



**Sherlock™
Chromatographic
Analysis
System**

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Site Prep for the Sherlock™ Chromatographic Analysis System (CAS)

Purpose

To assure that the installation of the Sherlock Chromatographic Analysis System (CAS), along with the Shimadzu Gas Chromatograph (GC) and LabSolutions software can be completed successfully, the installation site must be properly prepared. The appropriate utilities and supplies must be available to complete and checkout the installation.

Customer Responsibilities

Customers should ensure that all necessary operating supplies, consumables and usage-dependent items such as vials, syringes and solvents required for the successful installation and checkout of the system are available. Installation sites should be prepared in accordance with the following specifications.

GC Configuration

The Sherlock CAS software is designed to work with a specific Shimadzu GC configuration. If you did not order through MIDI, Inc. or an Authorized MIDI Agent, you should confirm with MIDI that your Shimadzu GC meets the requirements for the Sherlock CAS.

Important Information

If you have problems providing any of the following, please contact MIDI, Inc. for assistance. Users of the Sherlock CAS should be present throughout the installation and familiarization, otherwise important operational, maintenance and safety information may be missed.

Software Requirements

- ❑ Windows 7 Professional, English 32-bit or 64-bit version (SP1 or higher).
- ❑ MIDI Sherlock v.6.3B or higher.
- ❑ Shimadzu LabSolutions v.5.85 or higher.
- ❑ Administrator logon and password for the installation computer.
- ❑ TEMP variable points to an existing directory (e.g. TEMP=C:\TEMP).

U.S. Windows 7 Setup

You should begin with a default installation of *Windows 7 (SP1 or higher)* using U.S. English settings. Do not change security settings until your MIDI system is operational. After the system is working, you may tighten security settings and enable screen savers to the extent that they do not interfere with operations.

PC & Peripheral Equipment Requirements

- ❑ OS – Computer must have Windows 7 Professional, 32-bit or 64-bit (SP1 or higher) installed.
- ❑ CPU – Intel Xeon equivalent processor:
 - ❑ 32-bit: Quad Core, with a clock frequency of 3.0 GHz or higher.
 - ❑ 64-bit: Quad Core HT, with a clock frequency of 3.5 GHz or higher.
- ❑ RAM – 8GB or higher.
- ❑ LAN – 100BASE-TX compatible (if connecting Prominence series units via an Ethernet).
- ❑ Serial Port – RS-232C D-Sub 9-pin port is included standard or can be added (if connecting GC and LC units via RS-232C cables).
- ❑ SCSI Board – LabSolutions LC/GC is not compatible with SCSI device in Windows 7, 64-bit version.
- ❑ Optical Drive – CD-ROM or DVD-ROM.
- ❑ USB – USB 2.0 compatible.
- ❑ Mouse – PS/2 or USB mouse.
- ❑ Display – High Color (65536 colors) min., SXGA (1,280 x 1,024) min. resolution recommended.
- ❑ Printer – Printer and corresponding driver compatible with Windows version being used.
- ❑ The voltage setting of the computer system and the power cables must be correct.

Shimadzu GC Configuration

- ❑ GC-2010 Plus, with Split/Splitless inlet and FID. 120V, single phase, standard heating, 15 Amp – Dedicated (North America).
- ❑ Autosampler – AOC-20i, 12 position rack.
 - ❑ Optional AOC-20S, 150 position rack.
- ❑ Liner – Split liner for focusing – 5/pk (Shimadzu p/n 220-94766-00).
- ❑ Syringe – 10µL syringe, fixed needle (Shimadzu p/n 221-34618-00).
- ❑ Supelco Thermogreen LB-2 Septa for Shimadzu GCs – 50/pk (Supelco p/n 20633).

Gas Supply Requirements

- ❑ Hydrogen tank gas, 99.999% purity (or higher).

OR

- Hydrogen generator, 150 cc/min and 99.999% purity (or higher).
- ❑ Nitrogen tank gas, 99.999% purity or higher.
- ❑ Air, industrial grade, dry, < 1ppm THC.

OR

Zero air generator (if using house air), 1,000 cc/min or higher.

GC Columns

- ❑ **Soil Phospholipid Fatty Acid (PLFA) analysis and Microbial ID.** Ultra 2 Capillary Column, Certified (MIDI Part # Column G).

Reagents and Supplies

The following supplies are needed to complete the Sherlock CAS installation:

- ❑ MIDI Concentrated PLFA Calibration Standard (MIDI Part # 1208).
- ❑ MIDI Concentrated Calibration Standard (MIDI Part # 1300-C).
- ❑ Hexane (HPLC Grade), for preparing wash solution and reagent blank during the installation qualification.
- ❑ Pasteur pipettes (5in., disposable) for reconstituting Part # 1300-C with HPLC-grade hexane.
- ❑ 2ml clear GC auto sampler vials, screw cap (Fisher Scientific, Part # 03-377A).
- ❑ Screw caps, PTFE/Silicone/PTFE septa (Fisher Scientific, Part # 06-718-916).

Other Supplies

Other consumables, reagents and lab equipment may be required, depending on the type of analysis performed (i.e. PLFA analysis, Microbial ID, etc.). Contact MIDI for more details.

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