

# Users Guide

## UniStop

Version 1.01

Go faster faster

**UNIPRO ApS**

VIBORG HOVEDVEJ 24

DK-7100 VEJLE

DENMARK

Tel.: +45 75 85 11 82

Fax: +45 75 85 17 82

[www.uniprolaptimer.com](http://www.uniprolaptimer.com)

[mail@uniprolaptimer.com](mailto:mail@uniprolaptimer.com)

<b>Introduction</b> .....	<b>3</b>
<b>Overview</b> .....	<b>4</b>
<b>Quick Guide to the basic functions</b> .....	<b>5</b>
Turning UniStop on .....	5
Taking lap times and split times.....	5
Analyse mode .....	5
Clearing Laps .....	5
Turning UniStop off.....	5
<b>Reference Manual</b> .....	<b>7</b>
Basic information .....	7
USB connector .....	7
Real-time Clock .....	7
Display.....	7
Symbols.....	7
Batteries .....	7
KeyStrap.....	7
Operating modes .....	8
Turning UniStop on .....	8
Stop watch .....	9
Stop Watch Analyse .....	13
Info .....	14
Main menu .....	15
Setup menu.....	16
Clock setup.....	16
Contrast setup .....	16
Language setup.....	17
Auto power-down setup.....	17
Multistart setup .....	17
LED Feedback setup.....	17
PC transfer .....	18
Battery change.....	19

## Introduction

Thank you for trusting us to deliver the most advanced stop watch on the market.  
The UniStop has several unique features and will very quickly become an indispensable tool.

Even with all the advanced features, the stop watch is very easy to use. With just a few clicks you are ready to take lap times for up to 4 drivers at the same time. You can easily take split times as well (up to 9 splits per lap).

The graphical display makes it very easy to see and analyze the times saved in the stop watch.

### **UniStop speaks your language too**

The user interface comes in many different languages, and is preinstalled with English, German, Italian, Danish, French, Spanish, Portuguese, Dutch and Norwegian. When other languages are added, new firmware (software) will be published on [www.uniprolaptimer.com](http://www.uniprolaptimer.com).

If you have any problems or questions regarding your UniStop we will make sure to give you the necessary support.

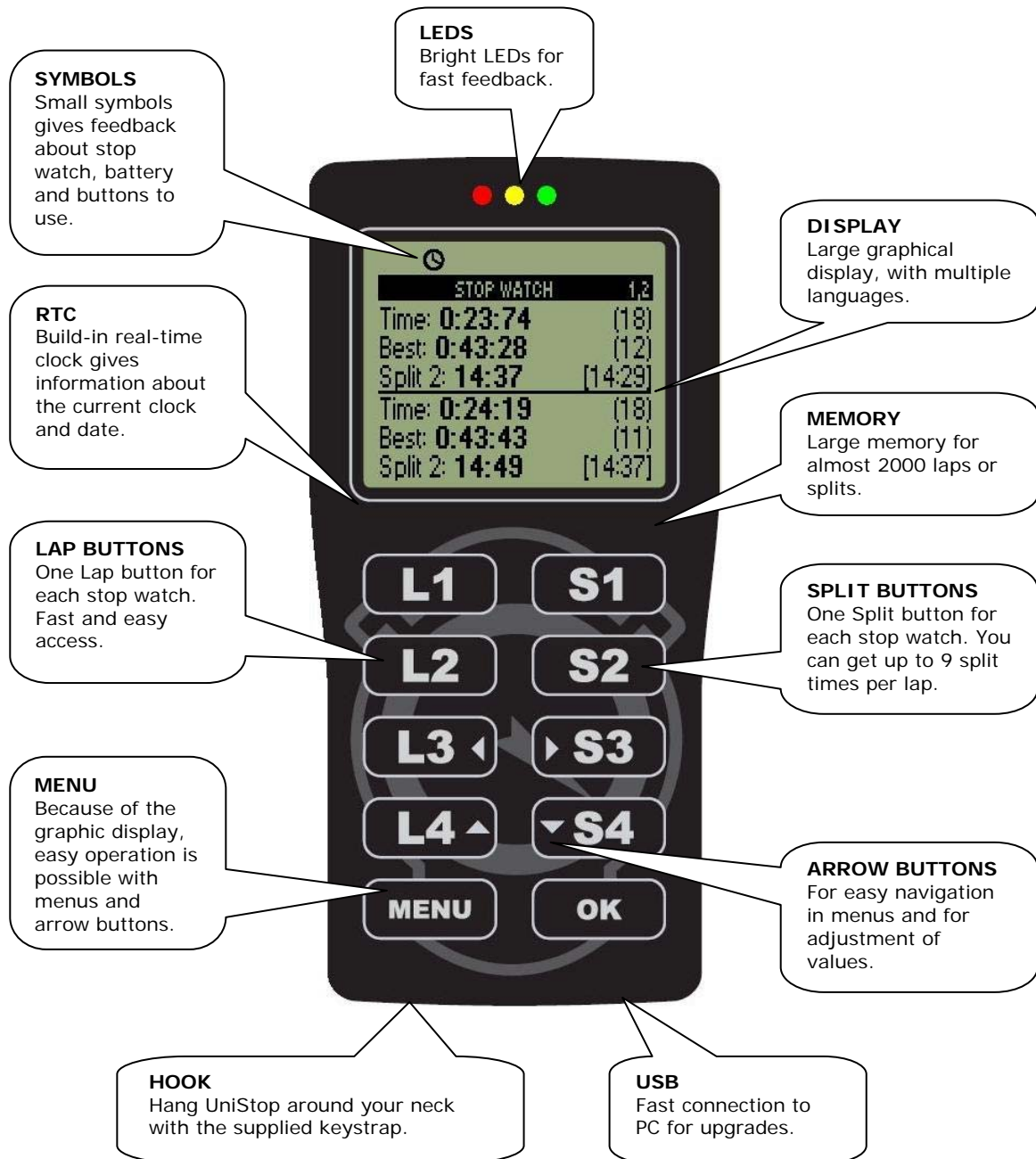
Please e-mail your questions to [support@uniprolaptimer.com](mailto:support@uniprolaptimer.com) or contact your local dealer.

Good luck on the tracks!

UNIPRO ApS  
Viborg Hovedvej 24  
DK-7100 Vejle  
Denmark  
Web: [www.uniprolaptimer.com](http://www.uniprolaptimer.com)  
E-mail: [mail@uniprolaptimer.com](mailto:mail@uniprolaptimer.com)  
Forum: [forum.uniprolaptimer.com](http://forum.uniprolaptimer.com)  
Knowledge Base: [www.laptimer.dk](http://www.laptimer.dk)

## Overview

We have put a lot of effort into making UniStop very fast and easy to operate. The feedback we get from drivers and teams using UniStop tells us that we have succeeded. Here you can get an overview over the functions in UniStop.



Please notice that the top four buttons at each side is associated with laps and splits for each of the four drivers. To make operation very easy you will find a menu button that together with the four arrow buttons and the OK button will make a very easy to use user interface.

The following section will explain more about the different hardware features in UniStop.

## Quick Guide to the basic functions

This chapter describes how to get started with using the UniStop just for the basic functions: taking lap times and split times for up to 4 drivers at the same time.

### TURNING UNISTOP ON

Press the MENU button to turn the stop watch on. UniStop starts by showing the startup screen for a few seconds. After that you will be on the stop watch screen. Press MENU twice if you want to skip the startup sequence and go directly to the stop watch.

### TAKING LAP TIMES AND SPLIT TIMES

You start each of the four stop watches by pressing L1, L2, L3 or L4. L1 means Lap for driver 1 and so on. It does not matter in what sequence the watches are started. You are free to use them as you wish.

Each time you press the L1 you will save a lap time for driver number 1 – and the same for the other buttons / drivers.

If you want to take split times, just press the S1 to S4 buttons. You can save up to 8 split times per lap plus the extra split time you get automatically from the last split to the finish line.

When you are finished with the race / training session, you can press the MENU button to show the popup menu. Here you can choose STOP ALL to stop all watches and go to the main menu.

If you want a bigger font when using 3 or 4 drivers, just press and hold L2 when turning UniStop on. Press and hold L1 during power-up to get back to the default mode again.

### ANALYSE MODE

From the main menu, you can go to the Analyse screen. From this screen you can analyse the times you have just measured. The screen is almost the same as before, but now you can scroll through the different laps and splits. UniStop automatically selects the best lap for each driver. If you press the L1 to L4 button, you can scroll **up** through the laps for each driver and if you press S1 to S4 you can scroll **up** through the split times for each driver. If you however want to scroll **down**, you simply press and hold the OK button while scrolling with the L1 to L4 and S1 to S4 buttons.

### CLEARING LAPS

If you want to clear the laps stored you can do it in several ways.

- Press and hold OK while turning UniStop on.
- Choose "CLEAR LAPS" from the popup menu.
- Press and hold down OK for 1 second from the stop watch screen

You always have to confirm by pressing OK except when using the first method.

### TURNING UNISTOP OFF

Pressing the MENU button and holding it down will turn UniStop off. You can do the same from the main menu by choosing "POWER OFF".

**That's how easy it is** – if you are ready for some more advanced features, then read the Reference Manual section.



# Reference Manual

In the following chapters you can find detailed information about all the functions of UniStop.

## ***Basic information***

### USB CONNECTOR

The USB connection is compatible to USB version 2.0 full-speed. That is what you typically find on your PC. You have to notice, that UniStop acts as a device (or slave) so you will not be able to connect it to a USB printer. You should also notice that a special Unipro USB driver is needed on the PC. Please install this driver **before** UniStop is connected the first time! The driver is supplied on the CDROM included in the box. The USB cable is an optional accessory.

### REAL-TIME CLOCK

UniStop is equipped with an internal real-time clock. This clock runs even when UniStop is turned off and it keeps track of the time and date.

As an extra feature, the real-time clock will be synchronized with the PC clock every time you connect UniStop to the PC Watch program.

### DISPLAY

The display used in UniStop is a new custom made graphic display than besides the 128 x 64 pixels also have some fixed symbols at the top. This leaves more room on the screen and helps us make an easier to operate stop watch.

### SYMBOLS

In the top part of the display you will find a number of fixed symbols. Not all symbols are used in UniStop. UniStop will show you which buttons to press at all time. This will make it very easy to navigate the menus!

These symbols are showing things like battery status, stop watch running, USB connection and the menu keys to use.



### BATTERIES

UniStop is made to run a very long time on two standard AAA cells batteries. We designed it to use standard batteries and not expensive Lithium batteries and the software is optimized to run using as little energy as possible.

### KEYSTRAP

A Unipro KeyStrap is included with UniStop. This is a nice way to have UniStop with you at all times and at the same time avoid dropping it on the ground. Please do not let kids play with the KeyStrap. It can be dangerous and it can strangle by accident!

## ***Operating modes***

The stop watch has some different menu or screens. You change between the different modes with the buttons.

### TURNING UNISTOP ON



To turn on UniStop you simply press the MENU button. The display displays the start-up screen with the logo and more information about UniStop, for instance software version and owners name.

At the same time UniStop is counting down to start with the LEDs at the top. After the count down, UniStop starts in the "Stop watch".

It is however possible to skip this start-up phase. If you press the MENU twice instead of just once, UniStop starts directly in the "Stop watch", ready to use. It will skip the startup screen and thereby reduce the startup time.

You can also jump directly to the "Main menu" by pressing the OK button after the press on the MENU button.

If you do not like the supplied logo, you can change it to your own from the PC Watch program. It needs to be a black and white bitmap with the resolution of 64 x 64 pixels. Some of the picture may be covered by the text.

It is also possible to change the text at the bottom line. At default this is set to "www.uniprolaptimer.com" but you can for example set it to your own name. The maximum number of characters is 25. This is also done from the PC Watch program.



## STOP WATCH



The stop watch screen is the most important screen on UniStop! It is here the timing of the drivers is done. Depending on the number of stop watches running, you will see different layouts of the screen. If you are only timing one driver, you will see more information than if you are timing four drivers!

When you want to start the stop watch, simply press L1 to start the timing of driver one, L2 for start the timing of driver two and so on. You will see the corresponding stop watch running in the display. Notice, that if you set UniStop to use "[multistart](#)", all drivers will start at the same time.

To take split times, you use the S1 – S4 buttons. One for each driver. You can take up to 8 split times per lap, but you are automatically getting a split from the last split point to the finish line.

When either a new lap or new split is measured it is compared to the best and visual feedback is given with the 3 LEDs at the top. If the time is better, the light is green and if the time is worse the light is red. A time close to the best is shown with yellow light. The lights are used as described below.

Difference < +/- 0:15 sec. yellow LED

Difference > +0:15 sec. red LED

Difference > -0:15 sec. green LED

The visual feedback can be turned off in the "[LED Feedback setup](#)".

If you want to see more information on the selected driver you can use the "[MORE INFO](#)" from the popup menu. This gives a little more information including the theoretical best lap time for each driver.

When the race is finished, you can use the "STOP ALL" from the popup menu. This will stop all the stop watches and change UniStop to the main menu with "ANALYSE" selected. To stop all and go to the Analyse screen, just press MENU and then OK twice.

### Stop watch with 1 driver



As seen on the example to the left, you have a lot of information in the display.

The menu line is showing the number 1. This is indicating that stop watch for driver 1 is running. It could however be 1, 2, 3 or 4. If driver 4 is coming first, it is okay to start that stop watch first!

The time is the current running lap time. It is showing the running time of the current lap. You can see the current lap number to right, next to the lap time.

The last lap time is shown on the line below. It will be shown from lap 2 and forwards, and the last lap number is shown to the right. When a last lap time is displayed, you can see the time difference compared to the best lap time. It is shown on the line below. If the number is negative, you got a faster lap time, and if it is positive, you got a slower lap time.

The split time is shown if you pressed the corresponding split button (S1 – S4) to get a split time. The split number is shown in front of the split time, and you can see the best split time for the same split number to the right. If you see "Split L", it is the split time from the last split point to the finish line. This is shown when you finish the lap by pressing the lap button.

The clock symbol at the top is indicating a stop watch is running.

### Stop watch with 2 drivers



The menu line is showing the number 1,2. This is indicating that stop watch for driver 1 and 2 are running. It could however be 1, 2, 3 or 4. If driver 3 and 4 are coming first, it is okay to start them first!

The display shows the current lap time, the current lap number, the best lap time, the best lap number, the split number, the split time and the best split time. Everything is shown for each driver.

Sometimes the display differs from the just described information:

When you start on a new lap, the last lap time is shown instead of the current lap time. This lap time is displayed for 15 seconds before changing back to the current lap time.

If no split times are measured on a lap, the last lap time is displayed instead of split times.

The clock symbol at the top is indicating a stop watch is running.

### Stop watch with 3 drivers



The menu line is showing the number 1,2,3. This is indicating that stop watch for driver 1, 2 and 3 are running. It could however be 1, 2, 3 or 4. If driver 2, 3 and 4 are coming first, it is okay to start them first!

The display shows for each driver the current lap time, the current lap number, the best lap time, the best lap number, the split number, the split time and the best split time.

Sometimes the display differs from the just described information:

When you start on a new lap, the last lap time is shown instead of the current lap time. This lap time is displayed for 15 seconds before changing back to the current lap time.

If no split times are measured on a lap, the last lap time is displayed instead of split times.

The clock symbol at the top is indicating a stop watch is running.

### Stop watch with 4 drivers



This is showing the display when timing all four drivers.

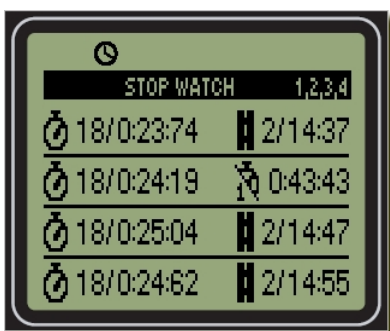
The display shows for each driver the current lap time, the current lap number, the best lap time, the best lap number, the split number, the split time and the best split time.

Sometimes the display differs from the just described information:

When you start on a new lap, the last lap time is shown instead of the current lap time. This lap time is displayed for 15 seconds before changing back to the current lap time.

If no split times are measured on a lap, the last lap time is displayed instead of split times.

The clock symbol at the top is indicating a stop watch is running.



If you are using 3 or 4 drivers a lot, we have added a special stop watch mode with a bigger font.

To change to this special mode, press and hold L2 when turning UniStop on. If you want to change back again to normal mode, press and hold L1 when turning on. You only need to do this change once, not every time you turn UniStop on!

The example shows 4 drivers with the icons used. If no splits are measured on a lap, the best lap time is shown instead of the split time. You can see this on driver 2 in the picture above.

## Stop watch popup menu



While operating the stop watch, you can bring up a popup menu. Simply press the MENU button and you will see the menu shown on the picture. Please notice, that if the stop watch is started you will need to press a little longer on the MENU button. This is to prevent you bringing up the menu if you wanted to press the L4 button instead. This little delay is only valid when one of the stop watched are running!

If you press the MENU button again, the popup menu will disappear again. Otherwise use the up and down buttons (L4 and S4) to select the menu point you want and press OK.

From the popup menu you will be able to do the following.

- Stop all watches running and go to the “Main menu”
- Get more information, e.g. theoretical lap time and more
- Remove a driver
- Go to the “Main menu”

The default selected line menu point is always “Stop all”. That way you can quickly stop the stop watch and go to the main menu by pressing MENU followed by OK.

If you want to go directly from the stop watch to analyse mode, you press MENU followed by two clicks on OK. This will bring up the menu, stop all watches and enter analyse mode.



If however no watches are running you might see this popup instead.

Because there are already some laps measure in the memory, you will be able to do the following.

- Clear all memory
- Analyse the laps in memory
- Go to the “Main menu”



If you already cleared the memory, the only thing you can chose from the popup menu is to go directly to the main menu. This example is shown on the picture on the left.

## STOP WATCH ANALYSE

The Stop Watch Analyse mode is for looking at the lap and split times for the session you just timed.



On the menu line you will see the driver's numbers to the right. This is important to know because it is the same buttons you need to use to scroll through the laps.

The stop watch analyse screen will automatically start with the best lap for each driver.

If no split times have been recorded, the corresponding line will be empty.

You can adjust the drivers lap number number by pressing the L1 – L4 button. To adjust the drivers split number you can press the S1 – S4 button. The lap and split numbers will always be increased when pressing L1 – L4 and S1 – S4. If you want to decrease the numbers, please press and hold down the OK button while operating the L1 – L4 and S1 - S4 buttons.

## Analyse popup menu



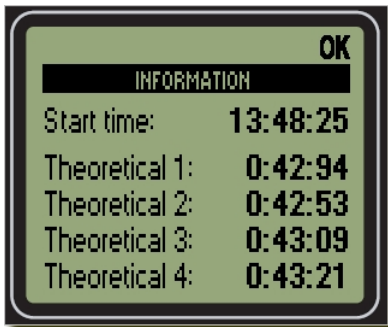
While operating in analyse mode, you can bring up a popup menu. Simply press the MENU button and you will see the menu shown on the picture. If you press the MENU button again or the LEFT arrow button, the popup menu will disappear again. Otherwise use the up and down buttons (L4 and S4) to select the menu point you want and press OK.

From the popup menu you will be able to do the following.

- Clear all laps
- Get more information, e.g. theoretical lap time and more
- Go to the "Main menu"

## INFO

The information screen is available from both the "Stop watch" and the "Stop Watch Analyse" screen. It will show more information on the race that cannot be viewed anywhere else.



The information screen will show the starting time for the race and the theoretical best lap times for the 4 drivers.

If the theoretical lap time cannot be calculated, it is shown like "--:--:--".

When you press the OK button your UniStop will return to either the "Stop watch" or the "Stop Watch Analyse" screen.

## MAIN MENU



From the main menu you can go to the different menus or turn UniStop off.

On the screen you will see menu points and the current time and date. You can use the up and down buttons to select the menu point you want and then press the OK button. This is also shown with the symbols at the top line!

At the bottom line you can see the current time and date.

From the main menu you will be able to do the following.

- Go to the stop watch
- Analyse your lap times
- Setup UniStop
- Turn UniStop off

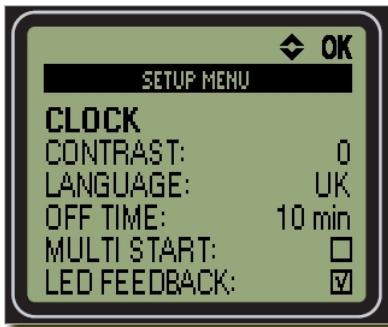
If you still have the stop watch running, you will **not** be able to go to "ANALYSE" and "SETUP". You can clearly see if the stop watch is running with the small clock icon at the top row.

If you want to turn UniStop off, you use the arrow buttons to go to "POWER OFF" and then press the OK button.

Please remember that you can set the auto power-off time from the Setup menu.

HINT. You can always press and hold the MENU button down for two seconds. This will turn UniStop off.

## SETUP MENU



Some basic settings are in the setup menu. From this menu, you can change the following:

- Time and date
- Display contrast
- Current language
- Power-off time
- Multistart
- LED feedback

When you are finished you can return to the main menu by pressing the left arrow button. All settings are stored and will not be cleared if you remove the batteries.

## CLOCK SETUP



UniStop includes a real-time clock running even when UniStop is off.

You can set the clock in two ways.

The easiest way is to connect UniStop to the PC software called PC Watch. Every time you connect UniStop to the PC using the USB cable, the clock will be synchronized with the clock in the PC. That way you always update the clock UniStop to keep it accurate.

The other way is to use the clock setup screen shown on the picture. You simply move around the screen with the left and right arrows and adjust the corresponding number with the up and down arrow. The selected number is shown with bold digits. To set the clock, press the OK button and to cancel the changes, press the MENU button.

The 24H and 12H mode will change between the European 24 hour clock and the typical American mode with am and pm. The order of date and month is also reversed.

When you are adjusting the values, you can press and hold the UP and DOWN buttons and the adjustment will accelerate.

## CONTRAST SETUP



The contrast of the display is the light difference between the dots that are turned on and dots that are turned off.

You can manually adjust the contrast setting by selecting "CONTRAST:" and press OK. Then use the arrow up and down buttons to adjust the setting. You can change between -6 and +6. You will see the contrast change at the same time. When the contrast is what you like, press OK again to go back to the setup menu.



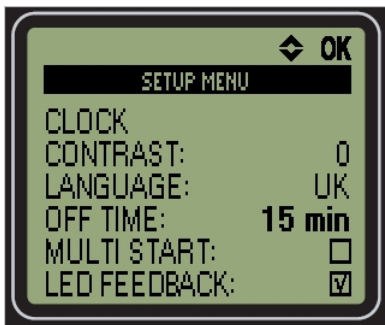
## LANGUAGE SETUP



UniStop is able to support a lot of different languages and you are able to select them from the setup menu. To do that, move to LANGUAGE and press OK. You will then be able to change the language with the up and down buttons.

As soon you press the OK button again, UniStop will be change to use the other language. The name of the language is always the same two letters. That way you can always recognize your own language!

## AUTO POWER-DOWN SETUP



UniStop will automatically turn itself off if it is not used. To save batteries, you want it to turn off as fast as possible, but on the other hand it should not affect the daily work.

You can adjust the auto power-off time between 1 and 30 minutes by selecting "OFF TIME:" and press OK. Then use the up and down buttons to adjust the setting. When the time is what you want, press OK again to go back to the setup menu.

## MULTISTART SETUP



UniStop can start the stop watches in two ways.

When Multistart is off, you start each stop watch one at a time. When Multistart is on, you will always start all four stop watches at once. If you want less drivers, you can always use the "REMOVE DRIVER" from the popup menu to remove one.

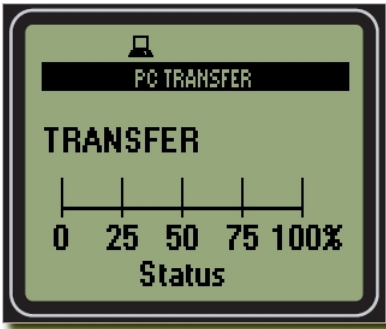
## LED FEEDBACK SETUP



UniStop will compare the lap and split times to the best and will show if it is the same, better or worse with the three bright LEDs at the top.

If you do not want this, you can uncheck the checkbox to turn this function off.

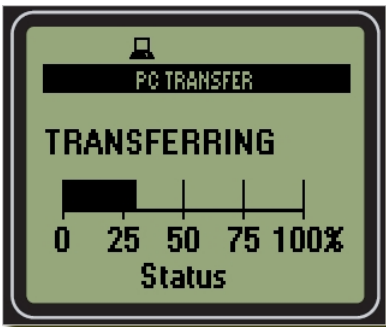
## PC TRANSFER



UniStop automatically change to PC mode when a USB cable is inserted. You can't enter PC mode manually.

The PC program has full control over UniStop when the USB cable is in. It can transfer data either ways, change settings or update the firmware (program) in UniStop.

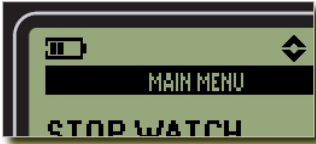
You will see the transfer status and progress on the screen. A progress bar goes from 0% to 100% indicating the data transfer.



UniStop leaves PC mode and returns to the main menu as soon as the USB cable is removed again.

Please notice, that UniStop cannot see if the USB driver is installed correctly on the connected PC. It can only detect the cable. You need to make sure that the Unipro USB driver is installed correctly to be able to transfer data.

## BATTERY CHANGE



When it is time to change the batteries a small battery symbol is shown in top of the display. This does not mean that UniStop will stop functioning. The first sign of really low battery voltage is when the real-time clock is corrupted. The battery symbol is shown when the battery voltage is around 2.2V. Five different steps is shown all the way down to 1.7V. The battery voltage is measured when UniStop has not been touched for 10 seconds.

The batteries are located inside the box. Put UniStop on the table with the backside up. Unscrew the six screws and remove the lower part of the box. Here you will see a battery holder with two standard Alkaline 1.5V AAA batteries. Please replace them with two new ones of high quality. Be careful to put them in with the right polarity. If you should by accident put them in the opposite direction, you will not hurt either UniStop or the batteries.

When assembling UniStop again, please notice that the two short screws goes at the top and the four longer screws is at the battery compartment. This is very important to avoid destroying UniStop!

Please do not dispose the batteries in the nature. Use the official return channels for them!