SmartDrive

Power your push, your way

June 2021 enhancements sales team training
Curtis A. Merring, MOT, OTR

Director, Portfolio Marketing
Permobil Americas Region
curtis.merring@permobil.com
Poll Question 1
“Every person with a disability has the right to have his or her needs compensated as far as possible by aids with the same technical standard as those we all use in our everyday lives.”

Permobil Founder
Dr. Per Uddén
SmartDrive overview & the why
Proactive vs. Reactive Approach

Current Approach: Reactive

New Approach: Proactive
Evidenced based practice - problems

> 50% of manual wheelchair (MWC) users will develop pain and injury
(Finley and Rodgers 2004)

Pain and injury can lead to significant decline in independence and quality of life for MWC users
(Gutierrez et al. 2007)

Only 55% of patients (USA) received recommended care
(McGlynn, 2003)
Proactive vs. Reactive Approach

**Evidenced based practice - solutions**

Power assist wheels decrease heart rate and perceived exertion during MWC mobility
(Algood, 2005)

Power assist eases energy cost/perceptual responses to propulsion for person w/ shoulder pain and SCI
(Nash, 2008)

Power assist wheels increase distance traveled compared to conventional propulsion
(Levy, 2010)

MWC users push 80% less with SmartDrive vs. without measured by the Smart Evaluation Application
(Smart Evaluation Application, 2021)
SmartDrive overview & the why

Manual wheelchair users have UE challenges beyond propulsion
Poll Question 2
SmartDrive & value-based healthcare
Value-Based Health Care Benefits

**PATIENTS**
- Lower Costs & better outcomes

**PROVIDERS**
- Higher Patient Satisfaction Rates & Better Care Efficiencies

**PAYERS**
- Stronger Cost Controls & Reduced Risks

**SUPPLIERS**
- Alignment of Prices with Patient Outcomes

**SOCIETY**
- Reduced Healthcare Spending & Better Overall Health

NEJM Catalyst (catalyst.nejm.org) © Massachusetts Medical Society
Risk Factors: Patient age, # years w/c dependence

Prevalence of RTC Tears in MWC Riders

Gelmman, 1998 & Sie, 1992)
Evidenced based practice - problems

Rotator cuff tears are present in 49% of wheelchair users of which 70% were full thickness
(Akbar, 2011)

Carpal tunnel syndrome is a common side effect of long-term wheelchair use, & severity is associated with duration of use/age
(Asheghan, 2015)
SmartDrive & value-based healthcare

Direct costs

• Operation
  ➢ $6,367 Medicare
  ➢ $6,904 other insurers

• Rehab
  ➢ Pre-op visits
  ➢ Post-op visits (avg. 15)

Indirect costs

- No propulsion x 6 weeks
- NWB transfers x 4-6 months
- A w/ dressing, transfers, position changes
- PWC rental & transportation
- Extended time off work
- Caregiver fees
SmartDrive & value-based healthcare

**SmartDrive (E0896):**
Medicare Reimbursement ~ $5750
- no configuration changes needed
- no costly remodeling needed to access same environment
- Removable for ease of transporting

**TiLite ULMWC (K0005):**
Medicare Reimbursement ~ $2,100
- more durable
- more configurable
- lighter weight materials

https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/DMEPOSFeeSched/DMEPOS-Fee-Schedule
Power your push, your way with SmartDrive
“It is the primary truth of complex rehab that no single solution works well for all wheelchair users. There’s simply too much diversity in diagnoses, progression, function, goals and environments for one product to work well for everyone.”

“Permobil’s SmartDrive accomplishes this by giving manual wheelchair users several ways to access and use its world-expanding technology.”

Laurie Watanabe – Mobility Management

# SmartDrive overview & the why

## Power your push, your way

<table>
<thead>
<tr>
<th>Products available</th>
<th>Stamina</th>
<th>Performance</th>
<th>Expert</th>
</tr>
</thead>
<tbody>
<tr>
<td>Best for</td>
<td>Hemiplegic, pediatric, geriatric, or caregivers</td>
<td>Pediatric/active users (smaller, simpler wearable)</td>
<td>Adult/active users (advanced wearable features)</td>
</tr>
<tr>
<td>On-demand power assist</td>
<td>☑️</td>
<td>☑️</td>
<td>☑️</td>
</tr>
<tr>
<td>Energy/shoulder preservation</td>
<td>☑️</td>
<td>☑️</td>
<td></td>
</tr>
<tr>
<td>Easy on/off buttons</td>
<td>☑️</td>
<td>☑️</td>
<td></td>
</tr>
<tr>
<td>Hand gesture activation</td>
<td>☑️</td>
<td>☑️</td>
<td></td>
</tr>
<tr>
<td>Advanced Bluetooth connection</td>
<td>☑️</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Easy to read, touch screen settings control</td>
<td>☑️</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Performance &amp; maintenance notifications</td>
<td></td>
<td></td>
<td>☑️</td>
</tr>
</tbody>
</table>

- PushTracker
- PushTracker E2
- SmartDrive
- SwitchControl
SwitchControl

Is now included in with every SmartDrive order at no charge
# SwitchControl programming

### Separate setting than PushTracker/E2

<table>
<thead>
<tr>
<th>Set your speed</th>
<th>1.5-5.5mph/1.6-8.9kph</th>
<th>Separate setting than PushTracker/E2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Set your mode</td>
<td>Momentary: Press to Go</td>
<td>Latched: Hold &amp; Set</td>
</tr>
</tbody>
</table>

### Mobility considerations for SwitchControl

<table>
<thead>
<tr>
<th>Propulsion Technique</th>
<th>Mode options</th>
<th>Specific functional activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bilateral Upper Extremity</td>
<td>Momentary alone</td>
<td>Ramps/Inclines</td>
</tr>
<tr>
<td>Bilateral Lower Extremity</td>
<td>Latched alone</td>
<td>Indoor Mobility</td>
</tr>
<tr>
<td>Hemi-Propulsion</td>
<td>Momentary with PushTracker/E2</td>
<td>Crowded Spaces</td>
</tr>
<tr>
<td>Dependent/Caregiver operated</td>
<td>Latched with PushTracker/E2</td>
<td>Short Distances</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Quick/Short Surface Change</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Low/No PushTracker Battery</td>
</tr>
</tbody>
</table>
SwitchControl (only) Set Up
Original PushTracker & SwitchControl Set Up

PushTracker App
SmartDrive overview & the why

Power your push, your way

Set up in minutes
No phone or wi-fi required

100% verified
Poll Question 3
SmartDrive enhancements, June 2021
Order form (updated)

SmartDrive enhancements, June 2021
Brochure (updated)

SmartDrive enhancements, June 2021
Enhancements supplement

SmartDrive enhancements, June 2021

Power assist

SmartDrive enhancements

You asked for more, and we delivered! Say hello to more SmartDrive.

We’ve updated SmartDrive electronics to give you 50% more power, reinforced our folding adapter bar, and improved the drum/wheel design to help you power your push, your way.

50% more

SmartDrive’s updated electronics provide 50% more power to give your SmartDrive more power to handle more load over time.
In-field repair videos

SmartDrive enhancements, June 2021

SmartDrive in-field repair videos

1. Removing handle (for all applicable videos)
2. Circuit Board
3. Battery
4. Adapter bar set up with retrofit
5. Adapter bar set up without retrofit
6. Power switch
7. Charger receptacle
8. Receptacle cap
SmartDrive enhancements, June 2021
References


©Permobil


Permobil webinar series

Up Next!

Permobil White Paper: A systematic review of the evidence for power standing wheelchairs

Tuesday June 22, 2021 -
Same Webinar, Three Global Times!
• 7am Central
• 1 pm Central
• 6 pm Central
Questions?
education@permobil.com