SRM SmartIT

USER MANUAL

CONTENT

1. Introduction

Welcome to the next generation of SRM Indoor Training. The SRM Smart IT, developed by cyclists for cyclists, is the ultimate, no-compromise indoor training experience.

The third generation SRM SmartIT enables many modes of operation including:

• Standalone operation by power or gear

• Interval operation by power or gear

• Control by SRM SmartIT app,

• Control by external app such as Zwift, Trainerroad.

SmartIT includes 11-speed shifting to provide realistic ride experience similar to riding on the road, enabling the greatest riding experience and training control.

The kinetic energy stored in the rotating flywheel enables a lifelike and realistic simulation of real road riding, and the sturdy construction enables all-out intervals and efforts to enable the best training platform.

2. Important Safety Instructions

⚠️ SmartIT has a number of moving parts that may cause serious injury if touched during operation. Do not touch the moving parts including spinning flywheel, gears, cranks/pedals or chain during use. Note that the flywheel may become extremely hot during use!

When in use, all people other than the rider should be a safe distance (at least 1m) away from the unit.

The seat-post and the handlebar post are height-adjustable and not secured by springs. While making any adjustments to the seat and bar height, be sure to hold on to the post to avoid the posts hitting the frame or pinching hand/fingers.

The brake electronics are located in the black box which is attached at the back of the brake. The black box is not waterproof, so when cleaning the SmartIT, do not let water get inside the brake box. Disconnect the power and clean the box only with a damp cloth. Before cleaning make sure to disconnect the trainer from 12V DC power.

3. What is included?

Indoor Trainer frame	SmartIT Brake with control unit	Origin PowerMeter	Remote Control
PowerControl 8 (optional)	Heartrate Belt (optional)	PC8 Handlebar clip (optional)	Power Supply

4. Setting up your SmartIT

4.1 Placing the SmartIT

Ensure that the SmartIT is installed on firm flooring, and is level and balanced before use. The four extendable feet can be adjusted in and out to accommodate small variances in the level of the floor.

4.2 Adjusting the Seat Position

The SRM SmartIT is designed for riders between 165 cm (5'5") and 200 cm (6'7") of height. The seat height and position are fully adjustable.

The saddle and the handlebars can be adjusted continuously, as shown by the red arrows.

Two wheels make it easy for one person to move the SmartIT.

4.3 Clamping the seat and handlebar sliders

Adjust the seat and handlebar position by loosening the appropriate lever, moving the slider, and tightening the lever.

Once the position is adjusted, the levers can be moved out of the way by lifting, turning and letting them lock into place in the desired position.

4.4 Adjusting the Handlebar

The distance between the seat and the handlebar can be significantly increased by removing the handlebar slider with stem facing backwards, and re-installing it facing 180° so that the stem faces forwards, using the following procedure:

1. Remove the handlebar from the stem (see picture)

2. Remove the end-cap and take our the slider

3. Rotate the slider and re-install so that the stem is facing forward.

4. Re-attach the handlebar (use 4 Nm for the screws on the stem) and end-cap
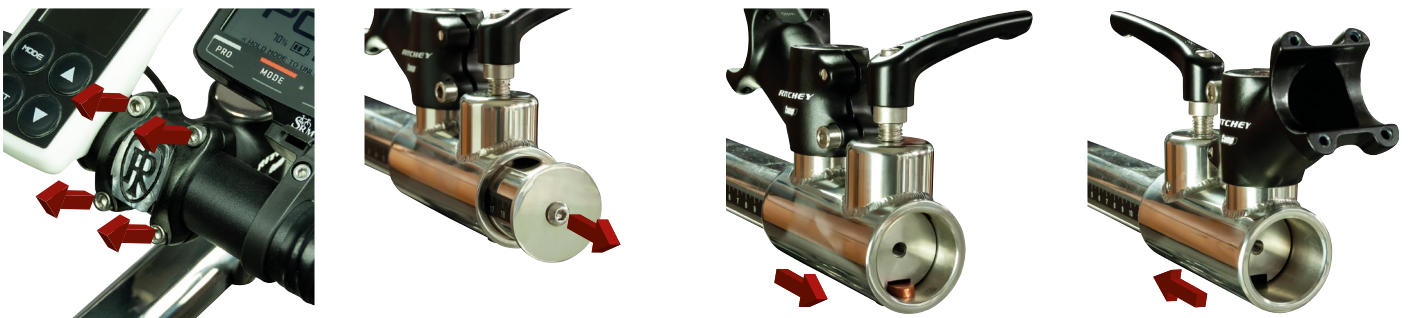
4.5 Gears and Drive-train

The drive-train of the SmartIT includes an 11- speed gear shift. This allows a realistic riding experience, since the gear can be changed as the SmartIT Brake changes the pedalling resistance, just like if you were going up or down hills. Set up and adjust derailleur as for a normal bike.

4.6 Installing pedals

The SmartIT is delivered without pedals. Please, install your pedals according to the installation instructions of the pedal manufacturer.

4.7 Power Supply

Plug in the power cable into the socket to power the SmartIT. The socket is located on the bottom side of the frame just below the fork. Lift the frame on the front side to reach the socket. Be careful not to rest the power supply connector on any object as it may damage the connector.

4.8 Remote

Please, install the remote on the handlebar using the included cable ties.

To activate the Remote, plug in the four pole plug in the four pin socket on the back of the remote. As soon the remote is supplied with power, it will start to run and the current firmware version will be displayed.

5. Getting Started

Before using the SmartIT for the first time, some basic steps need to be completed. For more details on all available options, please refer to the respective chapters in this guide.

5.1 Remote Button Definitions

MODE
- Short key press: switches between interval and normal mode
- Long key press: switches between control by power and control by resistance

SET
- Short key press: start/stop interval (interval screen)
- Long key press: reset interval counter (interval screen) or reset total time (basic screen)

▲
- Short key press: increases resistance or power
- Long key press: increases the increment

▼
- Short key press: decreases resistance or power
- Long key press: decreases the increment

5.2 SmartIT Ride Modes

The SmartIT provides two different ride modes:

Ride by Gear:

Ride by gear means that you can set the resistance of the Smart brake. The resistance ranges from 0-100% (low to high) and can be adjusted in increments of 1%.

With this mode you can easily simulate real riding conditions such as hill-climbing, and training for time-trials or sprints.

Ride by Power:

Ride by Power means that you can set the target power of your training. The brake will continually adjust the resistance to reach the target power at the cadence that you are riding at. To reach your target power constantly, you must pedal at a constant cadence. The power can be adjusted at increments of 5 Watts.

This is the perfect training mode for workouts with defined power levels, such as power zones as a percentage of your Functional Threshold Power (FTP).

Interval by Gear or Power:

Both ride modes provide an Interval Mode. With the Interval Mode you can set up your upper and lower resistance(Ride by Gear) or target power(Ride by Power).

To enter the Interval Mode, short press the **MODE** button. Set up the lower value using the arrow keys. Press the **SET** button to start the interval. Use the arrow keys to adjust the value.

The interval timer shows you the time you have spent in your current interval. The total number of intervals is tracked by the interval counter. To reset the interval counter long press the **SET** button.

Refer to 6.7 "Interval Start Preferences" to set your preference for starting on the upper or lower interval.

5.3 Connecting to external apps (e.g.. Zwift)

Ensure that External Control is enabled from the Settings menu and pair your sensors including Heartrate to SmartIT. You can pair SmartIT as a controllable trainer, and also pair the cadence, heartrate and power source data. Heartrate is only available if the external control is on a Bluetooth device.

To get the best riding experience, always pair the controllable device (SmartIT-123), NOT the PowerMeter.

The riding experience can be adjusted using a few settings on SmartIT as well as the application. Refer to 6.4 Personalising the Brake Speed for more information.

Applications also vary the ride experience. Within Zwift you can change the "Trainer Difficulty" within the settings menu. It is recommended to start this at around 20% on the slider and adjust as necessary.

5.4 Connecting the SRM SmartIT Apps

The Smart IT app is available in the app store for Ipad and Android devices. Search for "SRM" and scroll to find "SRM Smart IT". The Smart IT app enables a number of key capabilities, including:

- SmartIT setup, including pairing of sensors such as PowerMeter, HeartRate belt

- Firmware upgrades for the SmartIT Electronic Brake and Remote units

- Personalising SmartIT for the rider to enable accurate simulation of kinetic energy/speed, and also training zones

- Defining and using your favourite workouts

- Displaying live data

6. Settings Menu

To access the SmartIT settings, press **MODE** and **SET** at the same time. You can navigate with the arrow key between the individual menu entries.

6.1 Pairing the PowerMeter

Press **SET** to enter the PowerMeter menu. Press **SET** again in the serial tab to search for the Powermeter. When the Powermeter has been found, the status will switch to connected and serial number will be shown in the serial tab.

To set the zero offset, navigate to the Calibration Value (Cal. Value) and press **SET** to search and store the received Zero Offset. The current power and cadence (rpm) is displayed in the "Data" tab if the PowerMeter is in use.

Press **MODE** to go back in the main menu.

6.2 Pairing Heartrate

Navigate to Heartrate and press **SET** to enter the menu. Press **SET** again to scan for a Heartrate device.

When the Heartrate device has been found the Status will switch to Connected and the Serial Number is displayed in the serial tab, also the current Heartrate is displayed in the data tab.

Press **MODE** to go back to the main menu and save the changes.

6.3 Pairing sensors to PC8

Please refer to PC8 User Manual.

6.4 Personalising the Brake Speed

To personalize the brake performance you can adjust four different options:

Power Mode:

The Power Mode determines how quickly the brake reacts to a new target power.
A higher value leads to faster control. On a high setting the brake may overshot the target power, whereas in a lower setting the brake adjusts slower. The default setting is 4.

Gear Mode:

This determines the total power controller action in the *Ride by Gear* mode, so how quickly the brake reacts to reach a new target resistance. A higher value leads to faster control. On a high setting the brake may overshot the target resistance, whereas in a lower setting the brake adjusts slower. The default setting is 5.

Target Zone:

The *Target Zone* describes the zone around the target power value (only in control by power). No controller actions are done when the measured power is within this zone. This ensures a smooth ride feeling with at a steady target power. The default setting is +/-5 %.

Steady Gain:

Steady gain relates to the *Power Mode* setting. After the target power has been reached, the steady gain will dampen the brake control. This further improves the smoothness of the ride feeling. A higher value means more continues intervention by the brake, whereas a lower value gives more freedom with slight power changes. The default setting is 25 %.

We recommend using the default settings.

6.5 Speed Sensor

SmartIT provides a speed calculation based on the Kinetic energy in the flywheel, and the rider/bike weight. The PC8 or other devices can be paired to Smart IT to display or record Speed and Cadence.

To scan for the speed sensor in your device, refer to the manual of your head unit. Please, set the circumference to 2095 mm. This value is used as a basis for the speed calculation.

The speed is shown in km/h. Please, set up your rider and bike weight according to chapter 6.9 Ride Simulation Settings - Bike and Rider Weight.

6.6 Power smoothing

Power Smoothing introduces a rolling average of individual power values for display on the remote, with the number of individual values defined by this setting.

It does not affect the transmission of power values from SmartIT to external apps or programs.

6.7 Interval Start Preferences

In the interval settings, the start position for the intervals can be changed:

•   Man (Manual): Interval starts with the low level after switching to interval screen. You have to press **SET** to start the Interval.

•   Auto (Auto): Interval starts with the high level after switching to interval screen. You have to press **SET** to stop the interval.

To edit the interval start press **SET**. With the arrow buttons you can switch between Auto and Man (Manual) and press **SET** again to set your preference.

6.8 Enabling and Disabling External Control

The SmartIT brake can be controlled by external software via Bluetooth LE and ANT+.

In the default settings all three possible connections are enabled. In the case you do not need all connection types and you have connection problems caused by other devices, you can disable connections you do not want. If you don't have problems with the connection it is highly recommended to use the default settings and keep all connection types enabled.

To enable or disable a connection navigate to External Control and press **SET** to enter the setup. Navigate with the arrow buttons between the connection types and press **SET** to disable external control.
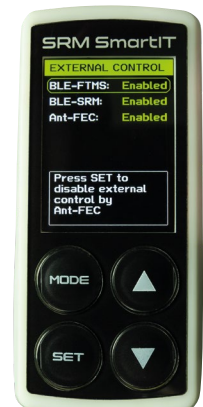
6.9 Ride Simulation Settings - Bike and Rider Weight

The ride simulation settings make a realistic riding experience possible. Enter the rider's weight and the bike weight via arrow and **SET** keys. The rotation speed of the fly-mass allows a realistic speed can be calculated, and is shown in the display as well as sent out via BLE and ANT+. The speed can also be displayed in the PC 8 if paired with SmartIT.

The Offset Step Size allows the user to apply increased or decreased resistance when in external control mode - effectively increasing/decreasing the gearing of the drive-train.

7. Maintenance and Care

The components of the SmartIT meet the highest quality standards and are designed for hard workouts and heavy usage. In order to enjoy the SmartIT indoor cycling experience for a long time, please make sure you follow a regular care and maintenance program including the following steps.

7.1 Daily Care

After every workout, please clean your SmartIT with a damp cloth to remove all sweat or dust from hard training. Sweat is extremely corrosive so it is important to clean after every ride.

Gently dry all parts with a soft cloth.

⚠ ATTENTION: The brake electronics are located in the black box which is attached at the back of the brake. The black box is not waterproof, so when cleaning the SmartIT, do not let water get inside the brake box. Disconnect the power and clean the box only with a damp cloth.

7.2 Monthly Care

Where necessary:

- Please clean the chain with a cloth soaked in chain-oil and wipe off excess chain-oil after cleaning

- Please check the gear shifting and adjust if necessary

- Please remove the seat-post and handlebar post and clean them from sweat and dust. Make sure to remember your saddle and handlebar position.

- Connect your Smart IT with the SmartIT IOS App and check for firmware updates.

7.3 Yearly Care

Where necessary:

- Please check for smooth and quiet operation of all moving parts

- To protect your SmartIT frame from corrosion, we recommend to treating the frame periodically with a silicone polish. Silicone polish is available in bike shops or automotive stores.

8. Technical Data and Specifications

Material	Stainless steel, powder-coated steel, chrome steel, aluminium
Total weight	38,7 kg / 85,32 lb
Fly-mass weight	2,6 kg / 5,7 lb
Dimensions (L x W x H)	1,25 m x 0,55 m x 0,89 m
Bottom bracket	BSA 68 mm
Seat-post diameter	27.2 mm
Number of positions of the magnetic brake	100
Data transmission	ANT+ , Bluetooth LE
Gear Shifting	Shimano 105
Saddle	Prologo
Handlebar	31.8 mm
Chain	Connex 11SX
Input voltage:	+12V at 3A, DC
Freehub:	11-speed Shimano/SRAM compatible

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Warranty

Extent of Limited Warranty: SRM warrants to the end-user customer that the SRM products are free from defects in materials and workmanship for a 3-year duration after the date of purchase by the customer(batteries excluded). The complete SRM warranty can be found online at www.SRM.de.

Disclaimer

CE - The CE mark is used to mark conformity with the European Union EMC directives EN 301 489-1 V1.81, EN 301 489-3 V1.41 and EN300 440-2 V1.3.1.

FCC compliance - This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. Repairs should be made by authorized SRM service personnel. Unauthorized repairs will void warranty. This product has been tested to comply with FCC standards and is intended for personal use only.

Disposal of the Device

Dispose of this device according to local and federal regulations, treating it as electronic waste. You may return this device to your nearest SRM Service Center for proper disposal.