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Excellence in Science

Enables the Brevis™ GC-2050 to be Controlled by Waters™ Empower™

# Shimadzu GC Driver for Waters Empower

Brevis™ GC-2050   Nexis™ GC-2030

Enables Control of the Brevis GC-2050, a System that Offers Uncompromised Analytical Performance in a Small Footprint

The compact Brevis GC-2050, with a system width of 350 mm, including the autoinjector (AOC™-30i), allows for even more efficient use of lab space. Compared to the same Nexis GC-2030 configuration, the system width has been reduced by approximately 35 %. Despite its space-saving design, the GC oven design does not require a dedicated column, and general capillary columns can be used.
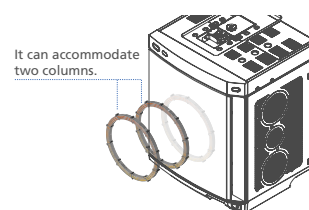
It can accommodate two columns.

350 mm
553 mm

Facilitates Easy Daily Maintenance with Support for the Easy sTop Function

The GC-2050 is equipped with a function (Easy sTop) that automatically lowers the GC inlet temperature and simplifies liner (consumable) replacement by simply pressing the MAINT. button on the upper right of the GC front panel. It can also be operated from the Empower window, helping to ensure a convenient workflow in the lab.
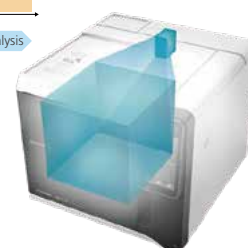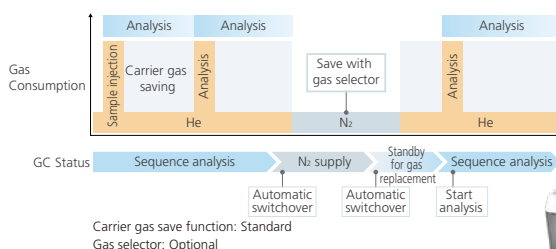Note: Operating the Easy sTop function from Empower is possible with both the GC-2030 and GC-2050.

ANALYTICAL INTELLIGENCE

Cooling Replace Setting up
MAINT. Click   MAINT. Click
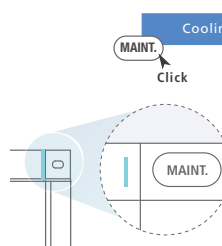
MAINT.

Supports Helium Gas Saving and Hydrogen Carrier Usage

The GC-2030/GC-2050 can be equipped with an optional built-in hydrogen sensor to detect potential leaks early and maintain a safe standby mode. If hydrogen leakage increases, the main power is turned off to prevent accidents.
When the GC-2030/GC-2050 is equipped with the optional gas selector, the carrier gas can be switched using the analysis method or via a Empower window operation. Switching to an alternative carrier gas after sequence analysis is complete minimizes helium consumption.

Gas Consumption

Analysis Analysis   Analysis
Sample injection Carrier gas saving Analysis Save with gas selector Analysis
He   N₂   He

GC Status Sequence analysis N₂ supply Standby for gas replacement Sequence analysis
Automatic switchover Automatic switchover Start analysis

Carrier gas save function: Standard
Gas selector: Optional

The hydrogen sensor monitors the inside of the GC oven.

⊞ Controllable Hardware

GC Unit	Nexis GC-2030, Brevis GC-2050, GC-2010 Plus, GC-2010 Pro, GC-2010, GC-2014, GC-2014C
Options	AOC-30i, AOC-20i (Plus) autoinjector, AOC-20s (U) autosampler, HS-20 (NX)/HS-10 headspace sampler

Nexis GC-2030 and Brevis GC-2050

Unit	Device name
Sample Injector	**GC-2030** : SPL-2030, WBI-2030, OCI-2030 (NX), PTV-2030, SINJ-2030
	GC-2050 : SPL-U(1.0)
Detector	**GC-2030** : FID-2030, TCD-2030, ECD-2010 Exceed, FPD-2030, FTD-2030, BID-2030, SCD-2030, PTCD-2030, AB BOARD
	GC-2050 : FID-U(1.0), FPD-U(1.0), ECD-2010 Exceed U, AB BOARD
Advanced Flow Technology	**GC-2030** : Backflush, detector splitting, detector switching, heart-cut system
Additional Temperature Controller	**GC-2030** : Auxiliary temperature control unit
Additional Flow Controller	**GC-2030** : APC (3 auxiliary channels), APC (1 auxiliary channel)
	GC-2050 : APC (3 auxiliary channels), APC (1 auxiliary channel)
Options	**GC-2030** : Gas selector, Low-temperature control solenoid valve set CRG-2030, External equipment control relay PRG-2010 Plus, PRG Box
	GC-2050 : Gas selector, Low-temperature control solenoid valve set CRG-2030

GC-2010 (Plus/Pro) and GC-2014 (C)

Unit	Description
Sample Injector	**GC-2010 (Plus/Pro) :** SPL-2010 (Plus), WBI-2010 (Plus), OCI/PTV-2010 (Plus) **GC-2014 (C)** : SPL-2014, WBI-2014, DINJ-2014, SINJ-2014
Detector	**GC-2010 (Plus/Pro) :** FID-2010 (Plus), TCD-2010 (Plus), ECD-2010 Exceed, ECD-2010 (Plus), FPD-2010 (Plus), FTD-2010 (Plus), BID-2010 Plus, AB BOARD **GC-2014 (C)** : FID-2014, TCD-2014, ECD-2014, FPD-2014, FTD-2014 (C), AB BOARD
Additional Temperature Controller	AUX temperature control unit
Additional Flow Controller	APC (3 auxiliary channels), AMC (2 auxiliary channels) Note: AMC is an option for the GC-2014.
Options	Low-temperature control solenoid valve set: CRG-2010 External unit control relay: PRG-2010 (Plus), PRG BOX

- Dual-injection systems are not supported.
- Up to four Shimadzu GC units can be controlled on one data acquisition server (e.g. LAC/E$^{32™}$).
- Both the Shimadzu LC driver and Shimadzu GC driver for Empower can be installed on one computer or data acquisition server.
- A Shimadzu GC system and Agilent GC system cannot be connected to the same data acquisition server (e.g. LAC/E^{32}) at the same time. Provide a data acquisition server dedicated for the Shimadzu GC system.

ANALYTICAL INTELLIGENCE

- Automated support functions utilizing digital technologies, such as M2M, IoT, and Artificial Intelligence (AI), that enable higher productivity and maximum reliability.
- Allows a system to monitor and diagnose itself, handle any issues during data acquisition without user input, and automatically behave as if it were operated by an expert.
- Supports the acquisition of high quality, reproducible data regardless of an operator's skill level for both routine and demanding applications.

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