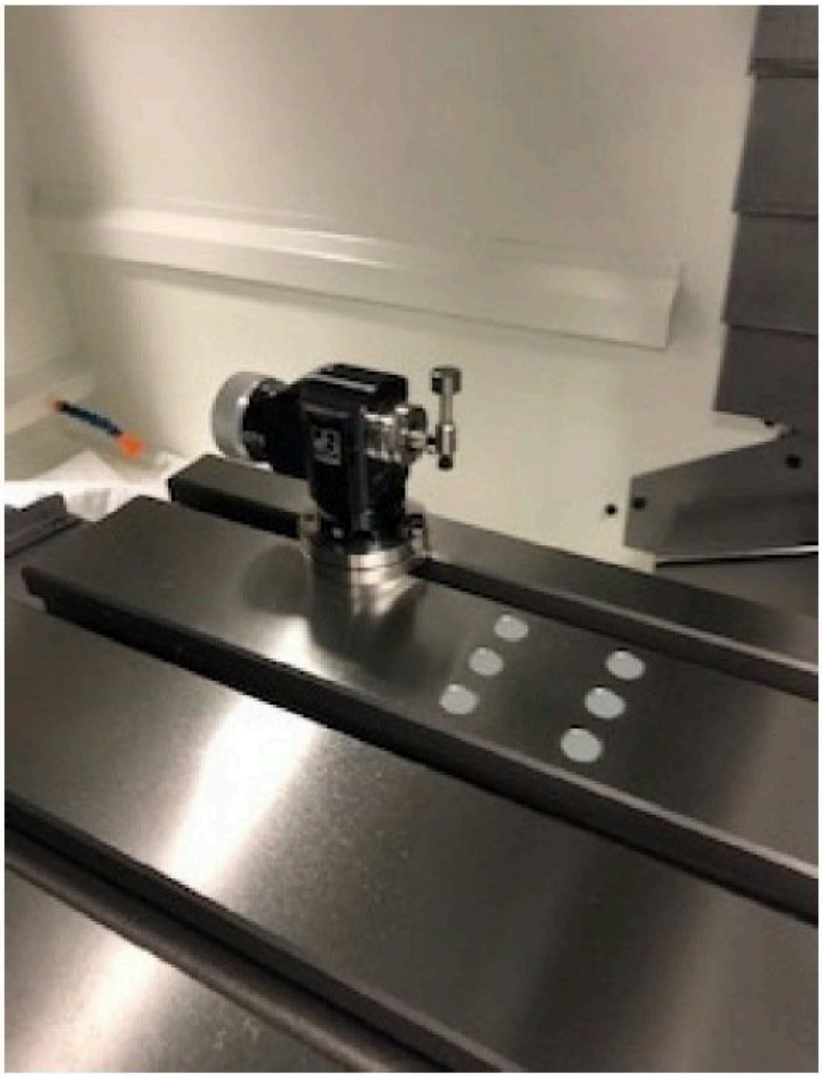
VMCsi Probe Tool Option - Set Up Tool Setting Probe

Assemble, configure and mount the OTS tool setting probe (34080-2) on a VMCsi.

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OPTICAL TOOL SETTING PROBE

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INTRODUCTION

The OTS tool setting probe (P/N **34080-2**) measures tool length and diameter on the table. This guide assembles the OTS, initializes the batteries, sets the probe configuration, and mounts and aligns it on the table.

The OMI-2T receiver (P/N **34080-10**) must already be installed: VMCsi Probe Tool and Probe Part Options - Mount Probe Receiver.

This is the tool probe. For the OMP40-2 spindle probe (P/N **34080-1**), see VMCsi Probe Part Option - Set Up Spindle Probe.

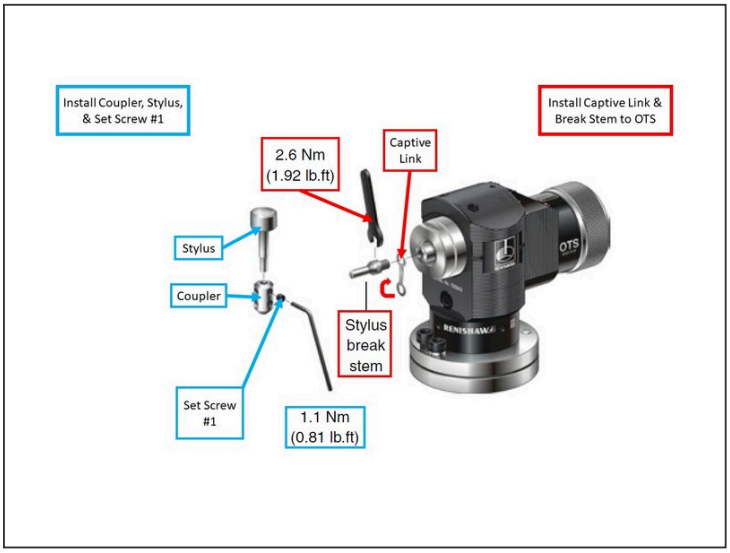
The 34050 assembly drawing and the Renishaw OTS manual are attached at the end of this guide.

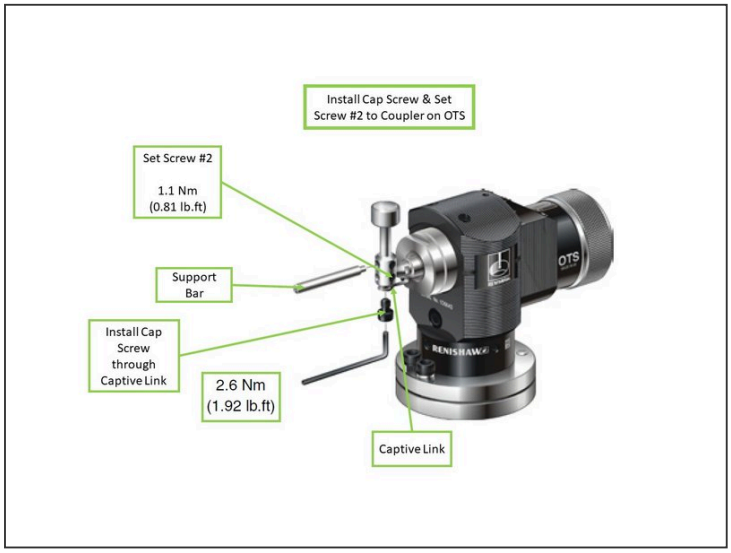
TOOLS:

- 1-2-3 blocks (1)
- Tool Setter Dial (1)
- Calibration Tool (1)
- Dial Indicator (0.0001" resolution) (1)
- Set of Metric Allen Wrenches (1)

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Step 1 — Assemble the OTS



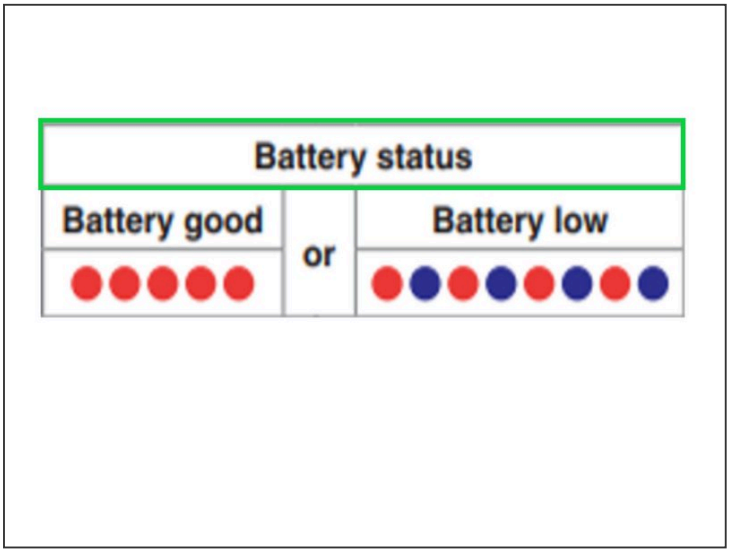


- Insert the break stem through the captive link, then install both onto the OTS body (first image).
- Tighten the break stem with a 5 mm Allen wrench. Torque to **1.84 to 1.99 lbf-ft**.
- Bend the captive link upward.
- Install the stylus onto the coupler. Tighten set screw #1 (top, stylus) with a 2 mm Allen wrench. Torque to **0.74 to 0.89 lbf-ft**.
- Insert the cap screw through the bent captive link and secure it to the bottom of the coupler with the support bar and a 3 mm Allen wrench. Torque to **1.84 to 1.99 lbf-ft**.
- Tighten set screw #2 (bottom, cap screw) with the support bar and a 2 mm Allen wrench (second image). Torque to **0.74 to 0.89 lbf-ft**.

ⓘ Hold the support bar in place to counter twisting, so the break stem is not over-stressed.

Step 2 — Install and Initialize the Batteries





- Twist off the battery cover and remove the batteries.
- Wait about 5 seconds, reinstall the batteries, and twist the cover back on.

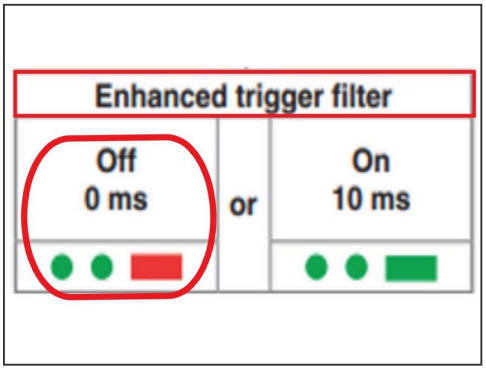
⚠ Keep coolant and debris out of the battery compartment.

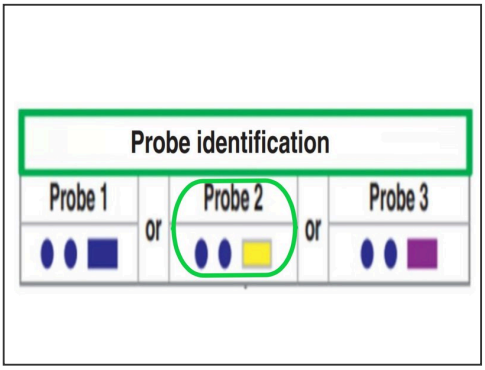
- The LEDs flash red, green, blue. At this sequence, deflect and hold the stylus right away to enter configuration mode. Keep holding it into Step 3.

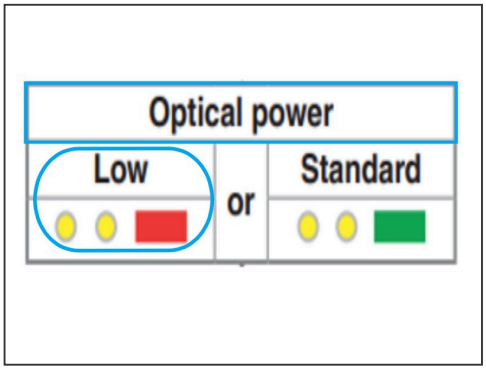
⚠ Do not remove the batteries while in configuration mode. To exit, leave the stylus untouched for more than 20 seconds.

- The probe then flashes battery status:
  - **5 red flashes**: batteries good.
  - **Red and blue repeating**: batteries low, replace them.

Step 3 — Set Trigger Filter, Probe ID and Optical Power

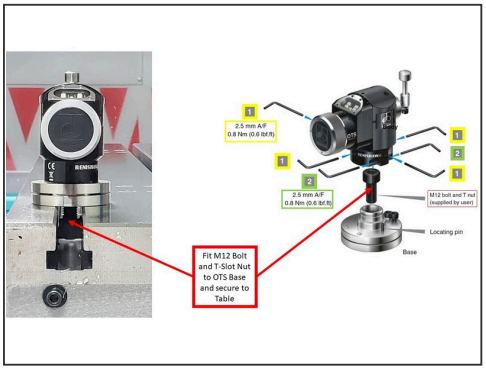


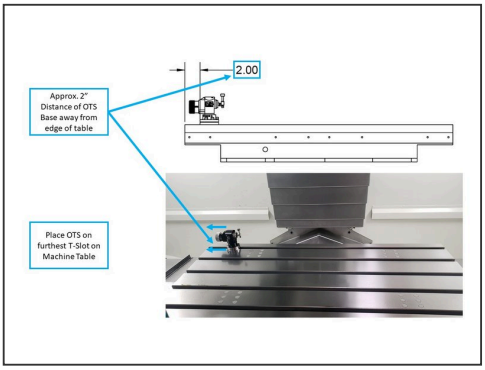


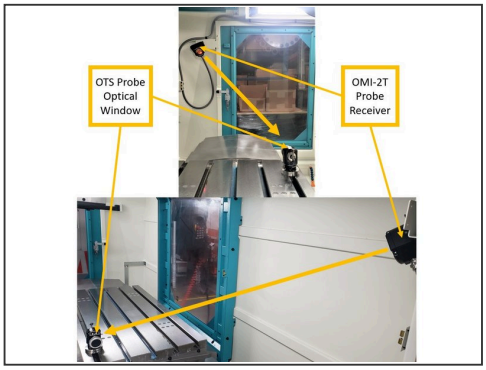


- With the stylus still deflected, the enhanced trigger filter menu appears. Release the stylus.
- Two green flashes, then a long red flash, show the trigger filter setting.
- Confirm the enhanced trigger filter is **Off (0 ms)**, then deflect and hold the stylus 4+ seconds to move to the next menu.
- **Probe identification:** the LEDs flash blue, blue, yellow. If a different sequence shows, deflect and release (about 1 second) to cycle through the settings.
- When blue, blue, yellow shows, deflect and hold 4+ seconds to accept.
- **Optical power:** deflect and release until you see two yellow flashes, then a long red flash.
- Leave the stylus untouched for more than 20 seconds to save the settings.

Step 4 — Mount the OTS on the Table

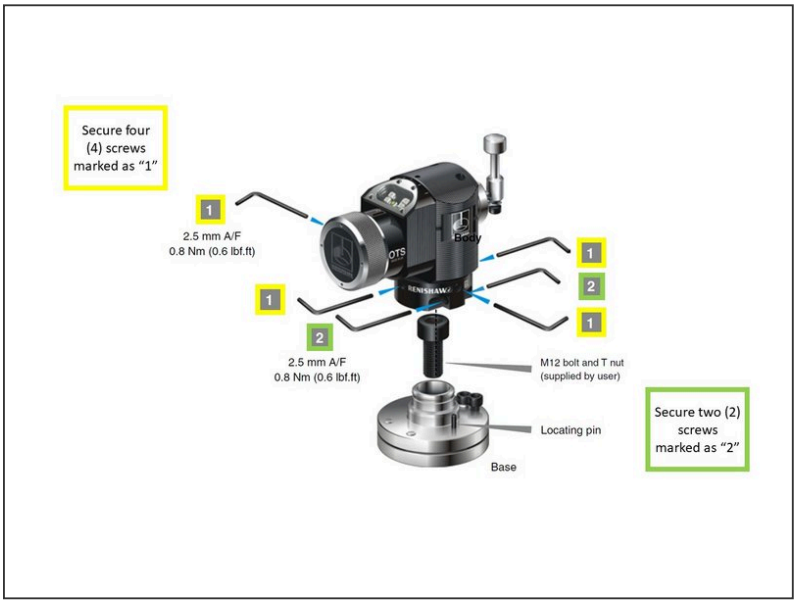






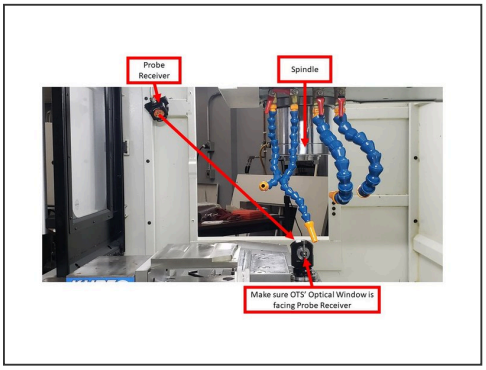
- Loosen the four screws labeled "1" with a 2.5 mm Allen wrench to separate the OTS body from the base (first image).
- Loosen the two screws labeled "2" so the base mounts freely.
- Secure the OTS base to the table with the M12 bolt and T-slot nut.
- Use the furthest T-slot, about 2 in from the left edge of the table, clear of any collision path (second image).
- Point the OTS optical window toward the OMI-2T receiver.

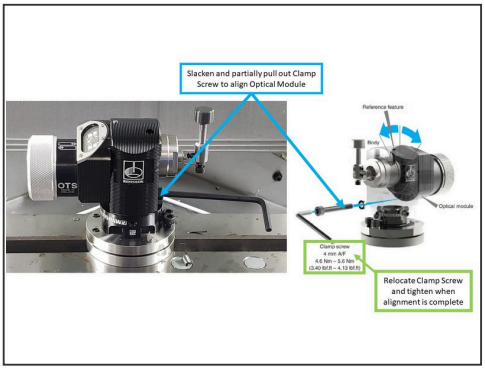
Step 5 — Secure the OTS Body to the Base

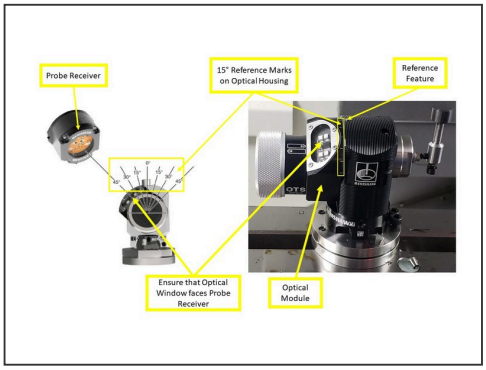


- Reinstall the body on the base and tighten the four screws labeled "1". Torque to **0.6 lbf-ft**.
- Tighten the two screws labeled "2". Torque to **0.6 lbf-ft**.

Step 6 — Align the Optical Module With the Receiver

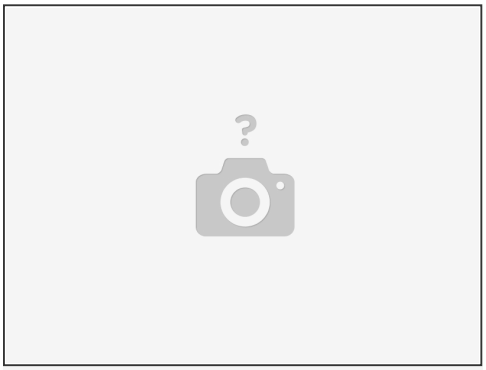






- The optical module has seven positions, 15° apart.
- Jog the table until the OTS is directly under the spindle. This is the tool touch-off position, and it must be in line of sight of the receiver.
- Slacken the clamp screw with a 4 mm Allen wrench and partly remove it.
- Rotate the optical module, lining up a 15° mark on the housing with the reference feature on the body.
- Keep rotating until the optical window lines up as closely as possible with the receiver.
- Reinstall the clamp screw and torque it to **3.7 lbf-ft**.

Step 7 — Calibrate the Tool Setting Probe



- Level the stylus and calibrate the OTS before use.
- [VMCsi Probe Tool Option - Calibrate Tool Setting Probe]