REGNLY TIMER RT 3 BIATHLON

Users manual - Addition to RT 3 Nordic
November 1991

Introduction
The users manual for RT 3 Nordic covers in most respect also that for the RT 3 Biathlon. This short addition emphasizes the differences between the two Timers.

Programming
The Timer RT 3 Biathlon is programmed more or less in the same way as the Nordic version. A few questions are taken away, and a few others are added. The programming follows the pattern below :

¥   Language
¥   Timer / Ski-tester
¥   Delete times / Definition
   -   Class no 1
   -   First startno.
   -   Last startno.
   -   Starttime for first startno.
   -   Startinterval
   -   Number of runners starting together
   -   Number of passings
   -   Number of shootings
   -   (Max time for 1. passing in minutes)
   -   One penalty is
   -   More classes
¥   Placing runners in groups
¥   Time is

The program changes are as follows :
1   The question about users experience is eliminated. You are automatically an experienced user.
2   "Number of passings" mean how many times the times are taken. This number must be equal to or 1 (one) larger than the number of shootings. If you wish to match the opening speed, then choose the number of passings to 1 (one) more than the number of shootings.
3   Normally the "Number of shootings" is equal to the number of times the runners shoot. Speakers and others who also want to take times / match near the finish line should choose "Number of shootings" and "Number of passings" to 1 (one) more than the real number of shootings.

4   If the number of passings are chosen to be 1 (one) more than the number of shootings, the Timer asks about "Max time for 1. passing in minutes". The answer is the maximum time for checking the opening speed. Normally this time is 3-4 minutes. The max time should be as small as possible, i.e. as far from the anticipated time for the first shooting as possible.

5   The penalty pr miss must be put in. When "penalty loops" are used (no addition of time for misses) insert 0 (zero) as penalty. Zero is also inserted when the Biathlon Timer is used in Nordic competitions.

6   The question about "Controll of passes" is eliminated. The Biathlon Timer uses "Automatic control of passings".

Users mode

The main difference between the RT 3 Nordic and the RT 3 Biathlon is of course how misses are recorded and presented. The number of misses can be put in either before or after a passing (In two cases it is not possible to record penalties, see section 4 below). To record misses, type "Startno + A".

1   Recording penalty

In this section we assume that the runner has an elapsed time that allows for recording of misses. When startno + A have been entered, the cursor will normally blink in the "misses registration position". The information on the display from left to right is :

Startno - Name - Misses on this shooting - Sum misses - Ranking - Time including penalty.

The text presented on the display depends on the runners time. There are 4 different cases :

a   No misses have been recorded, the time has not been taken
___A typical display picture can be :
    015ERIK _-0   2 *10:22* (*cursive* indicates running time)
    If 1 is entered to indicate 1 miss, the picture changes to :
    015ERIK 1-1   7 *11:31* (the picture for the very first runner is : _-1)

This last picture shows that startno. 15 Erik has one miss. His total number of misses are also 1. He has for the time beeing a rank of 7. His running time included penalty is 11.31.

The number in front of the short horizontal line indicates the number of misses in this shooting. The number behind the line is the total number of misses.

At all shootings it is possible to enter more than 5 misses. This is convenient

if the shooting result is only registered after the last shooting. A total of 9 misses can be entered directly. If the total number of misses is larger than 9, type 9, and then C. Each time the C-key is pressed the number of misses increases with 1. Only one character is shown in the A-picture, i.e. 3 is presented when the number is 13. The whole number is presented in the other pictures.

b   Misses are recorded, the time is not taken

A typical picture is :

015ERIK 1-1 8 *11:48*. In this case it is not possible to record misses. When the time is taken with the B-key, the picture changes to :

015ERIK -1 9 11:58. The short horizontal line in front of the number of misses indicates that misses are recorded for this shooting (and for all preceding shootings).

c   Time is taken, misses are not recorded

A typical picture is :

017PER   _-0 2 10:18

Has passed

Record misses

Per has passed on 10.18 but misses were not recorded. It is possible to record misses now (blinking cursor). When this is done, the picture changes to the ordinary "B-picture".

d   Time is taken, misses are recorded

If "startno + A" are keyed after registration of both time and misses, the picture looks like :

017PER   1-1 5 11:22

Has passed

Misses are recorded

Neither time nor misses can now be recorded.

Registration of new passing when misses have not been recorded on preceding passings

The picture may then look like :

016HANS _*0 3 21:03

The blinking cursor indicates that misses can now be entered for this passing. The symbol * indicates that misses have not been recorded on one or more of the preceding passings. To enter misses afterwards, the correction function must be used, i.e. type startno + D from the main meny, choose correction of misses, and enter the correct number for the appropriate shooting.

2   Punctuation mark * og -

The symbol * in front of the total number of misses indicates that shooting results are missing from one or more of the preceding shootings. The symbol - indicates that all misses have been recorded for this runner. A ranking list at a certain passing may look like :

```
015ERIK  *2  1  49:33
017PER   -1  2  50:38
016HANS  -3  3  50:47
018EVEN  *2  4  51:02
```

Startno 15 Erik has rank 1 with a total time of 49.33. He has registered 2 misses, but registration of misses are missing from one or more shootings. Startno 17 Per has rank 2 with the time 50.38. He has misses registered from all shootings, and a total of 1 miss. Hans with startno 16 has a total of 3 misses and has rank 3 with the time 50.47. Even, startno18, has registered 2 misses, but the * indicates that at least one shooting result is missing.

3   Time-slots

The time used for calculating time-slots is cross-country time and not total time including penalty. The time-slots are important for the Nordic Timer, but even more important in Biathlon. Misses can not be registered in the "A-picture" when the runners cross-country time is outside the time-slots, see section 4. Times registered outside the time-slots will be put into the Error-list. Read about the time-slots and error-list in the Users manual for the Nordic Timer, section 9.

4   Misses can not be recorded

It is not possible to register misses when the runners time either corresponds to the time period for "opening speed" or is between established time-slots.

The time period for opening speed means the time period where the runners time is less than the programmed max. time.

The time slot for each passing is established automatically when the time is recorded for the first runner. When three passings are established, the time-slots could be : 8-12 min, 16-24 min and 26- 36 min. In periods where the runner has a time between 12 and 16 min or between 24 or 26 min it is not possible to record misses. The user is urged to "close" the time-slots, see section 9 in the users manual for Timer Nordic.

5   Time between passings

It is not possible to calculate the time between the various passings.

6   Correcting times / startnumbers / misses

When the time is taken with the B-key, it is not possible to type A to correct the startnumber as you can with the Nordic Timer. Typing A brings you back to the main meny. To correct times and misses please use the general prosedure, typing "startno. + D"

7___Names___Names can only have 4 letters (due to space problems on the display).