



Invacare® REM 24 SD

*Remote
Operating Instructions*



How can you get in touch with Invacare®?

If you have any questions or need support, please contact your authorised Invacare® Dealer, who has the necessary know-how and equipment plus the special knowledge concerning your Invacare® product, and can offer you all-round satisfactory service. Should you wish to contact Invacare® directly, you can reach us in Europe at the following addresses and phone numbers.

Invacare® Deutschland GmbH

Kleiststraße 49
32457 Porta Westfalica

Deutschland

☎ (Technische Hotline): 01 80 - 5 26 22 64
Fax (Technische Hotline): 01 80 - 5 26 22 75

Invacare®, SA

c/ Areny, s/n
Poligon Industrial de Celrà
17460 Celrà (Girona)

ESPAÑA

☎ : +34 - (0) 972 - 49 32 00
Fax: +34 - (0) 972 - 49 32 20

Invacare® Ltd

South Road
Bridgend
Mid Glamorgan - CF31-3PY

United Kingdom

☎ (Customer Service): +44 - (0) 1656 - 647 327
Fax (Customer Service): +44 - (0) 1656 - 649 016

Invacare® A/S

Sdr. Ringvej 39
2605 Brøndby

Danmark

☎ (Kundeservice): +45 - (0) 3690 0000
Fax (Kundeservice): +45 - (0) 3690 0001

Invacare® POIRIER

Les Roches
F-37230 Fondettes

France

☎ (Service Après-Vente):+33 - (0) 2 47 - 62 64 66
Fax (Service Après-Vente):+33 - (0) 2 47 - 42 12 24

Invacare Mecc San s.r.l.

Via Dei Pini, 62
I - 36016 Thiene (VI)

ITALIA

☎: +39 - (0) 445-380059
Fax: +39 - (0) 445-380034

Invacare® AS

Grensesvingen 9
0603 Oslo

Norge

☎ (Kundeservice): +47 - 22 57 95 10
Fax (Kundeservice): +47 - 22 57 95 01

Invacare® PORTUGAL Lda

Rua Senhora de Campanhã, 105
4369-001 Porto

PORTUGAL

☎ : +351-225105946
Fax: +351-225105739

Invacare® n.v.

Autobaan 14
8210 Loppem (Brugge)

BELGIUM

☎: +32 (50) 831010
Fax: +32 (50) 831011

Invacare® B.V.

Celsiusstraat 46
NL-6716 BZ Ede

The Netherlands

☎ : +31 - (0) 318 - 69 57 57
Fax: +31 - (0) 318 - 69 57 58

Invacare® AB

Fagerstagatan 9
163 91 Spånga

Sverige

☎ (Kundtjänst): +46 - (0) 8 761 70 90
Fax (Kundtjänst): +46 - (0) 8 761 81 08
sweden@invacare.com

Service**Invacare****JÄRFÄLLA**

☎: +46 - (0) 8 – 621 08 44
Fax: +46 - (0) 8 – 621 08 45
Invacare.jarfalla@swipnet.se

MÖLNDAL

☎: +46 - (0) 31 – 86 36 00
Fax: +46 - (0) 31 – 86 36 06
invacare.goteborg@swipnet.se

LANDSKRONA

☎: +46 - (0) 418 – 285 40
Fax: +46 - (0) 418 – 180 89
invacare.la@swipnet.se

OSKARSHAMN

☎: +46 - (0) 491 – 101 40
Fax: +46 - (0) 491 – 101 80
invacare.O-hamn@swipnet.se

Table of Contents

Chapter		Page
1	The REM 24 SD Remote	5
1.1	Layout of the remote	5
1.2	ON/OFF diode (status display)	8
1.3	Battery charger display	8
1.4	Activating / deactivating the immobilizer	9
1.5	Using the Buddy buttons with the remote	10
1.6	Controlling the wheelchair using the remote	11
1.6.1	How a wheelchair with "Indirect Steering" reacts to joystick movements	12
1.6.2	How a wheelchair with "Direct Steering" reacts to joystick movements	13
1.7	Operating the electric adjustment options	14
1.7.1	Activating adjustment mode	14
1.7.2	Selecting and operating the adjustment option	15
1.7.3	Changing back to driving mode	16
1.8	Error diagnosis	17
1.8.1	Error codes and diagnostic codes	18

1 The REM 24 SD Remote

1.1 Layout of the remote

Upper side

Controls

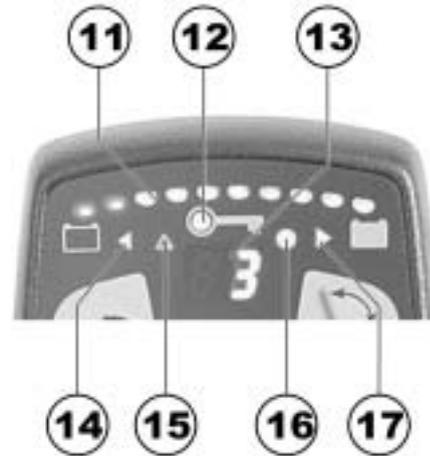
- 1) Immobilizer
- 2) "Activate / scroll through drive mode" button
- 3) Horn
- 4) Left-hand indicator
- 5) Joystick
- 6) "Activate / scroll through adjustment mode" button
- 7) ON/OFF button
- 8) Light
- 9) Right-hand indicator
- 10) Hazard warning signal flasher



Upper side

Displays

- 11) Battery charger display
- 12) Status display (in key symbol)
- 13) Drive mode display
- 14) Left-hand indicator display
- 15) Hazard warning signal flasher display
- 16) Light display
- 17) Right-hand indicator display



Underside

- 1) Charger socket
- 2) Programming socket



Rear panel

- 1) Socket for Buddy button 1 (corresponds to "Activate / scroll through drive mode" button).
- 2) Socket for Buddy button 2 (corresponds to "ON/OFF" button)
- 3) Socket for Buddy button 3 (corresponds to "Activate / scroll through adjustment mode" button).
- 4) Socket for bus cable



1.2 ON/OFF diode (status display)



INFORMATION

The ON/OFF diode (in key symbol) also serves as status or error message display. For error codes please see chapter "**Error codes and diagnostic codes**" on page 18.

1.3 Battery charger display

- All diodes illuminated: **Full range**
- Only red diodes illuminated:
Reduced range
- Both red diodes flashing:
Very low range
- Only one red diode flashing:
Battery on reserve = Charge batteries straight away

Battery charger display



INFORMATION

Protection against total discharge: The electronic system automatically shuts actuation down after a certain travel time on reserve battery and the wheelchair comes to a standstill.

1.4 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



1.5 Using the Buddy buttons with the remote



What is a Buddy button?

A Buddy button is an additional sensing device that can be used to activate a remote function. The sockets for Buddy buttons are to be found at the rear of the remote.

- 1) Socket 1 (corresponds to the "Activate / scroll through drive mode" button).
- 2) Socket 2 (corresponds to the "ON/OFF" button)
- 3) Socket 3 (corresponds to the "Activate / scroll through adjustment mode" button).



1.6 Controlling the wheelchair using the remote

- Switch on the remote (ON/OFF button). The displays on the remote will illuminate. The wheelchair is ready to drive.
- Set the drive level ("drive level" button see "**Layout of the remote**" on page 5).
- Speed stage 1 (slow) to 5 (fast) is shown on the drive level display.



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.

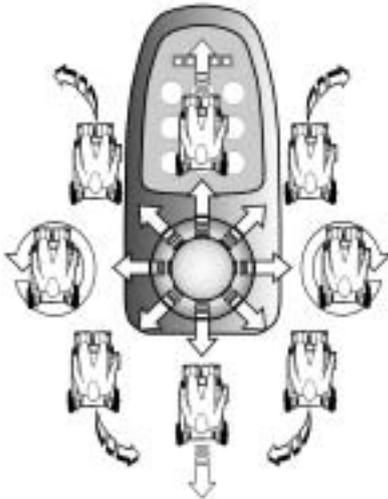


Will the wheelchair not drive after switching on?

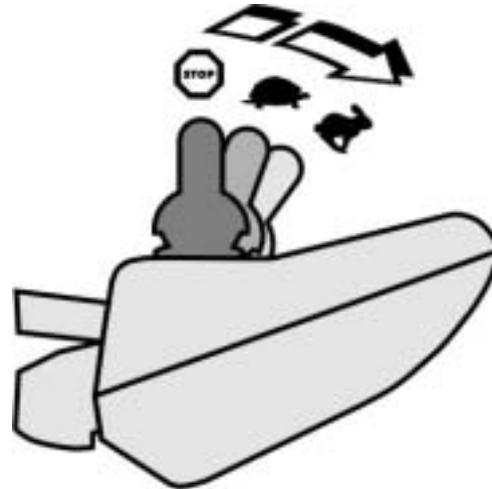
Check the drive-away lock (see chapter "**Activating / deactivating the immobilizer**" on page 9) and the status bar indicator (see chapter "**ON/OFF diode (status display)**" on page 8.).

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.



Travel direction



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

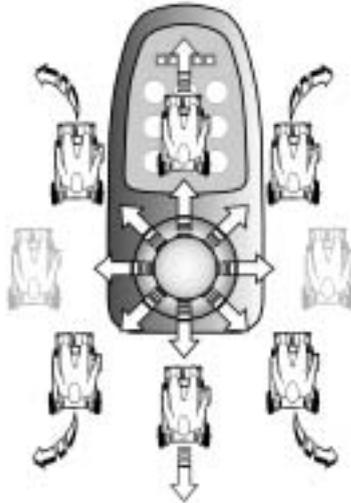


Note:

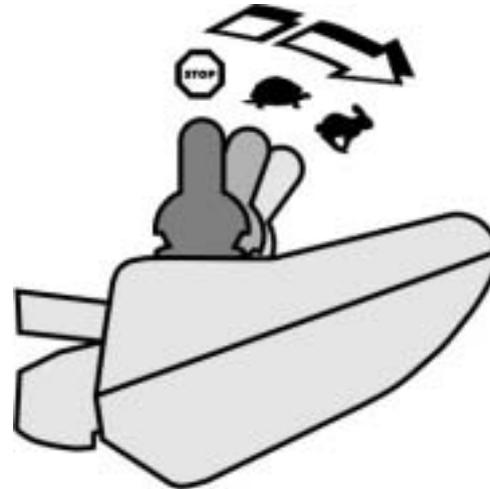
To brake quickly, simply let go of the joystick. It will then automatically return to the middle position. The wheelchair will brake.

1.6.2 How a wheelchair with "Direct Steering" reacts to joystick movements.

Steering is operated by means of a servo motor.



Travel direction



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



Note:

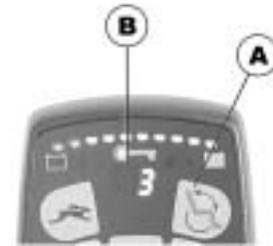
To brake quickly, simply let go of the joystick. It will then automatically return to the middle position. The wheelchair will brake.

1.7 Operating the electric adjustment options

Electric adjustment options, like electric legrests or an electric backrest, are operated by using the joystick.

1.7.1 Activating adjustment mode

- Press the "activate / scroll through adjustment mode" button (A). The remote switches to the adjustment mode last used. The driving mode display (B) switches to the appropriate symbol (one of the symbols shown below).



Seat tilt



Backrest



Left legrest



Right legrest



Both legrests



Lifter



Information:

When using the REM 24 SD remote it is not necessary – as on previous remote versions – to push the joystick forward in order to access the adjustment mode. It is sufficient to operate the adjustment mode button just once.

If the remote has been programmed appropriately, further modes can be accessed by repeatedly pressing the adjustment mode button, i.e. light mode or ECU mode (environment control unit).

The standard REM 24 SD programming only supports the adjustment function. Please speak to your Invacare dealer if you have any questions in this respect.

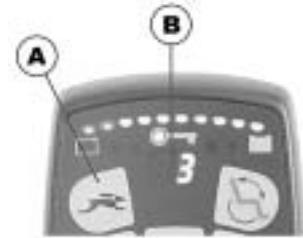
1.7.2 Selecting and operating the adjustment option

- Move the joystick to the left or right = Select adjustment option on the submenu (A).
- Move the joystick forward/backward = Operate adjustment option (B).



1.7.3 Changing back to driving mode

- Briefly press the "Activate / scroll through driving mode" button (A). The remote switches back to the driving mode last used. The driving mode display indicates the drive level (B).



1.8 Error diagnosis

In the event that the electronics should show signs of failure, please consult the following troubleshooting guide in order to locate the error.



INFORMATION

Before beginning with the diagnosis, please ensure that the drive electronics are switched on.

If the status display is OFF:

Please check whether the drive electronics are SWITCHED ON.

Please check whether all cables have been connected correctly.

Please ensure that the batteries are not discharged.

If the status display is FLASHING:

Please count the number of flashing sequences and move on to the next section.

If the red diodes on the battery charger display and the status display are FLASHING, Drive mode display shows a horizontal bar:

Battery discharged. Please charge the battery.

1.8.1 Error codes and diagnostic codes

The drive electronics are capable of rectifying some errors automatically. In this case the status display will cease to flash. Please switch the remote on and off several times. Wait approx. 5 seconds each time before switching the remote on again. If this does not rectify the error, locate the error using the flash codes shown below.

FLASH CODE	FAULT	IMMEDIATE MEASURE	FURTHER HELP
1	Module defective.	-	• Consult dealer.
2	Lifter raised or lowered too far (seat not at driving height)	• If lifter is raised, lower in stages until the status display stops flashing. If lowered too far, raise lifter in stages until the status display stops flashing. If at all possible, only drive when the seat is at driving height.	-
	Accessory error.	-	• Consult dealer.
3	Error on right motor. Connection loose/faulty.	• Check plug-in connectors.	• Consult dealer.
4	Error on left motor. Connection loose/faulty or motor faulty.	• Check plug-in connectors.	• Consult dealer.

FLASH CODE	FAULT	IMMEDIATE MEASURE	FURTHER HELP
5	Error/brake error on right motor. Connection loose/faulty or motor faulty.	<ul style="list-style-type: none"> • Check plug-in connectors. 	<ul style="list-style-type: none"> • Consult dealer.
	Motors uncoupled	<ul style="list-style-type: none"> • Couple motors. Switch remote off and on again. 	-
6	Error/brake error on left motor. Connection loose/faulty or motor faulty.	<ul style="list-style-type: none"> • Check plug-in connectors. 	<ul style="list-style-type: none"> • Consult dealer.
7	Battery totally discharged.	<ul style="list-style-type: none"> • Charge battery 	<ul style="list-style-type: none"> • Consult dealer.
8	Battery voltage too high.	-	<ul style="list-style-type: none"> • Consult dealer.
9 or 10	Faulty data transmission between modules.	-	<ul style="list-style-type: none"> • Consult dealer.
11	Motors overstressed.	<ul style="list-style-type: none"> • Switch remote off and on again 	-
12	Compatibility problems between the modules.	-	<ul style="list-style-type: none"> • Consult dealer.

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