

Universal Position Control Unit

PS 90+

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Included Items:

- Control unit
- Power cable 2.5 m long
- USB cable 2 m long
- Jump plug for emergency-stop button
- Acceptance certificate
- Configuration of power amplifier



The following accessories are available:

- Connecting cable with plugs for different positioning systems
- Analog joystick for 3 axes with 3 m cable
- Emergency-stop button with 3 m cable
- up to 4 outputs for motor holding brakes
- Anybus® interface (Modbus / TCP)

Configuration:

All axis modules are preconfigured by OWIS for the operation of 2-phase stepper motors (open loop). Using OWIS software tool 'PS90 PowerAmp config.exe', the user can change the configuration of the axis modules at any time.

Available operating modes are:

2-phase stepper motor (open loop)

2-phase stepper motor with encoder (closed loop)

DC servomotor (brushed)

BLDC servomotor (brushless)

By default, the parameters of the MOGO 40 are set in the controller memory.

Parameters of other OWIS® positioners can be loaded from the database.

If positioners from other manufacturers are used, the configuration has to be adjusted manually.

This short manual does not replace the user manual.

It is only an additional instruction for qualified personnel.

You can download the complete manual and the OWISoft on the OWIS website.

Before Setup:

- Verify that all listed parts are included in the delivered package.
- Follow the safety instructions contained in the user manual.

Initial Operation

The initial operation consists of:

- **Hardware** part
- **Software** part:
 - Driver installation
 - Start-up via the PC (OWISoft)
 - Start-up via the PC (User's Application Software)

Hardware start-up

PREPARING CONTROL:

! Note:

- Plugs and cables must not be connected or disconnected while powered.

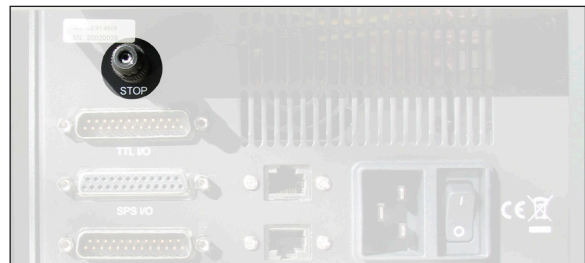
Before switching on and starting the control all peripheral devices have to be connected. Otherwise they will not be identified and initialized by the control unit.

A minimum distance of 15 cm to closed surfaces and walls must be maintained to avoid heat accumulation in the control or at the heat sink.

- 1) Either the shorting plug (delivered as standard) or the emergency-stop button (optional accessories) has to be connected.

! Note:

- If the junction is not connected, the function for the motor power stage is blocked.



- 2) Connect the positioning unit(s) and any further linear measuring systems (optional accessories) to the preconfigured axis/axes.

! Note:

- The configuration for the axes can be seen in the acceptance certification.
(For the PS 90 only one motor type is defined per axis module.)



- 3) Die Stromversorgung der Steuerung anschließen.

CONNECTING CONTROL:

Connect the control with the computer and/or hand-held terminal (optional accessories), as well as the joystick (optional accessories).

4) The connection to the computer can be made either by:

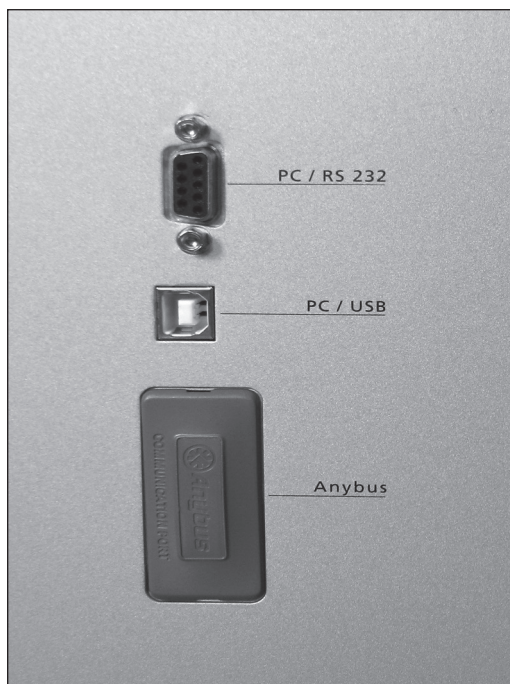
a) For the ethernet interface a configuration is needed.

You can set TCP/IP network settings of a LAN port with a software tool (..\OWISoft\OWISools\PS90 IPconfig.exe). This can be done connecting the control unit using USB or RS232.

The selected IP address should be accessible on the Ethernet.

Direct connection via RS232 or USB cable.

- with the RS232 interface the communication is possible immediately.
- for the USB interface a driver installation has to be done first.
- For the ethernet interface a configuration is needed. This can be done connecting the control unit using USB or RS232.



b) Indirect connection via Ethernet cable, Anybus® module (optional accessories, Modbus/TCP, necessary). An Anybus module configuration is necessary for the network interface. You can set TCP/IP network settings of a module (Modbus/TCP) with a software tool (..\OWISoft\Application\system\PS 90 IPconfig.exe). The selected IP address should be accessible on the Ethernet.

Software start-up

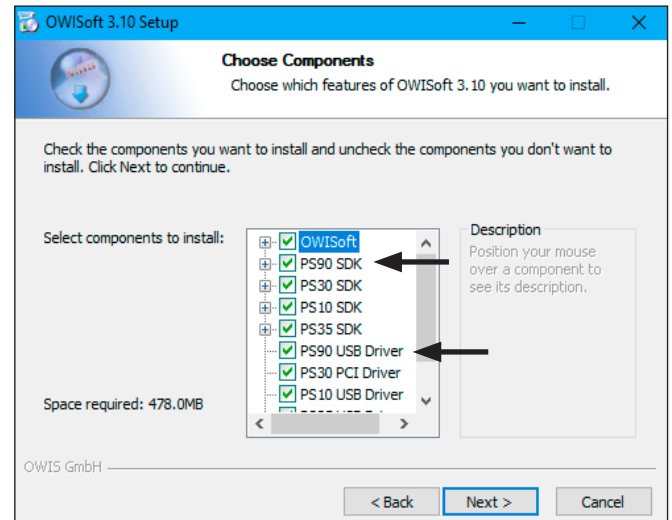
Start-up with the computer:

5) Power the control, start the computer and install software and drivers as follows.

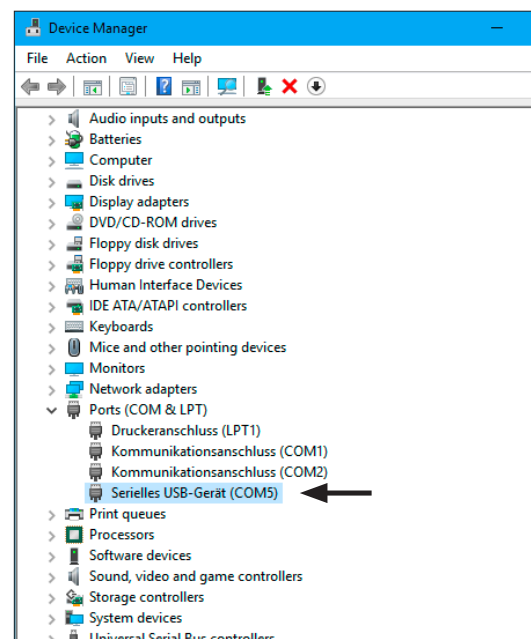
Supported operating systems: Windows XP, Windows Vista (32/64 bit), Windows 7 (32/64 bit), Windows 8.x (32/64 bit), Windows 10 (32/64 bit) and Windows 11 (32/64 bit).

During installation administrator authorisation is required.

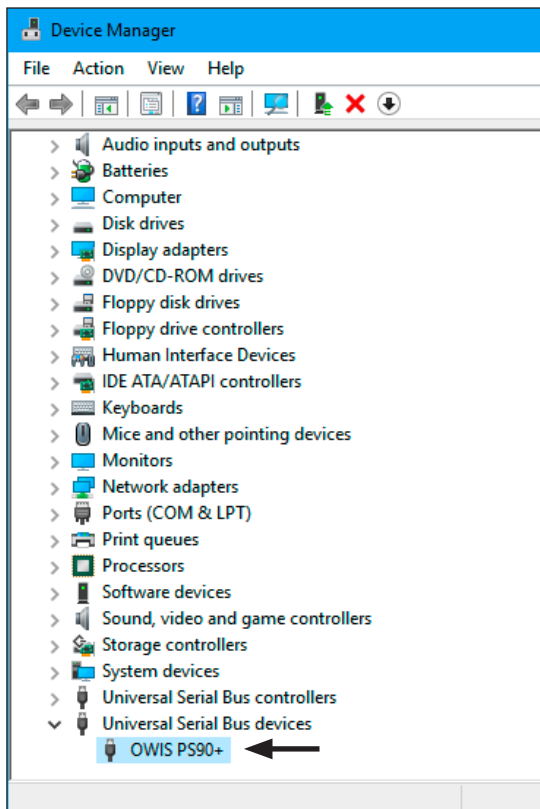
- For the installation please start "setup.exe".



- Select "PS90 SDK".
- Select the "PS90 USB Driver" during the installation. All necessary files will be installed into the folder ("..\OWISoft\ps90\usb_driver"). Afterwards, the driver will be installed automatically.
- Restart the computer after installation.
- During the installation of the USB driver a virtual serial interface is created. It behaves like a normal serial interface (COM port).



- or WinUSB driver:



Start-up using OWISoft

A short manual for the configuration via OWISoft has been included separately.

Start-up using user's application software

If the control shall be used by a user's own software, a precise knowledge of the control is essential.

Please read the manual for the control carefully.

There, you will also find a chapter "Instructions Concerning the Setup of User Application Software", as well as the command table for the PS 90.

Change configuration of PS90 power amplifier

All axis modules are preconfigured for the operation of 2-phase stepper motors (open loop). For other motor types a new configuration is needed. You can change the power amplifier configuration with a software tool (..\OWISoft\OWISools\PS90 PowerAmp config.exe). This can be done connecting the control unit using USB or RS232. The settings are changed after a reboot of the control unit and an axis initializing.