This following description is only valid for basic GC instruments and does not mention all possible additions and modifications. If you own a more specialized instrument or if you are unsure, we strongly recommend contacting your local Shimadzu representative before taking any actions. Our specialists can give customized directions free of charge via telephone or e-mail and thereby prevent possible damages to your system.

Turning on your Shimadzu Gas Chromatograph (after Extended Storage)

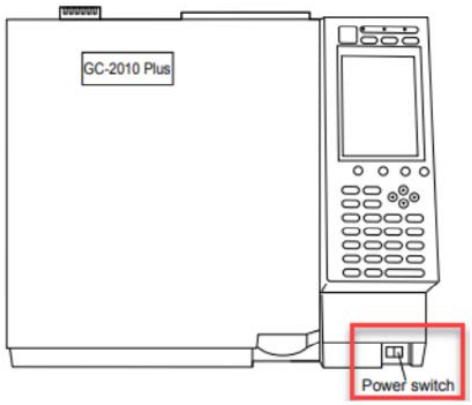
Step 1: Turn on gas supplies.

Make sure that all the gases are connected, the regulators are set correctly, and the cut-off valves are open. Consult the GC Pre-Installation Requirements document for necessary gas purity and supply pressure.

Step 2: Power on GC system and the computer.

Plug in the power cable of the GC unit and switch on the power. The power for AOC-20i and AOC-20s are supplied by the GC main unit, so there is no need to turn on the power to those separately. The system will go through initialization steps. Please allow initialization to go to completion before proceeding. The light on the autosamplers (AOC 20s) should turn green, the display of the autoinjector (AOC 20i) should show "000". The indicating lights on GC unit should be yellow or not lit up.

Power button for GC-2010 series – in front right side



Power button for the GC-2030/GC-2014 – on

Next, power up the computer and start LabSolutions (or other GC control software you are using). You should hear a long beep sound from the GC to indicate successful connection.

Step 3: Purging the GC system with carrier gas

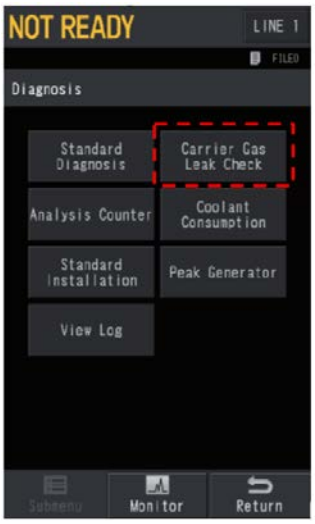
Since the GC system has gone through long periods of time without gas flow, it is necessary to purge out the system with carrier gas at room temperature before heating up. To do that, enter 25-30°C (depending on the temperature of your environment) in the GC temperature setting for ALL heated zones (injector, column, detector, etc.). You can either do this on the GC control panel or keypad or using software. If you use the software for this step, make a new method, and be sure to download the method to apply to GC.

If you normally use splitless injection method, change that to “split mode” for purging GC. If you normally use high-pressure injection method, change to “not use” for purging.

If you have capped off any vents in the back of the GC (such as ECD vents) for extended storage, please remove the plugs you used to cap the vents and **reconnect the exhaust line** before proceeding.

Step 4: Perform automatic leak check (GC-2030 only).

If you are using a GC-2030, you may perform an automatic carrier gas leak check before starting the GC. Check that the column is connected and that correct column dimensions have been entered. The leak check will not be accurate if the column dimension is incorrect. From home screen, select [Function], then [Diagnosis], then [Carrier Gas Leak Check].

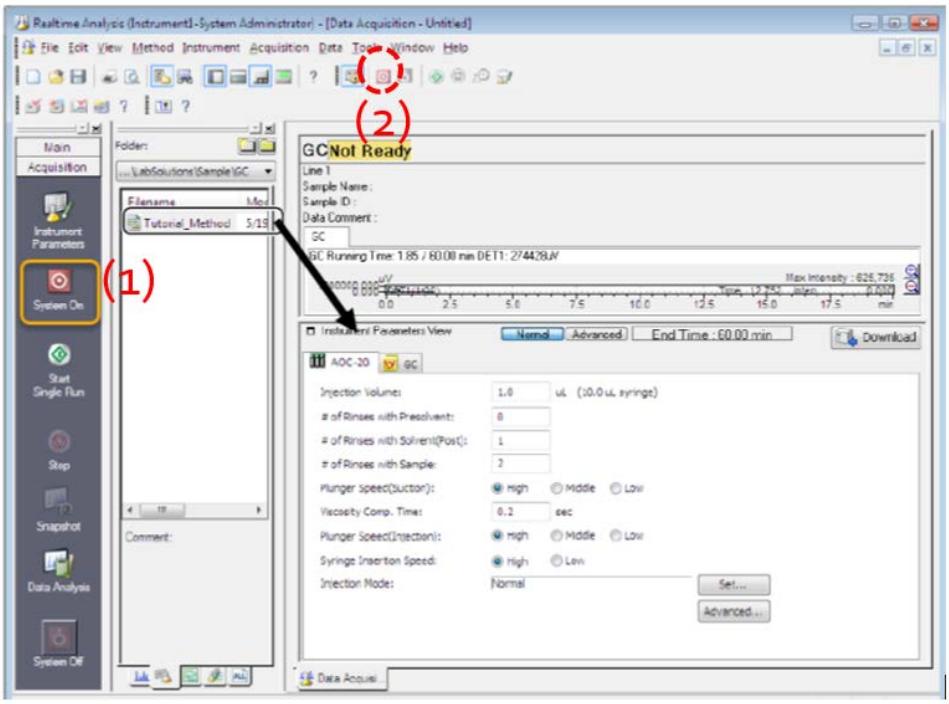


If the leak check fails, please check your gas plumbing, inlet top and column connections. You must resolve the leak issue before proceeding.

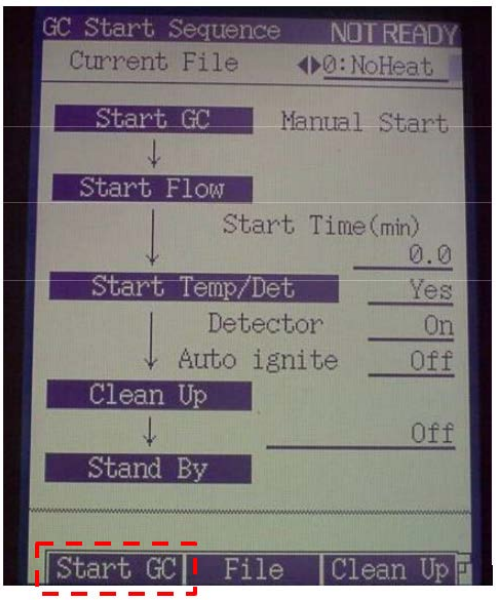
Step 5: Turn GC system on (Start the GC).

Make sure that all heated zones are set to room temperature. You can now start controlling the temperature and flow of your GC unit. You may do so either from GC front panel or using software.

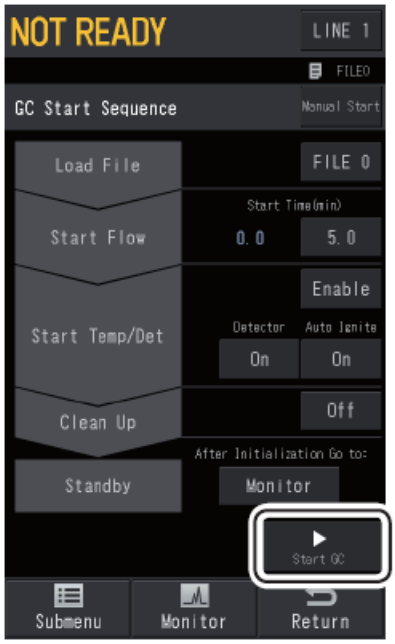
a) From LabSolutions software, you can either press "System on" from Acquisition menu at the left (1) or press "System on" from tool bar on top (2).



b) From GC-2010/2014 front panel: Press SYSTEM (above the screen), then PF1 (below the screen) to start.



c) From GC-2030 front panel: press the home button then press [GC start sequence] then [start GC].



If you experience any leak errors or primary pressure errors, please check all gas supplies and plumbing to make sure that all valves are open and that all fittings are tight.

Step 6: Get GC ready for analysis

Once the GC system has been purged out successfully for 20 to 30 minutes at room temperature, you can download analysis method using software. You can ignite FID once it reaches above 100°C. Wait for system stabilization before running samples. Often times the first 1-2 runs may not look good and that's normal. The GC will take some time to reach good analytical condition.

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