

Manual Sportstimer

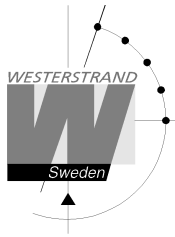


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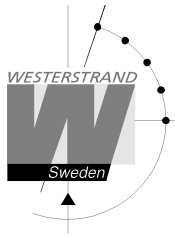
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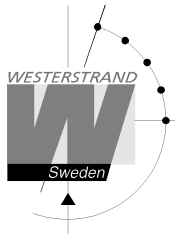
CAUTION: this equipment must be serviced by an approved technician.
The guarantee shall be cancelled if any modifications are made to this product.



General warning (refer to accompanying documents)



Consult instruction for use



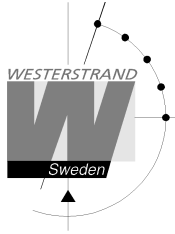
Bruksanvisning Sportstimer LED

Westerstrand Sport System

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Technical data

Part number: 119240-10, 119240-36, 119240-37, 119240-56, 119240-76
Connection voltage: 100-240VAC 50/60Hz alt. 10,8-14,4VDC
Ambient temperature: -20°C to +55°C
Relative humidity: 5 - 95% (non condensing)
Chassi: IP 54



Introduction

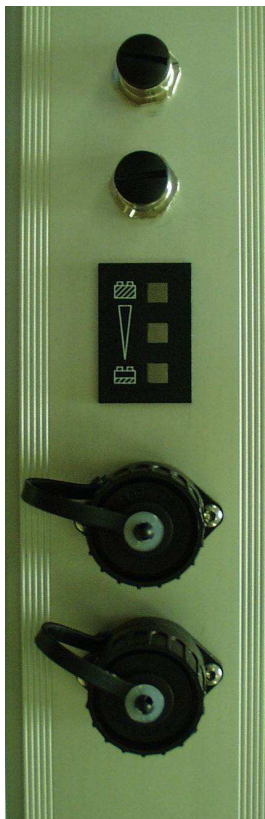
This manual contains instructions for installation and use of the Westerstrand Sportstimer. The Sportstimer can be used as a real time clock or as a chronometer counting up or down. Lap times can be stored and there is a function to count down to repeated starts. There are two remote controls, one radio remote and one wirebound. It is also possible to connect other controls, such as a starting gun.

Installation

The Sportstimer is powered by either 230VAC or 12VDC. At delivery two cables are provided; one for mains connection and one with clamps for connection to a car battery. The Sportstimer can be connected to both power sources at the same time without risk of damage. When the battery input is used a gauge shows the approximate state of charge of the battery. When the voltage level drops below a certain point the power is cut. This is done to protect the battery from over-discharge.

Electrical connection

Picture 1. Connection panel. (Connector appearance may differ).



From top to bottom, the following is shown:

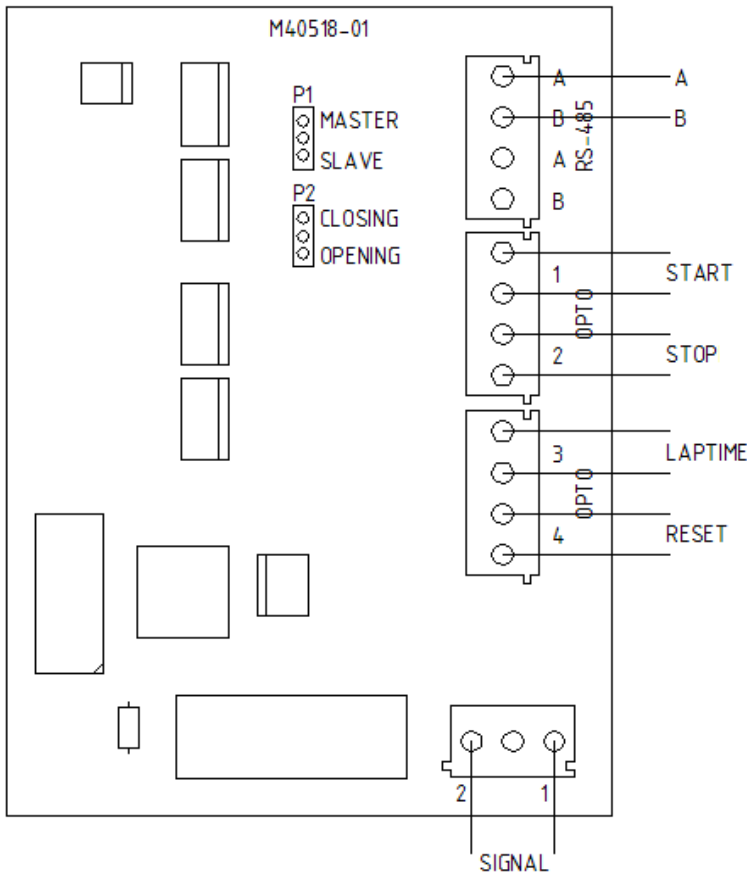
1. Connection of data cable
2. Connection of the wired remote control
3. Battery indicator
4. Connection to 12V DC (Battery)
5. Connection to 230V AC (Mains)

Remove the lids and connect the cables. The remote control can also be connected when the product is running.

Connection of separate functions

Warning! Make sure that the power is disconnected before opening the Sportstimer.

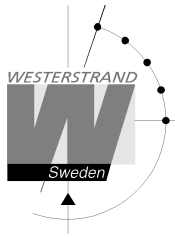
The Sportstimer has connections for RS485 communications and other functions, such as a starting gun, see the picture below.



- MASTER
 SLAVE Control display with remote control (Default setting)
- MASTER
 SLAVE Control display with RS485
- CLOSING
 OPENING Opening function for start, stop, laptime and reset
- CLOSING
 OPENING Closing function for start, stop, laptime and reset

SIGNAL: Relay closes when the timer reaches zero.

For description of RS485-protocol, se instruction 2526.
 Settings: 19200 Baud, 1 startbit, 8 databits, 1 stopbit, no parity.



Startup

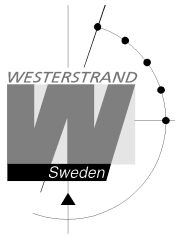
At power on the Sportstimer will show one of the following modes:

- Clock – a 24 hour clock is shown. This is the default mode at first start. The clock mode can be recognized by flashing separators (colons).
- Chronometer mode – if the Sportstimer has been shut down in chronometer mode this will be resumed when power returns. A running chronometer will continue counting when power is lost and display the correct time when power returns. Chronometer mode can be recognized by fixed separators (colons and/or point).

The wired remote control shows the same information as the Sportstimer and can now be used to control it. The radio remote control is ready for use as soon as the Sportstimer has been started.

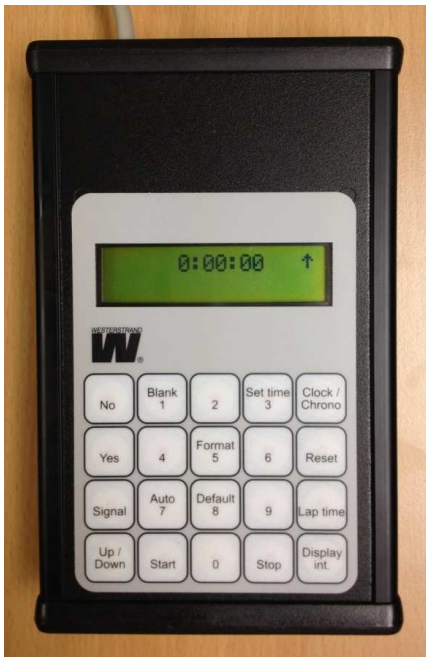
Operation

To control the Sportstimer there are two alternatives: A wired, 20-button control with an LCD display and a cordless radio control with 7 buttons. The wired remote control is needed to be able to use all functions, but the radio remote control is sufficient when using the simpler functions.

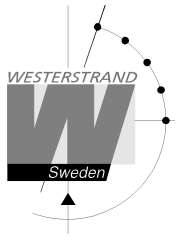


Functions in clock mode

When the Sportstimer is in the real time mode the following buttons on the wired remote control can be used.



- No** – Moves the cursor one step back during data entry or aborts the entry altogether and returns to the previous mode.
- Yes** – Accepts an entry.
- Blank 1** – Turns the Sportstimer display off. The text "Display blanked" is shown on the remote control display. Press *No* or *Blank* to resume normal operation.
- Set time 3** – Opens a dialog for setting of the clock time. The desired time is entered using the numerical keypad. Confirm the time by pressing *Yes*.
- | | | | |
|-------|----|----|----|
| Set | HH | MM | SS |
| clock | 00 | 00 | 00 |
- Clock / Chrono** – Changes to chronometer mode.



Signal – Opens a dialog for setting the starting clock. The clock can be programmed to signal a number of starts with a fixed interval. Enter, in sequence, the start time, the interval and the stop time. The minimum interval is 12 seconds.

Enter start time:

Signal:	08:00
MM:SS	HH:MM

Enter interval:

Signal:	08:00
00:30	HH:MM

Enter stop time:

Signal:	08:00
00:30	09:00

Confirm the times by pressing Start. On the Sportstimer an “S” will now be shown as well as the countdown for the next start signal. See the picture below.

07:59:33	08:00
S	00:27 09:00

To abort, first press *Stop* and confirm with *Yes*.



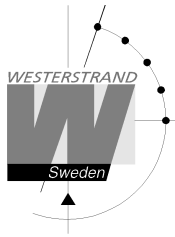
Default – Resets the Sportstimer to the default settings.



Display int. – Changes the brightness of the Sportstimer. Press the button repeatedly to change setting and accept with *Yes*. Setting “A” means that the light sensor is used to set the optimal brightness. The brightness can only be adjusted when the chronometer is stopped.

Display intens.
1 2 3 4 5 A

The radio remote control can not be used in real time mode. Press any key to change to the chronometer mode.



Functions in chronometer mode

The following buttons on the wired remote control can be used when the Sportstimer is in chronometer mode:



No – Moves the cursor one step back during data entry or aborts the entry altogether and returns to the previous mode.



Yes – Accepts an entry.



Blank – Turns the Sportstimer display off. The text “Display blanked” is shown on the remote control display. Press *No* or *Blank* resume normal operation.



Set time – Opens a dialog for setting of the chronometer time. The desired time is entered using the numerical keypad. Confirm the time by pressing *Yes*. This can only be done when the chronometer is stopped.

Set	HH MM SS
Timer	00:00:00



Clock / Chrono – Switches to clock mode.



Format – Changes, if possible, the display format between HH:MM:SS och MM:SS.cc where HH=hours, MM=minutes, SS=seconds och cc=centesimals. The highest time that can be displayed in the format with centesimals is 99:59:99. When counting up the Sportstimer will automatically change the format to fit the time on the display.



Reset – Resets the chronometer to zero or the latest set time. Press the button repeatedly to switch between zero and the set value.

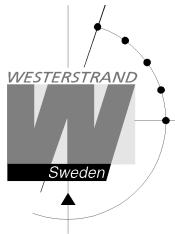


Auto – Activates a mode for automatic reset of the chronometer. When the chronometer is stopped, the time is displayed for 5 seconds and is then reset to zero or the latest set value. The Auto mode is indicated by an “A” in the remote control display.

2:00:00	A ↓
---------	-----



Default – Resets the Sportstimer settings to the default value.



Bruksanvisning Sportstimer LED

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Lap time – Press when the chronometer is counting to store a lap time. The lap time will be shown in the display for three seconds while the chronometer continues in the background. When the chronometer is stopped, the button can be used to view the stored lap times. Press the button repeatedly to step between the times. The stored values will be deleted if the chronometer is restarted or when switching to clock mode.

00:03:14 ↑
LAP 2 00:02:12



Up / Down – Press to select the counting direction of the chronometer. The selected direction is indicated by an arrow in the remote control display. If the radio remote control is used to start the chronometer the counting direction is changed automatically.



Start – Starts the chronometer.



Stop – Stops the chronometer. Press button *Start* to resume.










Display int. – Changes the brightness of the Sportstimer. Press the button repeatedly to change setting and accept with Yes. Setting “A” means that the light sensor is used to set the optimal brightness. The brightness can only be adjusted when the chronometer is stopped.

Display intens.
1 2 3 4 5 A

The radio remote control



In the chronometer mode, the following buttons on the radio remote control can be used:

-  **Start up** – Starts the chronometer (counting up).
-  **Stop** – Stops the chronometer. Press *Start up* or *Start down* to resume. Press and hold *Stop* when the chronometer is stopped to change the viewing format (See function Format in the chapter above).
-  **Start down** – Starts the chronometer (counting down).
-  **Hour (+10)** – Press to increase the time on the chronometer by one hour. Press and hold to increase by 10 hours. Can only be used when the chronometer is stopped.
-  **Minute (+10)** – Press to increase the time on the chronometer by one minute. Press and hold to increase by 10 minutes. Can only be used when the chronometer is stopped.
-  **Lap time** – Press when the chronometer is running to store lap times. When the chronometer is stopped the wired remote control can be used to view the stored values.
-  **Clear** – Sets the chronometer value to zero. Press and hold to change to clock mode.