIONAL) Insert **Ethernet Cable** or a **USB Wireless Network Dongle** into the **Ramina** system (6) for best performance.
7. Connect **12V Power Cable** to rear 12 VDC slot of the **Raman** system (7). Connect to power outlet. **DO NOT POWER ON UNIT.**
8. Connect the FiberHead to the probe. Note that your probe may come pre-attached to the FiberHead.
9. Remove dust caps from the fibers of the probe you intend to use. Match the **FiberHead Excitation and Collection cables** to their respective connectors on the rear of the Ramina system using the labels above each bulkhead connector (8). Position each fiber so that the key slot of the fiber connector slides securely into the notch of the corresponding connector. Finger tighten, **DO NOT OVERTIGHTEN.**
10. Insert **Master Control Key** into **LASER CONTROL** keyhole (1) with the alignment tab facing up. Turn to the ON position.
11. Press the green Power button on the front of the Ramina analyzer.

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Safety information

- WARNING! The analyzer IS NOT designed to be intrinsically safe. Do not use the analyzer in any potentially explosive or unknown air environment.
- When a probe is attached to the Ramina Process Analyzer, the Nominal Ocular Hazard Distance (NOHD) for this laser device is 25cm, and the required Optical Density (OD) is 4+
- WARNING! Turn the Ramina Process Analyzer off and remove the key when changing the probe. Never insert the key or use the analyzer without the probe attached. Never point the probe at anyone.
- CAUTION: Do not use the Ramina Process Analyzer unless you have been trained.
- WARNING: Scanning a thermally sensitive material contained in a tightly sealed vessel (e.g., capped jar or vial) may cause the vessel to explode.
- CAUTION: Follow your organization's procedure and regulations for the handling of unknown substances.
- CAUTION: Never point the probe at yourself or others.
- CAUTION: Never activate the probe unless a sample fully covers the probe aperture.
- CAUTION: Always ensure that the probe is deactivated before removing the sample from the probe aperture.

Getting help

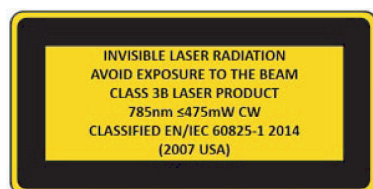
Customer Support is available by telephone or email, 24/7, 365 days a year.

Telephone: 1-800-374-1992 (USA) +1-978-642-1100 (International)

Email: FSI-Product.Support@thermofisher.com

Website: www.thermofisher.com/ramina

Mail: 2 Radcliff Road, Tewksbury, MA 01876



Laser Information Label:
Provides information about the class, wavelength, and output power of the laser contained within the instrument. The label is located on the left side of the instrument next to the vent.

Learn more at thermofisher.com/ramina
thermo scientific