



Thank you for purchasing StartGate Pro version 2

StartGate Pro was designed to give BMX racers an affordable practice gate system which conforms to new UCI random start regulations.

StartGate Pro can be used with any professional or homemade start gate, and uses a simple one-button operation. All that is required to power StartGate Pro is a 12-volt power supply (ie. a car battery).

StartGate Pro version 2 now includes the cadence to give the user an experience identical to race conditions. All times in the system meet with the UCI Cycling regulations.

StartGate Pro version 2 now includes a setting to allow you to fine tune the exact point at which the gate drops. This is useful if your electromagnet is very strong or if you haven't got a spring to help the gate drop quickly.

## SETTING UP

**CAUTION** Please ensure you have fully read and understood the following steps before attempting to set up StartGate Pro

The StartGate Pro requires a 12-volt DC supply. In most cases this will be a car battery.

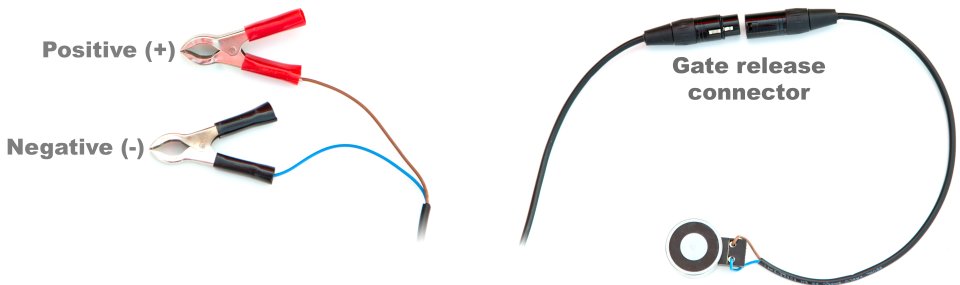
- 1) Connect the gate output cable (the lead with the red & blue crimped connectors) to your gate-operating mechanism (ie. air ram solenoid or electromagnetic catch). Two crimp connectors have been supplied with StartGate Pro, and will need to be connected to your gate-operating mechanism.
- 2) Connect the red battery clip to the (+) positive terminal of the battery, and the black clip to the (-) negative terminal. (If these connections are reversed, the internal protection fuse will blow)

When power is first applied to StartGate Pro, all of the lights will flash twice and four tones will sound, indicating that StartGate Pro is powered and reset.

If you are using an air ram to operate your gate, stand clear when connecting the battery as the gate may return abruptly to its upright position. With electromagnetic gate systems, simply raise the gate by hand until the magnet holds it in position.

- 3) Position the StartGate Pro so that it is visible to the rider when in the starting gate. The StartGate Pro's durable casing has a flanged rear to allow easy attachment to almost anything.
- 4) Test the gate using the hand-held controller.

### Connect to 12 volt supply



## USING STARTGATE PRO

StartGate Pro uses a simple single-button hand-held controller.

Position yourself on the gate and press the button on the controller before dropping it to the floor.

- This begins the 'get ready' sequence where all lights will illuminate and extinguish sequentially from green to red accompanied by a short tone. This allows the rider to become comfortable in the gate.
- The 'get ready' sequence is followed by 1.8 seconds of silence, before the cadence is played  
*"OK riders, random start. Riders ready? Watch the gate"*
- Up until this point, the start sequence can be aborted by a further press of the button. A successful abort is indicated by two negative sounding tones followed by StartGate Pro's familiar reset sequence.
- Following the cadence, you will experience a pause of between 0.1 and 2.7 seconds to comply with UCI regulations. Each light will then illuminate sequentially (starting with red) and will be coupled with a short tone. As soon as the green light has illuminated, the gate drops and the two-second 'go' tone will be heard.

After a successful operation, StartGate Pro remains dormant with all lights extinguished. To reset the system, simply press the button, and after the five warning tones, StartGate Pro executes its familiar reset sequence, returning an air ram gate to its upright reset position.

Note: Electromagnet gate systems will have to be raised manually.

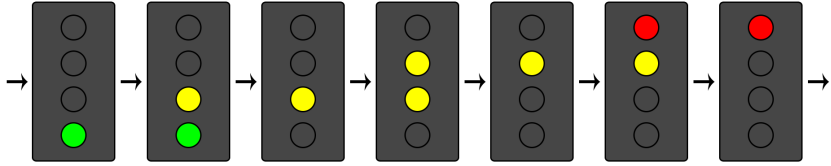
## TUNING THE GATE DROP TIME

The gate is set to drop when the final green light illuminates. Sometimes the gate seems to drop a little too late. This could be due to a powerful electromagnet or the gate not having a spring to help it drop quickly. To combat this we have built in a tuning function to allow you to tell the gate at which point to drop.

To enter the 'gate drop' setup, simply hold the button on the controller for 5 seconds. You will then hear 3 beeps and the current setting will be displayed on the lights. If this is the first time you have done this, the green light will be illuminated.



You can cycle through the gate drop positions by pressing the button. The sequence looks like this.



The light that is lit shows you the point at which the gate will be released. If the red light and the 1st yellow light is on, this means the gate will be released halfway between the 2 lights.

When you are happy with where you want the gate to be released, simply wait for 5 seconds. Your setting will flash 3 times along with 3 beeps and you will hear the startup sequence again and are ready to go.

## TROUBLE SHOOTING

**StartGate Pro does not run through the reset sequence when the battery is connected.**

- The battery may not be charged. Make sure that you are using a healthy battery.
- The internal protection fuse may have blown. This can occur if the gate output terminals have been 'shorted' together or the battery has been incorrectly connected.

The fuse is replaceable by unscrewing the rear of the casing and swapping the blown fuse for a 20mm 1.5A fuse.

***Ensure that the battery is disconnected before removing the rear of the casing.***

**The gate operates opposite to what you would expect.**

- The position of the internal 'jumper' on the circuit board needs to be changed. The standard configuration of StartGate Pro is to have the gate output set to 12 volts when reset, and at 0 volts when released. In rare cases, these output voltages may need to be inverted. This is achieved by simply repositioning the jumper on the circuit board (see diagram below).

***Ensure that the battery is disconnected before removing the rear of the casing.***

