

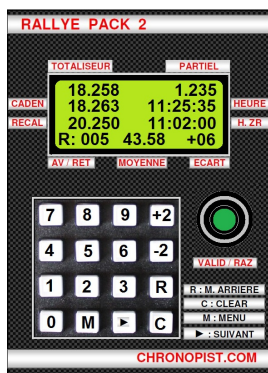


RALLY PACK 2

For regularity rally

Updated : 05/12/2013

TRIPMASTER - TIMER – GAP VIEWER - CLOCK



TRIPMASTER : the part that counts the REAL kilometers.

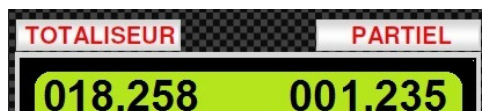
TIMER : The part that counts the THEORICAL kilometers.

GAP VIEWER : The part that shows the difference between REAL kilometers and THEORICAL kilometers.

CLOCK : The current time.

Details of the different parts of the display:

First line :



On the left: kilometers from the beginning of the stage. On the right: partial kilometers.

Green button : **VALID / RAZ (RESET)**.

Short press on VALID / RAZ button puts the PARTIAL kilometers back to 000,000.

Long press (4 second) on VALID / RAZ button also puts TOTALISING back to 000,000.

Second Line :



On the left : theoretical kilometers calculated by the timer.

On the right : current time set to about 50ms on the clock "organizer".

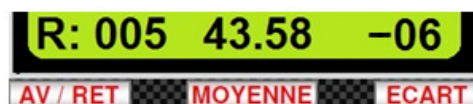
3rd line :



On the left : the value typed on the keyboard, which will be used to set the TOTALISATOR at the next junction, panel, etc. ...

On the right : the time that will start the stage. As soon as the current time is equal to the time stage, the timer will start up.

4th line :



On the left : indication of LEAD or DELAY (A: LEAD, R: DELAY). The number of meters is shown from 000 to 999 m. In the example, the delay is 5 meters.

In the center : current average speed.

On the right : difference that there was at the last registration. Here -06 means that TOTALISATOR lacks 6 meters.

MENU

1.MOY.	5.ETAL
2.DIS.	6.RAZ
3.H ZR	7.MOD ET
4.HEURE	8.CAPTU.

MENU which appears when pressing the "M" key on the keyboard:

THE TRIPMASTER

STANDARDIZATION

How to make a perfect standardization :

- 1 – Put the bumper level with the starting line of the calibration area.
- 2 – Switch on the RALLY PACK 2.
- 3 – Press [Menu / 5.ETAL](#).
- 4 – Drive slowly until "TRS wheel: 00000" appears and stop abruptly.
- 5 – Look where the starting line is (wheel? Mirror? Door? ... It becomes your departure mark).
- 6 – Drive. The numbers scroll These are laps of wheel !
- 7 – Stop the car at the finish line at the start mark.
- 8 – Drive very slowly until the number becomes the next and suddenly stop the car.
Example 00588 => 00589.
- 9 – Confirm with the **VALID / RESET** button.
- 10 – Add the distance between the finish line and your marker (rounded meter) to the standardization distance (eg 1000m + 1 = 1001 m).
- 11 – Write the value using the keyboard and confirm with **VALID / RESET**.
- 12 – Switch off the RALLY PACK 2 and Switch on the RALLY PACK 2.
- 13 – The standardization values are displayed for 4 seconds.

If the procedure seems complicated you, you can do a simple procedure but it will be less accurate ... What a pity !

How to make a simple standardization :

- 1 – Put the bumper level with the starting line of the calibration area.
- 2 – Switch on the RALLY PACK 2.
- 3 – Press [Menu / 5.ETAL](#).
- 4 – Drive. The numbers scroll These are laps of wheel !
- 5 – Stop the car at the finish line at the start mark.
- 6 – Confirm with the button **VALID / RESET**.
- 7 – Write the value using the keyboard and confirm with **VALID / RESET**.
- 8 – Switch off the RALLY PACK 2 and Switch on the RALLY PACK 2.
- 9 – The standardization values are displayed for 4 seconds.

I recommend the first method of course ...

Whatever method you use:



**ALWAYS CHECK DATA ARE LOGICAL:
Distance / Number of spin = circumference of the wheel !**



Example: Distance = 3001 meters Number of laps = 1765

$3001/1765 = 1.70$ m, which corresponds to an average wheel.

REMINDER: only ONE METAL TARGET by spin.



How to do standardization without rolling:

- 1 – Switch on the RALLY PACK 2.
- 2 – Press **Menu / 5.ETAL**.
- 3 – Hold the key "+2" pressed. The numbers will scroll quicker. When you are close to the desired value, release the button "+2" and you end step by step.
- 4 – Confirm with the **VALID / RESET** button.
- 5 – Write the value (distance in meters) using the keyboard and confirm with **VALID / RESET** button.
- 6 – Switch off the RALLY PACK 2 and switch on the RALLY PACK 2.
- 7 – The calibration values are displayed for 4 seconds.

SETTING THE TOTALIZATOR :

With the keyboard, you can prepare in advance (500 m before) the value you want to give to the totalizator.

If the next junction, panel, etc. ... indicated in the road book is, for example : 020,250 kms, you type directly "0" "2" "0" "2" "5" "0" on the keyboard.



This value will be registered on line "RECAL".



C key (CLEAR) clears when you make a mistake.



Check that the value you get is correct! It is better not to set the totalizator rather than to get a false value ! 202,500 instead of 020,250 and your trip will be completely FALSE !

You wait until you arrive at the crossroads, panel, etc. ... and when you are there (exactly), you press the **VALID / RESET** button. Thus totalizator will record the new value and partial resets to 000,000.



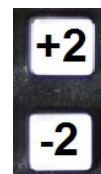
When you set the totalizator, the gap between the distance really measured and the distance entered on the keyboard appears at the bottom right (GAP = ECART).

On the picture we can see "- 06". This means that 6 meters are missing.



FUNCTION : +2 / -2

Buttons: +2 and -2 can add or remove 2 meters at any time. If you see the driver cut a corner, you can add 2 meters, 4 meters, 6 meters, ... It depends on how the corner was cut.



REVERSE FUNCTION :



On the keyboard there is the "R" key. When driving normally forward, TOTALIZATOR increases.

If you hold the "R" key pressed, TOTALIZATOR will decrease.

When can you use it ?

You went straight into a farm yard. No room to manoeuvre to make a U-turn, one possibility: Back On !

As soon as the car backs, you hold the "R" key. As soon as the car stops, you release and you leave. So you have removed a few tens of meters too.

At a crossroads, you take a wrong direction. You drive 1 km too many. Instead of maintaining the "R" key down back to the crossroads, you can prepare (on keyboard) the distance indicated on the road book and validate when you arrive at the intersection.

MODIFICATION OF STANDARDIZATION

Menu / 7.MOD ET. (MODification ETalonnage)

With the two keys +2 (1m added to the standardization distance) or -2 (1m removed to the standardization distance) you can temporarily change your standardization.

When turned off and back on the RALLY PACK 2, the standardization data are the originals data.

THE TIMER

PROGRAMING AVERAGE SPEED :

You can program 30 distances and average speeds. This number can be increased to infinity if the data are returned during the stage.

If you do not have time to program all the data before starting the stage, it does not matter. Just at least the first distance and the first average speed must be programmed. They can be programmed within 5 seconds! Other distances and average speeds can be programmed even if you're already gone on the stage.

To program the average speed : Menu / 1.MOY.

On the screen, you can read:

MOY [01] 45.00	=> 01 = First average speed	45.00 = 45.00 kms/h
▶ :SUIV	▶ : Next average speed.	
CLR :C	C : Clear	
VAL :FIN	VAL : Validate (VALID / RESET) when all the data are entered to return to the main display.	

To program the average speed (eg 41.30 km/h) you must write: "4" "1" "3" "0".

If you make a mistake: "C" key = Clear (erase) and 00.00 is displayed.

To validate the average speed and move to the next [02], press the ▶ key.

When the last average speed is programmed, press VALID / RESET.

At any time you can exit from the programming mode by pressing VALID / RESET.

After the last average speed [30] you get back to the first [1].

You must remember :

- For a stage with more than 30 average speeds (eg 38) : Just program the first 30 average speeds and distances. During the stage, when the first 8 are finished, just change the values of the average speeds [1] to [8] and the distances [1] to [8]. So when the timer has finished with the average speed [30], it will continue with the [1] and [2], etc ... In this way, the number of programmable average speeds is endless.

- You have programmed only 3 average speed and three distances:

Exemple :

Average speed : 45.20 ; 46.30 ; 47.50 ; 00.00 ; 00.00 ;
Distances : 012.000 ; 018.520 ; 025.350 ; 000.000 ; 000.000 ;

The timer will stop automatically at 025,350 kms. It corresponds to the end of the stage. The display automatically stops there because of a lack in data.

- You can see the average speeds (without any change) just by using the arrow "►". This helps make sure that there was no error in the programming.
To stop the consultation average speed : VALID / RESET.

PROGRAMMING DISTANCES :

For programming the distances, it's the same : Menu / 2.DIS.

On the screen, you can read:

DIS [01] 002.530	=> 01 = First distance	02.530 = 2.530 kms
► :SUIV	► : Next Distance.	
CLR :C	C : Clear.	
VAL :FIN	VAL : Validate (VALID / RESET) when all the data are entered to return to the main display.	

You can program the distances with a metre accuracy.

For example: For a distance of 2.354 kms, you must write "0" "0" "2" "3" "5" "4". Do not forget the "0" at the beginning. If you forget, you are going to write 235,400 kms ! It's not the same thing !

To validate the distance and move to the next [02], press the ► key.

When the last distance is programmed, press VALID / RESET.

IMPORTANT :

It takes as much average speeds as distances ! The last distance programmed is the END of the stage ! DON'T FORGET !!!

START THE TIMER

Do not look for the button to start the timer, there is none ! It is the internal clock of the Rally Pack 2 which starts the timer.

Therefore you must set the starting time before starting.

To program the starting time : Menu / 3 .H ZR ZR : Regularity Zone = Stage

H ZR : __ : __ : __

=> Departure time zone regularity

CLR : C

=> CLEAR

M : ECHAP

=> To exit this menu if you got there by mistake.

For a start at 15:30 and 00 seconds, please enter "1" "5" "3" "0" "0" "0".

Then valid with **VALID / RESET**.

If you make a mistake : "C" key to clear.

Since there is no manual button to start the timer, you must **ABSOLUTELY** have scheduled departure time!!

If current time is 15: 29: 59, you have to leave at 15: 30: 00 and if your stage time is scheduled 14: 12: 00, forget it ! No time to set the time ... The timer will remain at 000,000 !

The timer is triggered WHEN CURRENT TIME EQUALS STAGE TIME (H ZR).

If current time is 15: 30: 05 and if you program 15: 30: 00, it will not work either.

Not to forget, when you calculate your time of departure stage on your roadmap, in the wake PROGRAMMING departure time!

For scatterbrains : this little trick can save your life ! There are two other possibilities to start your timer :

- First: Menu / 0.

When you press the 0 button, the current time is rounded up to the nearest minute and serves as departure time.

For example: current time is 18: 20: 46 and you press Menu / 0, the timer is instantly programmed to start at 18: 21: 00. With this method, you do not need to type the numbers one by one. Just do it in the pre-departure minute.

If 3 seconds before the start, you realize that you have not scheduled departure time of stage, this solution can save you. It only takes a second to press Menu and 0.

- 2nd: Menu / 9.

When pressing the "9" button, the timer starts immediately and calculates the distance from the beginning of the current minute.

For example:

The time programmed for the stage is (H ZR) : 13: 50: 00. The current time is 15: 20: 04 and you had to start your stage at 15: 20: 00. You realize that the timer has not started (normal since "TIME STAGE" is not good). Do not panic, it's not too late! You have 1 minute make up for your mistake.

Just press Menu / 9 and the timer will recalculate everything from the beginning, the whole minute depending on the average speed to hold and on the seconds already gone by.

Thus, with an average speed of 45.00 km / h, if you press Menu / 9, at the 12th second, the leave timer value: 000,150 kms. (from 45.00 km / h is 12.5 meters is / sec, giving $12.5 \times 12 = 150$ m).

STOP THE TIMER

At the end of the stage, the timer stops to calculate the theoretical kilometers. The LEDs also stop to show lead or delay. Only the green LED is on.

GAP VIEWER



The driver regulates itself through its row of LEDs which are just before your eyes.



The case must be straight ahead and above the steering wheel.

LED : -30 -10 -2 0 +2 +10 +30 (in metres)

- gap between -2 and 2 metres :



- gap between 2 and 10 metres (delay) :



- gap between 2 and 10 metres (delay) :



- gap of more than 30 metres (delay) :



On the screen you can see the real-time difference in display in the bottom-left corner :



A / R: Lead / Delay from 000 to 999 meters.

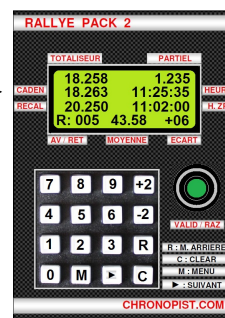
For example: R: 005 we're 5 metres late.

UPDATING THE CLOCK

To adjust:

switch →

It must be set prior to the clock organizer. The rally pack 2 will be powered independently with its internal 9V battery. The switch is on the left side of the device.



Menu / 4.HEURE

The time setting take place in two steps:

- Updating the approximate time :

You must enter time slightly ahead of the clock organizer. For example, if current time is 10: 20: 55 on the clock organizer, please type 10:21: 05.

Wait until time gets to 10: 21: 05, then try to validate with **VALID / RESET** to reach the optimal synchronization. Once validated, only the seconds appear on the screen.

- Set to the correct time:

The two buttons (add 50 ms) and / or - 2 (takes 50 ms) are used to adjust seconds. When seconds are synchronized, confirm with **VALID / RESET**. The clock is on time !



DO NOT FORGET TO TURN OFF the device ! If not the 9V battery will run down very quickly !

On a rally that lasts several days, check the time every day before leaving !

CHANGING AVERAGE SPEED ON AN UNKNOWN DISTANCE (12.5xx)

In some events, organizers make it more difficult by making changes at unknown distances (012.5 xx) thus (theoretically) making it impossible to use programmed speed regulators.

Rally Pack 2 overcomes this "difficulty" by making the location of the average speed change a value CAPTURED kilometers, as if distances had been programmed in the timer.

For example :

Consider a stage of 28.500 km long with three average speed changes.

kms: 4,250 18,4xx (at stop sign) 22,150.

The four average speed are : 45.00, 48.00, 42.50 and 49.90.

Here, there is missing data : 18,4xx that prevents you from programming the timer. The change will be between 18,400 and 18,499 but noone knows where !!

No matter the missing data ! We'll set the timer as follows :
Remember : 4 average speeds => 4 distances (**still growing**).

MOY :

[1] : 45.00

[2] : 48.00

[3] : 42.50

[4] : 49.90

[5] : 00.00

DIS :

[1] : 004.250

[2] : 018.499

[3] : 022.150

[4] : 028.500

[5] : 000.000

xx are replaced by 99 ! The max !

End of the stage

Shortly before the famous STOP where you must change the average speed, and for which you do not know the exact distance, press: **Menu / 8.CAPTU**.

On the display, the kilometers of TOTALISING are running. The future average speed is also displayed.

When you get to the STOP sign, press **VALID / RESET**. The distance is captured (for example 018, 452). This value immediately replaces the 018,499 and the timer modifies the average speed.

To make it as accurate as possible, we must try to reach the STOP sign slightly ahead (10 m) because the timer must not reach otherwise you would have clocked on the previous average speed a little too early.

If average speeds are also unknown (discovered at the last moment, displayed on a road sign) this feature also allows you to enter the average speed before the capture.

In the table, you will have to enter any average speed return any (44.44 km / h, for example, definitely not 00.00). Just change it when capturing the distance.

STAGE OVER 100 kms

There may be stages over 100 kms. You'll notice that the distances are displayed up to 999,999. So you can perfectly measure distances longer than 100 kms.

RESET IN THE DATA MEMORY

To delete all average speeds and distances: [Menu / 6.RAZ.](#)

This results in putting the first average speed [1] at 45.00 km / h and the first distance [1] at 050,000 kms. Everything else is at 00.00 (average speed) and 000.000 (distances).

INFORMATION DISPLAYED AT THE BEGINNING

When starting the Rally Pack 2, the standardization data are displayed for 4 seconds.

Then, all the other information appear.

018.258	001.235
018.263	11:25:35
020.250	11:02:00
R: 005	43.58 +06

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