



# RALLY SAFETY SYSTEM INSTALLATION MANUAL



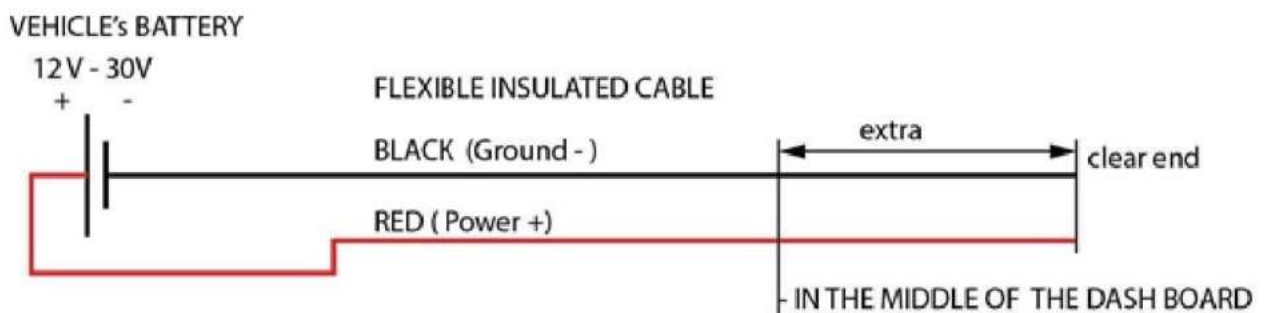
## SYSTEM COMPONENTS

- **GPS Tracker** - 73x73x27mm (WxHxD). Installed at the A-pillar roll-cage using cable ties or at the dashboard using double sided tape.
- **Com-box** - 73x73x27mm (WxHxD). Installed via slip and clip in the supplied metal Base / Mount bracket.
- **Base / Mount bracket** - 75x74x26mm (WxHxD). Installed on the dashboard by means of screws, cable ties or double sided tape.



*The Base / Mount bracket is supplied by the Geotraq team at the administrative check and remains property of the competitor after the event.*

## POWER SUPPLY



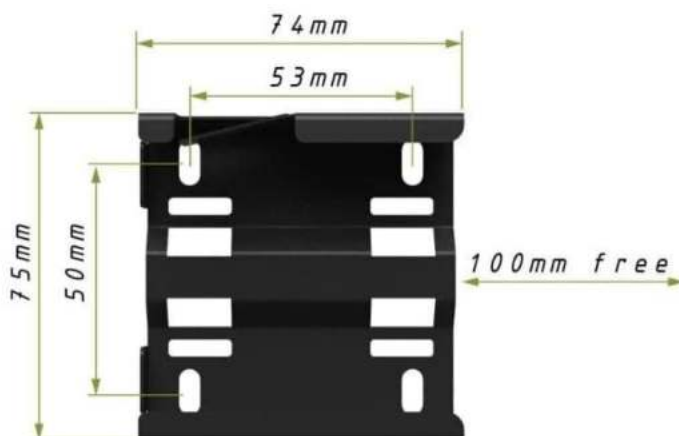
- The power cord must be connected directly to the battery. The Master cut-off (kill) switch must not interrupt the power supply to the system.
- The cabled used must be “flexible” (multi wire), insulated cable – 2x1 mm<sup>2</sup> or 2x1.5 mm<sup>2</sup> – Red and Black coloured (if possible).
- A 3A fuse (responsibility of the competitor) should be connected to the positive wire.

- The end of the power cord must be located as per the instructions at the top of the dash board or under it with easy access.
- The power cord must be prepared in advance and connected to the vehicle's battery when the vehicle is presented for scrutineering.
- Electrical details: voltage 6-30V DC, Nominal voltage 12V, Energy consumption (at 12.6V) 110 mA r.m.s.

*Leave the power cord in place with at least 10 cm to spare for easy handling.*

## BASE / MOUNT BRACKET

- The Base / Mount bracket can be attached to the dashboard or to the roll-cage.
- The fitting can be done via screws, cable ties and double sided 3M tape. It is the responsibility of the competitor to prepare and mount the Base / Mount bracket before the vehicle is presented for scrutineering.



*At least 10 cm of space must be left on the sliding side of the Base / Mount bracket to allow the installation of the Com-box.*

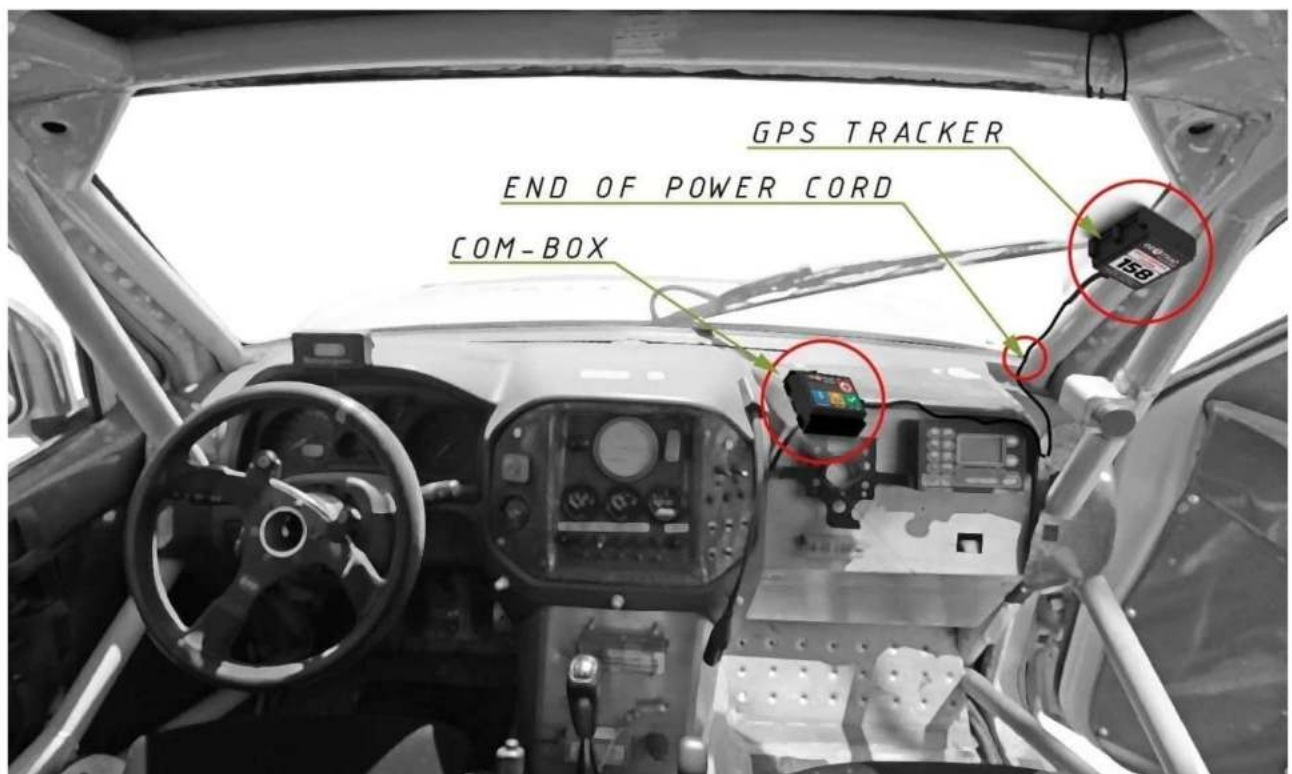
## POWER CONNECTORS

- The power cord must be equipped with FULLY INSULATED FEMALE Crimp Spade Terminal Connector – 6.3 x 0.8 mm. The Geotraq team will install the required terminals to the ready power cords.



## INSTALLATION LOCATION

The Com-Box must be visible and accessible to the drivers even when they are sitting with the seatbelts buckled.



**BATTERY STATUS**

- EXTERNAL POWER
- NO EXTERNAL POWER
- (BLINKING) INT. BATTERY EMPTY

**RADIO STATUS**

- RADIO OK
- SLEEP MODE, NO RADIO

**OVERTAKE FUNCTION**

**DANGER BEACON**



**EMERGENCY SOS BEACON**

- PRESS AND HOLD UNTIL ACTIVATED

**CONFIRM / QUIT BUTTON**





Vehicle B is being overtaken:  
Lights **BLINK BLUE**



**CONFIRM OVERTAKING WITH BLUE BUTTON !**  
(will allow overtaking at the first safe place)

**DECLINE OVERTAKING WITH OK/QUIT BUTTON**



Vehicle A receives confirmation for overtaking:  
Lights **ARE SOLID GREEN**, vehicle B will allow  
overtaking at the first safe place.

**CONFIRM WITH OK/QUIT BUTTON (optional)**





If you breakdown in a danger place (after bling turn) or if drive against the route, activate **"DANGER BEACON FUNCTION"**.

You will be sending signal to the competitors maximum 200 meters around you to inform them. **DEACTIVATE WITH "OK/QUIT" BUTTON**



**RALLY CONTROL** can send you an **"REQUEST"** to ask for your status.

**REPLY WITH THE 3 AVAILABLE OPTIONS:**

- SOS - activates SOS FUNCTION
- DANGER - activates DANGE FUNCTION
- OK / QUIT

Doing this **RALLY CONTROL** will know your current status and will act accordingly.



If you receive a SOS signal from Lights will **BLINK RED. ALARM IS ON.**  
**CONFIRM WITH OK/QUIT BUTTON AND BE READY TO ASIST AN ACCIDENT SCENE.**



If you **REQUIRE MEDICAL ASSISTANCE,**  
**PRESS AND HOLD SOS BUTTON TO ACTIVATE FUNCTION.**  
You will be sending signal to the competitors maximum 200 meters around you to inform them.  
Also signal is transmitted directly to Rally Control.  
**DEACTIVATE WITH "OK/QUIT" BUTTON**





If you receive a signal from **"DANGER BEACON"**,  
Lights will **BLINK YELLOW. ALARM IS ON.**  
**CONFIRM WITH OK/QUIT BUTTON AND REDUCE  
SPEED TO TAKE EXTRA CAUTION.**



# **DIGITAL ROADBOOK AND NAV-GPS**

## **MOUNTING INSTRUCTIONS**

# IRIS - COMPONENTS

IRIS device



Mounting bracket



Bluetooth  
Remote control



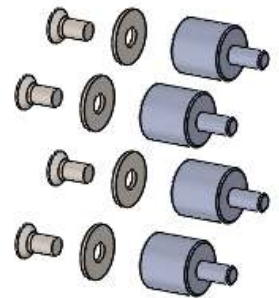
Power cable



Cable clamp



Rubber mounts



# FITTING TO DASHBOARD

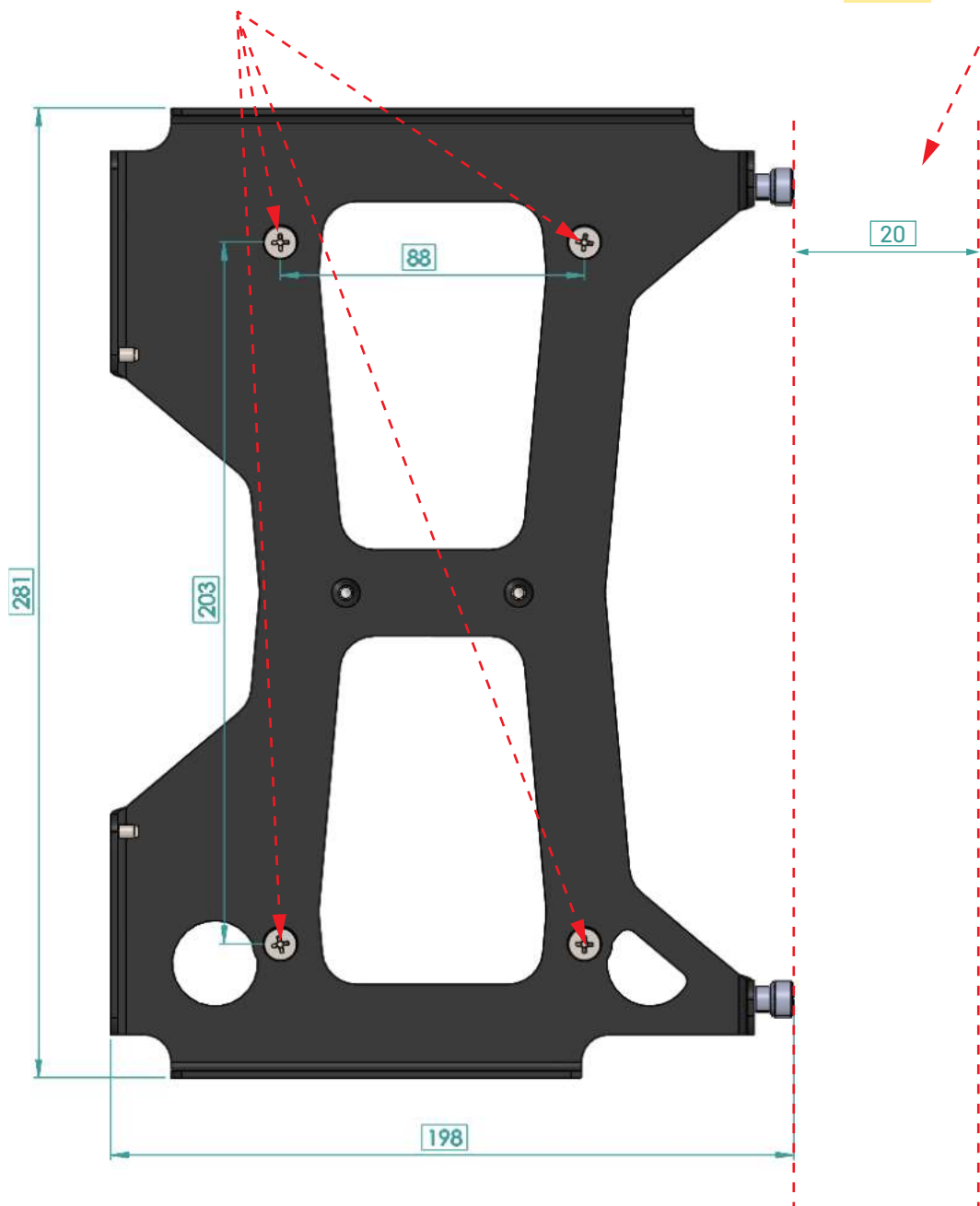
Dimensions of the holes:

Vertical spaces between axes: 203 mm

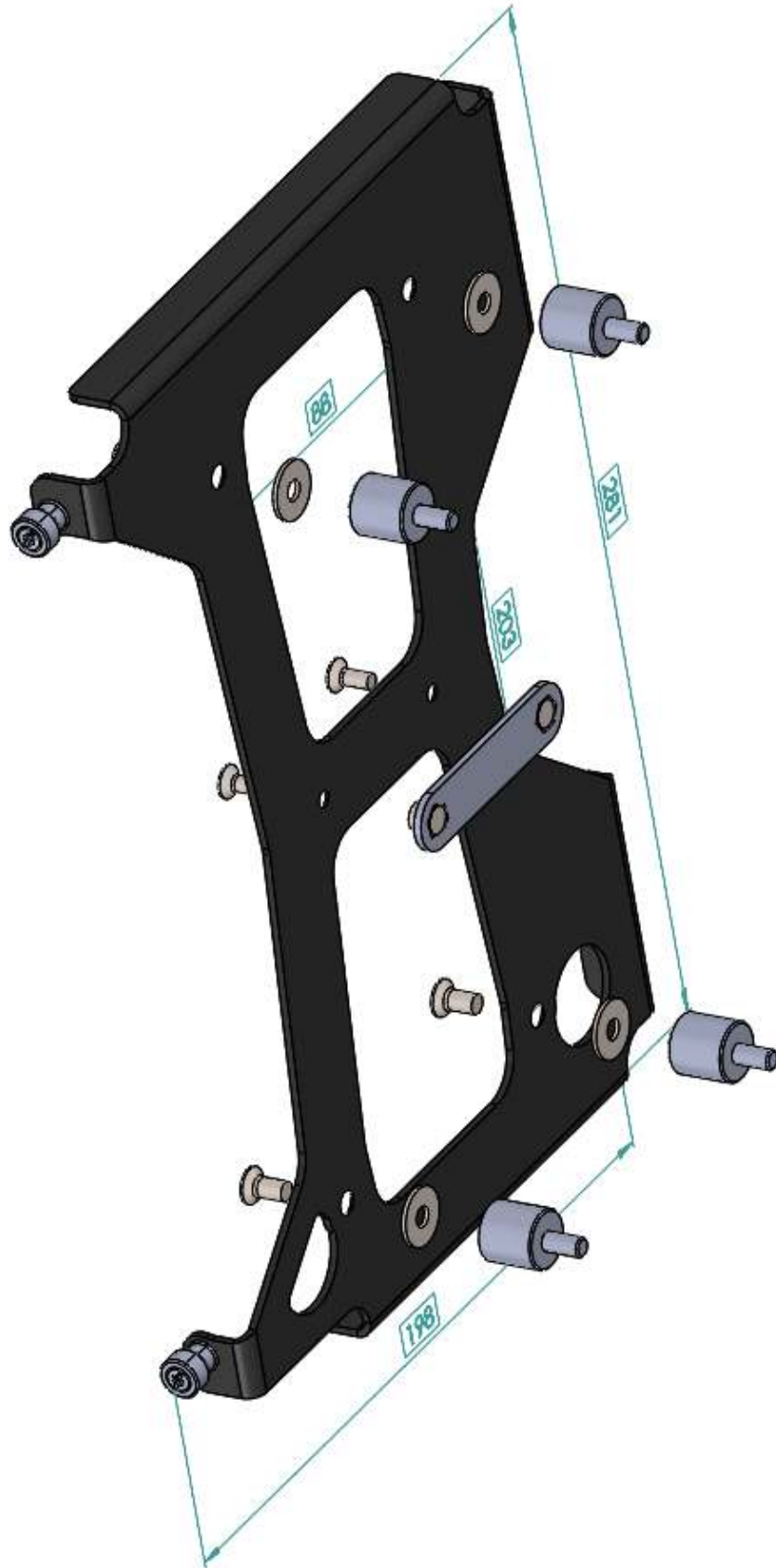
Horizontal spaces between axes: 88 mm

Using the supplied fittings, fix the bracket to dashboard in Portrait orientation:

**Important!**  
Minimum clearance of 20 mm on the right side

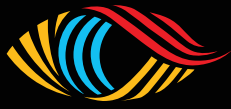


# FITTING TO DASHBOARD



# FITTING TO DASHBOARD





**IRIS** by GEOTRAQ

# DIGITAL ROAD BOOK AND NAV-GPS OPERATING INSTRUCTIONS



Version Release  
August 2024

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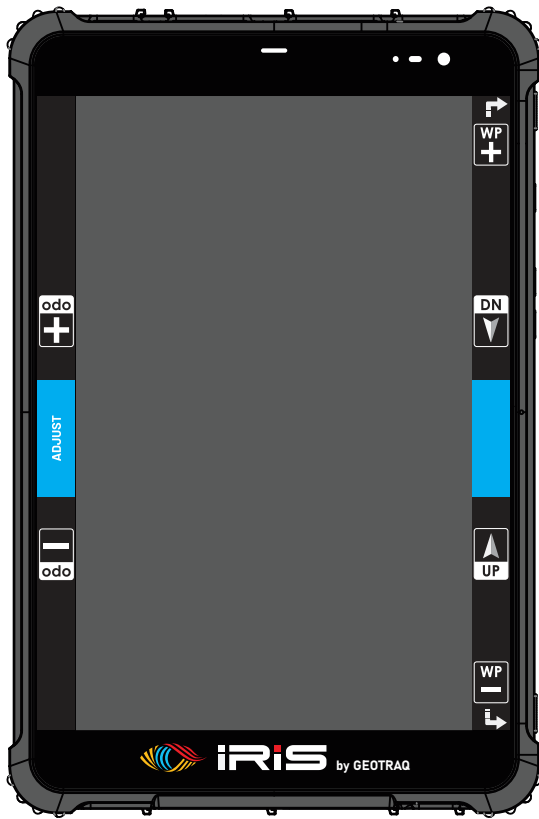
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IRIS Device



Mounting Bracket



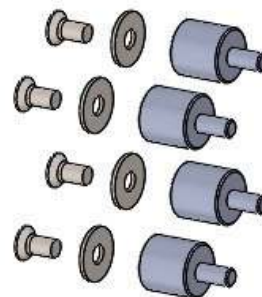
Power Cable



Cable Clamp

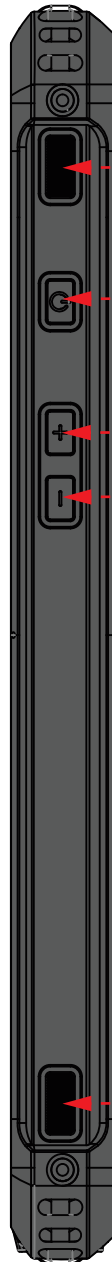
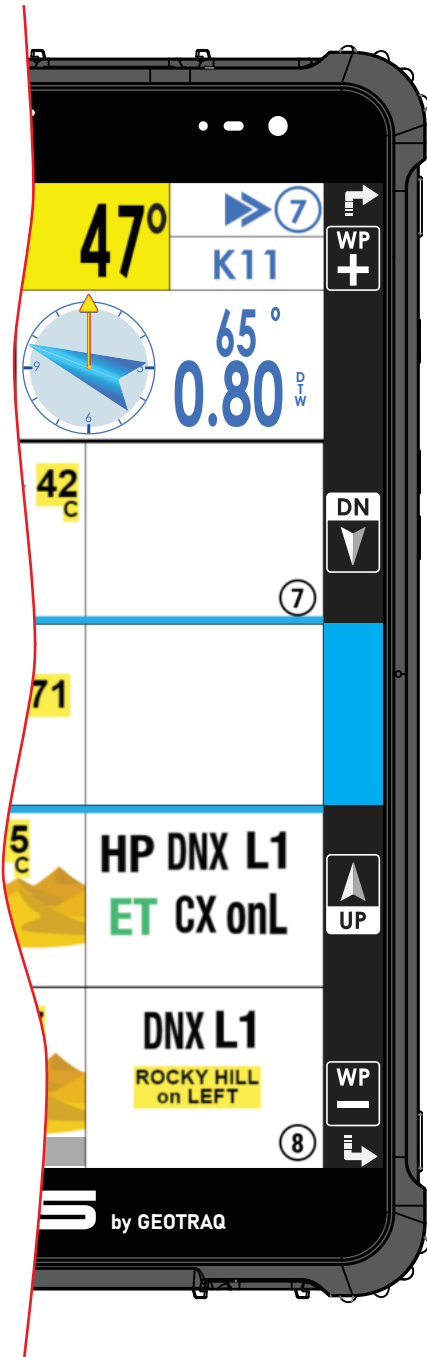


Rubber Mounts



## Physical buttons

- Positioned on the right side of the device



Target Waypoint Ahead (WP +)

Screen ON / OFF

Increase Total Odometer

Decrease Total Odometer

**NOTE!**

Volume can be adjusted with those buttons ONLY before opening a Road Book.

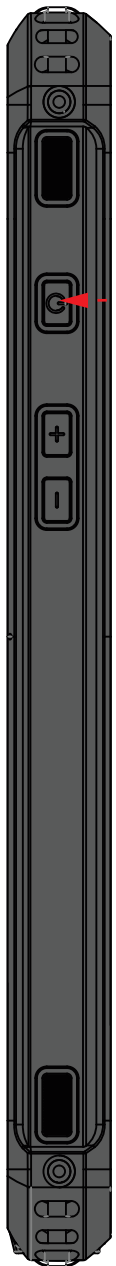
Target Waypoint Behind (WP -)

## Step 1

- PRESS Screen ON / OFF button to wake up the screen.

## Step 2

- A list with Road Books will be displayed. Only five Road Books, can be seen at the same time. By sliding you can see the whole list of Road Books.



Screen ON / OFF



## Step 3

- Open selected roadbook by pressing the Blue Button.



Road Book Name

Back to SELECT ROAD BOOK

Map with Start and Finish Point(s)

PRESS to Open the Road Book

Characteristics of Stage

**\* The road book will open after a preset time, defined by the organizer. A reverse timer will count the time till opening.**

Navigation			Terrain			Endurance		
LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 1	LEVEL 2	LEVEL 3
Distance	14 Km	4						
Autonomy	50	3						
Notes	21	2						

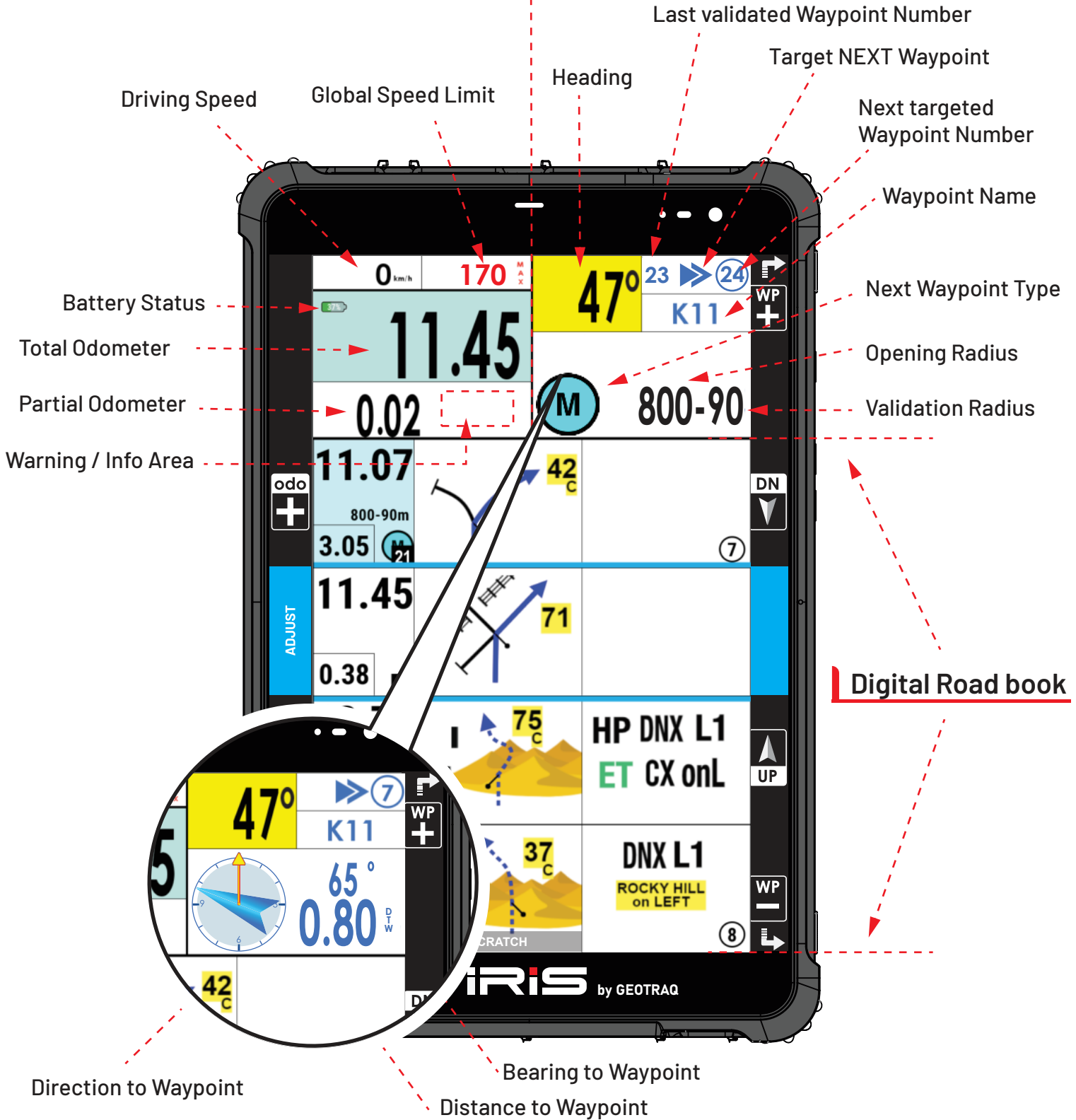
### NOTE!

Orange rectangle will appear with text: "Waiting for GPS fix .." to warn you if the GPS fix is not acquired yet.



## Odometer Overview

## Navigation Overview



## NAV-GPS - When in opening radius

## Virtual Buttons

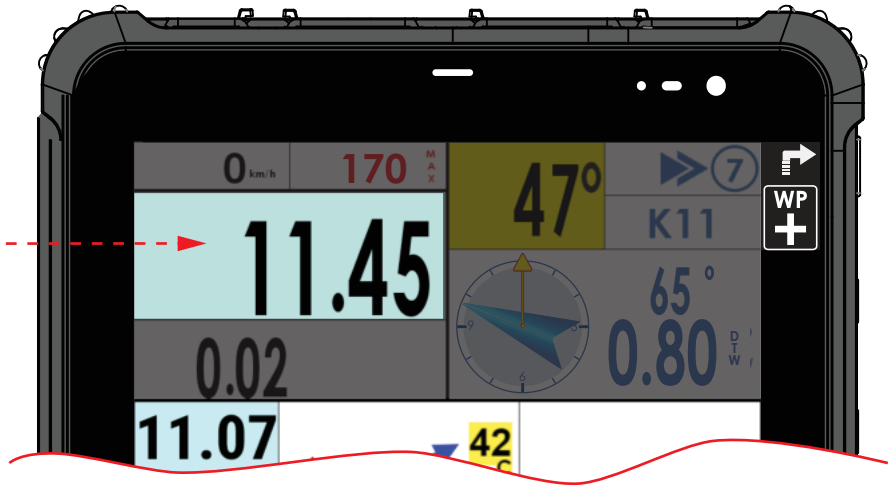
- Rectangles in red color show active area of the Virtual Buttons



## Edit Total Odometer

1.

- LONG PRESS the area of Total Odometer



2.

- Enter Total Odometer value and confirm with **OK**



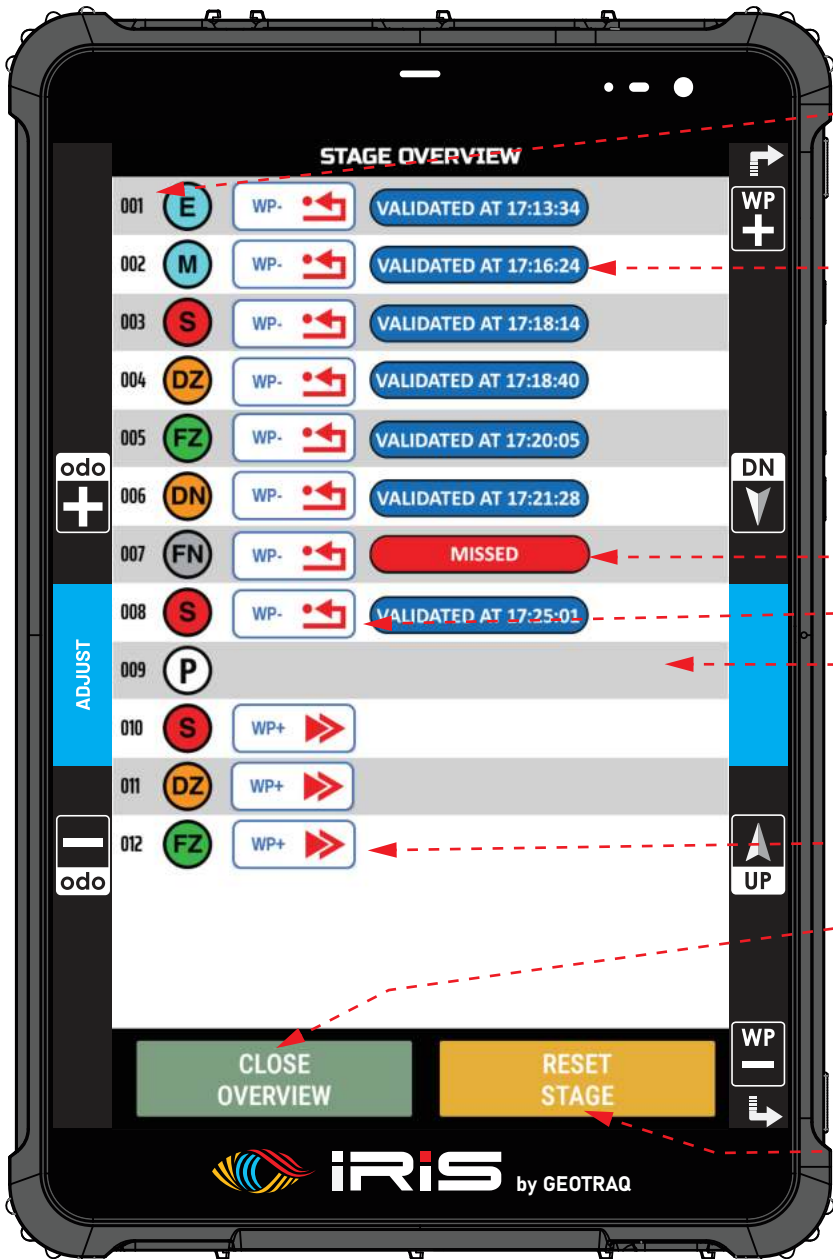
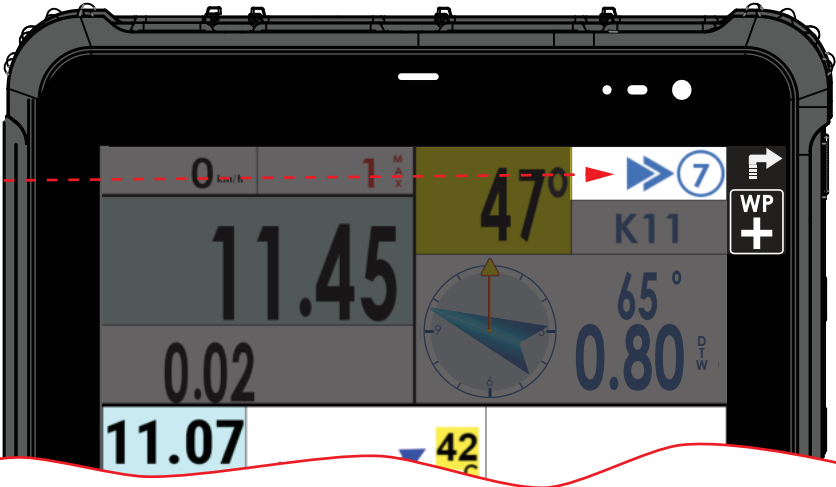
3.

- Press here to Exit function

## Stage Overview

1. PRESS for Stage Overview

2. Waypoint Overview Screen will be displayed



List of Waypoints in Chronological Order

Validation Time Stamp

Waypoint MISSED

Target Waypoint Behind (WP - )

Currently targeted Waypoint

Target Waypoint Ahead (WP + )

PRESS to exit Overview and return to Road Book

### WARNING

ONLY USE WHEN SURE!!!

PRESS to RESET Road Book  
A dialog window will be displayed and will require confirmation

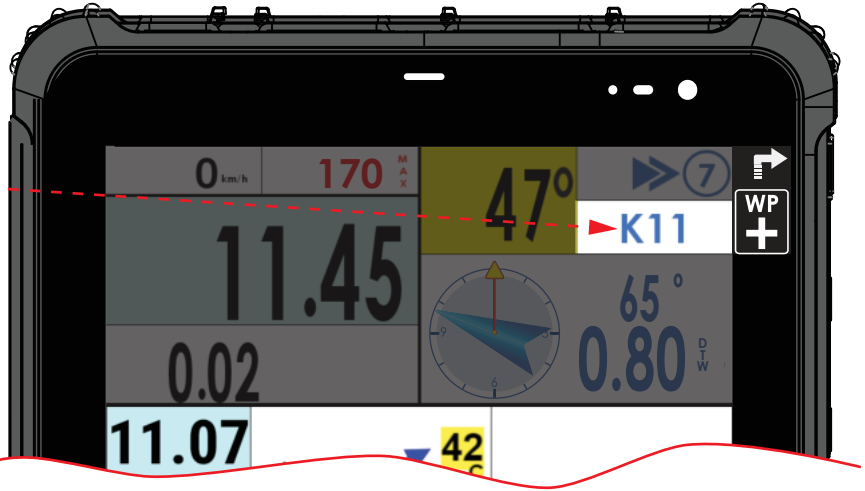
\* All stage data and progress will be lost!!!



## How to edit Settings

1.

PRESS to enter Settings



2.

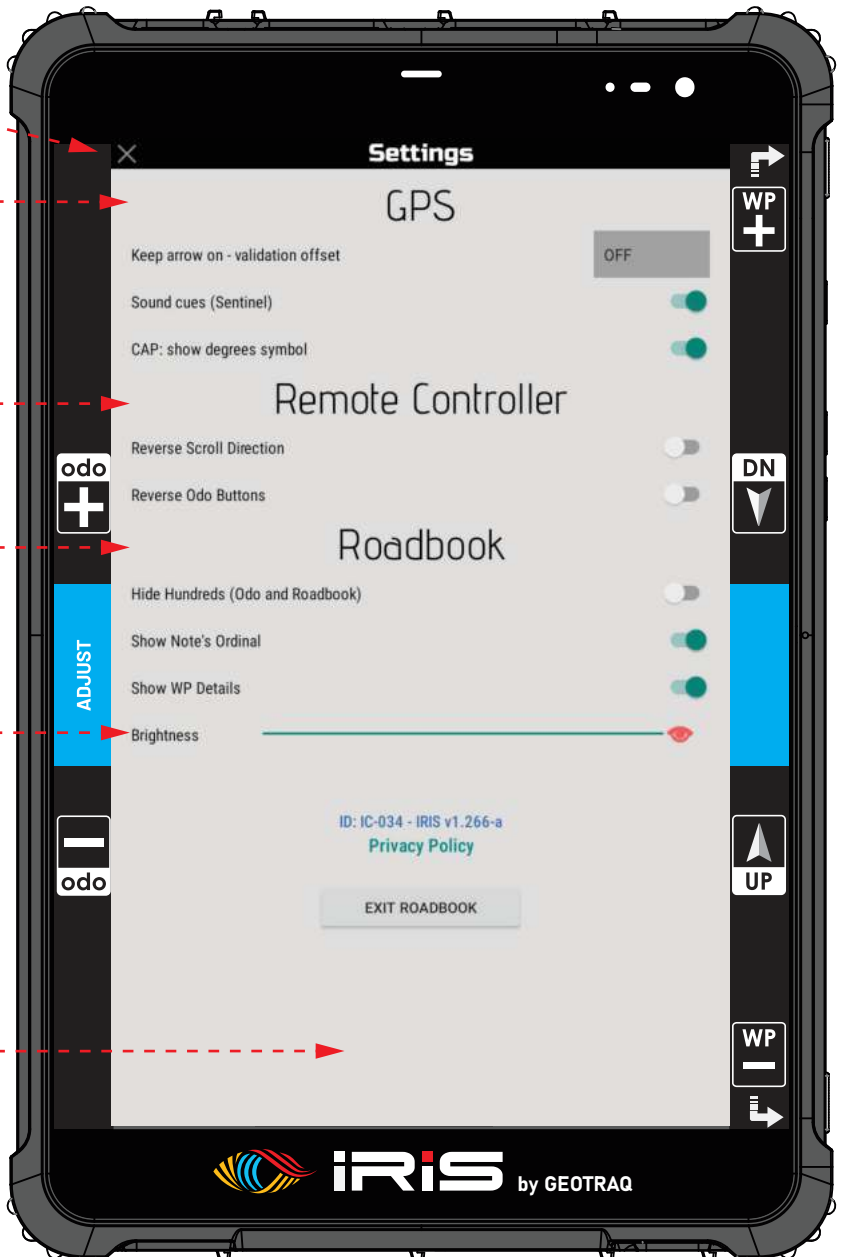
PRESS to close Settings and return to Road Book

GPS related settings

Control Settings

Road Book Settings

Brightness Adjustment



PRESS to exit Road Book and return to Road Book List

## How to EXIT and CHANGE Road Book

1.

PRESS to enter Settings



2.

On the bottom of Settings window  
PRESS to exit Road Book

3.

Back to  
SELECT ROAD BOOK



4.

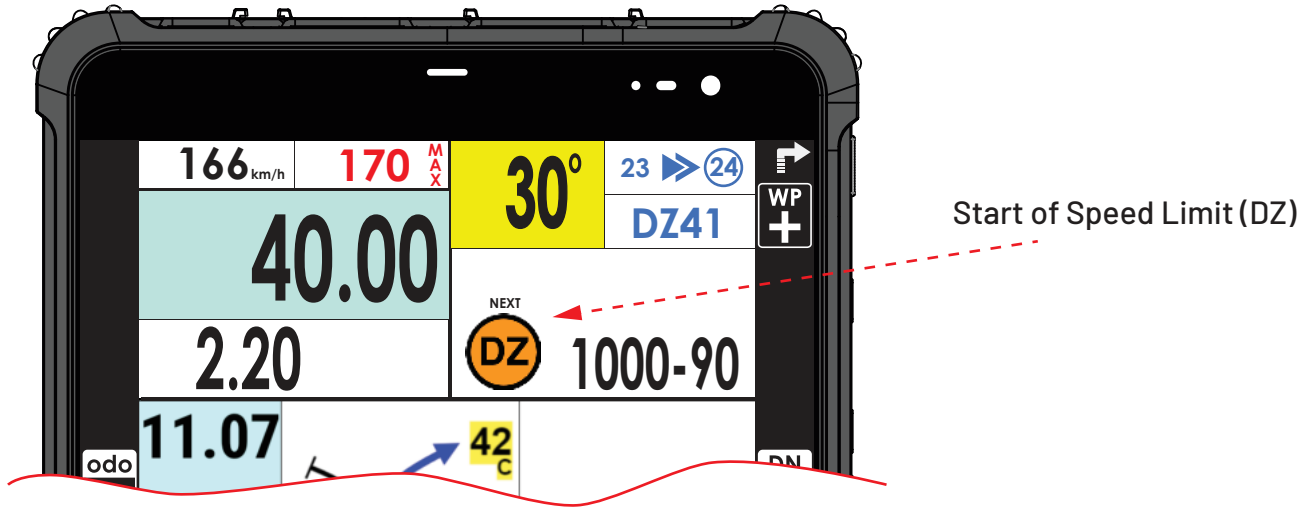
SELECT ROAD BOOK



## Behaviour in Speed Limit

### 1. Heading to Speed Limit

- Start of Speed Limit (DZ) is displayed as NEXT Waypoint in the Navigational part of the screen.



### 2. Entering of Speed Limit - 50 km/h, deacceleration tolerance distance - **NO PENALTIES**

- The validation of the DZ Waypoint marks the beginning of the Speed Limit Zone. An Orange Frame around the screen will appear and the speed limit, in this case 50 km/h, will be displayed instead of the Global Speed Limit. The orange background with black figures shows that you are in the deacceleration tolerance distance where no penalties for speeding will be applied. See FIA Sporting Regulations. *Driving speed is below the speed limit - Diagram 1*

Driving Speed **BELOW** Speed Limit

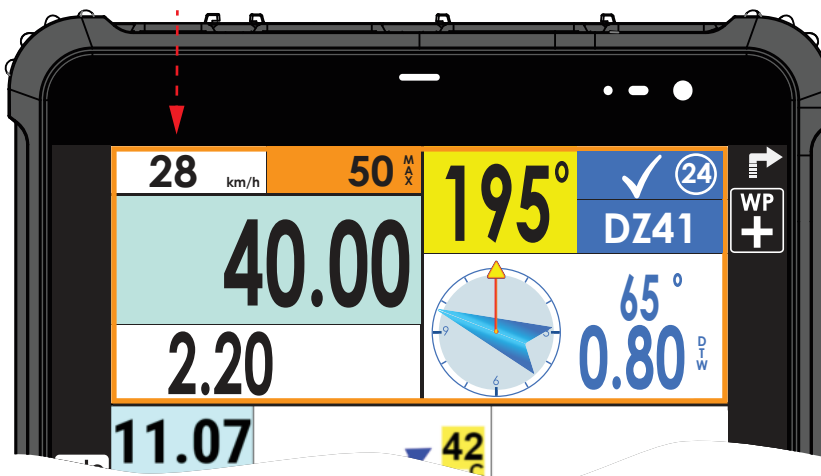


Diagram 1

- If the current speed is higher than the speed limit, the Current Speed Indicator is flashing with red background and white figures, combined with warning sound.

**Driving speed is above the speed limit - Diagram 2**

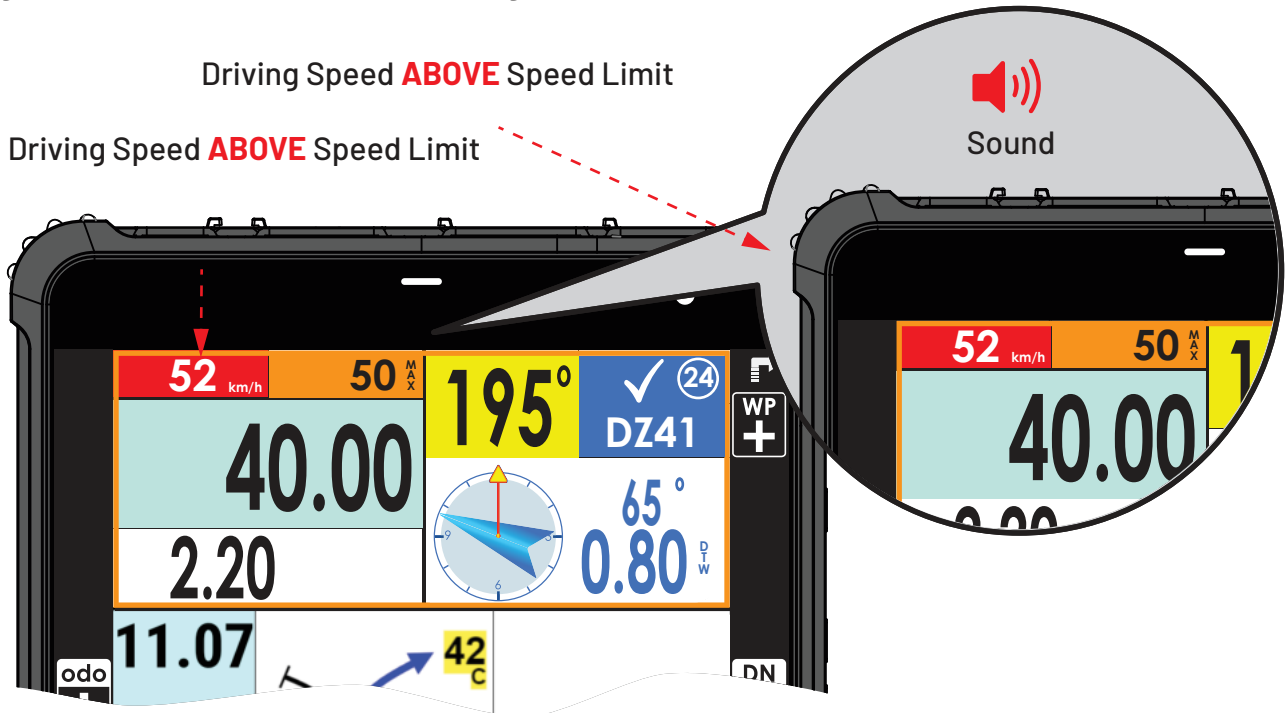


Diagram 2

### 3. Inside of Speed Limit - 50 km/h, past deacceleration tolerance distance - **PENALTIES APPLY**

- Past deacceleration tolerance distance penalties will be applied if the driving speed is higher than the speed limit. The speed limit indicator changes its background from orange to white and the color of the figures from black to red. The orange frame around the screen stays on. Warning sounds become more frequent when driving speed comes closer to speed limit.

**Driving speed is below speed limit - Diagram 3**

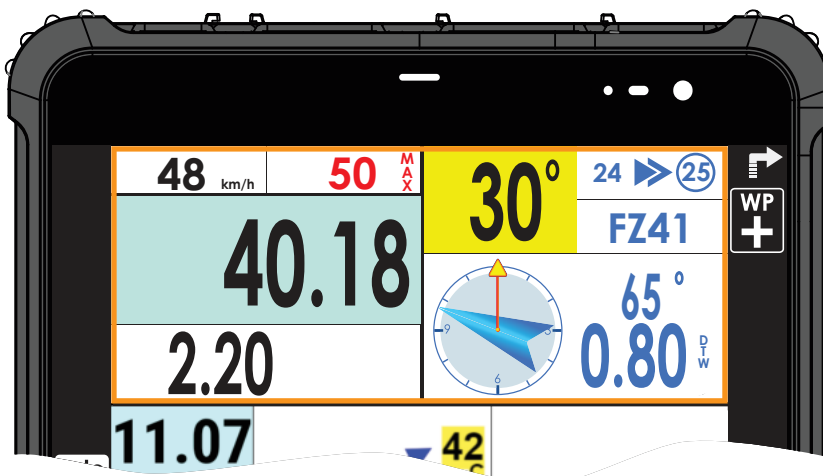


Diagram 3

- If the driving speed is higher than the speed limit, the Driving Speed Indicator is flashing with red background and white figures, combined with warning sound.

**Driving speed is above the speed limit - Diagram 4**

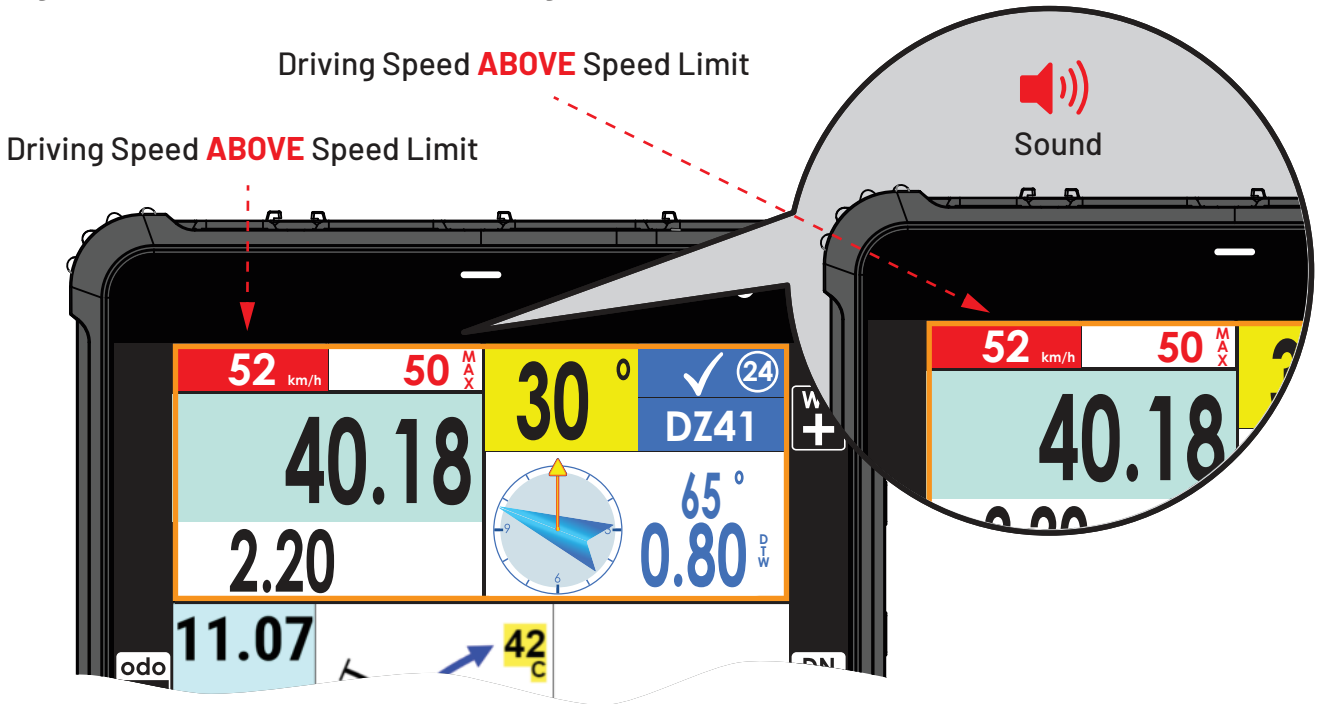


Diagram 4

## 4. Finish of Speed Limit

- The validation of the waypoint Finish of Speed Limit (FZ) marks the end of the speed limit zone. The orange frame around the screen is turned off. The Global Speed Limit replaces the speed limit indicator. Acceleration can begin.

See Diagram 5

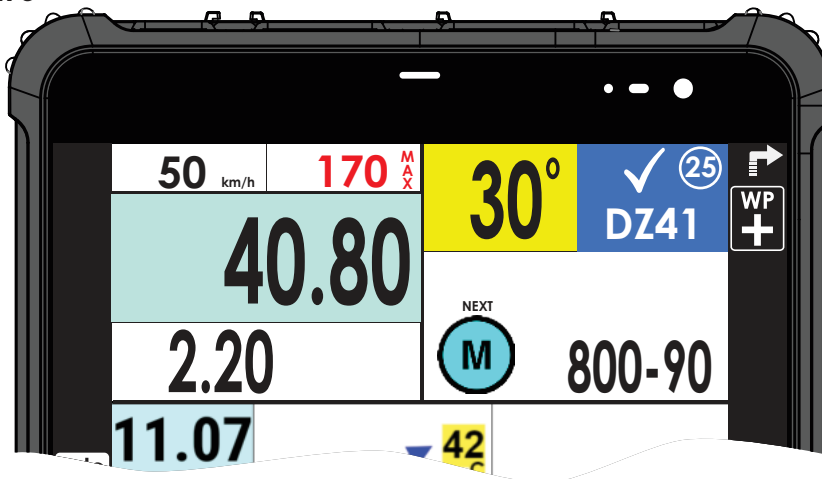
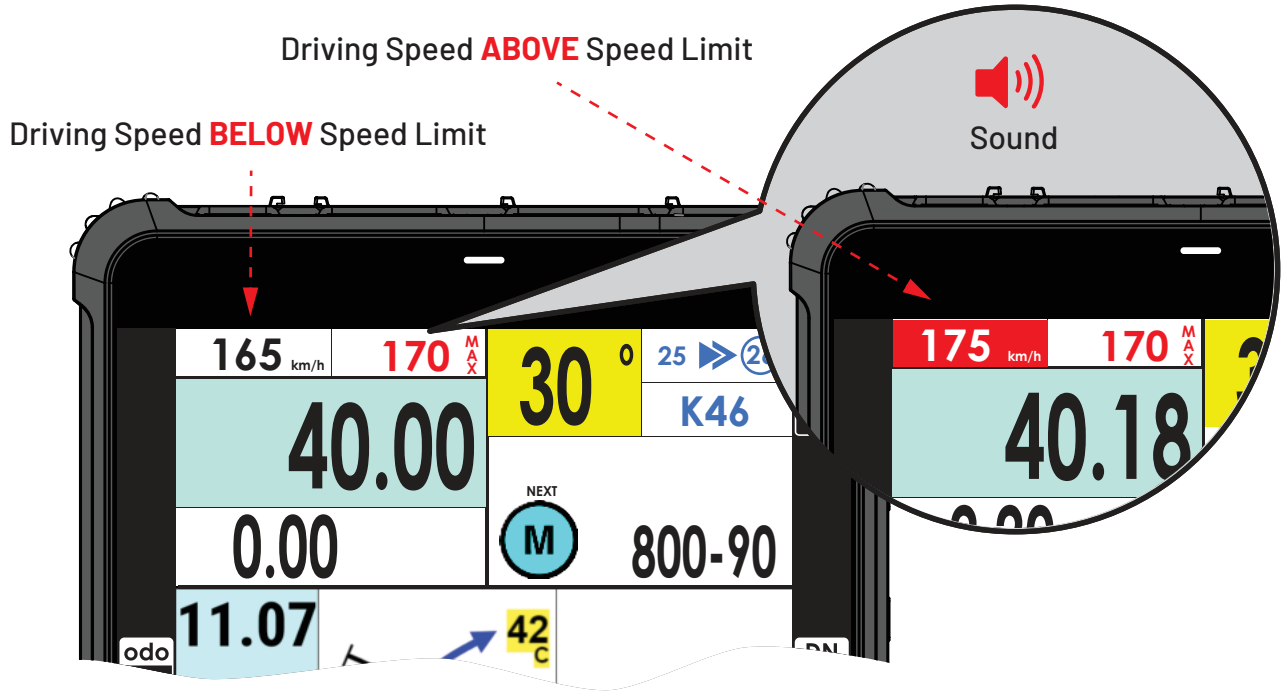


Diagram 5

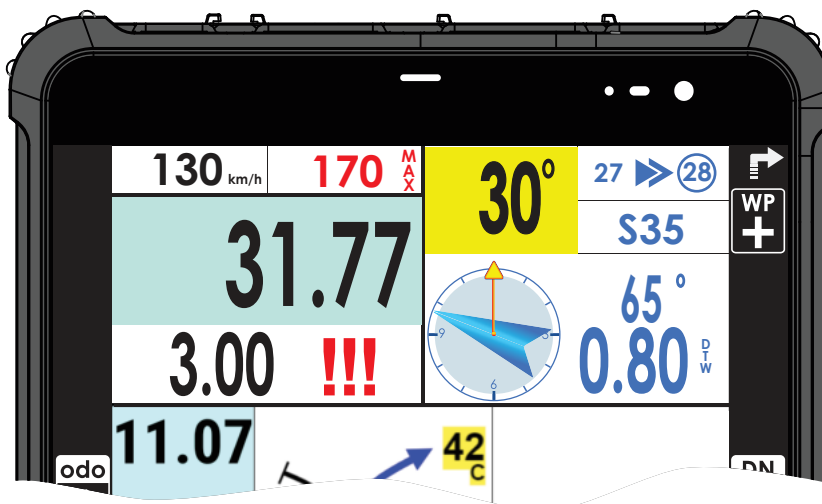
## Warning for Global Speed Limit

- If the driving speed is higher than the Global Speed Limit, the Current Speed Indicator is flashing with red background and white figures, combined with warning sound.



## Warning for Safety Waypoint - Danger Level 3

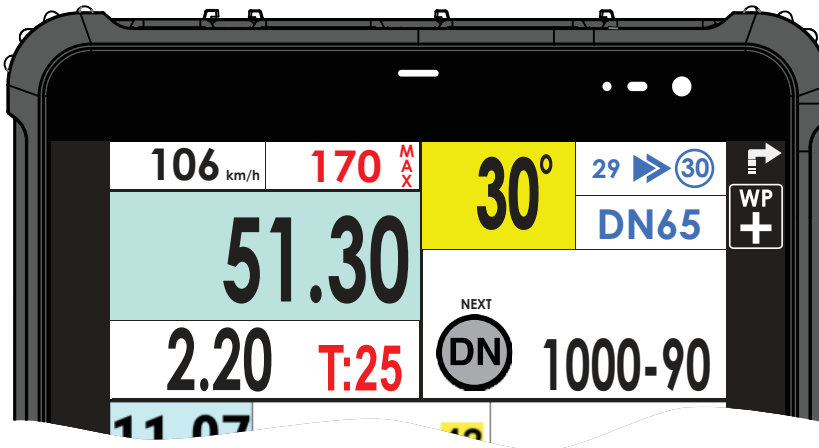
- 300 meters before the validation of the Safety Waypoint the symbol of Danger Level 3 will appear flashing in the Warning / Info Area of the screen together with a repeated warning sound. When the Safety Waypoint is validated the symbol Danger Level 3 disappears and the warning sound stops.



## Behaviour in Neutralisation and Transfer DN and DT

### 1. Heading to Neutralisation

- 300 meters before the start of Neutralisation the Time for Neutralisation will be displayed in the Warning / Info Area of the screen ( in this case T:25).



### 2. Start of Neutralisation

- When the Waypoint for Start of Neutralisation (DN) is validated, a reverse time counter appears in the Warning / Info Area of the screen and starts counting back the time for Neutralisation.

See Diagram 6 and 7

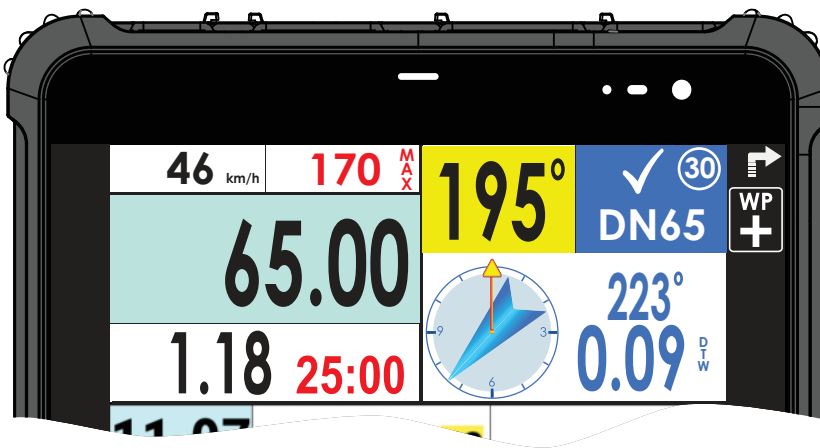


Diagram 6

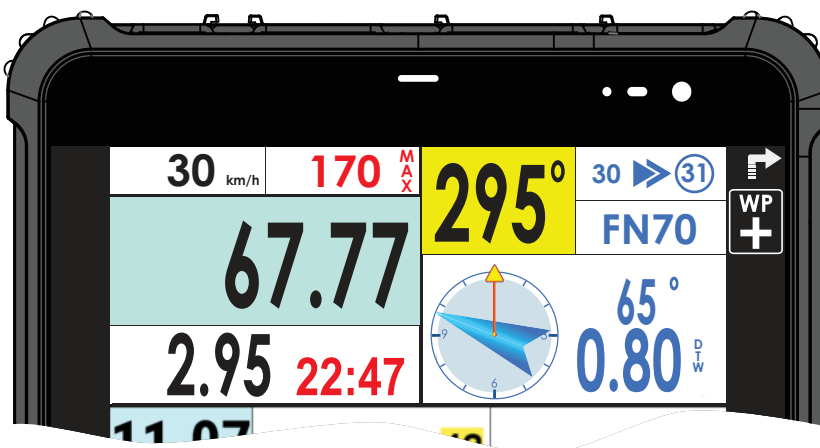


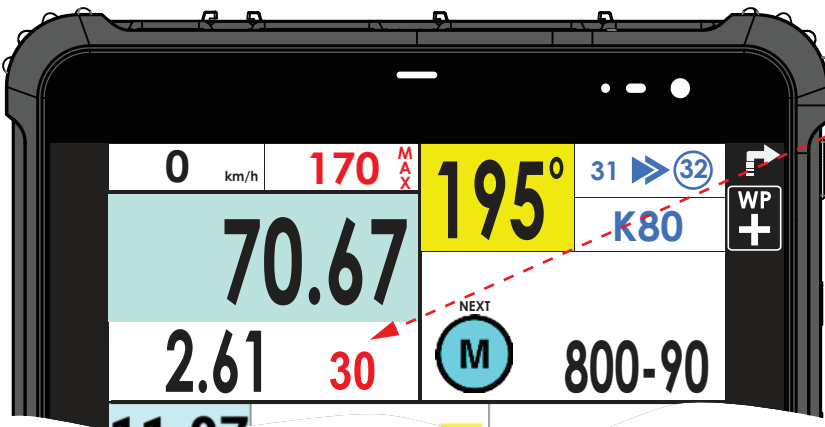
Diagram 7

### 3. Finish of Neutralisation

Having arrived at the end of the Neutralisation (FN), the Competing Vehicle must stop and wait in front of the Sign with the Start symbol on yellow background, from where the vehicle may enter the Validation Radius of the FN Waypoint 60 seconds before its individual start time and be driven to the start line. (START Symbol).

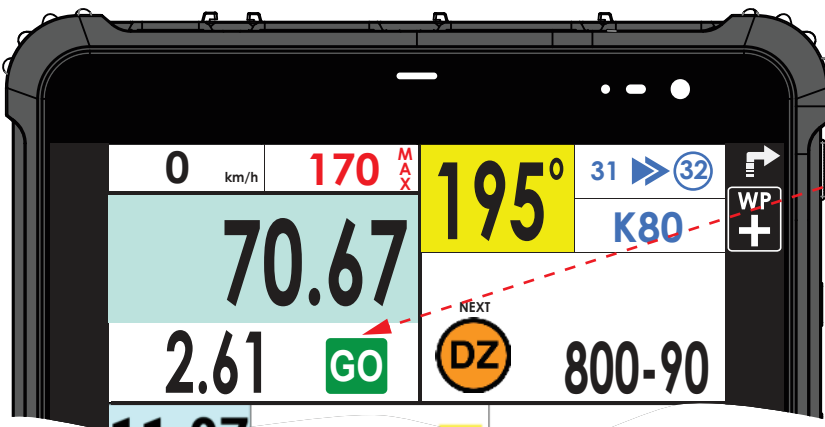


Vehicle must move to the restart line (Sign with Start Symbol in red background)



A sound will play at remaining time for restart:

- 30 sec
- 5 sec
- 4 sec
- 3 sec
- 2 sec
- 1 sec



The countdown is over and the vehicle must start



**GO** longer beep sound

### Behaviour in Neutralisation and Transfer with Speed Limit and

• The device manages Neutralisation / Transfer and Speed Limit combining the functionalities described in the two previous paragraphs.

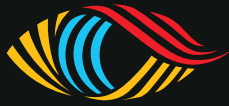


## Troubleshooting

Problem	Solution
Screen doesn't turn ON	Charge the device.
The Blue button OPEN ROAD BOOK is missing because GPS signal acquired	Bring the device outside and ensure unobstructed view to the sky. Once GPS signal is acquired the Blue button will appear
On the blue button instead of OPEN ROAD BOOK a reverse timer is displayed	The road book will open after a preset time, defined by the organizer. Once the reverse timer has finished, OPEN ROAD BOOK will be displayed.
The touch screen is not working	Unlock the screen with LONG PRESS over area of Driving Speed, on top left corner of the Screen
Increasing Brightness	The Brightness can be increased from Settings menu. See Page 10

## Tips before Start

1. Ensure that the charging cable is directly connected to the car battery.
2. The cable must stay always connected and supplying the Device with constant 12V even when the vehicle is switched OFF.
3. LED light should illuminate on the top right corner if everything is properly connected.
4. If the device battery is LOW the LED light will illuminate RED and it will blink.



**iRIS** by GEOTRAQ

# IRIS-MINI NAV-GPS OPERATING INSTRUCTIONS



Version Release  
July 2024

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- Warning for Global Speed Limit ..... Page 15
- Warning for Safety Waypoint - Danger Level 3 ..... Page 15
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## Front side

- Dimensions: 175mm x 82mm x 23mm

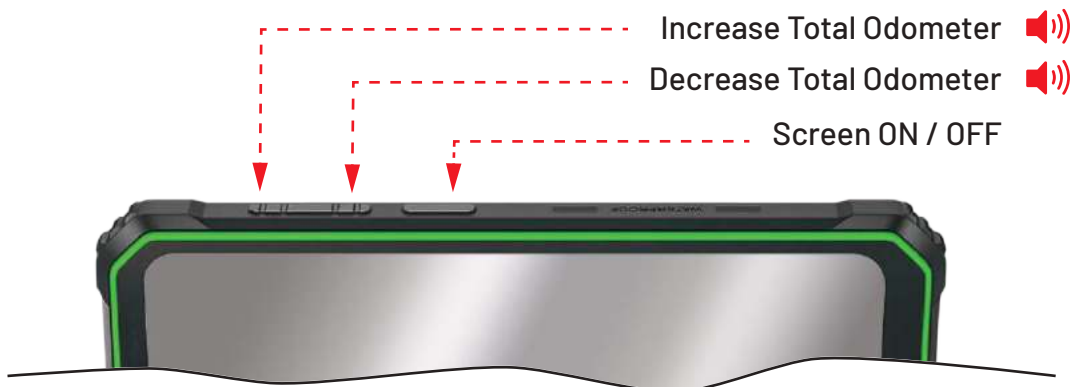



## Back side

- IRIS device with Quick Lock Mounting System



## Physical buttons



 - Audio sound when pressed

### Mounting accessories for **MOTORCYCLE / ATV**



- Base bracket



- Double socket arm



- Handlebar U-Bolt Base

### Mounting accessories available for **SSV / CAR / TRUCK**



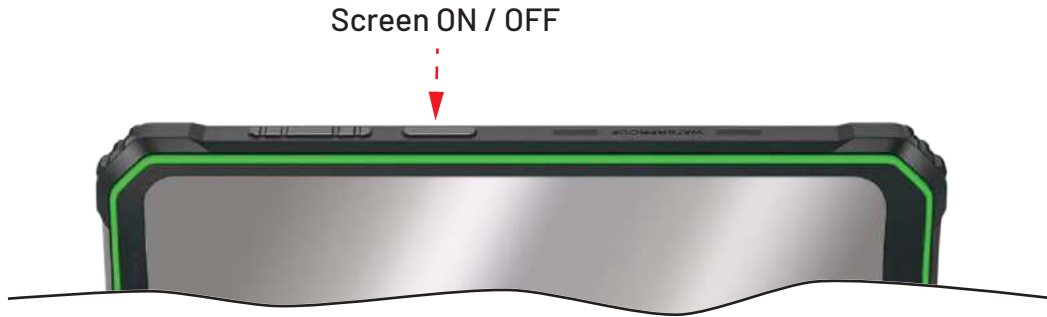
- Mounting clamp for Roll Cage



- Mounting base with L- shape bracket and hose clamp

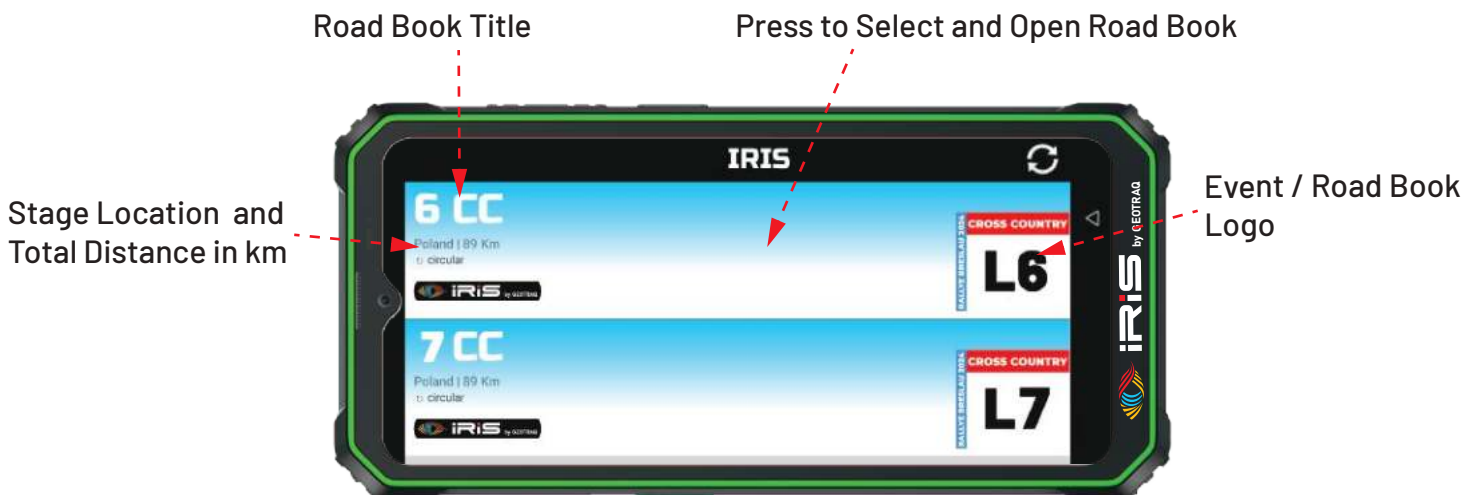
## Step 1

- The Screen ON / OFF button is located on top side. Press it to wake up the screen.



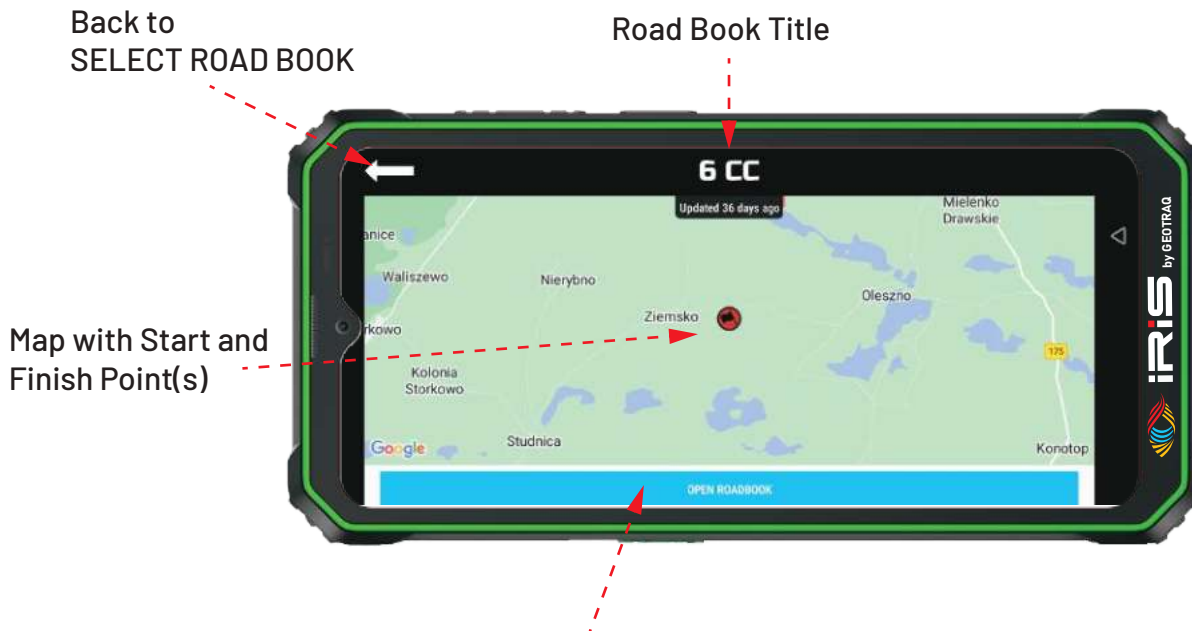
## Step 2

- A list with Road Books will be displayed. Only two Road Books, can be seen at the same time. By sliding you can see the whole list of Road Books.



### Step 3

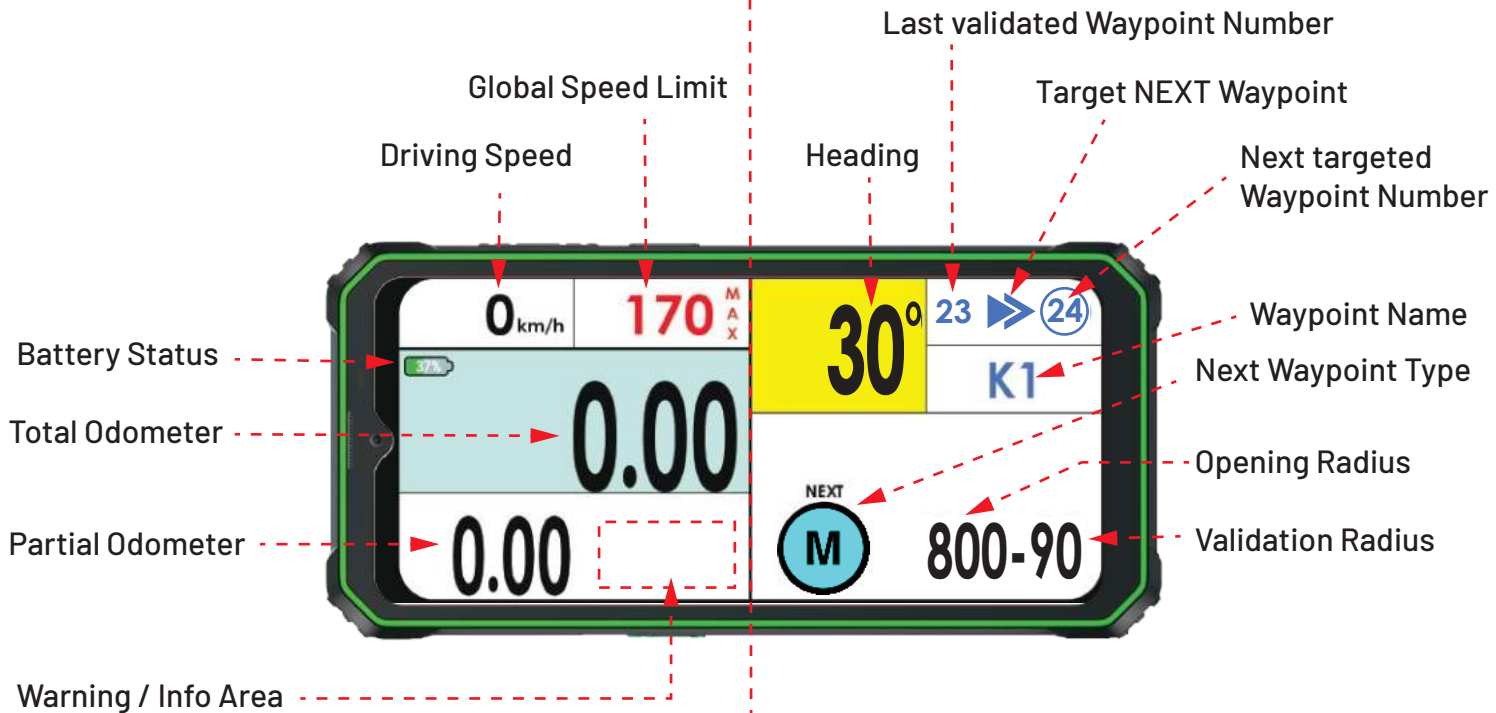
- Open selected roadbook by pressing the Blue Button on the bottom of the screen.



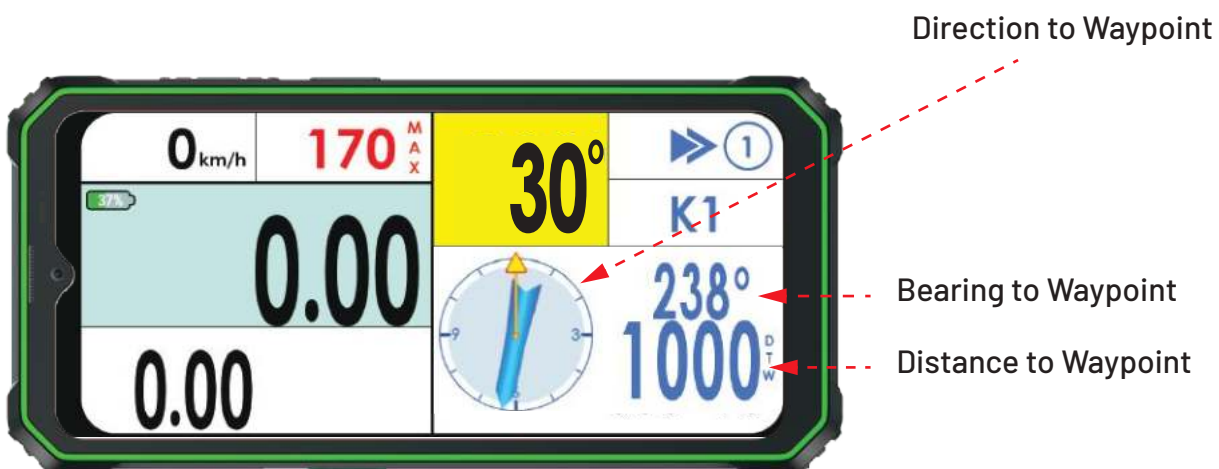
- \* The road book will open after a preset time, defined by the organizer. A reverse timer will count the time till opening.

## Odometer Overview

## Navigation Overview



## NAV-GPS - When in opening radius





## Virtual Buttons

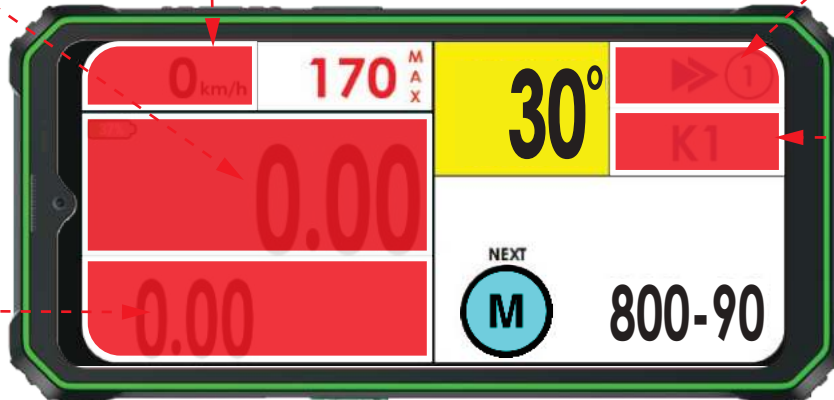
- Rectangles in red color show active area of the Virtual Buttons

LONG PRESS to Edit Total Odometer

LONG PRESS to LOCK and UNLOCK the touch screen

PRESS for Stage Overview

PRESS to Reset Partial Odometer

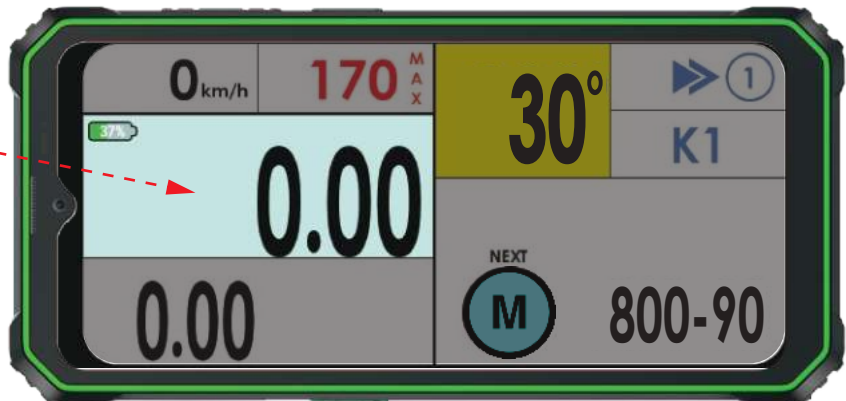


PRESS for Settings

## Edit Total Odometer

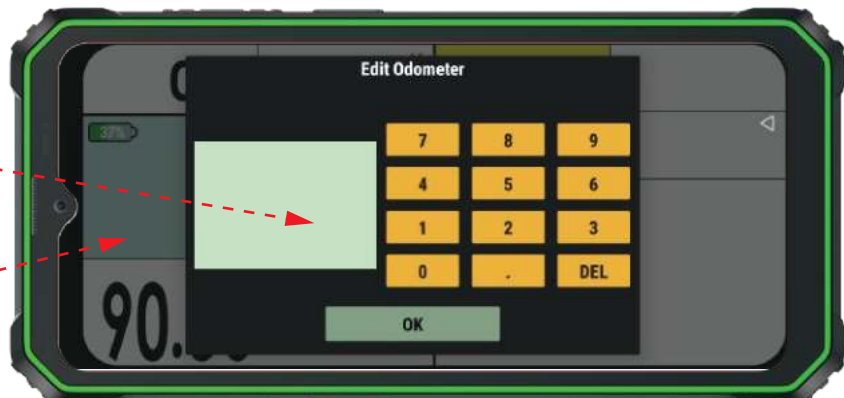
1.

- LONG PRESS the area of Total Odometer



2.

- Enter new Total Odometer value and confirm with **OK**



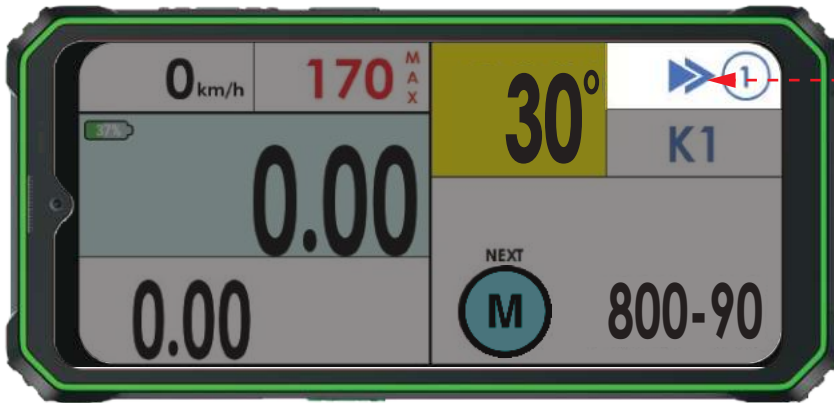
3.

- Press here to Exit function

## Stage Overview

1.

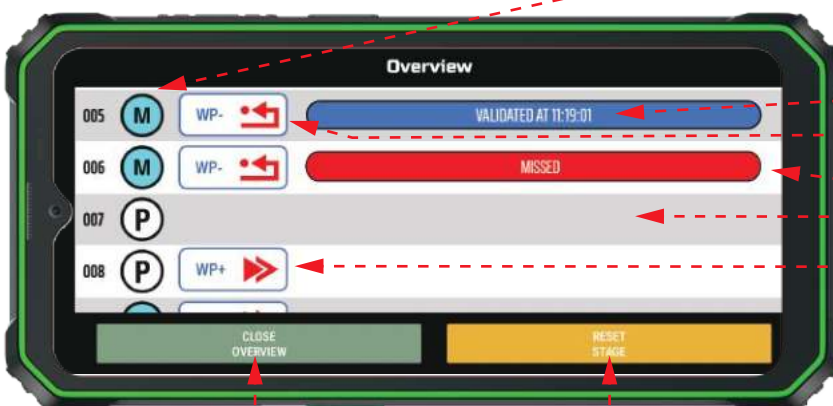
- PRESS to see Stage Overview with all Waypoints



PRESS for Stage Overview

2.

- Waypoint Overview Screen will be displayed



List of Waypoints in Chronological Order

Validation Time Stamp  
 Target Waypoint Behind (WP -)  
 Waypoint MISSED  
 Currently targeted Waypoint  
 Target Waypoint Ahead (WP +)

PRESS to exit Overview and return to Road Book

### WARNING

ONLY USE WHEN SURE!!!

PRESS to RESET Road Book

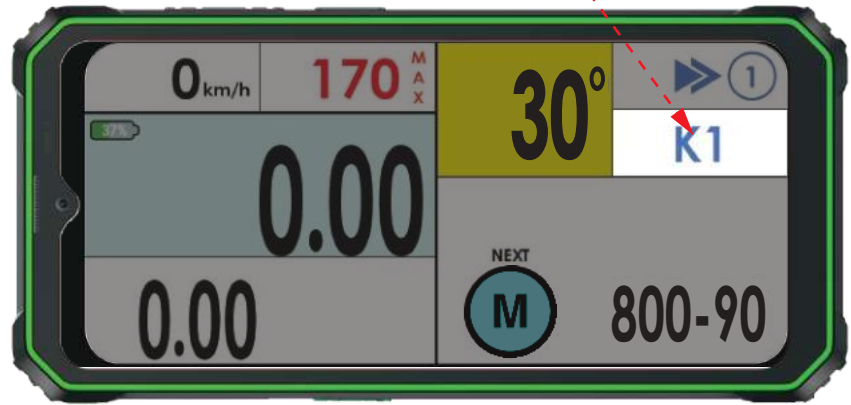
A dialog window will be displayed and will require conformation

\* All stage data and progress will be lost!!!

## How to edit Settings

1.

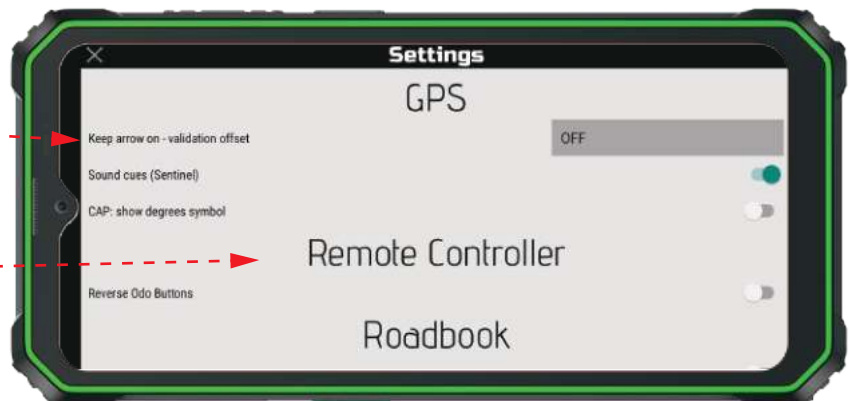
PRESS here to enter Settings



2.

GPS related settings

Control Settings

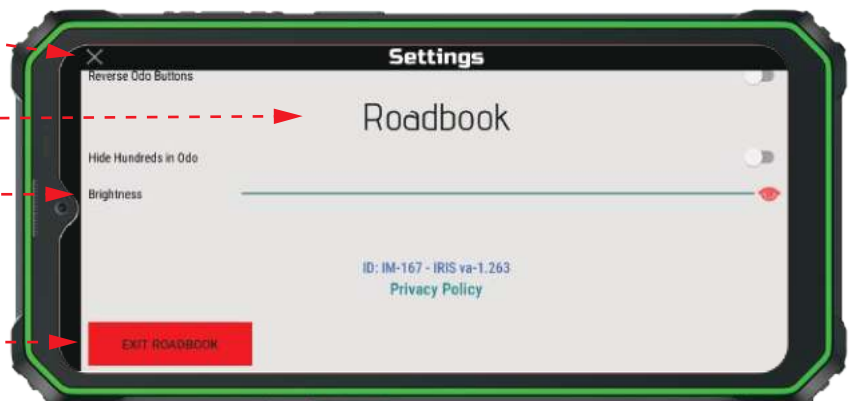


PRESS to close Settings and return to Road Book

Road Book Settings

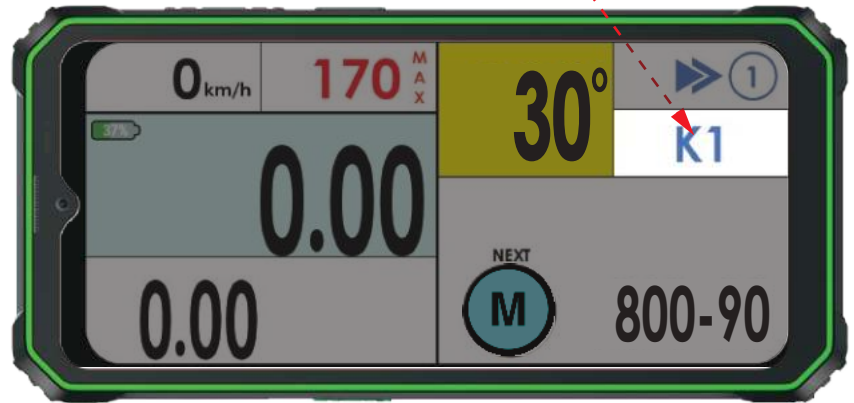
Brightness Adjustment

PRESS to exit Road Book and return to Road Book List

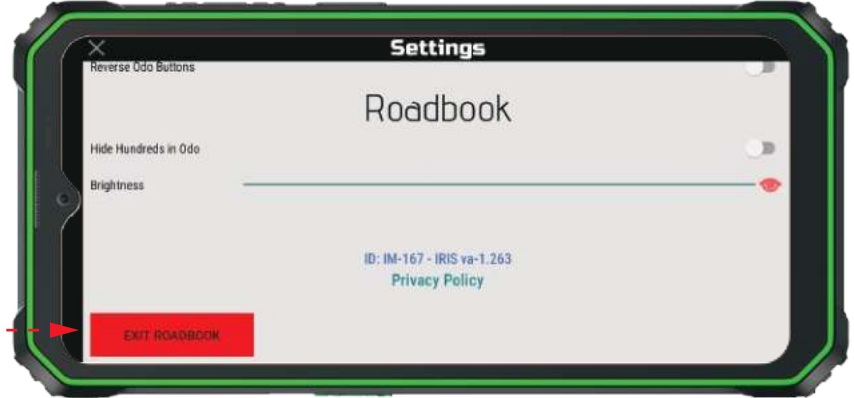


## How to EXIT and CHANGE Road Book

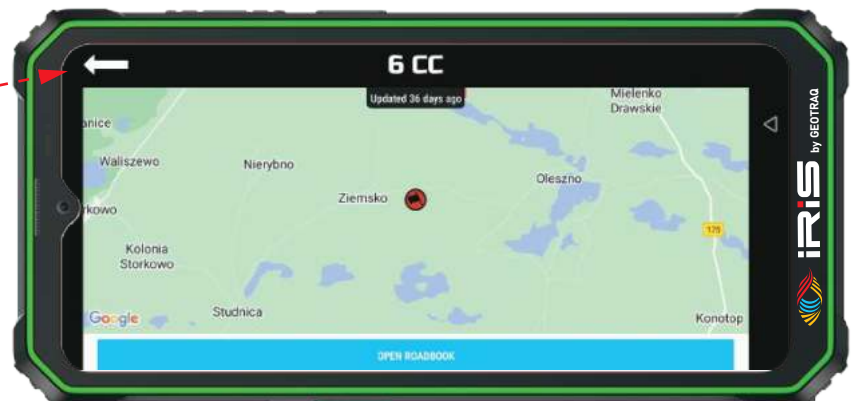
1.  
PRESS here to enter Settings



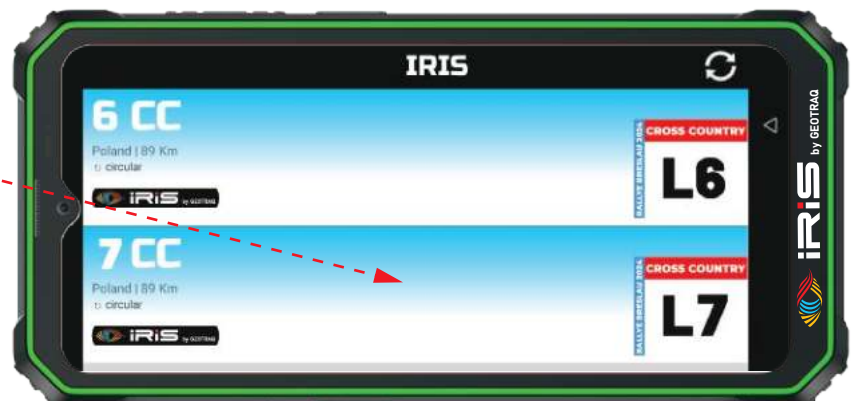
2.  
Slide Down and  
PRESS to exit Road Book



3.  
Back to  
SELECT ROAD BOOK



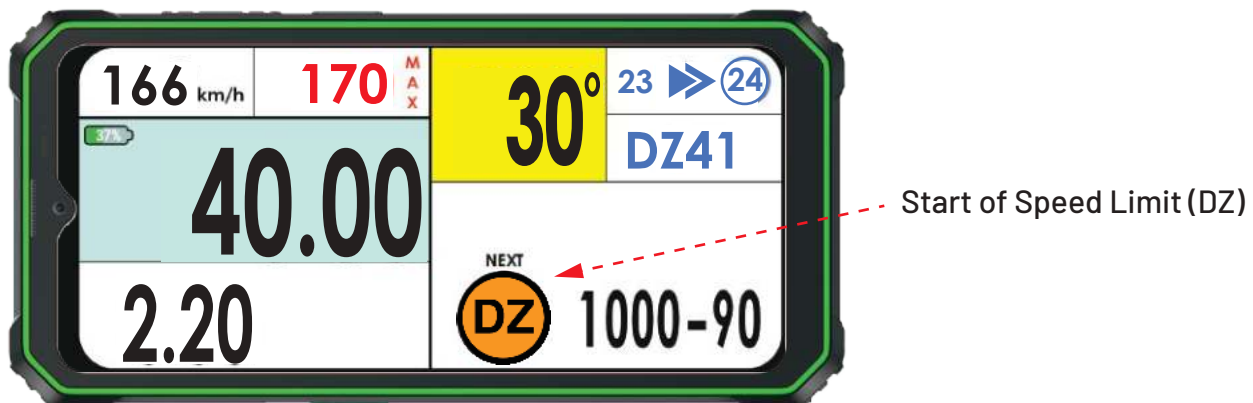
4.  
SELECT ROAD BOOK



## Behaviour in Speed Limit

### 1. Heading to Speed Limit

- Start of Speed Limit (DZ) is displayed as NEXT Waypoint in the Navigational part of the screen.



### 2. Entering of Speed Limit - 50 km/h, deceleration tolerance distance - **NO PENALTIES**

- The validation of the DZ Waypoint marks the beginning of the Speed Limit Zone. An Orange Frame around the screen will appear and the speed limit, in this case 50 km/h, will be displayed instead of the Global Speed Limit. The orange background with black figures shows that you are in the deceleration tolerance distance where no penalties for speeding will be applied. See FIA Sporting Regulations. *Driving speed is below the speed limit - Diagram 1*

Driving Speed **BELOW** Speed Limit

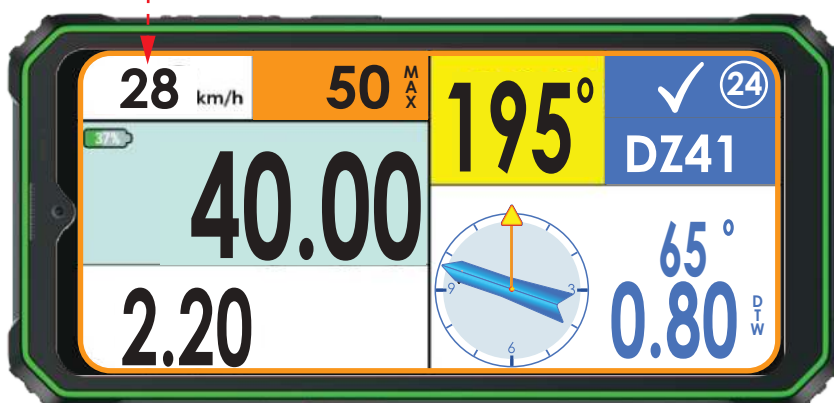
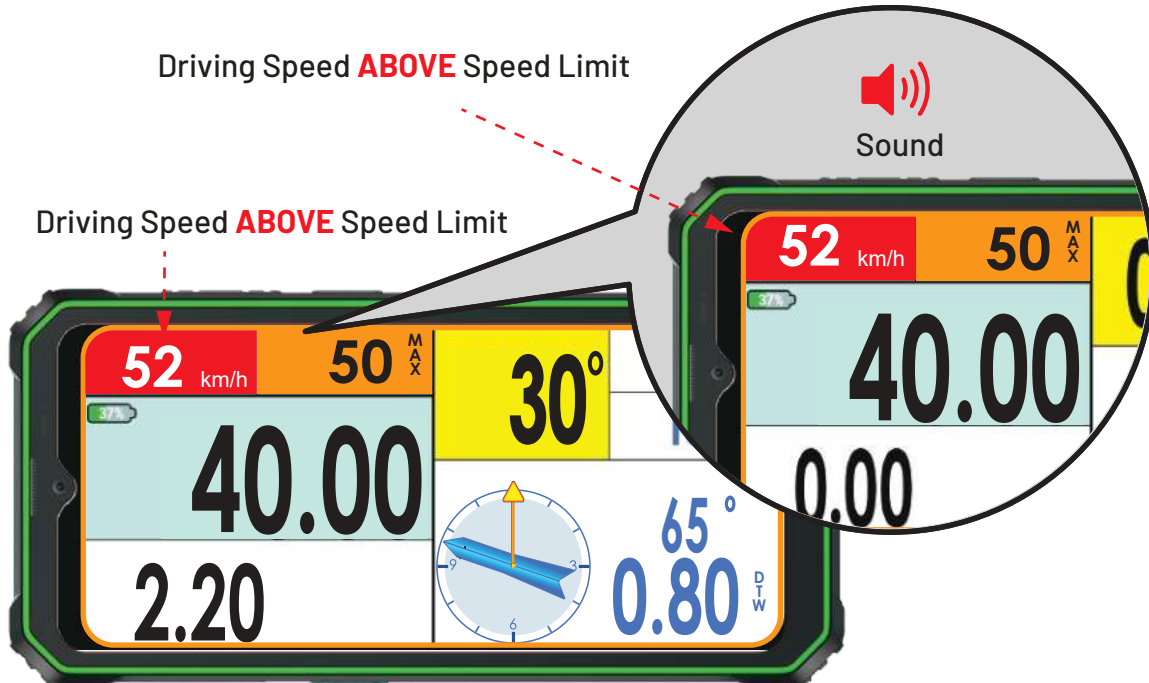


Diagram 1

- If the current speed is higher than the speed limit, the Current Speed Indicator is flashing with red background and white figures, combined with warning sound.

**Driving speed is above the speed limit - Diagram 2**

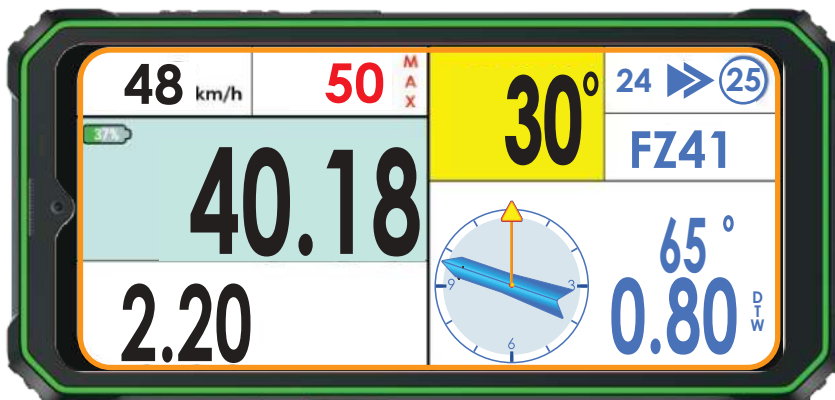


**Diagram 2**

### 3. Inside of Speed Limit - 50 km/h, past deacceleration tolerance distance - **PENALTIES APPLY**

- Past deacceleration tolerance distance penalties will be applied if the driving speed is higher than the speed limit. The speed limit indicator changes its background from orange to white and the color of the figures from black to red. The orange frame around the screen stays on. Warning sounds become more frequent when driving speed comes closer to speed limit.

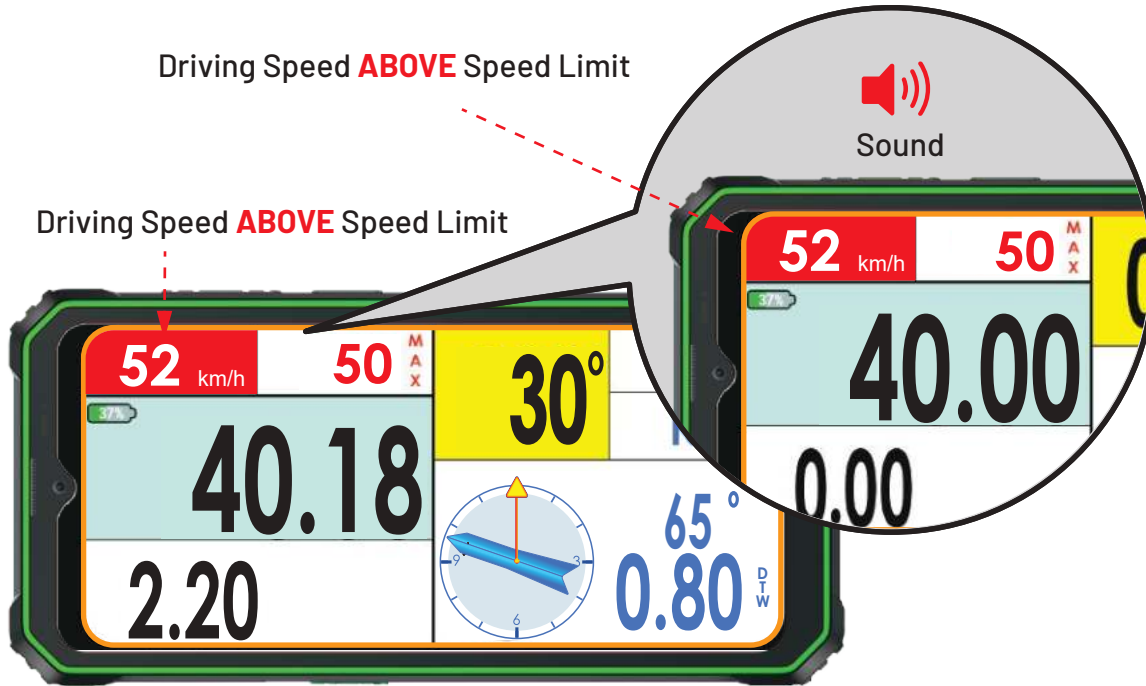
**Driving speed is below speed limit - Diagram 3**



**Diagram 3**

- If the driving speed is higher than the speed limit, the Driving Speed Indicator is flashing with red background and white figures, combined with warning sound.

**Driving speed is above the speed limit - Diagram 4**

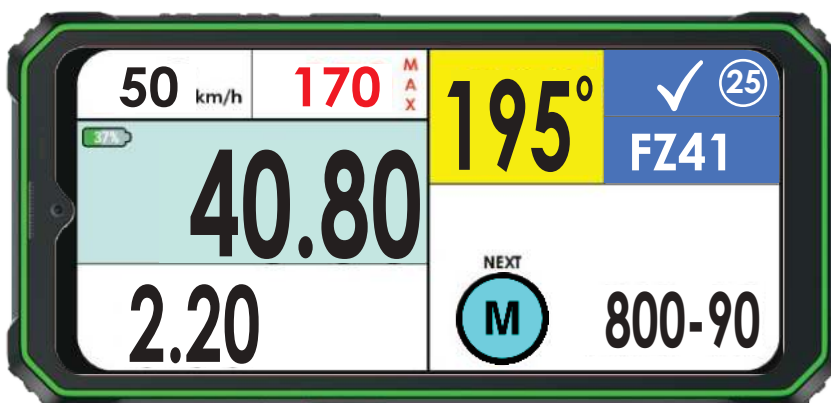


**Diagram 4**

## 4. Finish of Speed Limit

- The validation of the waypoint Finish of Speed Limit (FZ) marks the end of the speed limit zone. The orange frame around the screen is turned off. The Global Speed Limit replaces the speed limit indicator. Acceleration can begin.

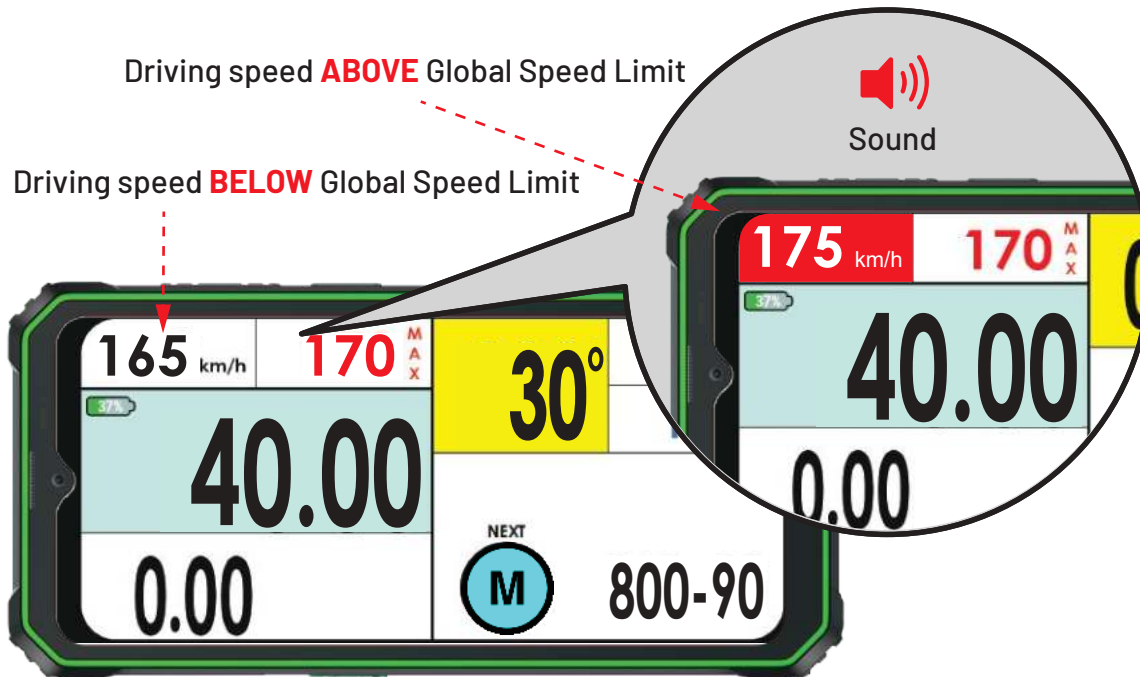
**See Diagram 5**



**Diagram 5**

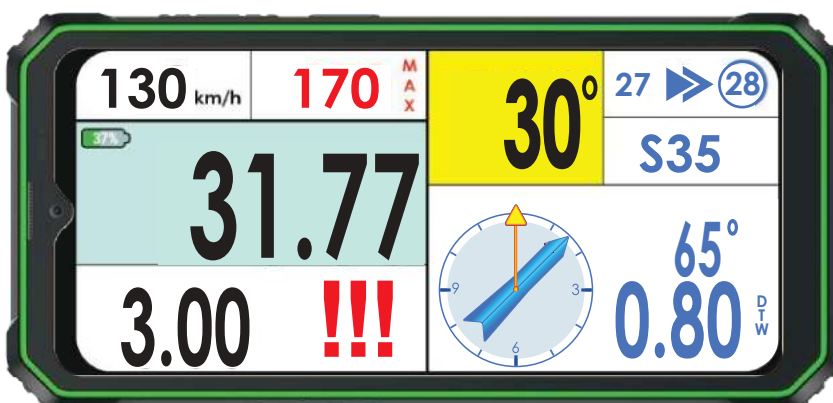
## Warning for Global Speed Limit

- If the driving speed is higher than the Global Speed Limit, the Current Speed Indicator is flashing with red background and white figures, combined with warning sound.



## Warning for Safety Waypoint - Danger Level 3

- 300 meters before the validation of the Safety Waypoint the symbol of Danger Level 3 will appear flashing in the Warning / Info Area of the screen together with a repeated warning sound. When the Safety Waypoint is validated the symbol Danger Level 3 disappears and the warning sound stops.

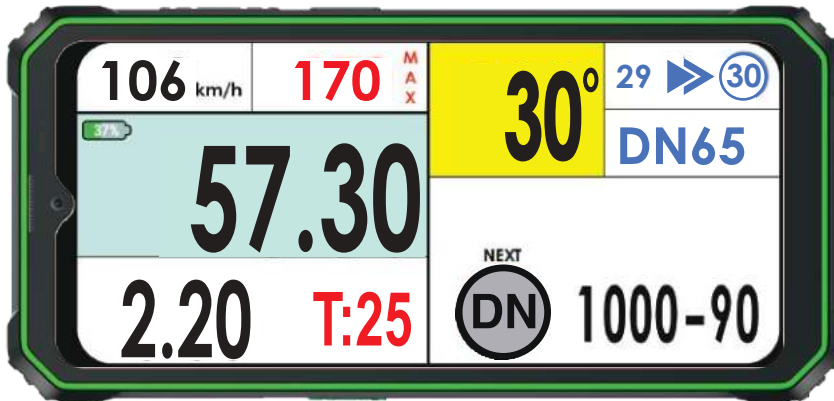




## Behaviour in Neutralisation and Transfer Ⓧ and Ⓧ

### 1. Heading to Neutralisation

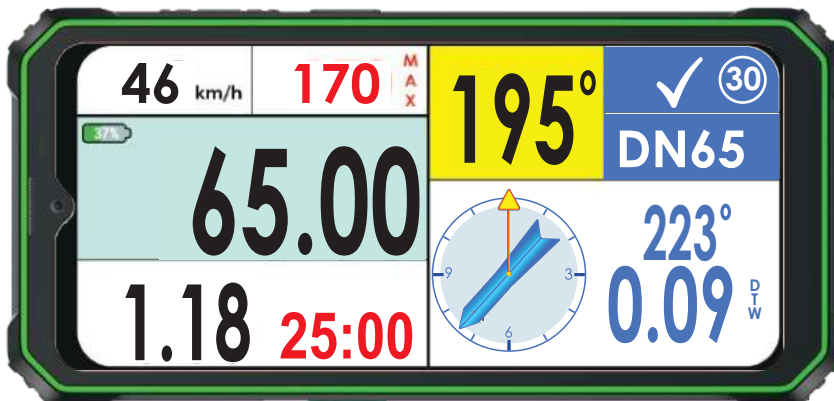
- 300 meters before the start of Neutralisation the Time for Neutralisation will be displayed in the Warning / Info Area of the screen ( in this case T:25).



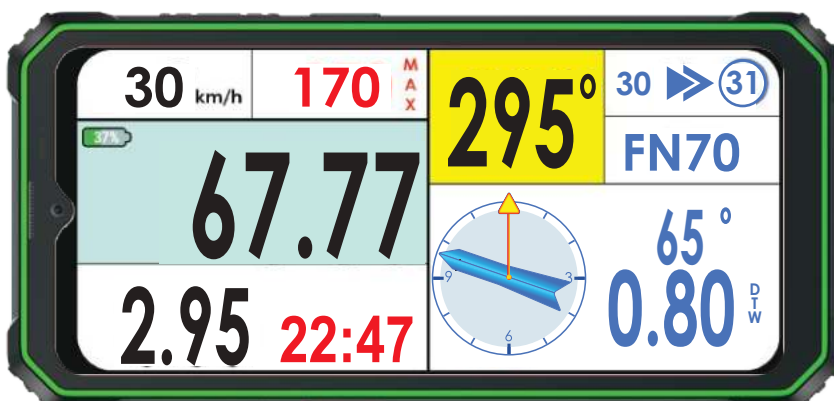
### 2. Start of Neutralisation

- When the Waypoint for Start of Neutralisation (DN) is validated, a reverse time counter appears in the Warning / Info Area of the screen and starts counting back the time for Neutralisation.

See *Diagram 6 and 7*



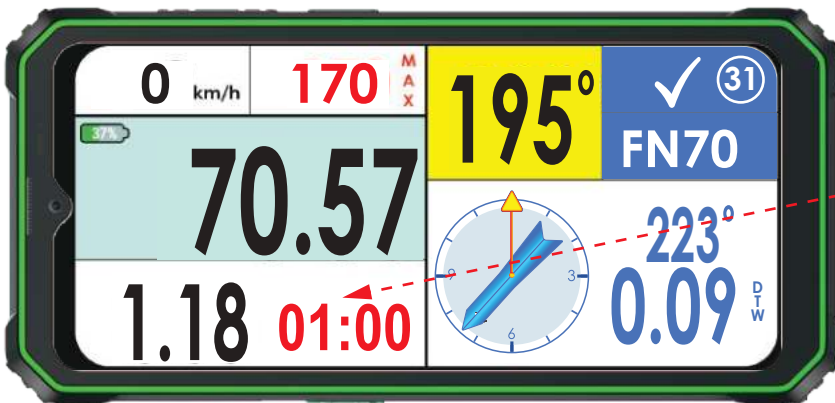
*Diagram 6*



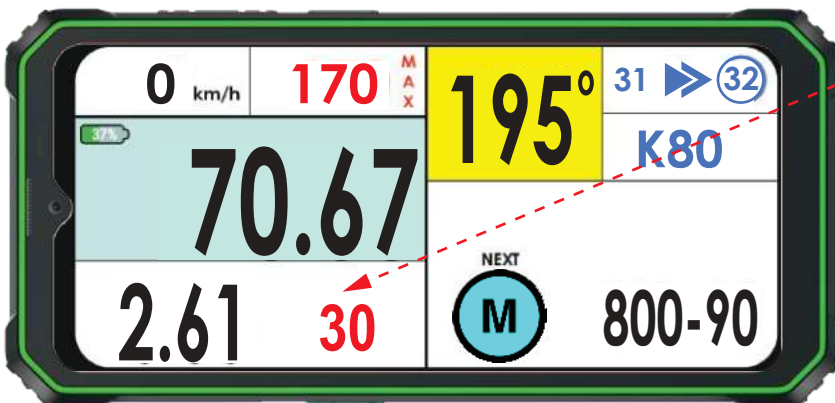
*Diagram 7*

### 3. Finish of Neutralisation

Having arrived at the end of the Neutralisation (FN), the Competing Vehicle must stop and wait in front of the Sign with the Start symbol on yellow background, from where the vehicle may enter the Validation Radius of the FN Waypoint 60 seconds before its individual start time and be driven to the start line. (START Symbol).

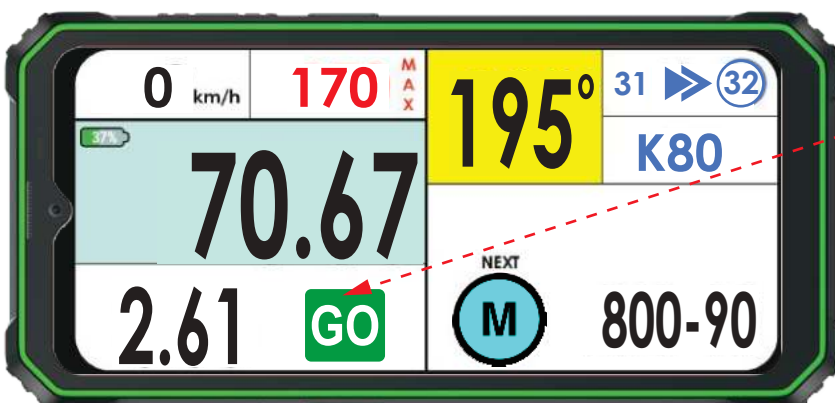


Vehicle must move to the restart line (Sign with Start Symbol in red background)



A sound will play at remaining time for restart:

- 30 sec
- 5 sec
- 4 sec
- 3 sec
- 2 sec
- 1 sec



The countdown is over and the vehicle must start



**GO** longer beep sound

### Behaviour in Neutralisation and Transfer with Speed Limit and

• The device manages Neutralisation / Transfer and Speed Limit combining the functionalities described in the two previous paragraphs.

## Troubleshooting

Problem	Solution
Screen doesn't turn ON	Charge the device.
The Blue button OPEN ROAD BOOK is missing because GPS signal acquired	Bring the device outside and ensure unobstructed view to the sky. Once GPS signal is acquired the Blue button will appear
On the blue button instead of OPEN ROAD BOOK a reverse timer is displayed	The road book will open after a preset time, defined by the organizer. Once the reverse timer has finished, OPEN ROAD BOOK will be displayed.
The touch screen is not working	Unlock the screen with LONG PRESS over area of Driving Speed, on top left corner of the Screen
Increasing Brightness	The Brightness can be increased from Settings menu. See Page 10

## Tips before Start

1. Ensure the rubber cap of the USB Type C ( on tne Bottom of the Device) is firmly closed before starting the vehicle.
2. Ensure the device has sufficient battery level before you start the day (minimum 60% for the day).
3. **Never charge the device while driving!**