

## Replace the Source

The IR source is easily accessible from the bottom of the spectrometer and can be replaced without having to remove the spectrometer's cover.

### Tools and materials needed

- A #1 Phillips head screwdriver
- Source Replacement Kit

Time needed: 25 minutes or less



**CAUTION** Before replacing the source, turn off the instrument. Replace the source only with replacement parts supplied by us.

### ❖ To replace the source

1. **Turn off and disconnect the spectrometer.**
  - a. Turn off the instrument and unplug the power cord.
  - b. Disconnect any cables from the instrument, such as the Ethernet cable or USB devices.
  - c. If the spectrometer or an installed accessory is purged, disconnect the purge lines from the spectrometer and the accessory (quick connect fittings stop the flow automatically). See [Install and Maintain a Purge Kit](#) for more information.
  - d. Remove any installed accessories from the instrument.



**CAUTION** The source becomes extremely hot while you are using the instrument. Wait at least 10 minutes after turning the instrument off before you perform the next step.

**2. Remove the source.**

- a. If your spectrometer has the touchscreen monitor attached, move the monitor to the storage position, as show in Figure 1.

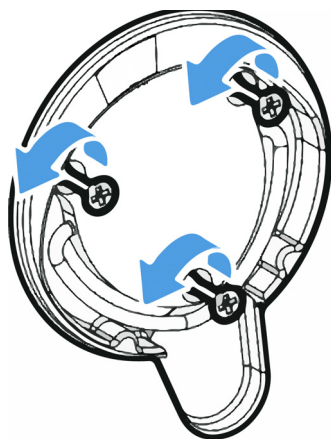
**Figure 1.** Summit PRO spectrometer with touchscreen monitor in the storage position



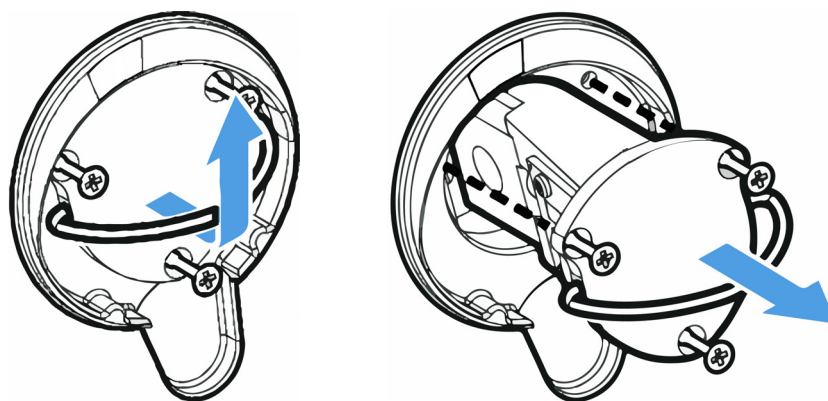
- b. Carefully tip the instrument back until it rests on the fins of the heat sink. Do not use the touchscreen monitor to support the weight of the spectrometer.



- c. Use a #1 Phillips head screwdriver to fully loosen the three captive screws that hold the source in place.



- d. Swing the bale out. Steady the instrument with one hand and pull firmly on the bale to pull the source straight out of the instrument.



**NOTICE** Never touch a source element with your bare fingers. Skin oils or other deposits on the element will shorten its life. Always use clean finger cots, gloves, or clean laboratory tissue when handling a source element.

### 3. Insert the new source.

- Make sure the three captive screws are straight and then slowly insert the source into the cavity until the source mount is flush with the instrument.
- Tighten the screws to secure the source and snap the bale into its storage position.

### 4. Reconnect and power on the spectrometer.

- Carefully return the instrument to its upright position and reconnect any cables you removed.
- Replace the desiccant. See [Replace the Desiccant](#) for instructions.

Because the internal optics are exposed to the atmosphere when removing the source, the desiccant should always be replaced after replacing the source.



**WARNING** To ensure a good ground connection and avoid shock hazard, do not use an outlet that is connected to a conduit ground. The ground must be a noncurrent-carrying wire connected to earth ground at the main distribution box.

- c. Plug in the power cord to the instrument and press the power button to turn on the spectrometer.

**Note** Do not install any sampling accessories until after you have aligned the spectrometer and verified its performance

## 5. Align the spectrometer and verify its performance.

Wait until the spectrometer's LightBar indicates that it is warmed up and ready for use before proceeding.

You can align the spectrometer and verify performance using either the desktop or touchscreen interface.

### To use the touchscreen interface, perform the following steps:

- a. Align the spectrometer.
  - i. Open OMNIC Paradigm software.
  - ii. On the Home screen, touch the **Diagnostics** icon to open the **Diagnostics** view and navigate to the **Align** tab.
  - iii. Touch **Align** to begin alignment.
- b. Verify the instrument's performance.
  - i. Using the touchscreen interface, beginning on the Home screen, navigate to the **Workflows** tab.
  - ii. Select the **Nicolet FTIR - Factory Qualification** workflow and touch the **Run** icon. Follow the on-screen prompts to complete the workflow.

### To use the desktop interface, perform the following steps:

- a. Align the spectrometer.
  - i. Open OMNIC Paradigm software.
  - ii. Open the **Acquire Data** menu and select **Diagnostics > Align Spectrometer**.
  - iii. Click **Start** and follow the on-screen prompts. Click Close when complete to return to the dashboard.
- b. Verify the instrument's performance.

In the Workflows pane, double-click **Nicolet FTIR - Factory Qualification** and follow the on-screen prompts.

## 6. Replace any accessories that you removed earlier.

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