

SPORTident ActiveCard – SIAC



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The SPORTident ActiveCard SIAC belongs to the third generation of SI-Cards. The SIAC is a very powerful device for meeting all the different timekeeping and identification needs in outdoor sports. It is compatible and integrated into the classic SPORTident system and comes in a compact and smart form.

SIAC features an integrated powerful and efficient electronic module. The successful timekeeping and registration of the checkpoints is indicated by an optical and acoustical feedback signal emitted by the SIAC. The SIAC features high recording speed and a large memory size. It completes the identification cycle in 60 ms and registers up to 128 intermediate times. All full set of card owners personal data can be stored in the chip.

The SIAC features the AIR+ functionality. Intermediate and finish times are recorded in a proximity range of several meters when passing the checkpoint with a maximum speed of 40 km/h. The device can be used in two different identification modes called **punching mode** and **timing mode** which enables the adaption to specific application needs.

SIAC also features a built in short range radio. Most typical application is the transmission of time records for online data presentation. There are three different radio modes possible when passing a checkpoint.





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SIAC is fully encapsulated and **waterproofed**. Battery exchange is possible but a qualified and authorised service process is needed. SIAC's power consumption is low and the card will work for several years before battery change.

To detect the need for battery change there are several built in system features. First SIAC's battery voltage can be measured by using an ordinary SPORTident station configured as "**SIAC battery test**". In addition to a simple "good" indication by stations optical and acoustical feedback more detailed information is visible at stations display. The battery test can be performed at any time by the card holder.

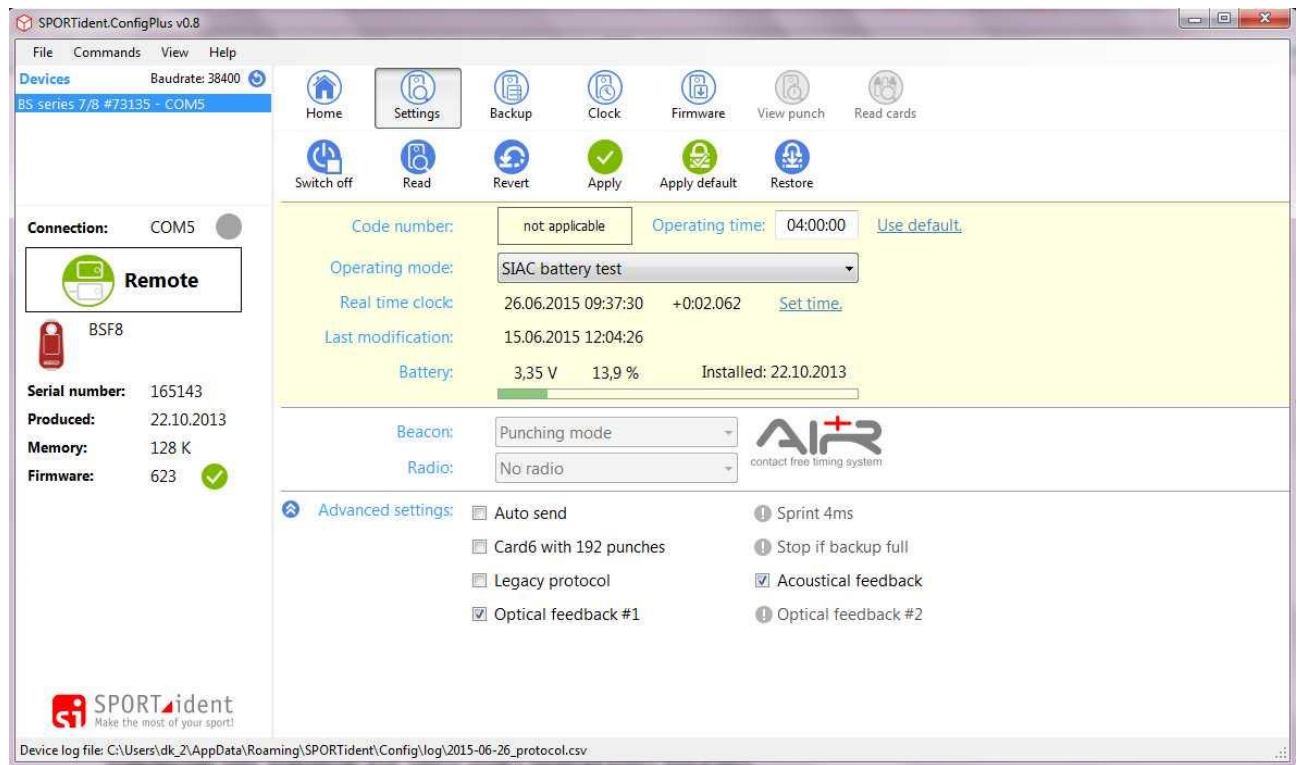
Second there is a battery voltage measurement integrated into the normal "CLEAR" process. A special fast beeping signal scheme indicates the need for battery change.

As a third method information about SIAC's battery status is supplied as part of the card data readout process.

SIAC's exact life time before battery change depends significantly on the number of usage cases at training or event. If we assume 50 applications a year and each time the user creates 50 punching records SIAC's battery will power the device for nearly four years.

SIAC's power consumption is depending on several features, among them the activation time after CHECK and backup channel radio activity. But most important is the time the SIAC is inside SI-stations working range. A quick passing results in the lowest power consumption.

Screen in ConFig+ at SIAC battery check:



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Specifications

	SIAC
Model type	Finger stick
Number range	8 000 001 ... 8 999 999
Typical application	Orienteering, MTB, Enduro, Triathlon, Trail and other outdoor sports
Data exchange time	60 ms direct punching 50 ms contactless punching (AIR+ moode)
Passing speed AIR+	maximal 40 km/h, depending on antenna configuration
Time resolution	4 ms / 50 ms depending on operation mode
Time format	24h-format, day of week
RFID frequency	125 kHz
Radio frequency	2.4 GHz (Short range radio - SRR)
Data Readout time	RFID < 4 s, SRR < 1 s
Clear time	< 0.5 s
User feedback signal	Optical (red LED) and acoustical (piezo buzzer) signals, configurable
AIR+ ON	by CHECK or SIAC-ON, slowly flashing green LED indicates ON state
AIR+ OFF	by FINISH or SIAC-OFF
Intermediate time records	128
Special records	CLEAR, CHECK, START, FINISH
Firmware Card	RFID V4.0 and higher, SRR V4.0 and higher, no user upgrade
SI-System compatibility + Firmware stations	SI-Stations BSx7/8, firmware V6.00 and higher SI-Stations BS11, firmware V3.12 and higher
Operating temperature range	-20°C ... +50°C
Protection class	IP 67 (DIN EN 60529) – Protection against penetration of dust – Protection against the ingress of water during short-term immersion
Battery life time	Up to 4 years
Battery exchange	yes, by SPORTident
Warranty	2 years, except battery
Weight	11 g
Dimensions	68 mm x 21 mm x 12 mm
Colours	5 basic colours for body, white tip with logo