



B-ACS 60/120

Sample Down Unit Installation Guide

Version 001



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Introduction

1

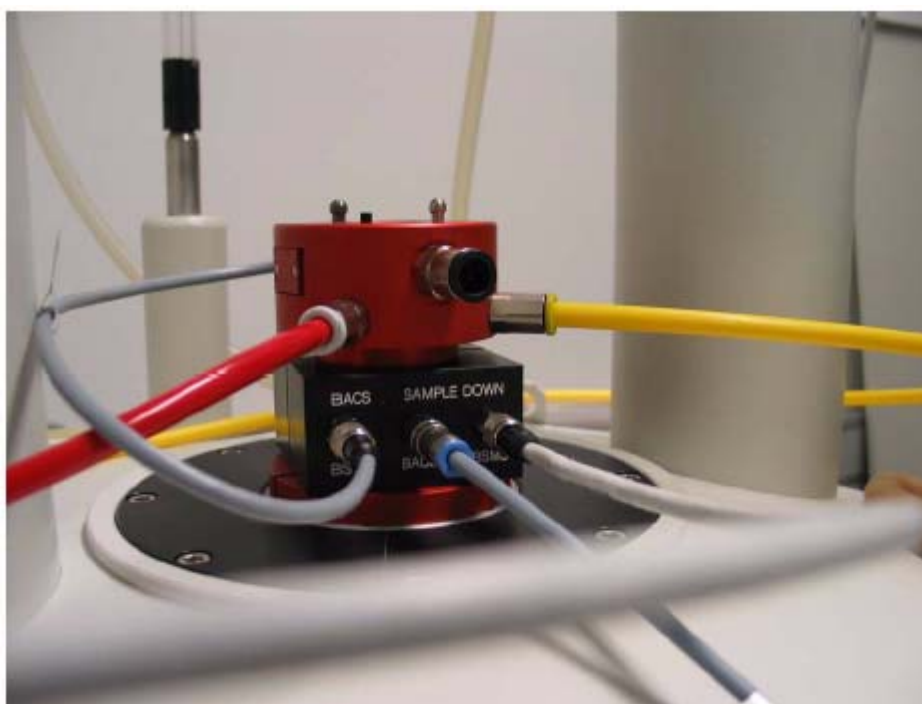
Introduction

1.1

The new Sample Down Unit detects if a sample is present in the magnet. The kit consists of:

- The B-ACS Sample Down Unit (P/N HZ12416) housing with electronics.
- The Cable Rd 8P L0,4m Shim Box (P/N HZ10157).
- The Cable Rd 5P2500 F/F B-ACS Sample Down 2 (P/N HZ10258).

Figure 1.1. Overview of the New B-ACS Sample Down Unit Adapter



Requirements

1.2

1. The new Sample Down Unit will only work with Sample Changers that have the new electronics (P/N HZ08368 or H9804) installed.
2. Firmware version BACS_VS20031020_B13.HEX (or newer) for the B-ACS electronics must be installed. Refer to **"Upgrading Firmware" on page 13** for details on downloading the firmware if required.

Introduction

The new firmware version checks the Sample Down Sensor during the insert & eject procedure.

3. Be sure that you do not have direct light installed over the shim system, or that sunlight is reflected into the shim system. Both may interfere with the detection circuit and the sensor may indicate that a sample is present even when there is not one in the magnet!!

Warnings and Notes

1.3

There are two types of information notices used in this manual. These notices highlight important information or warn the user of a potentially dangerous situation. The following notices will have the same level of importance throughout this manual.



Note: Indicates important information or helpful hints

Contact for Additional Technical Assistance

1.4

For further technical assistance on the B-ACS Sample Down Unit, please do not hesitate to contact your nearest BRUKER dealer or contact us directly at:

BRUKER BioSpin GMBH
am Silberstreifen
D-76287 Rheinstetten
Germany

Phone: + 49 721 5161 0
FAX: + 49 721 5171 01
Email: samplechanger@bruker.de
Internet: www.bruker.de

Mounting Instructions

2

Introduction

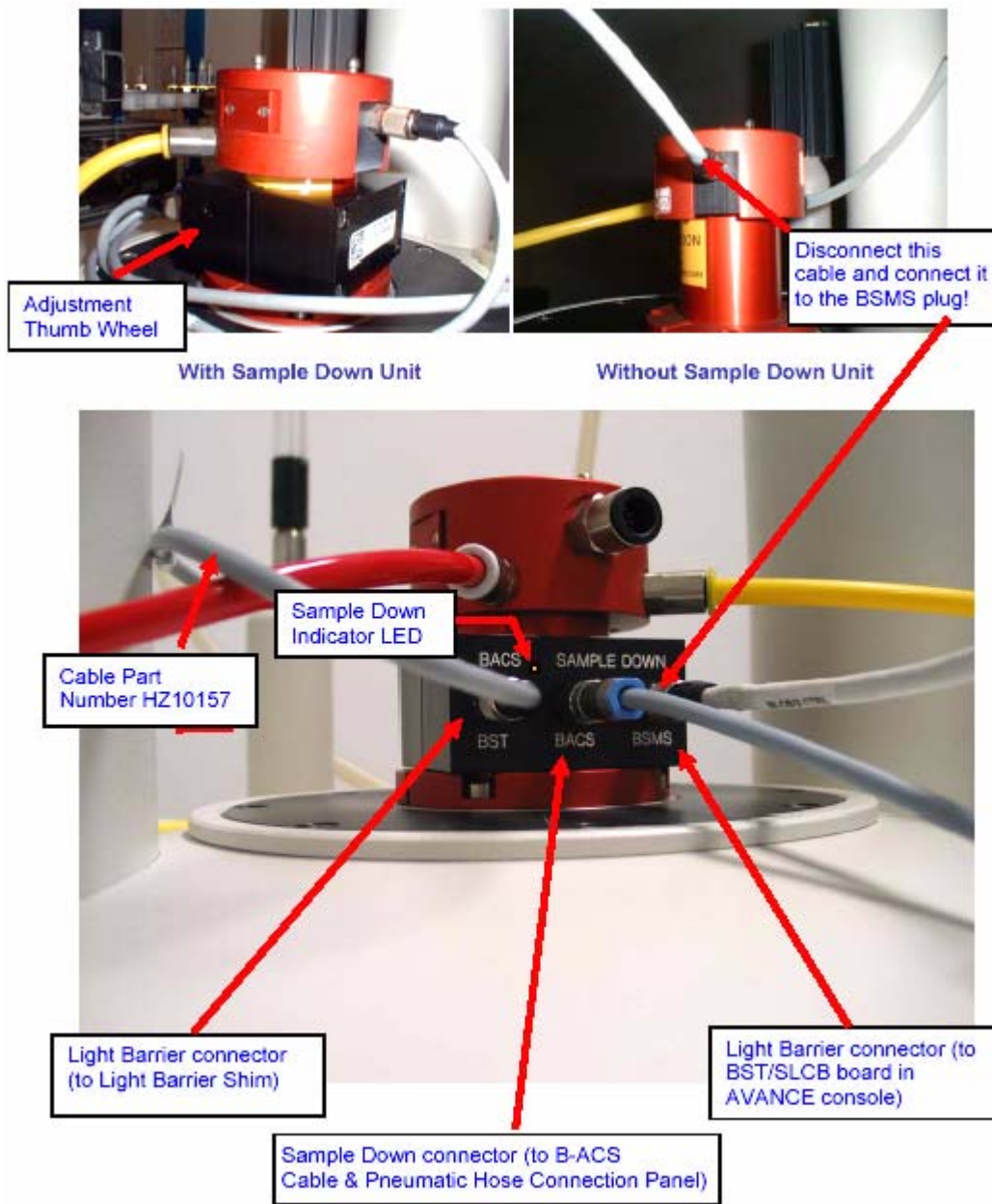
2.1

Mounting Instructions

1. Turn the BSMS / SLCB and B-ACS power off!
2. Mount the black housing on the top of the shim system as shown in the picture **"Overview of the New B-ACS Sample Down Unit Adapter" on page 5.**
3. Tighten the four screws on the back of the unit.
4. Connect the cables as shown in **Figure 2.1:**
 - a) Disconnect the cable from the BSMS / SLCB to the shim upper part.
 - b) Connect this cable to the Sample Down Unit plug "BSMS".
 - c) Connect the short 8pin cable (P/N HZ10157) between plug "BST" and the shim upper part.
 - e) Connect the center plug "BACS" to the BACS column plug "Sample Down" using the 5pin cable P/N HZ10258.
5. Turn the power on again.

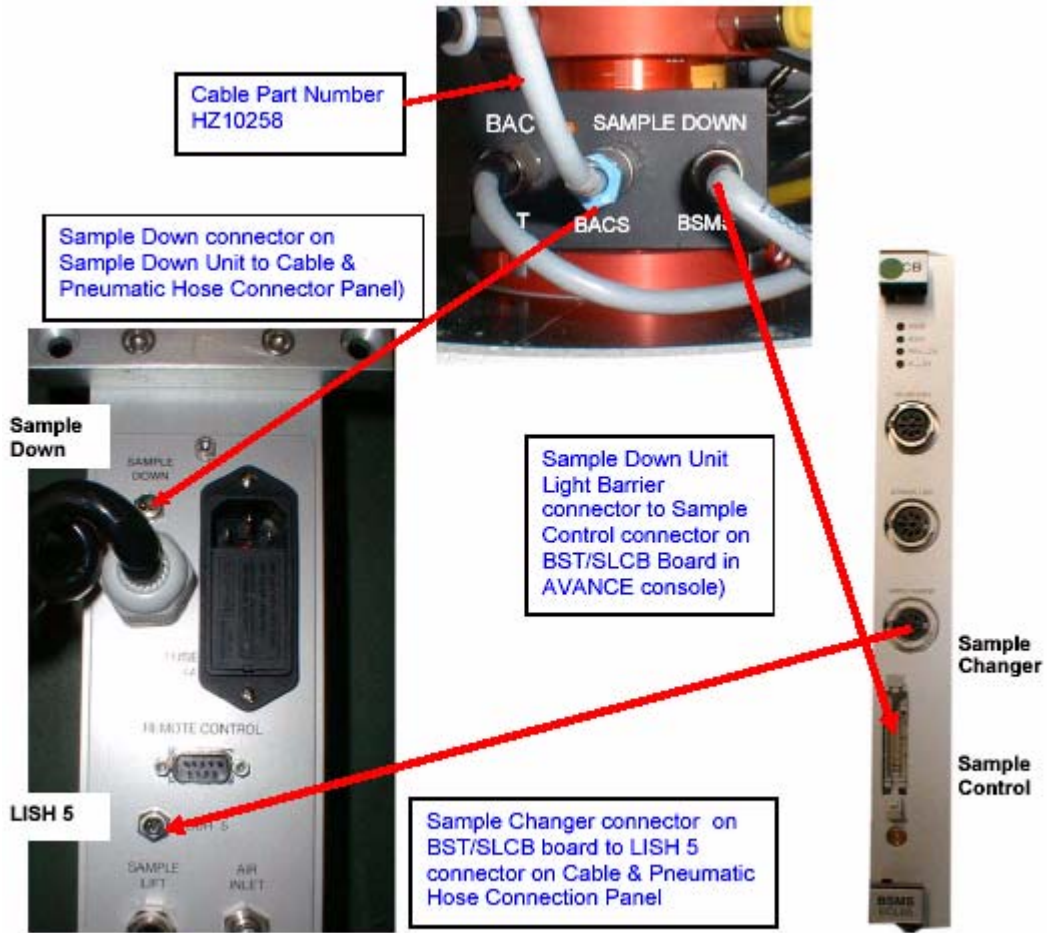
Mounting Instructions

Figure 2.1. Sample Down Connections at the Light Barrier



Sample Down Connections at Light Barrier

Figure 2.2. Overview of the Sample Down Unit Connections



Overview of the Sample Down Connections

Mounting Instructions

Adjustment Procedures

3

Introduction

3.1

The unit must learn the light intensity in the BST by adjusting a variable resistor.

To make this adjustment:

1. Remove the sample from the magnet.
2. Turn the adjustment thumb wheel clockwise until the orange Sample Down Indicator LED is lit.
3. Now, turn the Adjustment Thumb Wheel slowly counterclockwise until the orange Sample Down Indicator LED turns off. Then turn one and a half or up to two more turns counterclockwise.

The unit has now learned the light intensity when no sample is present inside the magnet. More light intensity than this is interpreted as a sample.



ATTENTION: Be sure that you do not have direct light installed over the shim system, or that sunlight is reflected into the shim system. Both may interfere with the detection circuit and the sensor may indicate that a sample is present even when there is not one in the magnet!!

Upgrading Firmware

4

Introduction

4.1

Information required to download the newest firmware version for the B-ACS electronics from the FTP-Server:

Firmware and Download Instructions Directory:

<ftp://ftp.bruker.de/pub/nmr/AUTOMATION/BACS/FIRMWARE/>

Firmware File: BACS_VS20031020_B13.HEX (or newer)

Download Instructions: Firmware_Download_English.pdf

Download program (SBS Terminal) directory & file:

<ftp://ftp.bruker.de/pub/nmr/AUTOMATION/SBSTERMINAL/SBSTerminal.exe>

Installing the Firmware

4.2

For information on installing the newest Firmware please refer to the Adobe Acrobat (PDF) document **Firmware_Download_English.pdf** that is located in the Firmware and Download Instructions Directory listed above.

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