

RALLY TRACKER USER'S MANUAL

The RALLY TRACKER device is a GPS tracking and signaling system designed for rallies and off-road competitions, developed by Alkamel Systems. The purpose of this equipment is to improve the safety and visibility of the competition teams in this type of events. The kit includes a main device and a secondary device for RECCES.



Photo 1. Main Device's general view



Photo 2. Secondary Device's general view

Use and functions of the device

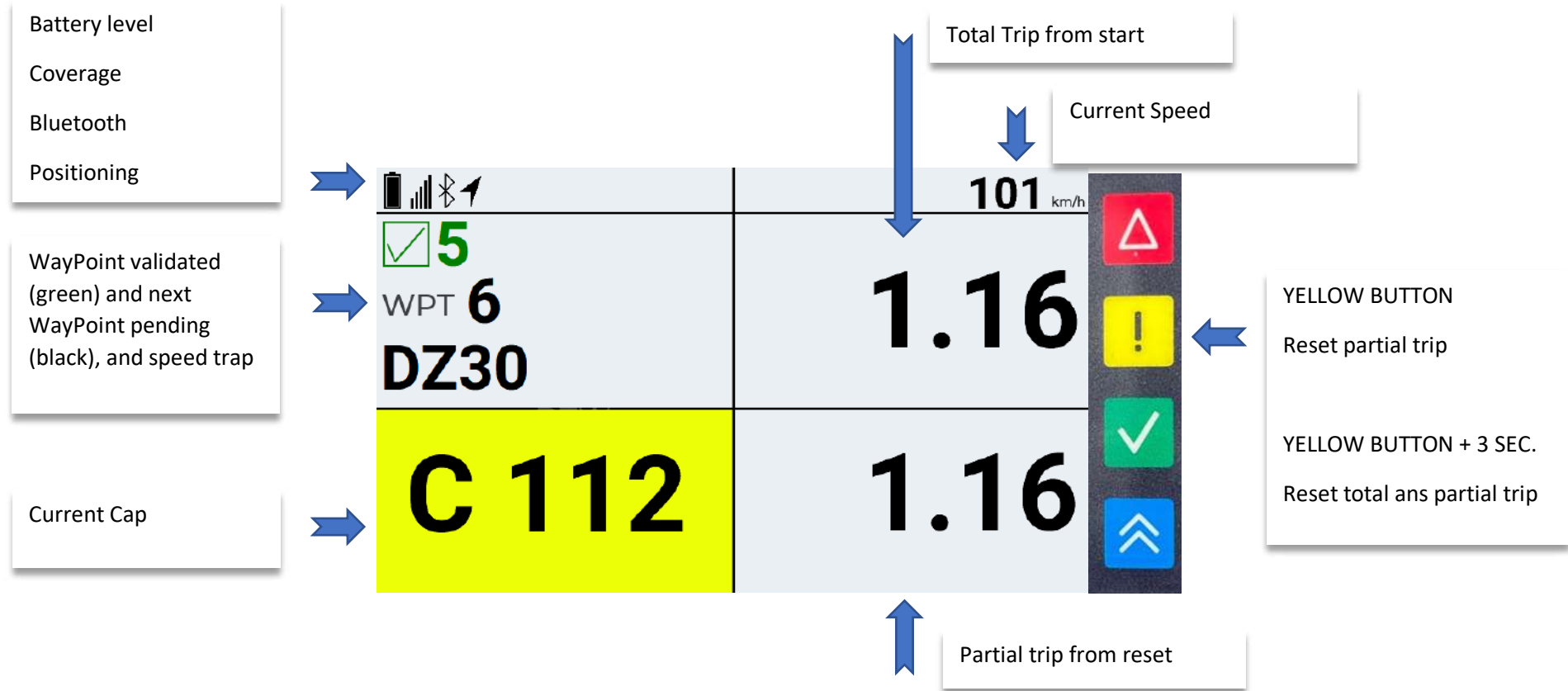


Photo 3. Main screen RallyTracker

BREAKDOWN WARNING Function

To indicate that the racing car has stopped due to a breakdown, the **RED BUTTON** located on the right side of the Display must be pressed for **3 seconds**, and the Display lights up orange, asking for confirmation if the track is blocked. or not.

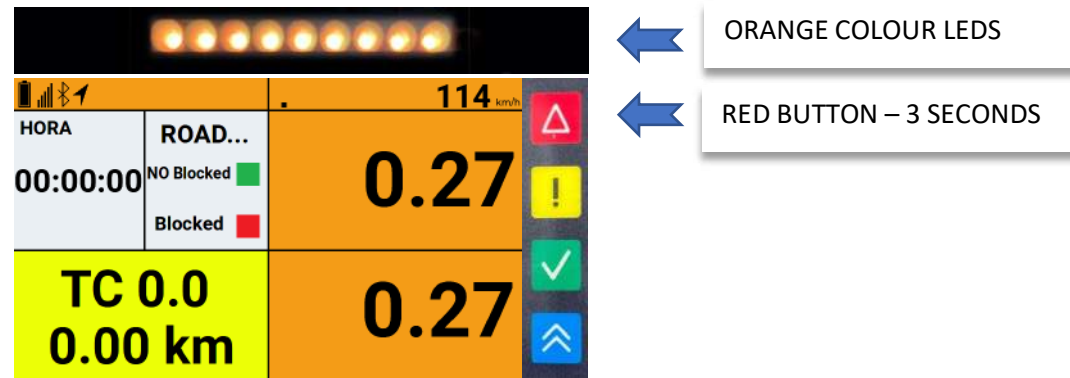


Photo 4. Display BREAKDOWN WARNING – Confirmation Blocked or not.

If the track is not blocked, the **GREEN button** must be pressed, leaving the display as in Photo 5.

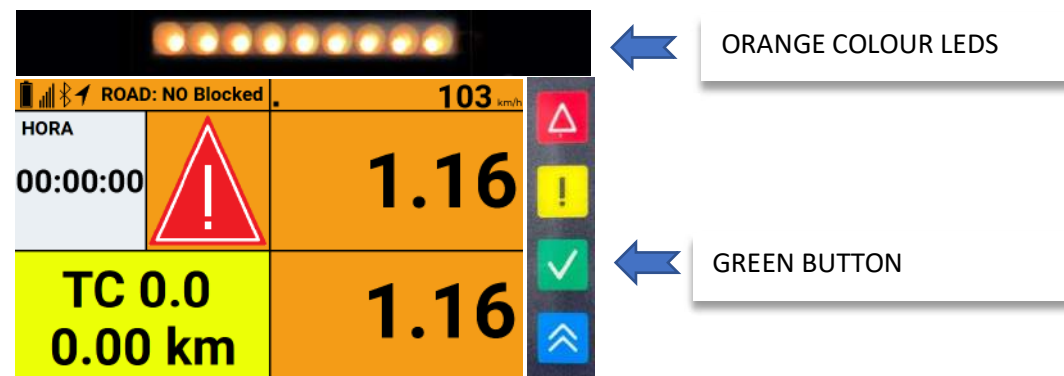
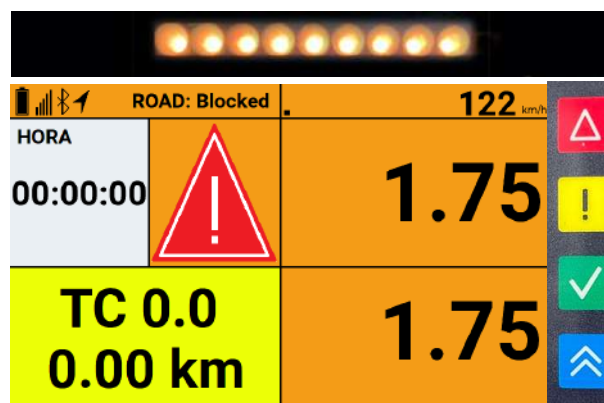


Photo 5. Display BREAKDOWN WARNING NO BLOCKED confirmed.

If the track is blocked, the **RED button** must be pressed, leaving the display as in Photo 6.



ORANGE COLOUR LEDS



BOTÓN ROJO

Photo 6. Display **BREAKDOWN WARNING BLOCKED** confirmed.

The rest of cars that approach the damaged car (**RECEIVER**), will receive a warning on the display with the message **DAMAGED**, with a flashing orange background and the distance to which the damaged car is.



Photo 7. Display **APPROACHING DAMAGED CAR**.

SOS – Emergency Function

To indicate that a car has been involved in an accident, the **RED** and **YELLOW** button located on the right side of the Display must be pressed simultaneously for **3 seconds**. And the screen according to Photo 8 will be displayed.

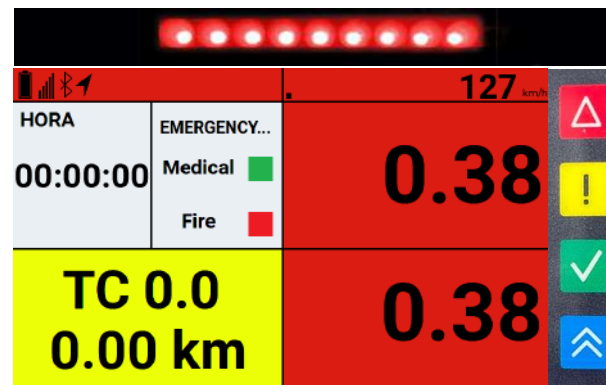


Photo 8. Display SOS EMERGENCY - MEDICAL OR FIRE CONFIRMATION

If the intervention of the medical services is necessary, the **GREEN** button must be pressed, leaving the display as in Photo 9.

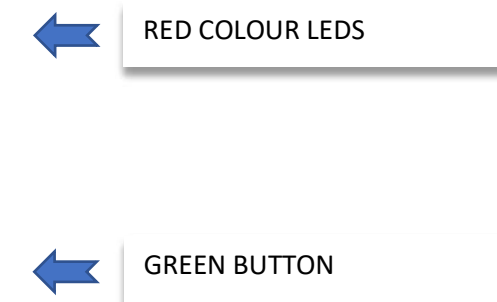
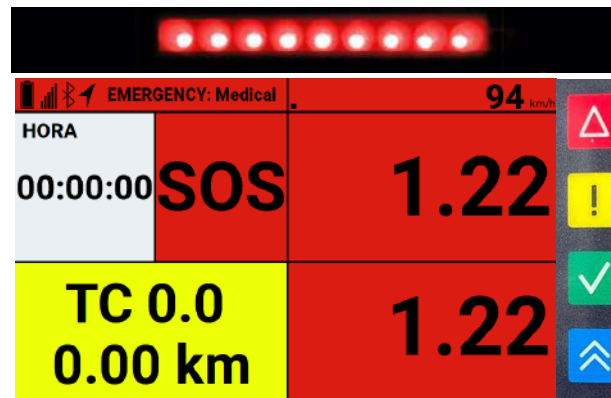


Photo 9. Display SOS EMERGENCY MEDICAL CONFIRMED

If the intervention of the firefighters is necessary due to a fire, the **RED** button must be pressed, leaving the display as in Photo 10.

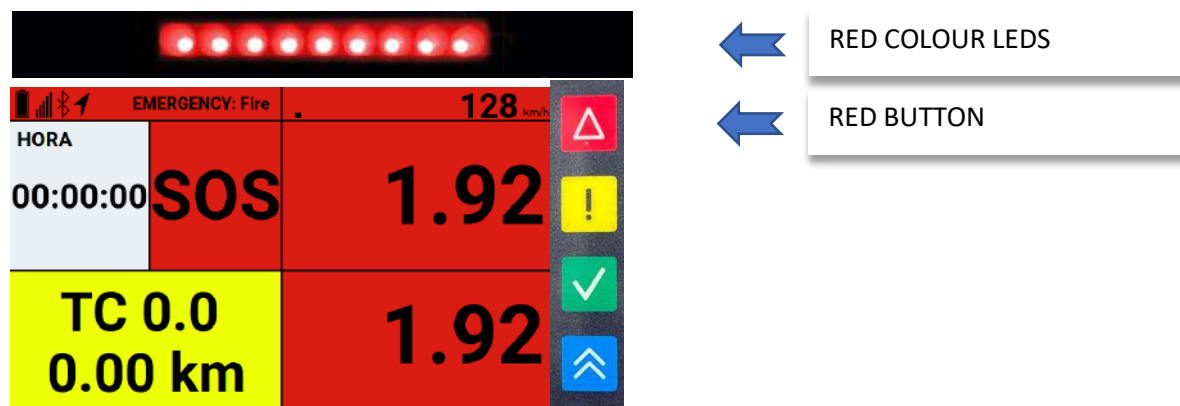


Photo 10. Display SOS EMERGENCY FIRE CONFIRMED

The rest of the cars that approach the car damaged (**RECEIVER**), will receive a notice on the display with the message EMERGENCY: FIRE OR MEDICAL, with a flashing RED background and the distance from the car.

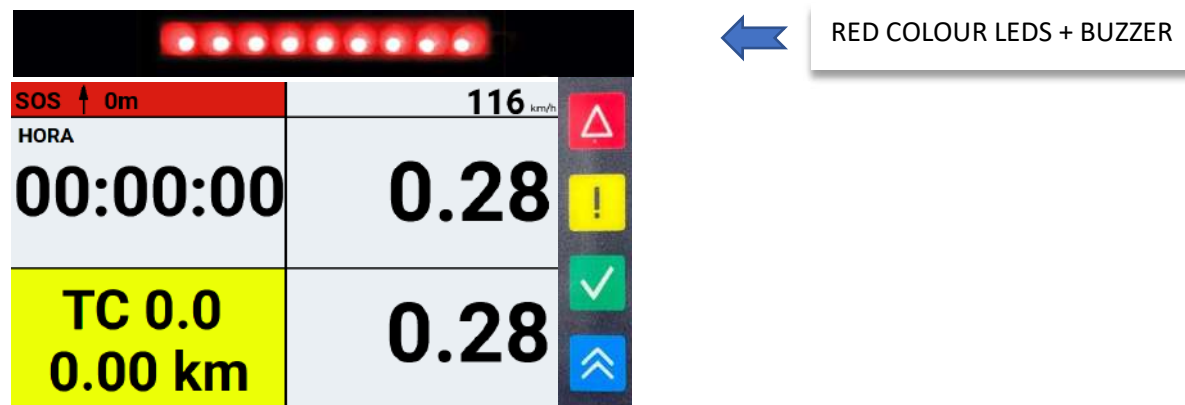


Photo 11. Display APPROACHING TO SOS EMERGENCY CAR

If Race Direction thinks it is appropriate to cancel the stage, the display will flash red, showing RED FLAG, it is mandatory pressing **GREEN BUTTON** to confirm it.

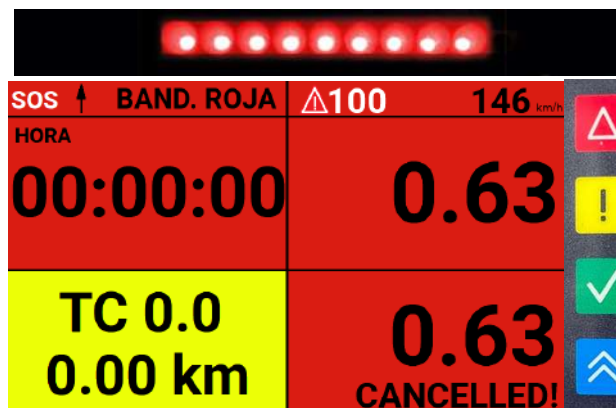


RED COLOUR LEDS + BUZZER



GREEN BUTTON

Photo 12. Display RED FLAG – CANCELLED STAGE, pending confirmation.



RED COLOUR LEDS + BUZZER

Photo 13. Display RED FLAG – CANCELLED STAGE, confirmed.

OVERTAKING Function

To indicate to the preceding car that an overtaking is requested, it is necessary to be at a predetermined distance within a range established by Race Direction. This overtaking can be requested in advance, but the message will not be sent until the two cars are within the allowed range. To request this overtaking, the **BLUE** button must be pressed for **2 seconds**, leaving the display as in Photo 14.

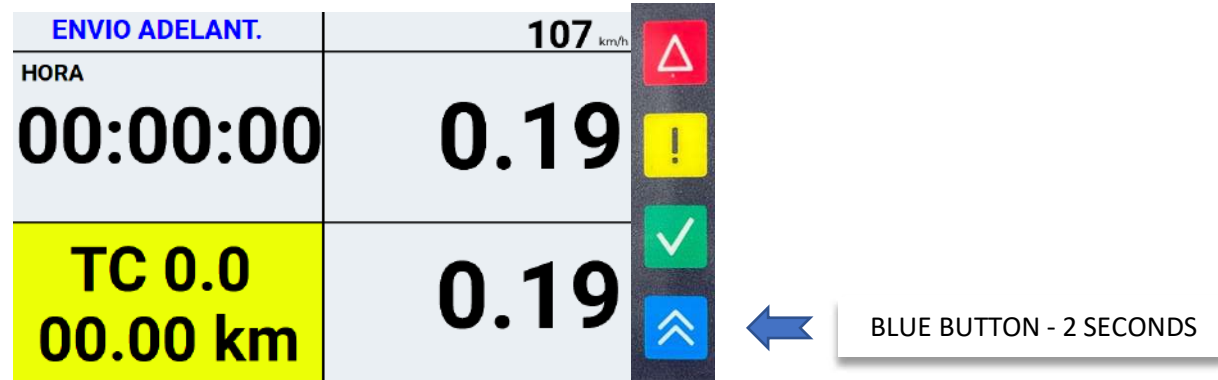


Photo 14. Display OVERTAKE REQUESTED – OUT OF RANGE.

As soon as the two cars are within the predetermined overtaking range, the requesting car will receive **WAITING OK** in solid blue.



Photo 15. Display OVERTAKE REQUESTED IN RANGE.

When the preceding car accepts the overtaking by pressing the **BLUE** button, the requesting vehicle will receive GO in fixed green.



Photo 16. Display OVERTAKE CONFIRMED FAST CAR.

The vehicle that was requested to overtake (**RECEIVER**) will receive OVERTAKING REQUESTED on the display in fixed blue, it is necessary to confirm the overtake pressing the **GREEN BUTTON**.

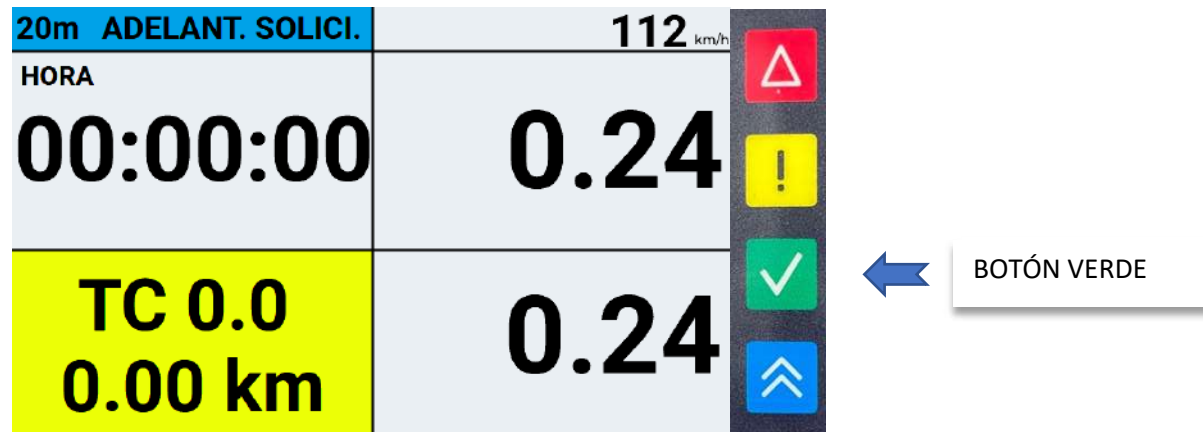


Photo 17. Display OVERTAKE CONFIRMED SLOW CAR.

BACK TRACK Function

This screen will appear in a backtrack situation, after having traveled a certain number of meters in the opposite direction. As in most cases, it can be activated inside or outside the WayPoint area. The LEDs will light up RED showing BACK TRACK

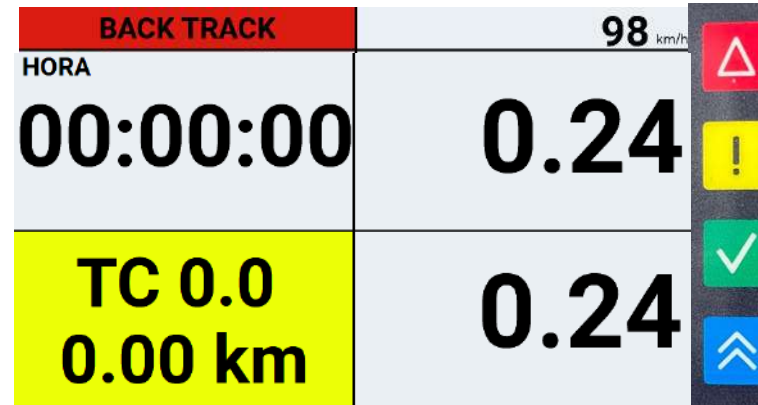


Photo 18. Display BACK TRACK.

If a risk of collision of two participants traveling in opposite directions is detected, the following warning will be displayed.

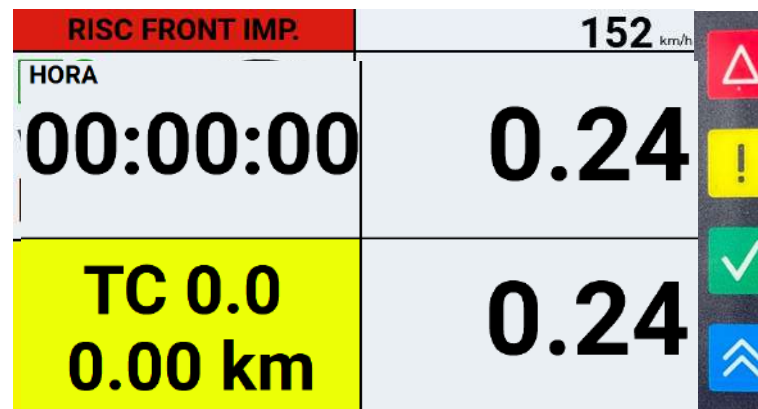


Photo 19. Display RISC FRONT IMPACT.

DANGER Function

This screen will appear when a car is approaching a danger. Unlike the other screens, this one is always accompanied by a WayPoint.

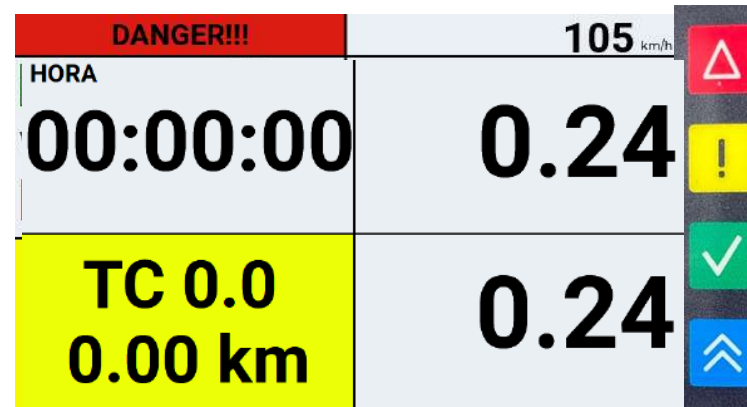


Photo 20. Display DANGER.

DZ Function

This screen will appear when approaching a reduced speed zone. There will be a tolerance zone predetermined by Race Direction before and after WayPoint validation. At this time, an orange bar will appear that will also indicate the maximum speed allowed. When this speed is exceeded, the color will change to red and an acoustic alarm will be triggered.



Photo 21. Display REDUCED SPEED ZONE DETECTION (correct speed).

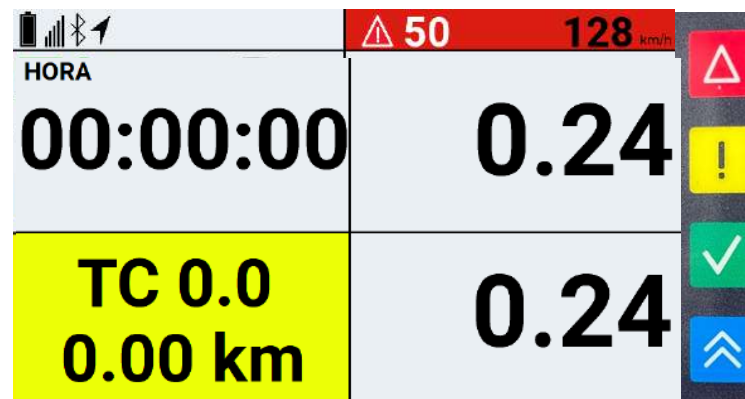


Photo 22. Display REDUCED SPEED ZONE DETECTION (overspeed).

NEUTRALIZED ZONE DETECTION Function

This screen will appear when we are in a neutralized or refueling zone. Normally, it is accompanied by reduced speed (DZ ZONE).



Photo 23. Display NEUTRALIZED ZONE DETECTION AND REDUCED SPEED.