



mpulse®

E|R90®

LET IT DRIVE YOU



# EYE-CATCHING DESIGN THAT WON'T DRAW ATTENTION

The sleek, simple, and compact design sits under your chair. It's inconspicuous, intuitive, and maintains your chair's size and turning circle.

## REIMAGINE YOUR RIDE

Simple, push-button control and propelling.

When push assist is not needed, the wheel lifts for zero rolling resistance.

V-Lock™ securely and easily attaches.

Easily swap out the removable battery.

Select indoor or outdoor performance profiles or monitor your device with the R90 app.

Fits most rigid or folding wheelchairs.

\*Patent-Pending Empulse Technology





# CENTER-SPIN

## PRECISION TURNING

The R90 drive wheel is positioned under your seat. This means you can manoeuvre forward, backward, and 360° with minimal drag or hang-up.

No fish-tailing, no rear bounce.  
**It moves like a part of you.**



The R90 can detect when you reach a slope or obstacle and provide more or less power to help maintain your speed.

Because the entire R90 is positioned under your chair, the size and turning circle of your chair remain the same. In tight spaces, move as you normally do.

The R90 wheel closely aligns with your rear wheels, so it pushes over obstacles the same time you do.



When the R90 is not needed, raise the wheel for zero rolling resistance. This can be done with a button on the Control Box or from the App. Even though the R90 is easy to remove, just raise the wheel and keep it on your chair all day.



The R90 propels you with a patent-pending suspension, reducing bumps and vibration.

The extremely durable, airless rubber tire provides good surface contact and a smooth ride with minimal maintenance.

Swap out the battery or make it lighter to carry. A second or extended range battery provides extra distance or even more convenience.

Standard battery = up to 19.5 miles

*Range is dependent on the ground surface, the weight of the user, driving behavior, temperature and terrain.*

R90 battery is airline compatible allowing you to travel with your device and without stress.

Certificate is available for download at: [www.sunrisemedical.com/power-assist/empulse/add-on-devices/r90](http://www.sunrisemedical.com/power-assist/empulse/add-on-devices/r90)  
Always verify with your airline for current regulations.





## SIMPLE, SECURE ATTACHMENT

The patent pending V-Lock docking system provides an effortless, single-handed roll-into position connection. For some users, this can even be done while seated in the chair.

The V-shaped latch helps guide the R90 into its receiver, then locks it in place.



## TAKE IT EASY

Save your shoulders, or just relax. The R90 propels you without the strain on your hands and shoulders. Just push the button to start, stop and control your speed.

User safety is paramount with an emergency stop system that cuts drive power if the connection is lost or the user grabs the wheelchairs rims, and stops the chair for 3 seconds.

Simply snap the magnetic device charger into your R90. For even more convenience or to keep an extra battery charged up, use the optional docking charger.

The standard R90 battery has a range of over 19 miles, perfect for all-day driving. Keep an extra battery charged and ensure you're never without power.





# R90 TECHNOLOGY

## SIMPLE CONTROL BOX

Start and control your speed with the push of a button. Free up your hands to steer and stop, push a cart, or hold the hand of a loved one.

- The wireless Control Box can be mounted on your frame tube anywhere convenient to you.
- Raise or lower the wheel any time.
- Dial in your speed for any situation – nice-and-easy in a crowded store or keeping up with your dog. You have a max speed of 5.5 mph (9kph)!
- To get moving, simply press the plus button, or you can propel to the speed you want and press the plus button to maintain it (like cruise control).

No “convincing” it what to do, just faster, slower, wheel up, or GO!

## BLUETOOTH

Utilising industry-leading Bluetooth® 5.0 technology that ensures a reliable connection regardless of location. The wireless control box can be easily removed to help with transfers or to avoid damage in air travel..

## SUNRISE INTELLIGENCE APP

### CHOOSE A DRIVE PROFILE

Use the app to select either the indoor or outdoor performance profile best suited for your environment. The preset profiles are tailored for speed, torque, and slope thresholds for indoor or outdoor driving situations.

### MONITOR YOUR R90

Check your battery so you always know when you need to recharge. You can also see if the wheel is up or down and tell the R90 to raise or lower it.

### CONFIGURE R90 TO YOU

Use the app for initial set-up, calibrating the R90 to your weight for optimal performance.

### METRICS DASHBOARD

Historical data is shown in a dashboard so you can see your use patterns, max speed and distance.

Compatible with Android™ and Apple® iOS.



# COMPATIBILITY

The Empulse R90 is compatible with most rigid or folding wheelchairs. The receiver brackets do not interfere with chair components and still allow your folding chair to fold.

, the receiver bracket mounts directly to the camber tube and can remain in place whether the R90 is on or off your chair.

, the assembly has a sturdy crossbar that is spring-loaded for quick install or removal. *See specifications for exact measurements.*

can be ordered for either right or left-hand use and can be mounted anywhere on your frame tube.



Rigid Chair Receiver Bracket



Folding Chair Receiver Bracket and Removable Axle Assembly

# COMPONENTS

## WHAT'S IN THE BOX?

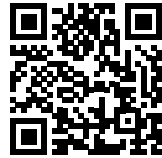
- R90 Push Assist
- Standard, Removable Battery
- Control Box (with short & tall mounting plates)
- Device Charger with additional Dock
- Receiver Assembly\*
- Travel Bag

## Optional Extras

- Extra 2.5 ah Battery
- Extra 5 ah Battery







R90 Web Page

<b>Weight Capacity</b>	275 lbs (125 kg)
<b>Battery Range*</b>	
Standard (2.5 Ah)	9.8 miles (15.7 km)
Extended (5 Ah)	19.5 miles (31.4 km)
<b>Max Slope</b>	6 Degrees
<b>Weight (without battery)</b>	13.0 lbs (5.9 kg)
Standard Battery	1.5 lbs (0.7 kg)
Extended Battery	2.6 lbs (1.2 kg)
<b>Frame Compatibility</b>	
Camber Tube Diameter	22 mm to 45 mm
Axle Height	283 mm to 336 mm
Width (Folding wheelchairs only. Between axle plates.)	300 mm to 530 mm
<b>Adjustable Max Speed</b>	5.5 mph (9 kph)
<b>Electronics</b>	Bluetooth 5.0 / Wireless
<b>Battery</b>	Lithium-Ion 36V 2.5Ah / 5Ah
<b>Battery Charging Time</b>	1 Hour (for 2.5Ah) 2 Hours (for 5Ah)
<b>Motor</b>	250 W / 22 Nm
<b>Motor Brake</b>	None

\* Range is dependent on the ground surface, the weight of the user, driving behavior, temperature and terrain.

### ⚠ WARNING

Using a power assist device can change your center-of-gravity or the way your chair rides. To reduce any risk of tip-over or fall, consult your healthcare provider about proper wheelchair configuration, including use of anti-tips and any other necessary adjustments.



If you are visually impaired, this document can be viewed in PDF format at [www.sunrisemedical.co.uk](http://www.sunrisemedical.co.uk)

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