Training light program

Summary

Index of figures.

1. Conventions

In this manual the keys to be pressed are shown inside angled brackets. For example, press **<F1>** means press the yellow key marked F1, while the options proposed by Racetime2 are indicated in bold type.

A time which is shown in *italics* on the display indicates that this time is running on the timer.

An underlined figure indicates the position of the blinking cursor and that the timer is waiting for input.

2. Introduction

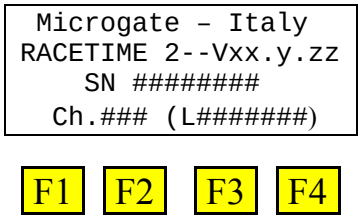
The Training light program for Racetime2 has been developed to allow maximum simplicity in the timing of training sessions. Up to 3 athletes can take part simultaneously in tests. Keeping the same number, each athlete can make up to 250 runs. Rankings can be made from the performances of athletes obtained over the whole timing session, in a specific run, or from the performances of a single athlete.

This manual refers to version Vxx.3.07

3. System connection

Racetime2 accepts impulses from various devices (gates, photocells, push buttons, pressure switches, etc.) connected by cable or by using the LinkGate and LinkGate-SF radio impulse transmission systems. For further details regarding connection of the various devices, refer to the "User Manual".

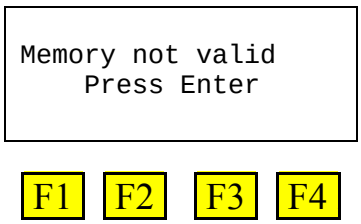
4. Switching on Racetime2 and choosing the program



Switch on Racetime2 with the switch on the front of the device. Information about the software version installed on your Racetime2 will appear on the display together with the serial number of the device.

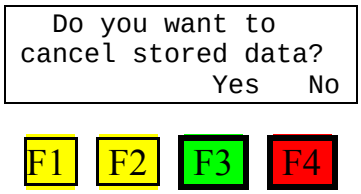
If you need to contact Microgate for any information or problem, always give the serial number of your system.

Press a key to continue.



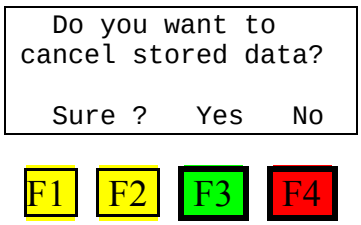
This video display only appears if the device was completely cleared after the last work session. Any previously stored data have been irretrievably lost. Press **<ENT>** to continue.

4.1. Canceling stored data



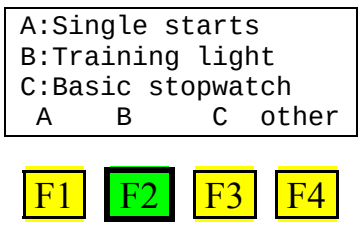
Racetime2 asks if you want to cancel all the data (times, radio speeds and averages) stored in previous sessions. To cancel acquired data, press **<F3>**, to retain them, press **<F4>**.

Retaining stored data also retains selection of the program last used, so Racetime2 does not pass to program selection but goes straight on to Cancellation of configuration selection.

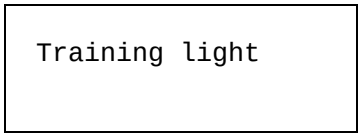


Before you irreversibly cancel all the data stored, Racetime2 asks you to confirm this choice. If you are sure you want to clear all stored data, press **<F3>** again, if not, press **<F4>**.

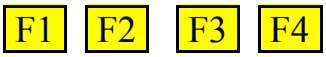
4.2. Selecting the program



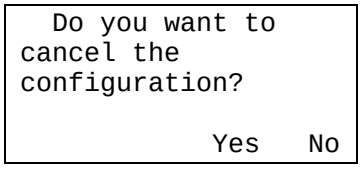
After clearing the stored data, you go on to program selection. To activate the “Training light” program, press key **<F2>**.



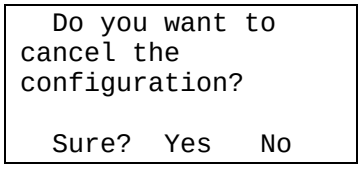
For a few seconds the words **Training light** appear as confirmation of the selection made.



4.3. Canceling the configuration

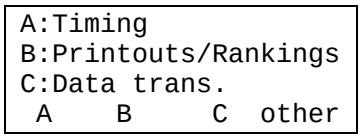


Now Racetime2 asks if you want to reset configuration to default values (see chap. 14 Preset configuration on p. 47)or keep the last configuration set (see chap. 10 RACETIME configuration on p. 41).Press **<F3>** if you want to reset configuration to default, press **<F4>** if you want to keep the last configuration set (maximum time, measurement accuracy, lines, etc.).



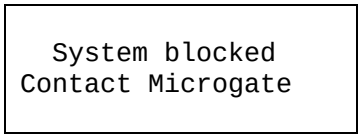
Before finally canceling the configuration, you are asked to confirm. If you are sure you want to reset configuration to default, press **<F3>** again, if not, press **<F4>**.

4.4. Accessing the timing function

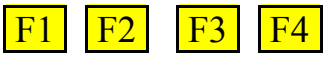


Now you can access timing by pressing key **<F1>**.

4.5. Error situation



A check is made for any anomaly during initial tests on the machine. Contact Microgate for further information.



5. Timing

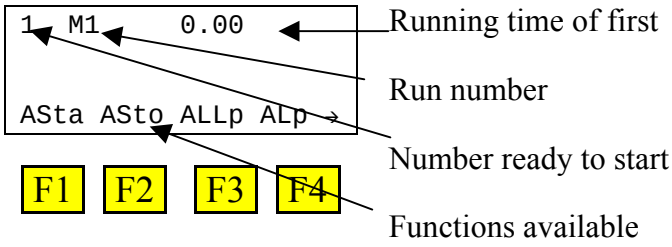
5.1. Function logic

The function logic of the program can be summarised as follows:

- Each start impulse is assigned to the number which appears on the first line at the top of the display
- For the first 5 seconds the time runs on the first line
- 5 seconds after reception of the impulse, the number and relative time are moved to the second line
- The number after the one which started before appears on the first line with the time at 0.00, ready to receive the next Start impulse
- The Stop impulses are assigned to the number in the bottom line, which still has the running time.
- Start impulses acquired within 5 seconds of the previous one are ignored
- Start impulses acquired with 3 running times are ignored
- Intermediate times (Lap) coming from the line are always assigned only to the number which appears lowest down in the display.
- Viceversa, intermediate times (Lap) coming from the LinkGate system are assigned to the first athlete started to whom such a time has not yet been assigned[1].
- It is possible to change to change the number at the start before the start takes place
- It is possible to change the number started but only within 5 seconds of the start
- Returning a number already started to the start increases its run number
- Returning a number to the start with the running time cancels its previous Start
- Any false impulses taken can be annulled.

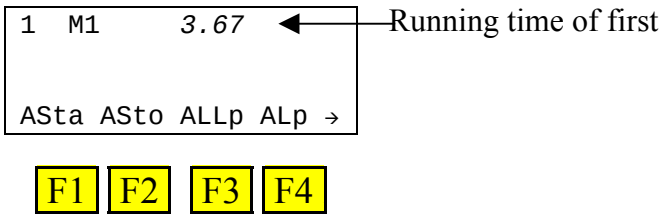
5.2. Shifting of running times

First ready to start

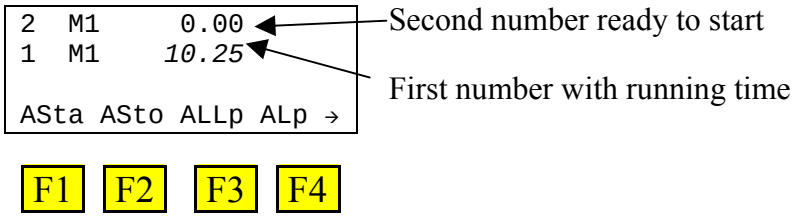


First to start less than 5 seconds after start

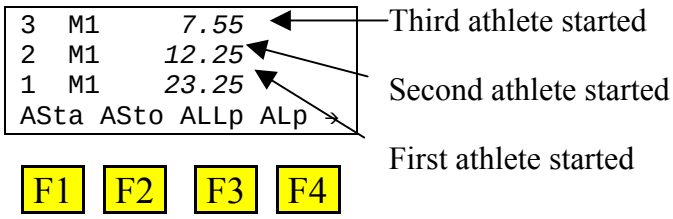
[1] For example.: if 1, 5 and 7 are running – the first Lap1 is assigned to athlete 1, the second to number 5, the first Lap2 to number 1, the third Lap1 to 7, the second Lap2 to number 5 and so on.



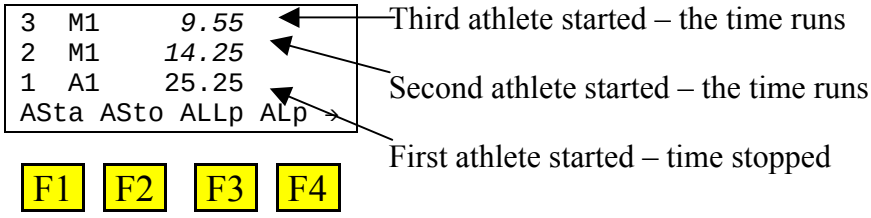
First to start over 5 seconds after start



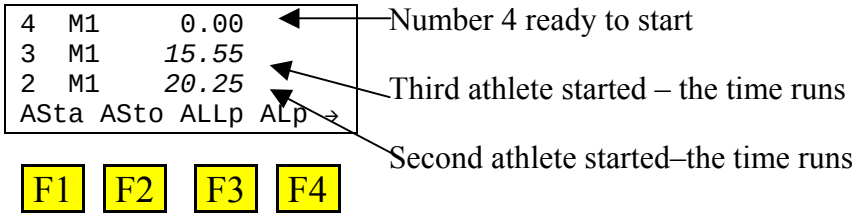
Three running, all for over 5 seconds



Finish of number 1



5 seconds after the finish of the first, the others shift one line down.

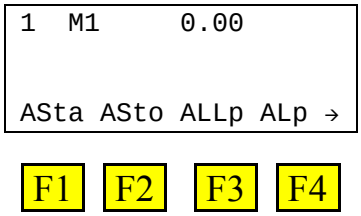


5.3. Functions available

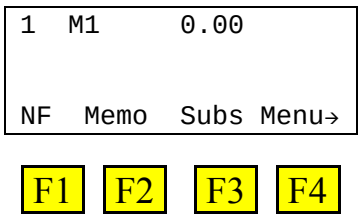
5.3.1. Selecting the functions

All the functions available during timing are grouped in two groups selectable in alternation by pressing the **<CE>** key. Each time the key is pressed, one of the two series of functions available is shown.

Normally the group of functions containing annulments is active and this is usually reactivated when you quit the various functions.



Group of annulment functions.

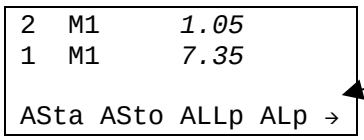


Group of accessory functions.

5.3.2. Annulling the last Start

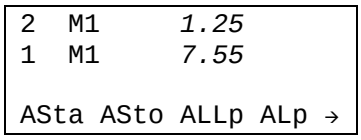
If an athlete's Start is acquired by mistake, it is possible to annul the last Start recorded by the timer so as to reset the time for that athlete to zero.

To annul the last Start, do as follows:

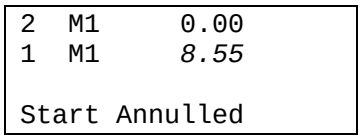


Check that the functions available are the annulment functions.

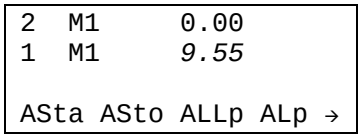
Functions available.



Call up the annulment of last Start function by pressing key **<F1>** for **ASta**.



Confirmation of annulment is given on the last line.



The Start of number 2 has been annulled.

It is possible to cancel the previous Start (which has now become the last Start) in the same way, by pressing **<F1>** again, and so on until there are no more running times.

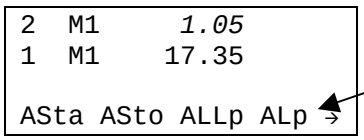
If there are no more Starts to annul, the message **No one running** appears for a few moments on the last line of the display.

It is not possible to cancel the Start of an athlete number which has a net time (a Stop).

5.3.3. Annulling the last Stop

If an athlete's finish is acquired by mistake, it is possible to annul the last Stop recorded by the timer so as to set that athlete's time running again.

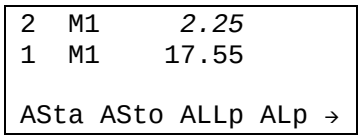
To annul the last Stop, do as follows:



Check that the functions available are the annulment functions.

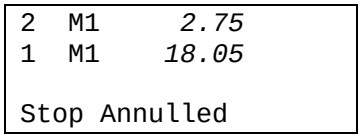
Functions available.

F1 F2 F3 F4



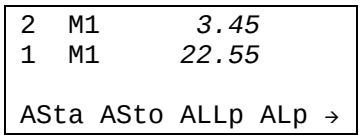
Call up the annulment of last Stop function by pressing key **<F2>** for **ASto**.

F1 F2 F3 F4



Confirmation of annulment is given on the last line.

F1 F2 F3 F4



The time of number 1 is running again.

F1 F2 F3 F4

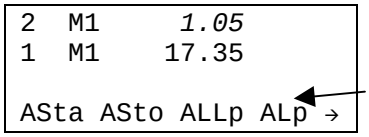
It is possible to cancel the previous Stop (which has now become the last Stop) in the same way, by pressing **<F2>** again, and so on until there are no more net times but only running times or times at zero.

If there are no more Stops to annul, the message **No finishes** appears for a few moments on the last line of the display.

It is not possible to cancel a Stop if there are already three times (running or at zero) on the display.

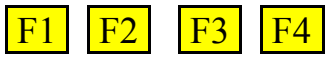
5.3.4. Annulling the last Lap

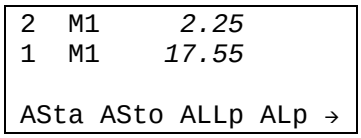
To annul the last intermediate time taken, do as follows:



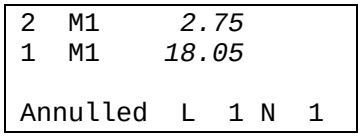
Check that the functions available are the annulment functions.

Functions available.





Call up the annulment of last Lap function by pressing key **<F3>** for **ALLp**.



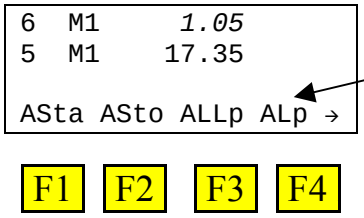
Confirmation of annulment is given on the last line, with the number of the intermediate time canceled and the athlete number to which it has been assigned.

It is possible to cancel the previous intermediate time (which has now become the last LAP) in the same way, by pressing **<F3>** again, and so on until there are no more intermediate times.

If there are no more Laps to annul, the message **No intermediate times** appears for a few moments on the last line of the display.

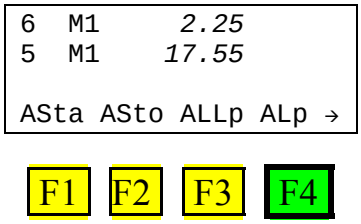
5.3.5. Annulling a specific Lap

As well as eliminating the last Lap acquiered, it is possible to specify which of the Laps taken should be canceled. To annul a specific Lap, do as follows:

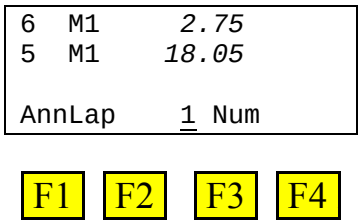


Check that the functions available are the annulment functions.

Functions available.



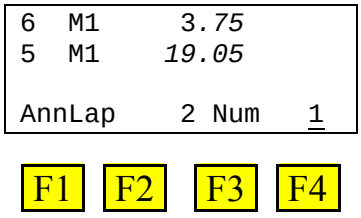
Call up the annulment of Lap function by pressing key **<F4>** for **ALp**.



A blinking cursor appears on the last line next to the Lap number to be annulled.

On the keyboard insert the Lap number and confirm by pressing **<ENT>**.

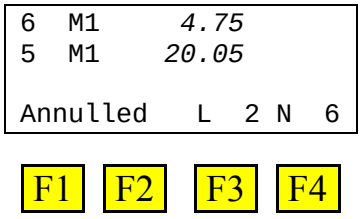
Example: to annul Lap 2 press **<2>** and then **<ENT>**



The cursor moves next to the number to which the Lap to be annulled is assigned.

On the keyboard insert the athlete's number and confirm by pressing **<ENT>**.

Example: to annul the Lap of number 6, press **<6>** and then **<ENT>**



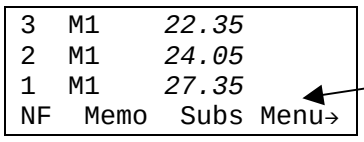
Confirmation of annulment is given on the last line, with the number of the intermediate time canceled and the athlete number to which it was assigned.

If the Lap required does not exist, the message **No intermediate time** appears for a few moments on the last line of the display.

5.3.6. Not finished indication

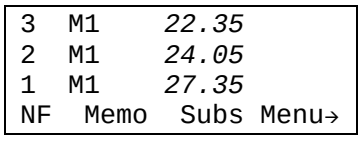
There is a specific function to show that an athlete has not reached the finish.

Check that the accessory functions are on the last line of the display. If they are not shown, press the key **<CE>** to call them up.

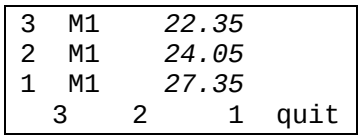


Check that the functions available are the accessory functions.

Functions available.

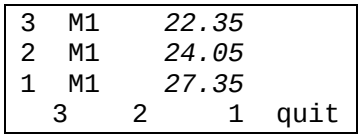


Call up the Not finished function by pressing key **<F1>** for **NF**.

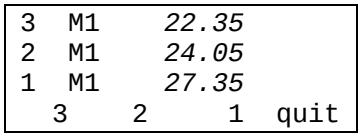


The numbers of the athletes currently running are shown on the last line.

To set an athlete as not finished, press the function key corresponding to the number of that athlete.



Example: to indicate n° 2 as not finished, press key **<F2>**.

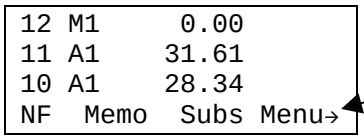


If instead you want to quit without indicating anyone as not finished, press key **<F4>** corresponding to **ESC**.

5.3.7. Calling up data

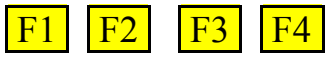
At any moment during timing it is possible to call up the times obtained by athletes who have already run. To see these data do as follows:

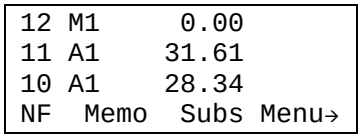
Check that the accessory functions are on the last line of the display. If they are not shown, press the key **<CE>** to call them up.



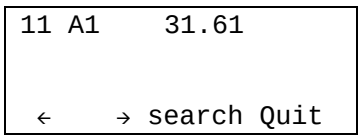
Check that the functions available are the accessory functions.

Functions available.

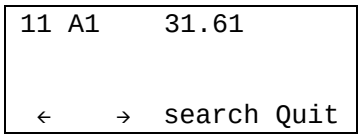




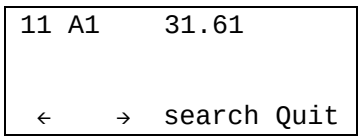
Call up the call up data function by pressing key **<F2>** for **Memo**.



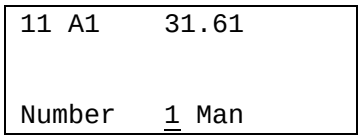
Key **<F1>** can be used to scroll through the list of times taken from the first to the most recent. When you do this, the first athlete to run appears, then the second and so on.



Key **<F2>** can be used to scroll through the list of times taken from the most recent to the first to run. When you do this, the last to run appears, then the penultimate and so on.



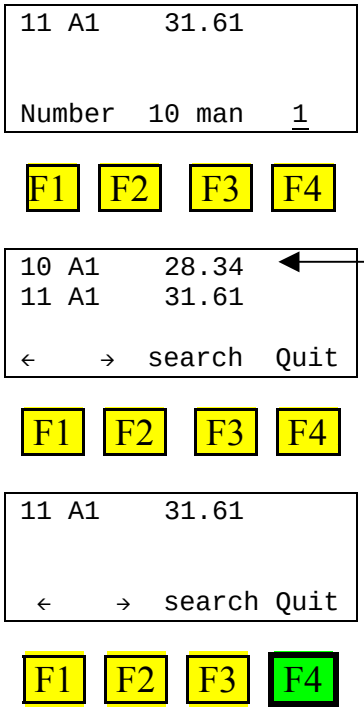
Pressing key **<F3>** for **search** allows you to rapidly retrieve the time obtained by an athlete in a specific run.



A blinking cursor appears next to the number.

Insert the desired number and confirm with **<ENT>**.

Example: to call up number 10 press **<1>** **<0>** and **<ENT>**.



A blinking cursor appears next to the run number.

Insert the desired run number and confirm with **<ENT>**.

Example: to call up the time (of number 10) in the first run press **<1>** and **<ENT>**.

The desired time of the athlete obtained in the specific run appears on the display.

To quit the function press key **<F4>** for **Quit.**

5.3.8. Substitutions

This assigns all the times for an athlete up to that moment to a new athlete. The function is available both for athletes who have finished the run and for those still running.

If, for example, number 21 reaches the finish when number 10 was expected (so start, finish and any intermediate times have been assigned to number 10), the error can be corrected as described below.

Check that the accessory functions are on the last line of the display. If they are not shown, press the key **<CE>** to call them up.

```
11 M1     0.00
10 A1    31.61
9  A1    28.34
NF  Memo  Subs Menu→
```

Check that the functions available are the accessory functions.

Functions available.

F1 F2 F3 F4

```
11 M1     0.00
10 A1    31.61
9  A1    28.34
NF  Memo  Subs Menu→
```

Call up the function Substitution by pressing key **<F3>** for **Subs**.

F1 F2 F3 F4

```
11 M1     0.00
10 A1    31.61
9  A1    28.34
Subs N 10 with n  1
→
```

Insert the number to be substituted, in this case 10, with **<1>** **<0>** and confirm with **<ENT>**

F1 F2 F3 F4

```
11 M1     0.00
10 A1    31.61
9  A1    28.34
Subs N 10 with n  1
→
```

the athlete number to which the times are to be assigned, in this case 21, with **<2>** **<1>** and confirm with **<ENT>**.

F1 F2 F3 F4

```
11 M1     0.00
21 A1    31.61
9  A1    28.34
ASta ASto ALLp ALp →
```

On the display number 21 appears as finished with the data initially taken for number 10.

F1 F2 F3 F4

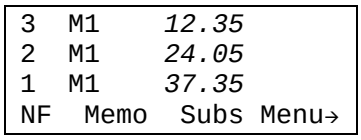
Racetime2 does not automatically increase the number at the start by giving it the number following the substituted number. Remember to check that the number at the start is correct.

5.3.9. Modifying the finish order - before the finish

If the order of the athletes at the finish does not correspond to their order at the start, it is possible to change the number to which the next finish impulse is assigned. Bearing in mind that, when the Training light program is used, Racetime2 always assigns the Stop to the running time on the lowest line of the display, it is necessary to move the number of the first athlete who will cross the finish to the last line.

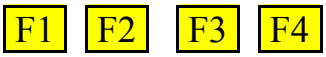
This is done with the two keys↑↓ **<Up arrow> <Down arrow>**. The key ↓ moves the penultimate running time to the last line, ↑ moves the first running time to the last line.

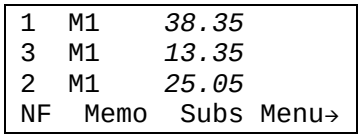
An example will make this clearer….



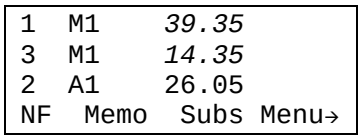
The expected finishing order is 1, 2 and 3.

You press <Down arrow >



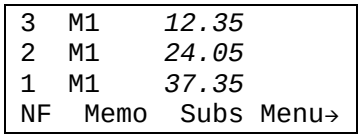


The new expected finishing order is 2, 3 and then 1.



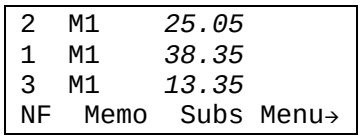
The next stop impulse is assigned to number 2.

… another example….

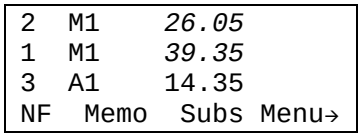


The expected finishing order is 1, 2 and 3.

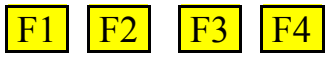
You press <Up arrow>



The new expected finishing order is 3, 1 and then 2



The next stop impulse is assigned to number 3.



The finishing order can be changed as many times as desired, either by using a single arrow key or any arrow key combination.

5.3.10. Modifying the finish order - after the finish

The order of finishes can also be changed after an athlete's finish impulse has been acquired. Also in this case (as for Modifying the finish order - before the finish) it is necessary to move the athlete number to which you want to assign the Stop to the last line of the display.

This is done with the two keys↑↓ **<Up arrow>** **<Down arrow>**. The key ↓ moves the penultimate running time to the last line, ↑ moves the first running time to the last line.

An example will make this clearer….

```
6  M1     0.00
5  M1    35.05
4  M1    45.35
NF  Memo  Subs Menu→
```

F1 F2 F3 F4

The expected finishing order is 4 and 5.

Both are still running.

```
6  M1     0.00
5  M1    36.05
4  A1    46.35
NF  Memo  Subs Menu→
```

F1 F2 F3 F4

The Stop impulse taken has been assigned to number 4.

In fact, the athlete at the finish was number 5.

You press <Down arrow>

```
6  M1     0.00
4  M1    47.35
5  A1    36.05
NF  Memo  Subs Menu→
```

F1 F2 F3 F4

The Stop impulse taken is assigned to number 5 and number 4 is automatically set running again.

The finishing order can be changed as many times as desired, either by using a single arrow key or any arrow key combination.

Particular attention must be paid if all three times are running. In this case the operator has only 5 seconds from reception of the Stop impulse in which to change assignment because when this time has passed, final assignment of the calculated time is made, the time is removed from the display and the next athlete's time set to zero is placed on the first line.

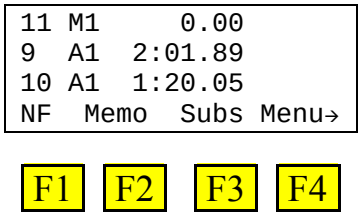
If there are two net times on the display (and the time set to 0 on the first line), pressing the keys ↑↓ inverts the order in which the Stop impulses are assigned.

```
11 M1     0.00
10 A1  1:21.00
9  A1  2:00:94
NF  Memo  Subs Menu→
```

F1 F2 F3 F4

First the finish of number 9 and then that of number 10 were acquired . In fact, 10 finished first and then 9.

To invert them we press the key **<Up arrow>**

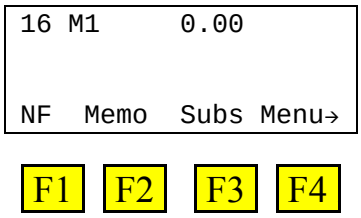


5.3.11. Modifying the number at the start

To change the number to which the next start impulse is assigned, key it in on the keyboard and confirm with **<ENT>**.

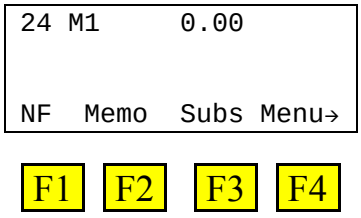
Once an athlete has started, 5 seconds remain (until the running time is on the first line) in which the number can be changed.

Example of modifying before the start:



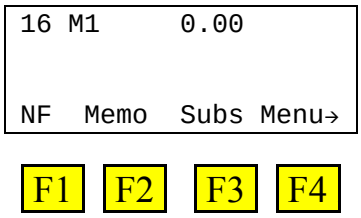
Number 16 was expected to start. Number 24 will start instead.

To set it, press **<2> <4> <ENT>**

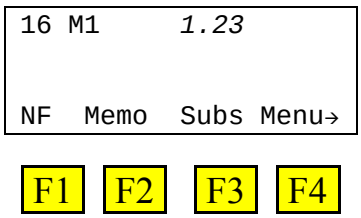


The next Start impulse will be assigned to number 24.

Example of modifying after the start:

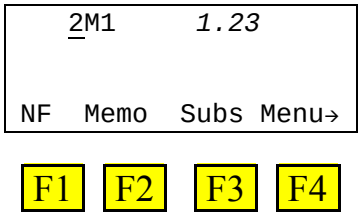


Number 16 was expected to start.



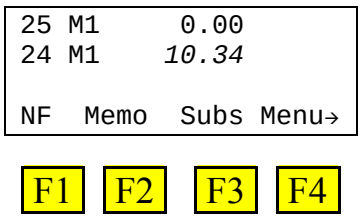
The impulse has been taken but is to be assigned to number 24.

To set it, you first press key **<2>**



Pressing a number key suspends counting of the 5 seconds of automatic confirmation.

You continue by pressing **<4> <ENT**

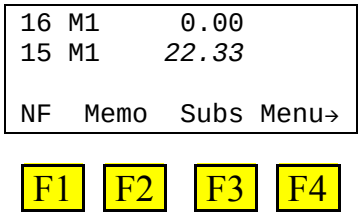


The start impulse has been assigned to number 24.

5.3.12. Modifying the number at the start – with annulment

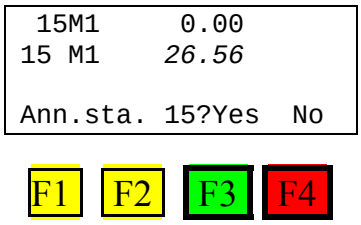
When a number which already has a running time is set as the starter, confirmation is requested for annulment of the Start impulse which was previously assigned to that number.

For example:



Athlete number 15 has a running time.

He/She is put back to the start by pressing premendo **<1> <5> <ENT>**



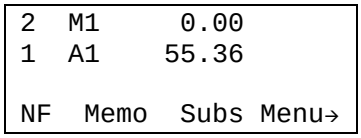
Racetime2 realises that the number is already running and asks if you want to annul the previous start impulse. To annul the previous start press **<F3> Yes**, if you do not want to annul it, press **<F4> No**.

Annulment is irreversible.

5.3.13. New run

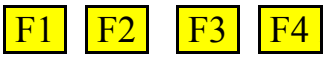
To set a new run, set as the starter the number of an athlete who already has a net time.

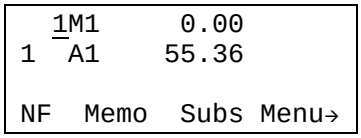
For example:



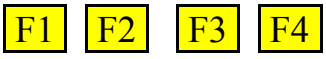
Athlete number 1 has a net time.

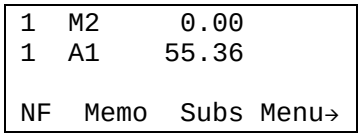
Number 2 is proposed at the start.





You insert number 1 **<1>** at the start again.





You confirm with **<ENT>**.

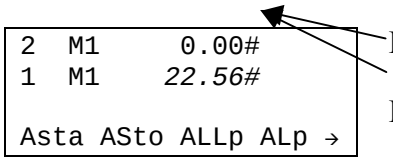
Run 2 is set for number 1.

Up to 250 runs can be acquired for each athlete.

5.4. Lock key (LCK)

The key **<LCK>** makes it possible to ignore finish impulses acquired by the timer. Activation of the lock is shown by the presence of the symbol **#** to the right of the times on the display.

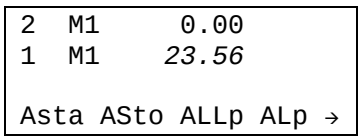
For example:



Finish impulses are ignored.

Blocked line symbol.

F1 F2 F3 F4



Finish impulses are managed.

F1 F2 F3 F4

The key **<LCK>** acts on all the finish inputs: **<STO>** button, Stop line, EncRadio channel F, etc.

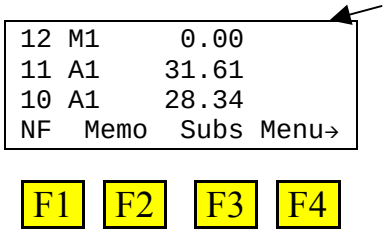
To reactivate the lines press the key **<LCK>** again. The symbol # to the right of the times on the display disappears to indicate that the timer is again ready to receive impulses.

Impulses received with the line blocked are irretrievably lost.

5.5. Quitting timing

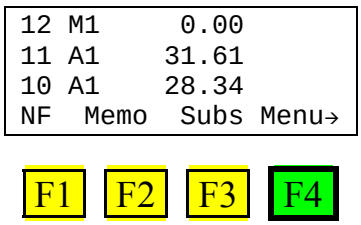
To quit timing and return to the main menu, carry out the following operations:

Check that the accessory functions are on the last line of the display. If they are not shown, press the key **<CE>** to call them up.

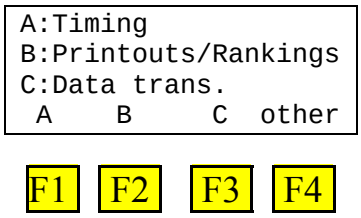


Check that the functions available are the accessory functions.

Functions available.



Return to the main menu by pressing the key **<F4>** for **Menu**.



Choices in the main menu.

5.6. Printed strip with times

Racetime2 prints all the results and operations made on the printed strip.

Information about the run:

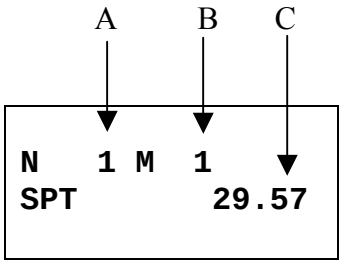


Figure 1 – Example of printed strip: net time

a) Athlete's number
b) Run number
c) Net time

Information about intermediate times:

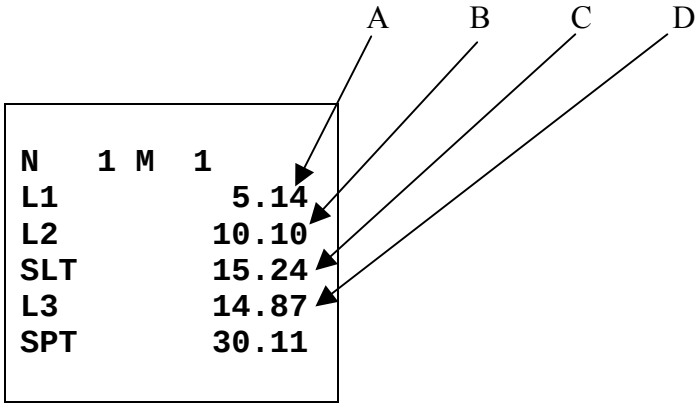


Figure 2 – Example of printed strip: intermediate times

a) Lap 1 time
b) Lap 2 time
c) Split time at second intermediate point
d) Lap 3 time

Information about annulments:

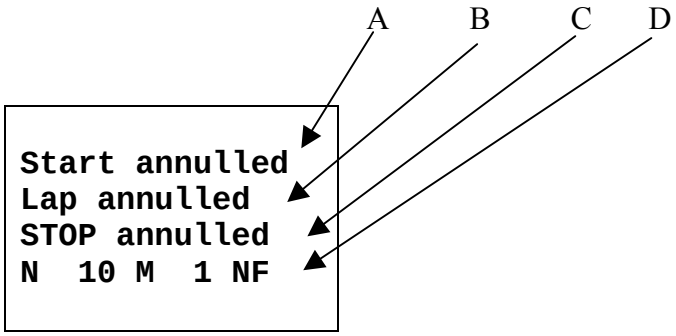


Figure 3 – Example of printed strip: annulments

a) Annulment of Start
b) Intermediate annulment
c) Stop annulment
d) Not finished indication (Number 10 run 1)

Information about speeds:

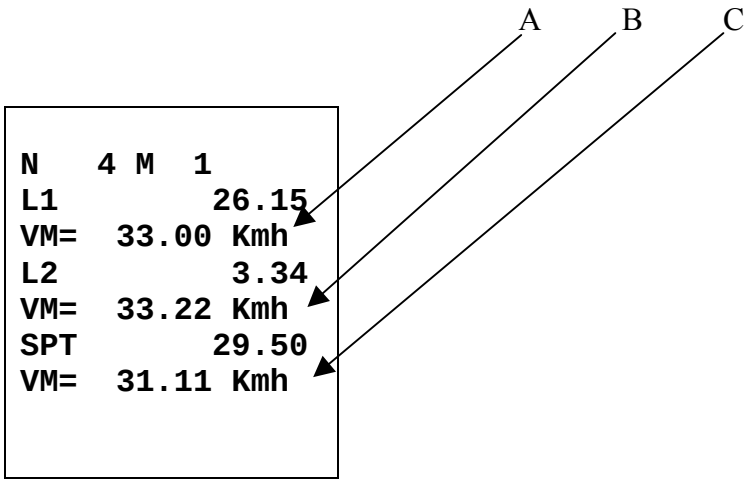


Figure 4 – Example of printed strip: speed calculation

a) Average speed for first section
b) Average speed for second section
c) Total average speed

6. Printouts/rankings

This menu contains the various printout options offered by Racetime2. Some printouts can be read on the display as well as printed.

There are two printout displays.

```
A:Finish ranking
B:Intertimes.ranking
C:Speed ranking
 A    B     C  other
```

F1 F2 F3 F4

The first display has the following options:
<F1> Finish ranking: rankings based on the final time – see chap. 6.1 Finish ranking on p. 30
<F2> Intermed.ranking: rankings based on intermediate times – see chap. 6.2 Intermediate ranking on p. 30
<F3> Speed ranking: rankings based on the speeds (average and instant) taken – see chap. 6.3 Ranking by speed on p.32

```
A:Finish ranking
B:Intertimes.ranking
C:Speed ranking
 A    B     C  other
```

F1 F2 F3 **F4**

To pass to the second part of the list, press key **<F4>**.

```
A:Times
B:NS/NF/Disqualif.
C:Skipped
 A    B     C   menu
```

F1 F2 F3 F4

The second display has the following options:
<F1> Times: printing of the times taken – see chap. 6.4 Time events on p. 33
<F2> NS/NF/Disqualif.: List of non-starters – see chap. 6.5 NS/NF/Disqualif. on p. 34
<F3> Skipped: function not implemented– see chap. 6.6 Skipped on p. 34

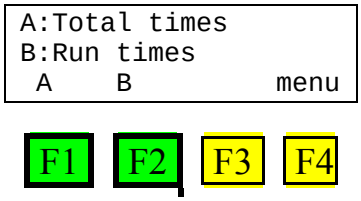
```
A:Times
B:NS/NF/Disqualif.
C:Skipped
 A    B     C   menu
```

F1 F2 F3 **F4**

To return to the initial menu without printing, press **<F4>** again.

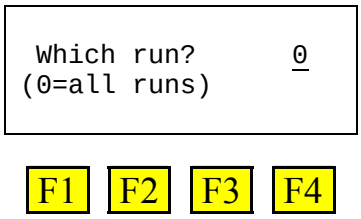
6.1. Finish ranking

This function is for obtaining rankings based on the final times.

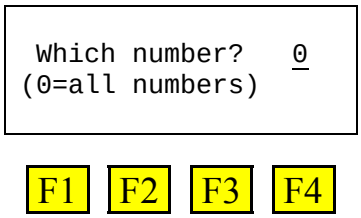


To obtain the ranking based on total times up to a specific manche, press **<F1>**

To obtain the ranking based on the times of a single run, press **<F2>**



Insert the run number up to which the total should be made for (Total times) or for which the ranking is required (Run times). Confirm the figure with **<ENT>**



Only if a specific run has not been indicated (previously a run number other than 0 was entered) are you requested to specify the number for which the ranking is required.

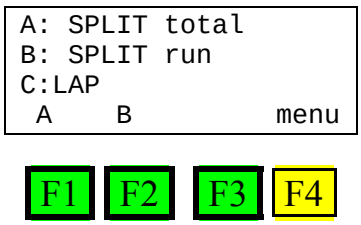
Where necessary, insert the number and confirm with **<ENT>**

If both the run number and athlete's number are left at 0, the ranking of the times of the various athletes in the single runs is obtained.

For options of how to print or display rankings, consult chapter 6.7 Rankings: data output on p. 35.

6.2. Intermediate ranking

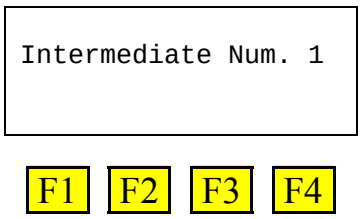
This function is for obtaining rankings based on intermediate times.



To obtain the ranking based on total intermediate times up to a specific run, press **<F1>**

To obtain the ranking based on the intermediate times of a single run, press **<F2>**

To obtain the ranking based on the lap times, press **<F3>**



Enter the intermediate time number desired and confirm with **<ENT>**

```
 Which run?       0
(0=all runs)
```

F1 F2 F3 F4

Insert the run number up to which the total should be made for (Total times) or for which the ranking is required (Run times). Confirm the figure with **<ENT>**

```
 Which number?    0
(0=all numbers)
```

F1 F2 F3 F4

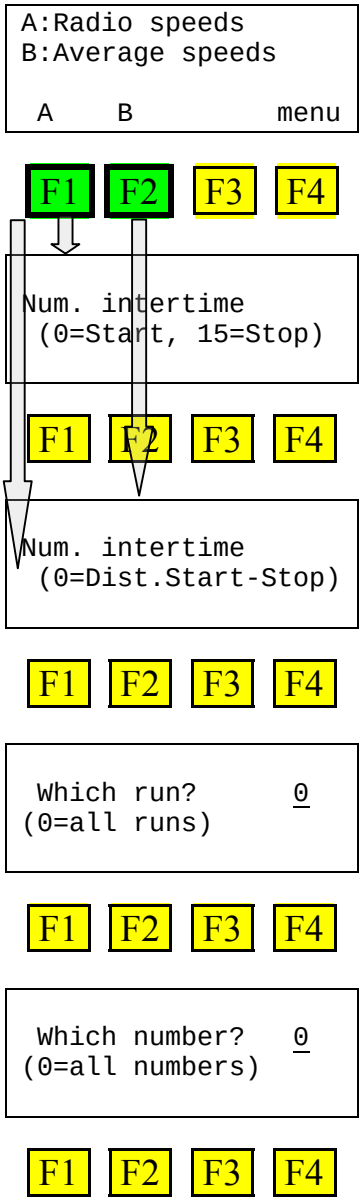
Only if a specific run has not been indicated (previously a run number other than 0 was entered) are you requested to to specify the number for which the ranking is required.

Where necessary, enter the number and confirm with **<ENT>**

For options of how to print or display rankings, consult chapter 6.7 Rankings: data outputon p. 35.

6.3. Ranking by speed

This function makes it possible to obtain rankings based on the speeds taken, both average and instant. Average speeds are calculated between two timing points (the whole course, the section between the start and an intermediate point, the section between two intermediate points, the section between an intermediate point and the finish). Instant speed (radio speed) is taken over a short section, usually a few metres, at the start, finish and intermediate timing points.



If the key **<F1>** is pressed, rankings are made on the basis of instant speeds[2].

If key **<F2>** is pressed, the rankings made are based on average speeds …

If radio speed has been selected, you are asked for which intermediate time.

If average speed has been selected, you are asked what it is based on (0 to indicate the whole course).

Insert the run number up to which the total should be made for (Total times) or for which the ranking is required (Run times). Confirm the figure with **<ENT>**

Only if a specific run has not been indicated (previously a run number other than 0 was entered) are you requested to to specify the number for which the ranking is required.

Where necessary, key in the number and confirm with **<ENT>**

For options of how to print or display rankings, consult chapter 6.7 Rankings: data output on p. 35.

[2] The instant speed-taking function is only available when the LinkGate EncRadio multifrequency digital impulse transmission system is used (the EncRadio SF modules do not offer this function). For further details, refer to the "User manual ".

6.4. Time events

This function is for making the printout of the time events taken.

```
Data output on:
A:Display
B:Printer

 A    B          menu
```

F1 F2 F3 F4

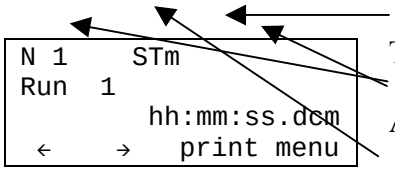
If key **<F1>** is pressed, the time events are shown on the display.

If key **<F2>** is pressed, the time events are printed.

```
 Which run ?
(0=all runs)
```

F1 F2 F3 F4

Insert the number of the run desired and confirm with **<ENT>**.



```
N 1    STm
Run  1
        hh:mm:ss.dcm
 ←    →   print menu
```

F1 F2 F3 F4

If output on the display has been selected, the data shown are:

Type of time event

Athlete number

Time of day

Run number

```
N 1    STm
Run 1
        hh:mm:ss.dcm
 ←    →  print  menu
```

F1 F2 F3 F4

Press key **<F1>** to call up the previous time event

Press key **<F2>** to call up the next time event.

Press key **<F3>** to print the time event shown

Press key **<F4>** to return to the previous menu.

6.5. NS/NF/Disqualif.

This function is for getting the printout of non-finishers.

```
 Which run ?
(0=all runs)
```

Insert the number of the run desired and confirm with **<ENT>**.

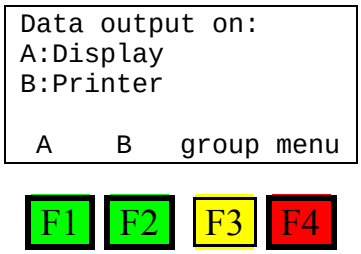
F1 F2 F3 F4

6.6. Skipped

Function not active in this program.

6.7. Rankings: data output

All the printouts are possible on both the display and the printer.



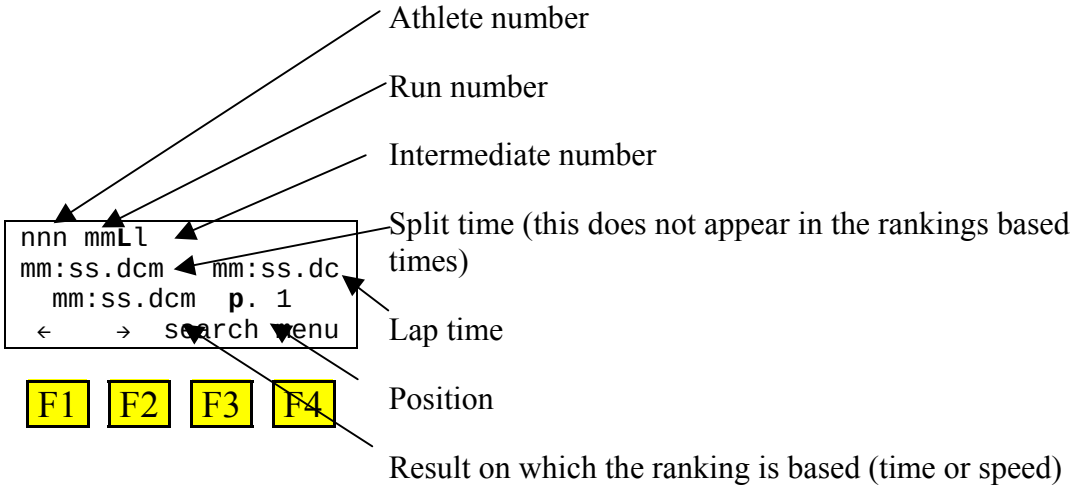
Press **<F1>** to show data on the display and to activate the search function

Press **<F2>** to print

Press **<F4>** to return to the previous menu without printing

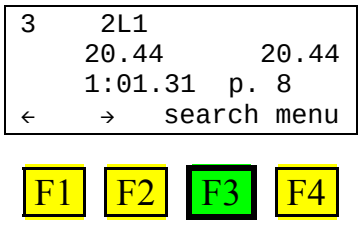
6.7.1. Data output / display

If you choose to show data on the display, you get:

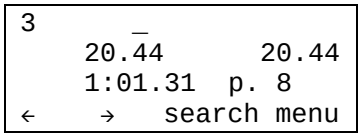


The following options are available:
<F1> ← to call up the results of the athlete ranked in the previous position
<F2> → to call up the results of the athlete ranked in the next position
<F3> search: to search for the results of a specific athlete
<F4> menu: to return to the previous menu
<up arrow > to show the previous intermediate time for the number selected
<up arrow > to show the next intermediate time for the number selected.

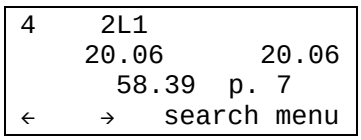
The **search** function allows you to quickly call up the results obtained by a specific athlete.



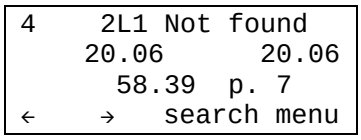
Press key **<F3>** to activate the search function



Insert the desired number (e.g. 4) **<4>**and confirm with **<ENT>**

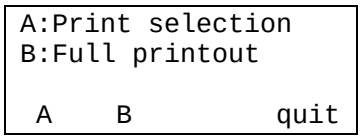


Data for the athlete requested are shown



If a number is entered which has no valid results, the message **Not found** appears..

6.7.2. Data output / printer



To get the printout of only the data used for the ranking, press **<F1>**

To get the printout of all the data taken, press **<F2>**

To quit without printing, press **<F4>**

During printing the message **Please wait – CE interrupts** appears on the display. To interrupt printing press the key **<CE>**. Printing will stop after a few seconds.

7. Data transmission to PC

This function transmits the data taken by Racetime2 to PC.

```
 Which run ?
(0=all runs)
```

F1 F2 F3 F4

Enter the run number whose data you want to transmit and confirm with **<ENT>**

```
Which group ? 99

99=all athletes
```

F1 F2 F3 F4

Press **<ENT>** to confirm what is proposed

```
What do you want to
transm. ?


Net  Cr NSNFDIS menu
```

F1 F2 F3 F4

Press **<F1>** to transmit net times

Press **<F2>** to transmit time events

Press **<F3>** to transmit the list of non finishers

Press **<F4>** to return to the initial menu

For the format of the data transmitted, refer to the appendices of the “User manual”.

8. Signal quality

An essential condition for the correct use of the LinkGate system is a sufficiently high level of the quality of its radio signal. With this function, Racetime2 allows you to test its quality.

When you enter this function, the message **'Ready to receive!'** appears. At this point you can start a test transmission (for example, a start signal). After about 3 seconds from the start of transmission, during which the message **'Reception…'** is shown and the reception channel is indicated, the quality of the signal expressed as a percentage is shown on the display. Naturally the higher the percentage, the higher the quality of reception.

Values above 40% are considered 'safe'.

If the channel set on the LinkGate Encoder does not match the channel set on Racetime2 (see chap. 10.6 LinkGate Channel on p. 43), the message **'DIFF. CHANNEL!'** appears.

If the level of quality of the signal received is below 40%, one or more of the following steps can be taken:

- place both the transmitting and receiving radios (the radios connected to the Encoder) in an elevated upright position
- change the working frequency to avoid interference from the frequency used by other transmitters
- if external radios are used, especially for the transmitting radios, use more efficient antennas such as ¼ or 5/8 wave antennas instead of the normal 'charged' type.

The antennas supplied with the integrated LinkGate EncRadio and LinkGate DecRadio transmission system already have a high level of efficiency.

Note: the quality signal test should preferably be performed with the 'short-long' selector of the LinkGate Encoder in the 'Long' (L) position. If the selector is on 'Short' (S), the maximum 'quality' value indicated by the test is about 25%.

For further details about the LinkGate system, consult the **user manual**.

With the function key **<F4> menu**, you return to the previous menu.

9. Skitest configuration

9.1. Setting speed bases

Racetime2 allows you to calculate both the average speed between two acquisition points (**START**, **LAP** and **STOP**) and 'instant' speed with the LinkGate system which, as well as sending the time acquired, can send the time taken to cover a specific base.

Racetime2 does not store speeds, but only the data necessary to calculate them, such as times taken to cover the distance between acquisition points and time taken to cover the bases, as well as their lengths.

The times taken to cover the LinkGate bases are acquired with the precision, typical of LinkGate modules, of 1/32,768s.

For details about installation of the LinkGate system, refer to the **user manual**.

9.2. Radio speed base length

When using the Linkgate © radio acquisition system, two acquisition devices, typically photocells, can be connected to the same EncRadio or Encoder module for the calculation of the average speed within a base. With this function the distance between the two acquisition points is set

Specify the number of the measurement base (0=Start base, 1..14 intermediate bases, 15 Stop base) and confirm it with **<ENT>**. Then key in the length of the base, **(**first the meters, confirming with **<ENT>** (up to a maximum of 65000), then the centimeters, confirming again with **<ENT>)**. A value of zero indicates that on that particular base the speed need not be calculated.

It is always possible to enter these figures later, as Racetime2 stores only the time taken to cover the base. The speed is calculated at the moment it is presented.

To quit the function press **<CE>**.

Acquiring radio speeds is only possible when the EncRadio multifrequency modules are used. The EncRadio SF modules do not offer this function.

9.3. Average speed base length

This function is used to set the distance between the various time acquisition points for the calculation of the average speed at which the distance is covered.

Specify the number of the measurement base (0=start finish distance, Start base, 1=distance from the start to the first intermediate point, 2=from the first to the second intermediate point and so on up to 15) and confirm it with **<ENT>**. Then key in the length of the base, **(**first the meters, confirming with **<ENT>** (up to a maximum of 65000), then the centimeters, confirming again with

<ENT>). A value of zero indicates that on that for that particular section the speed need not be calculated.

It is always possible to enter these figures later, as Racetime2 stores only the time taken to cover the base. The speed is calculated at the moment it is presented.

Both EncRadio multifrequency modules and EncRadio SF modules can be used for taking speeds.

To quit the function press **<CE>**.

9.4. Units of measurement

This function is for specifying the unit of measurement to be used. The possible choices are:
<F1> for meters per second
<F2> for kilometers per hour
<F3> for miles (land) per hour
<F4> for knots

9.5. T.Hum (air humidity and temperature + snow temperature) sensor test

The Microgate MicroClima climate sensor makes it possible to take accurate data for air temperature and humidity and for the temperature of the snow.

The function checks that connection is correct and reads the data of the climate sensor (Microgate code ACC064 and $ACC065).

If the sensor is not connected, an error code appears.

If the sensor is connected, the values for air temperature and humidity and for snow temperature are read and shown on the display.

The following functions are available:
<F1> Stp: The values shown are printed together with the time of day,
<F2> StAut: sets the frequency with which the sensor is read and the relative data printed. The maximum interval which can be set is 720 minutes (12 hours). Automatic printing at regular intervals continues until the function is quitted or until the time interval is set to zero.
<F4> Quit to quit the function.

10. RACETIME configuration

This menu contains the settings which guide the functioning of Racetime2

10.1. Printing net times

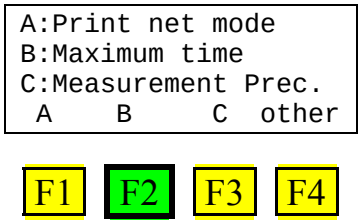
Setting not modifiable in this program.

10.2. Maximum time

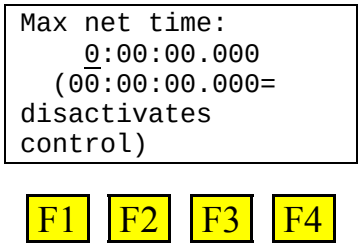
This function allows you to set the maximum time an athlete is allowed for completing the course.

If an athlete exceeds the maximum time, he/she is automatically considered to be not finished. A maximum time of zero disables this control.

To set the maximum time do as follows:

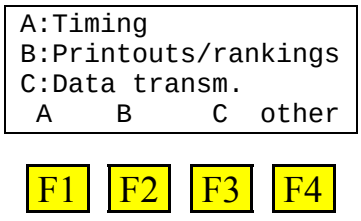


Press key **<F2>** to call up the function.



Key in the values for hours, minutes, seconds and thousandths, confirming each value (hours, minutes…) with **<ENT>**.

Example: to set 45½ seconds press **<ENT>** (0 hours) **<ENT>** (0 minutes) **<4>** **<5>** **<ENT>** (seconds) **<5>** **<0>** **<0>** **<ENT>** thousandths.

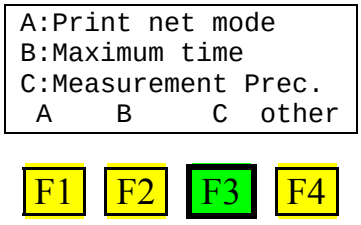


After confirming the value for thousandths, you return to the main menu.

10.3. Measurement precision

This function allows you to set the desired measurement precision.

To set precision do as follows:



Press key **<F3>** to call up the function.

```
Select unit of
measurement
           1/   1/
 1s 1/10s 100s 1000s
```

F1 F2 **F3** F4

Press the key which corresponds to the desired precision: <**F1**> for precision to the second, <**F2**> to tenths, <**F3**> to hundredths or <**F4**> to thousandths.

Example: to set to hundredths, press <**F3**>.

```
A:Timing
B:Printouts/rankings
C:Data transm.
 A    B     C  other
```

F1 F2 F3 F4

After selection you return to the main menu.

10.4. Line configuration

This function is used to set the holdoff time and at rest status (NO → normally open or NC → normally closed) for each input line.

To set holdoff times do as follows:

```
A:Line config.
B:LCK key activity
C:LINKGATE Channel
 A    B     C  other
```

F1 F2 F3 F4

Press key <**F1**> to call up the function.

```
TM Start  2000 ms NO
TM Stop    500 ms NO
TM Lap     500 ms NO
TM Aux     500 ms NO
```

F1 F2 F3 F4

The cursor appears under the value for the start line.

Set the values for each line and press <**ENT**>to confirm. If the value proposed is correct, confirm with <**ENT**> without keying anything in.

Example: to set the holdoff time of the Stop at 200 ms and the Stop and Lap contacts at NC keeping all the other values as proposed, press <**ENT**> to confirm the default values of the Start.

```
TM Start  2000 ms NO
TM Stop    500 ms NO
TM Lap     500 ms NO
TM Aux     500 ms NO
```

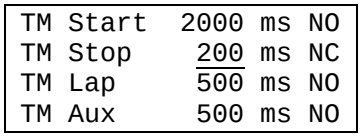
F1 F2 F3 F4

Set 200 by pressing <**2**> <**0**> <**0**> to set the holdoff disactivation time for the Stop line.

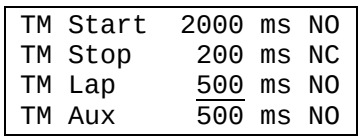
```
TM Start  2000 ms NO
TM Stop    200 ms NO
TM Lap     500 ms NO
TM Aux     500 ms NO
```

F1 F2 F3 F4

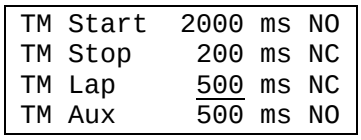
Press <**F4**> to change the at rest status of the line (NO for normally open, NC for normally closed).



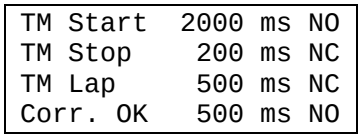
<ENT> to confirm the data for the Stop

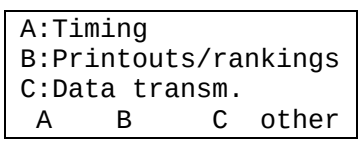


Press **<F4>** to change the at rest status of the Lap line



Press **<ENT>** to confirm the data of the Lap line and **<ENT>** again for the data of the Aux line





To confirm the data entered press **<F2>** for **OK**. If you want to make other changes, press **<F1>** for **Corr.**.

When you have made your selection, you return to the main menu.

10.5. LCK key activity

Function not currently activated. The LCK is active only on the Stop line.

10.6. LinkGate Channel

This allows you to modify the LinkGate ® system so you can move to another channel if necessary.

When you press the **<F1>** key, the channel number you intend to use, from 0 to 127[3], is requested. When you key in the number and press **<ENT>**, the setting the dip-switches must have on the LinkGate Encoder is indicated.

The first selector does not affect the selection of the channel and so is shown without indication.

[3] If EncRadio-SF modules are used, the channels which can be selected are from 0 to 16.

Remember that it is absolutely essential that the channel set on Racetime2 and on the LinkGate Encoder should match. For further information see the **user manual**.

Key **<F4>** returns you to the hardware configuration menu.

10.7. Transmission speed:

Each time key **<F1>** is pressed, this function proposes one of the possible transmission speeds. The possible values are: **1200**, **2400**, **4800**, **9600**

10.8. Format:...

Each time key <**F2>** is pressed, this function proposes one of the two data transmission formats possible, **ASCII** or **binary**.

10.9. Printer

This function, of course, allows you to switch off the printer. Each time key **<F1>** is pressed, one of the two alternatives **Off** or **On** is activated.

10.10. Beep keys

This function allows you to enable the emission of a beep each time a key is pressed. Each time key **<F2>** key is pressed, one of these two alternatives is activated: **Off,** no beep or **On**, a short beep each time a key is pressed.

Beep emission always remains active and is not affected when the line keys are pressed.

10.11. Initialing configuration

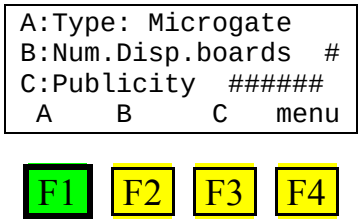
This function reloads the initial configuration (see chap. 14 Preset configuration on p. 47). The function asks for confirmation with the message: **ATTENTION !!! – Current configuration will be lost** of the intention to return to the initial configuration. Press **<F1> OK** to reload the default configuration; press <**F4> Menu** to return to the initial menu without making modifications.

11. Displayboard configuration

With the options in this menu you can indicate which type of displayboard is connected and specify several operating modes.

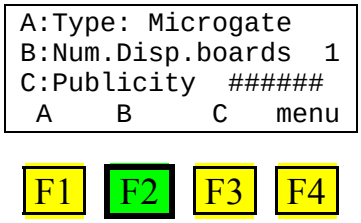
The running time of the athlete approaching the finish will be shown on the displayboard.

11.1. Type



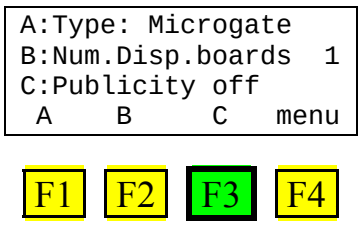
Each time key **<F1>** is pressed one of the alternatives possible is proposed, that is: **Microgate**, **Telecron**, **Alge**, **PC Online**, **Powertime**

11.2. Numero



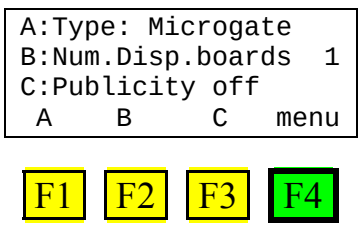
Only if a Microgate displayboard has been selected will one of the two alternatives possible, that is, **1** or **2** displayboards connected, be proposed each time key <**F2**> is pressed.

11.3. Publicity program



Only if a Microgate displayboard has been selected will the command for activation and the command for disactivation of the 'Publicity' program be sent alternately to the displayboards each time key **<F3>** is pressed. For further details refer to the Microgate µTAB displayboard manual.

11.4. Quitting



To quit the function press key **<F4>** for **Menu.**

12. Reception of data stored by LinkGate

For details about use of this function refer to the “User manual ”.

13. Battery recharge

For details about the use of this function refer to the “User manual ”.

14. Preset configuration

The following table summarises the default settings of the Training light program.

	Training light
Maximum time	0 – control disabled
Measurement precision	1/100
Holdoff times (Start, Lap, Aux, Stop)	2000,500, 500,500
Transmission speed	1200
Transmission format	ASCII
Printer	On
Beep keys	On

15. Menu structure

16. Modification history

The table below summarises the main changes made to this manual.

Program version	Chapter	Page	Description of modification
1.00			First version of this manual

Copyright

Collaborators in the creation of the Racetime2 software and the preparation of the relative manuals are:
Ing. Roberto Biasi,
Dr. Vinicio Biasi
Ing. Federico Gori
Ing. Alessandro Miorelli
Giuliano Menestrina
Daniele Veronese

The software and manuals are available in the following languages: Italian, English, German and French.

Microgate S.r.L
Via Stradivari, 4 Stradivaristr.
39100 BOLZANO - BOZEN
ITALY

Tel. +39 471 501532 - Fax +39 471 501524
e-mail info@microgate.it

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