

User Manual

BeeSpiV Advanced Model N99-S77-1321



IMPORTANT!

Read the following before using this equipment:

Keep away from fire: Exposure to fire may cause significant damage to the unit

Do not disassemble: refrain from disassembling the unit as doing so may result in a malfunction of the unit, personal injury or other risks.

Keep dry: keep dry because exposing the unit to water may cause electrocution or result in the malfunction of the unit.

Take care: If the unit emits strange odors, generates unusual heat, undergoes discoloration or deformation, or otherwise appears to be abnormal during use or while in storage, refrain from using the unit and contact us for more information.

Do not use the unit or let the unit stand in a location exposed to direct sunlight, inside a sun heated vehicle, or in any other high temperature location. Failure to heed this warning may result in deformation or malfunction of the unit.

Do not press down hard on the LCD display or otherwise stab or poke at the LCD with a pointed object.

Do not place the unit on an unstable or otherwise uneven surface when conducting an experiment.

Do not subject the unit to a strong impact or otherwise strike or throw the unit

Refrain from opening the battery cover and causing the inner components to short circuit.

Remove the batteries when storing the unit for an extended period of time.

Do not use different types or brands of batteries, or use old and new batteries at the same time.

This product was designed to facilitate simple measurements when conducting scientific experiments. Do not use the unit as a toy. Since the unit uses infrared sensors, outdoor use is impossible due to the presence of strong sunlight.



Specifications

- Dimensions: 50 x 60 x 50 (h)mm
- Measurement range:
 - Speed:
 - 0 -99.99 km/h
 - 0 -99.99 m/s
 - 0 -99.99 cm/s
 - Lap time:
 - 0 -99.99sec
- Batteries: 2 x AAA batteries



BeeSpiV used with track.

Mode Switching

Two different modes can be used with the BeeSpi V unit. To switch from one mode to the other, hold down the start button.

- Speed-Measuring mode
- Cumulative Lap Time-Measuring mode

Standby State (LCD off)

The unit will enter the standby state when the Start button and the Select button are held down at the same time or after five minutes have passed without operating the unit. To reactivate the unit, press either the Start button or the Select button.

- In the standby state, electricity is consumed as the unit awaits a signal to reactivate.

Measuring

Before measuring, hold down the Select button(1.5 seconds) and select the desired measurement unit (Speed-Measuring mode only). A Flashing "sec," "km/h," "m/s," or "cm/s" display indicates that the unit is in a state of measurement standby. A steadily lit measurement unit display indicates completed measurement or an inability of the unit to measure.

Memory Check

Where Multiple Measurements have been taken, the last five measurement results can be checked by pressing the Select button.

- This function cannot be utilized when the unit is in a state of measurement standby.
- Memory data can be reset by switching modes or by changing the measurement unit.
- Data can also be reset by removing the batteries.

Inserting Batteries

Slide the battery cover in the direction indicated by the arrow pointing to OPEN as printed on the cover to remove the cover before inserting two AAA batteries (sold separately). Upon inserting the batteries, The LCD will indicate that the unit is in the Speed-Measuring mode (with unit m/s). The unit may not work if rechargeable batteries are used due to voltage issues.

How to Operate

Speed Measuring

Measurement results may differ slightly from actual speeds. The unit Measures the speed of an object passing through the sensor components. Measurements can be taken in one of three units "km/h," "m/s," or "cm/s" – which can be selected by holding down the Select button.

- Measurements may differ slightly from actual Speeds.

After Pressing the Start button, the measurement unit will flash to indicate that the unit is in a state of measurement standby. The unit will display the speed of any object cutting across its two sensor gate zones. To measure again, press the Start button to bring the unit into a state of measurement standby.

- A speed exceeding the upper measurement limit is not measurable. If an object passes through only one sensor, the measurement will result in an error as the unit runs out of time.

Memory Display

The last five measurement results can be checked after finishing a measurement. Memory Data can be reset By changing the measurement unit or by switching modes. Memory data is not reset when the unit is turned off



BeeSpiV sensors

Cumulative Lap Time

The measurement process starts as an object passes through one of the sensor components. The total time since the start of the measurement process is measured each time the object the passes through the same sensor component when in the Speed-Measuring mode, switch to the Cumulative Lap time Measuring mode by holding down the Start button. A Flashing "sec" is Displayed upon pressing the start button indication that the unit is ready to record a measurement. In this standby state, the measurement process will start when an object passes through one of the sensor gates. Thereafter, the total cumulative time since the measurement process began will be displayed each time the object passes through the sensor gate the object passed through the first time. Press the Select button and then the Start button if you wish to end the measurement process.

- Memory data will be reset if you end the measurement process by pressing the start button.

- The unit is unable to measure after the passage of 100 seconds since the start of the measurement process. At this point, the last cumulative time will be displayed in flashing values. In addition, if an object does not pass through a sensor gate again after passing through it the first time, the unit will be unable to resume when the cumulative time reaches 99.99 seconds. In this case press the start button and bring the unit into a state of measurement standby.

Memory Data

The updated total time is displayed each time an object passers through the sensor gate during the measurement process. By pressing the Select button, you can check the past 5 cumulative lap times. If an object passes through the sensor component while you are checking the memory data, the total time will still be recorded to memory.

If you end the measurement process by pressing the Start button without once having checked the memory data, the memory data will be reset.