



## **Competitor User Manual**

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## Welcome

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For your and other competitor's safety it is important that you are familiar with the use of the RallySafe unit, herein referred to as "the unit" or "the RallySafe".

The RallySafe System is designed to increase competition safety by providing 'live' status awareness to all cars as well as safety notifications which inform event management and assist drivers to avoid secondary incidents, improve response times and provide accurate and reliable event times.

The following document outlines the basic features and functions of the RallySafe unit.

If you have any questions, please don't hesitate to contact the team at RallySafe or alternatively ask your fellow competitors.

## Powering the Unit On

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The unit is pre-loaded with all of the stage coordinates and is activated when powered on. Before connecting power to the unit ensure there is a Green light on the power connector.

**Important:** Before connecting power to the unit ensure there is a Green light on the power connector.

Please power the unit on early before the event to give it time to run checks and allow a check of the full system. Once you have received the unit please install and powerup. This will allow the RallySafe representative time to check all systems are good to go, and will ensure you are not delayed getting to your first time control.

When powered on the unit will display the transport screen ([SCREEN 1](#)) which displays the car number (top corner), then transit time, distance and speed.

The unit does not need to be powered off at any stage during the event as it will go to sleep within a few minutes of inactivity but can be re-woken by either moving the vehicle or pressing any of the four buttons.

It is recommended that the unit is not powered off at any stage of the event to ensure the internal battery stays fully charged for emergencies.

## Stage Modes

The unit has two modes. When in a competitive stage the unit will go into stage mode, and all other times it will be in transport mode. (SCREEN 1)

### Transport Mode-

Transport mode displays the name of the next point you are travelling to, whether it is a service or a competitive stage. While on a transport stage the unit will display your time in transit, current time, speed, average speed and accumulative and intermediate distances.

The unit has four white buttons, in different screens those buttons can do different things, so their functions are listed on the screen above the button's location.

In the transport screen you have the option to reset the intermediate and main trip meter and dim or brighten the screen. Note that the screen must always be clearly readable so full brightness is recommended for daytime.

The logo for RallySafe, featuring the word "Rally" in a stylized, italicized font above the word "Safe". The letters "S", "A", "F", and "E" are each inside a colored circle (blue, green, orange, and red respectively) which are arranged horizontally below "Rally".

*Status Awareness Systems*

Stage	Transit to Event	Car 934
Time	0h08.43	Current time 12:34.56
Distance	9.46 km	2.34
Speed	63.2 kph	Avg 65.1
OPTIONS	BRIGHT	DIM RESET

A white, rounded rectangular button.

A white, rounded rectangular button.

A white, rounded rectangular button.

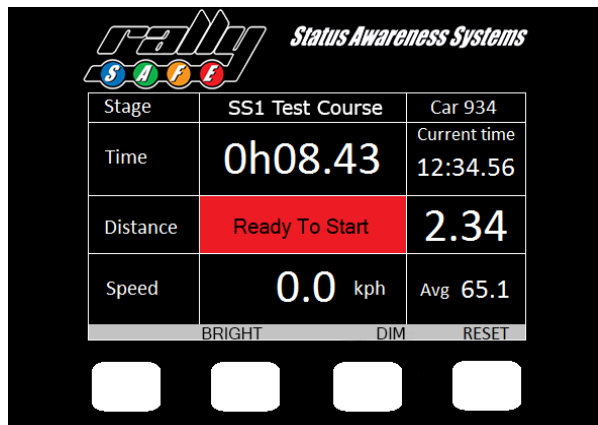
A white, rounded rectangular button.

(SCREEN 1)

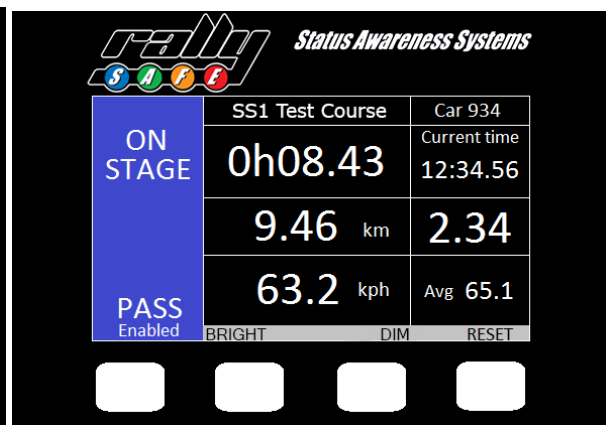
## Stage Mode-

**SCREEN 2** – Once you have checked in and the unit is within 20meters of the start line the unit will then proceed to stage start mode (Ready to start).

**SCREEN 3** - Once you have started the stage the unit will then switch to on stage mode. The unit will start timing and the push to pass option will appear (If applicable for the event).



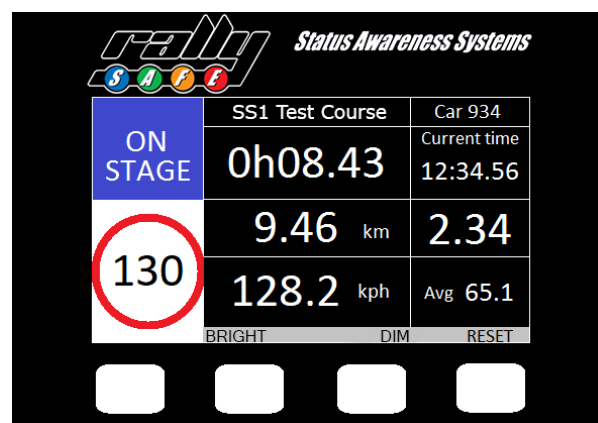
(SCREEN 2)



(SCREEN 3)

## Speed Monitoring

**(SCREEN 4)** In events or categories that have a speed limit there is a warning that displays when approaching the speed limit.



(SCREEN 4)

## Safety Notifications

RallySafe has a number of safety features, from automatic slow car notifications, Hazard and SOS features. The following will show you how to use and respond to any notifications the RallySafe unit alerts you to.

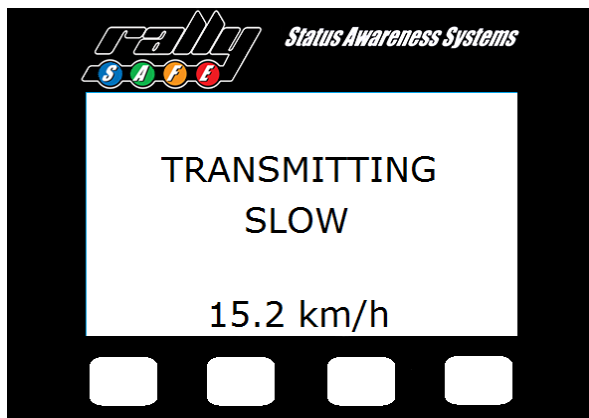
When the unit is not providing safety notifications it will be either on the STAGE SCREEN mode or TRANSIT MODE.

When the unit is in ON STAGE mode, the unit will automatically transmit a SLOW CAR message if your speed falls pre-defined limits.

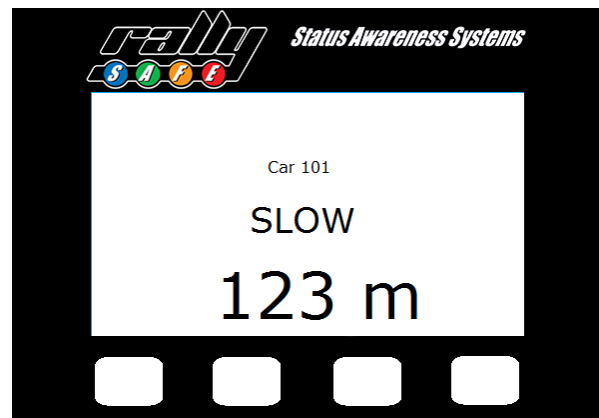
**SCREEN 5-** Your car has slowed and is now alerting cars (behind within limits) that you are travelling slowly.

**SCREEN 6-** The approaching car will then be shown the second screen. In this case there is a slow car (#101) that is 123 meters ahead.

If the car ahead speeds up to above 30kp/h before you reach them the screen will return to stage mode, but be aware they may still be travelling significantly slower than you.



(Screen 5)



(Screen 6)

## Hazard Alerts

### Sending Hazards-

The unit's primary function is to help alert competitors and race control of incidents on the course.

The incident is conveyed to race control and approaching cars with different levels of hazard depending on the severity-



(SCREEN 7)

(SCREEN 8)

(SCREEN 9)

**SCREEN 7** - If a car stops during a stage the unit will automatically transmit a HAZARD notification. You can upgrade or downgrade to OK or SOS by pressing the corresponding buttons below.

**SCREEN 8** - If you select OK after the HAZARD alert, then the following screen will appear, showing that you and the car are OK and out of the way of oncoming vehicles.

**SCREEN 9** - If a car is involved in a High G impact an SOS message will display. You then need to request further assistance from race control in the form of "Fire" or "Medical" by selecting the one you need out of the two middle buttons. If no urgent assistance is required, you must downgrade to OK or HAZARD by selecting the corresponding buttons.

Note: the information is received in Race Control for decision making. Quite often "SOS" is selected accidentally. This is why there are 2 actions required. To assist, while Race Control are organising resources, if you stop at an SOS where help is required, press your SOS button as well. If they have OK boards showing, they must remove the SOS warning.

Good Stop.

This is an improvement that has come back from the WRC. They must inform Race Control within 1 minute that they are OK, or suffer penalties. It does help Race Control manage the event.

When you do stop on course and are sending "Hazard", please press "OK" to inform Race control that you are OK. If you deem your car to be in a dangerous position, then return to "Hazard".

## Receiving Hazards-

Approaching vehicles will receive warnings accordingly. (This can be either OK, HAZARD or SOS)

**SCREEN 10- (OK)** The vehicle and crew ahead are OK and in a safe place, you may proceed at speed.

**SCREEN 11- (HAZARD)** The crew has signalled that they are OK but their vehicle may be blocking the road, proceed with caution as you may come across a fully or partially blocked road.

**SCREEN 12- (SOS)** The crew has signalled that they and the vehicle are NOT OK and need assistance. Please activate normal event emergency proceedings as per SOS situations.



(SCREEN 10)

(SCREEN 11)

(SCREEN 12)

Note : Hazard warnings are run in conjunction with existing safety systems. You must show OK and SOS boards as per event regulations.



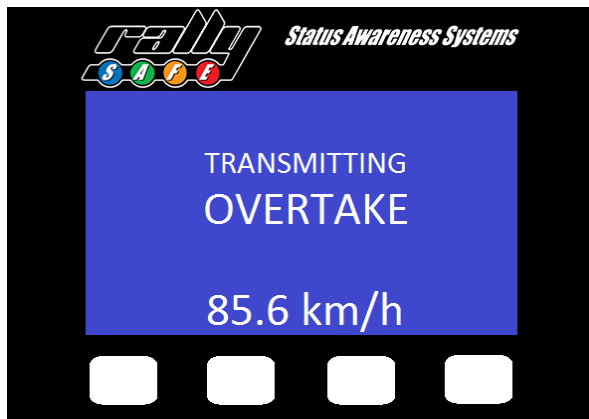
## Push to Pass

The push to pass function allows a car behind to alert a vehicle in front they have caught them on stage and wish to overtake safely. This function will only be available if enabled for the event.

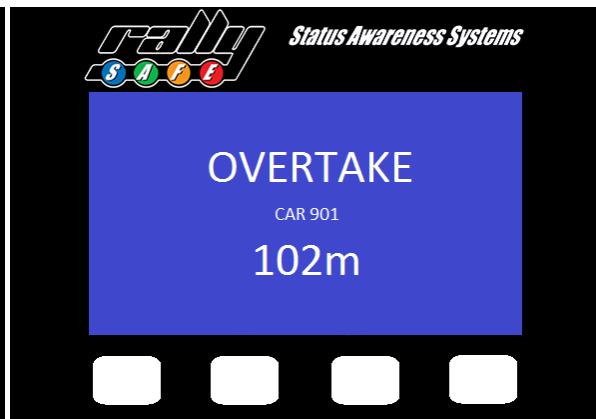
To activate this function, press the white button under the “PASS Enabled” section. See screen 3.

**SCREEN 13-** The screen shows a vehicle that has chosen to overtake the preceding car. (NOTE: This will only function correctly when the vehicle ahead is WITHIN a preset range)

**SCREEN 14-** This screen shows the preceding vehicle's unit. They will see the following screen, showing that a vehicle wishes to overtake them. In this case car 901 wants to overtake and is 102meters behind.



(SCREEN 13)



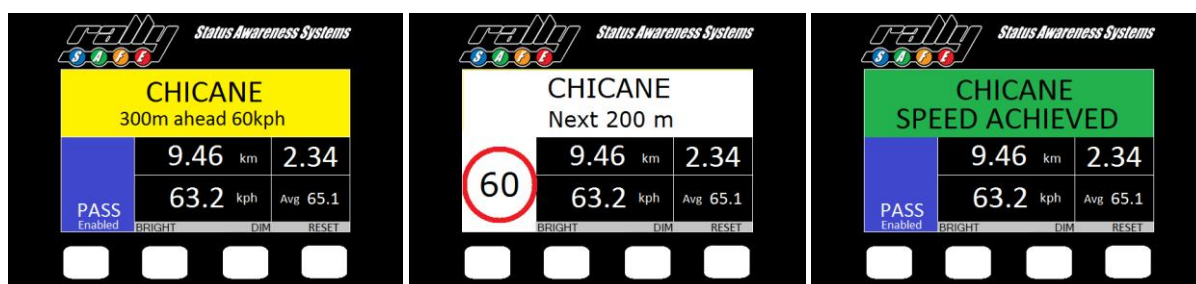
(SCREEN 14)

## Speed Zones

The RallySafe unit can also be used by event officials for speed monitoring both on stage and in transport. This is done in the form of speed zones set in place by event officials to restrict speed. These will be in your roadbook but the unit will display a warning as you approach the zone.

### Virtual Chicane-

Virtual chicanes are often used to break up long straights in competitive stages. They work by designating a zone in which you must slow down and hit a target speed. This means you can hit that speed at any point within the zone and then accelerate back to competition speed.



(SCREEN 15)  
showing speed below 60

(SCREEN 16)

(SCREEN 17) would be better

**SCREEN 15-** If your event has virtual chicanes they will appear on the 1st screen as shown below. It shows how far away it is and the speed needed to be achieved during the chicane. So, we have a chicane 300m ahead and the target speed is 60kp/h.

**SCREEN 16-** The 2nd screen will appear once you have reached the chicane, the screen shows the distance the chicane goes for in which you must lower your speed **ONLY ONCE** to the targeted speed to successfully complete the chicane. In this case the chicane goes for 200m and you must hit 60kp/h **ONCE**.

**SCREEN 17-** The 3rd screen will appear once you have reached the required speed and are now free to resume to normal racing speed.

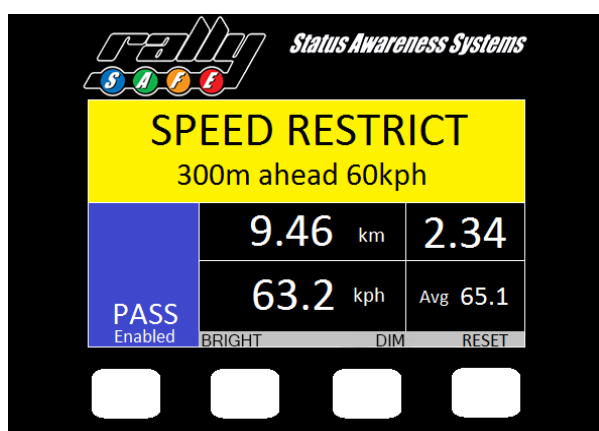
## Quiet Zone and Restriction Zone-

These 3 types of zones work in a similar way to the chicanes, with the unit providing a countdown to the start of the zone, however in this case it is to be treated like a speed limit and you must keep under the stated speed for the duration of the zone. You may see quiet zones used in transport stages and restriction zones in competition stages.

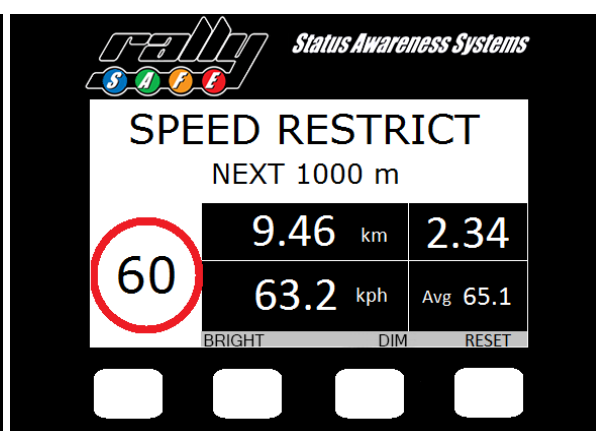
Note: Restricted zones can only be Restricted Speed Zones or Restricted Time Zones for the duration of the event.

## Restricted Speed Zone-

You are required to remain below the speed limit for the duration of the zone. Speed limit is displayed continuously.



(SCREEN 18)



(SCREEN 19)

## Restricted Time Zone-

You are required to remain in the zone for a required time. Timer counts down in the top right corner.



(SCREEN 20)



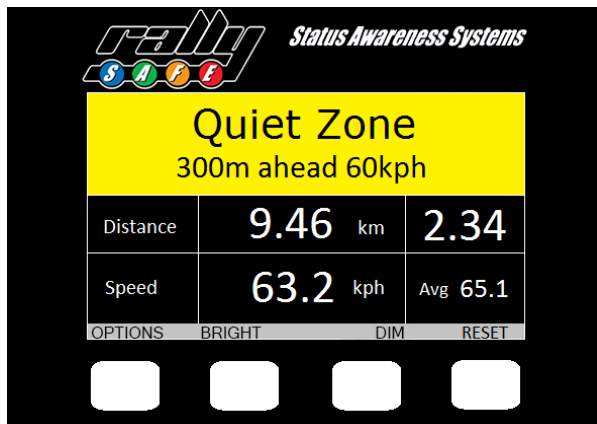
(SCREEN 21)



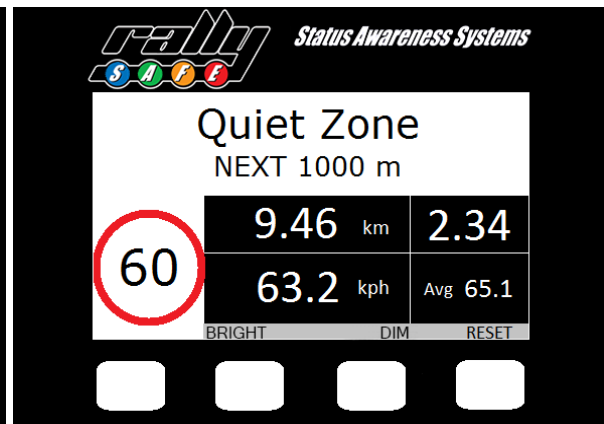
(SCREEN 22)

## Transport Quiet Zone-

You are required to remain below the speed limit for the duration of the zone. Speed limit is displayed continuously.



(SCREEN 23)



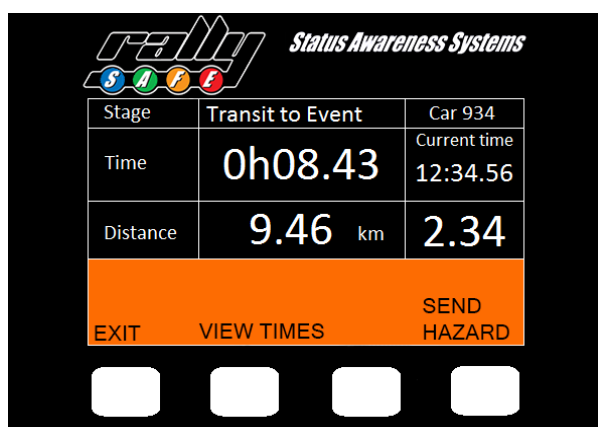
(SCREEN 24)

## Transport Menu

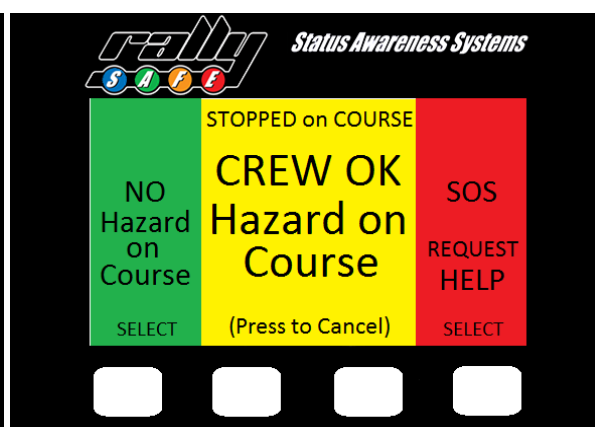
In transport mode the unit has a menu that can be accessed by pressing the options button. This allows you to view your stage times or send a manual hazard/SOS.

### Manual Hazard-

RallySafe also provides an option to signal a hazard manually while in transport mode. This is done through the menu and can then be upgraded or downgraded to the relevant level the same way as a stage hazard. Once the hazard is no longer required, it can be cancelled by pressing either of the two middle buttons.



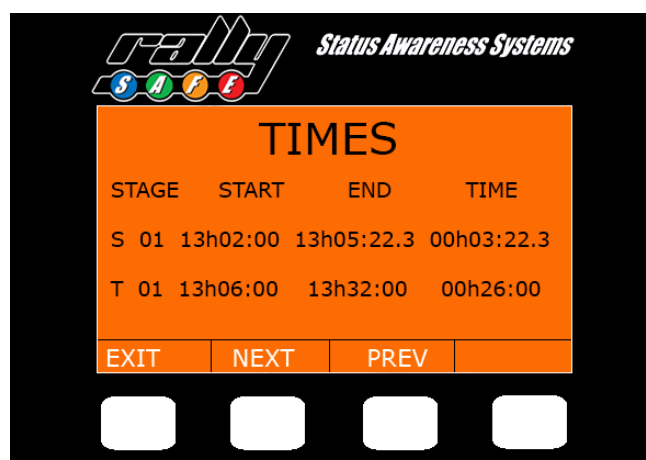
(SCREEN 25)



(SCREEN 26)

### Stage Times-

From the options screen, you can press the stage times button. This gives you access to both transit and competitive stage times. You can select times for any completed stage with the next and previous buttons. It is not possible to view times when near a Time Control or a Stage Start.



(SCREEN 27)