

# GPS Safety Tracking Device - Installation

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We are using an app in GSM phone for safety tracking in rally events. System requires some preparations in the rally cars before rally starts. These are described below. Should you have any questions, we are happy to help. With the system we will have better communication facilities between rally control centre and the rally cars in case of any accidents, as well as a more secure communication channel between the cars and the rally control centre.

## *Charging Power*

App works only if GSM display is on. This uses GSM battery alot, so it's mandatory to provide charging for the phone and the outer antenna (outer antenna is not needed in RECCE). There are 3 options for this:

- 1) Car must have 2 female USB type-A power socket for 5V current. The socket must be within 80 cm of the planned installation location of the device (see requirements of the installation location below). The connection may be part of the car's main circuit, so that when the main power is switched off it will not be discharging the battery e.g. in overnight parc fermé.
- 2) It is also possible to use power bank to provide the charging. Power bank minimum capacity must be 20 000mAh, it need 2 female USB type\_A power sockets (1 for the phone and 1 for the outer GPS antenna) and it has to be fully charged when rally starts.
- 3) Female car cigarette lighter charger with 12V output. There is power divider for phone and outer

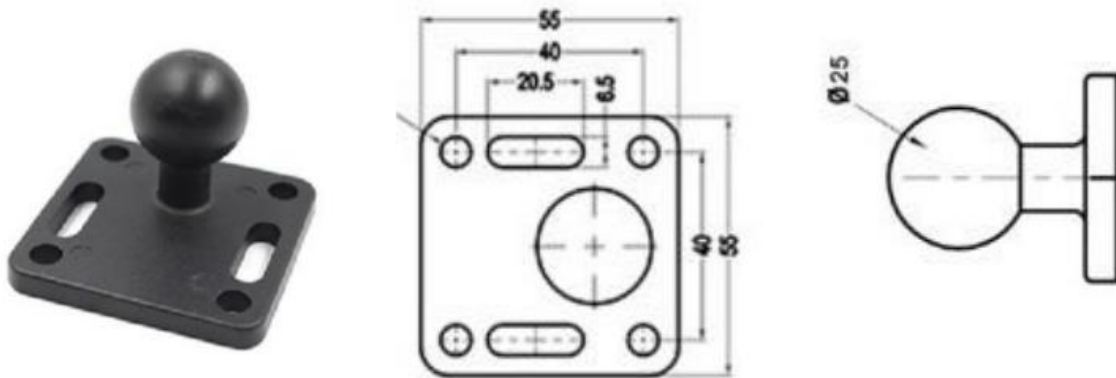


GPS antenna in the provided system.

## *Attaching the device to the car*

The device must be installed in the car with the equipment described in the following pictures. It is an absolute must that the device will be place so that:

- **both the driver and the co-driver can reach the touch screen without opening safety belts**
- **both the driver and the co-driver can see the screen when driving on special stage**



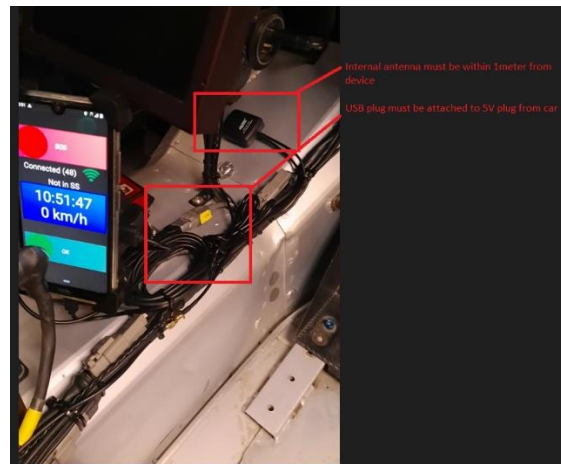
The device will be installed with 1" ball. This ball mount must be attached to the car with solid screws, in a place as instructed above, in order for the drivers to be able to use the device. The installation measurements for the base of the ball can be seen here. Screw hole diameter is 6.5 mm and distance between the holes 40 mm. If installed to the front panel of the car add support plate on the back side of the panel to avoid screws coming through the panel in case of accident and letting the holder fly freely in the car.

The GSM holder and phone is attached to the ball with the double socket arm. This allows you to orient the device so that it is easy to see by drivers.



GPS antenna must be installed as follows:

- GPS antenna is attached to the roof of the car or inside the back window phasing to the sky. In case installed to the roof antenna cable IS NOT ALLOWED to go to the roof via door or window frame, it has to go to the roof through the roof.
- Internally there is USB plug that needs to be plugged to 5V plug for the antenna to work.
- The internal antenna must be placed within 1 meter from the actual device. There is no pairing, ... to be done it works just as it is. Internal antenna must be minimum of 2 meters apart from the outer GPS antenna to avoid interference.

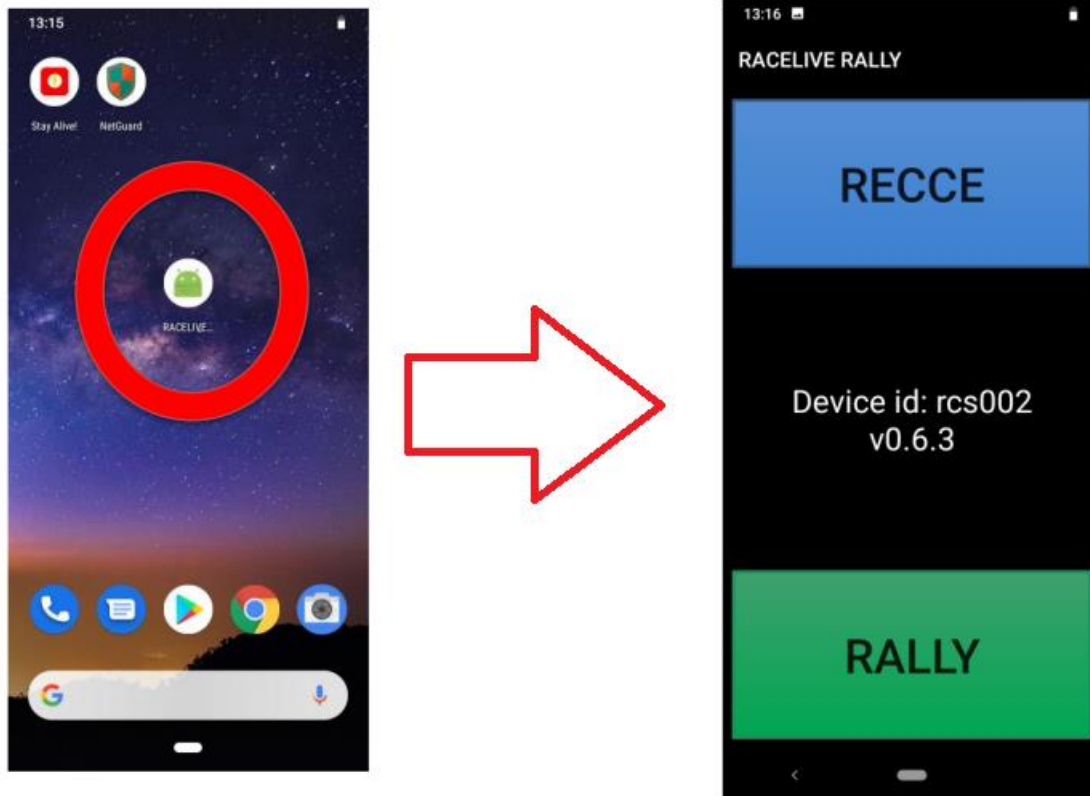


## GPS Safety Tracking - User's Manual

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All cars will be equipped with a GPS safety tracking device, run by XXXXXXXX with Traxmeet. Tracking is done using the equipment and the installed application. Below you can find the main features and operation instructions, installation instructions have been given separately.

Opening Screen When the device opens. In case RaceLive application is not automatically started start the RaceLive application from the icon circled with red in the picture.

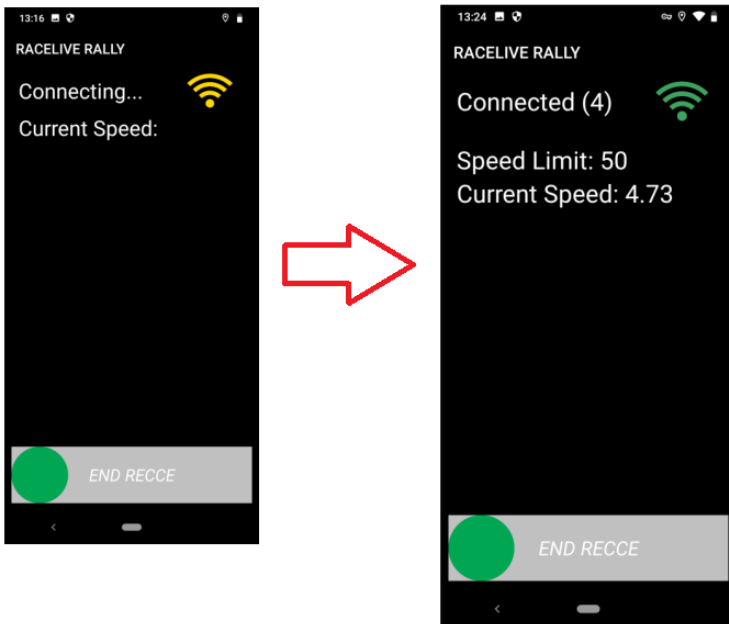


When the application opens, you choose reconnaissance tracking (RECCE) or (RALLY) tracking. If you do not make the choice, rally head quarters will automatically open correct view from their control panel.

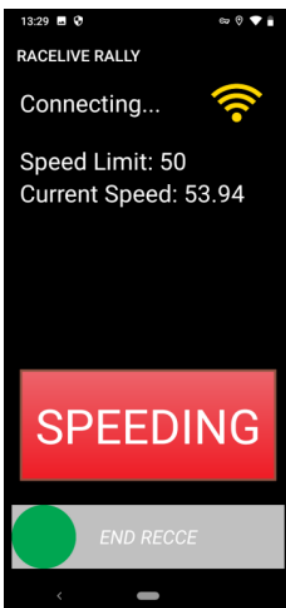
### *Reconnaissance Tracking*

If you press RECCE on the start screen, the view pictured on the left will open, as the device is searching for connection. Please place the device so, that the screen is visible and possible received message could be seen easily. Keep the screen always ON! Keep te device all the time at charger, so that it won't sun out of battery during the event!

Once connected, the device will show a possible speed limit set by the organizer for a certain area (e.g. a special stage) and your current speed. All competitor movement within special stage areas will be registered in the application database and can be used afterwards to monitor speeds etc..



Should you go over the speed limit set by the organizer, the device will show this to the drivers (SPEEDING). The device will not show any speed limits set by the road authorities. Any speeding will be stored in the application and system database.

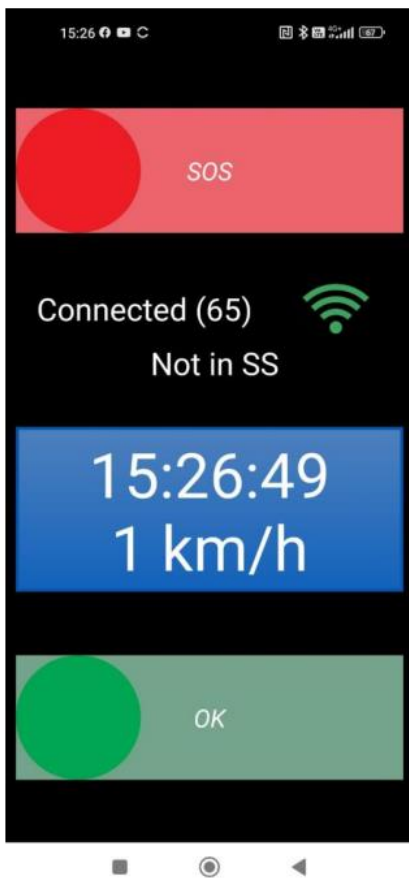


Once you finish reconnaissance, you can stop the tracking application by gliding the green dot at the bottom of the screen to the right. Close the screen during the night, or when finishing reconnaissance to spare battery.

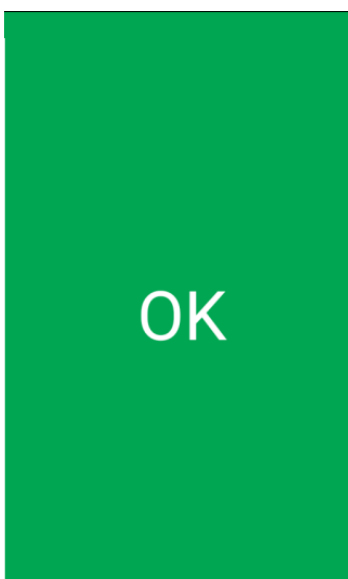
### *Rally Tracking*

When you have chosen RALLY tracking from the start screen, the view pictured on the right will open to the screen, as the device is searching for connection.

Once connected, the device will show the basic status with OK and SOS buttons, and the connection confirmation.

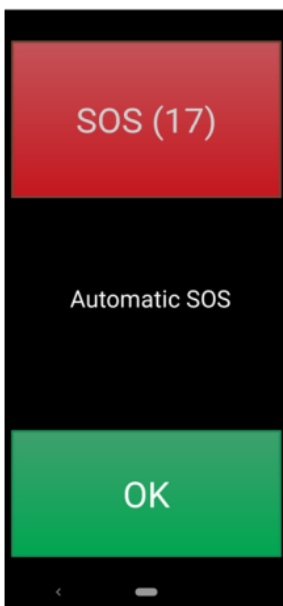


If you need to stop on stage to change a tyre or something, but there is no need for medical or fire assistance, not any danger to the surrounds, you must press OK on the basic status screen. When OK is pressed, the screen goes green. It will automatically return to basic status after approx. 5 seconds after pressing the OK and the message having gone through to the system.



### *AUTOT SOS Warning*

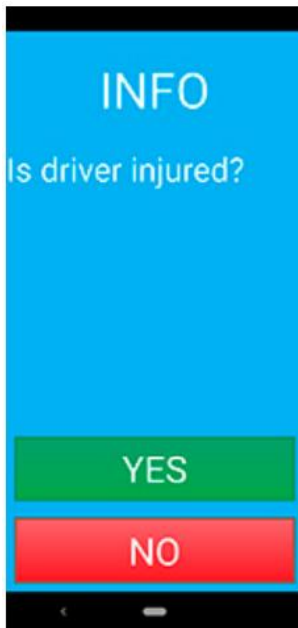
If you stop during the rally e.g. to change a tyre, the device will automatically start an SOS alarm in about 20 seconds. This option won't be active at road sections! The time before the alarm is made can be seen on the SOS button (17 seconds remaining on the sample screen). It takes about 40 seconds from the moment of stopping to the time of sending the SOS. You can dismiss the automatic SOS before it is sent by pressing OK. The Auto-SOS re-activates once the car is moving again at a minimum speed of 60 kph at the special stage. It will help the workload of the Rally Control significantly, if when stopping on a stage, you could press the OK before the alarm is sent off. Should the alarm be sent, the device will go back to basic status.



Should the alarm be sent, the device will go back to basic status. Should a competitor have an accident where help is needed, he needs to press the SOS button on the RALLY screen. Pressing the SOS button will take the application to the mode seen on the right, with three options for the user: 1. Confirm the alarm and ask for extinguishing assistance by pressing FIRE. 3. Confirm the alarm and ask for medical assistance by pressing MEDICAL. 3. Cancel the alarm by sliding the green dot to the right. After pressing FIRE/MEDICAL the button will flash for a while and the device will return to basic status.

### *Accidents – Communication*

The Rally Control has an option to communicate with the car, e.g. to get more information on the seriousness of an accident, number of patients or their condition. The screen will then show the INFO text, the question underneath and the answer options YES & NO . The drivers must answer accordingly. There may be multiple questions following one after the other.



#### *Accidents - Red Flag*

The application is equipped with an option for the Rally Control to send a Red Flag notification and thus stop the stage for these cars, e.g. in case of accident, road block or other reason. Should you receive a Red Flag on the screen, you must confirm its reception by pressing the OK at the bottom of the screen. NOTE! Red Flag will remain in the screen even after pushing the OK button. Application will go back to Race view only once Rally Control takes the Red Flag off.





### Slow Car Ahead Warning

In case system has detected stopped or slow (below 20km/h speed) car in front of an other car and distance is less than 300m then application will show warning message. Note that this is based on speed and location data sent to sever in SS. It is possible that due to poor data connection data is not updated and some warning will not come through or warning comes even though car has already moved away. Warning shows distance to slow car in red as shown below.

