

# R90

## Compatibility Guide



02/2025

## Compatibility Check for Rigid & Folding Wheelchairs

### 6-Step-Compatibility-Check

The Empulse R90 is compatible to rigid and folding wheelchairs with integrated or removable footrests. To ensure the compatibility of the Empulse R90 to your wheelchair, please follow the compatibility check guidance below. Please consider that there is an extended check for folding wheelchairs needed.

**1 - Combination agreement** - Please check, if the combination between the Empulse R90 and your specific wheelchair is approved. The combination overview can be found on [www.sunrisemedical.eu](http://www.sunrisemedical.eu).

**2 - Back Wheel Size** - The R90 is compatible to wheelchairs with a backwheel size of:

- 24"
- 25"
- 26"

Please select your backwheel size on the order form.

**3 - Camber** - The R90 is compatible to wheelchairs with a camber of:

- 0°
- 1°
- 2°
- 3°

The R90 is compatible only with rigid chairs that have a straight axle. If the axle is not straight and has a "V" shape the R90 is not compatible.

# Compatibility Check for Rigid & Folding Wheelchairs

**4 - Rear Seat Height** - Please check your combination of COG and back seat height in the matrix below and double-proof by measuring the distance from the seat sling to the center of the axle.

| RSH (Rear Seat Height)<br>(inches) | RSH (Rear Seat Height)<br>(mm) | 24" Rear Wheel (540 wheel) |            |             | 25" Rear Wheel (559 wheel) |            |             | 26" Rear Wheel (590 wheel) |            |             |
|------------------------------------|--------------------------------|----------------------------|------------|-------------|----------------------------|------------|-------------|----------------------------|------------|-------------|
|                                    |                                | COG                        |            |             | COG                        |            |             | COG                        |            |             |
|                                    |                                | 0.37(9.40mm)               | 3.57(92mm) | 4.71(119mm) | 0.37(9.40mm)               | 3.57(92mm) | 4.71(119mm) | 0.37(9.40mm)               | 3.57(92mm) | 4.71(119mm) |
| 13                                 | N/A                            | NoGo                       | NoGo       | NoGo        | NoGo                       | NoGo       | NoGo        | NoGo                       | NoGo       | NoGo        |
| 13.5                               | N/A                            | NoGo                       | NoGo       | NoGo        | NoGo                       | NoGo       | NoGo        | NoGo                       | NoGo       | NoGo        |
| 14                                 | N/A                            | NoGo                       | NoGo       | NoGo        | NoGo                       | NoGo       | NoGo        | NoGo                       | NoGo       | NoGo        |
| 14.5                               | 370                            | NoGo                       | NoGo       | NoGo        | NoGo                       | NoGo       | NoGo        | NoGo                       | NoGo       | NoGo        |
| 15                                 | 380                            | NoGo                       | NoGo       | NoGo        | NoGo                       | NoGo       | NoGo        | NoGo                       | NoGo       | NoGo        |
| 15.5                               | 390-400                        | NoGo                       | NoGo       | NoGo        | NoGo                       | NoGo       | NoGo        | NoGo                       | NoGo       | NoGo        |
| 16                                 | 410                            | NoGo                       | NoGo       | NoGo        | NoGo                       | NoGo       | NoGo        | NoGo                       | NoGo       | NoGo        |
| 16.5                               | 420                            | Go                         | NoGo       | NoGo        | NoGo                       | NoGo       | NoGo        | NoGo                       | NoGo       | NoGo        |
| 17                                 | 430                            | Go                         | Go         | NoGo        | Go                         | NoGo       | NoGo        | NoGo                       | NoGo       | NoGo        |
| 17                                 | 440                            | Go                         |            | NoGo        | Go                         | NoGo       | NoGo        | NoGo                       | NoGo       | NoGo        |
| 17.5                               | 450                            | Go                         |            | NoGo        | Go                         |            | NoGo        | NoGo                       | NoGo       | NoGo        |
| 18                                 | 460                            | Go                         |            | Go          | Go                         |            | NoGo        | NoGo                       | NoGo       | NoGo        |
| 18.5                               | 470                            | Go                         |            | Go          | Go                         |            | Go          | Go                         |            | NoGo        |
| 19                                 | 480                            | Go                         |            | Go          | Go                         |            | Go          | Go                         |            | NoGo        |
| 19.5                               | 490                            | Go                         |            | Go          | Go                         |            | Go          | Go                         |            | Go          |
| 20                                 | 500                            | Go                         |            | Go          | Go                         |            | Go          | Go                         |            | Go          |
| 20.5                               | N/A                            | Go                         |            | Go          | Go                         |            | Go          | Go                         |            | Go          |
| 21                                 | N/A                            | Go                         |            | Go          | Go                         |            | Go          | Go                         |            | Go          |
| 21.5                               | N/A                            | Go                         |            | Go          | Go                         |            | Go          | Go                         |            | Go          |
| 22                                 | N/A                            | Go                         |            | Go          | Go                         |            | Go          | Go                         |            | Go          |

\*Disclaimer: Please note that not all wheel sizes will be available in all regions.

To doublecheck you can also measure the distance from the middle of the axle to the seat sling of your wheelchair. The measured distance must be in the range mentioned below.

- FOR COG less or equal than 3"/76 mm 2.75"/70 mm min. center axle to seat sling gap
- FOR COG greater than 3"/76 mm 4.63"/118 mm min. center axle to seat sling gap

**5 - General NoGo's** - Please check if your wheelchair is equipped with any of the following parts as they create a NoGo

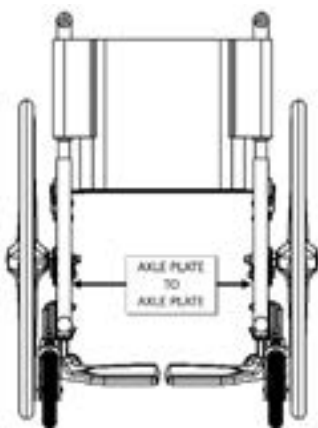
- Rear Suspension
- 4 Link Suspension
- One Arm Drive
- Please ensure enough space on the front frame of the wheelchair to attach the R90 control box mounting bracket (30 mm)

**6 - Recommendations** - The following items do not cause a Go or a NoGo, but we recommend to follow the guidance for optimal device performance without limitations.

- 3" & 4" castor wheels should not be combined with the R90
- It is recommended to use anti tips on the wheelchair combined with the Empulse R90

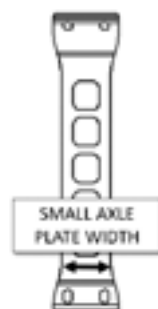
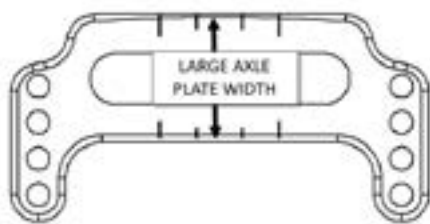
# Extended Compatibility Check only for Folding Wheelchairs

**6 - Folding Wheelchair width** - For Folding Wheelchair frames please measure the distance from inside axle plate to inside axle plate and choose the correct size of folding axle on the order form. If the distance measured does not fit in the min to max measurements mentioned in the table below means that the R90 does not fit this specific wheelchair (NoGo).



| AXLE PLATE TO<br>AXLE PLATE WIDTH<br>(in) | AXLE PLATE TO<br>AXLE PLATE WIDTH<br>(mm) | FOLDING AXLE ASY |       |        |       |
|---|---|------------------|-------|--------|-------|
|   |   | X-SMALL          | SMALL | MEDIUM | LARGE |
| 12.0-13.0                                 | 300-330                                   | x                |       |        |       |
| 13.1-16.0                                 | 330-400                                   |                  | x     |        |       |
| 16.1-18.0                                 | 400-450                                   |                  |       | x      |       |
| 18.1-21.0                                 | 450-530                                   |                  |       |        | x     |

**6 - Folding Wheelchair axle plate size** - For Folding Wheelchair frames please measure the axle plate width as shown on the pictures below and choose the correct bracket size on the order form. If the distance measured does not fit in the min to max measurements mentioned in the table below means that the R90 does not fit this specific wheelchair (NoGo).



| AXLE PLATE<br>SIZE<br>(in.) | AXLE PLATE<br>SIZE<br>(mm.) | AXLE PLATE ADAPTER |        |       |
|-----------------------------|-----------------------------|--------------------|--------|-------|
|                             |                             | SMALL              | MEDIUM | LARGE |
| 1.0-1.5                     | 25-38                       | x                  |        |       |
| 1.5-2.0                     | 38-50                       |                    | x      |       |
| 2.0-2.25                    | 50-60                       |                    |        | x     |