



SC Programming Board  
6501.00088

# Instruction Manual

EN

## Imprint

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from improper use of the devices.

The pertinent regulations regarding  
safety engineering and interference suppression as well as  
the specifications in this instruction manual must be com-  
plied with when using the equipment.

Subject to change without notice.

The respective current version of this instruction manual is  
available on FAULHABER's internet site:  
[www.faulhaber.com](http://www.faulhaber.com)

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# 1 Important Information

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This instruction manual describes the installation, configuration and use of the Programming Board 6501.00088 from FAULHABER.

- Please read through the complete instruction manual before using the board.
- Keep this instruction manual in a safe place for later use.
- FAULHABER is not liable for any data loss, damage or other problems which arise due to use of this board.

## **NOTE**



*This Board is designed for configuration use only.*

## 1.1 Symbols used in this instruction manual

### **NOTE**



#### **Note**

*This "Note" pictogram provides tips and recommendations for use and handling of the component.*

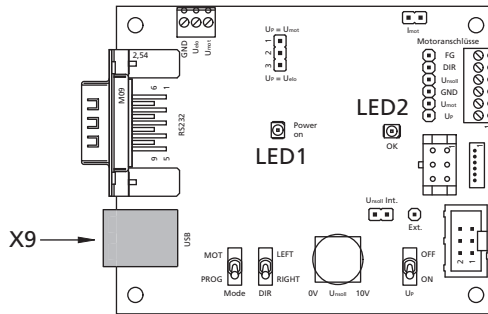
## 2 Install Motion Manager 5 Software

Install the respective current version of the FAULHABER Motion Manager software onto your PC. It can be downloaded from the FAULHABER internet site: [www.faulhaber.com](http://www.faulhaber.com).

The appropriate USB driver which is needed to communicate with the board is automatically installed on your PC with the Motion Manager installation.

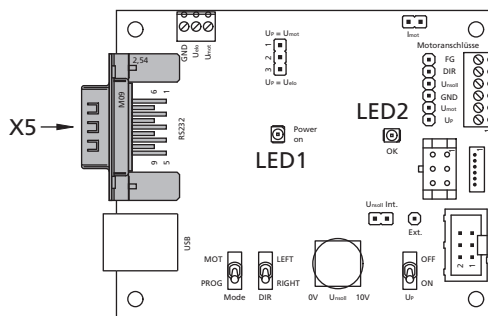
### 2.1 Using the USB interface (X9)

- Connect the Programming Board to a PC USB port via an USB cable type B.



### 2.2 Using the RS232 interface (X5)

- Connect the Programming Board to a PC RS232 COM port via a Null modem cable.

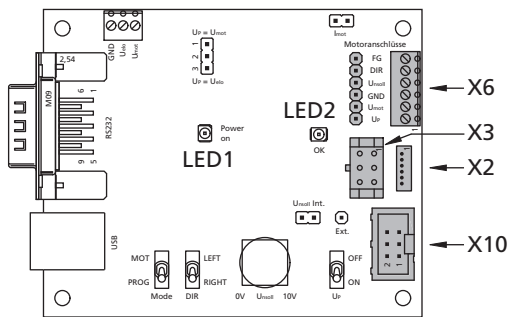


### 3 Connect the periphery

#### 3.1 Speed Controller

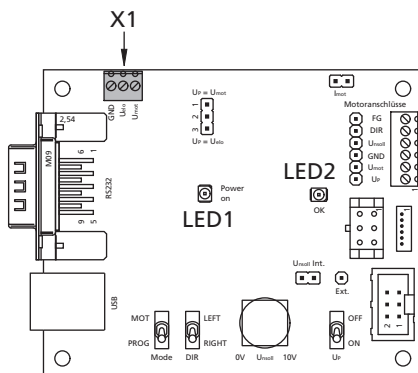
Connect your Speed Controller to the fitting terminal or connector:

- X2
- X3
- X6
- X10



#### 3.2 Power supply (X1)

Connect the power supply to U<sub>mot</sub> and GND (X1).



## 3 Connect the periphery

### 3.2 Power supply (X1)

#### Note

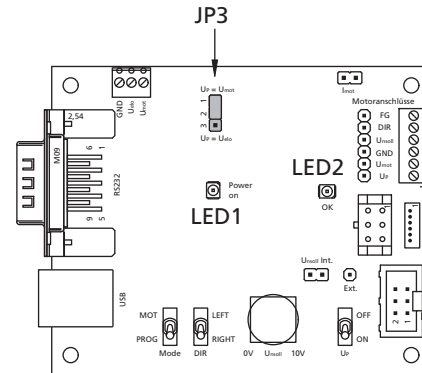


Pay attention to the correct position of Jumper JP3 (1-2;  $U_P = U_{mot}$ ).

The maximum voltage of  $U_{mot}$  depends on the speed controller.

It is recommended to use at least 10.5 V as minimum voltage of  $U_{mot}$  to get 0 V – 10 V as setpoint voltage (=  $U_{nsoll}$ ) via the potentiometer.

If you want to work with a lower motor voltage ( $U_{mot}$ ), a second supply voltage (minimum 10.5 V) connected to  $U_{elo}$  is needed and the Jumper JP3 has to be replugged to 2-3;  $U_P = U_{elo}$ .



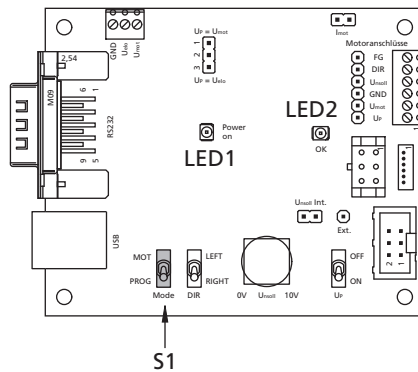
## 4 Establish Communication

Open the Motion Manager program and configure the software:

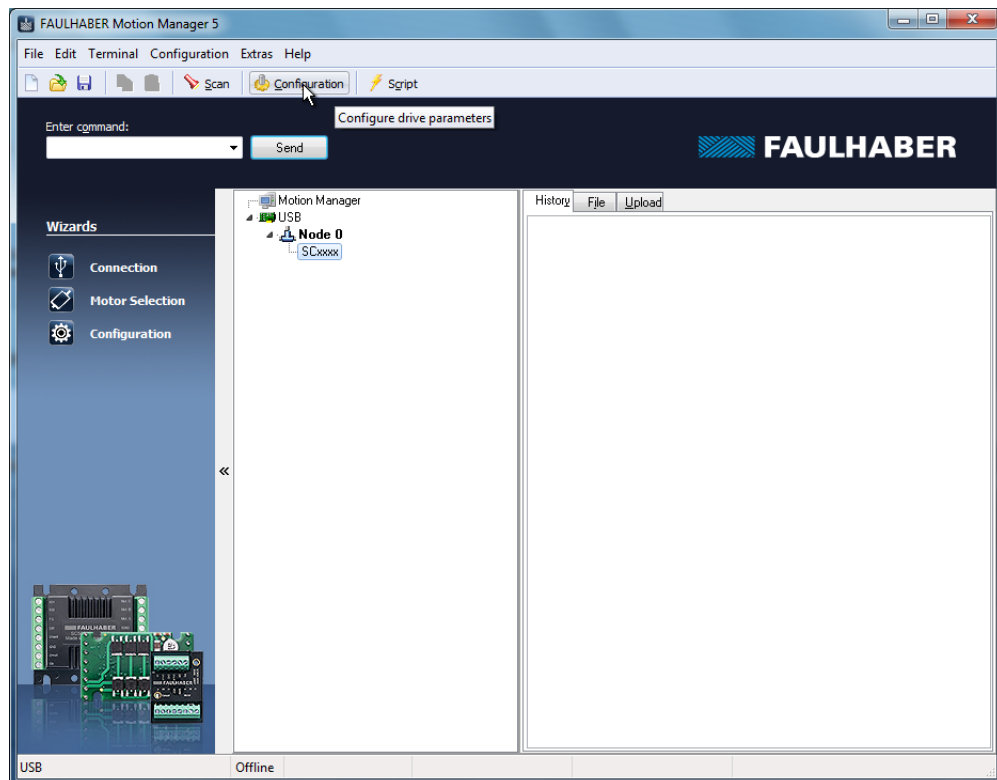
1. Choose the controller type "Speedcontroller" from the connection wizard and select the COM or USB Port and the baud rate.

If the wizard doesn't appear, click the connection button on the wizard bar.

2. Turn switch S1 to "PROG"

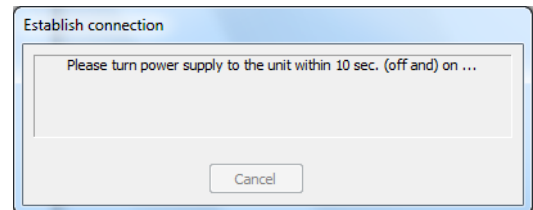
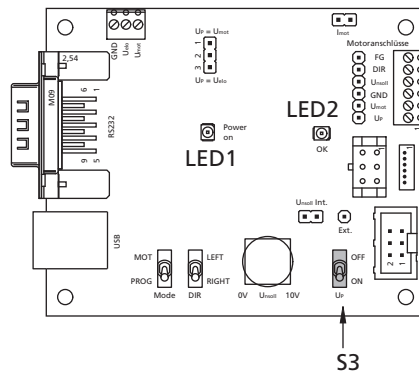


3. Click the "Configuration" button in the Motion Manager program.

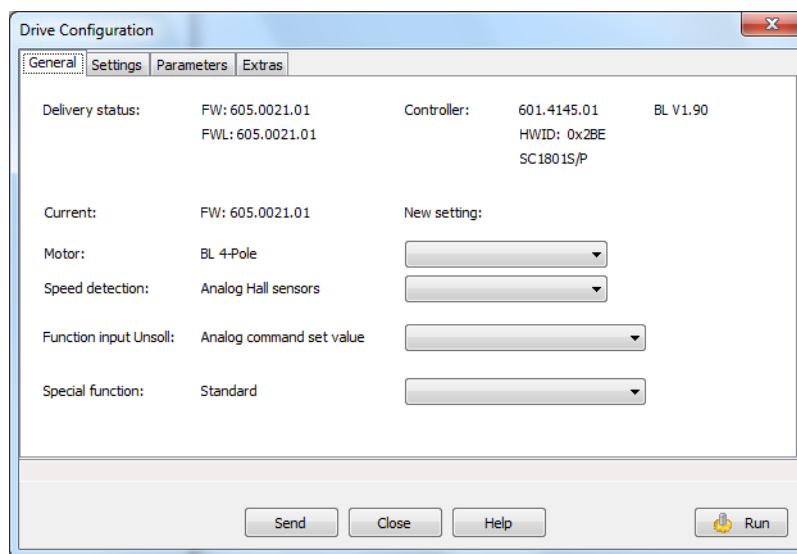


## 4 Establish Communication

- Turn the power supply switch S3 "OFF" and "ON" again.



Now settings and parameters can be configured.



The changes are transferred to the Speed Controller by using the button "Send". By using the button "Run" the communication to the PC is disconnected and the Speed Controller is activated.

The "Run" button changes to "Stop". By pressing this button again you'll return to config mode.

### Note



For detailed descriptions of all parameters and settings see the instruction manual of the speed controller.

## 5 Installing the USB Driver

### 5.1 System Requirements

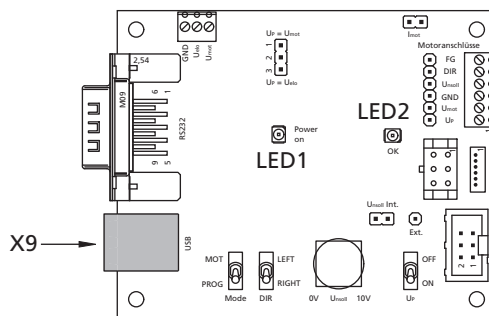
- PC running Microsoft Windows XP, Vista, 7 or 8.
- A free USB 1.1 or 2.0 connector.
- 10 MB hard disk space.

The driver "FAULHABER USBX Adapter" is used to operate the programming board via the USB interface.

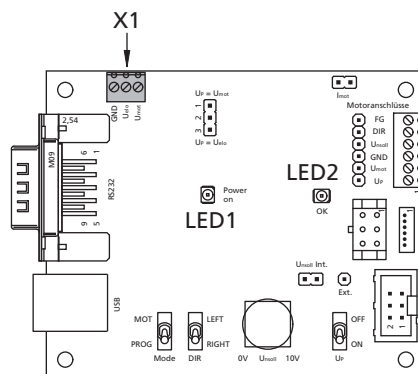
This driver is included in the setup package of FAULHABER Motion Manager and will be automatically installed during the installation process.

### 5.2 Setup instructions

1. Connect the programming board with a standard USB cable type B to the PC.



2. Connect the power supply to U<sub>mot</sub> and GND.



## 5 Installing the USB Driver

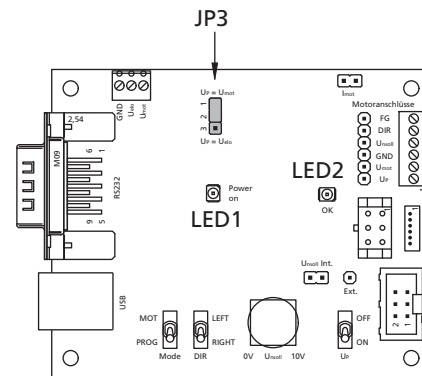
### 5.2 Setup instructions

**Note**



Pay attention to the correct position of Jumper JP3 (1-2;  $U_P = U_{mot}$ ).

The maximum voltage of  $U_{mot}$  depends on the speed controller.



3. A new hardware will be found.

4. The Motion Manager is now useable together with the programming board.



## 7 EC Product Safety Directives

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**REGULATION!** The following EC Product Safety Directives are important for users of the described products:



**Machinery Directive (2006/42/EC):**

Due to their small size, small standard electrical drives cannot cause any noteworthy risk of injuries to people.

Therefore, the Machinery Directive does not apply to our products.

The products described here are not “part machines” or “incomplete machines”.

Therefore, Faulhaber does not provide a standard Declaration of Incorporation.

**Low-Voltage Directive (2006/95/EC):**

It applies to all electrical equipment with a nominal voltage from 75 to 1 500 V DC, or from 50 to 1 000 V AC. The products described in this instruction manual do not fall within the scope of this Directive as they are designed for smaller voltages.

**EMC Directive (2004/108/EC):**

The Electromagnetic Compatibility (EMC) Directive applies to all electronic and electrical equipment, plant and systems sold to end users (consumers). In addition, CE marking can be undertaken for built-in components according to the EMC Directive. Compliance is documented by the Declaration of Conformity.

## 8 Warranty

### Extract from our warranty conditions

Dr. Fritz Faulhaber GmbH & Co. KG products are produced to state of the art production methods and are subject to strict quality control.

Should, contrary to all expectations, defects occur, we undertake to find a remedy within the warranty period.

- We shall make good or replace defective goods, at our own discretion, within a reasonable period set by you and at our own cost. Replaced goods become our property and are to be returned to us.
- If improvement or replacement delivery is not possible or does not occur or fails for other reasons for which we are responsible within a period determined by you, you can opt to withdraw from the contract for the defective delivery or reduce the purchase price.
- We are not liable for damage to the goods caused by natural wear and tear, wear, unsuitable, improper or non-contractual use, incorrect assembly, installation or putting into service, excessive loading or improper change, improvement or repair work by you or third parties or incorrect or negligent treatment, provided these are not through our fault.
- Further claims, in particular claims for compensation instead of the performance and for compensation of other direct or indirect losses – including accompanying or consequential loss, for whatever legal reason – are excluded. This does not apply if
  - a) we are maliciously silent with regard to a legal or material defect or have issued a guarantee for the nature of the goods,
  - b) the loss is due to deliberate intent or gross negligence by us, our legal representatives or vicarious agents or are based on negligent breach of fundamental contract obligations by these persons, or
  - c) culpable violation of duty by us, our legal representatives or vicarious agents which have resulted in physical injuries or damage to health.

In the case of simple negligence, however, our obligation to pay damages is limited to the amount of typical, foreseeable losses for the type of contract.

- All defect claims including the claims for compensation covered by our terms and conditions of supply expire one year after delivery of the goods to you. The limitation period for replacements and improvements is 1 year but it expires at least when the original limitation period for the delivered object expires. The period for defects liability for a supplied object will be extended by the duration of the operational interruption caused by the making good work. Provisions concerning a shorter life of the object supplied within the scope of its intended use remain unaffected by this limitation provision.

For further information, please refer to our terms and conditions of supply, which we will pleased to make available on request.



