

User manual

Edition D-P011-61-70-M0-0100, August 2024

Head Control

Head Control Omni Proportional (P011-61) - Head Control Omni Switched (P011-62)



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About this manual

User manual

Thank you for choosing a mo-vis product!



This manual contains **useful and important information** about your device. **Please read it carefully before use and store safely for future reference.**

Our team (or your authorized dealer) will be happy to answer your questions.

mo-vis bv



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<http://www.mo-vis.com> . contact@mo-vis.com . +32 9 335 28 60



CH-REP: SKS Rehab AG, Im Wyden, 8762 Schwanden GL, Switzerland.



UK Responsible Person: QServe Group UK, Ltd., 49 Greek Street, London, W1D 4EG, UK.

User manual

Support, scrapping & recycling

Technical support



TROUBLE: In case of technical problems:

- Contact your dealer
- If your dealer is not available or unknown, please contact mo-vis: contact@mo-vis.com or +32 9 335 28 60.

Always state the product code and device serial number when contacting us. This ensures you are provided with the correct information.

Spare parts and accessories

Contact mo-vis or your dealer for more information about spare parts and accessories.

Scrapping & recycling

The expected lifetime of this device is 5 years.



CAUTION: For scrapping, adhere to your local waste legislation. Dispose of obsolete electronic parts responsibly in accordance with local recycling regulations.

Limited liability

*mo-vis accepts **no liability** for personal injury or damage to property that may arise from the failure of the user or other persons to follow the recommendations, warnings and instructions in this manual.*



CAUTION: This product should only be installed by a qualified service engineer.



NOTE: All mo-vis user manuals can be found at <http://www.mo-vis.com> where they can be consulted in PDF format.



NOTE: In case any serious incident occurs in relation to this device, this should be reported immediately to mo-vis and the competent authority of the Member State in which the user is established.

Intended use

The proportional Head Control allows power wheelchair users to **control their wheelchair functions by movements of the head.**

In addition, each pad can be individually adjusted to the specific Head Positioning Zones for better control, comfort and function.



The on-board configuration allows each pad to control a specific wheelchair function and the force compensation makes it possible to use the mo-vis proportional Head Control in different tilted positions and as a head positioning device.

The side pads of the Head Control can be replaced by switches. It is also possible to add more satellites to the set-up, such as switches and sip-and-puff.



The mo-vis Head Control is intended for adult and pediatric power wheelchair users who benefit from positioning their head and controlling their power wheelchair functions by using head movements. It can be useful for people with little extremity control, but with good head control (e.g. high-level SCI, ALS, CP, MS).



WARNING: This device is not appropriate for car transportation and was not crash tested.



WARNING: The user must be able to consistently bring their head to an upright position, to stop movement of the wheelchair.



WARNING: Pressure is required against the head pad to sustain movement. This may lead to neck pain and headaches, but is primarily a safety concern. Sustained force against the rear pad, tends to lead to increased muscle tone, making stopping (by bringing the head forward in a quick way) difficult for people with abnormal muscle tone.

Features

The Head Control is a versatile and customizable power wheelchair control system designed to meet the specific needs of wheelchair users with limited head control.

The system consists of 3 fully adjustable pads

- The central pad can be placed at the occipital or suboccipital area
- The two lateral pads can be placed on the parietal area of the user's skull, clearing the ears and glasses of the user

The water-resistant and replaceable pads contain multiple force sensors, making the control system easy to clean and safe to use in humid conditions or when the user has wet hair.

The Head Control Omni Proportional (P011-61) consists of the following elements:

- Fully adjustable pads (1 center pad, 2 lateral pads) containing force sensors
- On-board configurator
- Can be mounted on the existing head support mounting bracket of power wheelchairs



CAUTION: There are several mounting options available for the Head Control, see [Parts and accessories on page 7](#) . It is advised to check the mounting regularly, to make sure that the pads are still in the right position for the user and that the force is still transferred in a controllable way.

There is also a configurable threshold force to allow for switched driving. When switched driving is preferred, the Head Control Omni Switched (P011-62) is also available, where the two lateral pads are replaced by 2 x Twister Pro.

Furthermore, it is also possible to add satellites, such as additional switches or a sip-and-puff.

The systems contains 5 stereo input jacks in total:


- Red: dedicated on/off function
- Left & right jack: lateral pads or switch with a dedicated left/right drive function
- Yellow & green: configurable functions for switches/sip-and-puff (e.g. mode, standby, driving)

Operation


The movements of the control are translated into according movements of the wheelchair, e.g. driving or menu navigation.


Common practice to navigate the wheelchair with the control is as follows:


- **Direction:** by default, pressure on the center pad leads to forward driving, pressure on the side pads or switches leads to left/right driving. You can go from forward to reverse driving by pressing a button or by performing a head gesture

 **NOTE:** Switching to reverse driving needs to be programmed in the electronics of the wheelchair and/or the head control

- **Speed:** the harder you push on the pads, the faster the wheelchair moves.
- **Stop:** whenever you stop the pressure, the wheelchair stops driving.

 **CAUTION:** Avoid hitting obstacles during driving.








 **CAUTION:** Before inserting a connector, remove the protective cover. If the connections are not used, always put or keep the protective covers in.

 **WARNING:** Contact your dealer immediately to perform a functional test in the following situations:

- When the display shows an error code
- When you hear an error/warning beep
- After every incident with the wheelchair

Head Control status

The display on the backside of the Head Control Central Unit indicates the operational status of the control.

HEAD CONTROL STATUS	ICON	STATE DESCRIPTION
Standby		The system disables the drive functionality
Out of neutral		The Head Control is out of neutral
Focus		The Head Control is in control of the wheelchair
Out of focus		The Head Control is not in control of the wheelchair (not in OMNI version)
Calibration		The Head Control is being calibrated
Error		The Head Control is in error state
Warning		The Head Control is in warning state

Parts and accessories

Head Control Omni Proportional (P011-61)



The Head Control Omni Proportional (P011-61) package consists of the following elements:

1	P011-54 Head Control Center Unit Omni with integrated SUB D9 cable
2	2 x P011-52 Head Control Side Unit
3	2 x M011-15 Head Control Mounting Set Side Unit
4	<i>D-P011-61-70-MX Head Control User manual</i>
5	<i>D-P011-61-70-M9 Head Control Installation manual</i>

Head Control Omni Switched (P011-62)



The Head Control Omni Switched (P011-62) package consists of the following elements:

1	P011-54 Head Control Center Unit Omni with integrated SUB D9 cable
2	2 x P030-31 Twister Pro (D36) Black Head Control Set

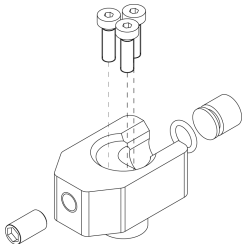
3	2 x M011-15 Head Control Mounting Set Side Unit
4	<i>D-P011-61-70-MX Head Control User manual</i>
5	<i>D-P011-61-70-M9 Head Control Installation manual</i>

Mounting parts

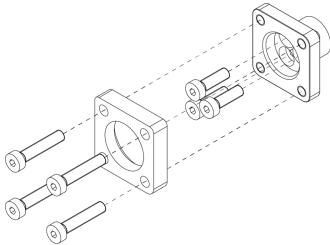
mo-vis offers 3 different pieces to mount the Head Control onto a bracket.

You will need to add one of these to the P011-61 or P011-62 order.

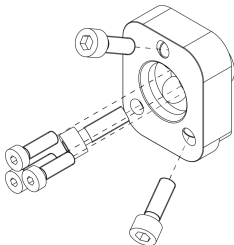
- 1 M011-16 Head Control Set 17 mm Ball Joint



- 2 M011-17 Head Control Set 25.4 mm (1 inch) Ball Joint



- 3 M011-18 Head Control Set Body Link Joint



Optional parts

mo-vis does not offer its own head mounting brackets, but the following third party brackets are available to order through us:

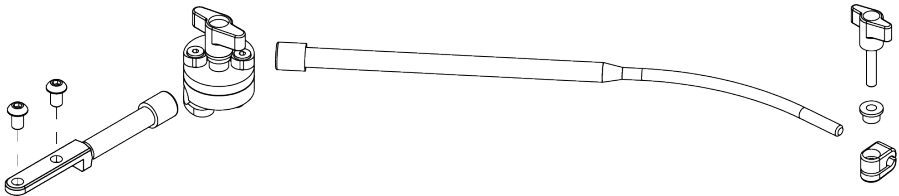
- DISTE00022 Unilink Fixed Head Hardware UHB2D33200 (use M011-16 Head Control Set 17 mm Ball Joint)



- DISTE00023 Unilink Flip-Down Head Hardware UHB2D232FD (use M011-16 Head Control Set 17 mm Ball Joint)



To add additional satellites (button or sip-and-puff) to the set-up, you can use the M011-10 Head Control Satellite Mounting Set:



For more information about the P032-51 Sip and Puff Set Head Control, we refer you to the manuals: *D-P032-51-70-MX Sip and Puff User manual* and *D-P032-51-70-M9 Sip and Puff Installation manual*

Spare parts

The following product codes are also available as spare parts:

- P011-52 Head Control Side Unit



- M011-15 Mounting Set Side unit



- M011-74 Cable 180 mm 3.5 mm stereo



NOTE: If you use another cable, make sure it's a stereo 3.5 mm jack cable that fits in the jack insert

- M011-13 Cushion side

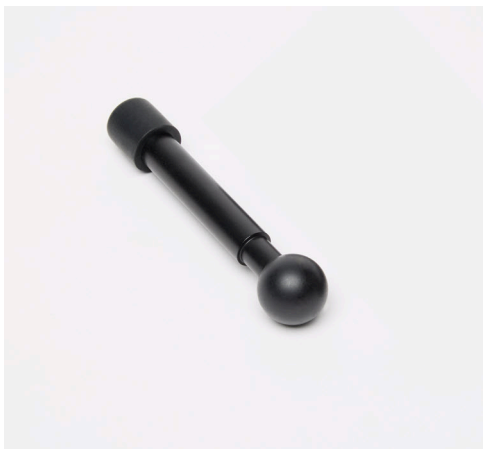


- M011-12 Cushion center

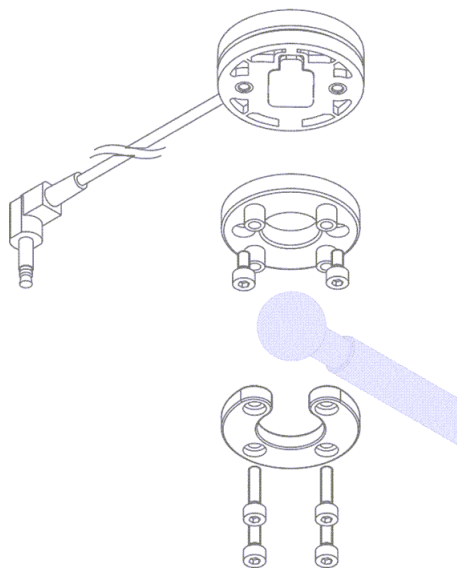


NOTE: To remove the cushions, use a flat screwdriver and put it in the inserts to push the cushion out to the front. To put them back in, insert it first in one side and then push down on the other side until you hear it click.

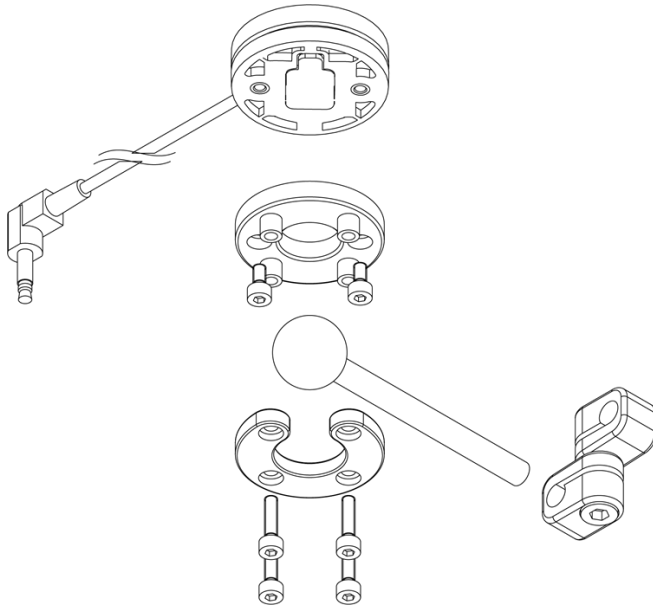
- M011-86 Rod Set D10 55 mm ball 17 mm => if the rod of the M011-15 set is too long, you can replace it with the shorter one



- P030-31/32/33 Twister Pro Head Control Set for mounting on the M011-15 (31 = black, 32 = red, 33 = green)



- P030-41/42/43 Twister Pro Q2M Set (41 = black, 42 = red, 43 = green)



Qualifications

⚠ CAUTION: Only a qualified service engineer may install the device.

⚠ CAUTION: An incorrect programming of the wheelchair or device electronics, may cause damage to the devices or injury to the user.

First time use


⚠ CAUTION: A qualified service engineer should assist during first time use of the device and make sure that all functions are clear to the user, including what to do in case of problems or doubt.


Cleaning

⚠ WARNING: As dust and dirt could lead to reduced functionality, all parts of the device should be cleaned on a regular basis (monthly) or whenever needed.

 **NOTE:**

- Gently remove dust and dirt with a damp cloth.
- Use only non-aggressive disinfectant cleaning agents.


 **CAUTION:** Do not immerse in water or use excessive amounts of liquid.


 **CAUTION:** Do not apply additional lubricants to the moving parts.


 **NOTE:**

If the pad is damaged, worn out or remains dirty, please contact your authorized dealer or mo-vis to replace it.

Warnings and limitations


 **NOTE:** This product complies with the limit values for Electromagnetic Compatibility (EMC) with respect to power wheelchairs, as set out in the harmonized standards for the EU in the Medical Device Regulation, No. 2017/745.


 **WARNING:** Do not cover or block the device to avoid uncontrolled behavior of the device or the wheelchair.

 **CAUTION:** If an output inhibit is programmed, then it should be checked monthly if this is still operational. Please see the *Installation Manual* for more information.

Connection options

The connection interface depends on the control version. Please see the *Installation Manual* for more information.

 **WARNING:** The on/off switch must be available to the user at all times. This allows to instantly stop the wheelchair in case of problems or an emergency.

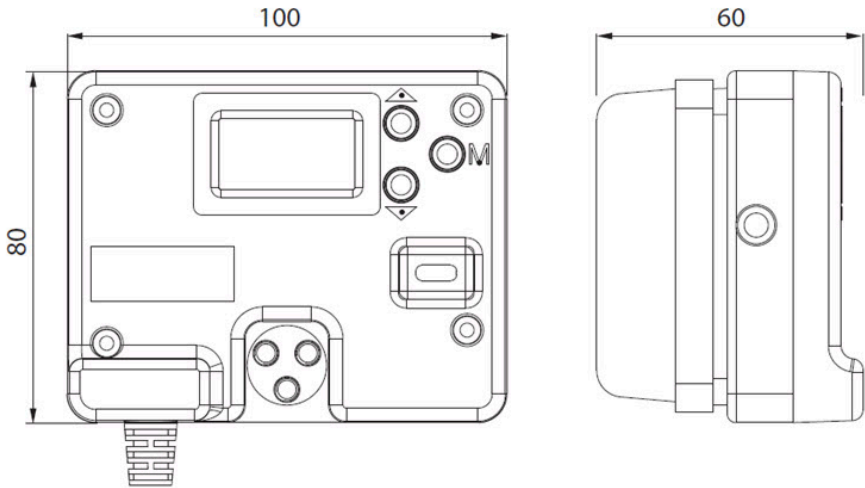
 **WARNING:** Always power off the device when the user is no longer in the wheelchair to avoid unauthorized access or accidental movements.

Combinations

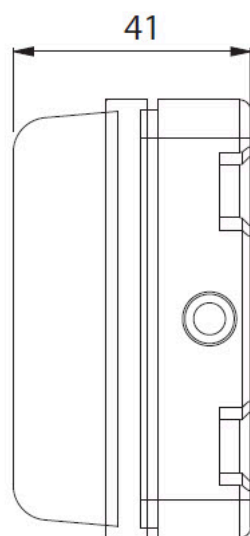
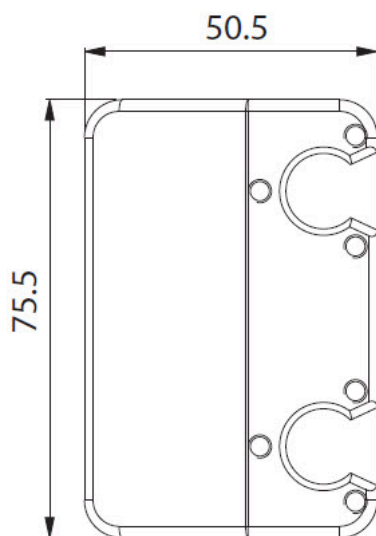
There are different versions of this device available for combination with different wheelchair electronics. Please refer to the *Installation Manual* of this device for more information.

Dimensions

Center pad



Side pad





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**Go to our website for more information on our products or share
your experience with us via email.**

