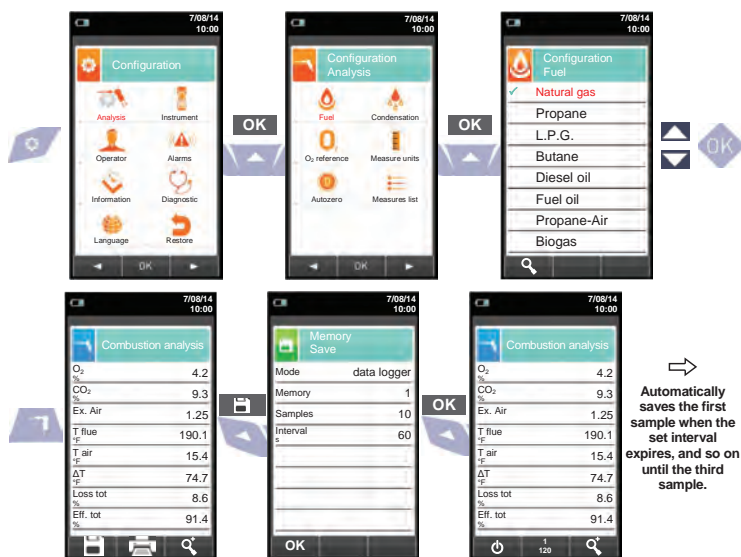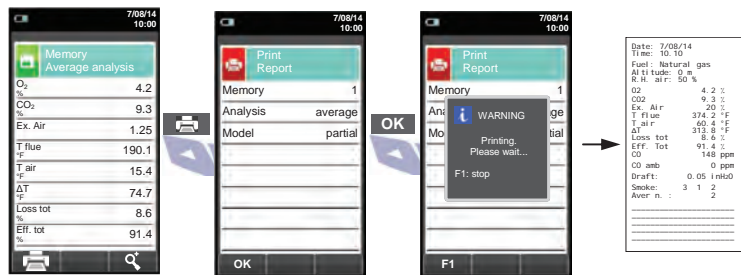# 7 COMBUSTION ANALYSIS & SAVING

WARNING! - Before proceeding with the combustion analysis remember to set the proper fuel.

Automatically saves the first sample when the set interval expires, and so on until the third sample.

In case the automatic print mode is set then the average analysis printing start automatically.
Conversely, after the sampling of the third analysis, the average analysis is shown, so that it can be sent to the printer as explained in the following.


```
Date: 7/08/14
Time: 10.10
Fuel: Natural gas
Altitude: 0 m
R.H. air: 50 %
O2              4.2 %
CO2             9.3 %
Ex. Air          20 %
T flue       374.2 °F
T air         60.4 °F
ΔT           313.8 °F
Loss tot       8.6 %
Eff. Tot      91.4 %
CO            148 ppm
CO amb          0 ppm
Draft:   0.05 inH2O
Smoke:    3  1  2
Aver n. :        2
```

• To view different test measurements, use ' 🔍 ' key to scroll through the various test measurement screens.

Xair = Excess Air
Tg = Flue Gas Stack Temperature
Ta = Ambient or Incoming Air Temperature
ΔT = Differential Temperature (NET Temperature)
Eff. tot = Total Combustion Efficiency
Loss tot = Stack Losses

1500 QUICK GUIDE CE

Compliant with: EN 50379-1, EN 50379-2

Features
• Combustion, Flue gas & Emissions analysis
• Calculating of stack heat loss and efficiency
• CO environment measurement
• Measuring differential pressure
• Draft measurement
• Pressure measurement in the gas supply pipe
• Store Smoke values, calculating mean value

⚠️ The magnets in the back of the instrument can damage credit cards, hard drives, mechanical watches, pacemakers, defibrillators and other devices proven sensitive to magnetic fields.
It is recommended to keep the instrument at a distance of at least 10" away from any of these devices.

KEYBOARD FUNCTIONS

KEYS	FUNCTION
	Activate the context keys shown on the display
	Enters the Memory menu
	Enters the Print menu
	Enters the Configuration menu
	Previes the combustion analysis
	Enters the measurements menu
	Turns the instrument on/off
	Quits the current screen
	Selects and/or modifies
	Confirms data

CONTEXT KEYS

| CONTEXT KEY	FUNCTION
◎	ZERO the pressure sensor
↻	Updates the measure
📷	Saves the current measurement or analysis in the memory location selected from the 'Select Memory' menu
🖶	Starts the report ticket
⏻	Enters the Print menu
⏻	Stops the flue gas analysis
✎	Enters the modify mode for the selected parameter
OK	Confirms the settings
Esc	Cancels the change/operation and returns to the previous screen
🔍	Zooms the screen
🔍	Shows the details for the selected parameter
🔍	'Find' function; starts a quick search for the analysis to recall

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1 USING THE FLUE GAS ANALYSER

AA AL05

AAC KP01
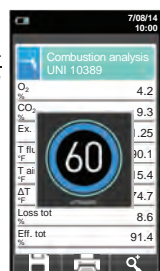AA SA08
AA SF–A
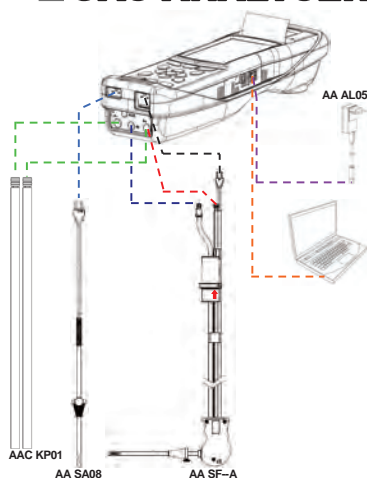
WARNING!
- Be sure all connections are tight to assure accurate sampling.
- It is important that water trap & filter be installed vertically to prevent damage from moisture & particles to sensors.
- When conducting measurements, the water trap/filter assembly MUST be in a VERTICAL position.
- When testing is completed, always drain the water trap with any condensation (after EVERY test!).

2 ON / OFF

WARNING!
During autozero <u>DO NOT</u> insert the gas probe in the chimney.
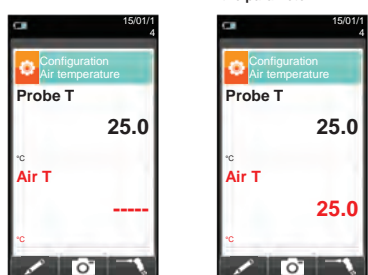
KEEP PRESSED FOR 2 SECONDS UNTIL IT BEEPS

Combustion analysis UNI 10389	7/08/14 10:00
O₂ %	4.2
CO₂ %	9.3
Ex.	.25
T flu °F	90.1
T ai °F	5.4
ΔT °F	74.7
Loss tot	8.6
Eff. tot %	91.4

3 PRIMARY OUTDOOR TEMP. INPUT

Analysis

Air temp.

Configuration Air temperature	15/01/14
Probe T	25.0 °C
Air T	----- °C

It saves the value, acquired or entered in the parameter 'Air T'.

Acquires the temperature value detected from the sampling probe. That value is reported in the parameter 'Air T'.

Configuration Air temperature	15/01/14
Probe T	25.0 °C
Air T	----- °C

Configuration Air temperature	15/01/14
Probe T	25.0 °C
Air T	25.0 °C

4 HOW TO STOP / RESTART PUMP

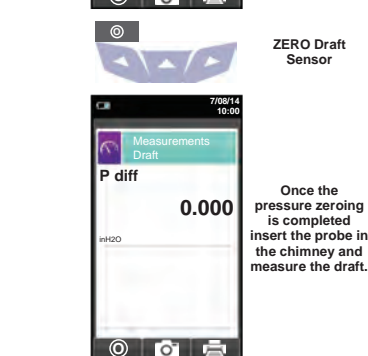While in manual analysis, holding pressed both keys ESC and ▼ makes the instrument switch off the suction fumes pump and blocks the refresh of any current measure.
To switch on the suction fumes pump again and reactivate the refresh of the current measure, press again the keys ESC and ▼.

5 MEASURE OF THE DRAFT

Draft

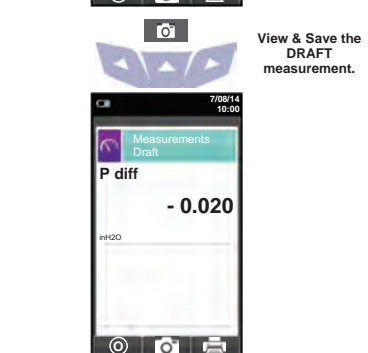| Measurements Draft	7/08/14 10:00
P diff	0.001 inH2O
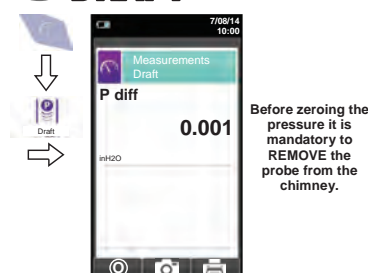
Before zeroing the pressure it is mandatory to REMOVE the probe from the chimney.

ZERO Draft Sensor

Measurements Draft	7/08/14 10:00
P diff	0.000 inH2O

Once the pressure zeroing is completed insert the probe in the chimney and measure the draft.

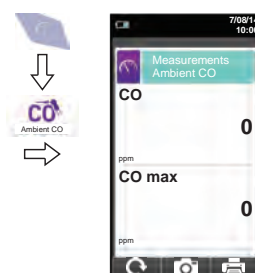| Measurements Draft	7/08/14 10:00
P diff	- 0.020 inH2O

View & Save the DRAFT measurement.

6 MEASURE AMBIENT CO

⚠ It is mandatory to perform the instrument autozero in fresh, clean outdoor air.

Ambient CO

Measurements Ambient CO	7/08/14 10:00
CO	0 ppm
CO max	0 ppm

Connect the gas probe to the instrument and perform the measurement.
Wait 5 minutes.

Save the measurement

Measurements Ambient CO	7/08/14 10:00
CO	0 ppm
CO max	0 ppm

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