



TOTAL CONTROL HEAD ARRAY SYSTEM

09/19/13



THE DETERMINED DOCTOR

- In 1963 Per Udden was a practicing MD in his native Sweden.
- He was asked by a patient for a wheelchair that she could use both indoors and out.
- Dr. Udden and some friends came up with the concept of Front Wheel Drive (FWD) and multiple seating options in the basement of a hospital.
- Permobil was born 3 years later in 1966.

HEAD ARRAY

September 2013



ADJUSTABLE AND VERSATILE

- **Multiple Configurations**
- **Changing is Quick and Easy**
- **Reconfigured in Minutes**
 - Adding/Removing Arms
 - Relocating Arms
- **PERMOfix Compatible**
 - Components can be used to further customize arm configurations.

Component Guide:

- 1: Upper Arm, 2: Lower Arm
3: Short Arm, 4: Long Arm
5: PernoFix Arm



POSITIONING SENSORS AND SWITCHES

Arms can be adjusted vertically, horizontally, lengthened and shortened.

Sensors and switches can be located virtually anywhere on the chair:

- Not confined to the head array
- Numerous potential activation sites – arm, knee, elbow
- Especially convenient for evaluations



Component Guide:

- 1: Locking Collar lengthens/shortens Arms
- 2: Arm rotates for Vertical Positioning
- 3: PERMOfix Ball allows angling of Sensor/Switch

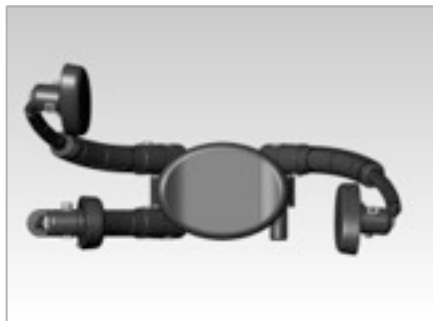
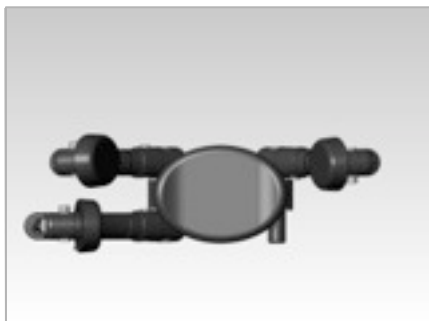
POSITIONING RANGE LENGTH



POSITIONING RANGE VERTICAL / HORIZONTAL



VIRTUALLY ANYWHERE AROUND THE HEAD



SENSOR AND SWITCH OPTIONS

Sensors and switches can be located virtually anywhere on the chair. At the arm, knee, elbow...



Egg Switch



Micro Lite



Touch Contact



Buddy Button



Mini Cup

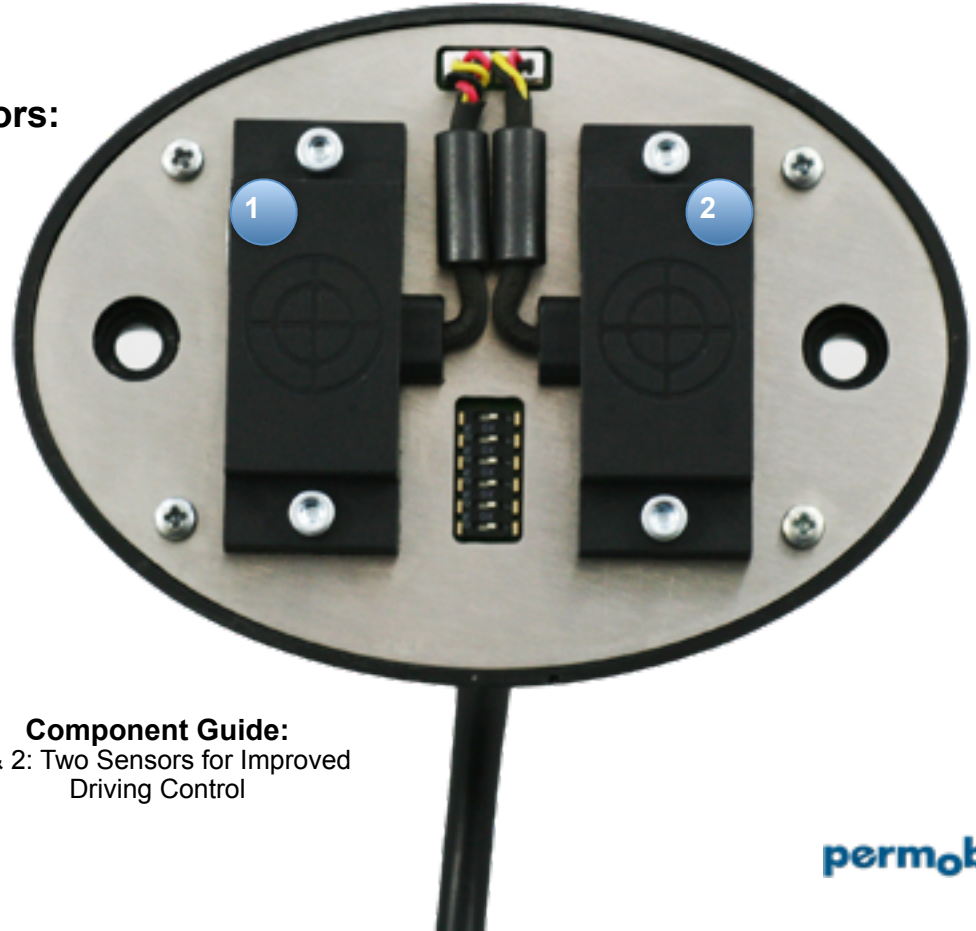


Proximity Sensor

SIMPLIFIES DRIVING

Driving made easier with two occipital sensors:

- Provides a Larger Activation Target
- Simplifies “Veer” Turns



Component Guide:

1 & 2: Two Sensors for Improved Driving Control

CENTRALIZED CONNECTION PANEL

- Located on Occipital Module
- Color Coded 3.5mm Jacks (for Sensors and Switches)
- No Tools Needed



PLUG 'N PLAY

- **Change Sensor & Switch Functions in Seconds**
 - Simply Disconnect to Prevent a Direction or Function
- **Reconfigure Driving Functions**
 - Examples: Switch Left, Right, Reverse & Forward
- **Makes Evaluations Quick and Easier**
- **Dedicated On/Off**
- **Dedicated Mode**



NO BOXES



No extra boxes to mount. All the electronics are incorporated in the occipital module.
Typically, there's only one cable to route between the Head Array and the Omni.

ENGAGE AND DISENGAGE

Engage/Disengage Switch

- Engage/Disengage switch located on top of the occipital module. Activate the switch and the head array stops operating without having to switch the wheelchair off.

Component Guide:

1 & 2: LED Indicators

Solid Green = Engaged, Ready

Solid Yellow = Engaged, Direction Signal Active

Flashing Yellow = Disengaged (Stand-by)

Flashing Red = Error (count flashes)

Component Guide:

3: Engage/Disengage/Reconfigure Button



ON/OFF AND MODE

On/Off and mode functions are supported

- Dedicated On/Off and Mode jacks standard.
- On/Off jack can operate alternate items (mechanical switch only) such as augmentative communication or door openers.
- On/Off jack remains functional even when the head array is “disengaged” providing continuous support of items.

1: Dedicated Mode
Mechanical or
Proximity Switch



2: Dedicated On/Off
Only Mechanical
Switches

CONFIGURATION OPTIONS

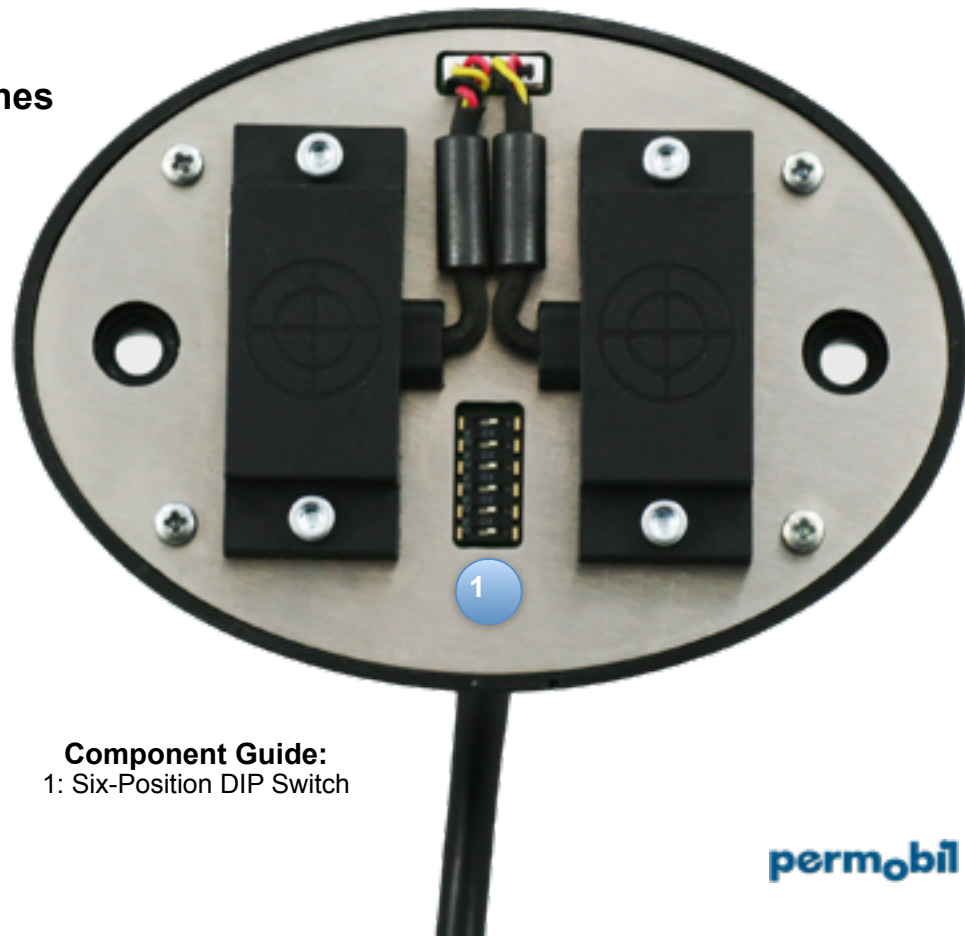
Head Array features configurable via DIP switches

Switch 1	Occipital Sensor Operation
Off	One Sensor active to drive forward (default)
ON	Both Sensors must be active to drive forward

Switch 3	Switch 4	Acoustic Scheme
Off	Off	No Acoustic Feedback (default)
ON	Off	'Clicks' Scheme
Off	ON	'Dots & Dash' Scheme
ON	ON	'Dots' Scheme

Switch 5	Switch/Sensor Re-Learn
Off	Re-Learn only possible at Power-On (default) (Hold Engage Switch at Power-On.)
ON	Can Re-Learn at any time (Press Engage Switch for 5 seconds at any time.)

Note: Switch 2 & 6 are reserved for future expansion.



Component Guide:
1: Six-Position DIP Switch

MOLDED FOAM OCCIPITAL COVERS

Durable, yet soft, pads are easily wiped clean and available in two sizes.



Large

6" Wide x 4" Tall



Small

4.5" Wide x 3" Tall

SWING AWAY STANDARD

Arms Swing Completely Clear for Transfers

- Open Lateral Space
- Simple Thumb Screw to Lock/Release Swing-Away
 - Tighten the thumb screw to remove the “play” inherent to swing-away mechanisms



Component Guide:

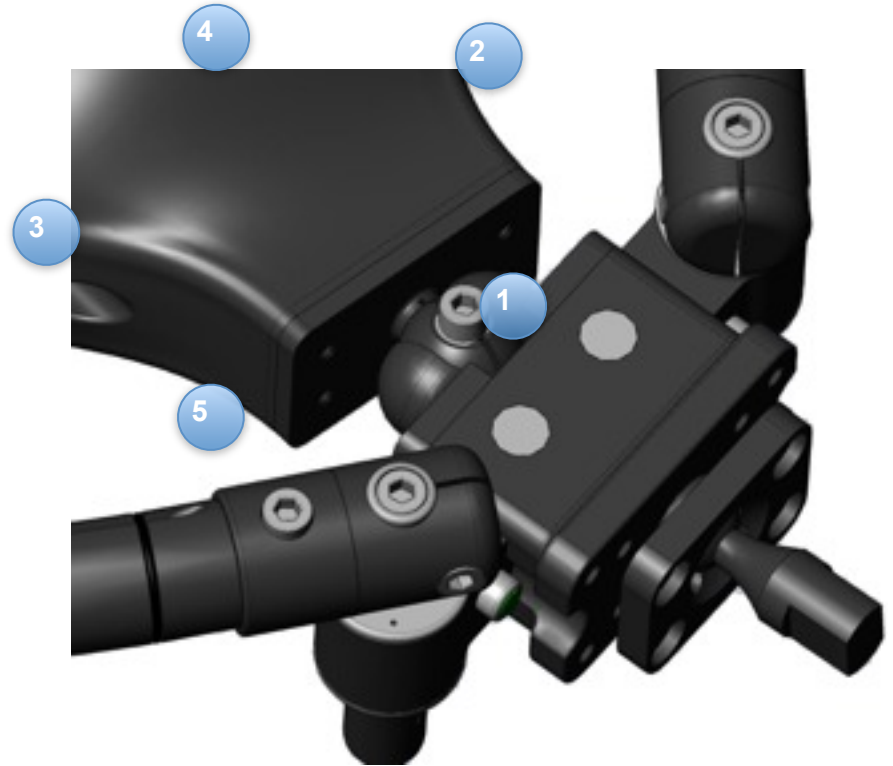
- 1: Locking Screw/Release Button for Left Arm Swing-Away
- 2: Locking Screw/Release Button for Right Arm Swing-Away

OCCIPITAL ANGLE ADJUSTMENT

- Adjustable angle option provides adjustments for left/right and up/down.
- Angles occipital pad relative to the arms.

Component Guide:

- 1: Occipital Adjustment Screw
2 & 3: Right/Left Pivot
4 & 5: Up/Down Pivot



STEALTH BACKREST ATTACHING HARDWARE



**TWB 480
with Flip-Down**

STANDARD CONFIGURATION

- Swivel
- Short arms + proximity
- Small occ. Pad mounted
- Large occ. Pad not mounted
- Extension cable 1m
- Stealth 4080 + flip back + sub occ. Support receiver + strips for unitrack



STANDARD OPTIONS

On/Off switch

- Long arm with “Egg” switch mounted “low” on left or right side

Mode/Function switch

- Long arm with “Egg” switch mounted “low” on left or right side
- Long arm with Proximity switch mounted “low” on left or right side



SPECIAL CONFIGURATION

Right / High:

Arm: ☐ Short ☐ Long ☐ Custom
 Switch: ☐ Egg ☐ Prox. ☐ Support
 Function: ☐ ☐ ☐ ☐ ☐ ☐



Left / High:

Arm: ☐ Short ☐ Long ☐ Custom
 Switch: ☐ Egg ☐ Prox. ☐ Support
 Function: ☐ ☐ ☐ ☐ ☐ ☐



Right / Low:

Arm: ☐ Short ☐ Long ☐ Custom
 Switch: ☐ Egg ☐ Prox. ☐ Support
 Function: ☐ ☐ ☐ ☐ ☐ ☐



Left / Low:

Arm: ☐ Short ☐ Long ☐ Custom
 Switch: ☐ Egg ☐ Prox. ☐ Support
 Function: ☐ ☐ ☐ ☐ ☐ ☐



permobil

THE POWER OF MOBILITY™