CONTACTLESS PUNCHING FOR IOA EVENTS

SIAC Cards and Stations in Beacon Mode

The SIAC Card

- The SIAC is the fastest direct punching SI-Card

- It provides flashing and bleeping feedback signals.

- It works within 50cm of a Control

- The battery in the SIAC will work for several years.

- When the battery is empty, the SIAC works like the SI-Card 10 so you can continue to use it for Direct Punching.

SI Stations (series 7 and 8)

CLR - Clear	∨
CLR - Clear	
CHK - Check	
STA - Start	
CN - Control	
FIN - Finish	
- - - - - - - -	
RDO - Readout SI-Cards	
- - - - - - - -	
BC STA - Beacon Start	
BC CN - Beacon Control	
BC FIN - Beacon Finish	
- - - - - - - -	
SIAC battery test	
SIAC on	
SIAC off	
SIAC radio readout	
SIAC test	

All existing SPORTident stations (Series 7 & 8) can support contactless punching. (Make sure your SI Stations have the latest Firmware.)

The operating mode of the stations has to be changed with Config+

The stations must be programmed in beacon mode.

Possible operating modes are:

Start (BC STA),

Finish (BC FIN)

Control (BC CN).

The morning of an Event

◦ Stations operating in beacon mode must be activated using a direct punch *(this can be done by using a direct punch with a SIAC card)*

◦ It is very important that for competitive events that competitors find the controls are activated.

◦ Pre-runners must punch all the controls in the morning, first with a direct punch and then with a contactless punch by using an activated SIAC to ensure that they are functioning correctly. Both punches can be registered with the same SIAC.
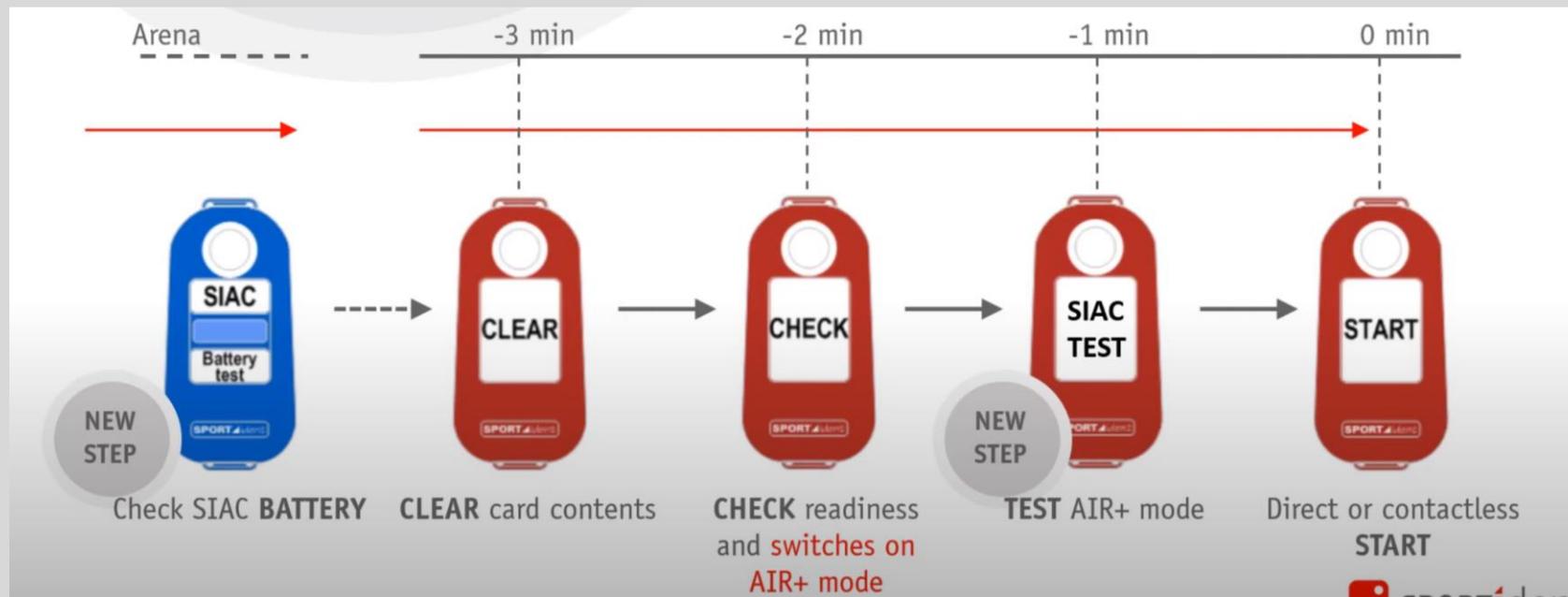
Operating Time for Stations

◦ The operating time must be set so that the controls are still active when the first and the last competitor visits the controls.

◦ Contactless punching does not reset the operating time and thus needs to be set to last for the duration of the whole event.

◦ The default value for stations in beacon mode is 12 hours

Planning the course

◦ As SIACs can register at a control up to 50cm away, make sure the stations are situated in such a way that they can't be activated from the wrong side of an uncrossable feature, e.g. fence

◦ Avoid legs which pass the FINISH as any SIAC which gets within 50cm of a FINISH control will have contactless punching switched off.
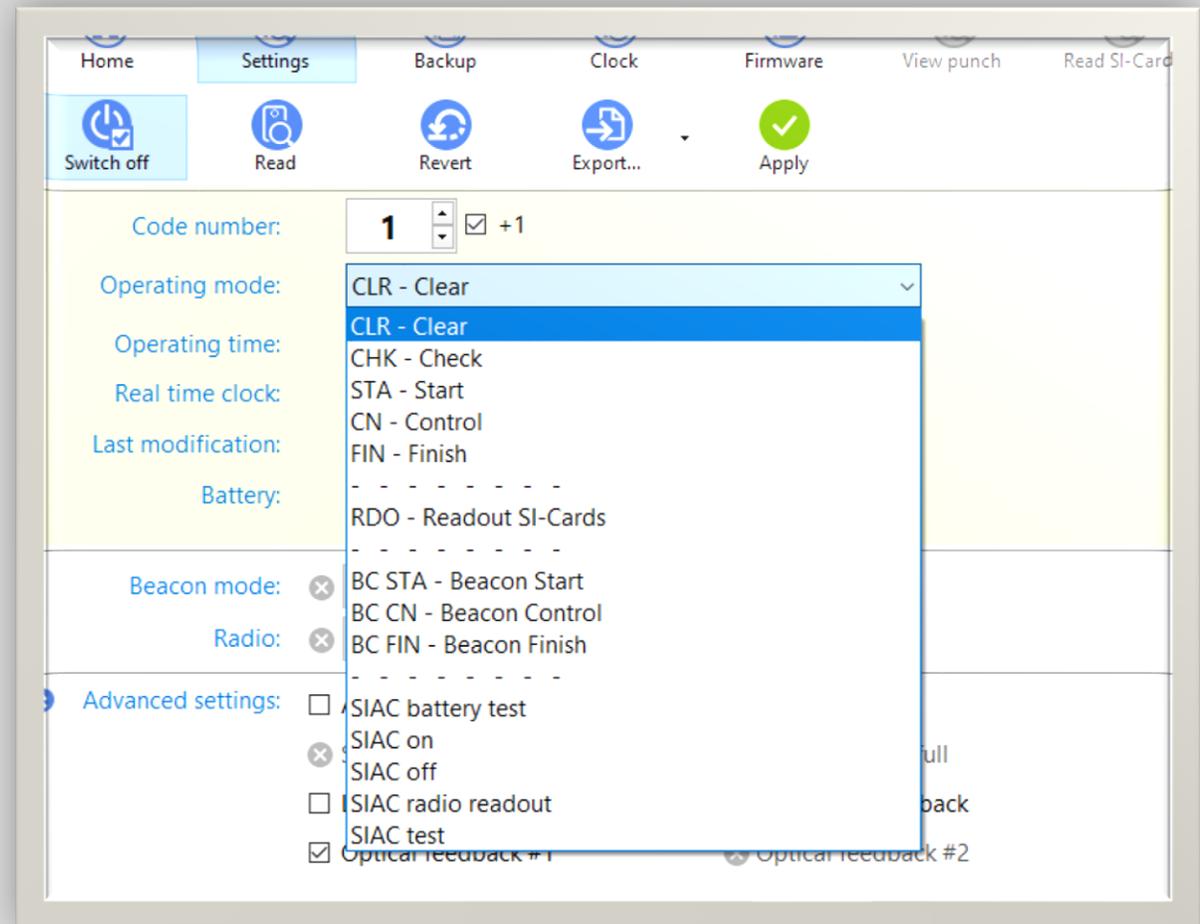
Setting up the Start

- In addition to the usual **CLEAR**, **CHECK** and **START** stations there will be a **SIAC Battery Test** station and a **SIAC Test/On** station

- Allow sufficient space between each stage. Be warned that if the SIAC card is flashing/beeping it can't 'punch'. So don't move too quickly from CHECK to START stations.

Programming the CLEAR station

○ It is recommended that a CLEAR is programmed with code 1 as this will suppress the SIAC feedback beeps/flashes. This means the SIAC can be punched in a CHECK box straight away to activate contactless punching.

○ If an different code is used for the CLEAR station there is the possibility that the runner will punch the CHECK station while the SIAC is still beeping/flashing. This will not register and contactless punching will not be activated for the SIAC.

SIAC Battery Test Station

1. Check SIAC **BATTERY**

A station programmed in this operating mode is used to check the SIAC battery. When a SIAC is punched in the station there are three possibilities:

1. **The Station beeps and 'OK' is displayed on the LCD screen** – SIAC has sufficient voltage

2. **The Station gives 10 faster beeps and the LCD displays 'WA'** (for 'warning') – the battery has limited life but should last for the current event unless a lot of data is being collected from the chip for live timing

3. **The Station doesn't beep and LCD displays 'FAIL'** – SIAC has insufficient voltage to be used contactlessly but can be used as a traditional SI-Card 10 until the owner is able to send it back to SPORTident for the battery to be replaced

SIAC Test/On

- **SIAC TEST/ON is used to test that a SIAC is in contactless mode, and if it isn't then contactless mode will be turned on.**

- Punch any SI-Card or SIAC to turn the station on.

- **As a SIAC is brought close to the station the SIAC will beep/flash if it is in contactless mode, otherwise punch the SIAC and contactless mode will be activated.**

- No data is recorded on the SIAC and nothing will happen if a traditional SI-Card punches the station
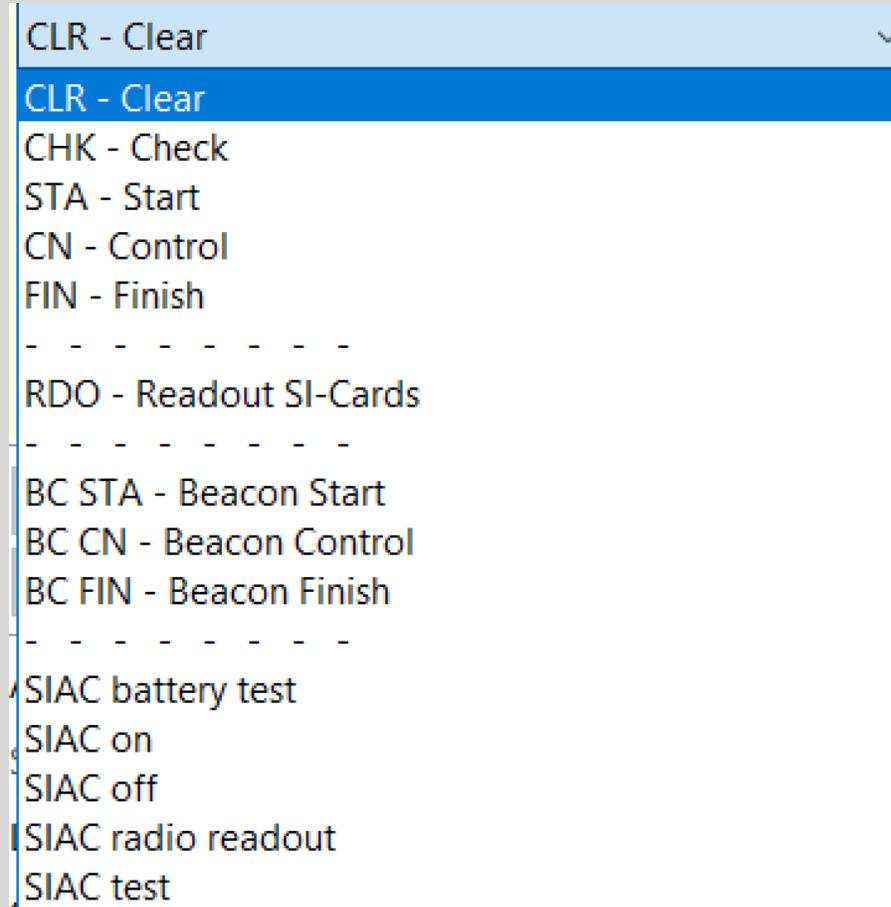
Setting up the FINISH

◦ If you have more than one FINISH, ensure they are over 70cm apart.

◦ Ensure that no competitor could accidently pass within 50cm of the FINISH on their course. This would switch off their SIAC.

◦ If you need to prove that everyone is off the area, even if they haven't downloaded (for instance if the car park is between the Finish and Download, or if the area is particularly dangerous) then you will need a 'Post-Finish' control programmed in the traditional non-beacon mode with a control code that is not on any courses. You may need to have this manned to ensure everyone punches.

◦ **Tip**: At the end of the event you can bring a Finish Beacon to the box of SIACs and any that are still on will flash and turn themselves off.

◦ SIAC cards can be switched off by a traditional FINISH control, you do have to directly punch.

Other Modes

- **SIAC On** Will turn contactless punching on, whether or not the SIAC is cleared.

- **SIAC OFF** Turns off contactless punching – normally this will happen at FINISH but it can be useful in some instances.

- **SIAC Radio Readout** Used to tell the SIAC to send all its punch data to a SRR Dongle attached to a computer. This is another way of downloading data, but you will normally use a Download (Read Out) Station instead.

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When to change Station batteries

◦ You should change a battery based on the voltage in the station which you can see on the station LCD display indicated as BATxxx where xxx is the voltage. ie BAT310 means 3.10 volts. The voltage is also displayed when you read the settings in a station using Config+.

◦ **You should change a battery when the voltage falls below 3.10 volts (or 3.15 volts if the station is programmed as a beacon for Contactless Punching) – readings on the LCD display of BAT310 or BAT315.**

Passivation - Lithium batteries are affected by a phenomenon known as passivation. If a station has not been used for a few months, the battery will not be delivering as high a voltage as it is capable of. The station should be switched on for 15-30 minutes using a standard SI-Card, not a purple Service/Off key. If the station is still switched on, switch it off with the purple Service/Off key. Then switch it on again with the Service/Off key. You will see in Config+ software and on the station's LCD display that the battery voltage has increased to the correct level.

Notice for Events

<u>Contactless Punching</u>

This event is using Mixed Punching which means that you can use your SIAC for contactless punching. We also have SIACs for hire if you would like to try them out. If this is your first time using a SIAC there are a few things to remember:

Wear your SIAC on your finger as you would a traditional SI-Card. If you have a GPS watch have it on your other wrist.

The SIAC needs to be switched on to work contactlessly – this is done by punching the SIAC in the CHECK box once you have CLEARED it. When the SIAC is in contactless mode you will see its 'heartbeat' - a faint green flash at the tip every 10 seconds or so.

At a control you will move your SIAC towards the station. The SIAC will produce shrill beeps and bright red flashes when it has recorded the visit and the timestamp. This will happen when the SIAC is within 50cm of the beacon station. If the SIAC has not started beeping or flashing as you get closer to the control station, punch it into the hole in the station in the traditional way.

Registering at the FINISH station will turn your SIAC off. So it's important not to run near the finish until you have finished!

After your run go to download as normal. Don't worry, you can still use your traditional SI-Card and 'punch' in the normal way, but why not hire a SIAC and try contactless punching?