
Performing a Bump Test

NOTE: The **BUMP DISP** menu item in Maintenance Mode is factory set to **OFF**. The **BUMP TEST** menu item will not appear unless **BUMP DISP** is set to **ON**. See “Updating the Bump Display Setting” on page 152 for instructions.

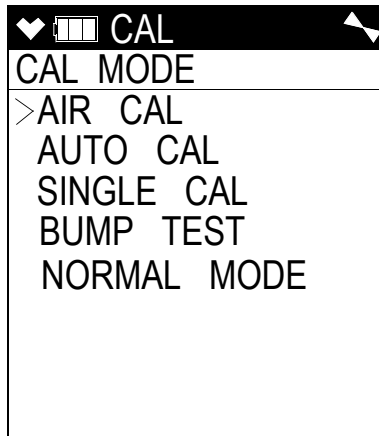
NOTE: The GX-6000 uses parameters defined in the **BUMP PARAMETERS** menu item of Maintenance Mode while performing a bump test. To view or update these parameters, see “Updating the Bump Parameters” on page 152.

If the combustible gas channel is calibrated to a gas other than methane, use an appropriate multigas cylinder.

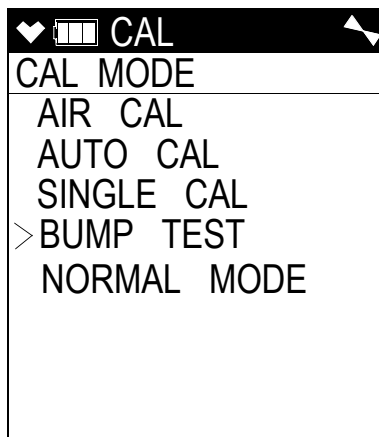
- 1 . Install the demand flow regulator onto the calibration cylinder.
- 2 . Connect the sample tubing to the demand flow regulator.
- 3 . Install the sample hose and probe on the GX-6000 inlet fitting. Make sure the probe’s two halves are tightened firmly together to avoid leaks that can affect the calibration. See Figure 22, “Replacing the Particle Filter and Hydrophobic Filter Disk” on page 116 for an illustration of the internal parts of the probe.
- 4 . While in Measuring Mode, press and hold the SHIFT ▼ (PANIC) button, then press the DISP/LOCK button and release both buttons.
- 5 . If the unit prompts you for the password, enter it by using the ▲AIR and SHIFT ▼ (PANIC) buttons to select each password number and then pressing and releasing POWER/ENTER to enter the number and move on to the next one.

NOTE: You will only be prompted to enter a password if the **PASSWORD** menu item in User Mode is set to **ON**. See “Turning the Password Function On or Off” on page 102 for instructions to update the **PASSWORD** setting and to choose a password.

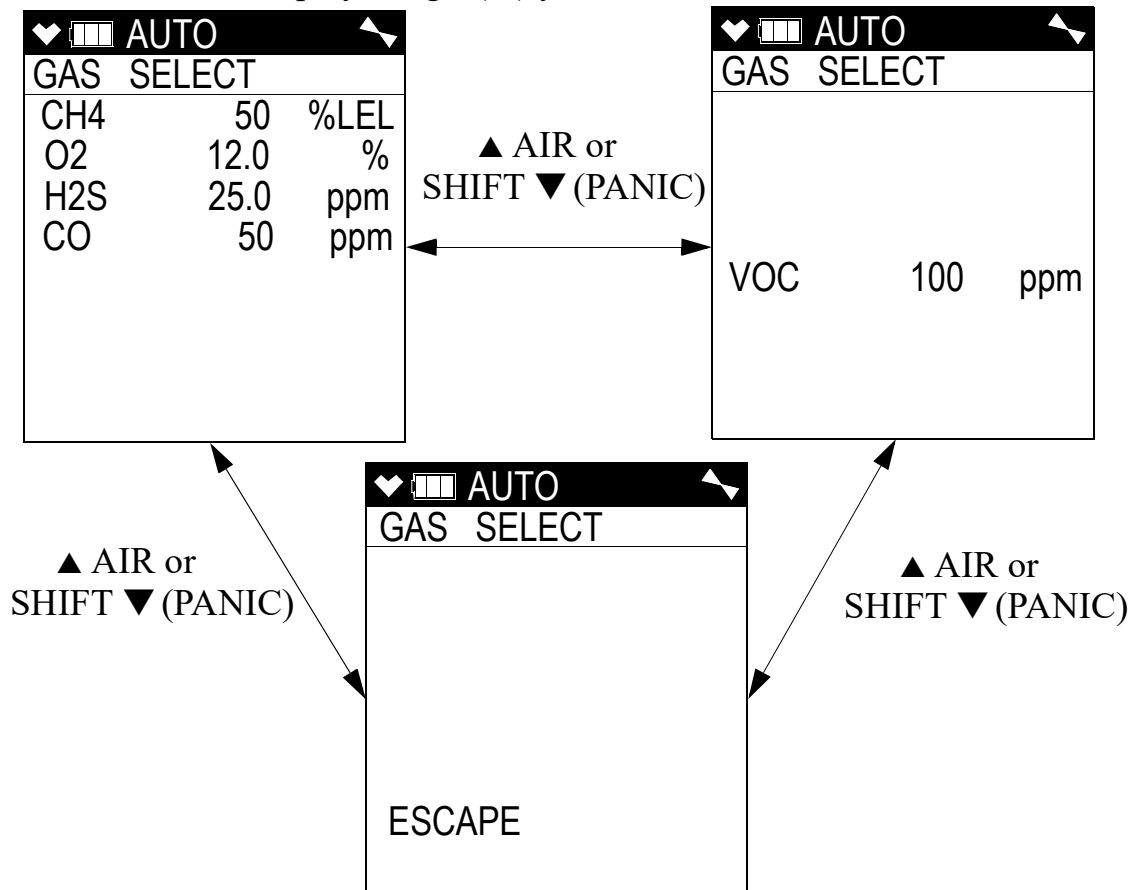
- 6 . The Calibration Mode Screen displays with the cursor next to **AIR CAL**.



- 7 . Move the cursor next to the **BUMP TEST** menu item by using the SHIFT ▼ (PANIC) button.

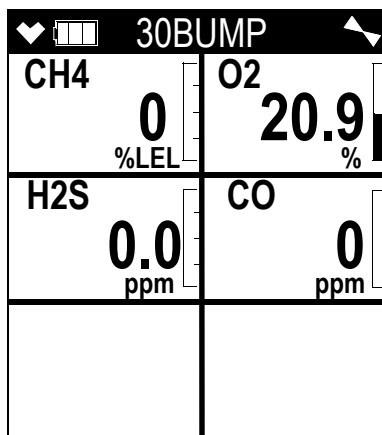


- 8 . Press and release the POWER/ENTER button. The first of the Gas Select Screens, the standard four sensors screen, will be displayed. In addition to the standard four sensors screen, there is a separate screen for each installed smart sensor, and an **ESCAPE** screen that will take you back to the Calibration Mode menu. Use the **▲AIR** and **SHIFT ▼ (PANIC)** buttons to display the gas(es) you want to test.



- 9 . Before proceeding, confirm that the bump test gas value(s) are the same as the concentration(s) in the calibration cylinder. If they are not, adjust the bump test gas value(s) by entering the **AUTO CAL** menu item in Calibration Mode, changing the value(s) there, and reentering the **BUMP TEST** menu item.

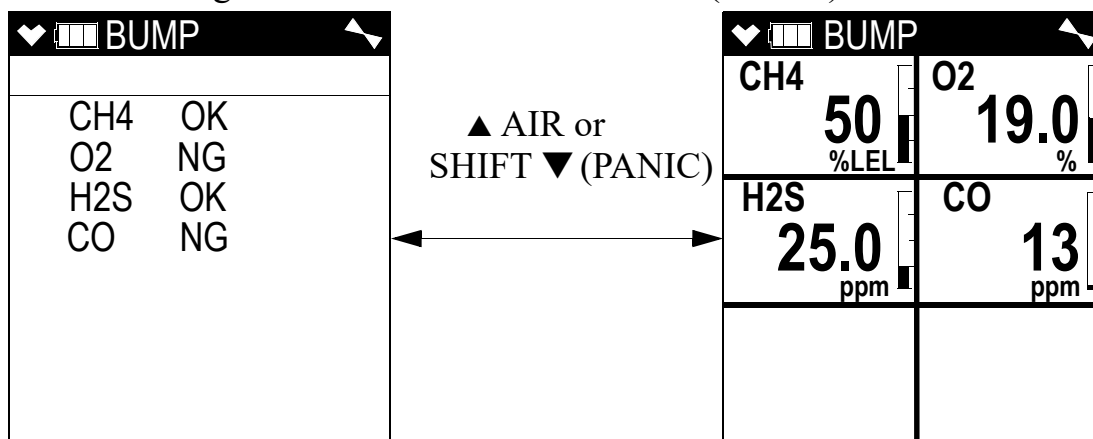
- 10 . With the desired sensor screen displayed, connect the tubing from the demand flow regulator to the rigid tube on the probe then quickly press and release the POWER/ENTER button to proceed to the Bump In Progress Screen. The instrument will count down.



If you do not want to proceed with the bump test, press and release the DISP/LOCK button to return to the Gas Select Screen.

If you do want to continue with the bump test, proceed to the next step.

- 11 . When **AUTO CAL** in the **BUMP PARAMETERS** menu item in Maintenance Mode is set to **OFF**:
- The instrument will indicate which channels passed or failed the bump test with an OK (pass) or an NG (fail) to the right of the gas. You can scroll between the bump test results and the bump test gas readings with the ▲AIR and SHIFT ▼ (PANIC) button.



- To return to the Gas Select Screen, press and release the POWER/ENTER button. If any channel failed the bump test, the buzzer will sound a double pulsing tone until you press and release the POWER/ENTER button.

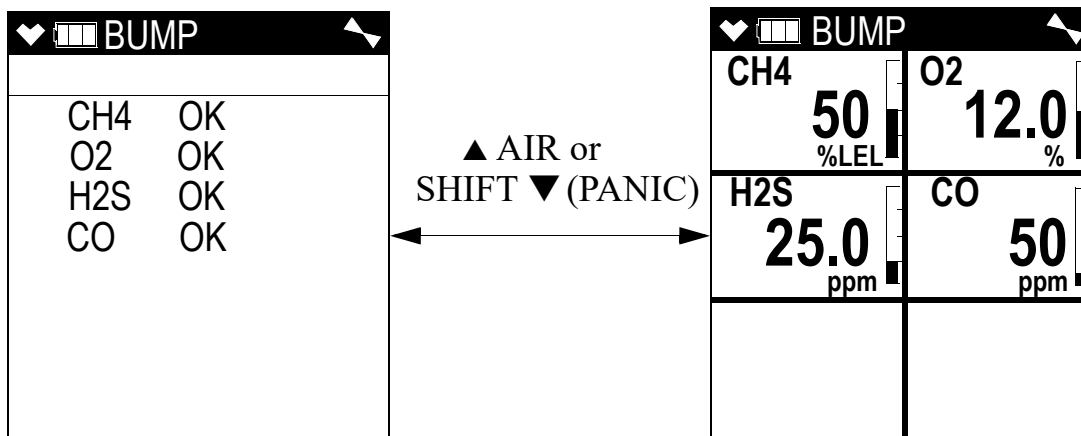
If one or more sensors fail the bump test, see “Troubleshooting” on page 104 to investigate the cause of the failure and replace the failed sensor or sensors if necessary.

c. Disconnect the tubing from the probe.

12 . When **AUTO CAL** in the **BUMP PARAMETERS** menu item in Maintenance Mode is set to **ON**:

If all channels pass the bump test:

- a. The results screen appears. You can scroll between the bump test results and the bump test gas readings with the **▲AIR** and **SHIFT ▼** (PANIC) buttons.



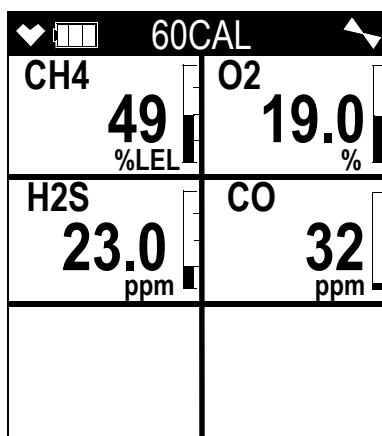
- b. To return to the Gas Select Screen, press and release the **POWER/ENTER** button.

c. Disconnect the tubing from the probe.

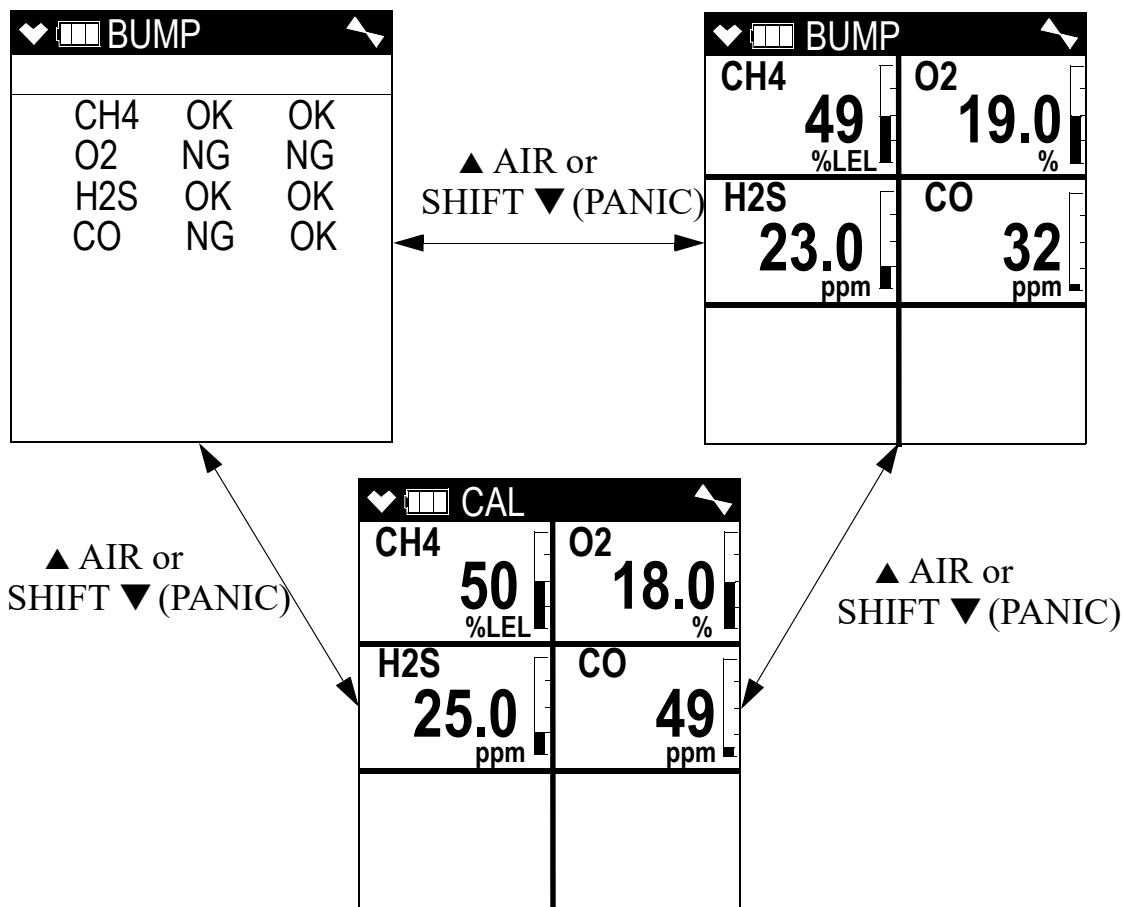
If any channel fails the bump test:

- a. The instrument will beep and a calibration is immediately and automatically started. Continue to apply the calibration gas. **CAL** will appear at the top of the screen along with a countdown.

The calibration time counted down during a calibration initiated because of a failed bump test is the difference between the gas time and the calibration time defined in the **BUMP SETTING** menu item in Maintenance Mode.



- b. At the end of the calibration, the instrument displays the results from both the bump test and the calibration. Use the ▲AIR and SHIFT ▼ (PANIC) button to scroll between the calibration/bump test results, the bump test gas readings, and the calibration gas readings.



- c. To return to the Gas Select Screen, press and release the POWER/ENTER button at any time. If any channel failed the calibration, the buzzer will sound a double pulsing tone until you press and release the POWER/ENTER button.
- d. Disconnect the tubing from the probe.
- 13 . Unscrew the demand flow regulator from the calibration cylinder.
 - 14 . If you want to bump test any more channels, repeat Step 13 - Step 13.
 - 15 . Use the SHIFT ▼ (PANIC) button to display the **ESCAPE** screen, then press and release the POWER/ENTER button to return to the Calibration Mode Menu.
 - 16 . Use the SHIFT ▼ (PANIC) button to place the cursor next to the **NORMAL MODE** menu option, then press and release the POWER/ENTER button to return to Measuring Mode.