



TENDO Sprint System

INTELLIGENT, WIRELESS TIMING SYSTEM

EXTERNAL DISPLAY

USER MANUAL



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QUICK START GUIDE

1. Instal computer software
2. Instal TSS signal receiver driver
3. Setup the hardware
4. Start using TSS

1 ACKNOWLEDGEMENT

Thank you for purchasing Tendo product. We hope you will be satisfied with our product and customer service.

Please read the user manual fully before using the product. Save the manual for future reference. Make sure that other people using this product are familiar with the instructions.

2 SAFETY PRECAUTIONS

Do not use the device in a **damp environment** and in the **rain**.



Photocells, RFID chip reader and external display are equipped with **neodymium magnets** via which they are attached to tripods

The following safety precautions must be observed during the operation with the magnets:

1. Do not put 2 magnets together
 2. When transporting devices containing magnets, use only non-metallic packages to form protection around the magnet when transporting and storing the device
 3. *Medical devices* - Some medical devices (such as pacemakers and heart defibrillators) may be affected by a strong magnetic field
 4. *Credit cards and electronic devices* - Do not place credit cards, computer disks, and other magnetic storage devices closer than 20 cm to the magnet
 5. Keep *mechanical watches, compasses* and *hearing aids* away from the magnet
- *DC and DVD media* do not carry magnetic data. Therefore, they cannot be damaged by the magnet
 - *Cameras, mobile phones* do not contain magnetically stored media. Therefore, they cannot be damaged by the magnet
 - *USB keys and memory cards* do not carry magnetic data and cannot be damaged by the magnet
 - The static magnetic field does not damage the *car keys*

3 PRODUCT DESCRIPTION

3.1 ABOUT THE PRODUCT

An external display can be used with Tendo Sprint System to show the measured time values

3.2 PRODUCT DESCRIPTION

The external display is an optional accessory for Tendo Sprint System (*contact your seller for more information*). It is used to display time or simple texts. The external display shows data based on PC commands or can work as a standalone device and subtract data directly from the photocells, evaluate and display the result.



3.3 BATTERY INSTALLATION

New rechargeable batteries are already inserted in the battery compartment of the external display. The batteries are secured with a plastic safety strip in order to prevent the external display switching on spontaneously during the transport.

Before the first use, carefully pull out the plastic safety stripe.

Use only rechargeable batteries: type NiMH, size AA, 2000 - 2500 mAh

3.4 OPERATION MODES

The external display has **3 modes of operation**:

1. **Time clock** - displays the current time
2. **Standalone device** - displays time measured via TSS. The external display works independently without connection to the TSS computer software
3. **The "CON" display** - displays the measured data sent by the TSS computer software

The modes can be setup in the external display's setup menu

3.5 SETTING THE EXTERNAL DISPLAY

3.5.1 SWITCHING ON

Press ON/OFF button (the bottom button - downwards arrow) for 3 < seconds. After the long press, you will hear a double beep. After the button is released, information about current function of the external display will be shown on the LED display for 5 seconds.

3.5.2 FUNCTIONS OF THE EXTERNAL DISPLAY

1. **"CON"** - Connection to a computer - the computer controls the display
2. **"t-Time"** - Time clock
3. **"Run"** - Autonomous display of time with TWO photocell/reflector pairs (start x—x finish). No control via TSS computer software
4. **"Lap"** - Autonomous display of time with ONE photocell/reflector pair (start = finish). No control via TSS computer software.

3.5.3 CHOOSING A FUNCTION



•Long press (press and hold) of the Setup button (middle button - ENTER) will activate the setup menu of the external display

•Use arrows to select a parameter you want to set (Run, Time, Lap, Con)
•Press ENTER button to enter the parameter setting mode of your choice (Run, Time, Lap, Con)

•In the parameter setting mode, cycle the setting options by pressing ENTER button.

•Change of the setting is done using the arrows.

Setting "Run" parameter:

1. *Communication channel* - Press ENTER and use the arrows to set the channel. Display shows "Chan" - choose a channel from "0" to "3"
2. *Continent (frequency range setting)* - Press ENTER and use the arrows to set the continent.

- Display shows "Coun" - choose E - for Europe, A - USA
3. *Start type* - Press ENTER and use the arrows to set the start type.
Display shows "Sta F" for flying start
"Sta N" for normal start
Press ENTER and the display will show "Run" again.

Press the downwards arrow for the next setting, "Lap".

Setting "Lap" parameter:

1. Communication channel - Press ENTER and use the arrows to set the channel.
Display shows "Chan" - choose a channel from "0" to "3"
2. Continent (frequency range setting) - Press ENTER and use the arrows to set the continent.
Display shows "Coun" - choose E - for Europe, A - for USA
3. Number of rounds - Press ENTER and use the arrows to set the number of laps measured by one photocell/reflector pair.
Display shows "Lap n" - choose number of laps

In this case, the start type will be automatically set to the flying start.

Press Enter until "Lap" will appear again

Press the downwards arrow for the next setting, "Con".

Setting "Con" parameter:

1. Communication channel - Press ENTER and use the arrows to set the channel.
Display shows "Chan" - choose a channel from "0" to "3"
2. Continent (frequency range setting) - Press ENTER and use the arrows to set the continent.
Display shows "Coun" - choose E - for Europe, A - for USA
3. Display name - Press ENTER and use the arrows to set the display name
Display shows "Name" - Option to select from Name 1 to 5 when using multiple external displays.

Press Enter until "Time" appears

Clock setting "Time"

1. Press ENTER and use the arrow buttons to set the clock
2. Press ENTER and use the arrows buttons to set the minutes

* Use long press of ENTER button to exit the setting menu and save the new settings.

* For successful communications, it is important that the settings of the external display are identical to the photocell's setting (communication channel and frequency range)

3.5.4 SWITCHING OFF

Press ON/OFF button for 3 < seconds. After the long press you will hear the double beep and the LED light will turn off. The external display is now switched off.

3.6 BATTERY CHARGING

The external display has its own built-in battery charger. To charge the batteries use the power adapter which is part of the kit.

Power adapter parameters:

Input voltage: 110 - 230 V AC, 50 - 60 Hz

Output voltage: 12 V DC, 1,2 A

Only use rechargeable batteries: type NiMH, 2000 - 2500 mSh

Plug the power adapter into a 230V AC power outlet

Plug the power adapter connector into the bottom socket on left side of the external display

3.7 BATTERY EXCHANGE

1. Open the back cover of the battery compartment
2. Insert 4x rechargeable NiMH batteries as pictured on the bottom part of the battery compartment
3. Before inserting the batteries, make sure that the batteries are correctly polarised

