

# PARAVAN Dockingstation

## User Manual

User Manual/Dockingstation V1.1



# The PARAVAN Docking Station User Manual

## for securing your wheelchair perfectly in your vehicle

### 1. Introduction

This system was developed to connect your PARAVAN wheelchair securely to the vehicle. The following document gives you insight into the way the PARAVAN docking station works.

#### **CAUTION!**

**PLEASE READ THROUGH THIS USER MANUAL CAREFULLY - AND ESPECIALLY THE NOTES  
FRAMED IN RED - AND FAMILIARISE YOURSELF WITH THE FUNCTIONS OF THE SYSTEM  
BEFORE EMBARKING ON YOUR FIRST DRIVE!  
PARAVAN GMBH ASSUMES NO LIABILITY FOR DAMAGE YOU INCUR FROM IGNORING THIS  
MANUAL OR FROM MISUSE OF THE SYSTEM!**

## 2. Technical Data

### 2.1. Environmental conditions

**On-board power supply:** +10VDC ... +16VDC

**Temperature range:** -40°C ... +85°C

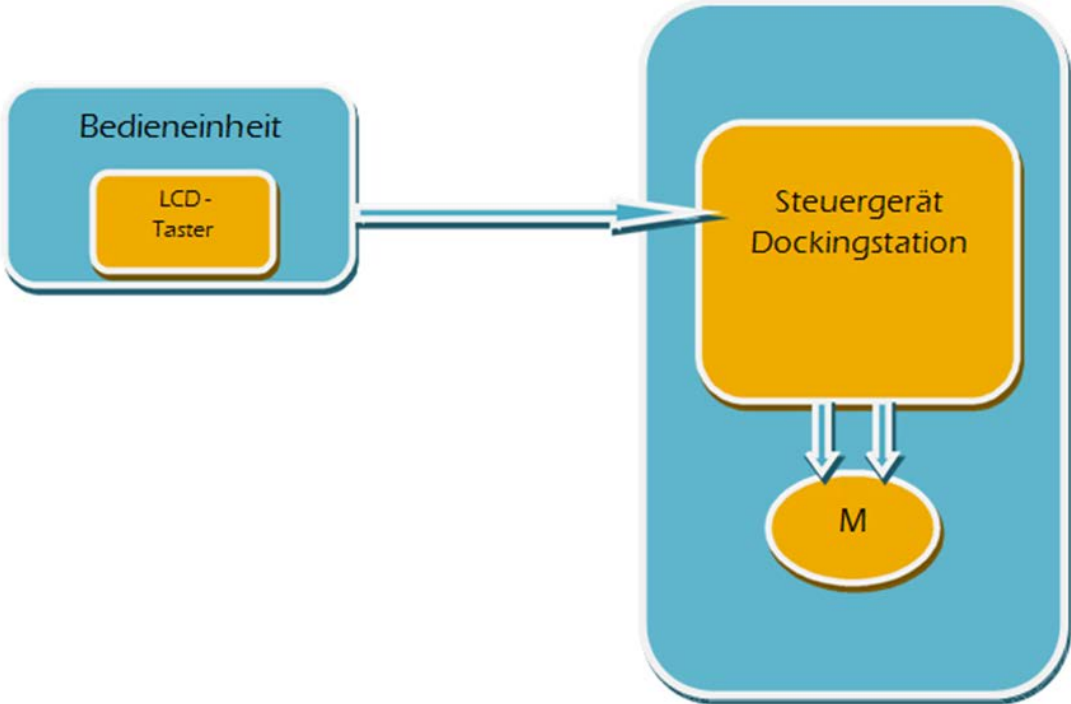


Docking station (mechanics)



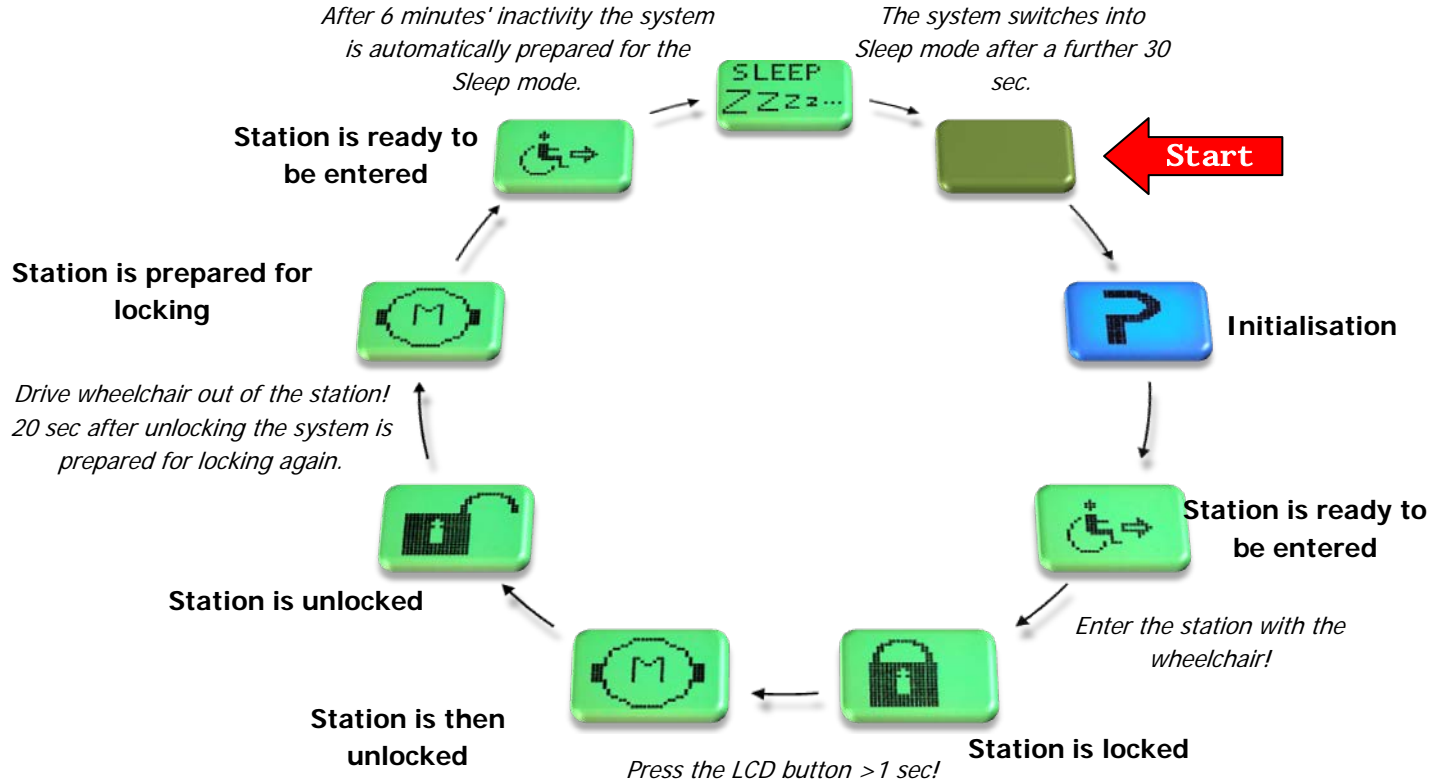
Control unit

## 2.2. Block wiring diagram



### 3. Operation

#### 3.1. Flow chart



### 3.2. Sleep/Rest mode

The system has a so-called "Sleep mode" which helps take the burden off the vehicle battery.

The Sleep mode becomes active under the following conditions:

- Door closed
- LCD button on the control unit has not been pressed for at least 6 minutes<sup>1</sup>

You can read the status of the system on the control button display at any time:



As depicted above, when the device goes into Sleep mode to begin with for around 30 seconds you receive notification of the impending shutdown. The system is prepared for Sleep mode during this phase (display not yet extinguished). However, you can return the system to the normal state at any time by briefly pressing the button.

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<sup>1</sup> This time can be adapted to the specific customer and may therefore vary.

The previous illustration shows the transition into the Sleep mode with a retracted wheelchair. The following illustration shows the case without a wheelchair having retracted.

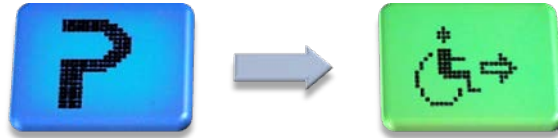


### 3.3. Regular operation

This refers to states and processes as they are intended by the system. They are shown on the display with a green - and for initialisation - with a blue background.

#### 3.3.1. How to proceed when retracting

You open the vehicle door through which you enter the vehicle. The system hereby starts the docking station out of the so-called "Sleep mode" and you see the following graphic representation on the LCD button of the docking station control unit:



Attention must be paid that the "Retract wheelchair" icon is displayed as depicted in the above illustration. If this is not the case, you must wait 20 seconds until the docking station has prepared itself for a locking process.

If a wheelchair enters the docking station now, the following icons are displayed to you one after the other:



If you have approached the docking station at the right angle and at the right place and have already entered it a bit, it will be displayed to you by means of the middle icon in the above illustration ("Unlocked"). From now on you must simply drive straight ahead until your wheelchair has been firmly locked in. At this juncture it makes sense to move the wheelchair in the front position towards the left and right to guarantee that both bolts of the docking station have locked in place in the wheelchair.



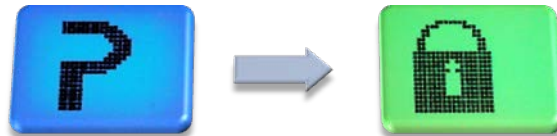
## **CAUTION!**

**EACH TIME BEFORE YOU DEPART MAKE SURE THAT YOU HAVE ENTERED THE DOCKING STATION COMPLETELY! CHECK THAT YOUR WHEELCHAIR FITS FIRMLY IN THE STATION BY MOVING IT BACKWARDS AND FORWARDS, AND DO NOT RELY EXCLUSIVELY ON THE DISPLAY ON THE LCD BUTTON!  
ONLY WHEN YOU HAVE CLEARLY HEARD IT LOCK IN PLACE AND THE WHEELCHAIR CANNOT BE MOVED ANYMORE, ARE YOU CONNECTED SECURELY WITH THE VEHICLE.**

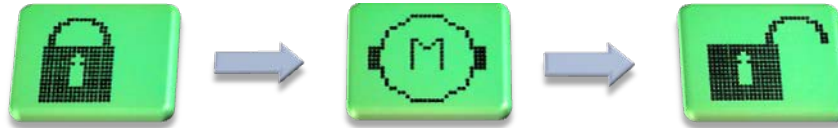
### **3rd3.2.How to proceed when moving out**

For example, when the journey ends, first switch off the vehicle motor and disable the ignition.

Now open doors (or hold down the button on the docking station control unit for at least 1 second). The system awakens from Sleep mode and in turn it shows you the following displays on the control unit:



To release the wheelchair out of the docking station, now keep the control button pressed (again) for at least 1 second. The safety bolts on the station are retracted, enabling the wheelchair to be moved out.



You must pay attention that you do not move your wheelchair until the display shows "Unlocked". If attention is not paid to this, the docking-station bolts may be damaged.

#### Note

**The bolts are kept in the retracted state for approximately 20 seconds after reaching the final stop. During this time it is possible for the wheelchair to exit the station. When this time elapses the bolts automatically return to their original position. The docking station can then be re-entered.**

### 3.4. Irregular operation

These states and proceedings originate from an operating error. They are emphasised by a yellow background on the display.

#### 3rd4.1. Attempting to open while ignition is switched on



If you attempt to open the docking station with the ignition active or while in motion, this icon appears with a yellow background on the display and an audible beep sounds as long as you keep pressing the button.

#### Note

**During "Ignition active" the station cannot be opened electrically in the usual way. However, emergency unlocking is triggered after the button has been pressed for 10 seconds! This limitation is for your safety!**

#### 3.4.2. No wheelchair entered



Try opening the docking station without a wheelchair having entered and this icon appears in the display with a yellow background and an audible beep.

### Note

**The station cannot be unlocked electrically as normal as long as no wheelchair is in it. This serves the purpose of protecting you from injury in case of inadvertent activation as well as minimising the energy consumption of the system!**

### 3rd4.3.Entering the wheelchair with the ignition active

If you enter the docking station with you wheelchair while the ignition is switched on, a beep sounds. This does not go out until you have entered completely.

### Note

**Before you start your vehicle you must make sure that the docking station is locked and your wheelchair is firmly connected to the vehicle!**

## 4. Charging function

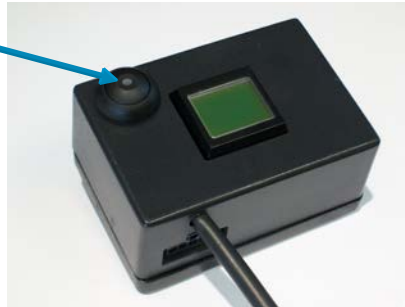
The docking station can be equipped with a wheelchair-charging function as an option. For the batteries in your wheelchair to be charged while the car is being driven, this charge function must be enabled. To enable it is sufficient to press on the button next to the display of your control unit. This button thereafter shines yellow as acknowledgement.

The charging function can only be enabled when the ignition is switched on and should only be used with the engine running.

### Note





**To avoid reducing the service life of your wheelchair batteries unnecessarily, the charging function should only be enabled if you intend to drive your vehicle for at least one hour.**

Button for enabling  
the charging function



## 5. Troubleshooting

If faults occur in the system, they are depicted with a red background in the display. In the following we wish to provide you with approaches to problems which may assist when an error has happened:

Event	Icon	Effect	Measure
<b><i>System undervoltage</i></b>		It is impossible to lock the station	<i><u>DON'T</u> retract the wheelchair! Check the car battery and supply lines of the docking station (or have them checked)</i>
<b><i>Critical undervoltage</i></b>		Only very restricted operation is possible	<i><u>DON'T</u> retract the wheelchair! Check the car battery and supply lines of the docking station (or have them checked)</i>
<b><i>System overvoltage</i></b>		Electrical operation is impossible	<i><u>DON'T</u> retract the wheelchair! Check the battery or on-board power supply of the vehicle (or have it checked)</i>
<b><i>Communication / Position error</i></b>		Faulty or restricted operation	<i>Perform emergency release with the vehicle standing still or contact PARAVAN GmbH</i>

## Note

**If a fault has occurred, or the system cannot be unlocked normally, it can be emergency-released electrically at any time!**

For this purpose the LCD button must be pressed for at least 20 seconds. From this moment on the engine is energised in the "Open" direction until the LCD button is released again. The display then shows the "Unlocked" icon alternately on a blue and a red background. When the system has released it there are 20 seconds left to drive the wheelchair out. The system is re-initialised thereafter. If an error message is still displayed after this measure, please be sure to contact PARAVAN GmbH.

If the system cannot be activated even though the button has been pushed, and therefore nothing is displayed to you, please have the docking-station protection checked. If this is unsuccessful please contact PARAVAN GmbH.

## CAUTION!

**ON NO ACCOUNT MAY EMERGENCY RELEASE OR REINITIALISATION BE CARRIED OUT WHEN DRIVING!  
IF THIS IS DISREGARDED THERE IS A RISK OF MORTAL DANGER!**

Even in the case of a complete electrical malfunction, the system can release the wheelchair from the docking station at any time. Regarding this, please read the next chapter!

## 6. Mechanical operation

### CAUTION!

**MECHANICAL OPERATION IS ONLY POSSIBLE WITH THE HELP OF A SECOND PERSON.  
ON NO ACCOUNT MAY YOU USE THE RELEASE LEVER WHILE DRIVING!  
IF THIS IS DISREGARDED THERE IS A RISK OF MORTAL DANGER!**

If you cannot unlock the docking station by electrical means or if your passenger docking station has no electrical equipment, your wheelchair can be released by mechanical means.

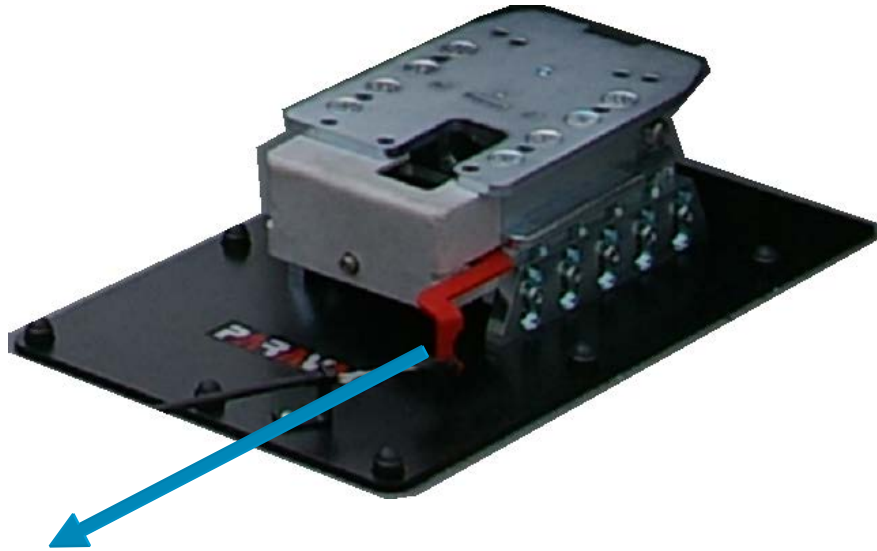
Each docking station is equipped with a red lever for this purpose. This must be pulled all the way to the stop in the direction in which the vehicle is driving for release to take place. As long as the lever is kept in this position it is possible to drive the wheelchair out of the station.

If you lock the wheelchair mechanically, your escort must ensure that it fits firmly in the station. This should be checked in two places:

- From the back: Is the loading device closed?
- From the front: Can the lever for mechanical release be moved in the release direction maximally 5 mm without any tangible resistance?

When locked it must be impossible to move the wheelchair. Always check this before a drive!





Movement of the pull lever for mechanical release

## **7. Notes on care:**

Once the function has been established and is stable, the bolts and rails should be treated with lubricant to minimise wear. Attention must be paid that a product is chosen which is compatible with plastic. Silicone or teflon spray can be used; on NO account may OIL or GREASE be applied! If deposits of old lubricant and dirt have formed in the places concerned, they must be cleaned first.

## 8. Contact and Service

Dear PARAVAN Customer,

It goes without saying that we develop our products in compliance with the highest standards in the automotive industry; however, unfortunately no system developed by man is 100% fail-safe.

If you suffer such a situation, or if you have questions or criticism regarding our products or this manual, please contact our qualified Service personnel at any time.

You can reach your contact for wheelchair systems **24 hours a day and 7 days a week** at this telephone number:

**+49 (0) 175 / 57 88 31 4**

We wish you great pleasure with our excellent products and enjoyable driving at all times!

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