

**SPORTident Station BS7-S “Sprinter”
Software version 5.59 and higher**

Release notes

Dear customer,

Thank you for using our SPORTident BS7-S “sprinter”-station. This sheet describes the most important features of the BS7-S.

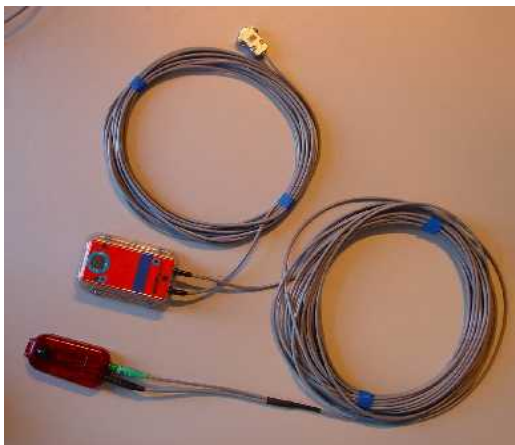
Device category and application

The SPORTident station BS7-S is an active RFID-reader/interrogator. Combined with SPORTident-Cards, it forms a solution that can identify persons at control points in addition to recording the time of the identification.

Additionally, the BS7-S features an external trigger input. Each trigger pulse, generated by a light barrier or a manual push button, generates an additional time record.

In the preferred application the BS7-S is used for accurate remote timing at start/finish lines. This is done by producing the time stamp based on a signal at stations trigger input and attaching the runner by means of an SI-Card based identification process.

All data records are stored in stations internal memory, but can also be transmitted on-line to computers connected.



Overall product features

The SPORTident station BS7-S is based on a newly developed hardware core used for all stations series 7/8. See the link at “related documents” to achieve more information about general features, improvements and service needs.

The BS7-S station is compatible with the already existing SPORTident system parts and can be used mixed with older equipment. Furthermore the time trigger functionality is an extension to the “standard” functionality. So the BS7-S can be used in every function mode of a SPORTident master station.

Performance and application hints

– Accuracy

The BS7-S has an internal time resolution of 1/256 seconds, about 4 ms. This resolution is used to trigger events, so a signal at station's external trigger input. Station's internal real time clock drifts less than 1 second per week (at nearly room temperatures). Based on these two features the BS7-S is able to serve in events where a running time resolution of 0,1 sec is required.

– Performance

Data records are stored in station's memory and transmitted to a computer in discrete time intervals according to station's scan cycle for active mode. The active mode scan cycle is typically 40 ms. In addition the data record transmission time has to be considered. It is about 40 ms for a data record at a transmission speed of 4800 baud. Applying both values the guaranteed minimal trigger cycle is 80 ms.

Both the active mode scan cycle and the transmission speed can be adjusted by the user if a higher performance is needed. These advanced settings are available by using PC-Software SI-Config.

www.sportident.com/sportident/download/SI-Config.zip

Additional delays can occur if a SI-Card is proceeded by the station. The handling time is 140 ms for SI-Card6 and up to 330 ms for SI-Card5. Please note that only the transmission of the data record would be delayed while the trigger time always is captured correctly.

In case of higher performance needs a second SPORTident station can be used to read only SI-Cards.

– Instruction set

The BS7-S features a new instruction set as described in “PC programmers guide 5”. Only by using the new instruction set the time resolution of 4 ms is transmitted to the PC. The new instruction set is activated by setting the flag **extended protocol**.

– Trigger input

The external trigger input is always active in the operating modes start, finish and control. Do not use the older modes “extended start” and “extended finish”! So the external trigger input is sensitive and should not be kept “open”. Please always connect the manual hand push unit at the trigger input cable.

– Active period

Because a trigger signal at station's external trigger input immediately activates the station and produces a valid data record there is no need to configure the station for longer active working periods. The station can be adjusted to the shortest active period which is 2 minutes.

– Signal transmission

It is recommended to use the lower data transmission speed of 4800 baud to achieve highest robustness using cables as long as 10 metres.

Related documents

- BS7-8_en.pdf (www.sportident.com)
- PC-programmers guide 5 (available on request)

Good luck with SPORTident !
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2007-09-12



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