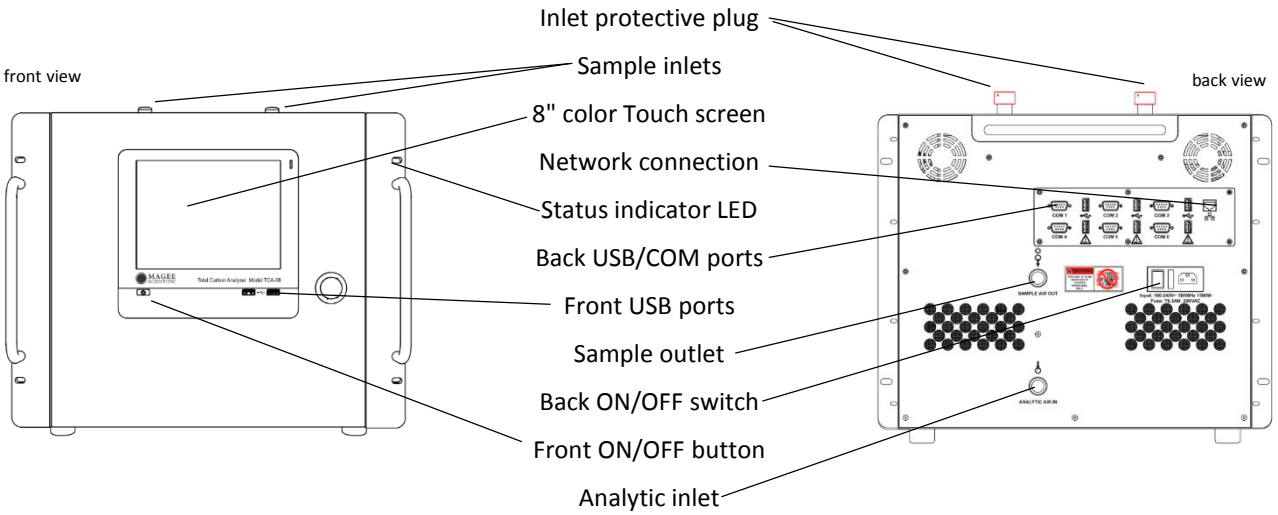
SAFETY NOTES

Please pay attention to additional safety notes as described in detail in the **User Manual (Version 1.0.0.6)**, **Chapter 2, „SAFETY NOTES AND LABELS“**.

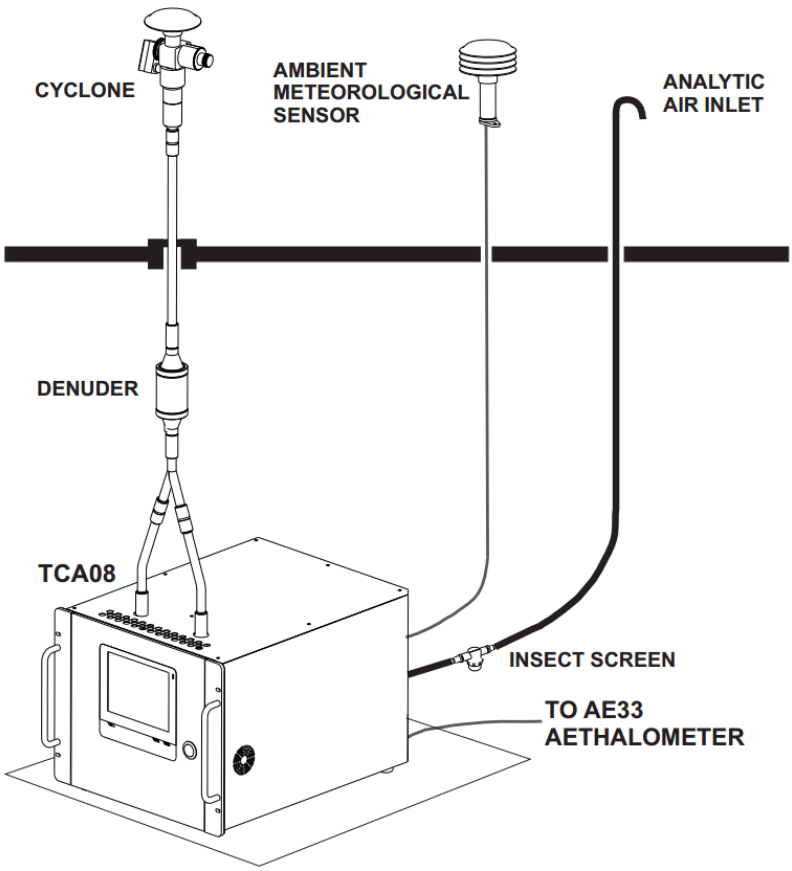
THE INSTRUMENT



INSTALLATION: SAMPLE INLET and PLUMBING

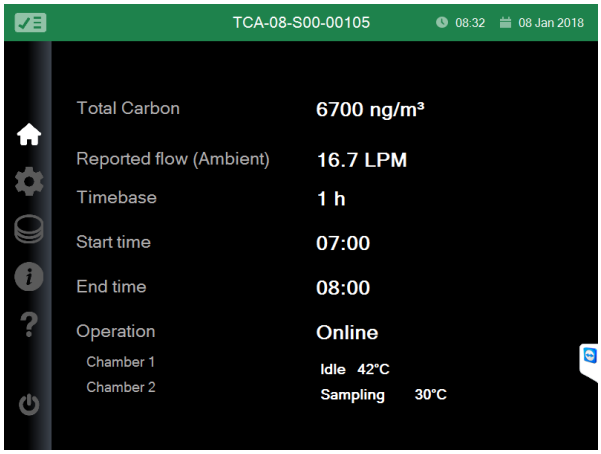
Place the instrument on an even surface or mount it in a rack. Keep the rear area of the instrument accessible. The minimum overall height requirement of the TCA08 with its standard sampling line system is 1.2 m between the top surface of the instrument and the connection to an external stack.

1) Locate the instrument away from the direct discharge of an air-conditioner; and as close as possible to the sample air inlet point through the wall or ceiling.
2) Remove **red** protective caps from the instrument.
3) Attach the sample inlet tubes and denuder using “slide-on” couplings in TCA package.
4) Connect the inlet of the denuder to a stack of straight tubing passing out to the sample atmosphere.
5) Attach the cyclone to the upper end of the stack.
6) Attach the rain shield to the upper inlet of the cyclone.
7) Install the ‘Analytical Air’ inlet tubing with the Insect Screen / Water Trap near the rear of the instrument. Avoid sharp bends. Route the tubing to the outside air, make sure the inlet end is pointing down and protected from rain.
8) Install the Ambient Meteorological Sensor at an outside location close to the sample inlet cyclone.
9) Connect the meteorological sensor cable to the sensor base using the circular locking plug. Route the cable to the rear of the TCA08 and connect the COM plug and the USB plug to Port 1 of the rear panel.
10) Switch the AC power switch ON. Verify that the screen illuminates, and shows the program loading sequence.

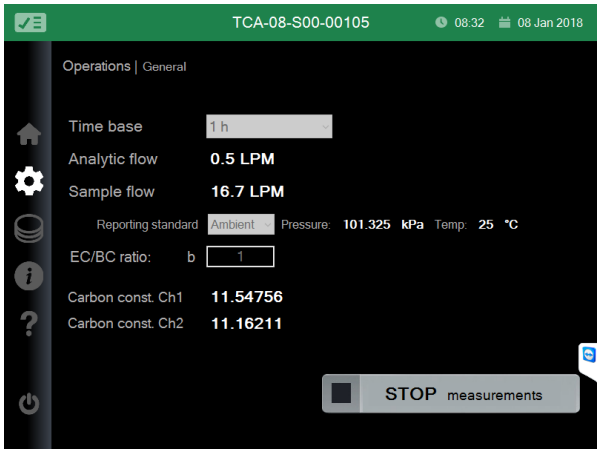


Any water intake may damage the instrument.
Damage due to water intake **is not covered by the warranty!**

HOME SCREEN AND USER INTERFACE DESCRIPTION



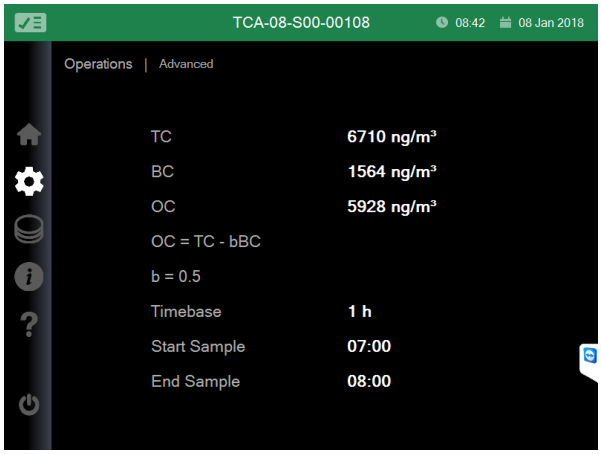
Status of the instrument (click on status icon for further information)
Total carbon concentration
Measured flow (reporting standard)
Sample time base
Start time of the sampling
End time of the sampling
General operation status (Standby or Online)
Chamber 1 status and temperature
Chamber 2 status and temperature



Sample time base

Reported standard for Sample flow
EC/BC ratio b
Click on Carbon const. Ch1 value to change it
Click on Carbon const. Ch1 value to change it

START or STOP ONLINE measurement



Total carbon concentration
Black carbon concentration
Organic carbon concentration
Organic carbon equation
EC/BC ratio b
Sample time base setting
Start time of the sampling
End time of the sampling

BASIC STATUS CODES

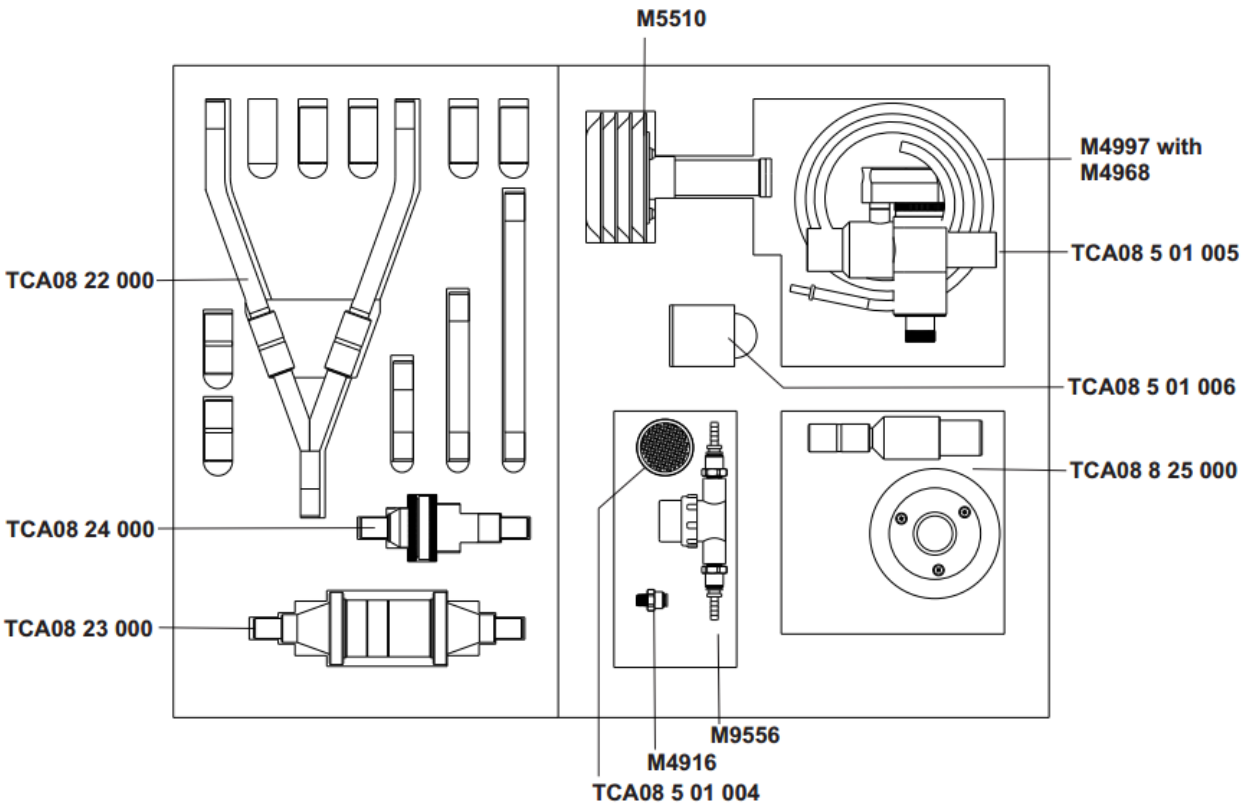
The **Status Code** of the instrument is a combination of seven groups of sub-status values (8 bits) in the following order: **G0_G1_G2_G3_G4_G5_G6,**where each of the seven groups represent:

Groups	Description	
G0	TCA operation	(G0=0, standby)
G1	Chamber 1 operation status	(G1=0, Ch1 = idle)
G2	Chamber 2 operation status	(G2=0, Ch2 = idle)
G3	Chamber 1 warning and errors status	
G4	Chamber 2 warning and errors status	
G5	Common warnings, errors and information	
G6	Network & Ext Device status.	

MAINTENANCE PROCEDURE INTERVAL

Procedure (refer to User Manual for details)	As needed	Once/ month	once/ year	Twice/ year
Cleaning with dry cloth	✓			
Verify Sample inlet flow		✓		
Inspect the sample line tubing		✓		
Inspect and clean the size selective inlet		✓		
Verify date/time		✓		
Quartz filter change procedure		✓		
Clean air test and Denuder efficiency test		✓		
Flow verification (analytic /sample flow), calibrate if necessary				✓
Change analytic air filter				✓
Change cartridge filter			✓	
Verification of TCA-08 with sucrose solution, calibrate if necessary			✓	
Change heating modules			✓	
Leakage test		every chamber opening (automatic)		

PACKING LIST



DESCRIPTION	CODE	REQ.
Divider 40 deg	TCA08 0 03 001	1
Divider Tube	TCA08 0 03 002	2
Coupling A	TCA08 8 03 003	4
Coupling B	TCA08 8 03 004	4
Tube 14x2-90	TCA08 0 03 005	1
Tube 14x2-152	TCA08 0 03 006	1
Tube 14x2-242	TCA08 0 03 007	1
VOC DENUDER KIT	TCA08 8 23 000	1
VOC Denuder, with Shell	TCA08 5 01 004	1
Sampler, 47mm	TCA08 8 24 000	1
Sharp-Cut Cyclone Inlet, 2.5 µm at 16.7 LPM flow	TCA08 5 01 005	1
Sharp-Cut Cyclone Inlet Adapter - Kit	TCA08 8 25 000	1
Quartz Filters, 47 mm - Pack of 25 pcs.	TCA08 5 01 006	1
Ambient Meteorological Sensor (P, T, RH)	M5510	1
Cable for Ambient Meteorological Sensor, 10 m	M5512	1
Insect and Water Trap Assembly	M9556	1
USB stick with manual	USBTS8G	1
Static Dissipative Polyurethane Tubing	M4997	3 meters
1/8 MPT - 1/4 stem straight	M4916	1
1/4 stem - 1/4 Hose straight	M4968	2
3/8 stem - 1/4 MPT	M4973	1
3/8 stem - 1/4 Hose straight	M4979	1
Power supply cable EU US CNINA UK	B88F306 M6115 M6117 M6118	1

REGISTER YOUR PRODUCT

In order to receive latest updates, notifications about new features and functionalities, access to all technical materials (spec sheets, technical papers, video tutorials) and other resources, we encourage all users to complete the registration form at http://www.mageesci.com/register

The Users Group site offers interactive resources at www.mageesci.com/group.

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