Timekeeper Guidance

Limited Contact Rally Timekeeping

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Revision 1v5

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Introduction

As the lockdown restrictions are eased, we will all be looking forward to resuming motorsport. It certainly is not going to be exactly the same as prior to March 23rd because we still need to protect our marshals and competitors to prevent further outbreaks.

Given the demographic of many motorsport marshals, it is likely that some will choose to stay away for some time longer.

This proposal outlines one approach that could be used to change the way that timekeeping and results are managed on events to remove any direct contact between the marshals and competitors, as well as restricting interaction with results and the event management team.

Aims

- Reduce interaction between timekeepers and competitors
- Reduce the number of timekeeper marshals required.
- Reduce contact between the results team and competitors.
- Limit the amount of new equipment required
- Limit the amount of training required.

Touchpoints

The current method of rally timekeeping relies on a marshal filling in the competitor time card at each control. This means that each time card will pass through a minimum of 7 different people by the time it gets back to the results office, which would be a perfect route for any virus to spread.

The proposal is to get the navigator to fill in their own timecards and retain the timecards for their own reference. Results will use automatically transmitted times and copies of the marshal's check sheet.

This approach has been successfully used in the past where the prevailing weather conditions did not permit any paperwork to remain useful for more than a few seconds.

The following is a walkthrough of each control:

MTC / ATC

A time of day display will show a running clock as the competitor arrives.

The marshal will stop the clock and enter the vehicle number when the competitor reaches the red sign.
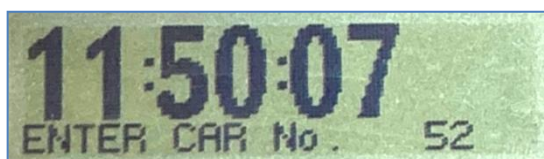
The display will freeze and show just HH:MM:00

If this is not the time required by the team because of some holdup on the stage, the arrow keys can be used on the time clock to adjust the time forwards or backwards and then confirm the final agreed time.
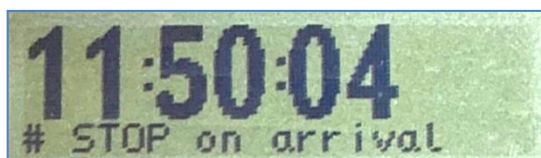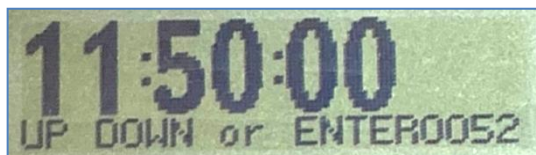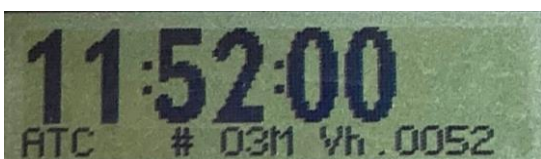

Normal display, clock is free running

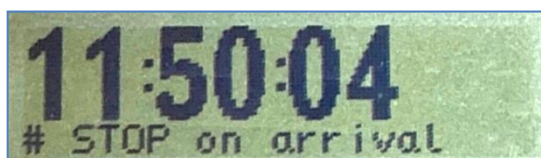When the competitor arrives, press STOP

Type in the car number and press ENTER

The seconds will clear to 00. ↑ or ↓ can be used to adjust minutes if required. The led display will show the driver this time.

Once the time is correct press ENTER again and record this as the arrival time.

Press ↑ to get back to a running clock for the next car.

If a notional start time is required, it should be calculated by the competitor as 3 minutes after the arrival time.

At the end of each stage, the marshal should take a picture of their check sheet and send to the rally control office.

Start

Start operation does not change as far as the start marshal is concerned.

The display will show a running clock until the first competitor number is entered into the clock. It will revert to a running clock if idle for 33 seconds.

Once the stage is ready to run the first car number can be entered into the clock and the start sequence will start on the next available minute.
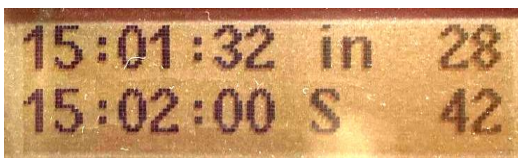
The display will show the competitors their start time so that they can complete the time card.
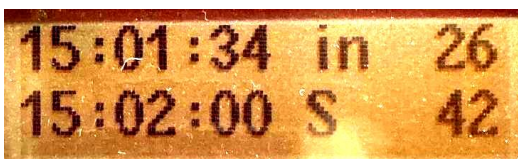

Waiting for vehicle number to be entered
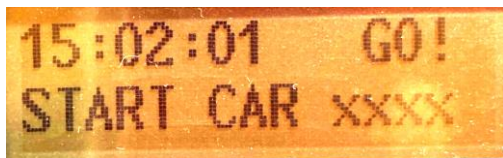

Car 42. Press ENTER to start sequence.

Car will start at 15:02:00 in 28 seconds


still counting down

Green light on, ready for next car number

If an incorrect vehicle number is entered, simply correct it and press ENTER again.

At the end of each stage, the marshal should take a picture of their check sheet and send to the rally control office.

An option is available to alternate the start time with a countdown so that the driver gets each 10s displayed.
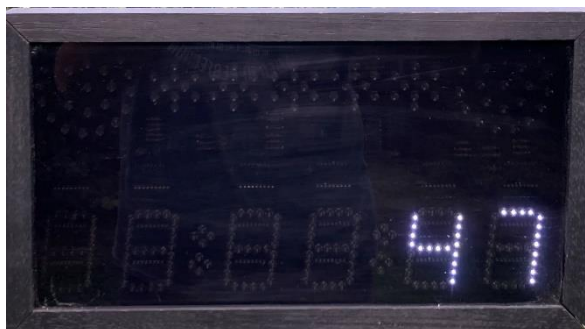
Start sequence example
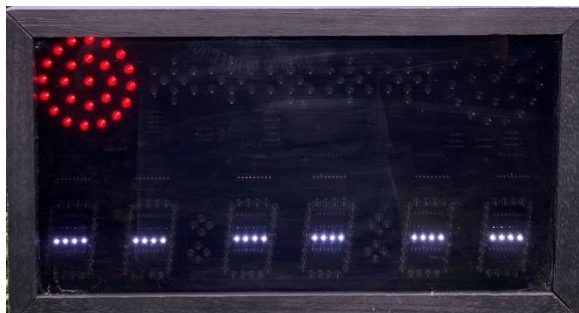
Initially the display will show dashes and a red light
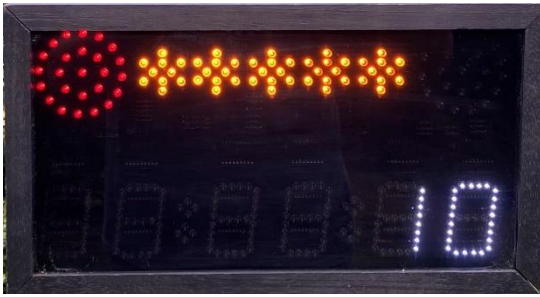

The start time for the next car will be shown as soon as the vehicle number is entered.

Every sew seconds a countdown will be shown instead of the start time

At 10s the amber lights will come on
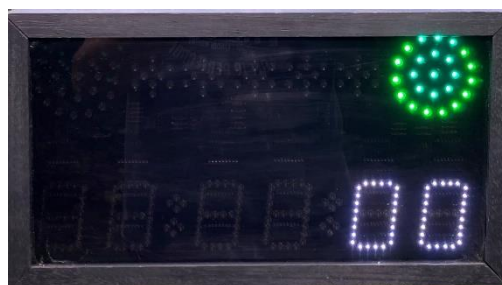

Red goes out with 5s left

last 5s counted on the amber leds

The green light comes on when time to go

Timing will start at the point the green light is shown, irrespective of if the navigator has actually finished with the paperwork!
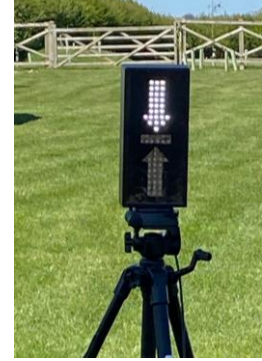
Start Alignment

The start can also be enhanced by using alignment lights. These ensure correct positioning of the car without having a marshal standing in front of the car with a stick.

Move forward

Just right. Stop

Too far, move back

This display will operate without any marshal intervention, but take care not to walk through the beams or knock the tripods.

If the back arrow (↓) is show before the green traffic light is illuminated an automatic jump start penalty will be applied.

Flying Finish

Operation of the flying finish remains unchanged where transmission of times between flying finish and stop is being used.

Either a beam to trigger the clock or a manual button can be used, although 2 people are recommended when using manual timing.

The vehicle number is entered into the clock and the finish time is transmitted to results and the stop line.

If the number cannot be seen for any reason use a large number so that a time is still sent to the stop line where it can be corrected when the car arrives.

It is important to give the safety cars numbers (1000, 1001 etc) so that they can be given times at the stop line.

Clock is running

Beam broken, waiting for car number

Car 85 entered

ENTER pressed to confirm, time sent to stop line

⬆ pressed to get back to a running clock

Stop Line

The stop line is enhanced with the use of a display to show competitors their stage time.

The display will show blank until a vehicle passes the flying finish. Once the FF timekeeper enters a car number it will be displayed as above.

When the car arrives at the stop, check the display shows their number and ensure this is the time they copy down.

Press the ⬆ on the timer to get the time for the next car arriving or back to a blank display.

The ⬇ key can also be used to go back if a time is missed.

The stop line marshal is responsible for selecting the correct time to be displayed and ensuring the competitor moves away as soon as possible.

If the event is running to 1/10s the display will show MM:SS.t instead of HH:MM:SS

Service in, regroup, restart times

The service timer issue consecutive times at a specified interval (either 30s or 1m) and ensures that all drivers get a minimum specified service interval. These settings will all be configured by the chief timekeeper prior to the first vehicle arriving.

For each batch of cars it may be necessary to specify a restart time in the clock menu 4.
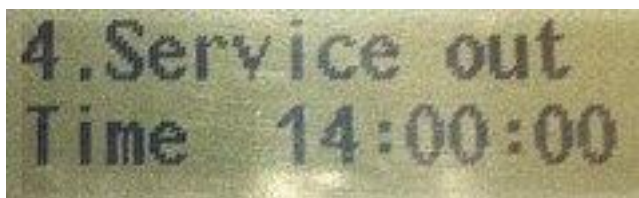
If a service time is specified in menu 5 all cars will be given this service time (i.e. not a regroup)

To operate as a regroup set the service min time to 00 and set the service out time.
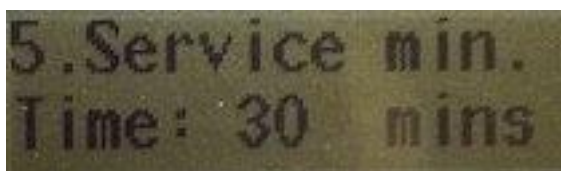
The LED display will show dashes until a vehicle number is entered and only revert to a free running clock if idle for 90s or more.

Clock running, waiting for first car

stop pressed, service exit time shown (15 mins)

vehicle number entered

⬆ pressed to get back to a running clock