



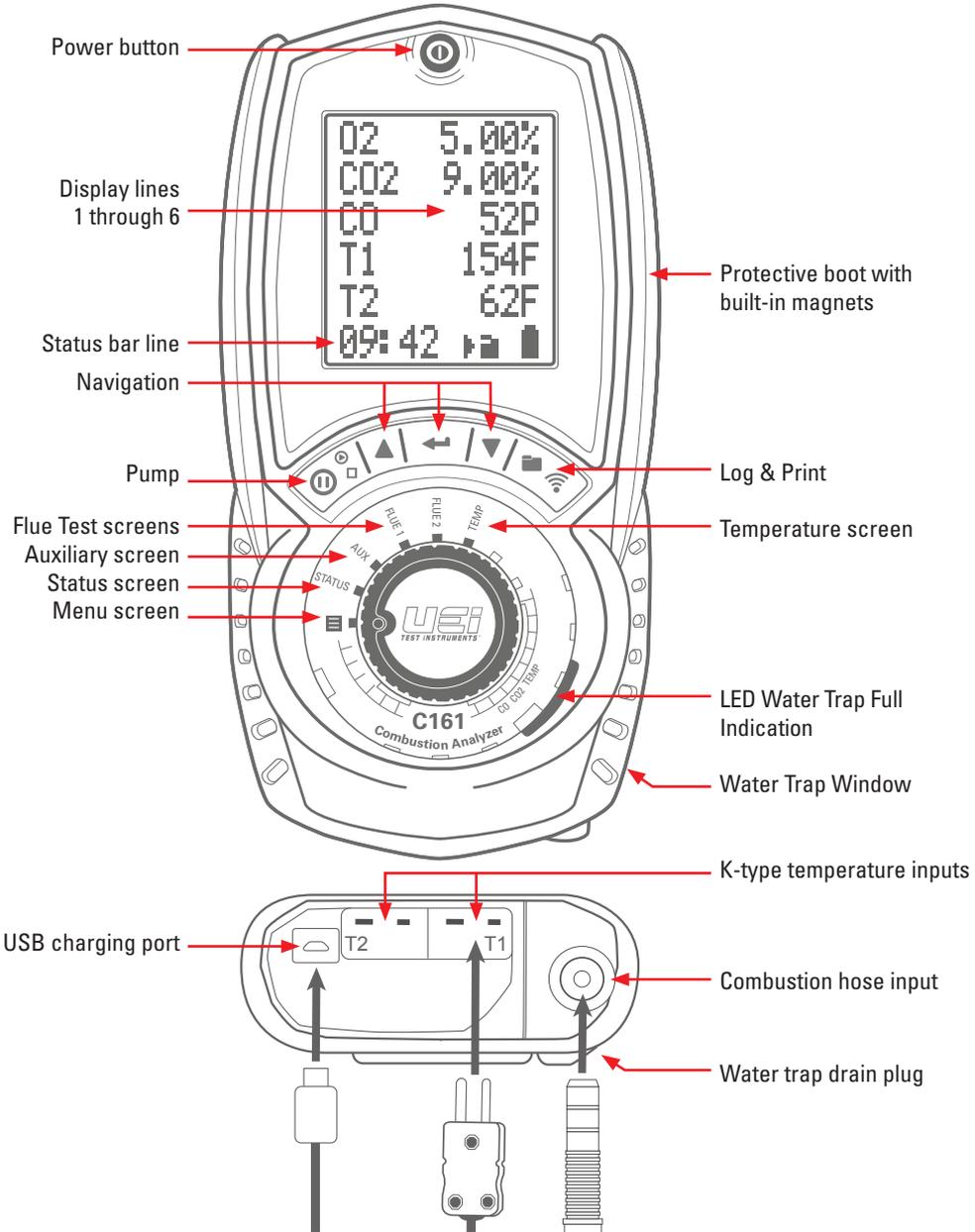
BEFORE USING

**REGISTER YOUR
ANALYZER**

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- ✓ *Keep up on the latest Accessories, Upgrades and Videos*
- ✓ *Scan Now for Easy Online Registration or Visit www.ueitest.com*



C161 OVERVIEW



MENU SCREEN - C161 START UP

Press  "Power" Button for 2 seconds. The analyzer will perform a 60 second purge. This should be done in fresh air.

Rotate Selector Dial to **MENU** to set up or customize your settings.

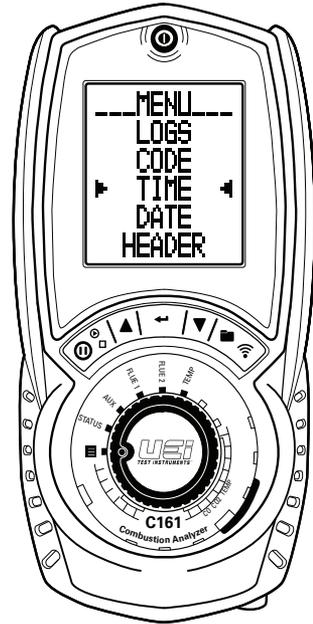
Selected parameter are centered, highlighted with arrow icons on either side.

Use  and  buttons to scroll menu options,
Press  to select and edit a parameter.

Press  and  buttons to change contents of a field.

Press  button to scroll fields.

Press  to enter content and move to next field.



STATUS SCREEN

Rotate Selector Dial to **STATUS** to view parameters.

Selected Fuel

Ti = Ambient Temperature

ATM = Atmospheric Pressure (measured in mbar)

CAL = Days remaining until calibration

Press  and  buttons to scroll Status Bar options.

Time, Pump Status, Battery Status

Fuel Type

Date

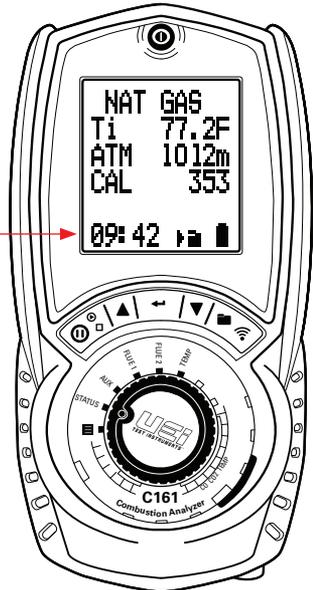
Change Fuel Type in STATUS SCREEN

Press  and  buttons to the currently selected fuel.

Press and Hold  button until arrows indicate fuel edit mode is activated.

The  and  to scroll fuel types.

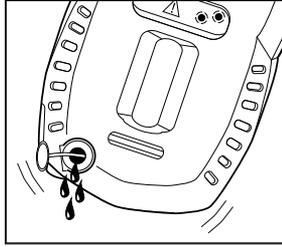
Press  to select desired fuel.



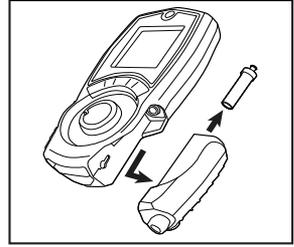
BEFORE TESTING

CHECKLIST

- Clean particle filter
- Water trap and probe line are free of water
- All hose and thermocouple connections are properly secured
- Water trap is fitted correctly
- Power on and zero
- Flue gas probe is sampling ambient FRESH air

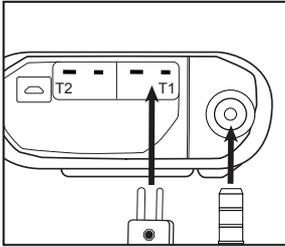


Remove the rubber boot and red drain plug. Allow the water to drain out. Re-insert the rubber plug and replace boot cover.

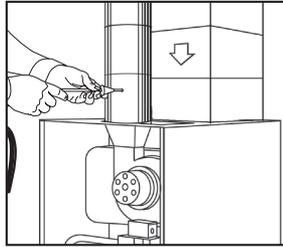


Remove protective rubber boot. Remove water trap from analyzer. Remove particle filter from spigot and replace with new one. Reattach trap and boot.

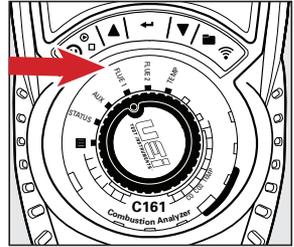
COMBUSTION ANALYSIS



Insert flue probe into combustion input. Insert K-type temperature probe into input T1.

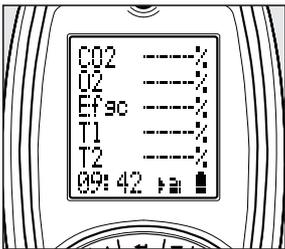


Insert flue probe into stack. Adjust cone so the probe tip is approximately at the center of the stack.

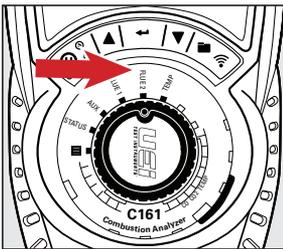


Rotate function rotary dial to FLUE 1 for Flue Test Screen 1 parameters.

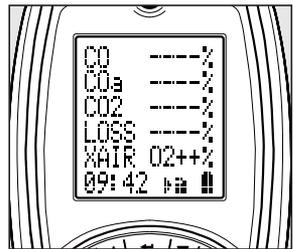
NOTE: If there is no hole, check with service and installation instructions of appliance for best testing method or check with your local authority on best practice



Flue 1 displays CO₂, O₂, Gross Efficiency, Flue temperature, Inlet temperature.

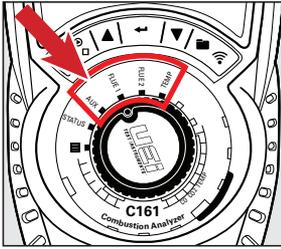


Rotate the function rotary dial to FLUE 2 for Flue Test Screen 2 parameters.

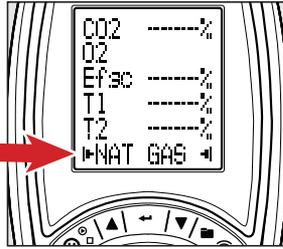


Flue 2 displays CO (ppm), Losses calculated, Excess air %. Make any adjustments needed for proper Combustion and wait for analyzer to display change in readings. (Repeat as necessary).

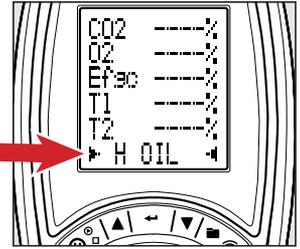
CHANGE FUEL TYPE



Rotate the dial to either AUX, FLUE 1, FLUE 2 or TEMP setting.

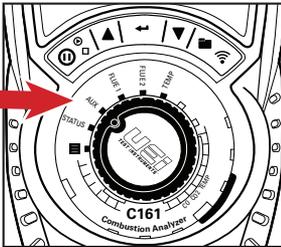


Press \blacktriangledown button until the Fuel Type displays on the Status Bar.
Press and Hold \leftarrow until two arrow icons display.

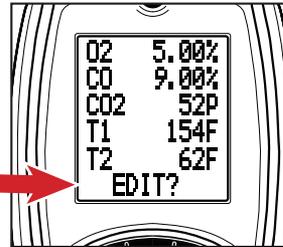


Press \blacktriangle and \blacktriangledown buttons to scroll fuel selections.
Press \leftarrow to select fuel.

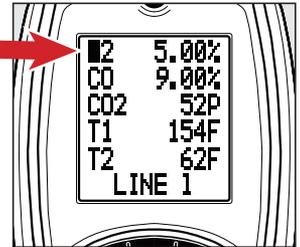
AUXILIARY SCREEN



When performing a combustion Test, Rotate function rotary dial to AUX to view the Auxiliary Test Screen's custom parameters.



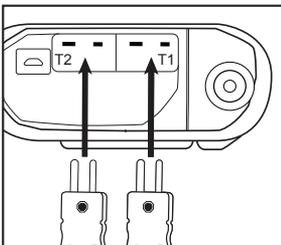
AUX displays 5 lines of editable parameters. To edit line values Press \blacktriangledown button until **Edit?** displays on the Status Bar.
Press and Hold \leftarrow until the Status Bar reads **LINE 1**.



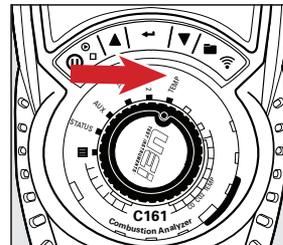
Press \blacktriangle and \blacktriangledown buttons to scroll parameter selections.
Press \leftarrow to select a parameter and advance to the next Line.
Continue until cursor is back to Status Bar to exit.

The AUX screen allows you to assign any of the following parameters on any display line. O2, CO, Display Fuel Type, CAL, XAIR, LOSS, Efgc, ATM, Ti, ΔT , T2, T1, CO2, COa, or COn

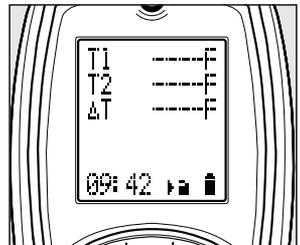
TEMPERATURE TEST



Insert K-type temperature probes into input T1 and T2.

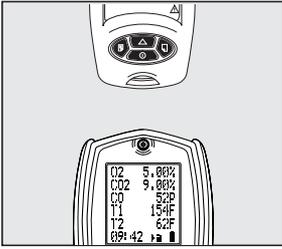


Rotate function rotary dial to TEMP for Temperature Test Screen.

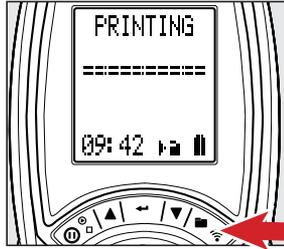


TEMP displays T1, T2 and Differential Temperature.

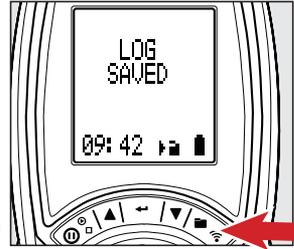
PRINTING & LOGGING



To Print: Align printer (sold separately) above Analyzer.

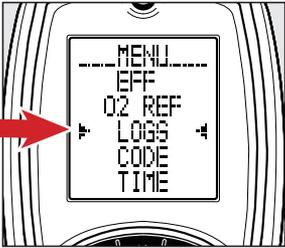


During testing, Press to start printing.
Press again to abort.

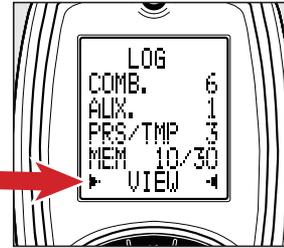


To Log: During testing, Press and Hold to log a report.
To view these Logs, see **View Saved Logs** section.

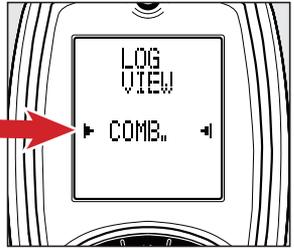
VIEW SAVED LOGS



Rotate the dial to MENU.
Press button until the LOGS is selected between two arrow icons. Press to select.



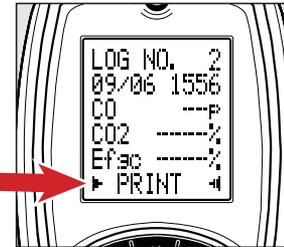
Screen displays all saved LOGS.
With VIEW selected in the Status Bar, Press to select.



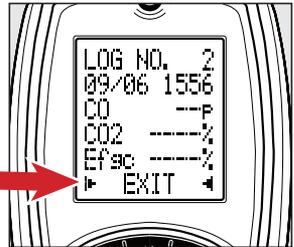
Press and buttons to scroll Test Report categories.
Press to select a category.



Line 1 displays the LOG number on screen.
To view another LOG, Press and buttons to NEXT.
Press to advance to next log.
Repeat until you reach desired LOG.

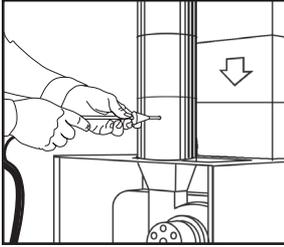


To print the LOG, Press and buttons until PRINT is selected between two arrow icons. Press to select to start printing.



To EXIT, Press and buttons until EXIT is selected between two arrow icons. Press to EXIT screen.
Repeat until return to MENU screen.

POST TESTING



Remove the probe from the flue and allow analyzer to purge with fresh air until readings return to zero. O₂ to 20.9%, CO to Zero
CAUTION: probe tip will be HOT.

POWERING OFF

When you power off the C161, there is a 10 second purge.

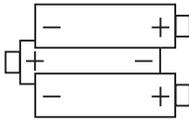


CAUTION

Make sure you do not exceed the analyzer's operating specifications.

- Do not exceed the flue probes maximum temperature (1112°F)
- Do not exceed the analyzer's internal temperature range 112°F (50°C)
- Do not put the analyzer on a hot surface
- Do not exceed the water trap's level
- Do not let the particle filter become dirty and blocked

BATTERIES



The analyzer is fitted with 3 (AA) size rechargeable batteries. Observe correct polarity when replacing.

Always check operation immediately after battery replacement.

Do not leave batteries in unit for extended periods of non-use.



WARNING

Do not recharge with Alkaline batteries fitted. Alkaline batteries are not rechargeable. Attempting to recharge alkaline batteries may result in product damage and create a fire risk.

Time and Date will need to be reset after changing batteries.

Always dispose batteries using approved disposal methods that protect the environment.



**Download the full
Owners Manual at
UEiTEST.COM or
SCAN THIS CODE**

WARRANTY

The C161 combustion analyzer is warranted for one year including sensors. If within the warranty period your instrument should become inoperative from such defects, the unit will be repaired or replaced at UEi's option. This warranty covers normal use and does not cover damage which occurs in shipment or failure which results from alteration, tampering, accident, misuse, abuse, neglect or improper maintenance (calibration). Batteries and consequential damage resulting from failed batteries are not covered by warranty. Any implied warranties, including but not limited to implied warranties of merchantability and fitness for a particular purpose, are limited to the express warranty. UEi shall not be liable for loss of use of the instrument or other incidental or consequential damages, expenses, or economic loss, or for any claim or claims for such damage, expenses or economic loss. A purchase receipt or other proof of original purchase date will be required before warranty repairs will be rendered. Instruments out of warranty will be repaired (when repairable) for a service charge. Warranty only covers hardware and does not extend to software applications. Contact UEi for specific warranty and service information.

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This warranty gives you specific legal rights. You may also have other rights which vary from state to state.

READ BEFORE USE

ANNUAL RECERTIFICATION

UEi annual recertification process is straight forward and up front; no surprises!

Pay a flat rate for standard Recertification service.

- *Calibration or Sensor Replacement*
- *30-Point Inspection*
- *Firmware and Software Updates*
- *Certificate of Calibration*
- *Return Freight Paid**
- *12-Month warranty*

*2-Day turn-around on all standard recertification services with pre-approved payment.***

Our recertification teams are factory certified and proud to provide industry-leading turnaround support.

Our recertification centers in USA and Canada are ISO/IEC 17025:2017 accredited facilities that only use EPA protocol test gases and can provide NIST certification services.

*Return freight pre-paid within the continental US and Canada.

**Standard recertification services does not include repair work to analyzers. Customer Service will contact users directly regarding repair time lines, options and costs prior to performing any repair services.

WWW.UEITEST.COM

USA 1.800.547.5740

CANADA 1.877.475.0648