



# Invacare® **A-Series**

## Remote User manual

CE

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# 1 The A-Series remote

# 1.1 Remote construction

#### Top side (standard)

- 1) Battery charge display
- 2) ON/OFF key
- 3) Driving speed display
- 4) Decrease driving speed
- 5) Horn
- 6) Status display
- 7) Increase driving speed
- 8) Drive lever



#### Bottom

1) Combined charging socket / programming socket



# 1.2 Battery charge display

- All diodes illuminate: maximum driving range!
- Only yellow and red diodes illuminate: Decreased driving range! Charge batteries before starting long journeys!
- Only red diodes illuminate: Very low driving range! Charge the batteries as soon as possible!

#### Battery charge display



• Only one red diode blinks: Battery reserve = charge batteries immediately!



CAUTION: Danger of battery destruction! After a certain drive time on reserve battery power the electronics system switches the drive off automatically and the wheelchair will be immobile. If you wait a few minutes, the batteries "recover" enough for the electronic system to be switched on again. You can continue driving briefly until the mobility aid stops again. If you repeat this procedure a few times the batteries will be destroyed!

- Always ensure that the batteries are charged sufficiently for the journey you are planning!
- If possible, avoid running the batteries empty!

# 1.3 Flexible speed settings

The A-series remote has two modes.

- **5-gear mode** incremental adaptation of maximum speed.
- **VSP mode** both incremental and infinitely variable adaptation of maximum speed.

The user can change between the two modes by simultaneously pressing and holding (approx. 2 seconds) the "Increase speed" and "Decrease speed" keys whilst the electronics is switched on. The control system beeps briefly once once the mode has changed.

#### 1.3.1 5-gear mode

If you press the "Increase speed" or "Decrease speed" Keys whilst the electronics is in "5-gear mode", the maximum speed of the mobility aid will be changed between 20% and 100% in stages of 20%.

#### 1.3.2 VSP mode (Variable Speed Programming)

The maximum speed can still be changed incrementally if the electronics is in "VSP mode".

The maximum speed can also be variably changed by pressing and holding down the "Increase speed" or "Decrease speed" keys, which enables almost any speed setting. This can be especially useful in adapting the speed of the mobility aid to the walking speed of an attendant.

The maximum speed of the wheelchair can be set by the user to match his personal requirements and the surrounding conditions. The currently set maximum speed is displayed by the speed display, and can be adjusted using the "Increase speed" (2) and "Decrease speed" (1) keys.

1.3.4 Setting the maximum speed

#### 1.3.3 Speed display

The speed display shows the actual speed of the mobility aid compared with the maximum possible speed. The LED on the right shows the maximum speed currently available, which can be changed by pressing the "Increase speed" or "Decrease speed" keys.





# 1.4 Status display

The status display is used for showing error messages. Error codes see Chapt. "Error Codes and Diagnostic Codes", page16 for operation of the electrical leg supports.

# 1.5 Activating / deactivating the drive disabler

#### Activating the drive disabler

• Press the ON/OFF button (1) and hold it down for 4 seconds while the remote is switched on. The remote switches off immediately. The battery charge display illuminates briefly after 4 seconds and the horn sounds twice. The drive disabler is activated.

#### Deactivating the drive disabler

- Switch the remote on using the ON/OFF key while the drive disabler is activated. The battery charge display diodes illuminate once briefly from left to right. After this, a slow countdown is shown from right to left.
- Press the horn button (2) twice before the countdown has finished. You have around 10 seconds to do this. The drive disabler is deactivated.

#### Deactivating





# **1.6** Steering the wheelchair with the remote

- Switch on remote (ON/OFF key). The displays on the remote illuminate. The wheelchair is ready to drive.
- Adjusting the driving speed (keys for adjusting driving speed see section "Remote construction" on page 7).



### Can the electronic system programming be adapted?

The electronic controller is programmed with standard values during manufacture. Your Invacare® dealer can carry out programming tailored to fit your requirements.



# WARNING: Any alteration to the drive programme can influence vehicle handling and the tipping stability of the electric vehicle!

- Alterations to the drive programme may only be carried out by trained Invacare® dealers!
- Invacare® supplies all electric vehicles from the factory with a standard drive programme. Invacare® can only assume a warranty for the safe vehicle handling of the electric vehicle – in particular tipping stability - for this standard drive programme!



#### Will the wheelchair not drive after switching on?

Check the drive-away lock (see chapter "Activating / deactivating the drive disabler" on page 12) and the status bar indicator (see chapter " Status display" on page 12.).

#### **1.6.1** How a wheelchair with "Indirect Steering" reacts to joystick movements.

"Indirect Steering" occurs by individually applying power to the drive wheels, and is found on wheelchairs with front, rear and middle wheel drive.





The further the joystick is moved in a particular direction, the more dynamically the wheelchair reacts.



#### Note:

To brake quickly, simply let go of the joystick. It will then automatically return to the middle position. The wheelchair will brake.

# 1.7 Error diagnosis

If the electronic system shows a failure, please use the following guide to locate the fault.



#### NOTE:

Ensure that the drive electronics system is switched on before starting any diagnosis.

If the status display is OFF:

Check whether the drive electronics system is SWITCHED ON.

Check whether all cables are correctly connected.

Ensure that the batteries are not discharged.

#### If the battery charge display diodes are FLASHING:

Count the number of flashes and then proceed to the next section.

# **1.8 Error Codes and Diagnostic Codes**

| BLINK<br>CODE | Fault                                  | EFFECT        | Comments  |
|---------------|--|---------------|---|
| 1             | User error or drive<br>overloaded      | Stops driving | <ul> <li>Ensure that the joystick is in the neutral central position (release joystick) and switch on again.</li> <li>Drive overloaded. Switch electronics off and on again. If driving power remains restricted, wait a few minutes.</li> </ul>  |
| 2             | Battery error                          | Stops driving | <ul> <li>Check battery and supply cable.</li> <li>Charge batteries. If you switch the wheelchair off for a few minutes, the batteries can often recharge to such an extent that a short run is still possible. You should only do this in emergency, however, because this causes the batteries to become excessively discharged.</li> <li>Replace batteries</li> </ul> |
| 3             | Fault on left-hand motor (M2)          | Stops driving | <ul><li>Check motor cable and connecting plugs.</li><li>Check motor.</li></ul>  |
| 4             | Fault on right-hand motor (M1)         | Stops driving | <ul><li>Check motor cable and connecting plugs.</li><li>Check motor.</li></ul>  |
| 5             | Error on left-hand<br>(M2) wheel lock  | Stops driving | <ul><li>Check cable and connecting plugs.</li><li>Check brake.</li></ul>  |
| 6             | Error on right-hand<br>(M1) wheel lock | Stops driving | <ul><li>Check cable and connecting plugs.</li><li>Check brake.</li></ul>  |

| BLINK<br>CODE | Fault                            | EFFECT        | Comments   |
|---------------|----------------------------------|---------------|--|
| 7             | Error in remote.                 | Stops driving | <ul><li>Check remote bus cable and all connecting plugs.</li><li>Replace remote.</li></ul>               |
| 8             | Error in remote                  | Stops driving | <ul> <li>Check remote bus cable and all connecting plugs.</li> <li>Replace remote.</li> </ul>            |
| 9             | Communication<br>error in system | Stops driving | <ul> <li>Check all cable and connecting plugs in electronics system.</li> <li>Replace remote.</li> </ul> |

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