Switch-It® Vigo

Head Drive Kit

INSTALLATION GUIDE

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⚠️ Caution ⚠️

The Switch-It® Vigo Head Drive Kit components may only be installed by a dealer authorized and trained by NowTechnologies/Sunrise Medical. The dealer carries out the assembly according to the instructions given on the installation training. Incorrect installation might have an adverse effect on performance and will invalidate warranty.

Preparations

Prepare the following materials and tools:

- Powered wheelchair using the R-net system, equipped with an Omni 2 speciality control interface
- Switch-It Vigo Head Drive Kit
- Either an Omni 2 Cubo mount OR a Sedeo Pro Advanced Omni 2 Bag Mounting
- Cable ties
- Plier
- Allen key set

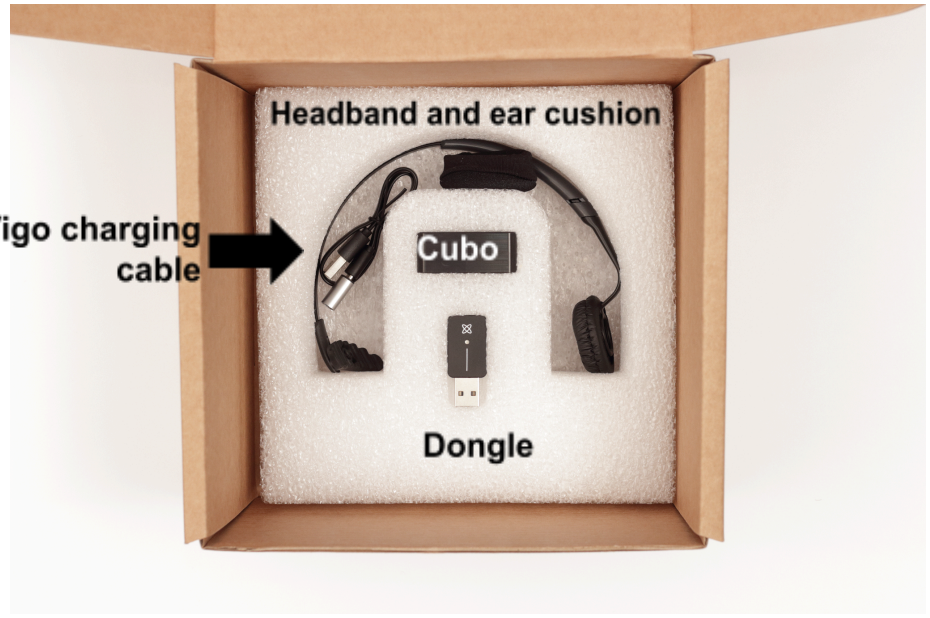
What's in the box

- **Link** (formerly known as GyroSet™ Link)
- USB to micro-USB cable with magnetic extension
  to charge the Vigo
  ⚠ ***Warning!*** *Please do not use the magnetic extension for anything other than charging the Vigo!*
- **Dongle** (formerly known as GyroSet™ Dongle)
- **Vigo** with plastic "C" mounting ring
- The headband of the Vigo (formerly known as GyroSet™ Vigo)
  ⚠ ***Caution!*** *If you have a history of allergies to plastics, you should exercise care when using the headband.*
- Ear cushion cover
- Special USB C-type cable to connect the Link and the Cubo
  ⚠ ***Please handle this cable with care!***
  Due to the nature of its placement, it can be damaged easily. If that happens, please contact support and ask for a replacement.
  Do not attempt to replace the cable with other USB C cables! It is a crosslink cable specially made for these devices.
- **Cubo** (formerly known as GyroSet™ Cubo)
- Headrest Sensor

⚠ *WARNING Magnetic components, such as those found in magnetic charging cables, may interfere with the proper operation of medical devices, including but not limited to pacemakers, defibrillators, and insulin pumps.*

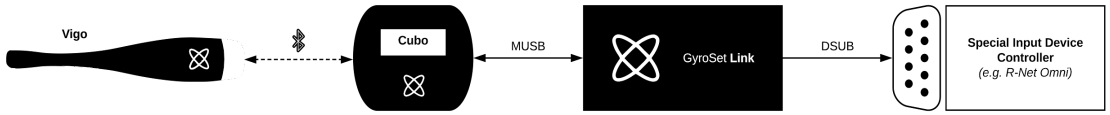

Link
Link
Link


USB C-type cable
Vigo
Headrest Sensor


Headband and ear cushion
Vigo charging cable
Cubo
Dongle

First steps of installation

System connection diagram



Assembly of the Vigo headset

The Vigo headset comes with the so-called C-ring already on it. It provides a perfect fit for the headset into the headband.
Make sure to check the C-ring's position every time you put the headset on the user, or adjust the Vigo's position in the headband!

Please do not remove the C-ring from the Vigo!
Removing the C-ring may damage the device.

Grab the Vigo and the Headband and hold them between your thumbs and index fingers like so:

Then, just pop the Vigo into the Headband by firmly pressing it over the GyroSet symbol. Make sure you don’t apply pressure to the Multi-function button but the body of the Vigo as it may damage the button.

To ensure the Vigo is securely attached in the headband, the open end of the C-ring should always point towards the end or the back of the Vigo (i.e. the "mouth" of the C should be perpendicular to the headband), otherwise, it can fall out of the headband.

Fitting the Headrest Sensor

Fasten the Headrest Sensor to the headrest of the chair using its velcro strap!

Make sure that the wiring meets the following criteria:

- The Headrest Sensor must be properly connected to Cubo.
    - The cable must be tied to the frame of the wheelchair to avoid accidental tearing or crushing by the movement of actuators.
    - The cable placement has to be designed so that cables are protected during accidental crashes if the wheelchair hits an obstacle.
- The Headrest Sensor must be tied to the headrest by the reusable tie and strap in a way that it won’t move during extended periods of usage.
- Please make sure that the position of the Headrest Sensor is easy to reach by the user.

Headrest Requirements

Suitable headrests must have a fairly hard foam density and a large enough flat or almost flat surface space to accommodate the full size of the headrest sensor in its pouch. It can be mounted on the outside of the headrest or placed under the removable cover of the wheelchair's headrest. The removable cover must be a tight fit around the headrest foam to ensure the sensor is snug and tight between the surfaces to stop it from moving and keep it secure.

An example of the ideal shape of the headrest:

Unsuitable headrests examples:
Very puffy and soft density foams that do not allow the sensor to operate at optimum performance.

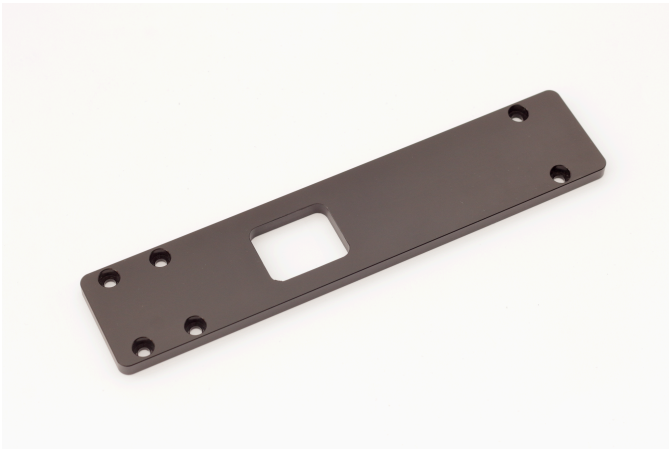
Headrests that are too curved or with too small a surface to accommodate the size of the pouch or sensor alone.

Hard rubberized with deep curves and dips not allowing a flat enough surface for the sensor.

Setting up with visual feedback

Accessories needed for this setup:

- An Omni 2 Cubo mount:



- Two sets of bolts, that are provided with the Cubo mount:
    - 1 pair of 10mm long M4 bolts - these are for attaching the Cubo mount to the Omni2 mount
      Depending on the type of the Omni mount, you may need 16mm long M4 bolts (e.g. Link-It mounting system)
    - 1 pair of 6mm long M4 bolts - these are for attaching the Cubo to the Cubo mount

1. Screw the Cubo mount onto the back of the Omni mount

Use the longer bolts to secure the Cubo mount to the Omni mount.

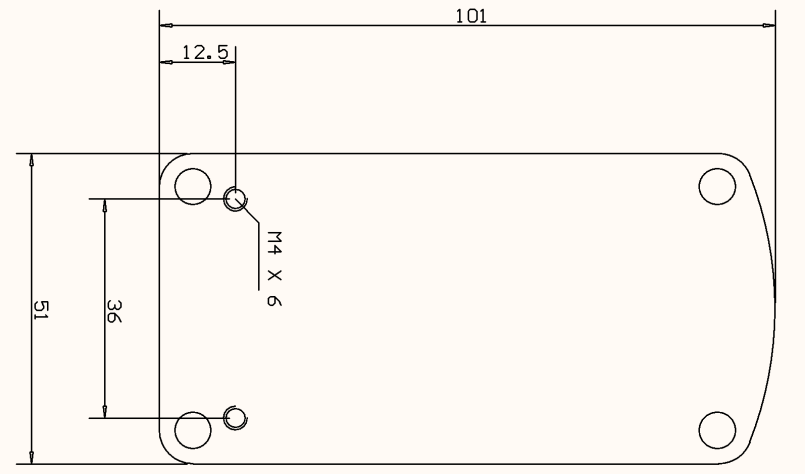
Then use the provided shorter (6mm long) bolts to secure the Cubo itself onto the Cubo mount.

Do not use any other bolts to secure the Cubo to the mount, as longer bolts may damage it!

- Devices that may produce radio interference, such as Smartphones, Pagers, Bluetooth devices must be kept out of the way and placed at a distance from the Cubo.
- The Cubo should be placed so that the display is visible for the user and the assistant/carer as well.
- To take advantage of the IP54 protection of the casing, cables must face the ground to prevent rain getting into the connector.
- We recommend placing the Cubo on the same side on which the user wears the Vigo.
- Please make sure that the placement of the Cubo allows for protection against mechanical damages (e.g. falling objects) for the display.

2. Secure the Link to the back of the chair

The Link enclosure has two M4 nuts at the back of the device that is designed specifically for mounting. As every vehicle and user is unique there is no general mounting bracket available.



Please make sure that the physical mounting meets the following criteria:

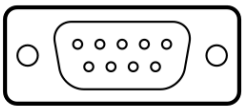
- To take advantage of the IP54 protection of the casing, cables must face the ground to prevent rain getting into the connector.
- The Link's mode selection touch interface (touch button with the logo) must be accessible for the caretaker.
    - Devices that may produce high capacity charges, such as ionisators must be at a safe distance from the touch interface to avoid accidental activation.
- The audible feedback of the Link is of high importance for the user, placement should avoid blocking of the speaker.
- Please don't exceed the minimum working temperature of -20°C and the maximum of 50°C of the Link

In case of using the Sedeo Pro Advanced Omni 2 Bag Mounting for the Omni 2, you can hide the Link next to it with all its cables in the bag.

3. Connect Link and Cubo

Connect Link and Cubo with the USB C to USB C type cable provided.
Do not attempt to replace this cable with other USB C cables! It is a crosslink cable specially made for these devices.

There are two connector interfaces on the Link.
One is an integrated cable with a D-sub type connector on it connecting to the Omni.



This needs to be connected to one of the Omni 2 ports (preferably Port 1).

Another square-shaped port is there to connect either end of the USB C to USB C type cable. Either of the straight, square-shaped end of this cable has to be plugged in, all the way into the hole on the Link.
The other end of the cable connects to the Cubo, like so:

Headrest Sensor Connector *Link Connector*

Certain conditions can affect the operation of the Vigo:
The Switch-It® Vigo Head Drive offers unprecedented freedom of movement by using wireless radio communication. The operation can be disturbed in environments with extremely high radio interference, which may result in a safety stop.
In such environments the cables may act as antennas, so the positioning of them matters greatly.
In extreme cases we recommend the use of ferrite beads.

If you need help with the placement contact technical support.

Setting up with audio feedback only

When to use this?

This configuration is recommended in cases where a minimalist aesthetic is the goal and the user is happy with audio feedback only or when the frame of the wheelchair amplifies electromagnetic interference in a way that it cannot be counteracted otherwise.

The Sedeo Pro Advanced Omni 2 Bag Mounting provides protection against such interference and prevents resulting inconveniences.

Secure the Link and the Cubo in the Omni 2 bag

1. Coil up both cables coming out of the Link: the integrated cable with the D-sub type connector going into the Omni and the USB C cable connecting to the Cubo.
2. Tie them up with a cable tie or a piece of velcro strap.
3. Hide them all next to the Omni 2 in the bag.

Caution! *This solution may impair the audible feedback of the Link and block the visual feedback of the Cubo.*

Final steps

Fasten all loose cables to the appropriate parts of the frame

Fasten the Headrest Sensor and the Cubo-Link cables to fixed points of the wheelchair every 15 or so centimeters with a cable tie or a velcro strap.
Make sure to tuck those cables away from harm as much as possible. Cables sticking out to the side may get damaged by getting caught during driving or transit.

Revision History

Revision number	Changelog	Date of release
01	Original content	26 June 2023
02	Updated with new product photos	10 November 2023