



Yes, You Can.®



Invacare[®] REM 41 *Tray/centre joystick*

*Remote
User manual*



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1 Introduction

This supplementary operating manual is intended to acquaint you with the functions of the "Action Control System" remote for the table or centre joystick.

The operating manual contains a description of:

- control elements
 - display elements
 - control functions
- and information about caring for the remote.



CAUTION!

This operating manual is only valid in connection with the operating manual supplied with your mobility aid.

- *You should read the operating manual supplied with your mobility aid thoroughly.*
 - *Damaged and errors caused by the nonobservance of the operating manual are excluded from the guarantee.*
 - *Please contact your INVACARE specialist dealer if you have questions or if anything is unclear.*
-

1.1 Important symbols in this manual



CAUTION!

This symbol warns you of danger!

- *Always follow the instructions to avoid injury to the user or damage to the product!*
-



NOTE:

This symbol identifies general information which is intended to simplify working with your product and which refers to special functions.

2 Fittings

2.1 The remote

The remote is used for checking and controlling the mobility aid functions.

It is divided into the following sections (Figures 1 & 2): **Fig. 1: Remote area**

- Operating and control panel (1)
- Drive lever (2)
- Charging socket (3)
- Socket for BUS cable(4)
- Socket for programming device (5)

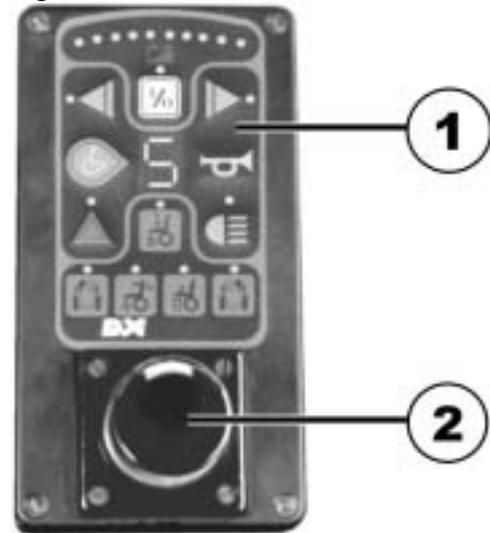


Fig. 2:

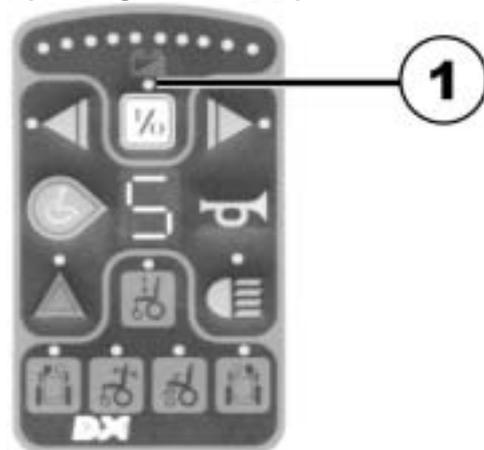


In addition to checking and control, the ACS remote (ACS = Action Control System) carries out the following monitoring functions:

- monitoring of drive system
- monitoring of power supply

If there is a fault or an electrical equipment component breaks down, the fault will be shown by the status display (1) blinking.

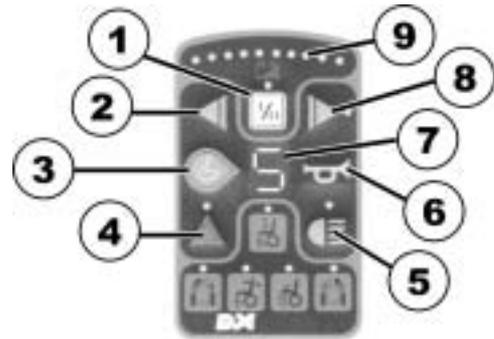
Operating and control panel



2.2 Operating and control panel

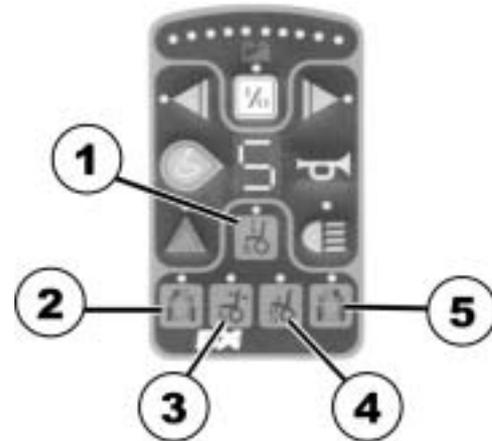
2.2.1 Vehicle functions

- 1) ON/OFF
- 2) Left-hand indicator
- 3) Switching drive mode
- 4) Hazard lamps
- 5) Light
- 6) Signal horn
- 7) Drive mode display
- 8) Right-hand indicator
- 9) Battery charge display



2.2.2 Electronic adjustment

- 1) Lifter
- 2) Legrest, left
- 3) Backrest adjustment
- 4) Seat inclination adjustment
- 5) Legrest, right

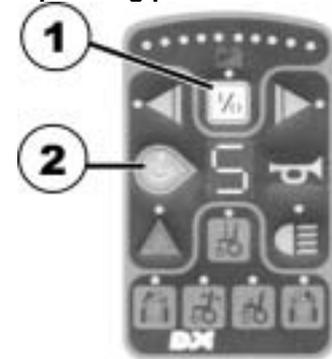


3 Quick reference

- Unlock the remote lock.

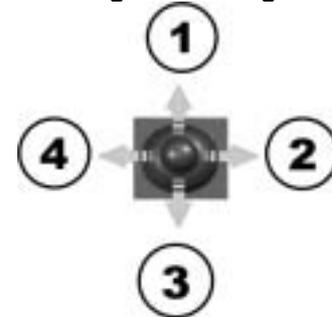
- Switch the remote on with the ON/OFF (1) button.
- Use the drive mode switching (2) to select the required drive level.

Operating panel



- Use the drive lever to make all steering and driving commands:
 - 1) forward
 - 2) right
 - 3) backward
 - 4) left

Steering and driving



CAUTION!

Tipping hazard

- *Avoid sudden or jerky drive lever movements.*
-

4 Displays on the operating and control panel

4.1 Battery charging display

The battery charging display shows you the current battery charging condition.

It is divided into 10 colour-coded diodes (3 x red, 4 x yellow, 3x green).

If an individual diode goes out, this shows the reduced battery charging condition and therefore the reducing driving range of the mobility device.



Display meanings:

All diodes illuminate

full driving range = batteries completely charged

three red diodes illuminate

reduced driving range = recharge batteries at end of journey

three red diodes blinking

extremely low driving range = recharge batteries as soon as possible

two red diodes blinking
battery reserve = charge batteries immediately!

The driving range including battery reserve is extremely low. After a certain drive time the electronics system switches the drive off automatically and brings the mobility device to a standstill = overdischarge protection.



NOTE:

The possible driving range of your mobility device is dependent on the condition of the route (flat or hilly) and your driving style.

4.2 Drive mode and drive mode display

The programmable drive mode summarises the most important drive characteristics such as the mobility device forward, backward and bend speed.

The drive mode has 5 stages as set at the works:

Stage 1 = very slow drive behaviour
reduced maximum driving speed

to

Stage 5 = dynamic drive behaviour
highest possible maximum driving speed

The drive mode display (1) shows which stage you are currently in.





NOTE:

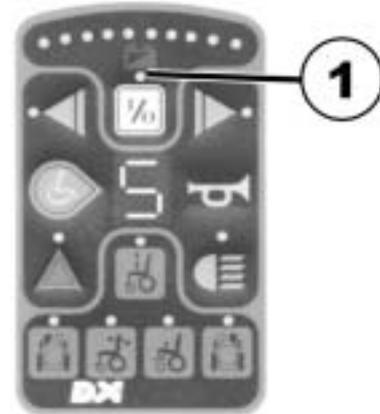
The ACS controller electronics is programmed with standard values in our works.
Your INVACARE® dealer can carry out programming tailored to fit your requirements.

4.3 Displaying status information

The ON/OFF LED is designed as an error message display = status display (1)

If this display blinks, it means there is a fault in the electric equipment.

The cause of the fault is displayed through the use of a blink code. (Refer to "Error code list" for error codes).



5 Switches on the operating and control panel

5.1 ON/OFF button

You can use this button to switch the entire electronics and therefore the mobility device ON or OFF.

Switching on:

- Press the ON/OFF button (1) once briefly.
The following displays will illuminate:
 - green LED above switch character
 - the battery charging display shows the current charging status
 - the drive mode display shows the drive level you have set

Switching off:

- Press the ON/OFF button (1) again.
 - The LED, battery charging display and drive mode display go out.



NOTE:

If the mobility device cannot be switched on, or if it is not ready to drive after switching on, please check:

- whether the lock has been locked (see "Activating / deactivating the immobilizer")
 - whether the status display is blinking (see "Error code list" for error codes).
-

5.2 Activating / deactivating the immobilizer

Activating the immobilizer

- Switch on the remote.
- Use the end of the magnetic key (Invacare® Logo) to move over the sensor area (1) on the remote (key symbol). The horn will sound briefly once. The remote shuts down automatically. The immobilizer is activated.

Deactivating the immobilizer

- Switch on the remote. The status display will flash red slowly.
- Use the end of the magnetic key (Invacare® Logo) to move over the sensor area (1) on the remote (key symbol).

Immobilizer



Magnetic key

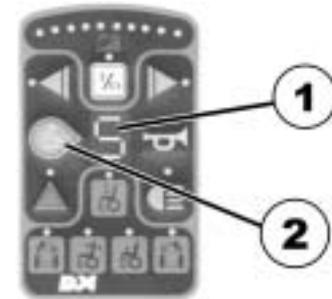


5.3 Drive mode switching

The selection of drive modes takes place using the keypad (2) located to the left of the drive mode display (1).

Switching between drive modes 1 and 5:

- Press the keypad (2) as often as required to select the required drive mode.



NOTE:

The drive mode can be scrolled - the display continues from drive mode 5 to drive mode 1.

5.4 Indicators

The buttons for the right-hand (1) and left-hand (2) indicators are located on the upper section of the remote.

Display:

Green LEDs (3) to the side of the buttons.

Switching the indicators on:

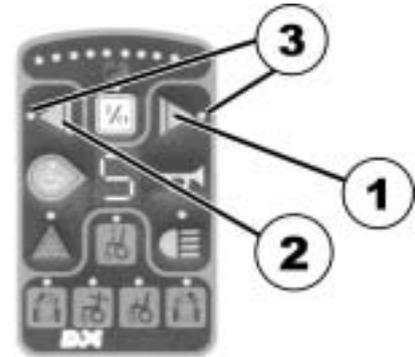
- Press the button for the required indicator direction.
The appropriate LED blinks.

Changing the indicator direction:

- Press the button for the other indicator direction.
You can change the indicator direction while the indicator is blinking.

Switching the indicators off:

- Press the indicator button on the side which is currently blinking.
The LED will go out.



CAUTION:

If an indicator bulb is defective, this is displayed by rapid blinking of the front indicators (only on TÜV versions).

5.5 Hazard lamps

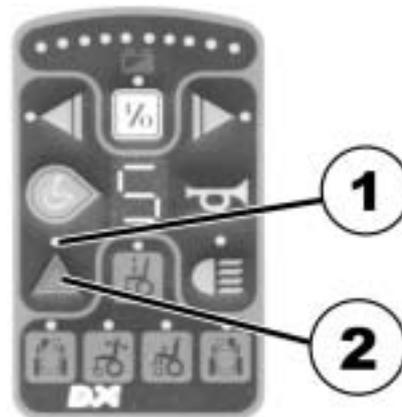
Display:

Red LED (1) above button (2).

Switching the hazard lamps on:

- Switch the remote on.
- Press the hazard lamp button (2) once.

The LED (1) will blink.



NOTE:

If you wish to leave the mobility device with the hazard lamps blinking, you can now switch the remote off and lock it.

Switching the hazard lamps off:

- Switch the remote on.
- Press the hazard lamp button (2) twice.

The LED (1) will go out.



NOTE:

- If the remote is not switched off, you only need to press the button once to switch the hazard lamps off.
 - If you want to stop the status display blinking, you can do so by switching the remote off and on again.
-

5.6 Lighting

Display:

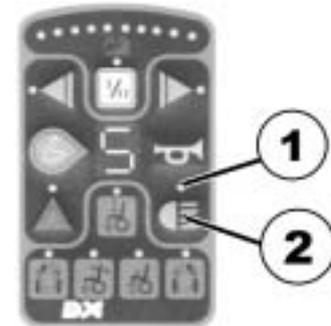
Green LED (1) above button (2).

Switching the lighting on:

- Press the lighting button (2) once.
The LED (1) will illuminate.

Switching the lighting off:

- Press the lighting button (2) once.
The LED (1) will go out.



5.7 Horn

- Press the button (1) to activate the signal horn. This will remain active as long as you keep the button pressed.



6 Joystick

6.1 General info

All steering and driving commands are entered using the drive lever. **Drive lever**

The driving speed and steering deflection is dependent on the deflection of the drive lever. Regulation of the speed and steering deflection is infinitely variable.

Complete drive lever deflection = Highest possible speed for selected drive mode or largest possible steering deflection.



6.2 Driving safety

You should always observe the driving and safety information contained in your mobility device operating manual in addition to this information.



CAUTION! Tipping hazard!

- *Avoid sudden and jerky drive lever movements.*
-



CAUTION! Accident hazard!

- *Avoid sudden changes to your drive direction.*
-



CAUTION! Accident hazard!

- *Drive down inclines or hills with maximum 2/3 maximum speed.*
-



CAUTION! Tipping hazard!

- *Only ever drive up inclines with the backrest upright and the lowest possible seat inclination.*
-

6.3 Steering and driving commands

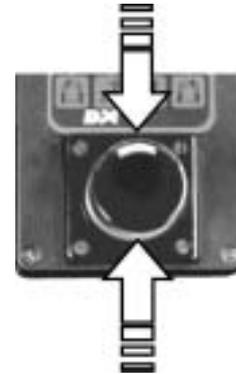
- | | |
|--------------------|---|
| Driving forwards | = Move the drive lever forwards (1).
The deflection of the drive lever determines your driving speed. |
| Driving in reverse | = Pull the drive lever to the rear (2).
The deflection of the drive lever determines your driving speed. |

Forward and reverse driving



Braking = Return the drive lever to the centre position.

Braking



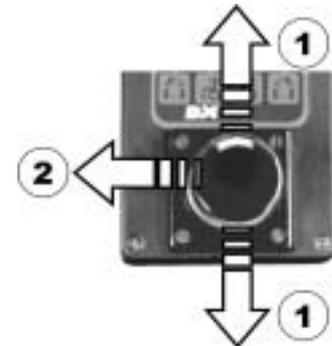
NOTE:

If you let go of the drive lever, it will automatically return to the centre position. The mobility device will then brake automatically.

Driving around bends = While you are driving forwards or backwards (1), move the drive lever to the required drive direction (2). The deflection of the drive lever determines your steering deflection (bend radius).

Turning on the spot = Move the drive lever to the required drive direction WITHOUT driving forwards or backwards.
(not available on G40)

Driving around bends



7 Connection sockets

All connection sockets are located on the front of the remote.

- (1) Charging socket
- (2) Socket for BUS cable
- (3) Programming socket



7.1 Charging socket

The charging socket is used to connect the battery charger. A cap safeguards it against dirt and water entry.



7.2 Programming socket

The socket is used to connect a data transfer cable to a PC or the programming device.

Special hardware and software is required for programming the remote or changing the drive modes.



NOTE:

The ACS controller electronics is programmed with standard values in our works. Your INVACARE® dealer can carry out programming tailored to fit your requirements.

7.3 Connection socket for BUS cable (supply cable)

The bus cable (2) is used to provide power to the remote and also for data transport between the remote and the power module.

The connecting cable plug is secured in the socket with a locking device (1).

The locking device must be pressed before the plug can be removed.



8 Operation of electrically adjustable options

The electrically adjustable options include the seat, backrest and legrest adjustment in addition to the lifter.

Not every wheelchair has all the options. You can only select the options that are actually available on the wheelchair.

Selection of the options is made using the buttons on the operating and control panel (1).

The LEDs above the button symbols show that the selected component can be adjusted.



NOTE:

The bar in the drive mode display only appears if setting mode is active.

The components are adjusted using the drive lever on the remote.

A remote control independent of the remote on the mobility device, which can operate electrical components, is available as an option.



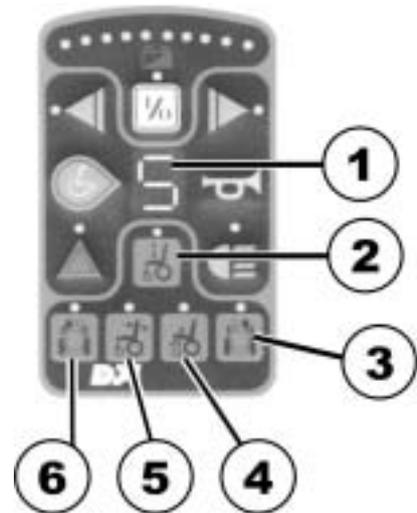
Select option:

- Press the keypad with the appropriate symbol.

The LEDs above the symbol then illuminate.

The drive mode display shows bars.

- (1) Drive mode display
- (2) Lifter
- (3) Legrest, right
- (4) Seat adjustment
- (5) Backrest adjustment
- (6) Legrest, left



Adjusting options:

- Adjust the selected option by moving the drive lever forwards or backwards.

Drive lever forwards = raise option (1)

Drive lever to rear = lower option (2)



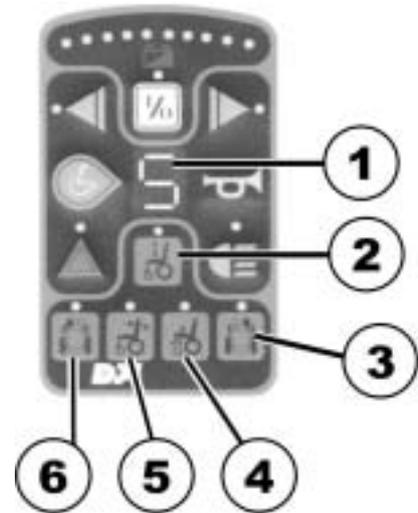
Switching back to drive mode:

- Press the keypad with the appropriate symbol again.

The LEDs above the symbol then goes out.

The drive mode display shows the drive mode selected.

- (1) Drive mode display
- (2) Lifter
- (3) Legrest, right
- (4) Seat adjustment
- (5) Backrest adjustment
- (6) Legrest, left



9 Electrical seat, backrest and legrest adjustment with the remote control

All adjustable components are shown on the remote control with symbols (see photo).

Buttons for adjusting the components are located next to the symbols.

Left-hand button row = raise option (1)

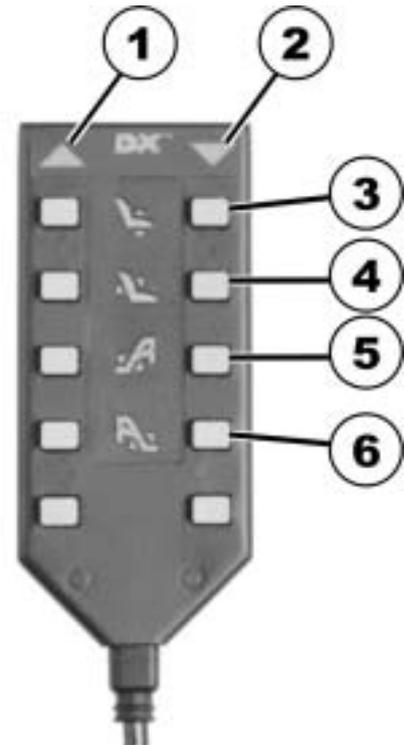
Right-hand button row =lower option (2)

(3) Seat inclination

(4) Backrest

(5) Legrest, left

(6) Legrest, right



10 Battery, charging and maintenance

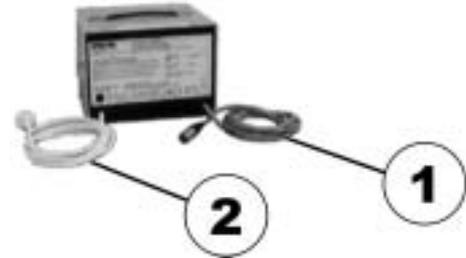
10.1 Notes on charging batteries

Always observe the battery charger operating manual and the information printed on the front and back of the battery charger.

Batteries can be charged overnight because the battery charger is fitted with automatic switch-off. This prevents the batteries being overcharged.

(1) Charging cable

(2) Power supply



10.2 Charging the batteries

- First plug the battery charger charging plug (1) into the remote charging socket (2).
- Now you can plug the battery charger into the mains.

Battery charger displays:

Red and yellow LEDs illuminate =
start of charging process.

Red and green LEDs illuminate =
end of charging process.



After the batteries have been charged:

- First disconnect the battery charger from the mains.
- Now disconnect the charging plug from the remote charging socket.



CAUTION:

It is imperative that you follow the connection sequence described above.



CAUTION:

Always remove the charging plug from the remote charging socket after every charging session.

10.3 Battery maintenance

The batteries in your mobility device must be charged every month if the device is at a standstill for longer periods (4 weeks or more).

This ensures that the full charge is retained and that the batteries are not damaged by self-discharge.

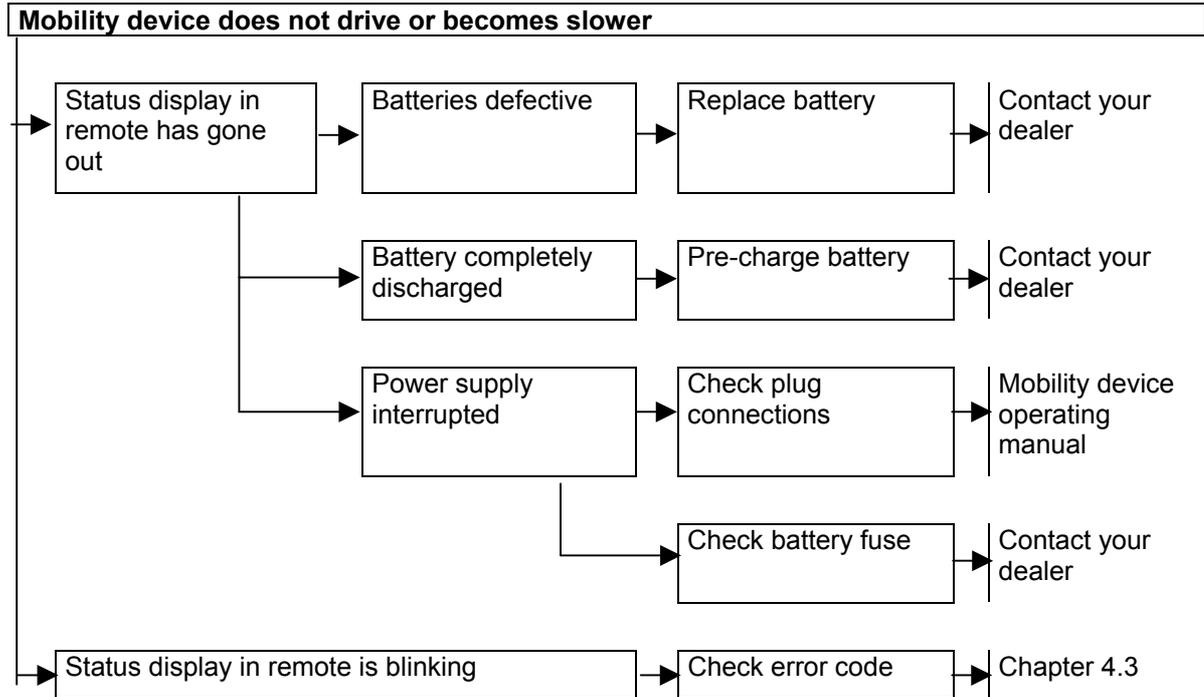
11 Cleaning the remote

When cleaning the remote, please note the following points:

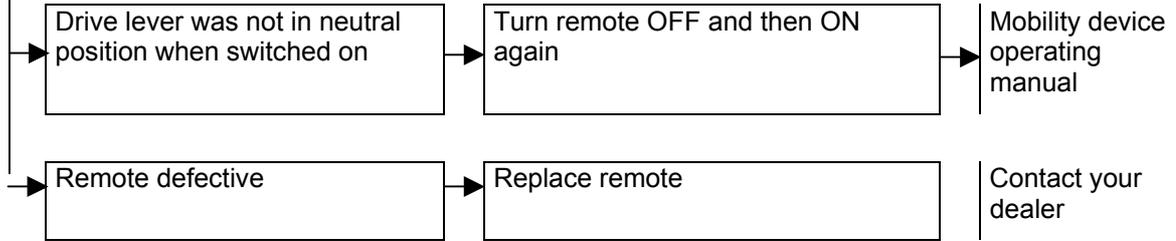
- Only clean the remote using a moist cloth and gentle cleansing agents.
- Only ever use abrasive-free cleansing agents.
- Never subject the remote to direct water jets.
- Never use a high-pressure cleaner.



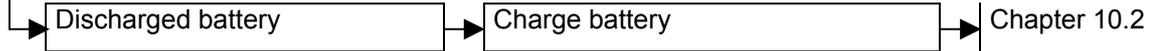
12 Troubleshooting



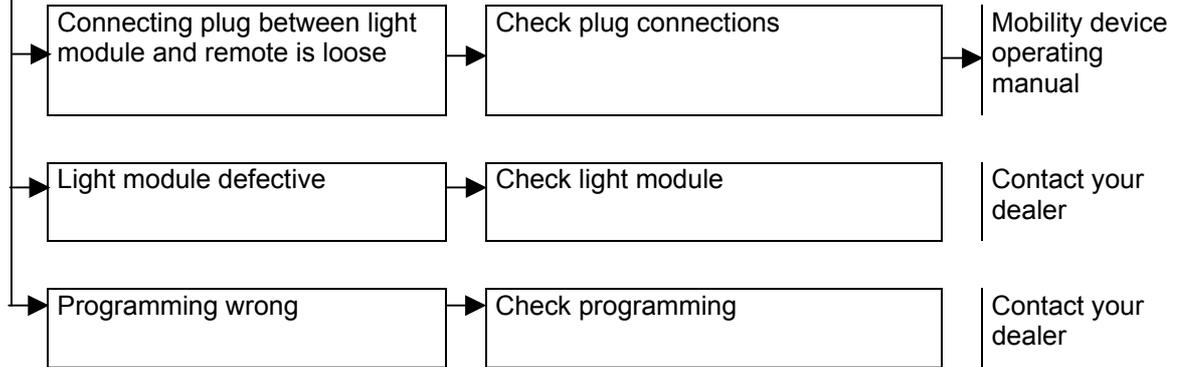
Status display blinking, after 4 seconds the point in the drive mode display blinks as well



Red LED in battery charging display and status display is blinking, drive mode display shows bars



Hazard lamp display is blinking (only for 10 km/h TÜV version)



13 Error code list

Before assessing the error codes, carry out the following test:

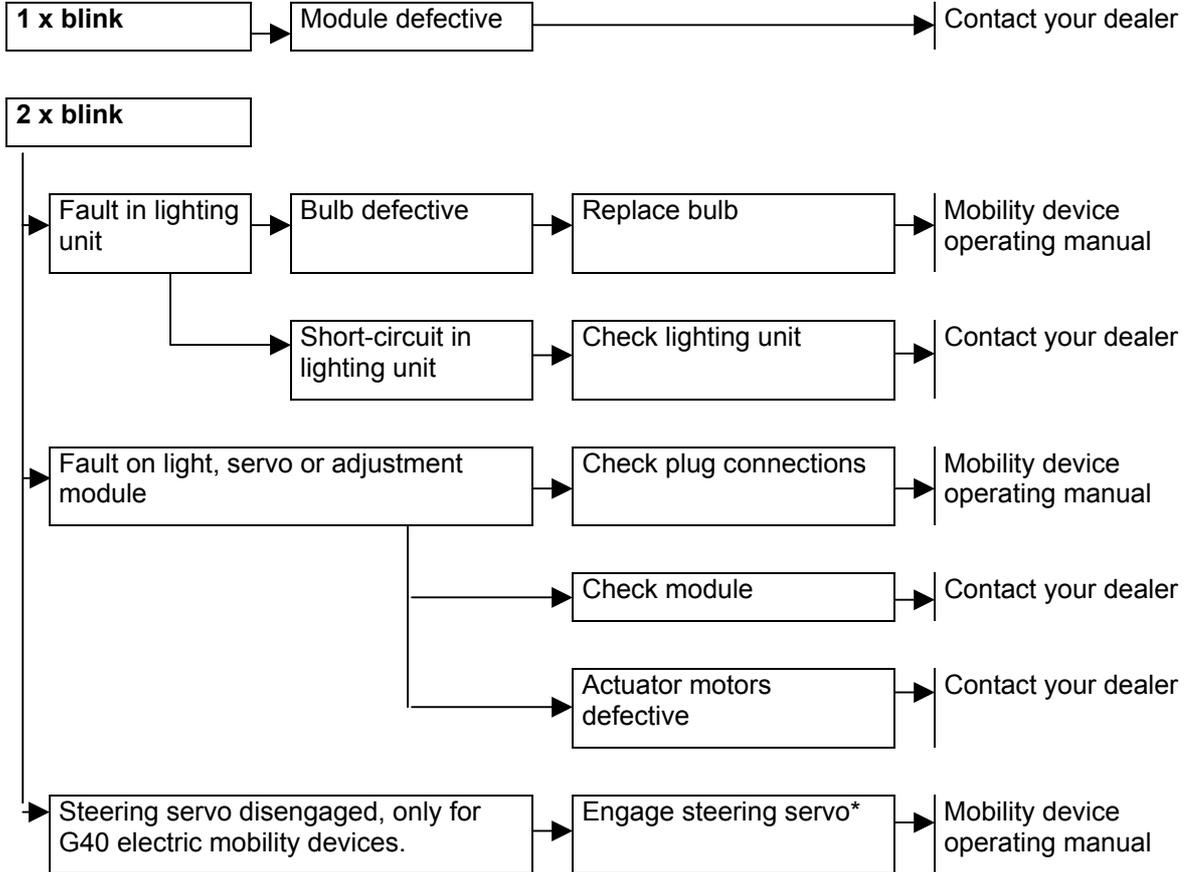
- Turn the remote on and off several times.

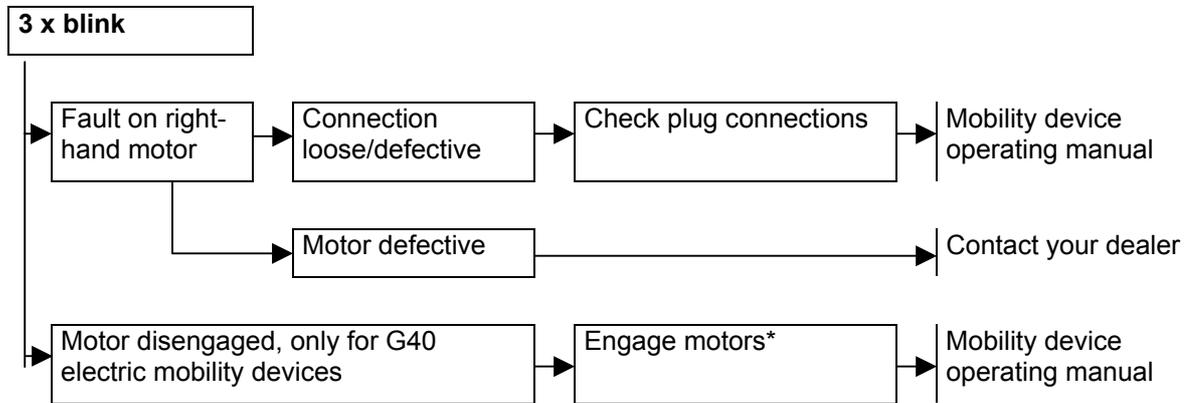
Wait approx. 15 seconds before switching on.

The test sequence checks whether the fault can be repaired automatically by the electronics system, and the status display stops blinking.

If this is not the case, use the following table of blink codes to localise the fault.

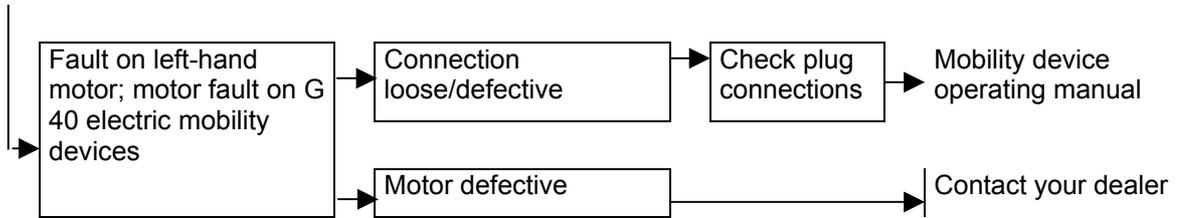
Remote status display blink codes



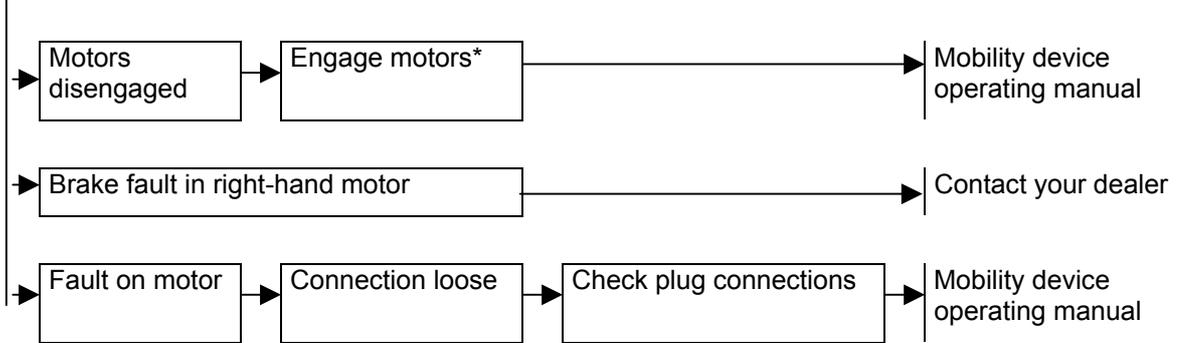


* Deactivate blink code by switching off and then on again.

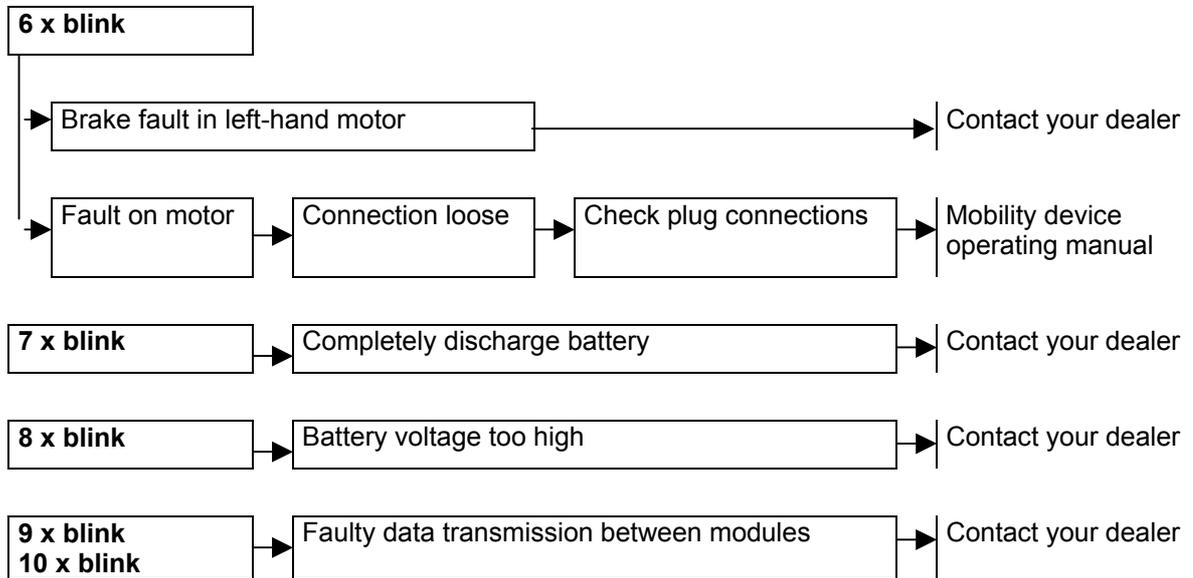
4 x blink



5 x blink



* Deactivate blink code by switching off and then on again.



* Deactivate blink code by switching off and then on again.

11 x blink

Overloaded
motors

Turn remote OFF and then ON again

Mobility device
operating manual

12 x blink

Compatibility problems between modules

Contact your dealer

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English