

Operating Instructions Ecotec E3000A (530-101, 530-102)



Start-up: (see Chapter 3.1 of GEM for detailed information)

Turn ON power with the main power switch located on the back side of the unit. The instrument will automatically run a self test and run-up procedure. When the instrument is ready for measurement, a bar graph menu will be displayed and a beep will sound. The instrument is now in measurement mode.

Calibration: (see Chapter 3.5.2 of GEM for detailed information)

The Ecotec E3000 may be calibrated using the built-in ECO-Check reference leak. To ensure accurate calibration wait for a minimum of 20 min after start-up (warm-up time).

To verify the correct calibration of the Ecotec E3000 insert the sniffer tip into the test leak opening. When prompted for it remove the sniffer tip from the test leak opening. If a new calibration is required the software will show in the results screen.

To re-calibrate the unit insert the sniffer tip into the cone-shaped test leak opening with the right probe button pressed. When prompted for it remove the sniffer tip from the test leak opening. Confirm to save the new calibration factor(s) by pressing the lower right menu button.

The system is now ready for measurement again.

Selecting gases and trigger values: (see Chapter 3.6.3 of GEM for detailed information)

Press the MENU button on the main unit display to enter the main menu. Go to GAS / TRIGGER and select the gas you want to edit with one of the right four menu buttons.

In the EDIT GAS menu, to change the gas type highlight the NAME menu line and press the EDIT button. In the opening gas library highlight the appropriate gas type by scrolling through the list with the arrow keys and press OK. The default mass position for the chosen gas will be selected automatically. If you want to use a different mass

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position for measurement go to the mass position menu line and press EDIT. You can toggle through the available mass positions with the arrow key and select one with OK.

To change the trigger value, in the EDIT GAS menu select the trigger menu line and press edit. In the opening menu change the trigger value by the ↑ and ↓ buttons and press OK.

Measuring in Standard Operation Mode: (see Chapter 3.4.1 of GEM for detailed information)

Before each measurement briefly operate the left push button (ZERO button) on the sniffer probe to compensate for any levels of refrigerant in the environment that may interfere with the actual leak detection.

If a pin hole needs to be tested point the sniffer tip at the suspected leak for about one second. If a welded seam or alike needs to be tested move the tip at a velocity of approx. 10 cm/s (about 4 in/s) along the welded seam. In both cases keep the sniffer tip as close as possible to the testing sample.

If a leak is detected (the measured value exceeds the trigger level) the background colour of the probe display will change from green to red and an acoustic alarm will sound. Remove the tip somewhat from the suspected leak, operate the ZERO button and repeat the test to avoid incorrect measurements and to locate the leak precisely.

Sleep Mode: (see Chapter 3.6.1 for detailed information)

When pressing the sleep button in the main menu the unit will go into standby mode. The sensor will be shut off and all pumps will be powered down. The sleep button will then be replaced by a start button. By pressing the Start button the Ecotec E3000A will be brought back up into measurement mode.

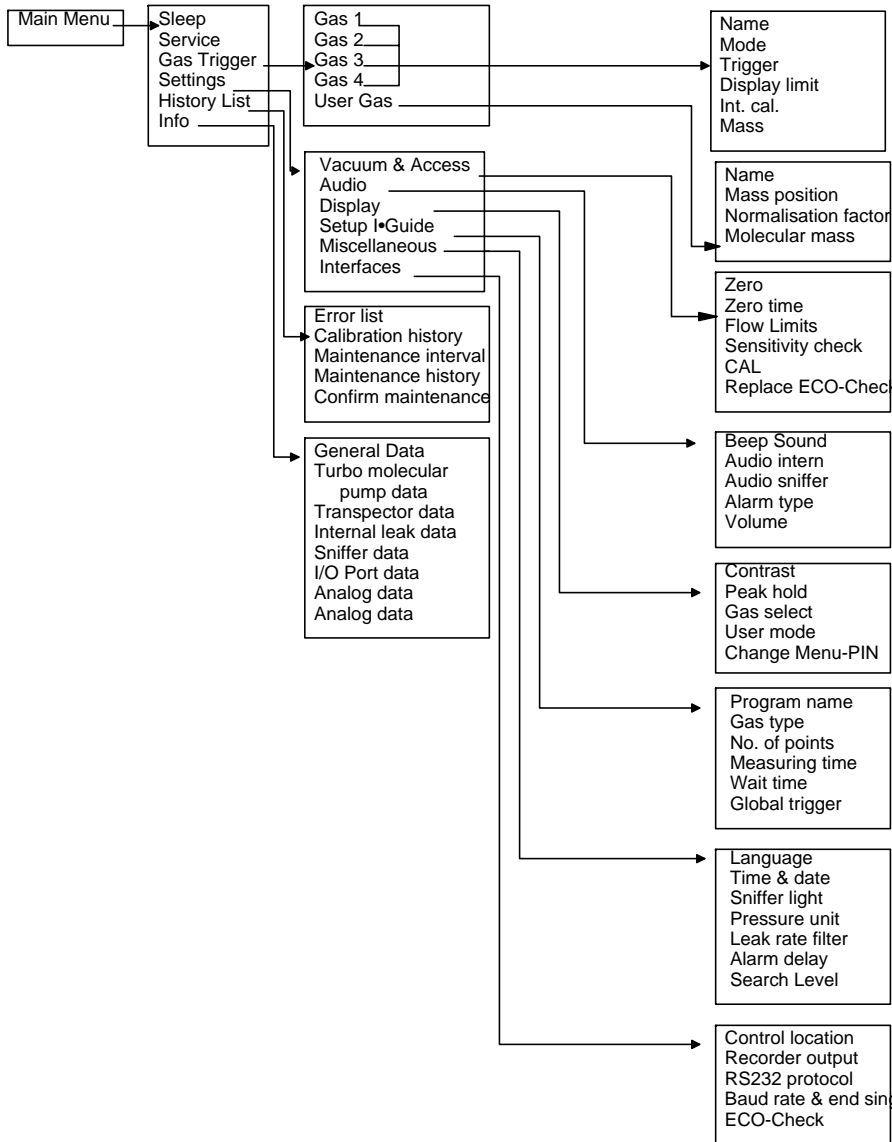
Shut Down: (see Chapter 3.7 of GEM for detailed information)

Turn OFF power with the main power switch out of any operating mode. It will take some minutes for the turbo pump to come to a halt.



Do not move the instrument before all pumps have come to a full stop.

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Menu Structure of Ecotec E3000A

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Adjusting the alarm type and volume: (see Chapter 3.6.4.2 for detailed information)

The Ecotec E3000 can be set to three different types of alarms. The alarm type may be edited in the SETTINGS / AUDIO / ALARM TYPE submenu.

The volume of the loud speaker in the main unit may be adjusted with the two buttons on the left side of the measurement screen.

The audio signal of the sniffer probe is coupled with the vibration alarm of the sniffer probe and may be enabled or disabled in the SETTINGS / AUDIO / AUDIO SNIFFER submenu.

Selecting the menu language (see Chapter 3.6.4.5 for detailed information)

The menu language may be selected in the SETTINGS / MISCELLANEOUS / LANGUAGE submenu.

Selecting the intensity of the sniffer light (see Chapter 3.6.4.5 for detailed information)

The intensity of the sniffer light can be set to six different levels in the SETTINGS / MISCELLANEOUS / SNIFFER LIGHT submenu. The sniffer light may also be disabled completely in this submenu.

Setting up a search level (see Chapter 3.6.4.5 for detailed information)

An additional warning level may be entered as percentage of the trigger level in the SETTINGS / MISCELLANEOUS / SEARCH LEVEL submenu.