

**This short manual is no replacement of the actual IROX 2000 manual!
Please, read the manual first to ensure complete functionality of the instrument**

SET – UP YOUR INSTRUMENT

- Place the IROX on a solid bench top.
- Make sure the line voltage corresponds to the voltage setting above the power inlet on the rear of the instrument.

Keypad Functions:

STOP / ESC	...	Stop measurement at any time / Escape a menu
RUN	...	Start measurement
TASK / ENTER	...	Execute a selected operation / Enter a value or name
SHIFT	...	Executing special functions
+ and -	...	Modify characters
▲ ▼ and ◀ ▶	...	Change the cursor position

FTIR CALIBRATION & MEASUREMENT

1. Switch on the instrument with the power switch above the power connector on the rear panel.
2. Wait approximately 10 minutes for “warming up FTIR” and “adjusting FTIR” until the calibration screen appears



CALIBRATION:

ATTENTION: It is recommended to make a calibration of the FTIR once a day before the IROX is used for measurements. This calibration takes 3 min.

1. Connect the sample introduction tube to the Luer inlet on the right side of the IROX. Insert the end of the tube into a bottle of cyclohexane (please use only high purity grade, type HPLC)
2. Press **RUN** to start the calibration measurement. If a Multiple sample inlet is connected, use inlet 1 for filling. Inlet 1 is the first inlet from the front side. When the measurement is finished, the display changes to

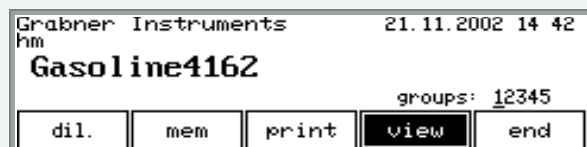


3. Shift the cursor to **SAVE** and press **TASK**. The new reference spectrum is stored and used for further calculation of concentrations.
4. Exit this menu by shifting the cursor to **END** and pressing **TASK**. The display will show the Start-up menu:



MEASURING

1. In the start-up menu, shift the cursor to **meas** and press TASK



2. Select the **groups** of the library you want to use for property prediction by pressing TASK on the respective number. The selected **groups** appear underlined.
3. Connect the sample introduction tube to the Luer inlet on the right side of the IROX. Insert the end of the tube into the gasoline that has to be analyzed.
4. Press RUN to start the measurement.

Gasoline		20.08.2002 16:42	
0.747 [g/ccn] (32.6 C)		vol%	mass%
Ethanol	C ₂ H ₆ O	--	--
Isopropanol	C ₃ H ₈ O	--	--
2-Butanol	C ₄ H ₁₀ O	--	--
tert-Butanol	C ₄ H ₁₀ O	--	--
MTBE	C ₅ H ₁₂ O	16.8	16.4

5. When the measurement is finished the result is displayed. Browse through the list with ▲ and ▼ keys line by line or with SHIFT ▲ and ▼ to switch a whole page.
6. Press STOP to leave this menu. The instrument is ready for the next measurement.

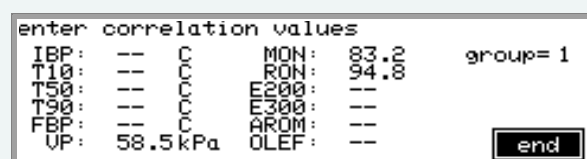
ADDING SAMPLES TO THE DATABASE (LIBRARY)

If the measuring results of the predicted values like the octane numbers, distillation properties, vapor pressure, total olefins and total aromatics should be improved then enlarge the database with your samples.

1. In the Start-up menu, shift the cursor to **calib** and press TASK. Move the cursor to **correlation** and press TASK again.



2. Move the cursor to **value** and press TASK. Enter all known values for the listed properties and select the group number in which this spectrum should be stored. Make sure that the values of the unknown properties are set to --.



3. Shift the cursor to **end** and press TASK. The instrument will show the screen of the correlation calibration menu again. It is now possible to edit a name of the sample in the upper line with large characters.
4. Connect the sample introduction tube to the Luer inlet on the right side of the IROX. Insert the end of the tube into the gasoline that and press RUN to start a measurement.
5. When the measurement is finished goto **save** and store the result in the database.
6. Now the instrument is ready for the next calibration (repeat 2 - 5). If you have finished all the calibration measurements then exit the menu with TASK on **end** and go back to the start-up menu.