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125 Sandy Drive, Newark, Delaware 19713 USA
tel: 302-737-4297 fax: 302-737-7781 www.midi-inc.com

Sherlock Microbial Identification Systems

Site Preparation for Sherlock® Microbial Identification System

Purpose

To assure that the installation of the Sherlock Microbial Identification System (MIS) along with the Agilent Gas Chromatograph (GC) and ChemStation 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.

Agilent Technologies GC Configuration

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

Important Information

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

Software Requirements

- ❑ *Windows 7 Professional (SP1 or higher).*
- ❑ Agilent ChemStation B.04.03 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 Hardware Requirements

- ❑ All PC hardware should be listed in the *Windows 7 Professional* Hardware Compatibility List – see www.microsoft.com.
- ❑ Computer must have *Windows 7 Professional (SP1 or higher)* installed.
- ❑ DVD drive for installing Agilent ChemStation and Sherlock software.
- ❑ Hard disk with at least 16 GB free capacity (20 GB recommended for local data storage and for 64-bit).
- ❑ LAN interface with TCP/IP protocol installed.
- ❑ Second LAN interface card, if Intranet / Internet access is required.
- ❑ The voltage setting of the computer system and the power cables must be correct.

Agilent Technologies GC Electrical Power Specifications

- ❑ 6850 II GC, 120V, single phase, standard heating, 15 Amp – Dedicated (North America).
- ❑ 6850 II GC, 120V, single phase, fast heating, 20 Amp – Dedicated (North America).
- ❑ 6850 II GC, 230V, single phase, fast heating, 10 Amp – Dedicated (Europe).
- ❑ 6850 II GC, 100V, single phase, standard heating, 15 Amp – Dedicated (Asia).
- ❑ 7820A GC, 100V, single phase, standard heating, 12.5 Amp – Dedicated (North America).
- ❑ 7820A GC, 120/200/220/230/240V, single phase, standard heating, 15 Amp – Dedicated (Worldwide).
- ❑ 7890B GC, 120V, single phase, standard heating, 20 Amp – Dedicated (North America).
- ❑ 7890B GC, 220/230/240V single/split phase, standard heating, 10 Amp – Dedicated (Worldwide, except Japan).
- ❑ 7890B GC, 220/230/240V, single/split phase, fast heating, 15 Amp – Dedicated (Worldwide, except Japan).
- ❑ 7890B GC, 200V split phase, fast heating, 15 Amp – Dedicated (Japan).

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 Column

- ❑ Ultra 2 Capillary Column, Certified for Sherlock MIS (MIDI Part # Column G).

Reagents and Supplies*

The following supplies are needed to complete and verify the installation. See the Sherlock MIS Operating Manual.

* Note, the items below apply to the Traditional Extraction Method only. The kit-based methods (QFAME and IFAME) contain all the reagents and supplies necessary.

- ❑ MIDI Concentrated Calibration Standard (MIDI Part # 1300-C).
- ❑ Hexane (HPLC Grade) and Pasteur pipettes (5in., disposable) for reconstituting Part # 1300-C.
- ❑ Prepare MIDI Reagent # 3 for use as a wash solution and reagent blank during the installation qualification.

  1. Hexane (HPLC Grade) 200 ml.
  2. Methyl-tert-butyl ether 200 ml (MTBE, HPLC Grade).
  3. Add MTBE to hexane and stir.

  Caution: MTBE and hexane are flammable. Extinguish all flames and heat sources. Handle in a chemical fume hood.
- ❑ 2ml clear GC autosampler vials, screw cap (Fisher Scientific, Part # 03-377A).
- ❑ Screw caps, PTFE/Silicone/PTFE septa (Fisher Scientific, Part # 06-718-916).
- ❑ Injection Port Liners (MIDI Part # 1221 [non flip top inlets and 7890 GC] or MIDI Part # 1221-F [flip top inlets]).