

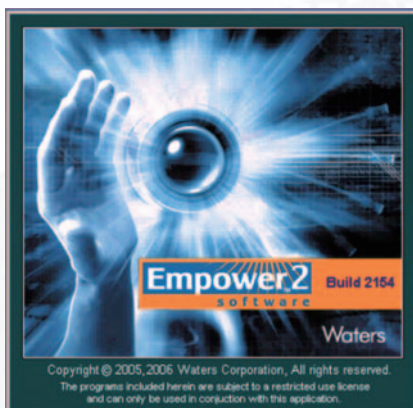
Prominence and LC-2010 series can be controlled by Waters Empower™

Shimadzu LC Driver Version 2.0 For Waters® Empower™ Software

Control of Shimadzu's Prominence and LC-2010 series high performance liquid chromatographs by Waters' Empower™/Empower™2 chromatography data system is now available through a collaboration between Waters and Shimadzu utilizing the "Open Interface Portal (OIP)" for multi-vendor hardware control. Shimadzu's Prominence HPLC and LC-2010 series now seamlessly operate within the Empower™ software environment.



LC-2010 Series



Prominence UFLC
 ULTRA FAST LIQUID CHROMATOGRAPH
Prominence UFLCXR
 ULTRA FAST LIQUID CHROMATOGRAPH

Seamless control of Shimadzu HPLC

Shimadzu LC control parameters are set through the instrument method editor embedded in the Empower™ software. These parameters are stored and handled as standard Empower™ method files, and are also available for inclusion in the reports.

Now you can experience transparent control of Prominence and the LC-2010 series through Empower™.

Digital data acquisition for enhanced reliability

In addition to seamless system control, the detector signal is digitally transmitted to the data system. This eliminates the necessity to add an A/D converter for analogue data acquisition, making system validation easier and more robust. Photodiode array detector 3D data analysis and spectral processing are also available through Empower™. Furthermore, system status information, such as pump pressures and the column oven temperature, may be monitored and recorded along with chromatograms, making your analytical data even more reliable.

High-speed and high-performance LC support

Shimadzu's LC Driver supports the high-speed and high-resolution liquid chromatography system, Prominence UFLCXR, which is 66MPa pressure tolerant with fast gradient control and low peak dispersion in the flow path. Prominence UFLCXR reduces the run time to one-fifth that of a conventional system while keeping equivalent resolution.

Regulatory Compliance

The full system, including autosampler control, uses Empower™ sample set methods, and data processing is integrated with Empower™ software so that the audit trail functions are fully utilized. This gives you full confidence in the compliance of the system to regulations such as GMP and 21 CFR Part 11.

Software Packages

#	Product name	Note
1	Shimadzu LC Driver for Waters Empower™ Software(Single-system license)	For Personal and Enterprise version
2	Shimadzu LC Driver for Waters Empower™ Software(Four-system license)	For Personal and Enterprise version

※ Empower™ System Control License is needed separately.

※ Contact your local Shimadzu office for the version of Empower™/Empower™2 compatible with the driver software.

Supported devices

Device type	Device name
System controller	CBM-20A / CBM-20Alite
Pump	LC-20AD / LC-20AT / LC-20AB / LC-20ADXr
Autosampler	SIL-20A / SIL-20AC / SIL-20AHT(UFLC) / SIL-20ACHT(UFLC) SIL-20AXR / SIL-20ACXR / Rack Changer / Rack Changer C
Column oven	CTO-20A / CTO-20AC / CTO-10ASvP
Detector	SPD-20A / SPD-20AV / RF-10AXL / SPD-M20A / PC-55N (AD board)
Option box	Option Box VP / SubController VP
Solenoid valves	FCV-10AL / FCV-10ALvP / FCV-11AL / FCV-11ALS / FCV-15AL / Low Pressure 4 port valve built in to LC-20AD / LC-20AT
Rotary valves	FCV-12AH / FCV-13AL / FCV-14AH FCV-12AH / FCV-14H built in to CTO-20A / CTO-20AC
Integrated LC	LC-2010A / LC-2010C / LC-2010AHT / LC-2010CHT

※ 4 systems maximum with no PDA, 3 systems with single PDA, or 2 systems with 2 PDA (per LAC/E³²).

※ CBM-20Alite will not support analogue data acquisition. Please use CBM-20A with a PC-55N AD board if an analogue signal is acquired.

※ Empower™ and Empower™2 are registered trademarks of Waters in the USA and other countries.

Founded in 1875, Shimadzu Corporation, a leader in the development of advanced technologies, has a distinguished history of innovation built on the foundation of contributing to society through science and technology. We maintain a global network of sales, service, technical support and applications centers on six continents, and have established long-term relationships with a host of highly trained distributors located in over 100 countries. For information about Shimadzu, and to contact your local office, please visit our Web site at www.shimadzu.com



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