Congratulations with your ServoStep™ motor!

Quick Start

Follow this guide for fast and correct setup.

WARNING / ATTENTION

Hot Surface. Risk of Burn
Surface très chaude. Risque de brûlure.

Veuillez lire le manuel d'utilisation
attentivement avant d'utiliser ce produit.
Please read the user manual
carefully before using this product

MMMS2.E254947

Link to our home page: www.jvl.dk

Link to Download (User Manuals or CAD drawings etc):
https://www.jvl.dk/list/310/downloads

Link to User Manuals:
https://www.jvl.dk/files/pdf-1/user%20manuals/lb0058gb.pdf (ServoStep™)
https://www.jvl.dk/files/pdf-1/user%20manuals/lb0056gb.pdf (Ethernet)

Power Supply – important!

The motor requires both a “power” and a “control voltage” supply. If you use a 24 VDC for both supplies you can use a single power supply. Otherwise, you will need two separate supplies.

Connect:	Brown + White	→ Main Power	(P+)
Connect:	Black	→ Control Voltage In	(CVI)
Connect:	Blue + Grey	→ Main supply Ground	(GND)

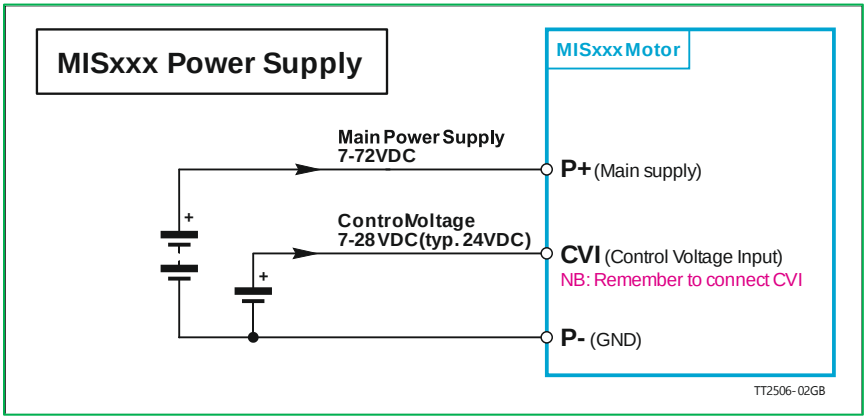
Use JVL cable Item No.: WI1000-M12F5W05N or WI1000-M12F5T05N.

Isolate CVO (Control Voltage Out) if you don’t use it

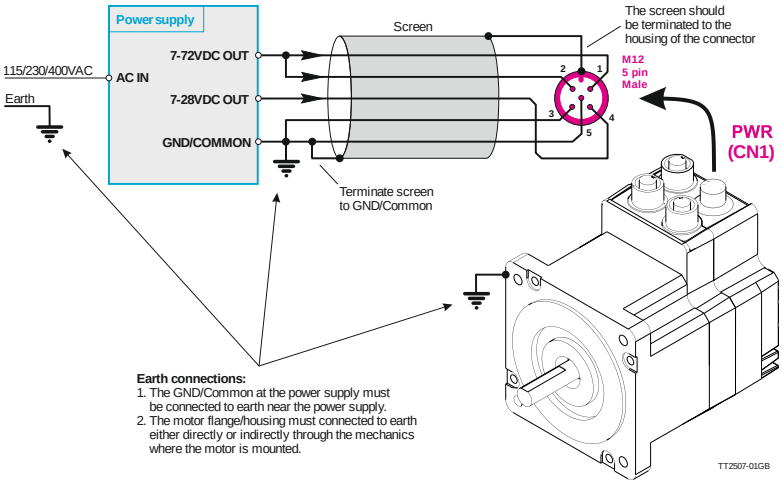
CN4 connector (M12, 17 pin female): isolate the Red wire!
CN3 connector (M12, 8 pin female): isolate the Red wire!

If CVO by mistake is connected to the RS485 or RS422 signals, it will cause ***permanent damage*** and render your motor unusable!

Schematic overview of supply connections:



Please follow the instructions regarding **Earth** and **Ground**:



(See section **2.1** in the User Manual for more information.)

Size and Type of your Motor DC Supply

Use JVL's range of power supplies if you want your motor to be CE compliant —and to avoid problems and be up-and-running easy and quickly.

Switch-mode power supplies have two disadvantages when it comes to motor supply: (1) they cannot handle return energy from a braking motor [see PSU00-PD1 below] and (2) they have a hard and precise current limit.

JVL therefore offers special switch-mode Motor supplies.
MIS171…MIS176: use min. 3A supply, PSU24-075, PSU24-240 or PSU48-240.
MIS231…MIS234: PSU24-240, PSU48-240 or ~~PSU80-1000-10~~ recommended.
MIS340…MIS343: PSU24-240, PSU48-240 or ~~PSU80-1000-10~~ recommended.
MIS430…MIS432: PSU24-240, PSU48-240 or ~~PSU80-1000-10~~ recommended.

JVL Motor DC Supply Overview

PSU24-075 – 24 VDC, 3.2 A, 75 W (no capacitor)
PSU24-240 – 24 VDC, 10 A, 240 W (built-in 4400 µF extra capacitance)
PSU48-240 – 48 VDC, 5 A, 240 W (built-in 4400 µF extra capacitance)
PSU48-1000-01 – 48 VDC, 21 A, 1000 W, 90-264 VAC, for several motors
~~**PSU80-1000-10** – 80 VDC, 12 A, 960 W, 3 x 340-550 VAC, for several motors~~
PSU00-PD1 – Power Dump unit for 48 VDC with large capacitor and power dump resistor circuit for braking large inertias. Use with PSU48-… or 48 V battery.

Managing Return Energy at 48 VDC
NB. If your 48 VDC motor supply is not a rechargeable battery, add item No. PSU00-PD1 and power dump resistor type RP0001 = 33 Ω 50W (or RP0000 = 22 Ω 50W).

Serial Communication

All ServoStep™ motors from MIS171 to MIS432 have built-in RS485 serial communications interface.
Ethernet equipped motors have the RS485 interface only in their 17-pin M12 connector.

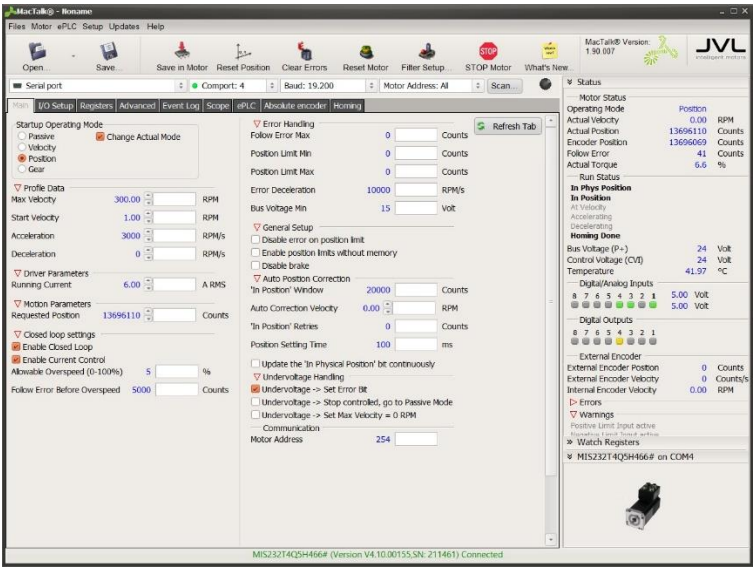
To ensure successful connection from the beginning please use these items JVL items:

- RS485-USB-ATC-820 – USB to RS485 converter
- Depending on your actual motor use one of these RS485 cables:
  RS485-M12-1-5-5
  RS485-M12-1-5-8
  RS485-M12-1-5-17
- MacTalk® software, request Item No.: MACTALK_USB
- Ensure PC and PSU (supply) have same Ground connection

(See section **2.8** in the User Manual for more information on how to connect a ServoStep™ motor.)

1. Turn DC power off and double-check power supply connections
2. Connect RS485 serial cables and the RS485-USB-ATC-820 converter
3. Install MacTalk® on your PC and start it
4. Turn DC power ON
5. Wait for MacTalk® to connect to your motor (bottom status line turns green)

MacTalk:



Ethernet Communication

If you have a ServoStep™ equipped with industrial Ethernet then you can quickly determine the default IP address: **192.168.0.XX**
XX refers to the last 2 digits in the MAC-ID which is printed on the label.
Example: If the MAC-ID has the value 00:50:C2:D0:C9:**14**, then the default IP address is set to: 192.168.0.**20** (since the 14 is Hexadecimal = 20 decimal).

Special instructions for UL applications

1. Isolating 60VDC max Overvoltage Category II power supply only
2. These motors are to be protected by supplementary fuse rated MIS17x: 4A / MIS23x: 8A / MIS34x:10A and 60Vdc minimum. (Example: Eaton Bussmann ABC series.)
3. Max ambient temperature is 40°C / 104°F
4. For use in Pollution Degree 2 Environment

Helpful unit

if you need to connect Sensors with M8-3pin connectors:
Item No.: WI1302-2AM17T01NMB — Junction Box for ServoStep™ (MIS/SMC)

(Item No.: WI1301-2AM17T01NMB — Junction Box for MAC motor®)