

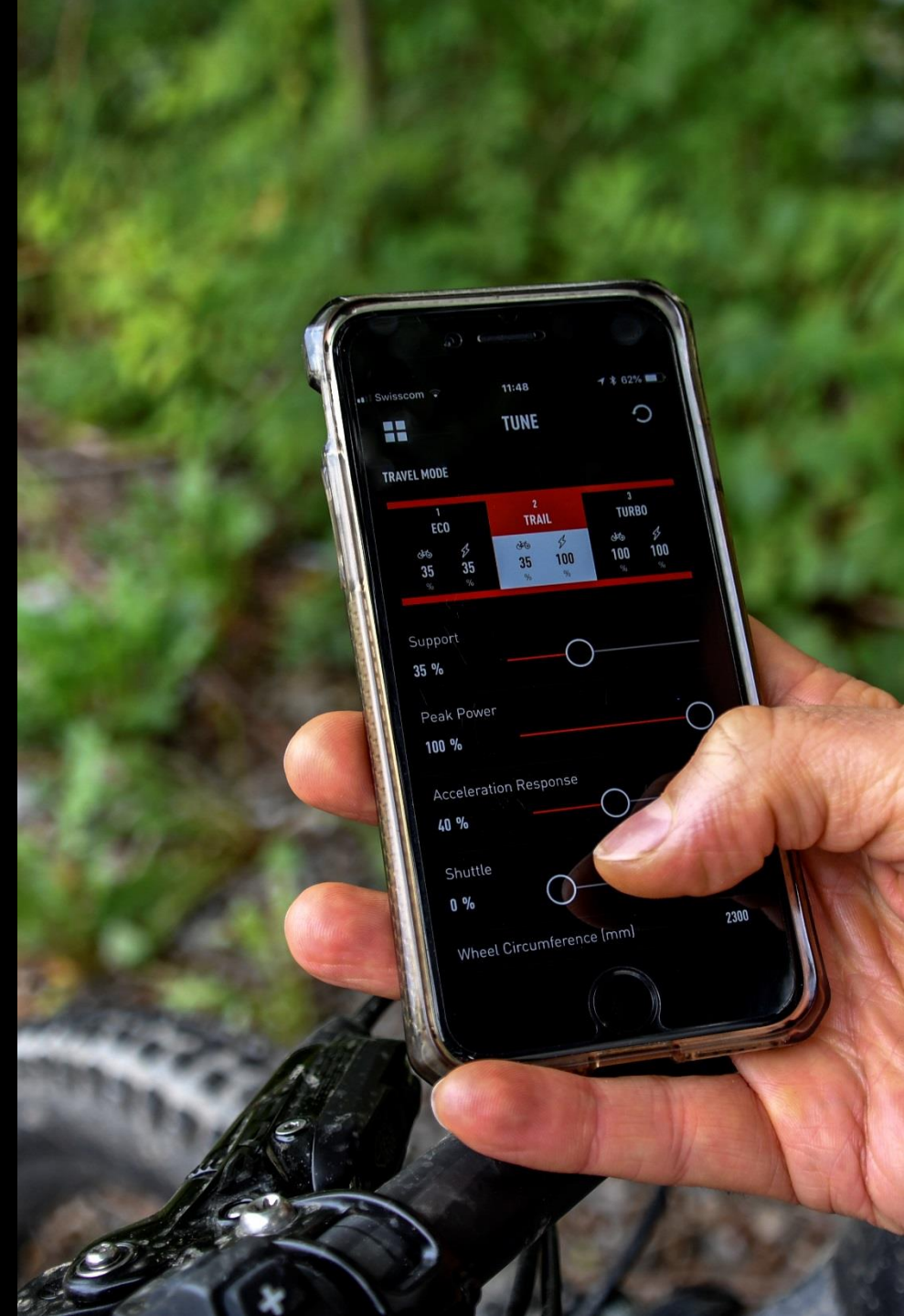
SPECIALIZED MISSION CONTROL APP

YOUR USER GUIDE

Dear Turbo-Rider,

Thanks for choosing a Specialized Turbo. Our Specialized Mission Control App enables you to further enhance your ride experience and customize your Turbo to your personal needs. This User Guide helps you understand how to get the most out of your Turbo with our Mission Control App. Enjoy the trails - The Specialized Turbo Team

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2. Installation, Account, Login
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5. Smart Control
6. My Rides
7. Tune
8. Fake Channel (ANT+)
9. Diagnose
10. Settings
11. Forgot Password?
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SPECIALIZED MISSION CONTROL APP

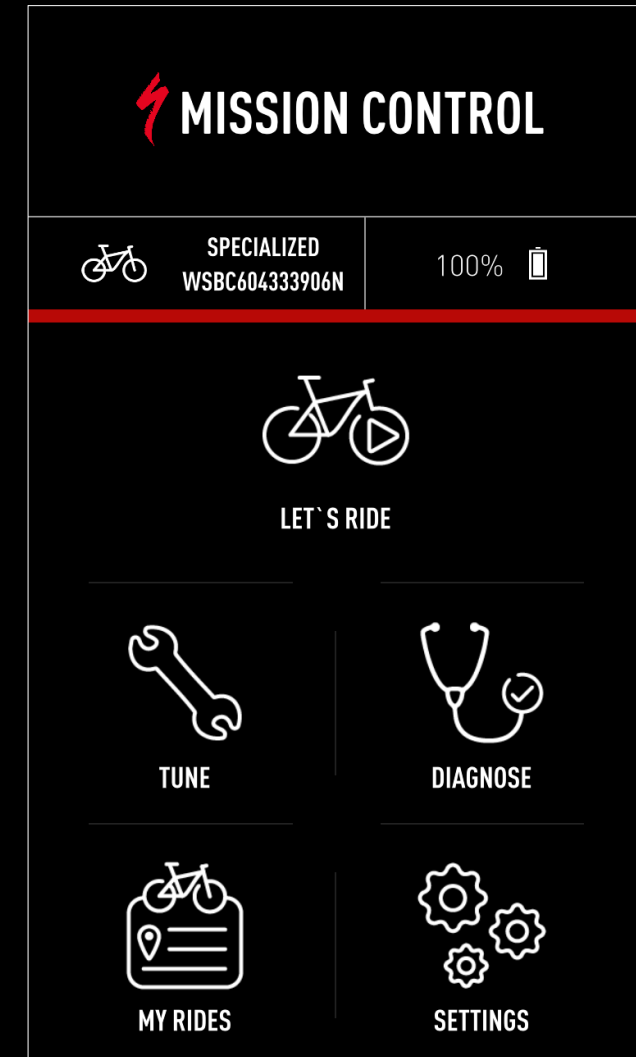
FEATURES & FUNCTIONS

Features

- Free download, no user fee
- Smartphone compatibility: Android and iOS operating systems
- Download: Google Play Store (Android) or App store (iOS)
- Bike compatibility: all Turbo Levo/Kenevo bikes, some Turbo rear-hub models (MY16/17 Turbo S/X)
- Connection method: Bluetooth

Key Functions*

- Let`s Ride
 - See location on topo map (cached maps)
 - Set and activate Smart Control
 - Track and evaluate rides (fit. format, Strava synchronisation)
 - Live ride data
- My Rides
 - See ride history
- Tune
 - Customize motor performance and characteristics (Support and Peak Power for each mode)
 - Customize Acceleration Response of motor
 - Set Shuttle Mode
 - Activate Fake Channel to display bike data on ANT+ device (charge level, rider power)
 - Reset to default settings
- Diagnose
 - See system health status
 - See bike, motor, battery and display data
 - Diagnose system
- Settings
 - Search for and connect to bike(s); manage known bikes
 - Activate Auto Start, change units
 - Manage Strava synchronisation and user profile settings



*The scope of functions depends on the connected bike.



SPECIALIZED MISSION CONTROL APP

INSTALLATION, ACCOUNT, LOGIN

Installation

In the 'App Store' (iOS) or Google Play Store (Android) search for 'mission control', tap on 'Specialized - Mission Control', download and install

Creating Account

As a first user, you have to create an account to use the App. To do so, open App and tap on SIGN UP:

- Enter your valid email address, define password and fill in other user data
- To create your account, agree with the Terms of Use and the Privacy Policy
- Before first login, you need to activate your account through confirmation mail (also check spam filter)
- For full use of App, you must connect to a Turbo bike

Login

Tap on LOGIN and enter your email address and password

The screenshot shows the login screen of the Mission Control app. At the top, there is the Specialized logo and the text 'MISSION CONTROL'. Below this, there are two input fields: 'EMAIL ADDRESS' and 'PASSWORD'. At the bottom, there are two red buttons: 'LOGIN' and 'SIGN UP'. Below the buttons, there is a link for 'FORGOT PASSWORD?' and the version number '1.1 BUILD 1'. At the very bottom, there is a link for 'FREQUENTLY ASKED QUESTIONS AND CUSTOMER SUPPORT'.

The screenshot shows the 'CREATE ACCOUNT' screen of the Mission Control app. At the top, there is a back arrow and the text 'CREATE ACCOUNT'. Below this, there are several input fields: 'GENDER' (with 'MALE' selected), 'YEAR OF BIRTH' (with '1979' selected), 'CITY' (with 'Luzern' selected), and 'COUNTRY' (with 'Switzerland' selected). Below these, there are two input fields for 'WEIGHT' (with '80' selected) and 'HEIGHT' (with '180' selected). At the bottom, there is a checkbox for 'I agree with Specialized Terms of Use and Privacy Policy' and a red 'CREATE ACCOUNT' button.

The screenshot shows the email verification screen of the Mission Control app. At the top, there is the Specialized logo and the text 'YOU'RE ALMOST THERE! PLEASE VERIFY YOUR EMAIL.'. Below this, there is a link for 'Please click below to complete the verification process.' and a red button for 'Verify your Email Address'. Below the button, there is a message: 'If you didn't attempt to use this email to create an account at Specialized.com, don't worry! Just delete this email and no further actions are necessary.' At the bottom, there is a black box containing the Specialized Bicycle Components logo, address (15130 Concord Circle, Morgan Hill, CA 95037), email (ridercare@specialized.com), phone number (877-808-8154), and social media icons for Instagram, Facebook, Twitter, Pinterest, and YouTube. At the very bottom, there is a copyright notice: '© 2018. Specialized Bicycle Components. All Rights Reserved.'



SPECIALIZED MISSION CONTROL APP

CONNECT BIKE

Preparatory Steps and General Notes

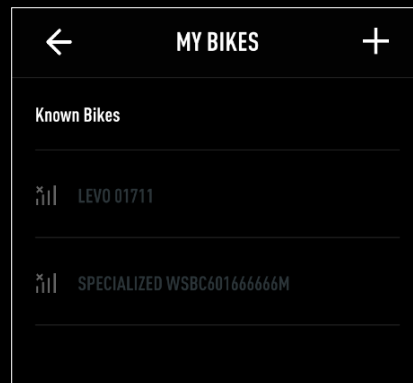
- Turn bike on, activate Bluetooth on mobile phone, open Mission Control App
- Multiple simultaneous bike-phone connections are not possible. Only one phone can be connected to a bike at a time. Once a phone is connected to a bike, another device cannot find it in BIKES FOUND.
- If multiple bikes are available to connect to, you can either use the WSBC Code or the proximity bars to identify the bike you want to connect to

Find & Connect Bikes

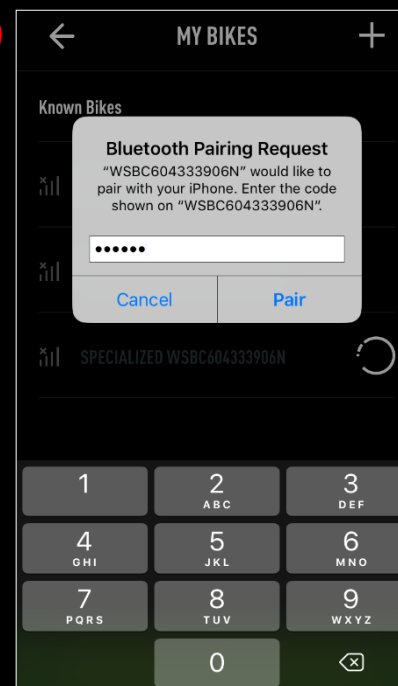
1. Go to SETTINGS and MY BIKES: there, tap on the plus-symbol in upper right screen to search for available bikes
 - Alternatively, tap on 'Disconnected' on the start screen to enter MY BIKES
2. Tap on the bike you want to connect with
 - If you are asked for a pairing code, enter the 6-digit-code that comes with the bike
 - The connected bike is marked with a green tick



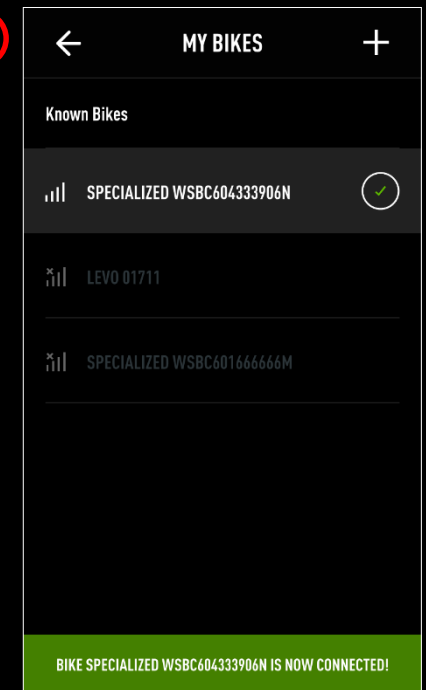
①



②



③



SPECIALIZED MISSION CONTROL APP

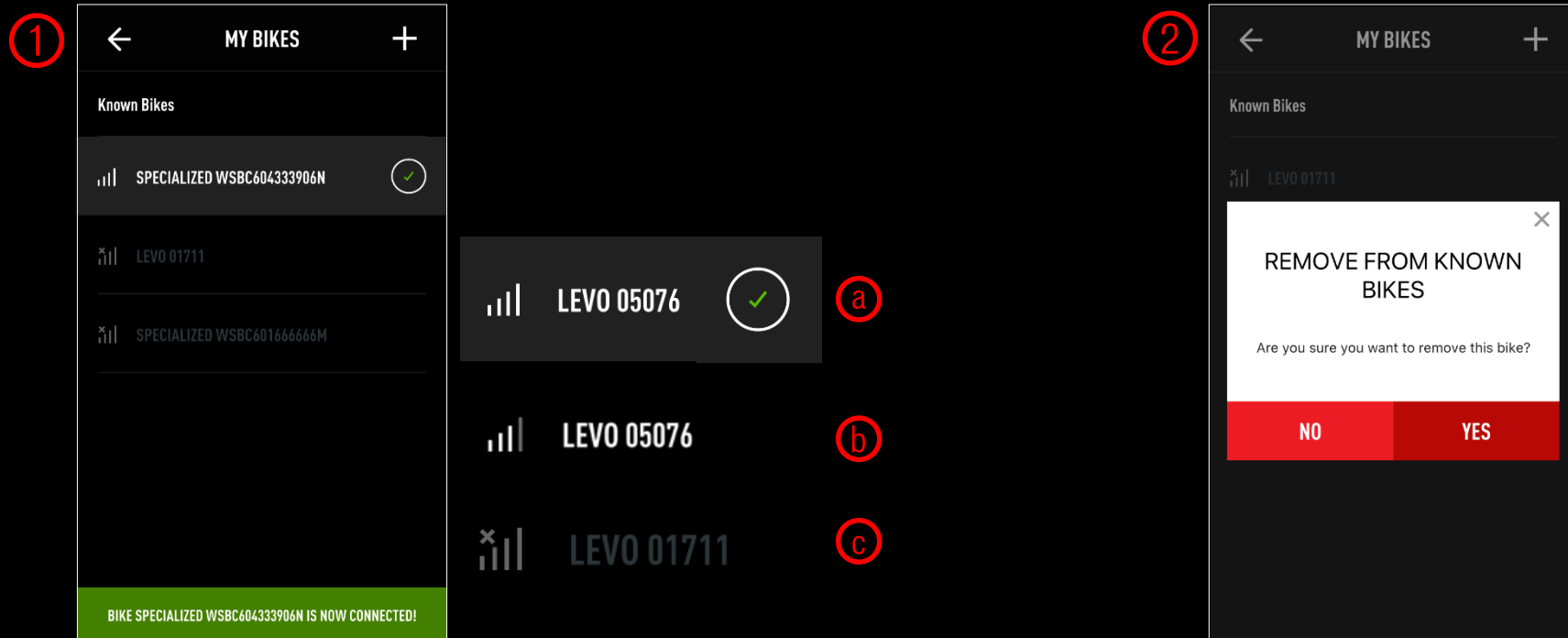
MANAGE BIKES

(1) Bikes

In the MY BIKES menu you can see:

- Connected bike, ticked green and mentioned in green status bar (a)
- Once connected and available bike(s), marked with proximity bars (b)
- Once connected, but unavailable bike(s), marked with cross over proximity bars (c)

(2) Delete Bikes Carry out a long tap on connected bike, confirm deletion



SPECIALIZED MISSION CONTROL APP

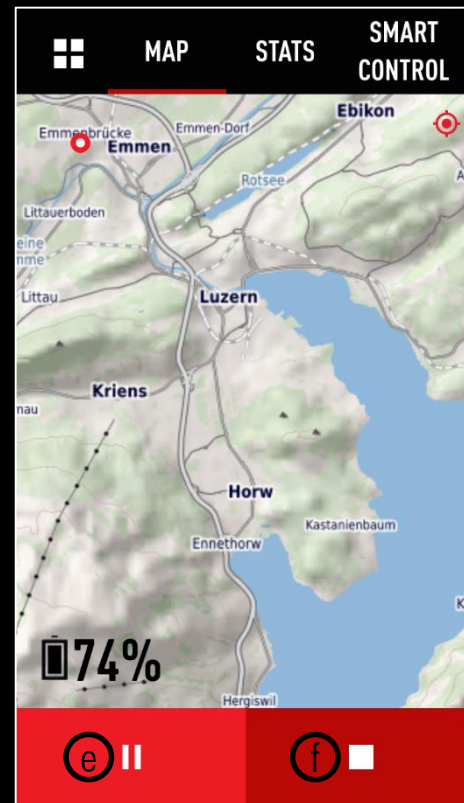
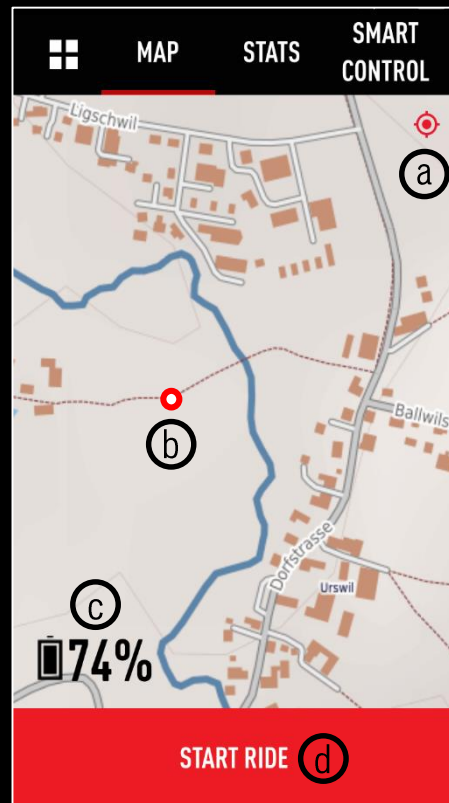
LET'S RIDE - MAP

General Mission Control doesn't support full offline maps and map purchases. Instead of purchasing maps, we decided to include offline map caching for your riding area for free. Please note that if you want to ride in a particular area while being offline or save mobile data volume, you may just look at the map in the planned riding area while being on WiFi. The App will cache the map data of this region so that you can look at it offline.

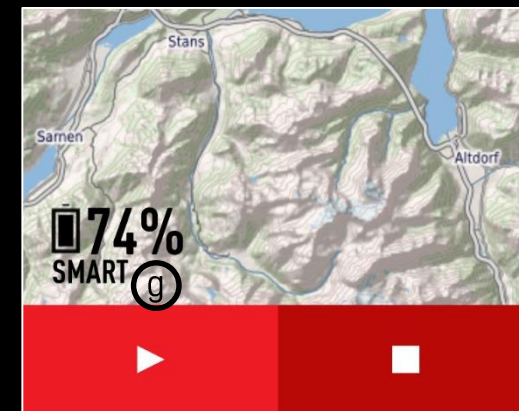
Overview Show current position, if you moved cached map (a) - current position on map (b) - bike battery state of charge (c) - record ride (d).

Ride Tracking Once you have started tracking a ride, you will see symbols for pausing (e) and finishing ride recording (f). Finishing saves the ride. Active Smart Control is shown, too (g).

Important To show your location on the map, you need to allow Mission Control to access your device's location. You are asked for permission during setup and can also change permissions in the App settings of your phone.



Map Zooming To zoom in and out of maps, use the pinch-to-zoom gesture with moving two fingers on screen closer or apart.



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LET'S RIDE - RIDE STATS

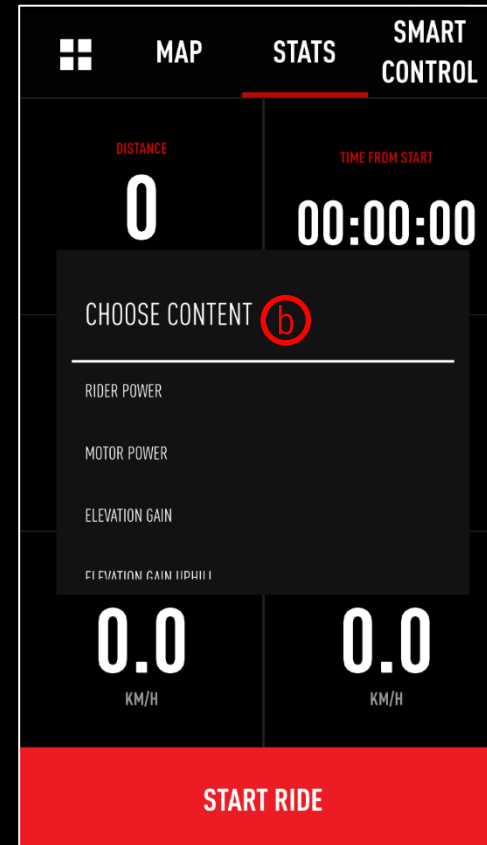
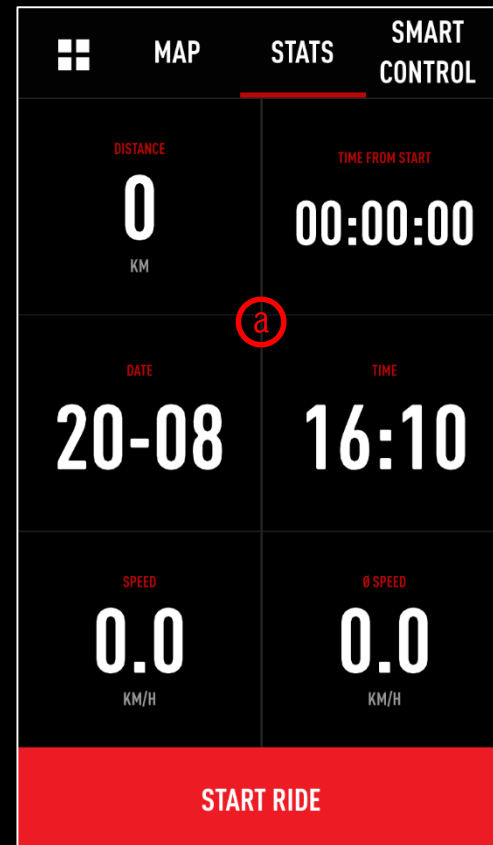
Overview

When tracking a ride, you have a customizable RIDE STATS screen showing multiple data fields with ride information (a). To customize a data field, perform a long tap on the desired field and choose the content you want to see in this field from the drop down menu (b).

Note on Power

Only Levo/Kenevo bikes can show motor power AND rider power - Turbo bikes with rear-hub motors only show motor power

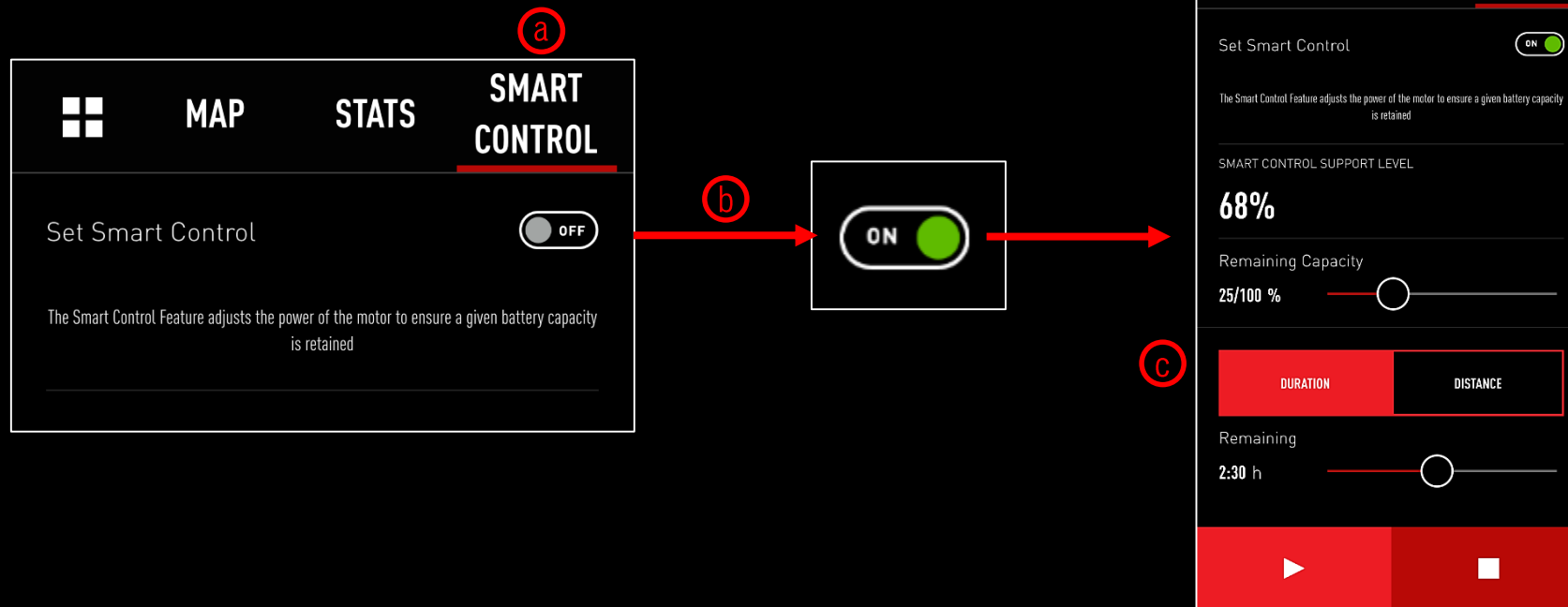
– Mechanical vs. electric output: due to some inevitable loss, mechanical power is slightly lower than electric power; app shows electric power



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SMART CONTROL

- (1) **Definition** Smart Control is an algorithm based on tons of ride data. Activating Smart Control based on ride time or distance controls the motor output so that you do not have to worry about the mode setting or battery capacity for your ride. Every 10 seconds, the system calculates multiple parameters like energy consumed, time/distance absolved and ahead etc. Based on that calculation, the motor output is adjusted as needed. You ride, Smart Control does the rest.
- (2) **Activation** In LET'S RIDE, tap on SMART CONTROL (a), then set it to ON (b). After defining the settings (c), the current SMART CONTROL support level is shown.
- (3) **Notes & Tips** Smart Control works especially well on the time-based setting and we strive to constantly improve it.
- The system does not know the route profile ahead
 - Do not set remaining capacity lower than 10 % so that you have a safety margin



SPECIALIZED MISSION CONTROL APP

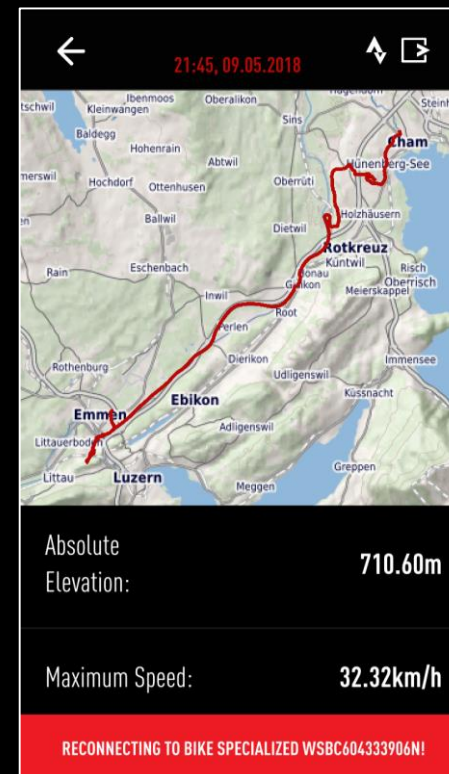
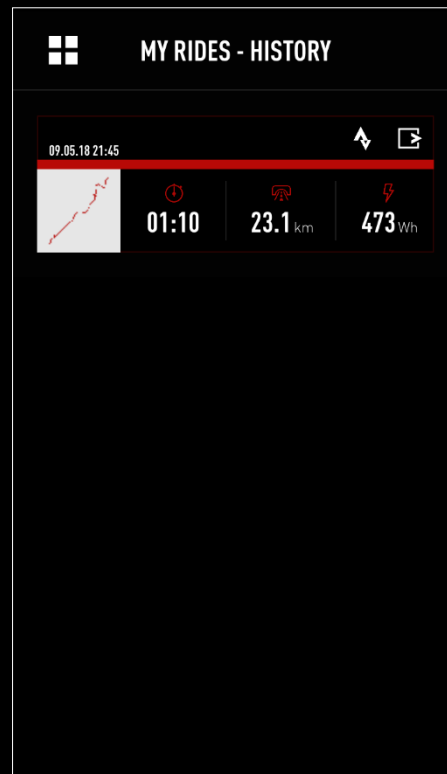
MY RIDES

Definition Here, all your tracked rides are stored to view in detail or be exported as .fit file

View Ride Details Tap on a listed ride to see details

Strava Sync Tap on the Strava symbol (a) to upload the desired ride to Strava.
Note: if you activated AUTO UPLOAD for Strava in SETTINGS, all your tracked rides are uploaded to the Strava e-bike category automatically.

Export .fit File Tap on the export symbol (b) to send your track via mail (.fit format). This allows you to use them in other devices or programs. There are also free programs available to convert .fit to .gpx, if needed.



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TUNE - DEFINITIONS

- Functions*** Adjust motor Support and Peak Power – customize Acceleration Response – set Shuttle Mode – activate the Fake Channel – turn Stealth Mode on – deactivate/activate the Beeper sounds of battery or display – restore default settings
- Tune** You have the freedom to change the default Support and Peak Power settings for each mode to customize the motor characteristics based on your needs and preferences.
- Support** Support defines the proportion of assist for rider input in each mode. Generally, more Support provides faster acceleration and easier climbing at the expense of shorter range and greater chance of wheelspin. Less Support results in longer range and more control in situations where traction is limited. A Support level lower 100 % can be compensated by the rider. For example, pedaling in Trail mode with Support set at 50 % will require approximately double the effort to get the same motor assist as compared to pedaling in Turbo mode with Support set at 100 % (given identical Peak Power settings).
- Peak Power** This refers to the maximum power output by the motor for each Support mode. This can be set at up to 100 % for all Support modes. If Peak Power is set to 100 % for all Support modes, the harder you pedal, the more assist you get in each Support mode. For example, if a Support mode is set at 35 % with Peak Power set at 100 %, you can still achieve 100 % motor output by pedaling with more effort and high rider torque. If Peak Power is set at less than 100 %, you will limit the amount of power the motor delivers, creating an artificial ceiling that cannot be compensated by leg power. Lowering Peak Power will improve range and allows for a greater differentiation between Support modes.
- Acceleration Response** This setting determines how quickly/slowly the motor responds to rider input. Usually, a lower response settings results in more traction and control in off-road use.
- The default setting ensures a good balance of control and direct motor response
 - Setting response to 0 % results in the slowest response whereas 100 % provides the fastest response
 - The best setting depends on terrain, ride style and personal preference
- Shuttle Mode** With the Shuttle Mode activated, the rider easily gets full motor support when pedaling in a higher cadence with less torque (= leg power). Generally speaking, with Shuttle Mode on, the motor delivers high power in the most typical riding cadences above 50 rpm. As a result, riders who prefer to spin in a high cadence with less leg power are now able to get maximum motor support. In addition, the Shuttle Mode gives full support with less leg power when starting from a standstill, e.g. at a traffic light.
- 0 % means Shuttle Mode is off
 - 100 % results in greatest effect of Shuttle Mode
 - Battery consumption goes up when increasing Shuttle Mode percentage

*The scope of functions depends on the connected bike.



SPECIALIZED MISSION CONTROL APP

TUNE*

- (1) Restore Default Settings** Tap here to reset all settings to the default values.
- (2) Travel Mode** The selected mode is highlighted. The Support and Peak Power settings always show for the selected mode. Tap on any mode to see and change its settings.
- (3) Support** Change sliders to customize the proportion of assist for rider input.
- (4) Peak Power** Change sliders to select the maximum amount of power the motor will deliver in each mode.
- (5) Acceleration Response** Change the default setting to make the motor respond quicker or slower to rider input. We recommend leaving it on a lower level for enhanced control and smoother shifting.
- (6) Shuttle** Activate Shuttle Mode by setting the slider to a value greater than 0 %. The higher the setting, the more support you get when pedaling with less torque and higher cadence. A higher setting results in more battery consumption.
- (7) Wheel Circumference** See the default value here. Adapting wheel circumference to tire changes can only be done by authorized Specialized retailers.
- (8) Fake Channel** Activate an unused ANT+ channel to connect any ANT+ device to the bike in order to see additional information (see next page for details).
- (9) Stealth Mode** When turned on, the LEDs of the display used in certain models turns dark shortly after a button press. Does not apply to all bikes.
- (10) Battery Beeper** Turn the battery or display beeper on or off. A restart of bike is needed to save the setting.

*The scope of functions depends on the connected bike.

The screenshot shows the 'TUNE' screen of the Specialized Mission Control App. At the top right, there is a 'TUNE' header, a refresh icon, and a red circle with the number '1'. Below this is a 'TRAVEL MODE' section with a red circle and the number '2'. It contains three modes: '1 ECO', '2 TRAIL' (highlighted in red), and '3 TURBO'. Each mode has two columns of settings: a bicycle icon and a lightning bolt icon. For ECO, both are 35%. For TRAIL, they are 35% and 100%. For TURBO, they are 100% and 100%. Below the modes are ten settings, each with a red circle and a number:

- 3** Support: 35 % with a slider.
- 4** Peak Power: 100 % with a slider.
- 5** Acceleration Response: 40 % with a slider.
- 6** Shuttle: 0 % with a slider.
- 7** Wheel Circumference (mm): 2300.
- 8** Fake Channel: A dropdown menu with 'DISABL...' and a refresh icon. Below it is a small text box: 'The fake channel offers the opportunity to display the battery charge on a connected device'.
- 9** Stealth Mode: A toggle switch set to 'OFF'. Below it is a small text box: 'Switches on/off LEDs on the bike display'.
- 10** Battery Beeper: A toggle switch set to 'ON'. Below it is a small text box: 'Switches battery beeper on/off'.



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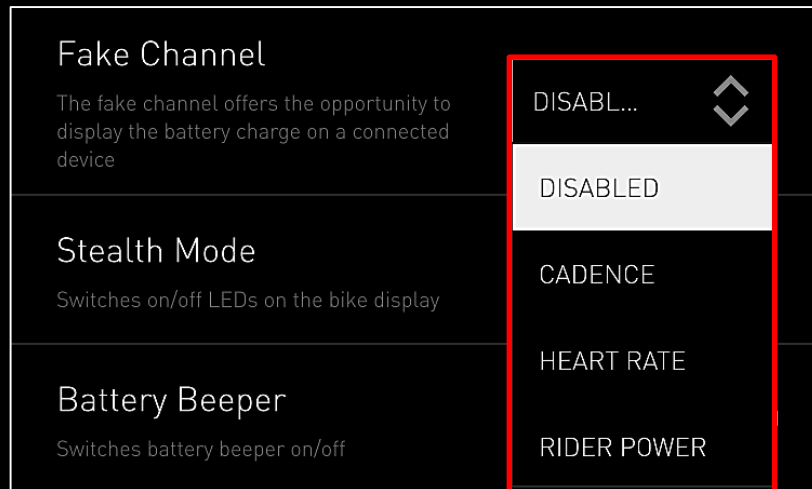
FAKE CHANNEL (ANT +)

Definition Using the Fake Channel, you can display the battery state of charge (SoC) of a Levo/Kenevo battery on any ANT+ device (wearables, GPS devices, bicycle computers etc.).

- Use** For this example a Garmin Fenix 3 GPS watch was used
1. Activate the Fake Channel in the TUNE menu (choose e.g. CADENCE)
 2. Restart bike to activate Fake Channel
 3. Search for sensors in ANT+ device and choose faked sensor (if necessary, make needed data field for sensor visible)
 4. See state of bike battery charge in chosen menu of ANT+ device - here, the connected Levo battery has a charge level of 86 %

Note If you use a Garmin device and select the 'Heart Rate' rate channel, values below 30 will not be displayed; choose other channel, e.g. cadence

1



Restart bike

2




SPECIALIZED MISSION CONTROL APP

DIAGNOSE - START PAGE

- Purpose** In Diagnose you can see the system health status and view detailed information on battery and motor.
- System Status** Should the status for your bike not be 'Healthy', see your retailer for diagnostics and servicing.
- Odometer** The data is saved in the motor, but is sent to the App through the battery or display.
- Serial Number** This is the bike serial number that is also stated on the frame itself.
- Battery** Tap the red arrow to view battery details.
- Battery Charging Status** Shows the current state of charge for the bike battery. If you do not use a display option to see the exact charge status, you can see it here as a percentage figure.
- Battery Health** Shows the percentage of remaining battery capacity.
- Motor** Tap the red arrow to view motor details.
- Display** Tap the red arrow to view display details. Only shows for bikes with a dedicated display.

DIAGNOSE

System Status:  **Healthy**

Odometer: **298.29km**

Serial Number: **WSBC604333906N**

BATTERY >

CHARGING STATUS: **100%** | BATTERY HEALTH: **100%**

MOTOR >

DISPLAY >



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DIAGNOSE - BATTERY

- Overview** Out of the shown information, battery health, charge cycles and firmware version are of interest from a rider perspective.
- Battery Health** Specialized guarantees that the battery holds at least 75 % capacity after 300 charge cycles or alternatively after 2 years; it is not uncommon for batteries to drop a few % within 20 cycles but hold that for a year or more. See Turbo manual for battery details.
- Charge Cycles** The Battery Management System counts the amount of full charge cycles. One charge cycle is added when e.g. 500 Wh have been recharged into a 500 Wh battery. Battery ageing over estimated lifetime is taken into account for counting the cycles.
- Firmware** The installed battery firmware is shown here. Please make sure you always run the latest firmware for best performance and the full scope of functions.

← BATTERY		
CHARGING STATUS	BATTERY HEALTH	CHARGE CYCLES
100%	100%	18
Serial Number:	-	
Hardware:	2.0	
Firmware:	2.2.5	
Temperature:	23°C	
Voltage:	41.40V	
Current Level:	0.00A	



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DIAGNOSE - MOTOR

- Serial Number** Shows the motor serial number to reference type and manufacturing details; not relevant as rider.
- Hardware** Identifies the motor in detail; not relevant as rider.
- Firmware** The installed motor firmware is shown here. Please make sure you always run the latest firmware for best performance and the full scope of functions.
- Temperature** Overheating issues with motors are very rare. In case of a too high temperature, the system activates a protection mechanism by reducing power or shutting off the system in extreme cases. Temperatures up to 90°C are normal.

←	MOTOR
Serial Number:	E01680-100180626-2-25 38
Hardware:	02120901150618002331
Firmware:	6.0.1
Temperature:	29°C



SPECIALIZED MISSION CONTROL APP

DIAGNOSE - DISPLAY

- General** Only applies to bikes that feature a separate display in bike.
- Serial Number** Shows the display serial number to reference type and manufacturing details; not relevant for rider.
- Hardware** Identifies the motor in detail; not relevant for rider.
- Firmware** The installed display firmware is shown here. Please make sure you always run the latest firmware for best performance and the full scope of functions.

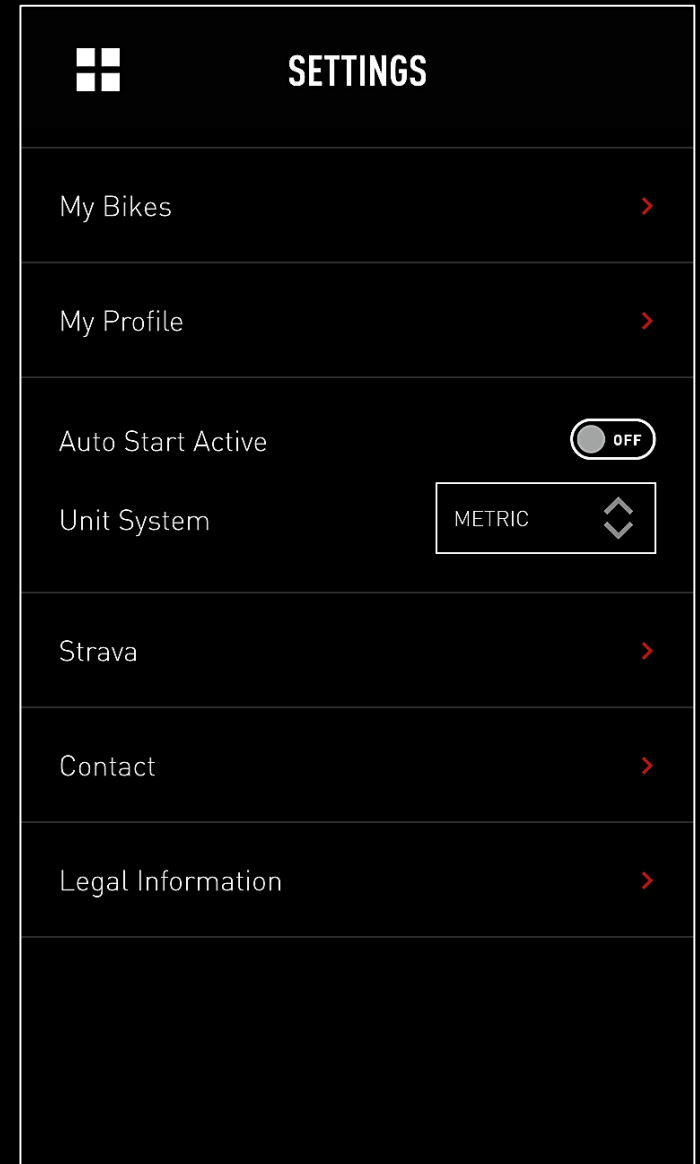
←	DISPLAY
Serial Number:	6
Hardware:	A.1.0
Firmware:	15.a



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SETTINGS

- Purpose** In SETTINGS you define general app parameters, connect/manage bikes and edit your user profile.
- My Bikes** Here you add a new bike and manage bikes you have once connected to.
- My Profile** Define personal data like date of birth, sex, height and weight.
Allows you to log out of the App.
- Auto Start Active** If turned on, Mission Control records your rides automatically once you are moving (with connection to bike).
- Unit system** Choose between Metric (km/h and km) and Imperial (mph and mi) units.
- Strava** Here you can choose to automatically upload your rides to your Strava account. There, they are saved in a dedicated e-bike category.
- Contact** Refer to this section to read our FAQs around Mission Control and reach out to customer support.
- Legal Information** Read our Terms of Use and Privacy Policy here.

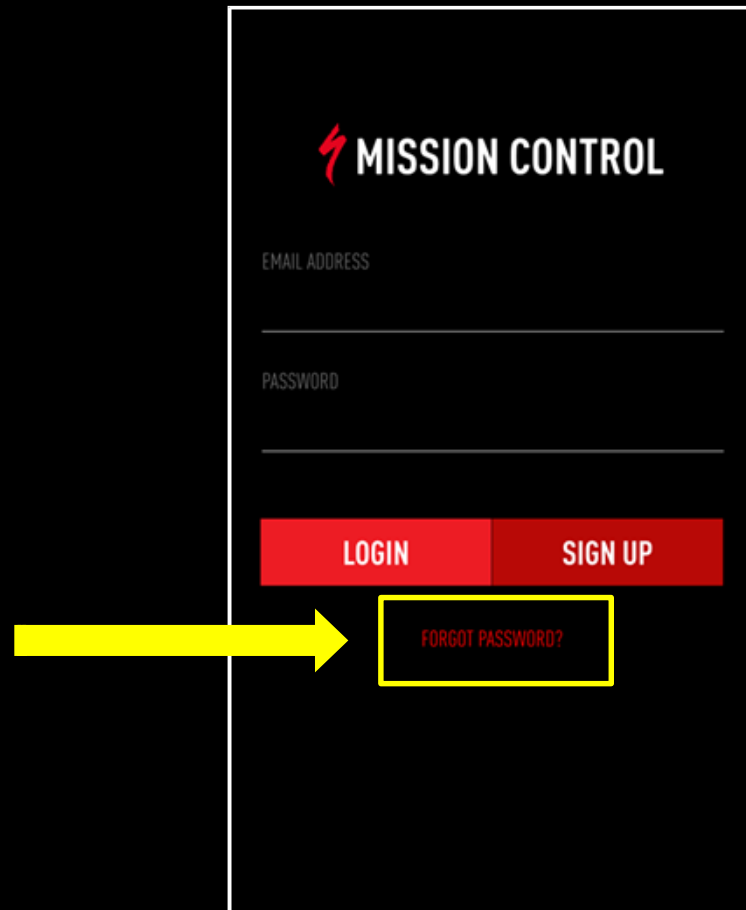


SPECIALIZED MISSION CONTROL APP

FORGOT PASSWORD?

Procedure

Should you have forgotten your password, you can request a new one by tapping on FORGOT PASSWORD in the App start screen. After entering your email address and tapping on SEND, you will receive an email with further instructions to define a new password.



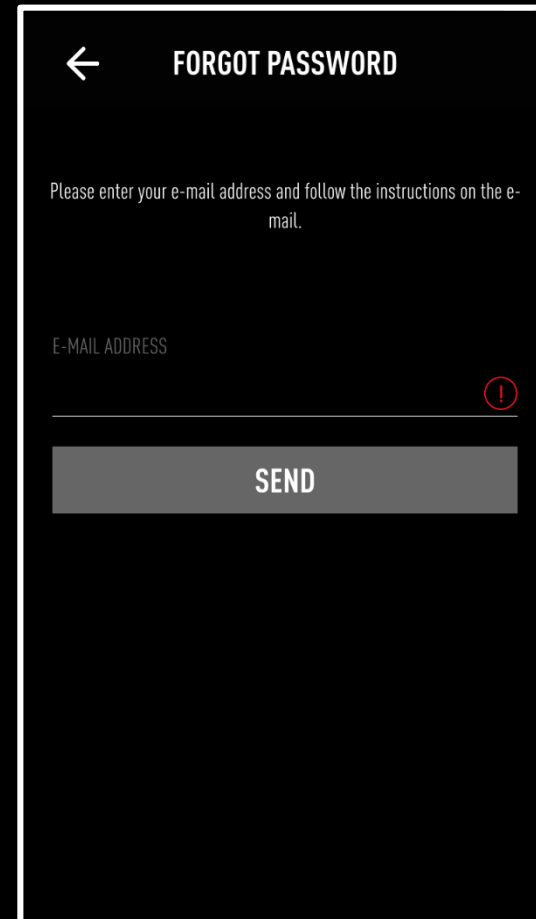
MISSION CONTROL

EMAIL ADDRESS

PASSWORD

LOGIN SIGN UP

FORGOT PASSWORD?



← FORGOT PASSWORD

Please enter your e-mail address and follow the instructions on the e-mail.

E-MAIL ADDRESS

SEND



SPECIALIZED MISSION CONTROL APP

TIPS & SAFETY NOTICE

Tips

- (1) Note your password somewhere safe after registering
- (2) Instead of logging out, close the app after use.
- (3) To show your location on the app, you need to allow Mission Control to access your device's location. You are asked for permission during setup and can also change permissions in the App settings on your phone.
- (4) Do not mount your smartphone to the handlebar: the majority of mobile devices is not made for usage on a bike; physical impacts can damage your phone; if you really feel you need to mount it to your handlebar, use a robust and reliable mounting system that offers good protection for your phone.



Safety Notice

For your own safety and that of others, never look on your phone or use touchscreen/buttons while moving. If you need to use the phone and/or Mission Control App, stop in a safe place and stow away the phone before you continue your ride.



No phone use while riding!

