

# PRODUCT INFORMATION

NEW





## All highlights at a glance



### Low weight

- Only 7.8 kg per wheel in the standard version
- One of the lightest active drives available
- Weight reduction of 33% compared to the previous model



### More performance

- Highly efficient motor technology
- 40 Nm torque (30% more compared to the previous model)
- Up to 8.5 km/h max. assisted speed\*
- Up to 25 km range thanks to the latest lithium-ion technology



### Individually adaptable

- Fast and intuitive programming of the driving parameters via smartphone app
- Four predefined driving profiles
- Easy adjustment of the sensor sensitivity for the left and right drive wheel



### Useful drive functions

- Cruise mode: Maintains speed with only one push on the rim; also works on slopes and downward slopes
- Rollback delay: Keeps the wheelchair in position on slopes and makes it easier to reposition the hands
- Two assistance levels for indoors and outdoors



### Wide range of accessories and options

- Four different push rim versions
- Four different tyre types
- Compact ECS remote control with battery display and two assistance levels
- Spoke cover, holder for ECS remote control and much more.

<sup>\*</sup> Subject to charge

# E-MOTION®

### POWER ASSIST FOR WHEELCHAIRS

Highlights	
Product advantages	5
Product setup	6
Scope of delivery	7
Smartphone Connectivity	8
Accessories	10
Technical data	13
Order form	15
Spare parts	17
Terms and Conditions	23









### Product advantages

e-motion combines active mobility with therapeutic benefits. Sensors on the push rim measure the drive movement while in motion and the electric motors integrated in the wheel hubs provide the corresponding power assistance. This provides targeted relief for muscles and joints and very little strength is required to move independently with the wheelchair, especially on slopes or downward slopes. The driving behavior of the e-motion can be individually adapted to the needs of any wheelchair user in just a few easy steps.

### The key product advantages at a glance

- Fits practically all commercially available wheelchair models
- Silent, highly efficient motor technology with 40 Nm torque per wheel
- Power assistance up to 8.5 km/h\*
- The standard version is one of the lightest add-on drives with only 7.8 kg per wheel incl. batteries
- High range up to 25 km
- Long battery service life thanks to the latest lithiumion technology
- Individually adjustable sensitivity of the sensors on the push rims
- Individual adjustment of the driving parameters via smartphone app\*\*
- Alternative selection from four pre-defined driving profiles via a free smartphone app
- Two assistance levels per driving profile\*\*\*
- Additional learning mode for beginners\*\*\*
- Rollback delay allows the safe handling of slopes and ramps\*\*\*
- Clever additional functions per smartphone app, such as Cruise Mode\* (Maintains a permanent speed even on slopes or downward slopes)

### Wheelchair mounting

- Standard wheelchairs
- Light weight wheelchairs
- Active wheelchairs
- Sports wheelchairs
- Comfort wheelchairs

Only small brackets are attached to the wheelchair. This does not change the characteristics of the wheelchair. The Alber mounting system allows the use of the e-motion and the scalamobil on many wheelchairs. Manual wheelchair wheels can usually still be used. If you have questions regarding a specific wheelchair model or special requests about mounting, our Customer Service team would be delighted to advise you +49 (800) 9096999 (toll free).

### Our quality promise - Your safety

Seal of approval and testing institute		TÜV Süd, Hann	
CE conformity	CE	Complies with Device Directive	the EU Medical
Approved and tested as per application class	Class A	X Class B (Indoors and outdoors	Class C (Outdoors)

- \* With Mobility Plus Package.
- \*\* Free of charge PIN-Code required
- \*\*\* Can be activated with ECS remote control or e-motion Mobility App with Mobility Plus Package

### Functionality



The charger socket on the wheel ...



... serves as an on/off switch at the same time.



The wheel can be removed by pressing the button on the quick-release axle and pulling the wheel off.

### Product setup

The e-motion drive wheel is simply attached instead of the manual wheelchair wheel.

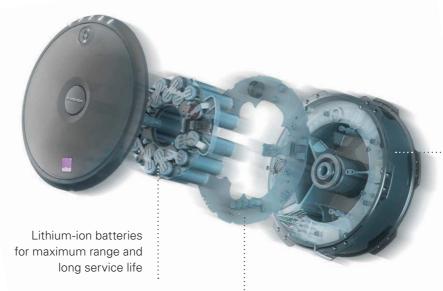
The battery pack is integrated in the wheel hub.



Silent drive wheel. 40 Nm torque with a weight of 7.8 kg

> Individually adjustable sensitivity of the driving sensor in 7 steps





The modern, highly efficient e-motion motor technology extracts the maximum benefit from the silent drive wheels with low weight



**Bluetooth** 

Integrated Bluetooth module for communicating with the ECS remote control and smartphones

the wheels



### Drive wheel (standard version)

- Available wheel sizes 22", 24", 26"
- 40 Nm maximum torque per wheel, 80 watt power
- 150 kg maximum user weight, maximum total system weight 190 kg Motor,
- Electronics and battery pack integrated in the wheel hub
- 7.8 kg per wheel (standard version 24")
- Schwalbe RightRun tyres
- Brushed stainless steel push rim
- Stub axle length 123 mm, diameter 1/2"
- Integrated Bluetooth chip for communication with the ECS remote control and smartphones
- e-motion increases the wheelchair width by approx. 2-4 cm, depending on the model
- The Bluetooth connection of the drive wheels is always only possible with one device at a time



### ECS remote control (Ergonomic Control System)



### **Bluetooth remote control**

- Switching the e-motion wheels on and off from a seated position
- Handy, ergonomic design
- The buttons are easy to operate even with little force
- Operation with two standard AAA batteries



### Display

- Clearly arranged, easy-to-read LCD display
- Reliable battery indication in 20% steps



### Two assistance levels

Selection of two individually programmable assistance levels for indoors and outdoors\*



### Learning mode

Additional learning mode for beginners



### Rollback delay

- The drive wheels of the e-motion delay the wheelchair from rolling back on slopes and hold the position for 5 seconds to enable relaxed repositioning of the hands
- \* The driving parameters for each assistance level can be programmed via the professional section of the e-motion mobility app.



### Automatic battery-charger (scope of delivery)

- Magnetic contacting of the charging plug with the charging socket on the e-motion wheels
- Charges both e-motion wheels at the same time
- Automatic adaptation to the mains voltage (100-240 V)
- Removable power cable
- Electronic charging and switch-off mechanism
- Charge status is indicated by the LEDs on the e-motion wheel and on the battery charger
- Battery charging time approx. 6 h





**Bluetooth** 





### Added value from smartphone connectivity – the e-motion mobility app

Thanks to the latest Bluetooth technology, the e-motion M25 can connect to almost any iOs or Android smartphone. This allows a wide range of additional functions and possibilities that significantly expand the benefit and application spectrum of the e-motion. Data exchange is encrypted and certified according to ANSI C63.27-2017 (Wireless Coexistence). The mobility app is the starting point for communicating with the e-motion and is available free of charge from the Google Playstore and Apple Appstore. The functions of the mobility app are divided into three different access areas:











Free Download





- In the professional section, the driving parameters of the e-motion can be individually set for each wheelchair driver: maximum assistance speed, maximum torque, sensor sensitivity, and start and stopping behavior
- The mobility app can be activated for extended programming of the e-motion with a free PIN code (see therapist information)



### Customer section (free of charge)

- Option of four pre-defined driving profiles (standard, sensitive, soft, active). Note: After programming the driving parameters in the professional section, the pre-defined driving profiles are no longer available
- Battery status display, speed and travelled kilometers
- Recording and managing of tours using GPS tracking
- Automatic discharge of batteries for storage or for air travel
- Dealer search, contact option with the Alber Service
- Display of detailed error messages with hints and remedies

### Customer section with Mobility Plus Package (subject to charge)

- The Mobility Plus Package activates a wide range of clever additional functions in the e-motion mobility app to get even more benefits from the e-motion
- The Mobility Plus Package can be ordered and paid directly from the Appstore for iOs and the Playstore for Android (In-App purchase)



- The purchase price for the Mobility Plus Package is EUR 329.99 incl. VAT.
- Each of the functions listed on this page can also be acquired separately as In App purchase. The price saving on purchasing the overall Mobility Plus Package compared to purchasing each individual function is € 59,95





### SPEED

Increases the maximum assistance speed of the e-motion from 6 km/h to 8.5 km/h

Price: € 99,99\*





### **CRUISE**

- Works in a similar way to the cruise control of a car: Ideally suited for longer rides along level ground, pushing a shopping cart or a luggage trolley
- It is activated by a single push above 2 km/h and maintains this speed without additional pushing (works also on slopes and downward slopes)
- The speed can be increased at any time by additional pushes on the push rim or in the app





### **REMOTE**

- Remote control of the unoccupied wheelchair using a smartphone, e.g. to "repark"
- Controlled via built-in inclination sensor of the smartphone or with a virtual joystick in the app

Price: € 39,99\*





Price: € 99,99\*

### **ECS**

- Depicts the functions of the ECS remote control
- Convenient switching on and off of the e-motion wheels from a seated position
- Selection of two assistance levels plus learning mode
- Activating the rollback delay

Price: € 99,99\*





### **EASYNAVI**

- Easy start/destination navigation with wheelchair accessible routing
- Map material: Open Street Map
- Route import function (GPX)

Price: € 39,99\*





### PUSH-COUNTER

- Records the amounts of pushes during
- Monitors the driving behaviour and helps to optimise it

Price: € 9,99 \*





### Bracket for the wheelchair

- Required for docking the e-motion wheels on to the wheelchair
- Discreet, weight-optimized design
- Numerous attachment options fits practically all conventional wheelchairs
- Easy to fit
- Manual wheelchair wheels can still be used alternatively
- Not compatible with the e-motion wheels of the previous e-motion M15 generation



### Anti-tippers with swiveling and jack-up function

- Removable via quick-release device
- With jack-up function for easy removal of the wheels
- With automatic swiveling function for crossing curbs and thresholds
- Adjustable height and length
- Anti-tippers must be mounted in pairs



### Schwalbe Marathon Plus tyres

- Available for all wheel sizes
- Perfect compromise between high grip and low roll resistance
- Particularly durable rubber mixture



### Puncture-proof tyres 1" Pro Speed (PU solid)

- Available for 24" wheels
- Prevents air loss and flat tyres
- Optimized roll resistance
- Traction and damping comfort are limited compared to pneumatic tyres
- Additional weight per wheel approx. 300 g



### Puncture-proof tyres 1 3/8" (tyre with inlay)

- Available for 22" and 24" wheels
- Puncture protection with suspension and comfort
- Prevents air loss and flat tyres
- Additional weight per wheel approx. 500 g (for 24" wheel)



### Spoke cover (plain/printed)

- Available for 24" and 26" wheels
- Protection from turning drive wheel
- Printed with "Sphere" motive
- Plain model (transparent) only available for 24" wheels

......



### Spoke cover for children (printed)

- Available for 22" wheels
- Protection from turning drive wheel
- Printed with "Comic" motive



### Coating for push rims

- Available for 22" and 24" wheels
- For wheelchair users with limited hand functions
- Increases the grip
- Completely coated and thereby prevents slipping
- Additional weight per wheel approx. 250 g



- Optionally available for 22", 24" and 26" wheels: Retrofitting push rim cover consisting of rubber (600 g)



### Carbolife "Curve L" push rim

- Available for 24" and 26" wheels
- Patented L-profile form with maximum gripping surface for hands
- Stabilizes the wrist and ensures ergonomic posture
- Precise wheelchair handling and braking
- Ensures optimum power transmission and low fatigue when in use
- Black powder-coated
- Approx. 200 g lighter in comparison to stainless steel push rims





### Carbolife "Quadro" push rims

- Available for 24" wheels
- Special profile for tetraplegics with limited hand and triceps function
- Optimized gripping surface for effortless motion and braking
- Maximum grip due to a special anti-slip coating



### Magnetic holder for ECS remote control

- For attaching the ECS remote control to the wheelchair
- ECS remote control is automatically docked on using a special magnetic mechanism
- Makes ECS remote control handling easier especially if hand functions are limited
- Alternatively, smartphones can be docked on using an additional adhesive adapter (please check the smartphone's suitability in each individual case).



### Stub axle for transport

- Secure transport and storing, protects the push rims and sensors when transporting in a car or during air travel
- Prevents the wheel from switching on/off by accident



### Ergonomic stub axle

- Facilitates unlocking and removing the e-motion wheels from the
- Can be easily employed without tools instead of the standard stub axle

Drive wheel M	25	
	Size	22", 24" and 26"
	Speed	Support 0–6 km/h (up to 8.5 km/h with Mobility Plus Package)
	Torque	2 x 40 Nm
	Motor power rating	2 x 80 W
	Operating voltage	36,5 V
	Operating temperature	-25 to +50 °C
	Protection class	IPX4
	Climbing and braking ability	Please observe the limit values of the wheelchair manufacturer
Battery pack		
	Battery cells	Lithium-ion battery, rechargeable, leak proof and maintenance-free
	Nominal battery capacity	2 x 4,3 Ah
	Nominal battery power	$2 \times 156,95  \text{Wh} = 313,9  \text{Wh}$
	Charging temperature	from 0° C to 40° C
	Range	25 km
		The range will vary according to the terrain as well as the prevailing
		running conditions. The stated range can be achieved with optimal running conditions (even terrain, freshly charged batteries, ambient
		temperature of 20 °C, optimal tyre pressure, steady driving, etc.).
Transportation	by air	
············		All Alber products are suitable for transportation by air.
		At www.alber.de you will find all the current certificates for presenting to the airline
Charger		
	Input voltage	100–240 V (AC), 50–60 Hz; automatic adaptation to the mains voltage, electronic charging and switch-off mechanism
	Output voltage	2 x 48 V (DC)
	Charging current	2 x 1A
	Charging time	approx. 6 hours
	Protection class	IP31
	Weight	1,2 kg
Weight		
	Total weight per wheel	7.8 kg each incl. battery pack (standard version)
		Max. permissible user weight 150 kg



Permissible total weight 190 kg (person, drive unit, wheelchair)



### Maximum wheel camber incline

When using e-motion wheels, the maximum permissible wheel camber incline (see following table) must be observed depending on the weight of the person.

		Wheel size 22"	Wheel size 24"	Wheel size 26"
Max. weight of the person	0° fall	125 kg	150 kg	150 kg
Max. system weight	0° fall	165 kg	190 kg	190 kg
Max. weight of the person	1° fall	100 kg	120 kg	120 kg
Max. system weight	1° fall	140 kg	160 kg	160 kg
Max. weight of the person	3° fall	80 kg	100 kg	100 kg
Max. system weight	3° fall	120 kg	140 kg	140 kg
Max. weight of the person	6° fall	60 kg	60 kg	60 kg
Max. system weight	6° fall	90 kg	100 kg	100 kg
Max. weight of the person	9° fall	40 kg	40 kg	40 kg
Max. system weight	9° fall	70 kg	80 kg	80 kg