ShockWiz

QUARQ

User Manual

SRAM®

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ShockWiz™ is not compatible with all air suspension forks and rear shocks. For more information, please visit www.shockwiz.com.

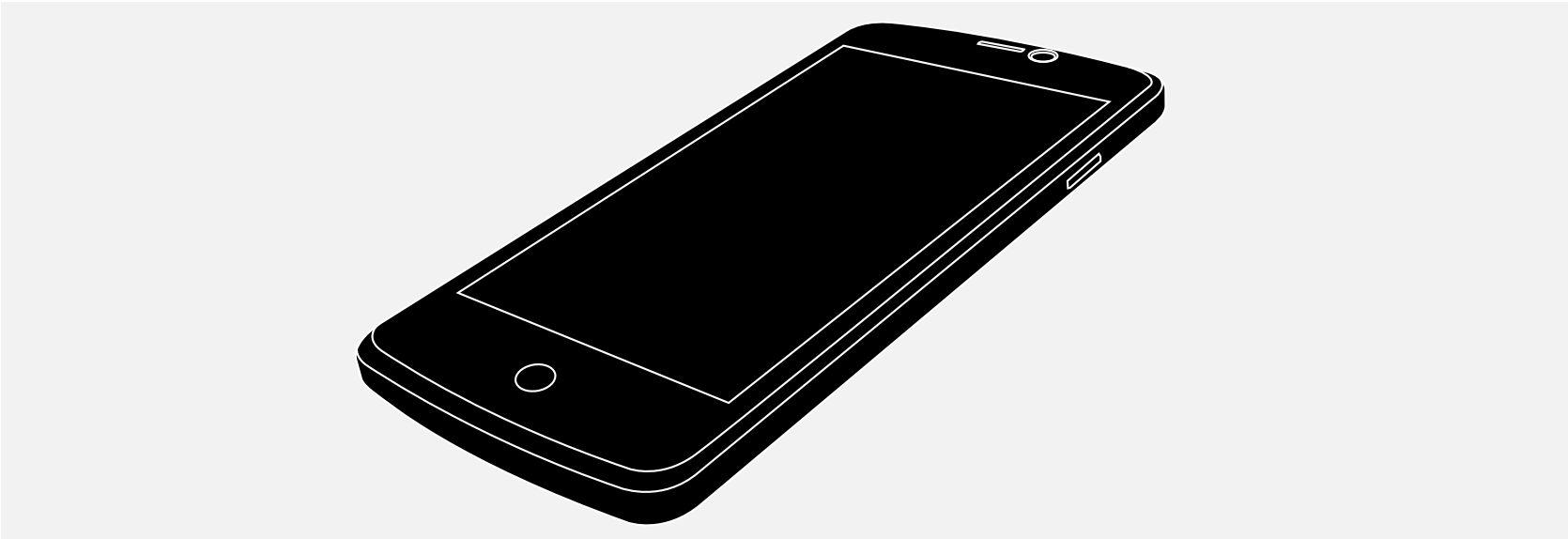
ShockWiz firmware must be updated after each app update. Use the ShockWiz app to update device firmware.

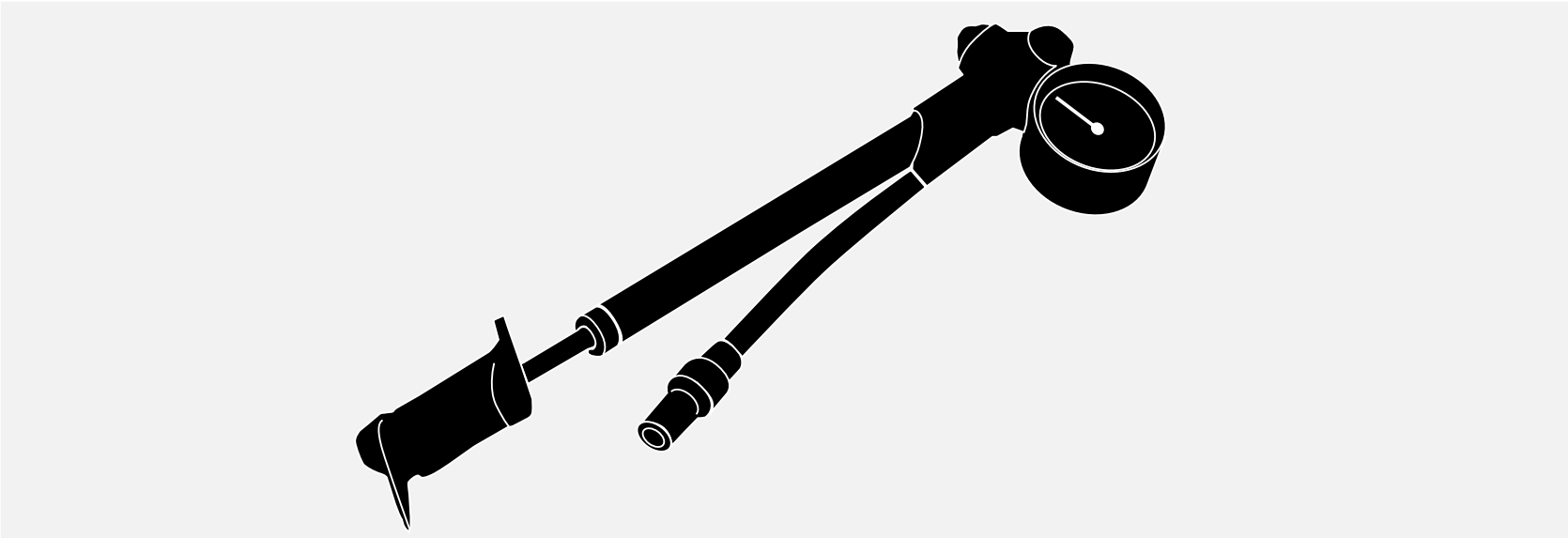
The ShockWiz app is available in iOS® and Android® formats.

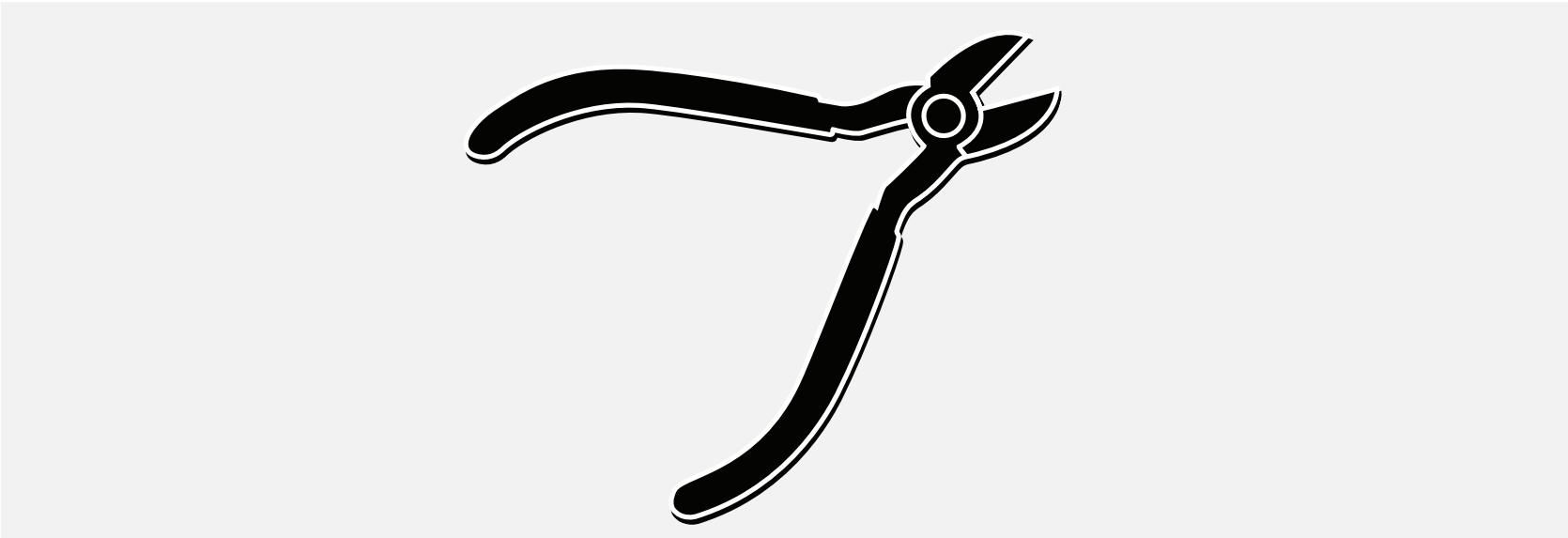
For regulatory compliance, please visit www.shockwiz.com.

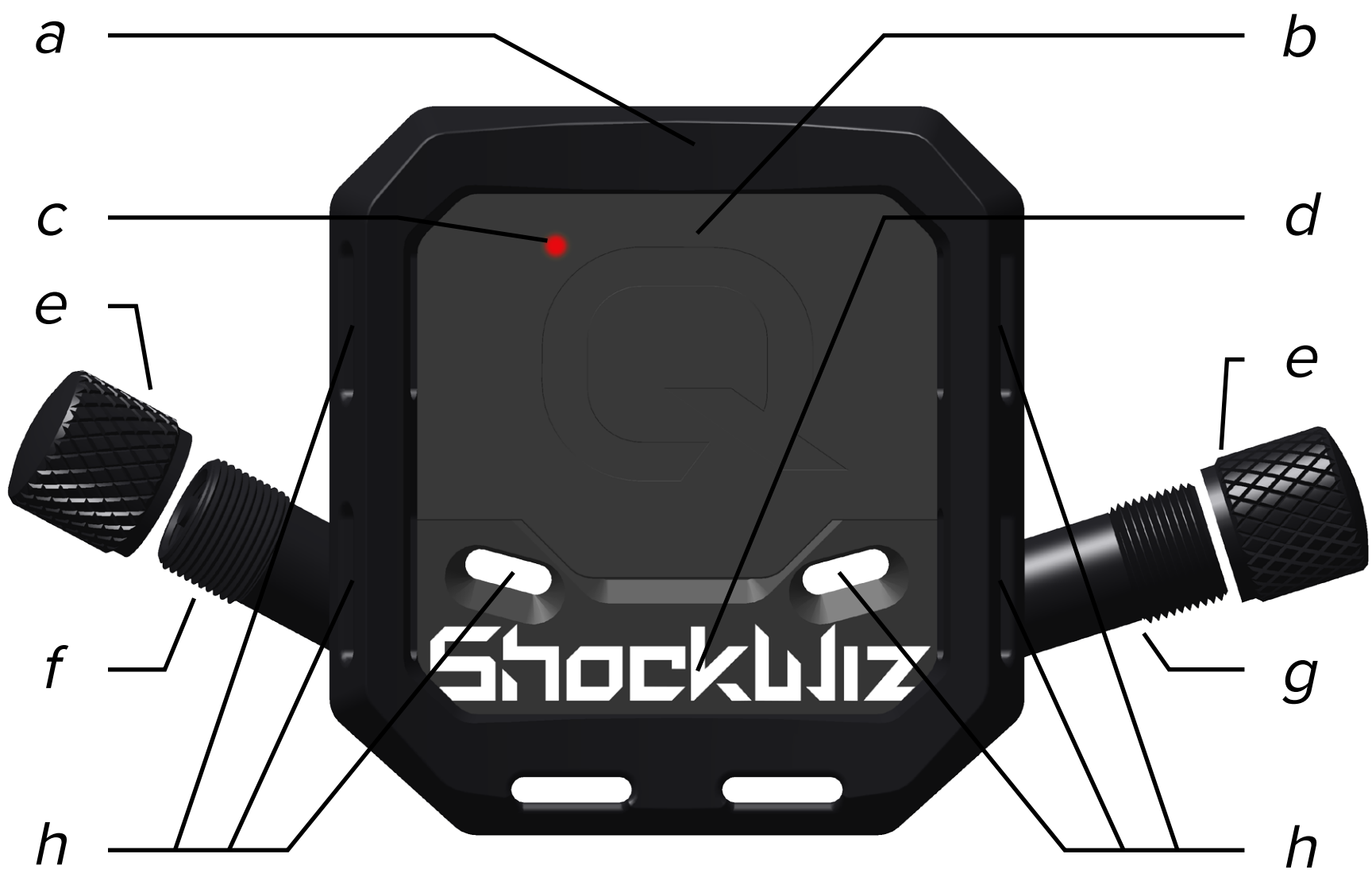
For recycling and environmental compliance information, please visit www.sram.com.

Tools and Supplies









a Mounting boot

b Battery cover

c LED status indicator

d ShockWiz™ body

e Air valve cap

f Air inflation valve (L - 28°)

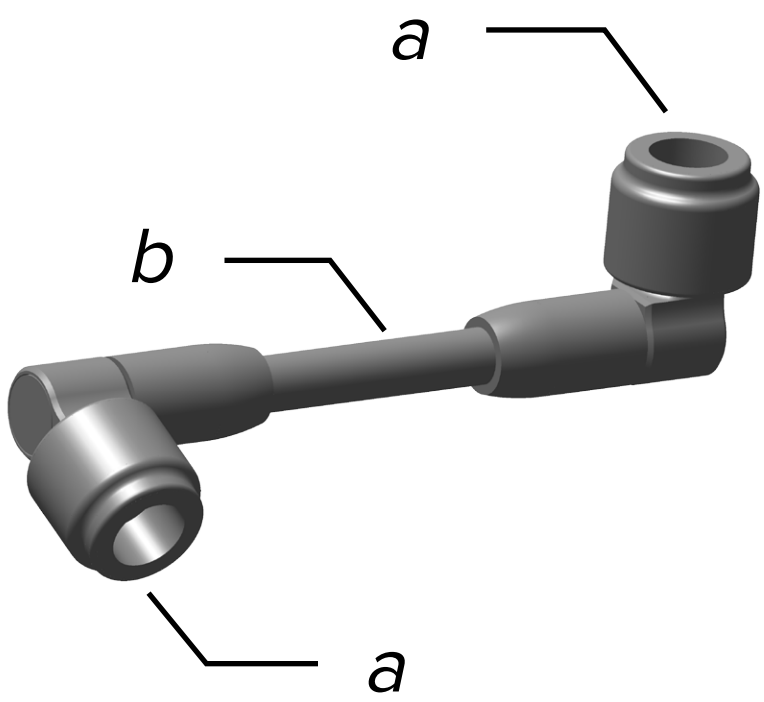
g Air inflation valve (R - 17.5°)

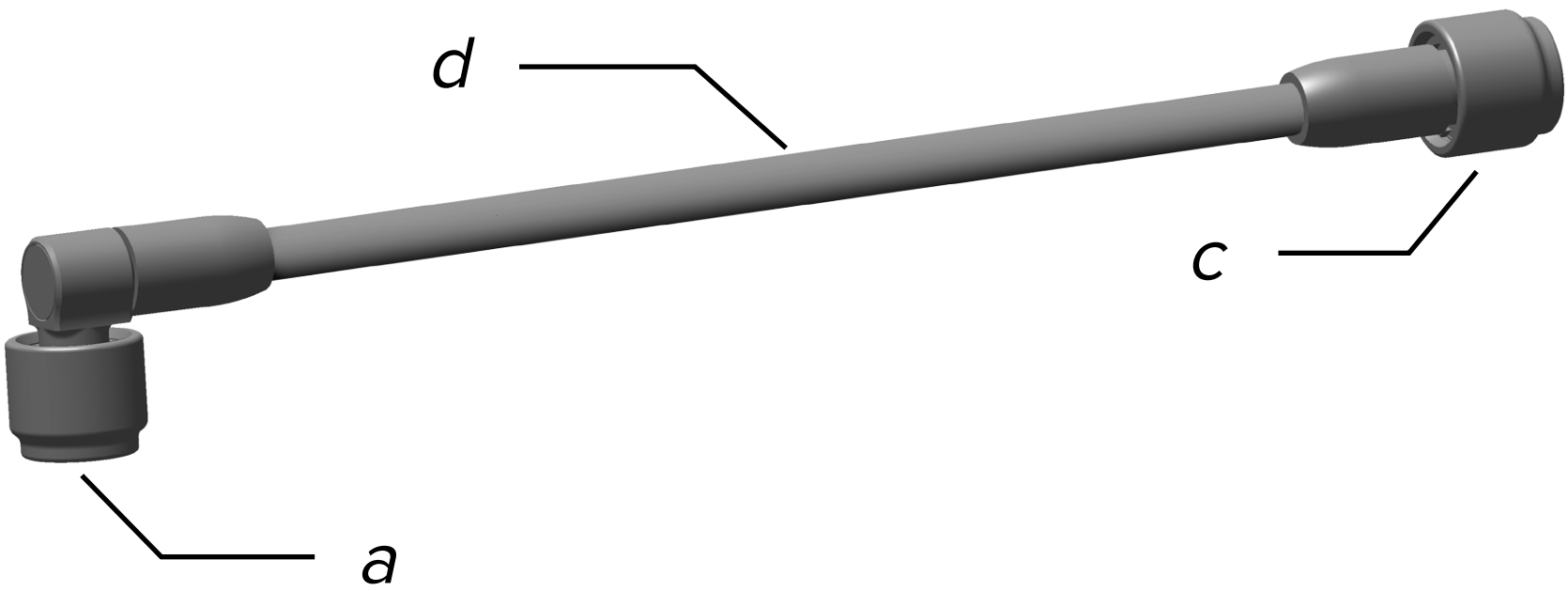
h Cable tie guide

Hose Assembly

⚠WARNING

Do **not** use a hose assembly with inverted forks. Use with a hose assembly on an inverted fork could cause a crash resulting in serious injury to the rider.





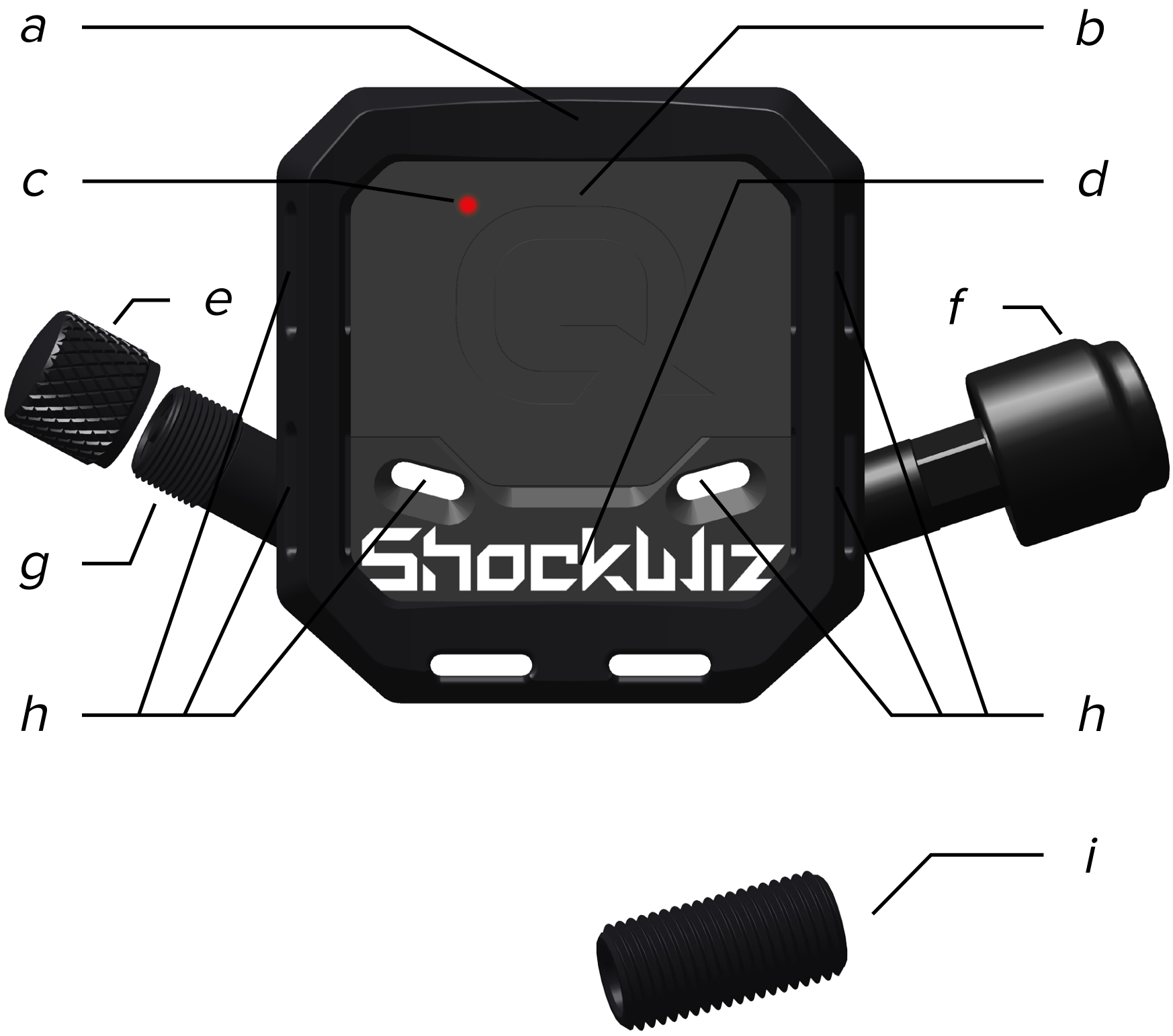
a Hose coupler (90°)

b Short hose

c Hose coupler (0°)

d Long hose

ShockWiz - Direct Mount



a Mounting boot

b Battery cover

c LED status indicator

d ShockWiz™ body

e Air valve cap

f Direct mount air valve coupler

g Air inflation valve (L - 28°)

h Cable tie guide

i Direct Mount Hose Adapter

ShockWiz Air Valves

The ShockWiz™ air inflation valves are oriented at differing angles for various mounting orientations.

Choose the optimal air valve angle for your suspension. Test fit the position and orientation of ShockWiz before installation.

Battery

⚠WARNING

Do not use sharp or conductive objects to remove the battery.

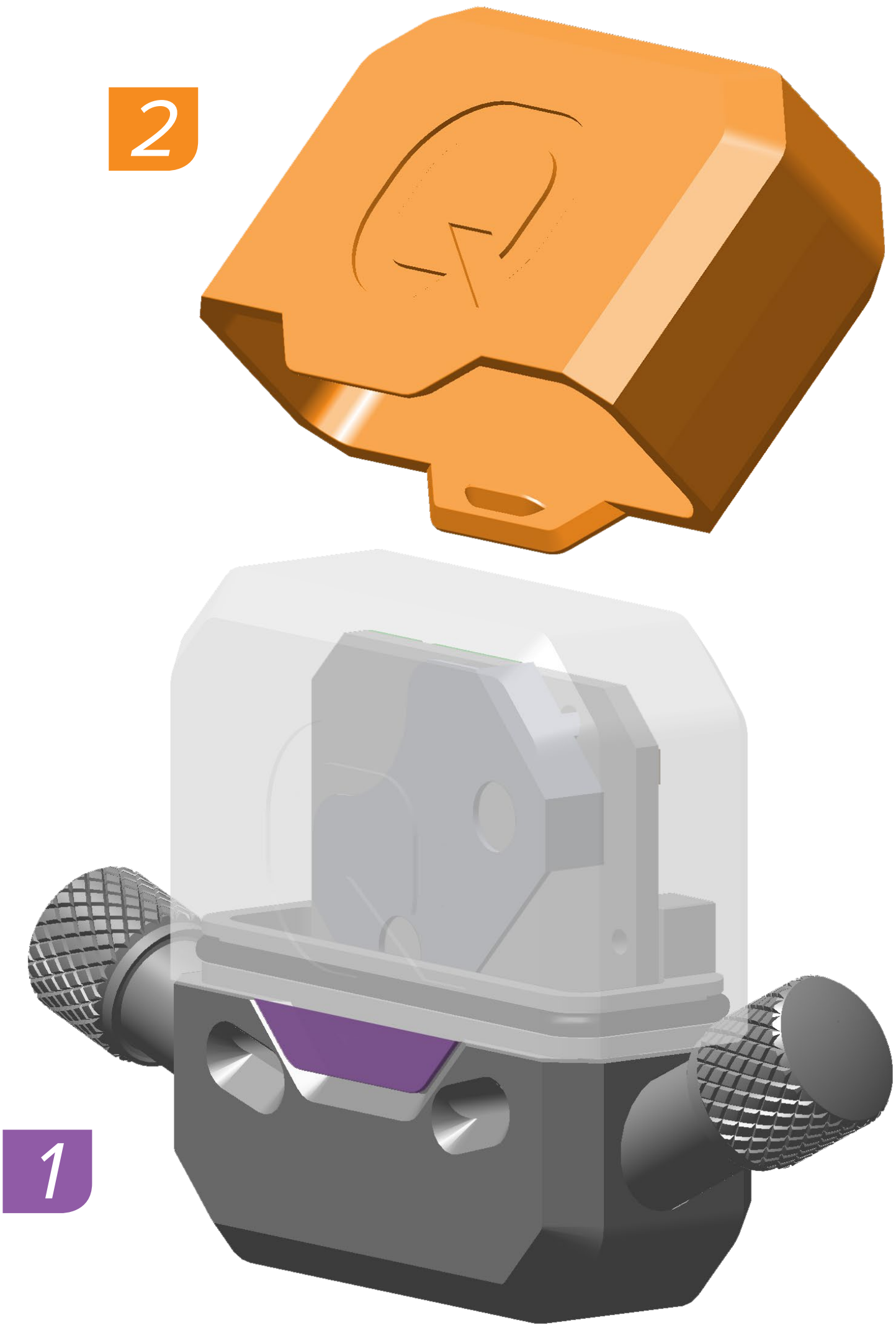
Keep the battery out of reach of children.

Do not put the battery in your mouth. If ingested, seek medical attention immediately.

Do not disassemble, damage, or puncture the battery.

Consult the battery manufacturer for safe handling instructions.

Remove Battery Cover



Gently lift one battery cover tab outward, then the other, and remove the battery cover from the ShockWiz™ body.

NOTICE

Do not use metal tools to pry the battery cover tab. Metal tools may damage the cover.

Install Battery

Insert a new CR2032 coin cell battery into the battery slot, terminal side in, positive side (+) out.

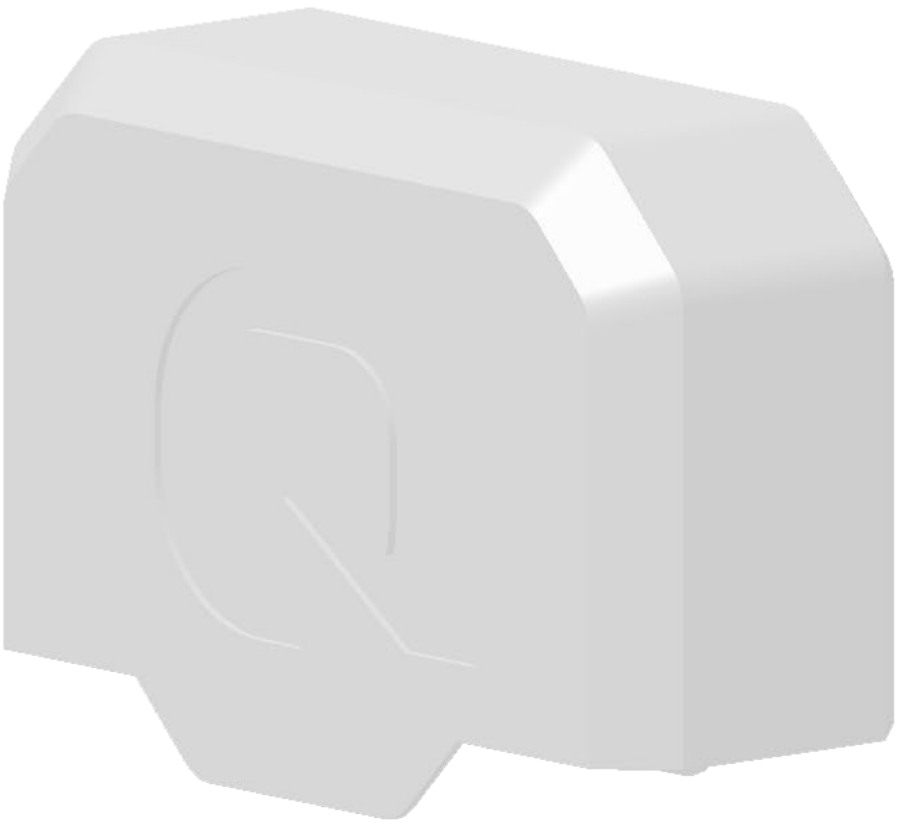
NOTICE

Do not remove the battery with conductive objects.

Positive Side

Terminal Side

Install Battery Cover



4

Install the battery cover onto the ShockWiz™ body. The cover is secure when the each tab snaps flat into place.

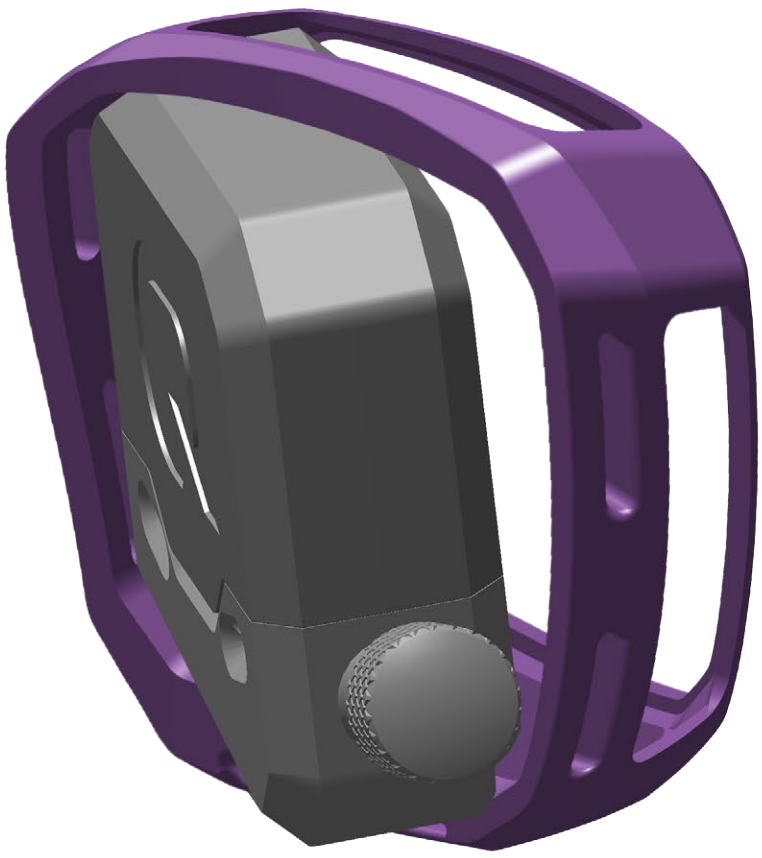
NOTICE

Ensure the battery cover o-ring seal is clean and in the groove around the ShockWiz body. Remove, clean, and reinstall the o-ring if it is contaminated.

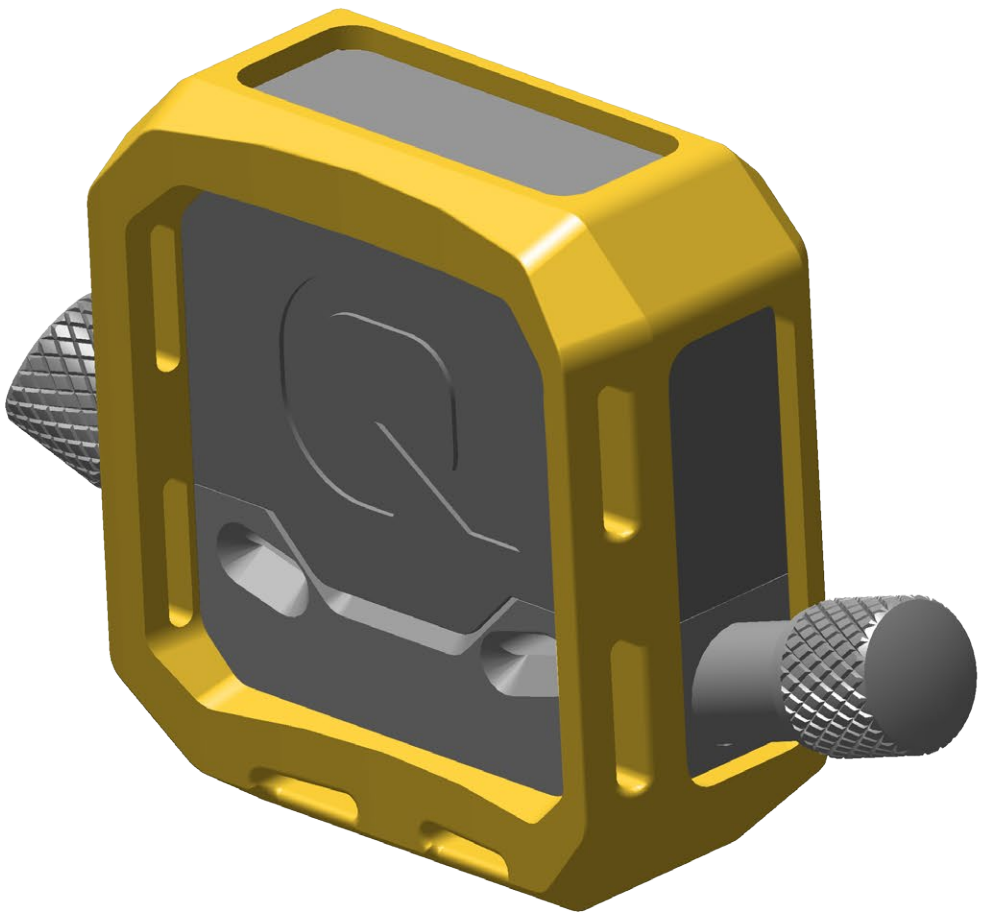
To avoid permanent damage caused by moisture, verify the battery cover is securely attached before use.

Mounting Boot Installation

1



2



Install the rubber mounting boot onto ShockWiz™ in the desired orientation.

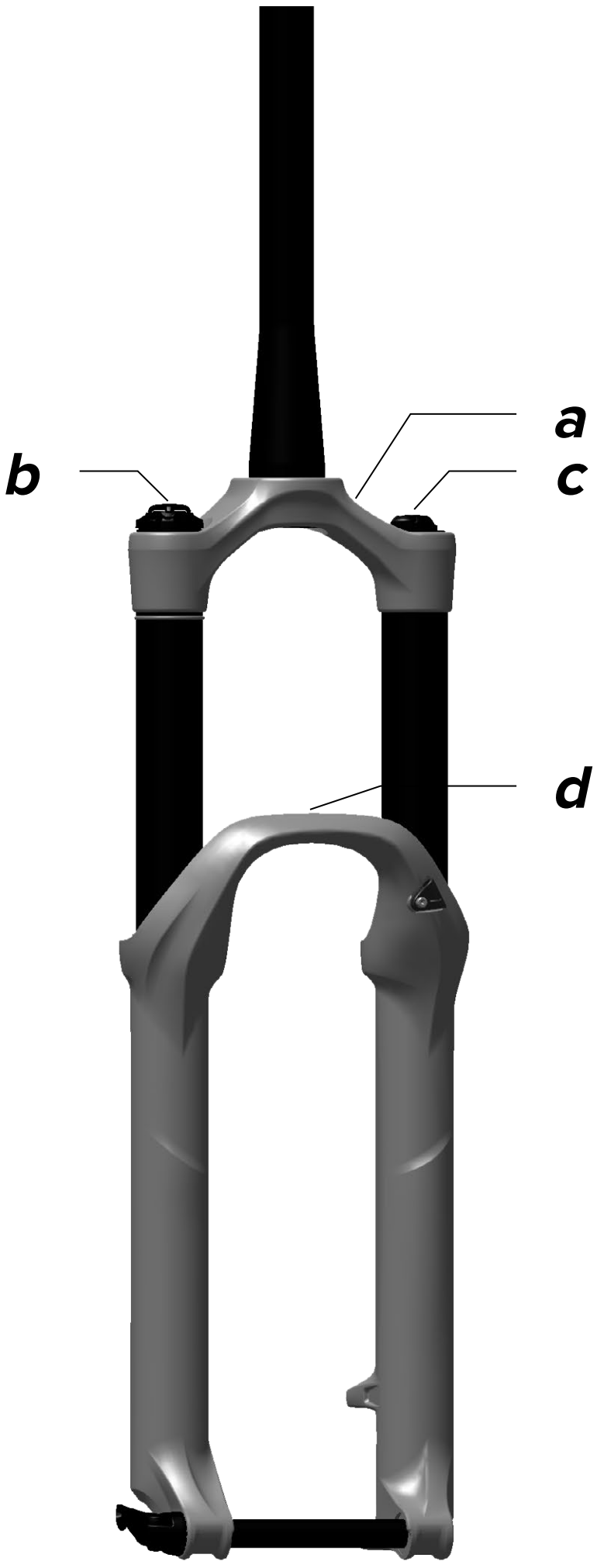
The rubber mounting boot can be installed onto ShockWiz in multiple orientations. Choose the orientation that best fits your suspension. It may be necessary to adjust the boot depending on suspension mounting orientation.

NOTICE

Failure to install the included protective rubber mounting boot onto ShockWiz may cause damage to the fork and/or rear shock.

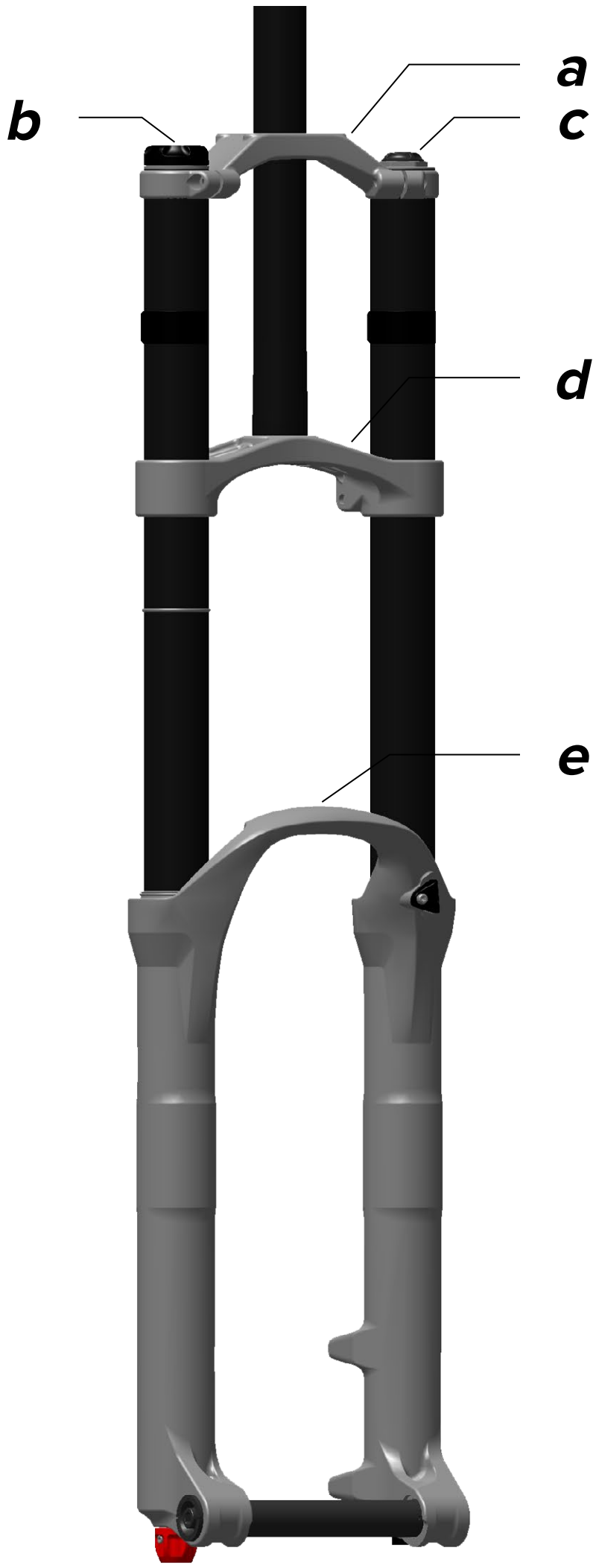
Front Suspension

Conventional Single Crown



a	Crown
b	Damper
c	Air spring inflation valve
d	Lower leg arch

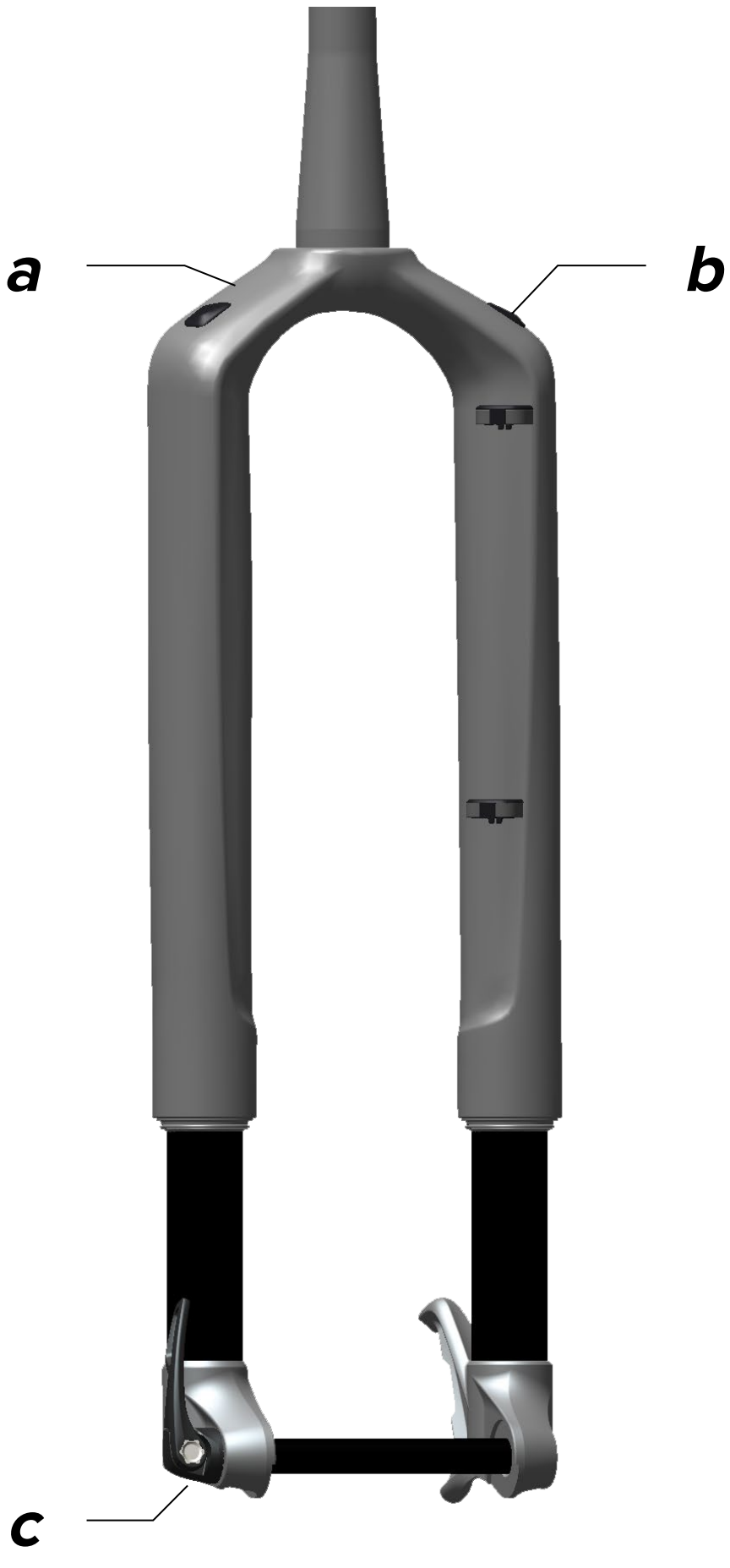
Conventional Dual Crown



a	Upper crown
b	Damper
c	Air spring inflation valve
d	Lower crown
e	Lower leg arch

Front Suspension

Inverted



a Upper Leg / Steerer Tube Assembly

b Damper

c Air spring inflation valve

Inverted fork designs vary. The air inflation valve may be on the drive or non-drive side. Refer to the suspension manufacturer for more information.

Attachment Locations

ShockWiz™ is not compatible with all air suspension forks.

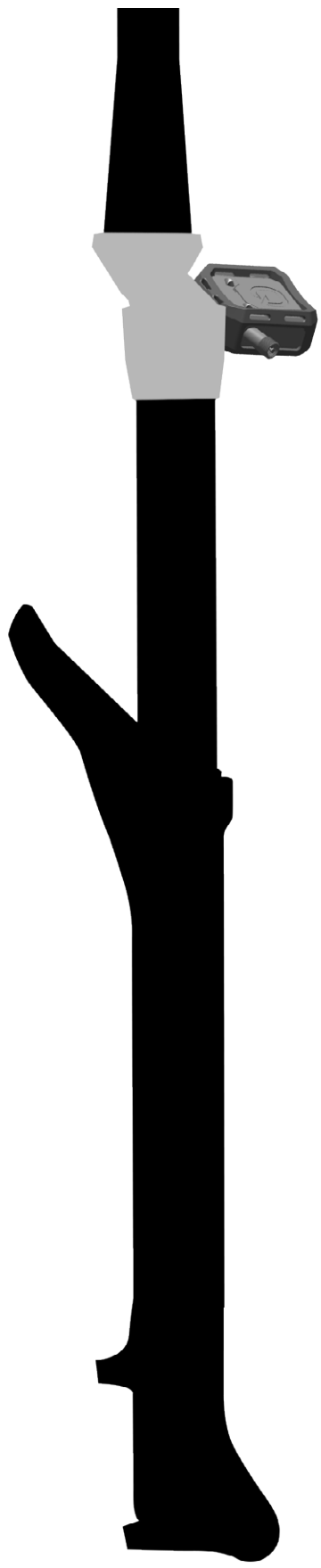
For more information, please visit www.shockwiz.com.

NOTICE

Do not attach ShockWiz to any part of the fork that moves **independent** of the air valve. ShockWiz must not contact the fork upper tube or any part of the fork that moves during compression. The hose cannot move when the fork is compressed.

Crown Mount - Front Arch

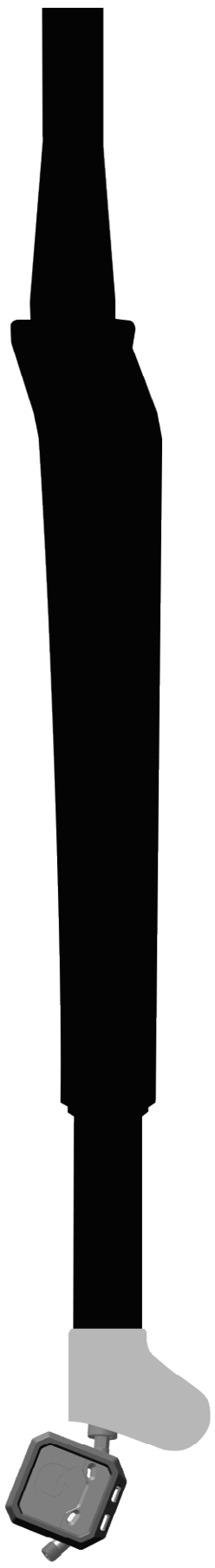
Crown Mount - Reverse Arch



Attachment Locations

Crown Mount - Dual Crown

Direct Mount - Inverted



Remove Air Caps

Standard ShockWiz

Direct Mount ShockWiz

Remove the air valve cap(s).

Remove Air Caps

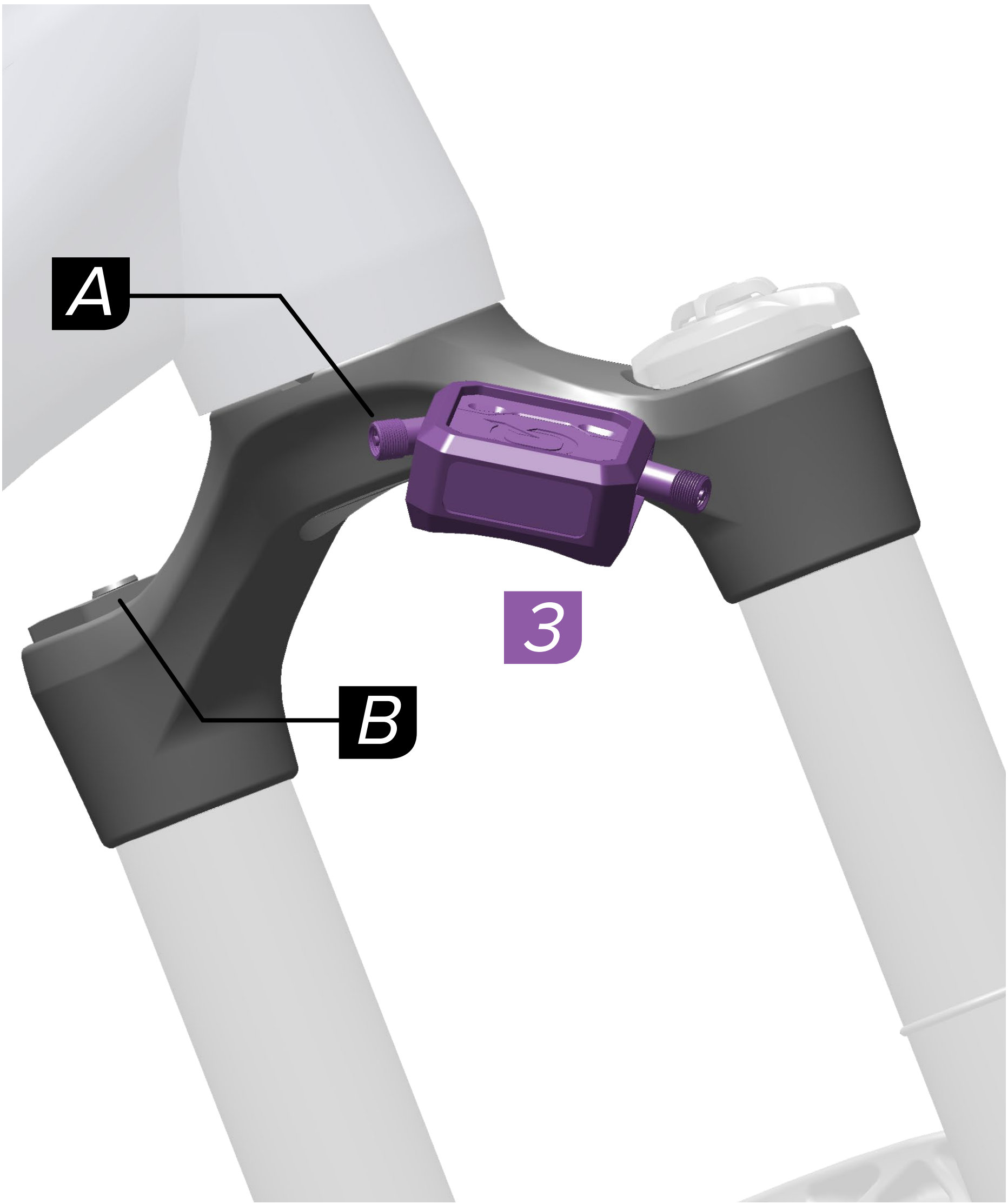
Crown Mount

Direct Mount (Inverted)

Remove the **positive** air inflation valve cap from the fork.

To continue with Direct Mount installation, proceed to Installation - Inverted.

Crown Mount Location



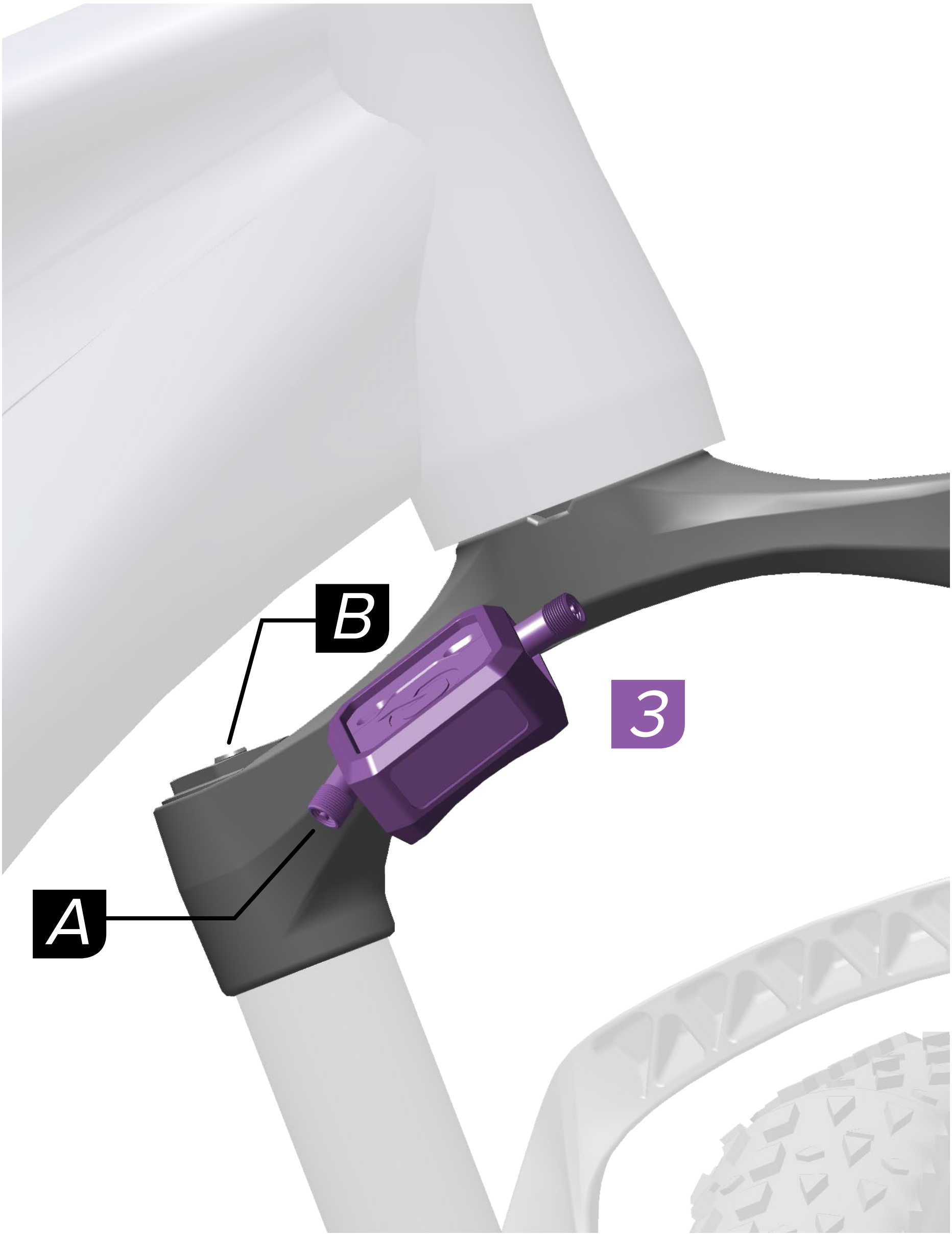
Front and Reverse Arch

Front Arch Forks: Position ShockWiz™ on the **back** of the fork crown, opposite the arch, on the damper side.

Reverse Arch Forks: Position ShockWiz on the **front** of the fork crown, opposite the arch, on the damper side.

Orient the optimal ShockWiz air valve (A) toward the fork air valve (B) for use with the long hose.

Crown Mount Location

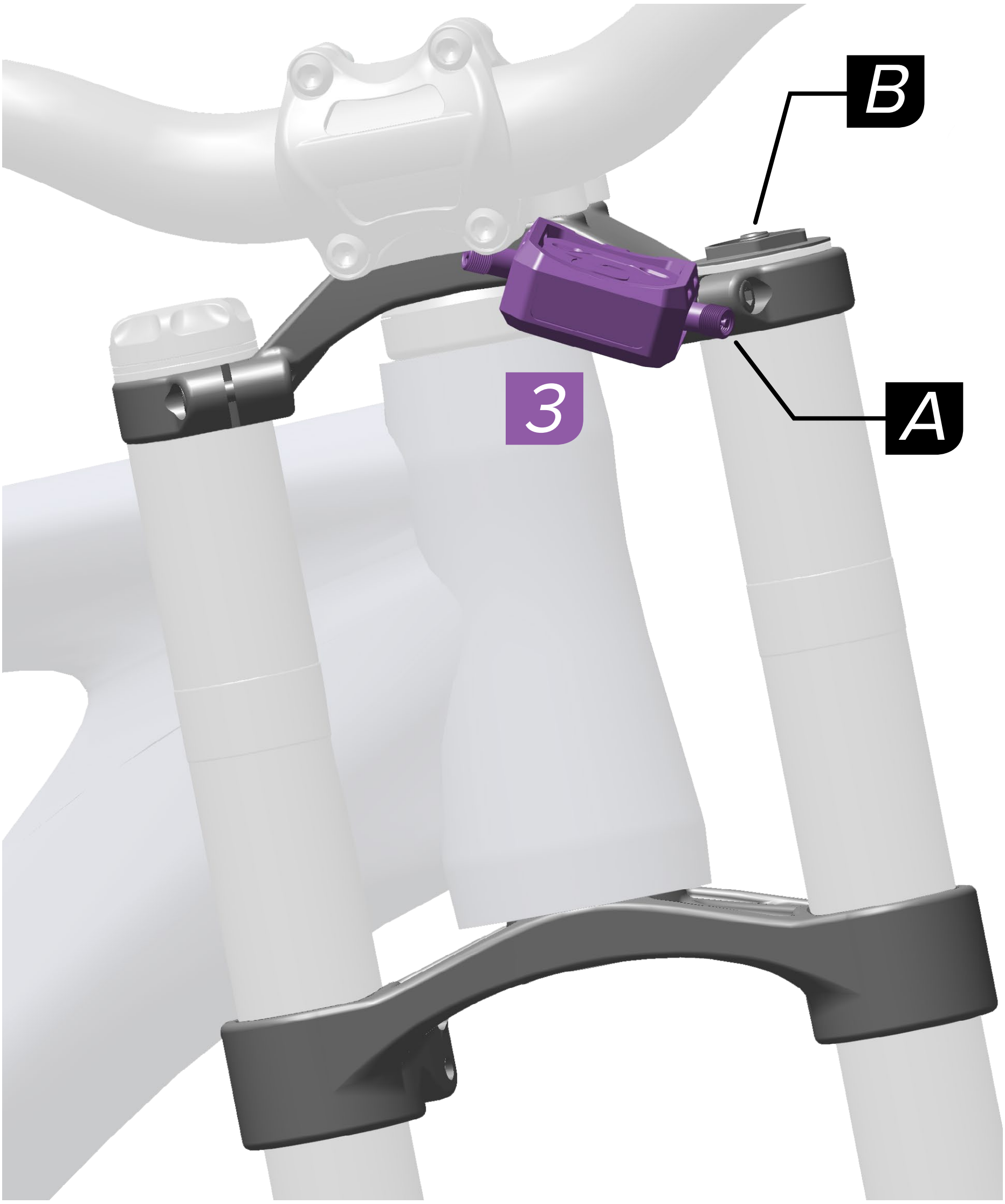


Front Arch - Fat Bike

Position ShockWiz™ on the **back** of the fork crown, opposite the arch, on the air inflation valve side.

Orient the optimal ShockWiz air valve (A) toward the fork air valve (B) for use with the short hose.

Crown Mount Location



Dual Crown

Position ShockWiz™ on the fork **upper crown** on either the damper or spring side.

ShockWiz can be attached to any location and in any orientation on the upper crown.

Orient the optimal ShockWiz air valve (A) toward the fork air valve (B) for use with the short hose.

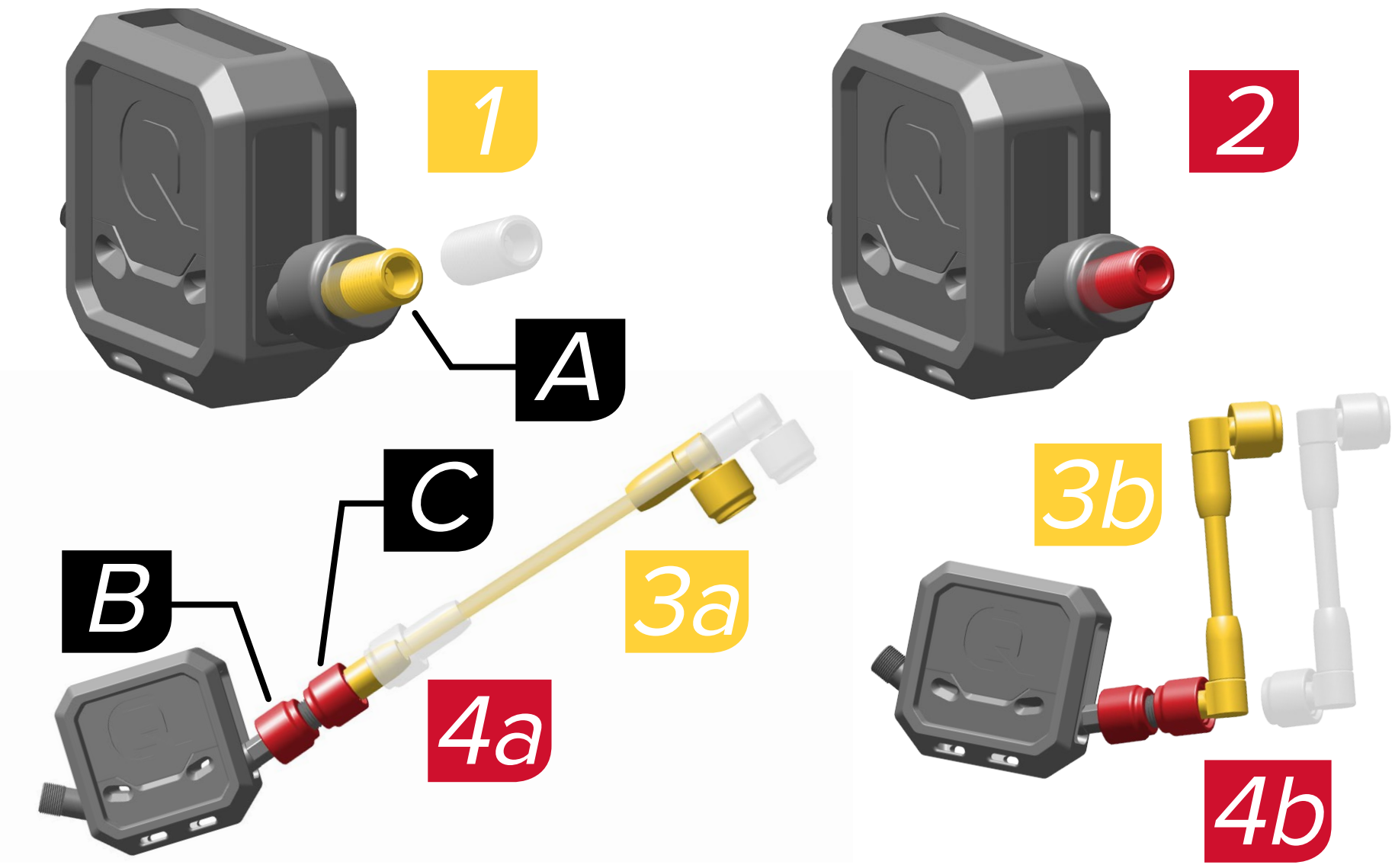
Hose Installation - Direct Mount

Standard ShockWiz: Proceed to ShockWiz Installation.

Install the Direct Mount Hose Adapter (A) when Direct Mount ShockWiz™ is used with a ShockWiz hose on conventional forks.

⚠WARNING

Use **only** Direct Mount ShockWiz **without** a hose on inverted forks. Use of Direct Mount ShockWiz with a hose on an inverted fork could cause a crash resulting in serious injury to the rider.



Thread one end of the adapter (A) into the ShockWiz Direct Mount coupler (B) and tighten hand tight.

Thread one hose coupler (C) onto the adapter and tighten both couplers hand tight. *Loose connections will cause air to leak.*

NOTICE

Do not use tools to tighten the hose coupler. Use of tools can damage the coupler and air valve.

ShockWiz Installation

Insert cable ties through the cable tie guide holes in the ShockWiz™ body.

ShockWiz Installation

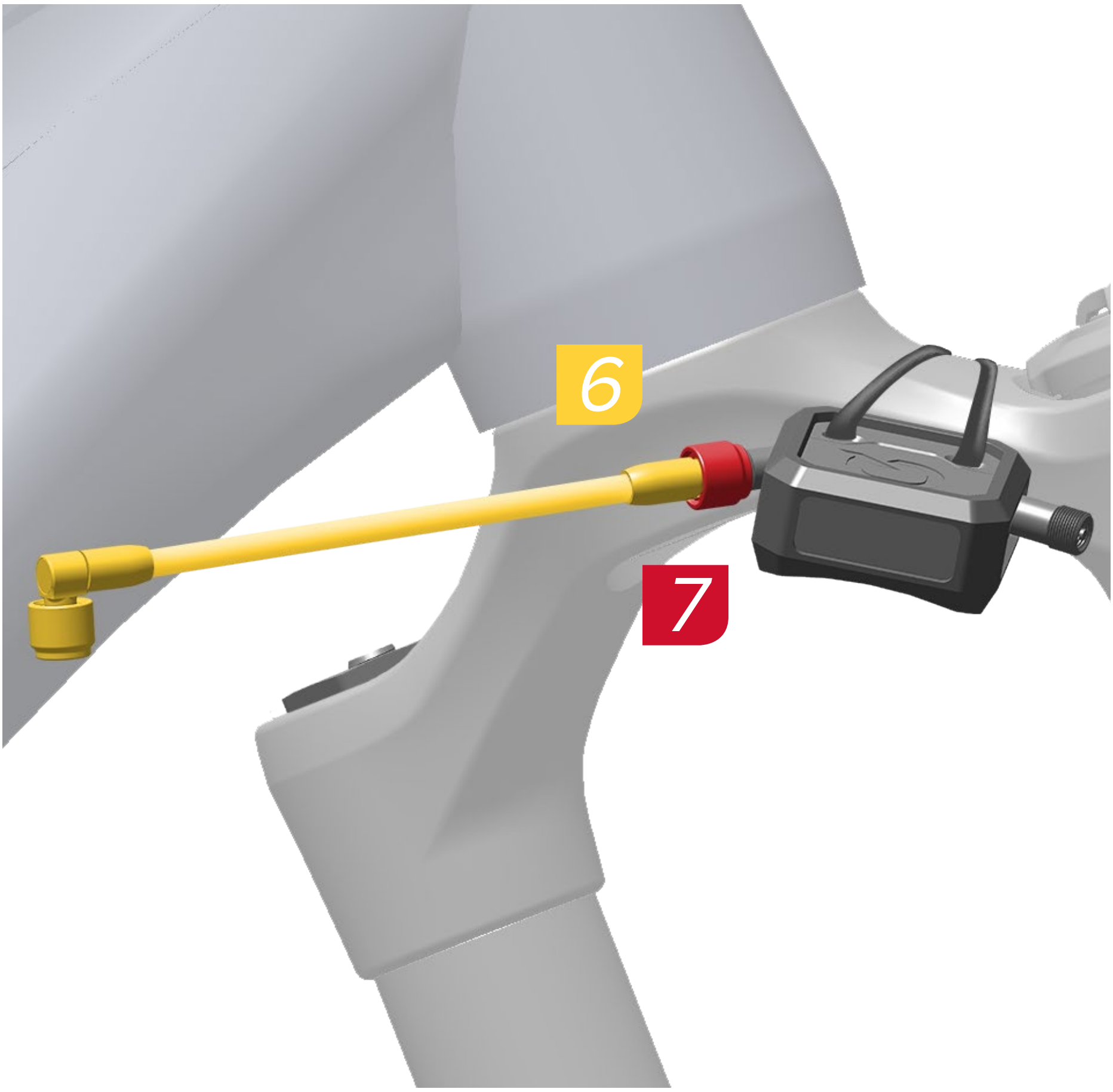
Affix ShockWiz™ tightly to the fork crown with the cable ties. The device should not move.

Cut the excess ends of the cable ties.

Follow the same process for ShockWiz mounted to the front or back of the fork crown.

Direct Mount: Hose installed (not pictured). Proceed to Hose Installation - Fork.

Hose Installation - ShockWiz



Thread one end of the hose assembly onto the ShockWiz™ air valve and tighten the hose coupler hand tight.

Loose hose connections will cause air to leak.

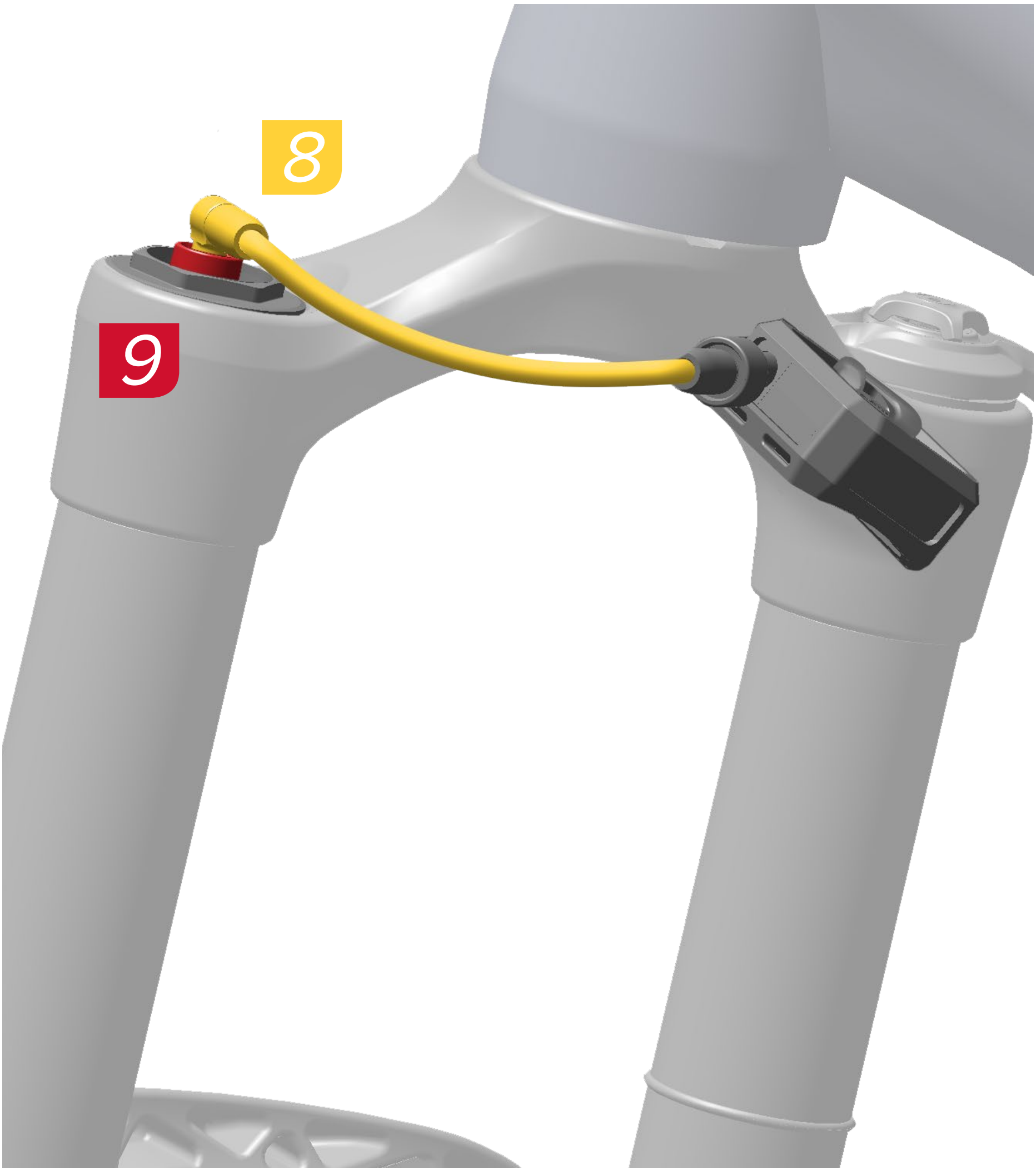
Install the short hose assembly (90° coupler x2) on Fat Bike and Dual Crown suspension forks.

**Compatible with short and long hose assemblies. Use the appropriate hose length with your fork.*

NOTICE

Do not use tools to tighten the hose coupler. Use of tools can damage the coupler and air valve.

Hose Installation - Fork



Thread the other hose coupler onto the fork air valve and tighten the hose coupler hand tight.

Loose hose connections will cause air to leak.

NOTICE

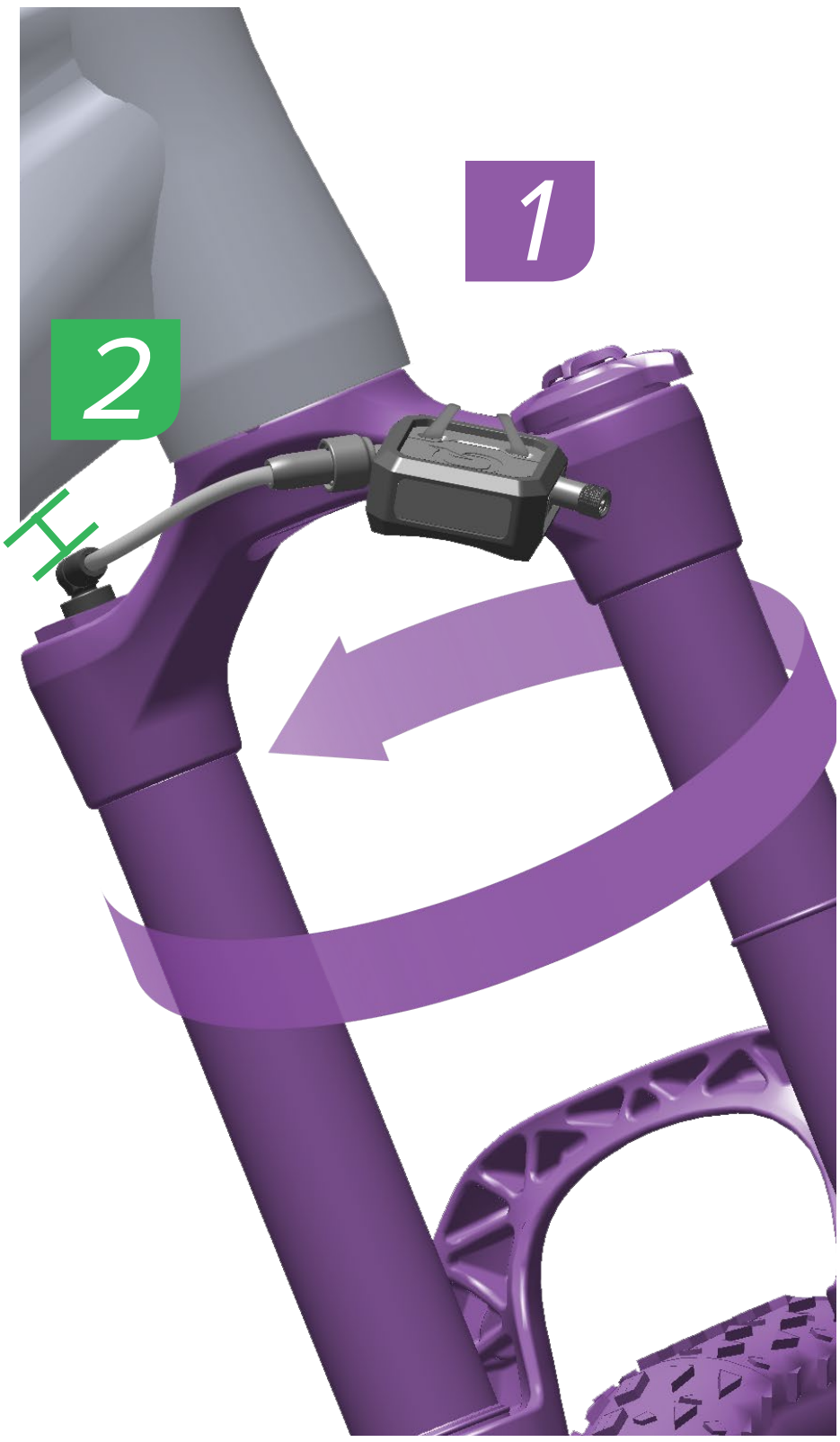
Do not use tools to tighten the hose coupler. Use of tools can damage the coupler and air valve.

Do not sharply bend or kink the ShockWiz™ hose. Sharp bends or kinks will damage the hose.

Check Clearance

⚠WARNING

ShockWiz™ must not contact the fork lower leg arch, fork upper tubes, bicycle frame, tire, components, or the rider during use. Contact while riding can cause ShockWiz to disconnect from the fork and could cause a crash resulting in serious injury to the rider.



Turn the handlebars to the left and right to confirm ShockWiz and the hose assembly do not contact the frame at any point during the full range of turning motion.

If ShockWiz or the hose assembly contacts the frame, adjust as needed.

Check Clearance

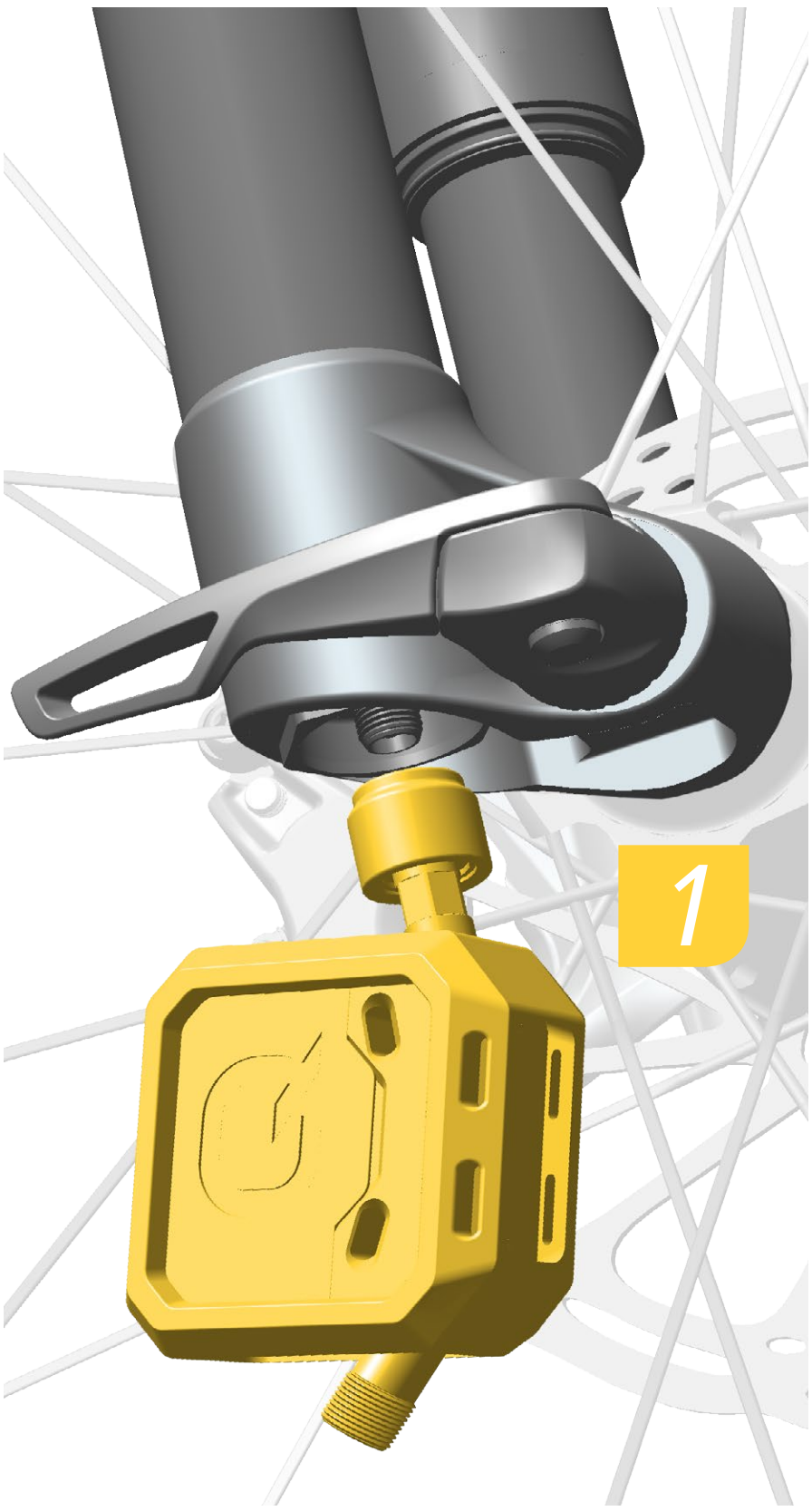
Single Crown Forks: Compress the fork to full bottom out and confirm ShockWiz™ does not contact the tire or fork lower leg.

If ShockWiz or the hose assembly contacts the frame, tire, or lower leg adjust as needed.

Installation - Inverted Fork

⚠WARNING

Use **only** Direct Mount ShockWiz™ **without** a hose on inverted forks. Use of Direct Mount ShockWiz with a hose on an inverted fork could cause a crash resulting in serious injury to the rider.



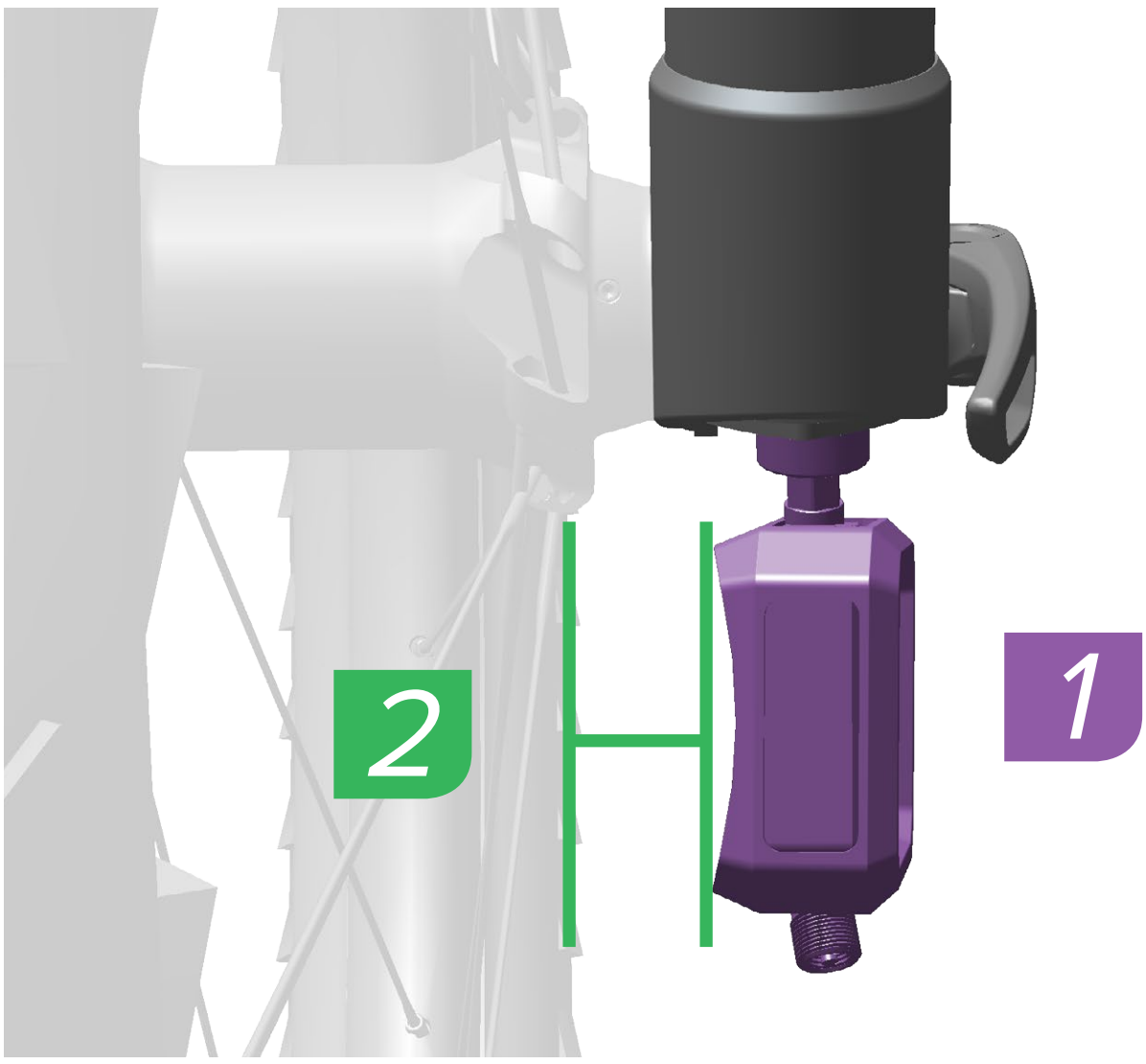
Thread the Direct Mount ShockWiz coupler onto the fork air valve and tighten it hand tight.

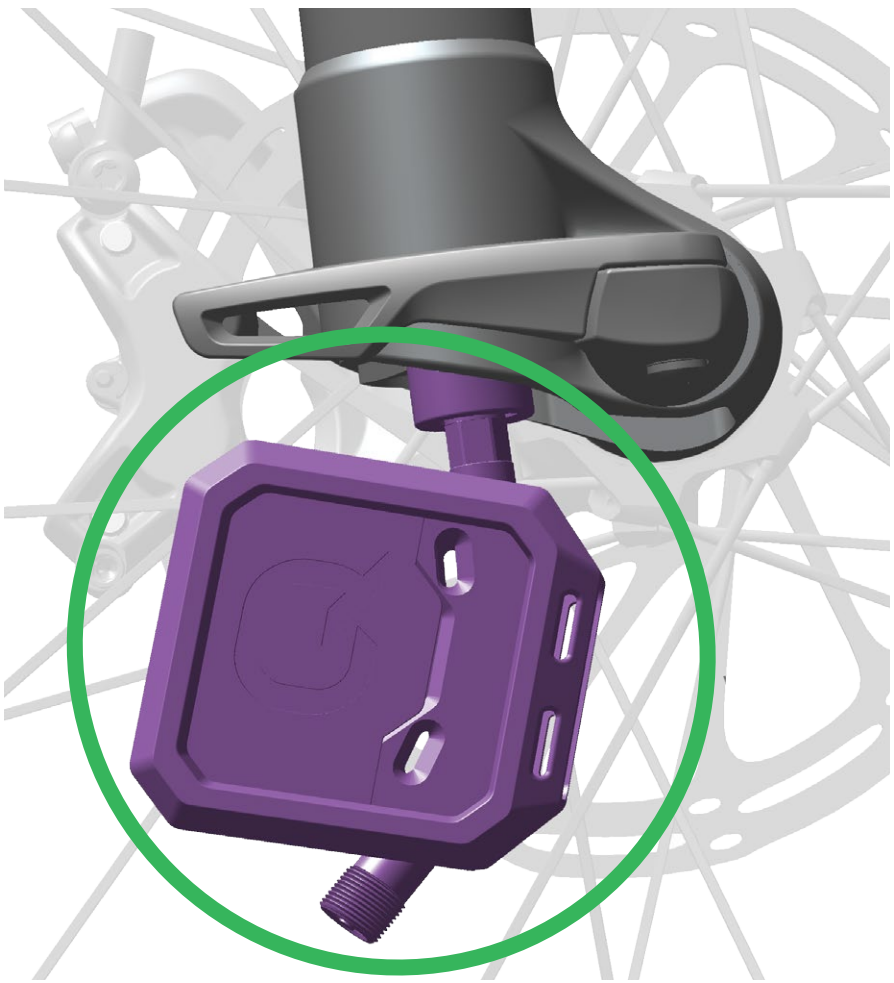
Loose connections will cause air to leak.

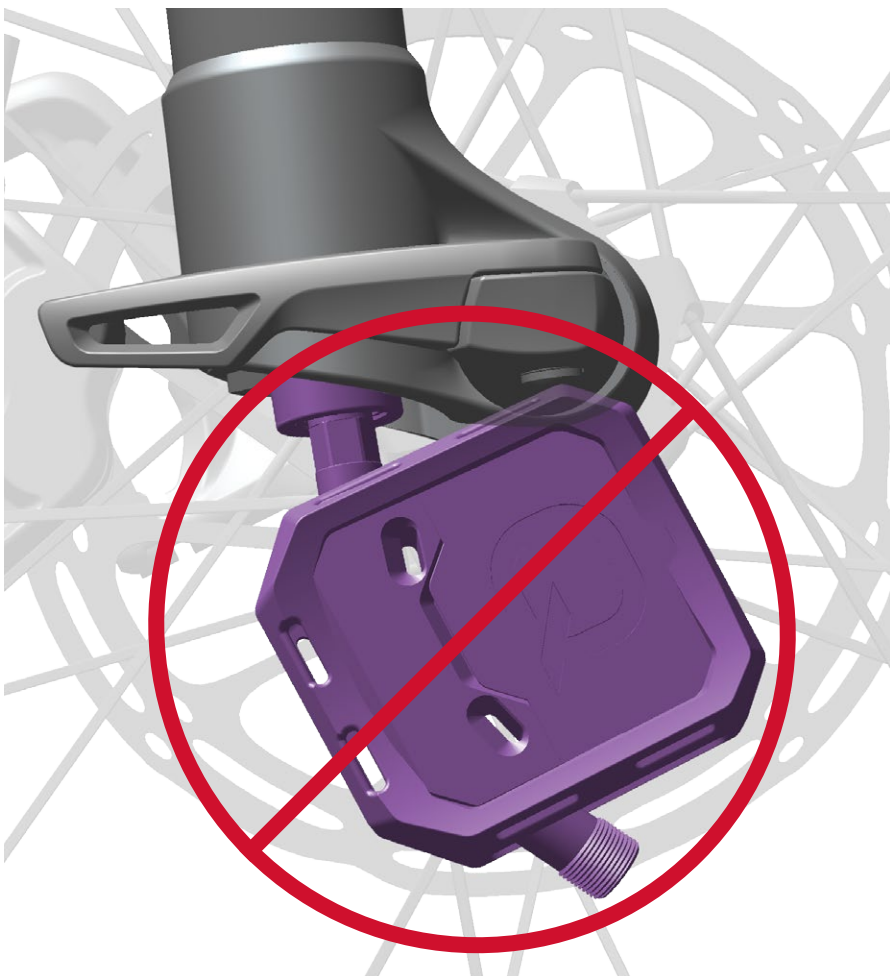
NOTICE

Do not use tools to tighten the hose coupler. Use of tools can damage the coupler and air valve.

Check Clearance







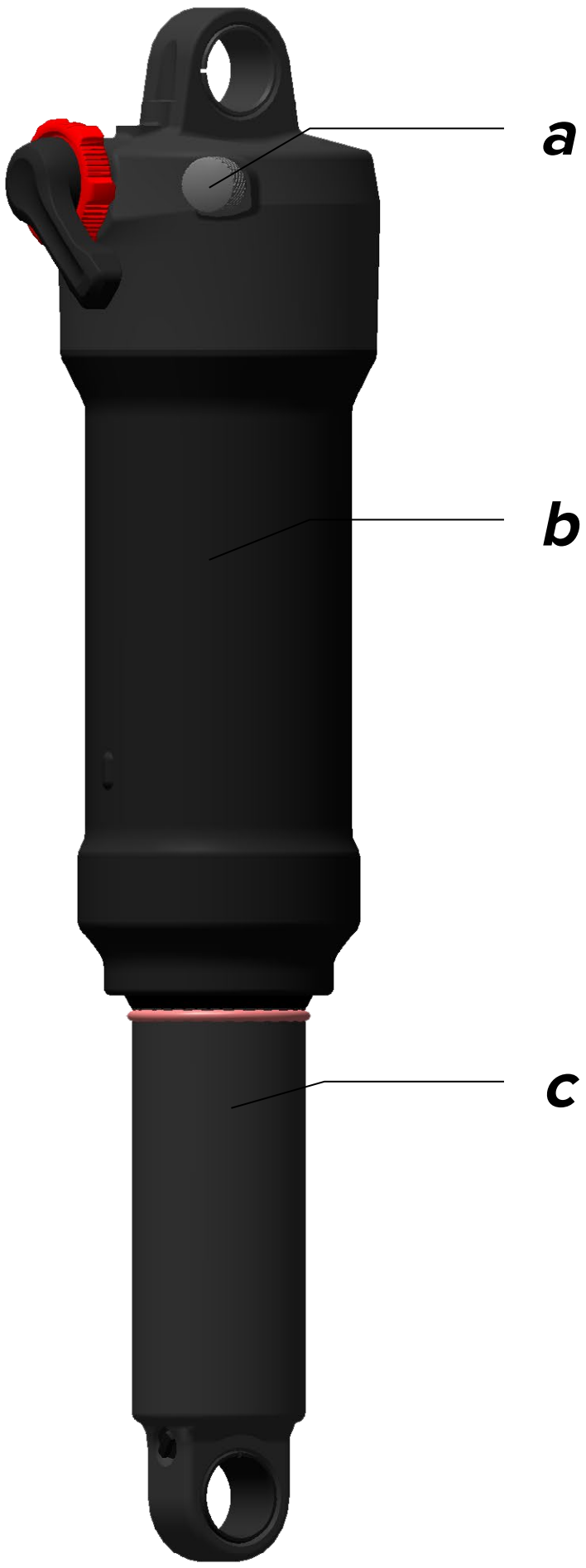
Rotate and orient ShockWiz™ **parallel** with the wheel. Confirm the coupler is tight and does not rotate during use.

⚠WARNING

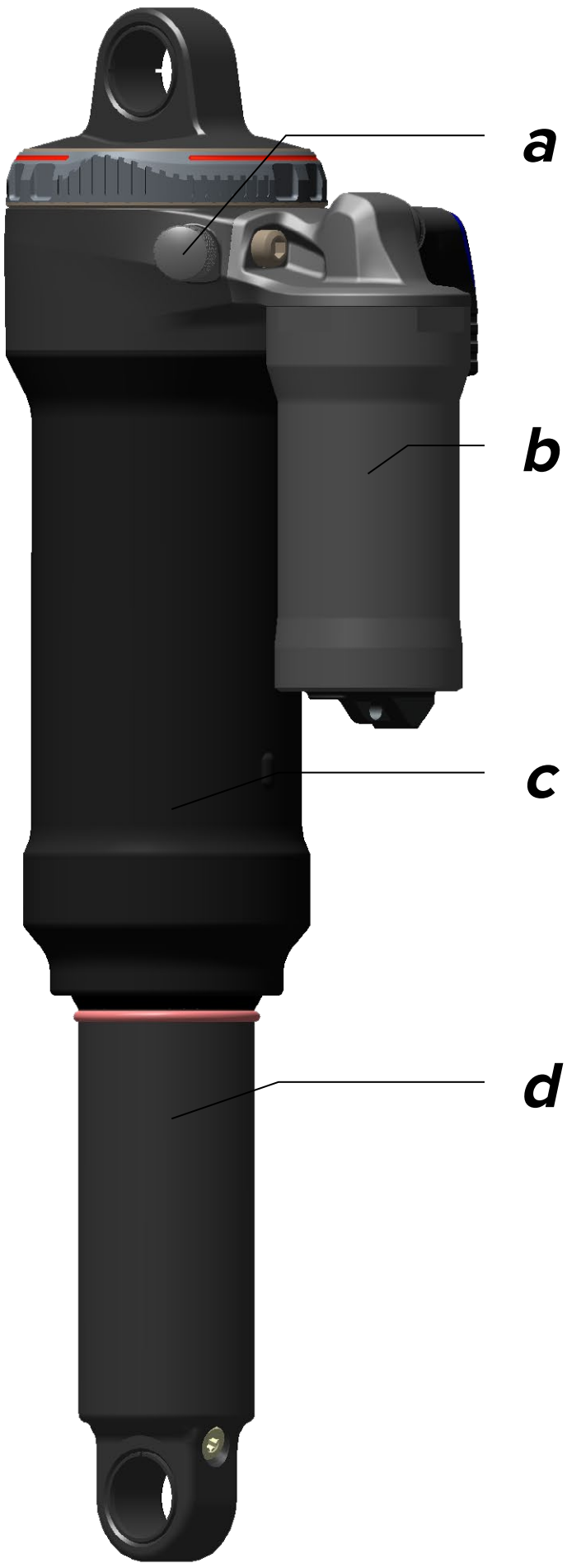
ShockWiz must not contact any part of the wheel. Contact while riding can cause ShockWiz to disconnect from the fork and could cause a crash resulting in serious injury to the rider.

Rear Suspension

Standard



Reservoir



a Air spring inflation valve
b Air Can
c Shock damper body

a Air spring inflation valve
b Reservoir
c Air Can
d Shock damper body

Attachment Locations

ShockWiz™ is not compatible with all air sprung rear shocks. For more information, please visit www.shockwiz.com.

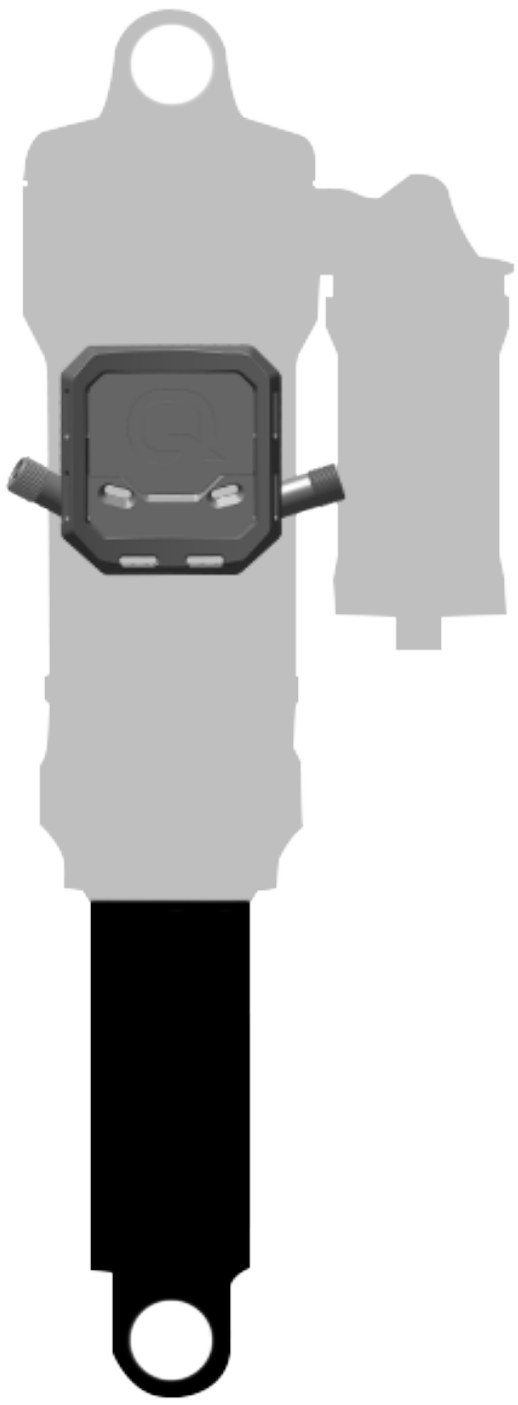
Attach ShockWiz to the rear shock air can nearest to the fixed air inflation valve.

NOTICE

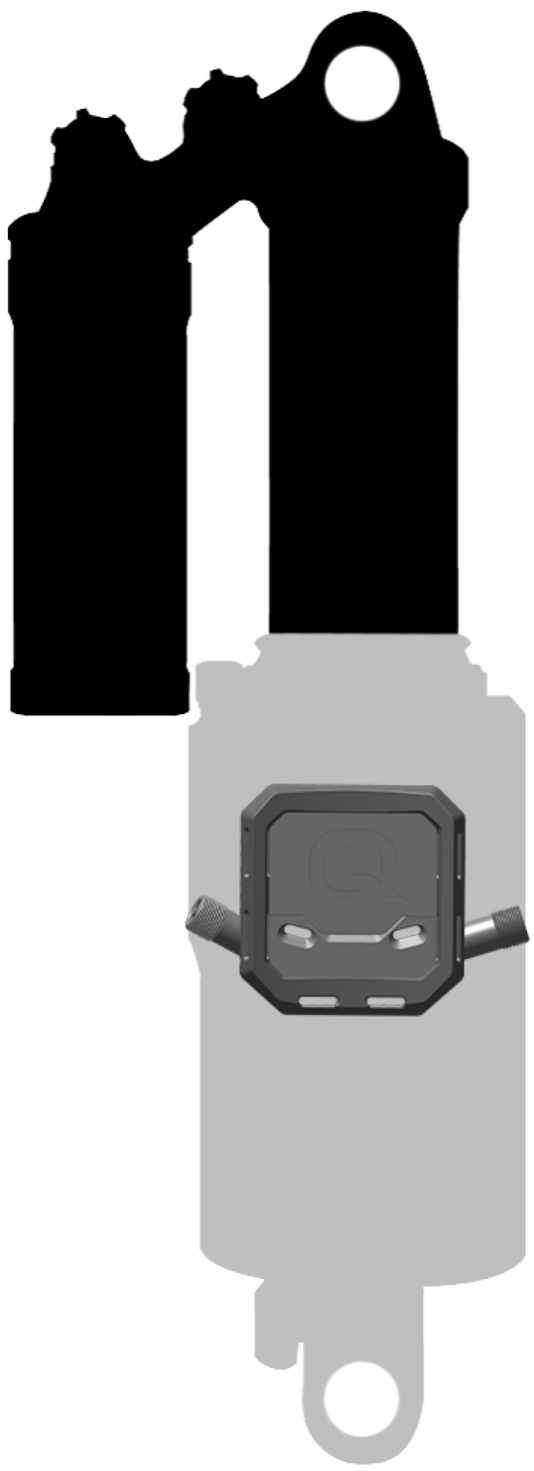
Do not attach ShockWiz to any part of the shock that moves **independent** of the air valve. ShockWiz must not contact the shock body or any part of the shock that moves during compression. The hose cannot move when the shock is compressed.

No Reservoir

Reservoir on Air Can



Reservoir on Damper Body



Remove Air Caps

Standard ShockWiz

Direct Mount ShockWiz

Remove the air valve cap(s).

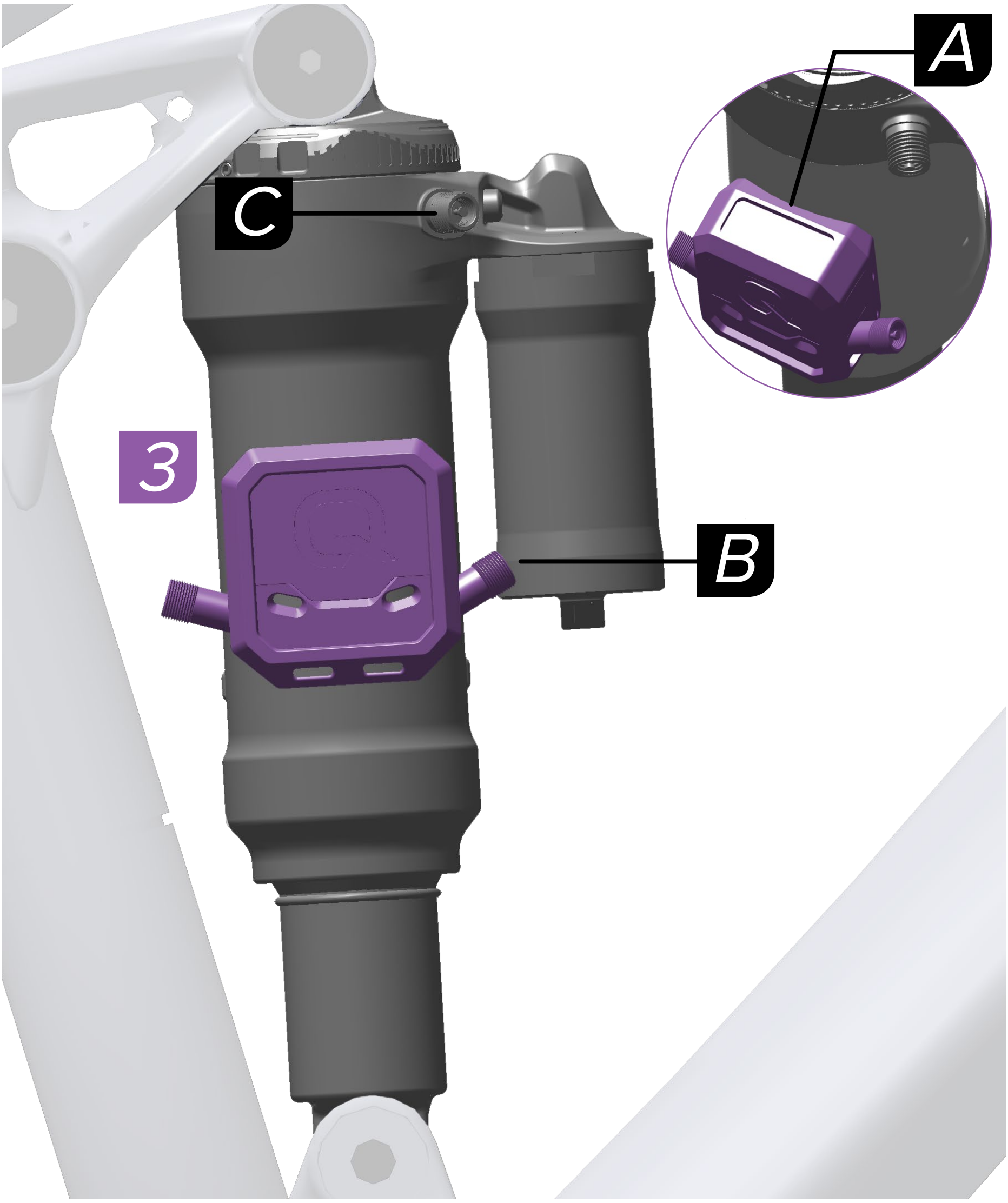
Remove Air Cap

Remove the **positive** air spring inflation valve cap from the rear shock.

NOTICE

Reservoir Rear Shocks: Do not remove the air valve cap from the shock reservoir. ShockWiz™ does not connect to the shock reservoir air valve.

Attachment Location



Position ShockWiz™ on the rear shock air can close enough to the rear shock air inflation valve to connect the hose.

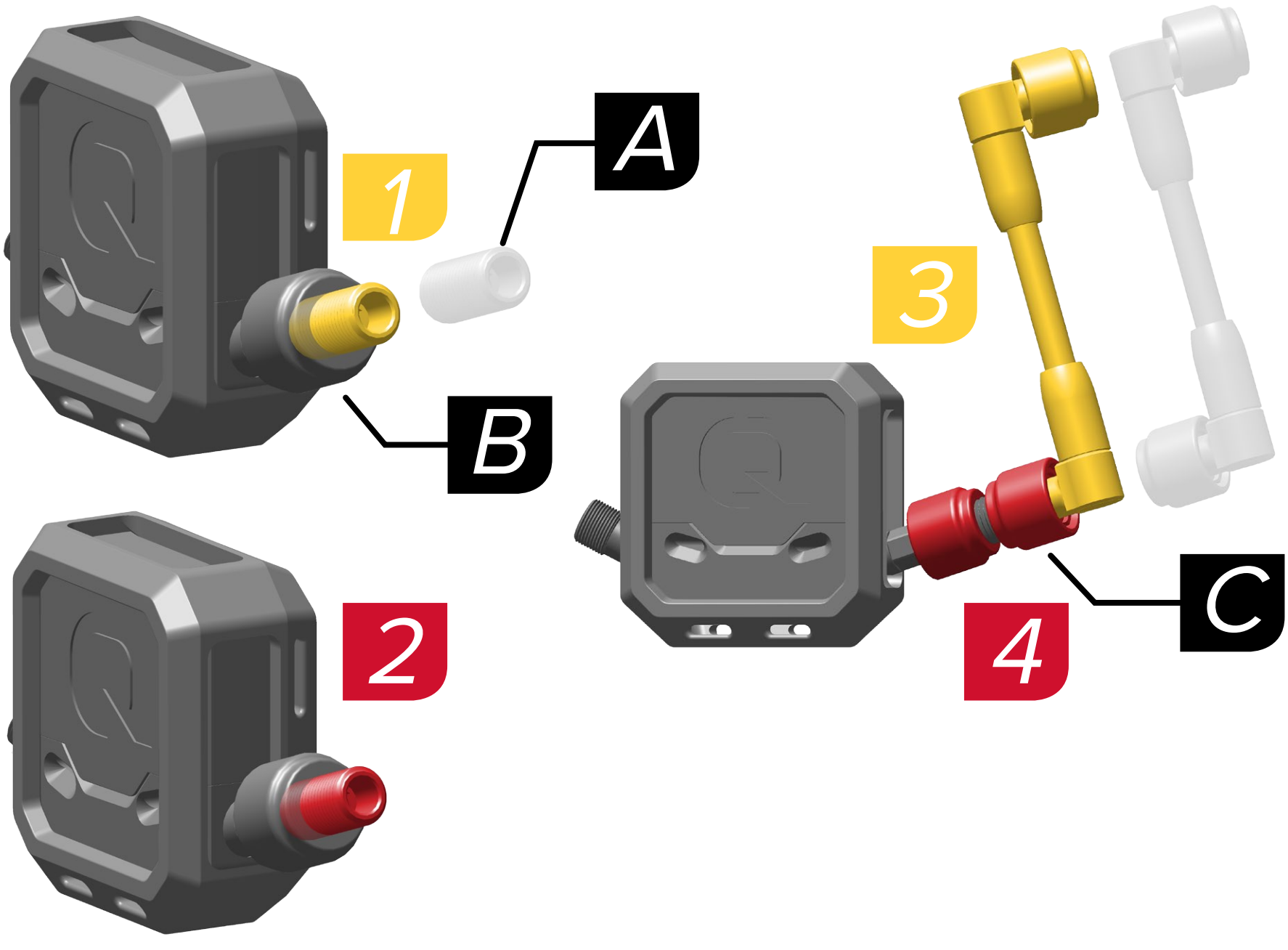
Orient the curved side (A) of the rubber mounting boot against the air can.

Orient the optimal ShockWiz air inflation valve (B) toward the shock air inflation valve (C).

Hose Installation - Direct Mount

Standard ShockWiz: Proceed to ShockWiz Installation.

Install the Direct Mount Hose Adapter when Direct Mount ShockWiz™ is used with a ShockWiz hose.



Thread one end of the adapter (A) into the Direct Mount coupler (B) and tighten hand tight.

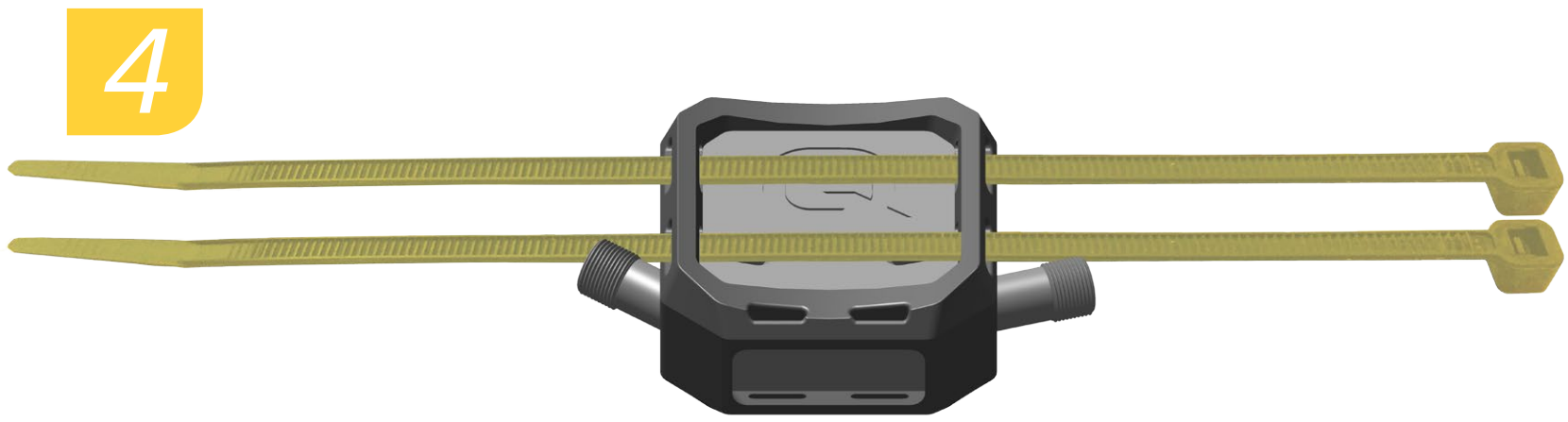
Thread the hose coupler (C) onto the adapter and tighten both couplers hand tight.

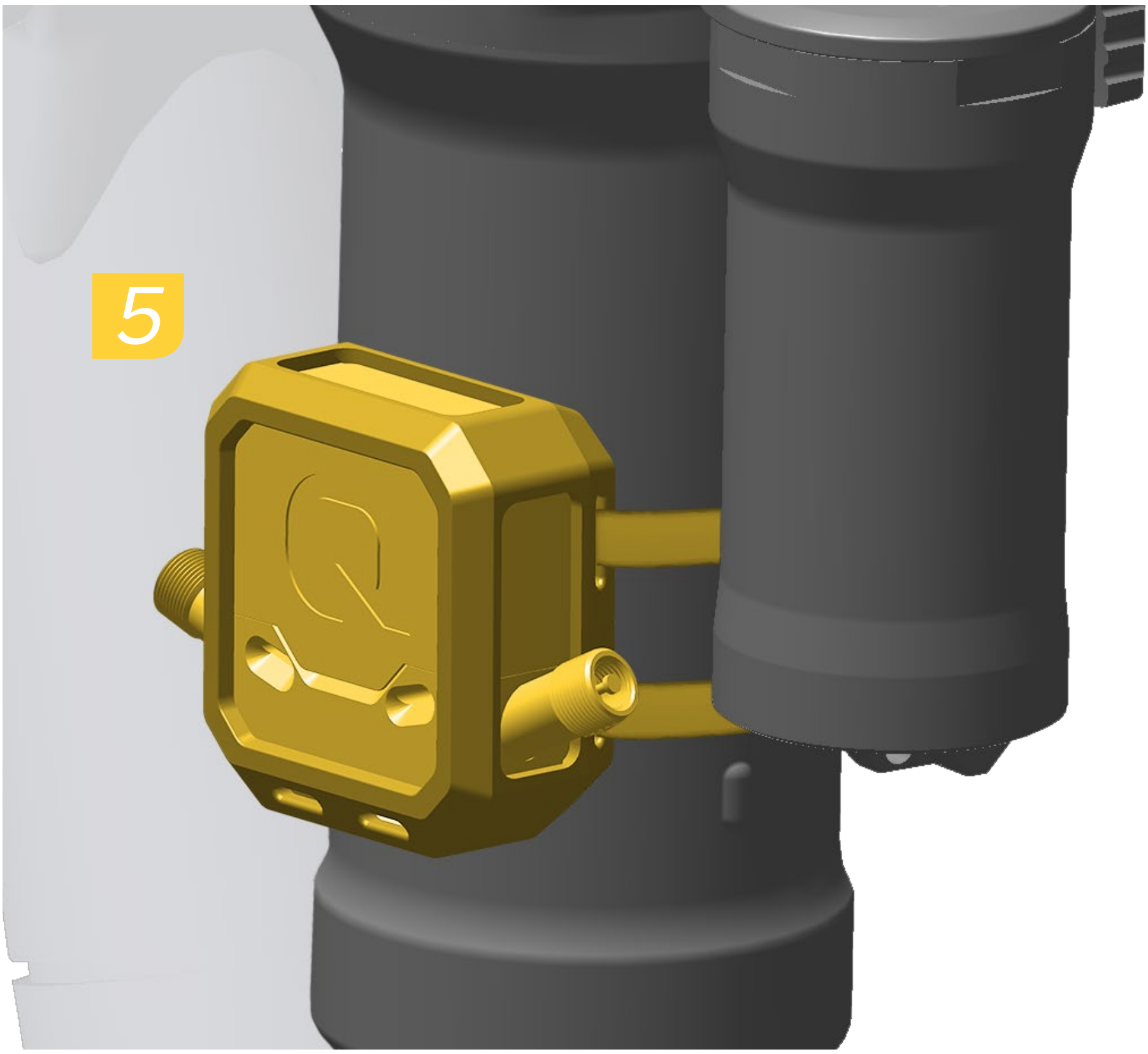
Loose connections will cause air to leak.

NOTICE

Do not use tools to tighten the hose coupler. Use of tools can damage the coupler and air valve.

ShockWiz Installation





Insert plastic cable ties through the guide holes on the curved side of the rubber mounting boot and affix ShockWiz™ tightly to the rear shock air can.

Cut the excess ends of the cable ties.

Direct Mount: Hose installed (not pictured). Proceed to Hose Installation - Shock.

Hose Installation - ShockWiz

Thread one end of the short hose assembly onto the ShockWiz™ air valve. Tighten the hose coupler hand tight.

Loose hose connections will cause air to leak.

NOTICE

Do not use tools to tighten the hose couplers. Use of tools can damage the coupler and air valve.

Hose Installation - Shock

Thread the other end of the hose assembly onto the rear shock air inflation valve. Tighten the hose coupler hand tight.

Loose hose connections will cause air to leak.

NOTICE

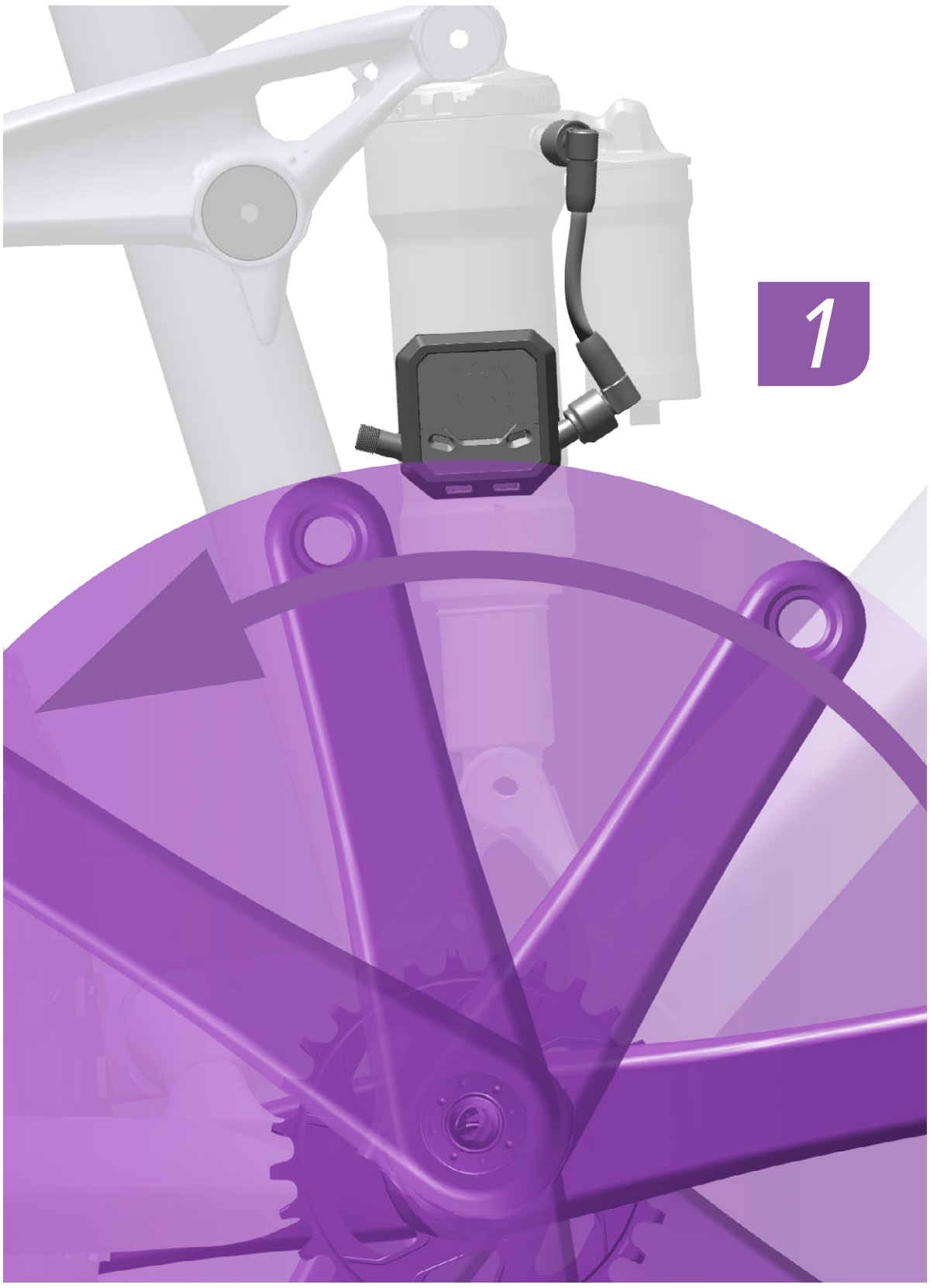
Do not use tools to tighten the hose coupler. Use of tools can damage the coupler and air valve.

Do not sharply bend or kink the ShockWiz™ hose. Sharp bends or kinks will damage the hose.

Check Clearance

⚠WARNING

ShockWiz™ must not contact the shock damper body, shock reservoir, bicycle frame, tire, components, or the rider during use. Contact while riding can cause ShockWiz to disconnect from the shock and could cause a crash resulting in serious injury to the rider.



Fully compress the shock, rotate the crank backward, and confirm ShockWiz does not contact the frame, crank arm, components, or the rider.

If ShockWiz, or the hose assembly make contact, adjust as needed before use.

ShockWiz App Set Up

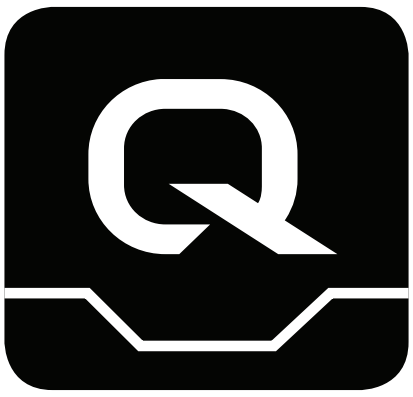
ShockWiz™ must be on to connect to the app.

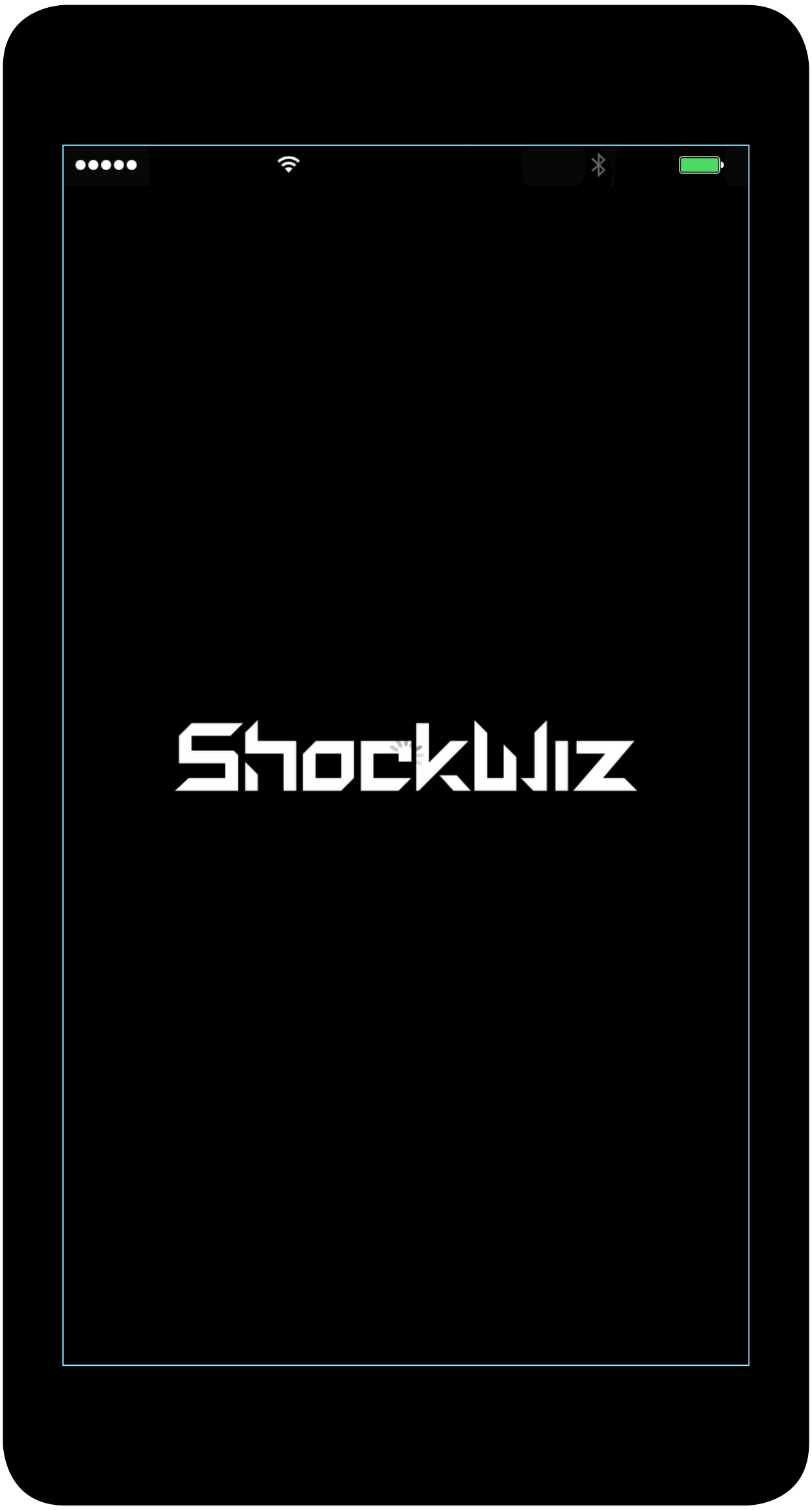
ShockWiz is motion-activated. Bounce the wheel to turn ShockWiz on.

A flashing LED on one side of the device will indicate ShockWiz is on.

ShockWiz will turn off automatically when idle for 10 minutes.

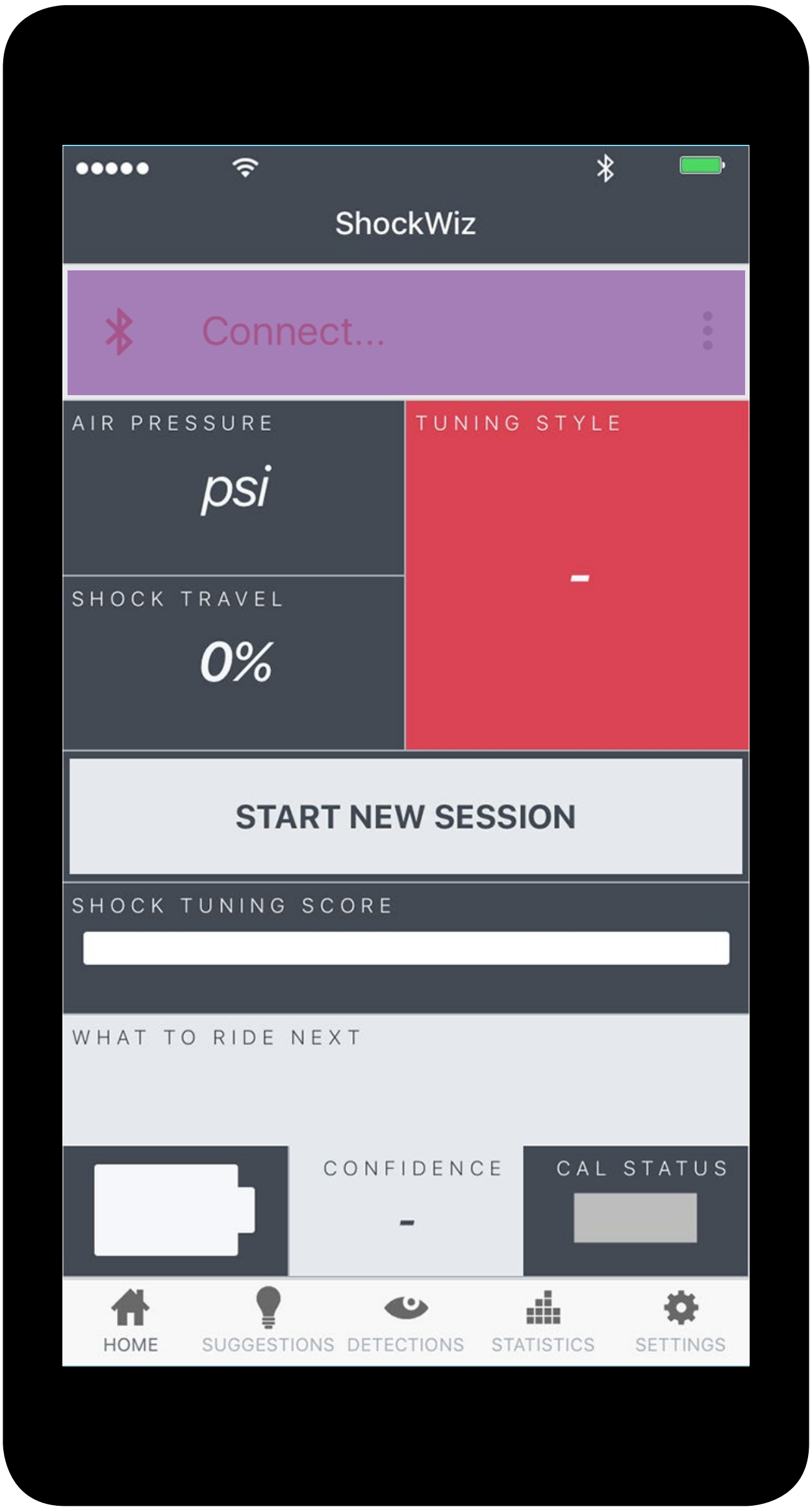
Connect to App





Open the ShockWiz™ App.

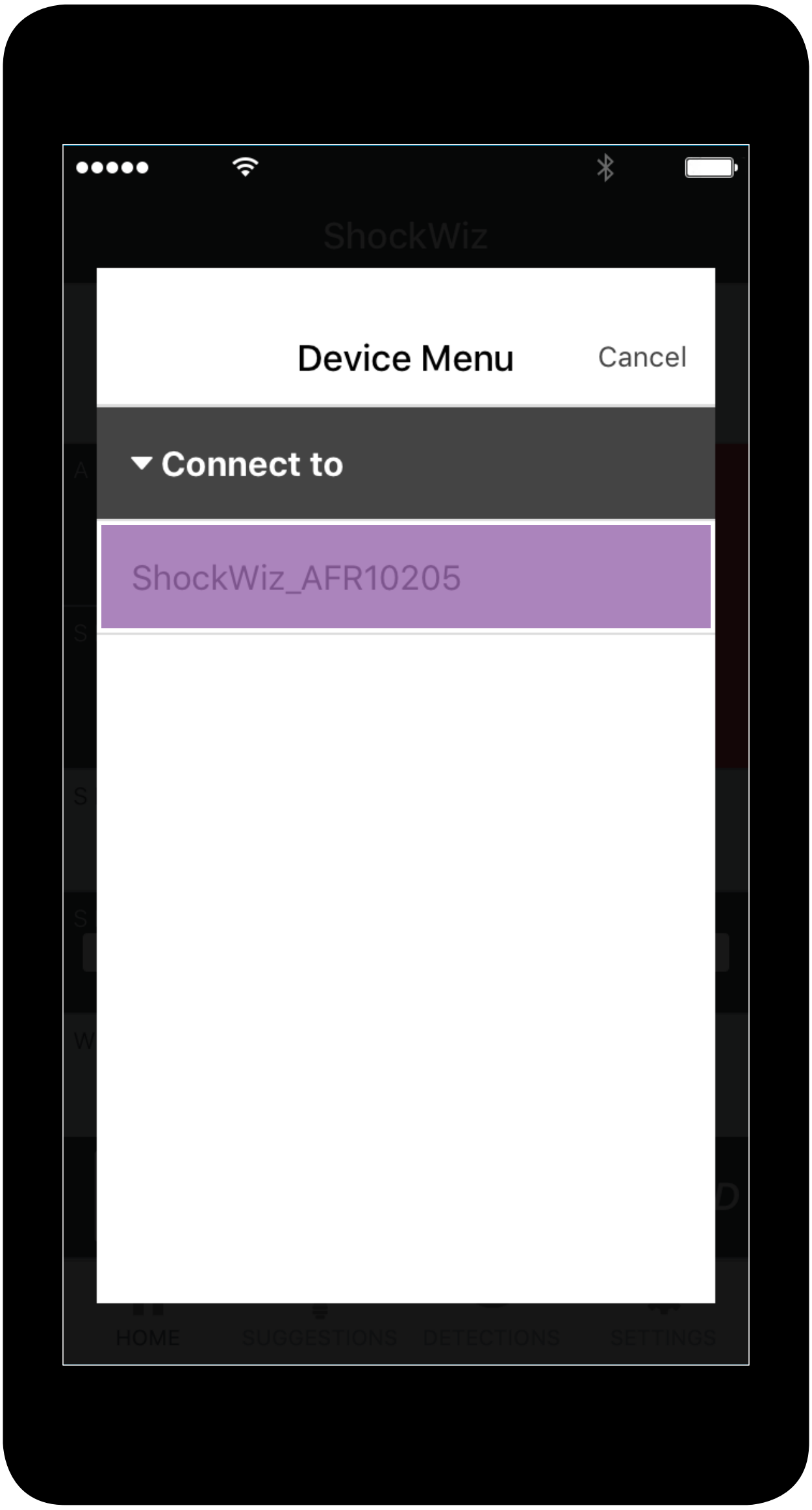
Connect to App



From the **Home** screen, select **Connect**.

Bluetooth® must be activated on your smartphone or tablet.

Connect to App

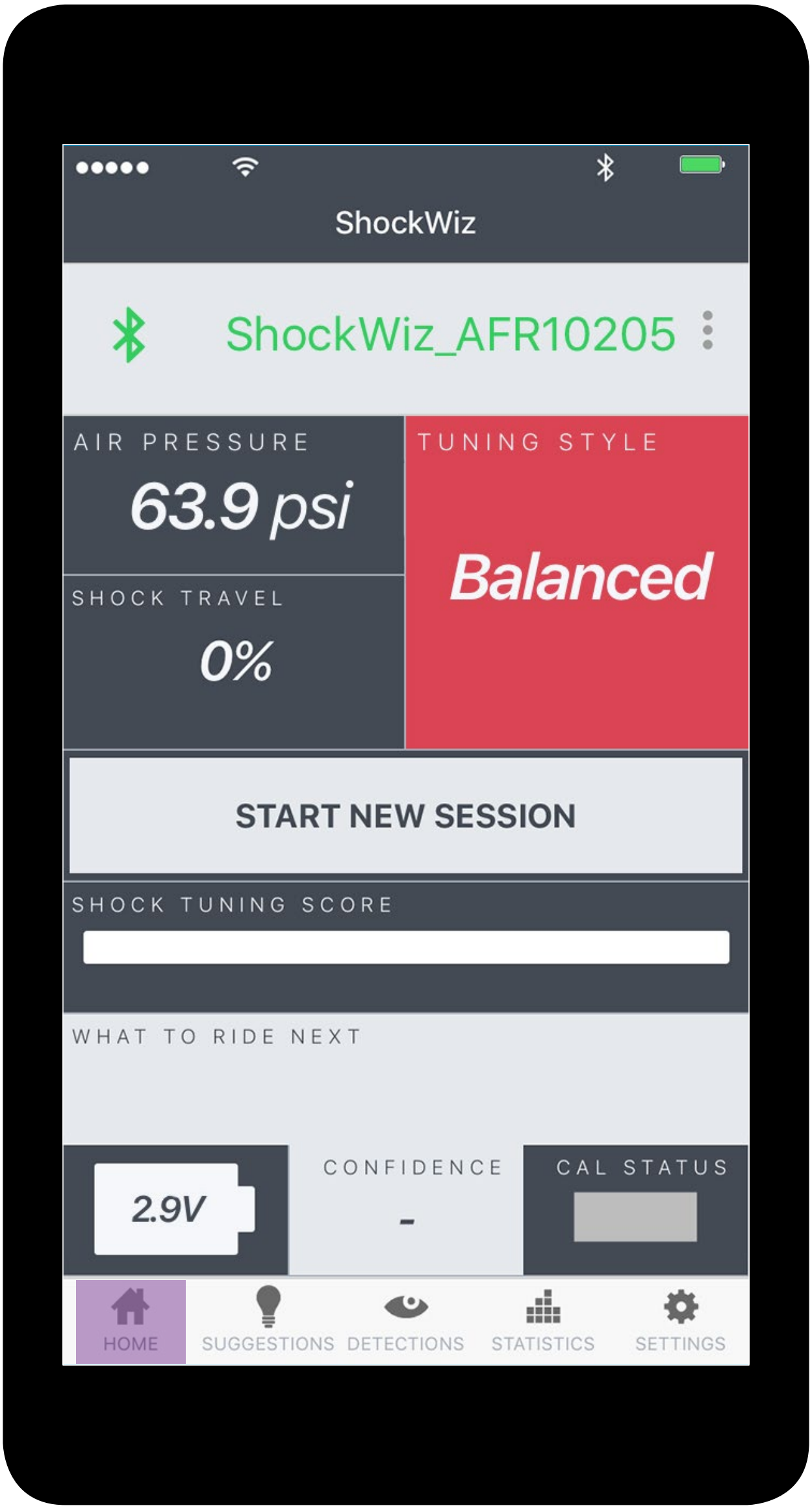


Select your ShockWiz™.

For first time use the device name will appear as: **ShockWiz_Serial Number**.

The serial number is printed on the ShockWiz device.

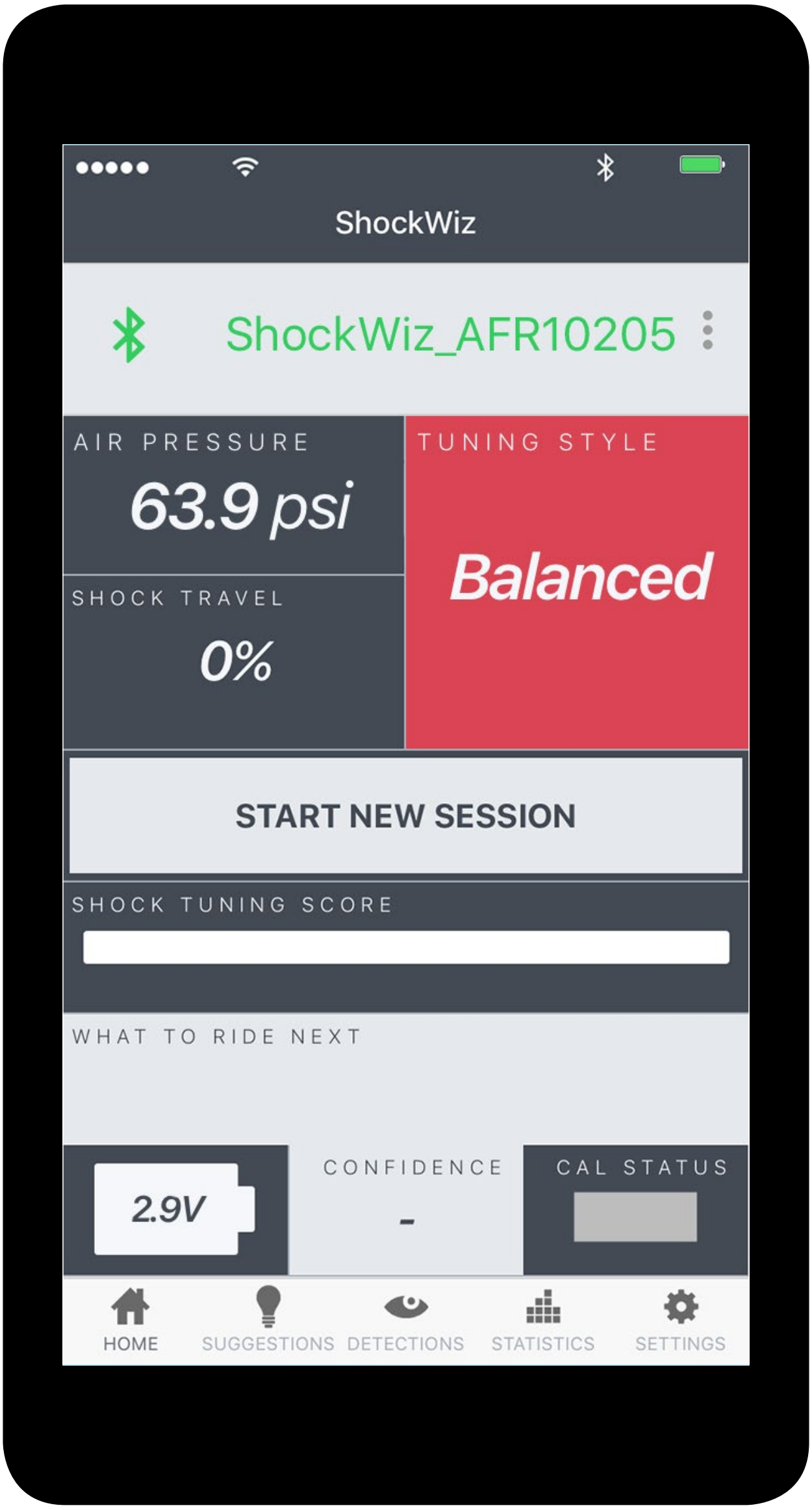
Connect to App



When ShockWiz™ is connected with the app, the **Home** screen will display information from the device.

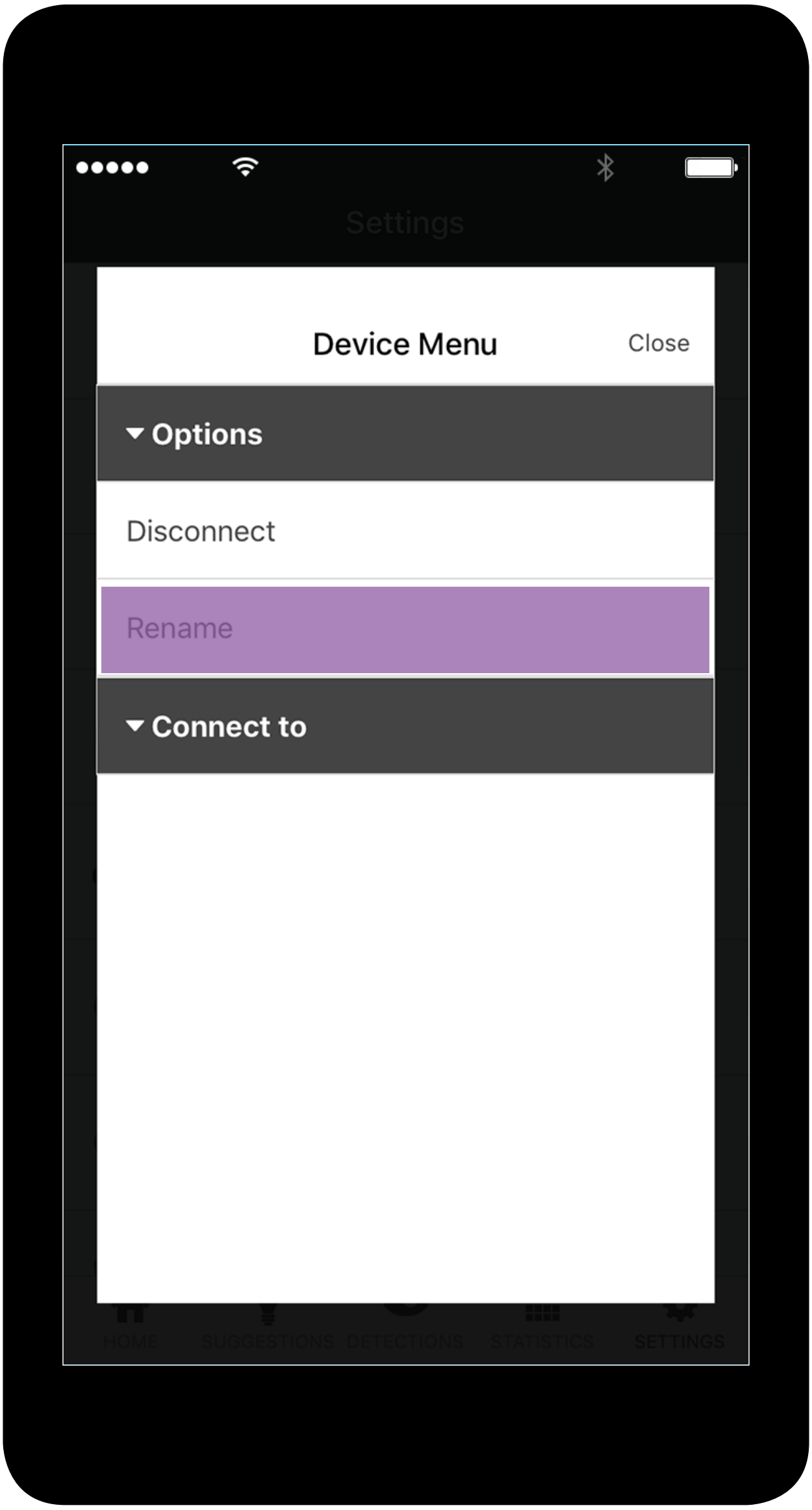
Air Pressure *and* ***Shock Travel*** *readings may fluctuate slightly when the bike is idle. This is normal.*

Rename Device



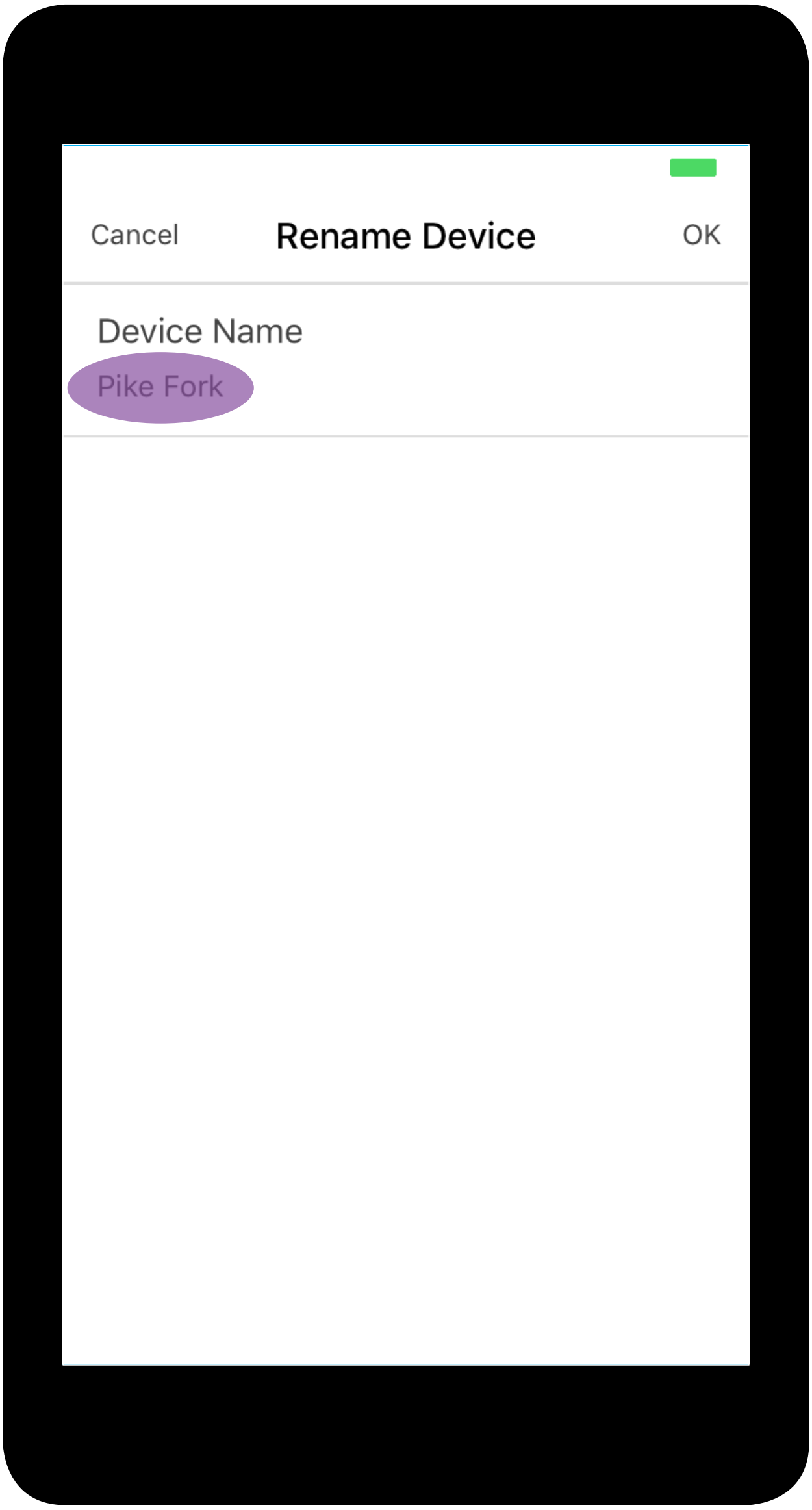
To rename the device, select the connected ShockWiz™ device in green.

Rename Device



Select **Rename**.

Rename Device

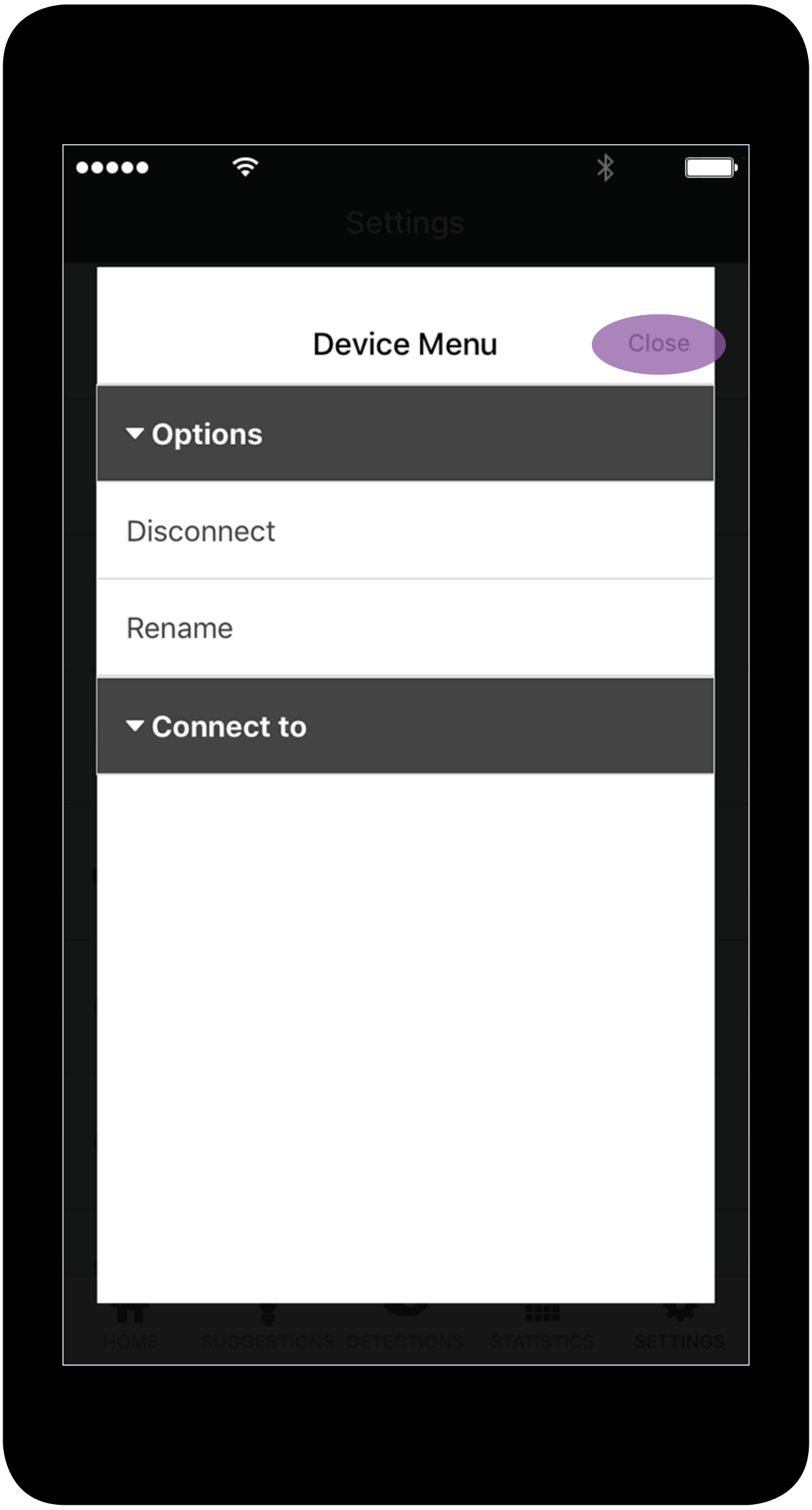


Select the device name to activate the entry bar.

Enter the new device name.

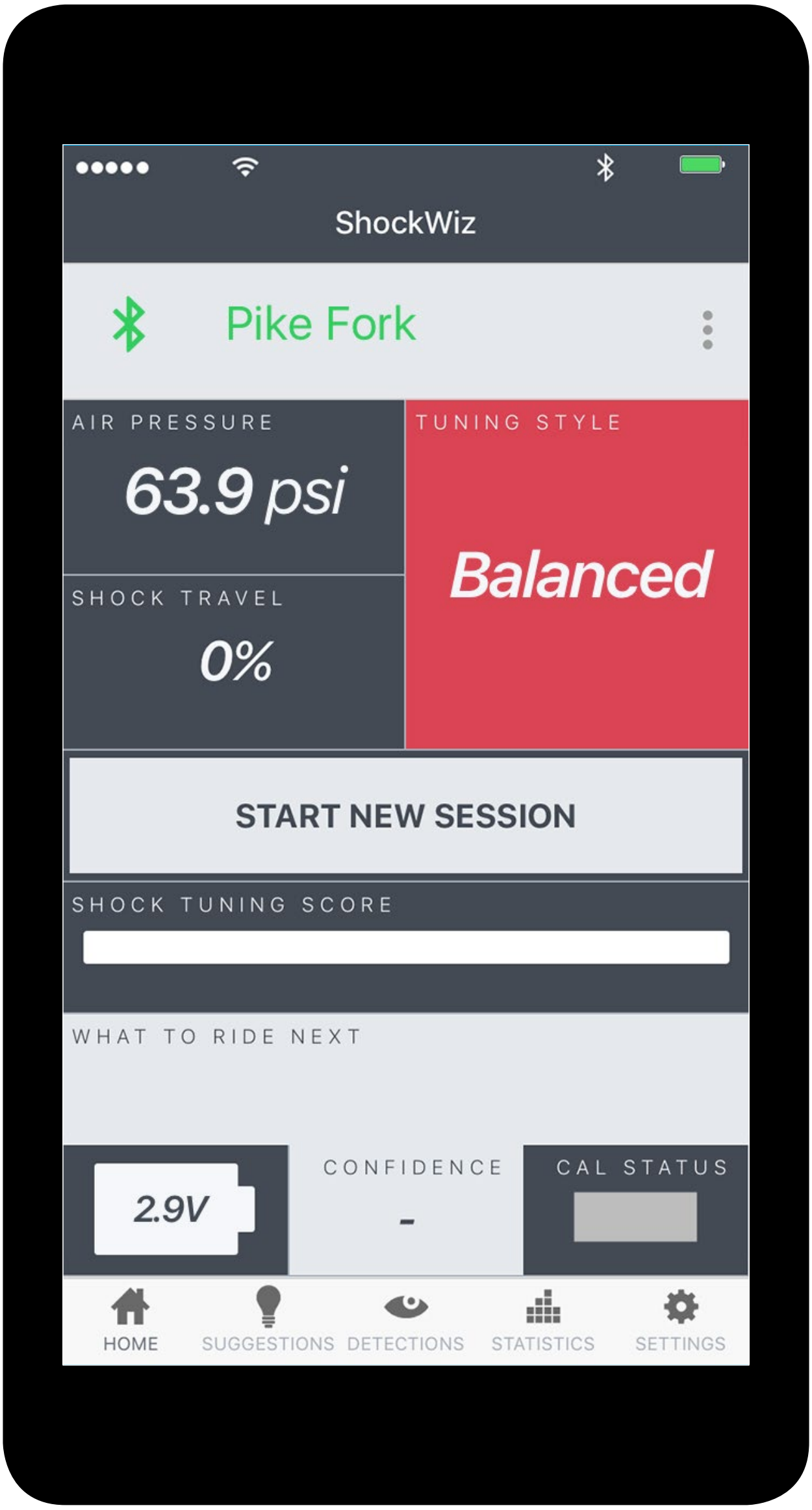
Select **OK** to save.

Rename Device



Select **Close** to exit.

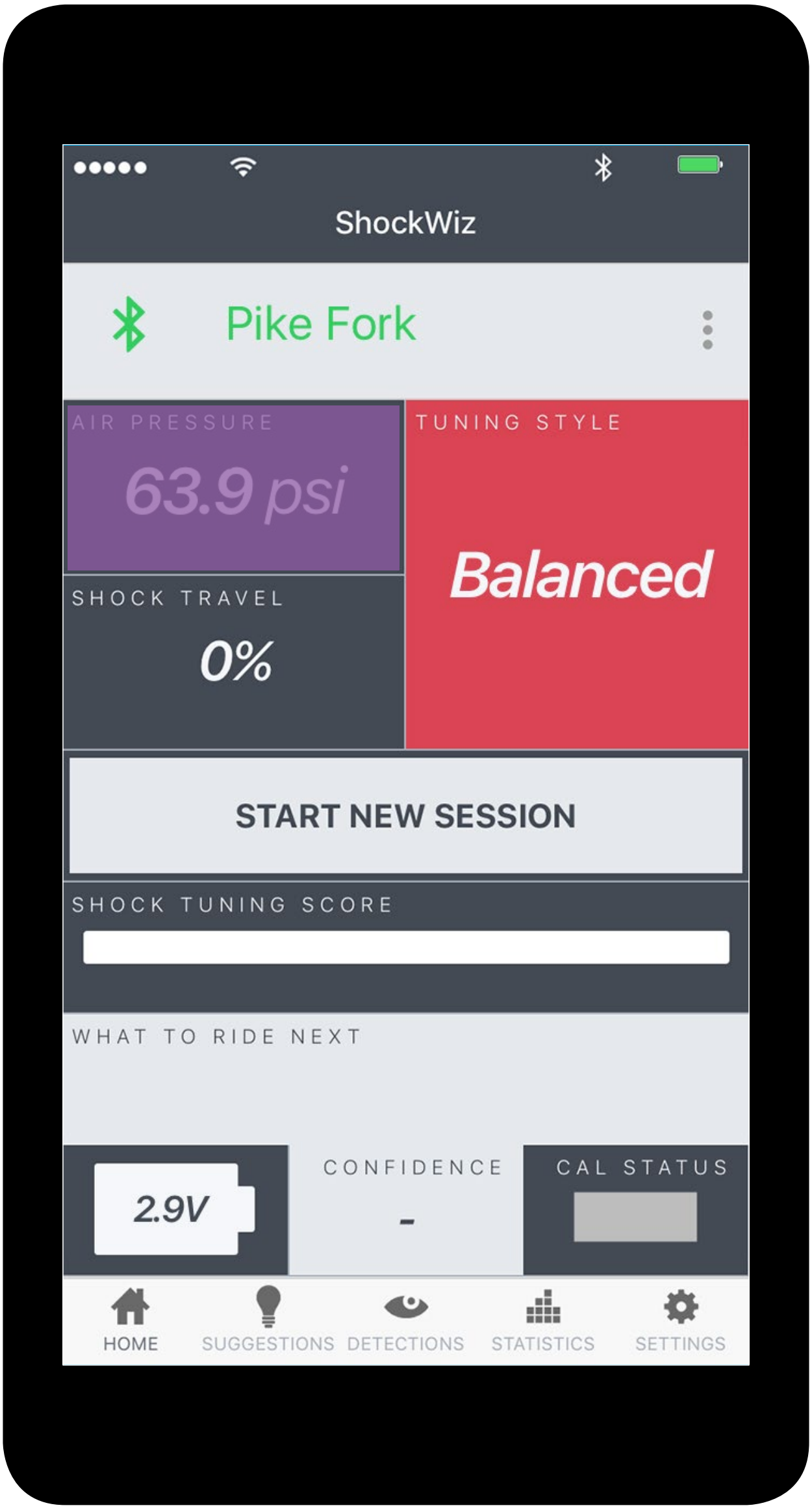
Rename Device



The new ShockWiz™ name will be visible in the **Home** screen in green.

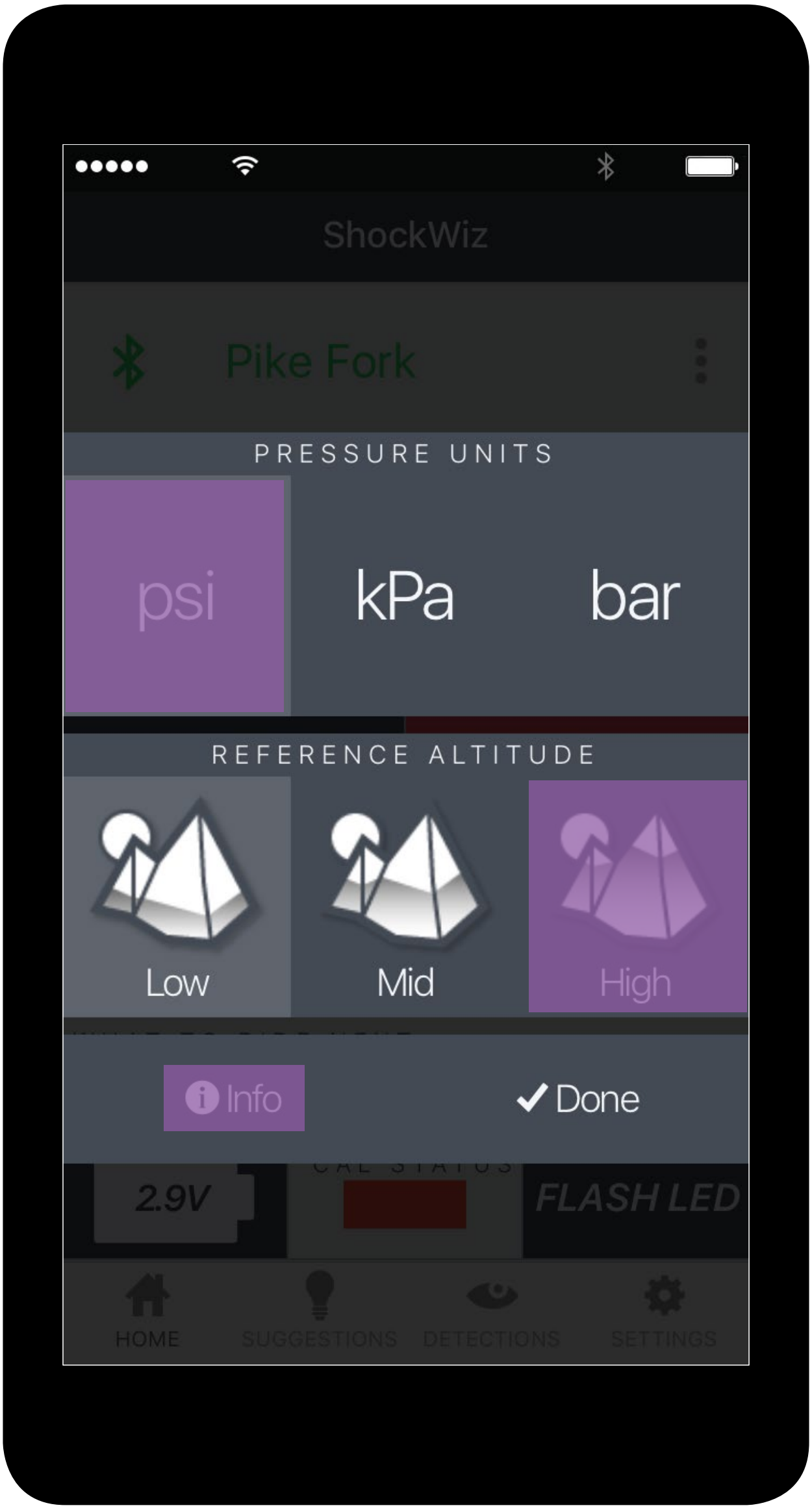
To rename the device again follow the same procedures.

Pressure Unit and Altitude



Select **Air Pressure**.

Select Unit and Altitude



Select **Pressure Units**.

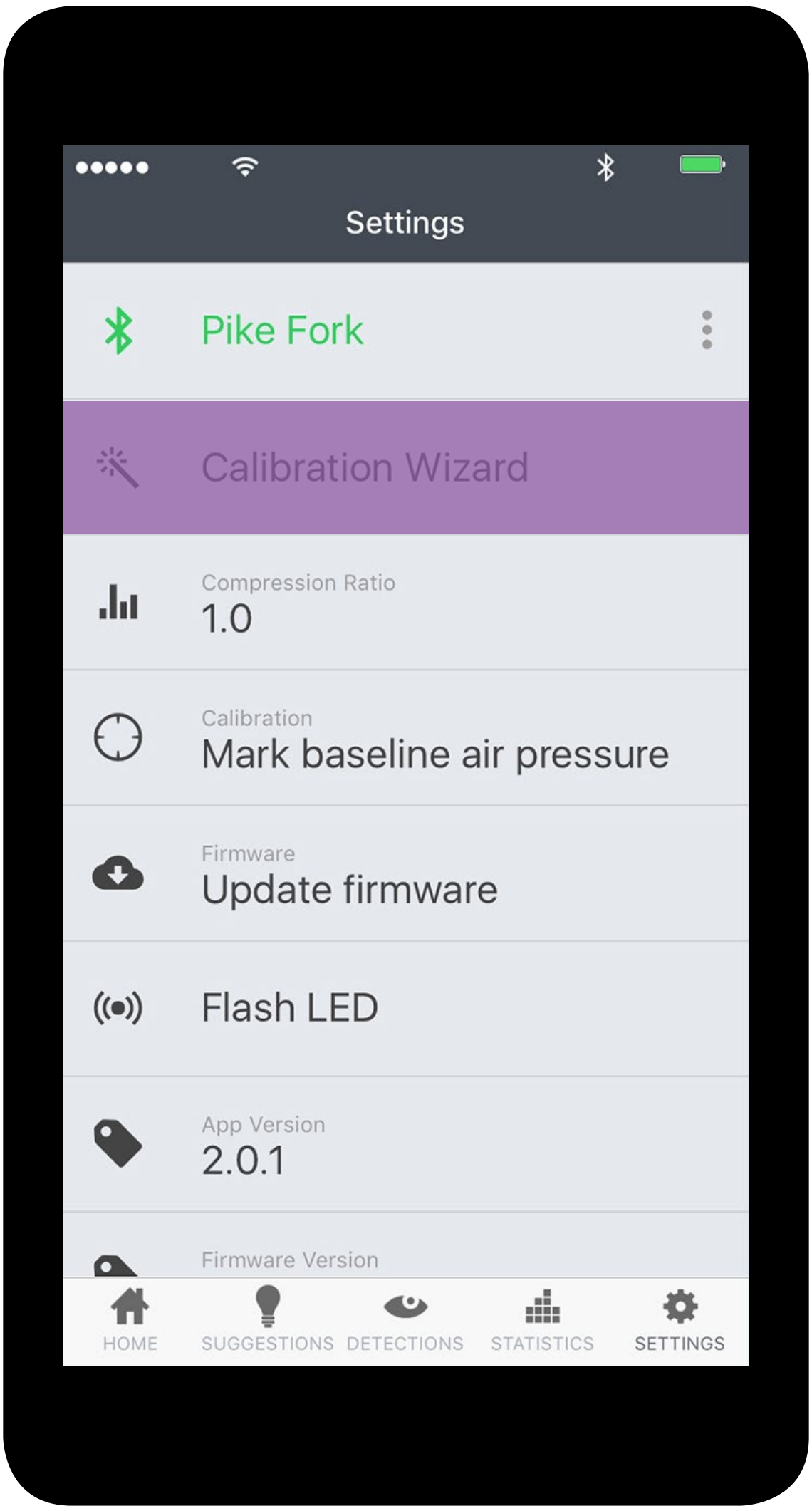
Select **Reference Altitude**, then select **Done**.

*Select **Info** for **Altitude** range details.*

Calibration Wizard

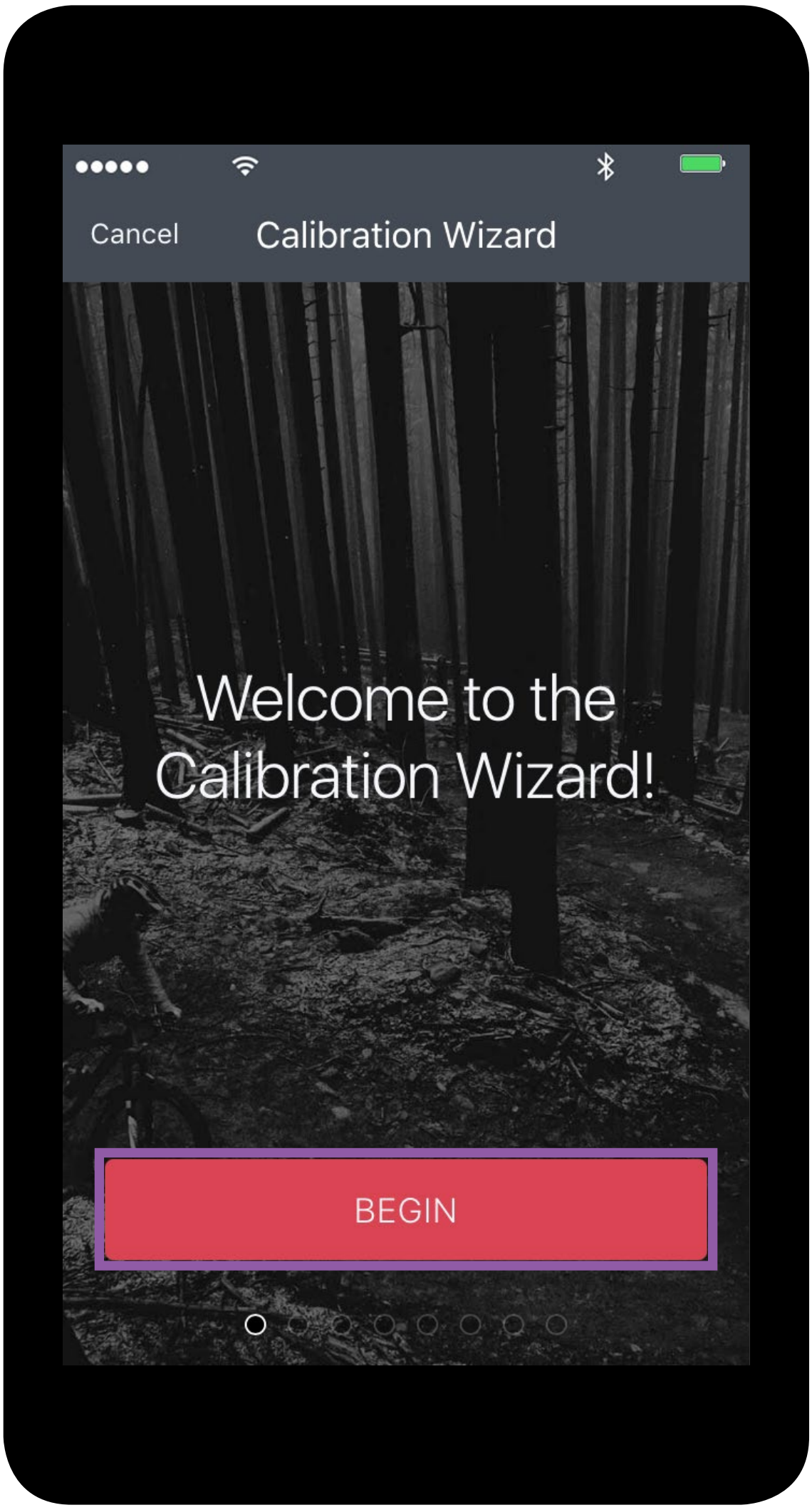
ShockWiz™ must be calibrated with the suspension fork or rear shock before use. The **Calibration Wizard** will guide you through the Calibration process.

ShockWiz must be installed onto the suspension fork or rear shock during calibration.



In the **Settings** screen, select **Calibration Wizard**.

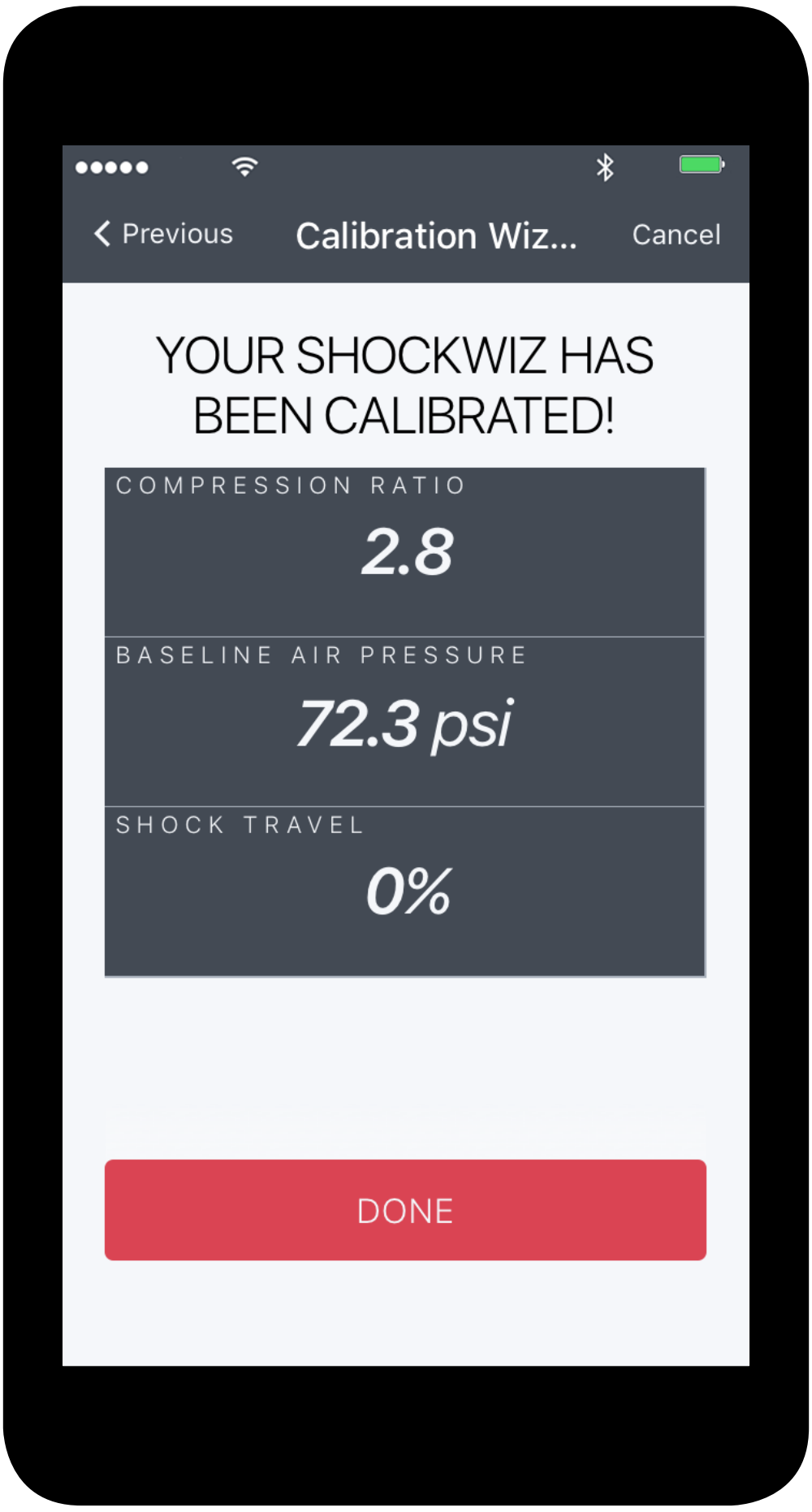
Calibration Wizard



Select **Begin** and complete the **Calibration** process.

Repeat the entire process if a second ShockWiz™ is installed.

Calibration Wizard



When complete, take a screenshot of your **Compression Ratio** and **Baseline Air Pressure** for future reference.

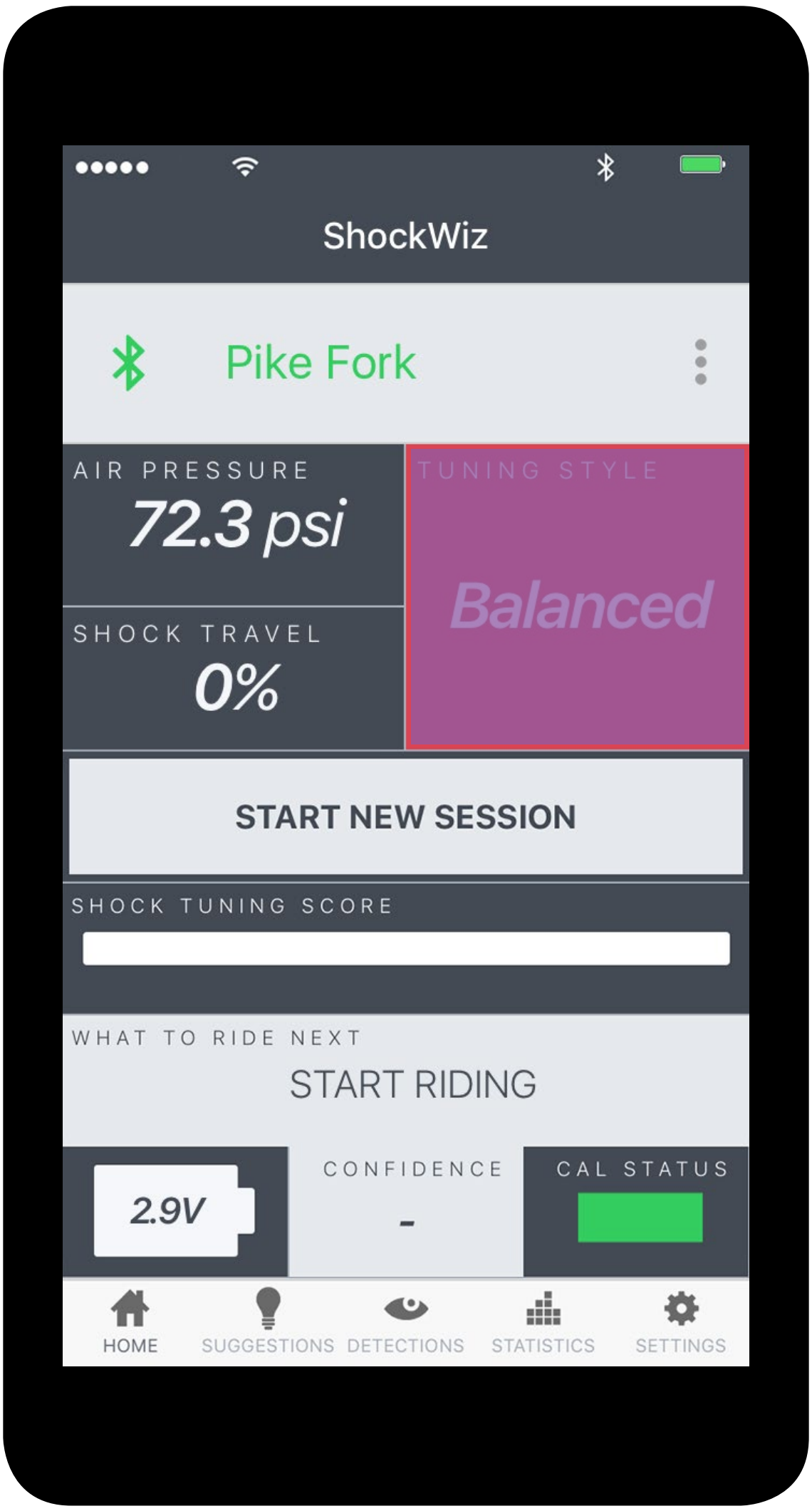
Shock Travel displayed should read 0%.

If **Shock Travel** displayed exceeds ±3%, an error was made during calibration. The **Mark Baseline Air Pressure** process must be repeated. Go to **Settings** and repeat the **Mark Baseline Air Pressure** procedure.

Shock Travel *readings may fluctuate slightly when the bike is idle. This is normal.*

Select Tuning Style

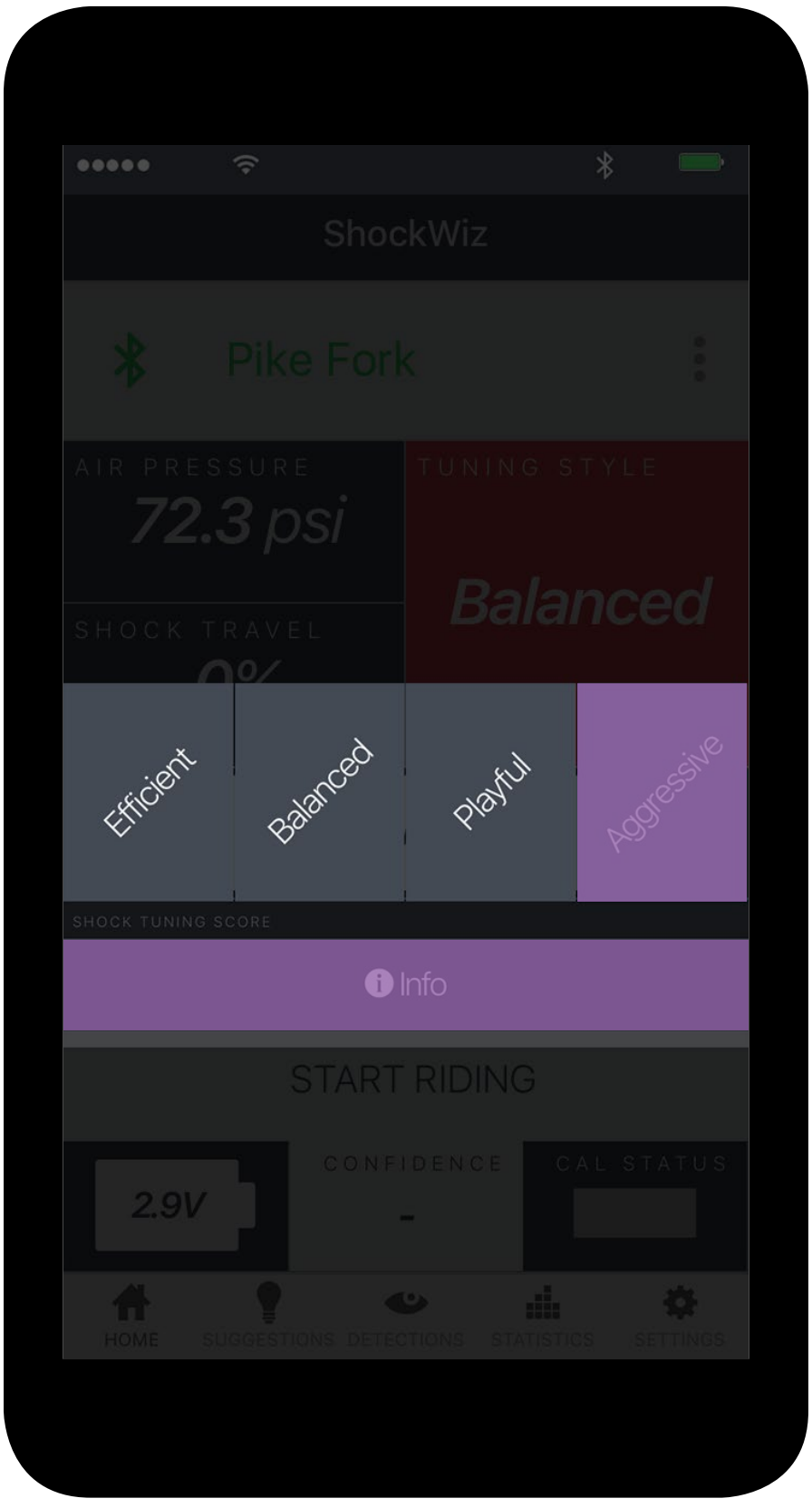
ShockWiz™ offers four **Tuning Styles** that allow you to customize the ride and feel of your bike.

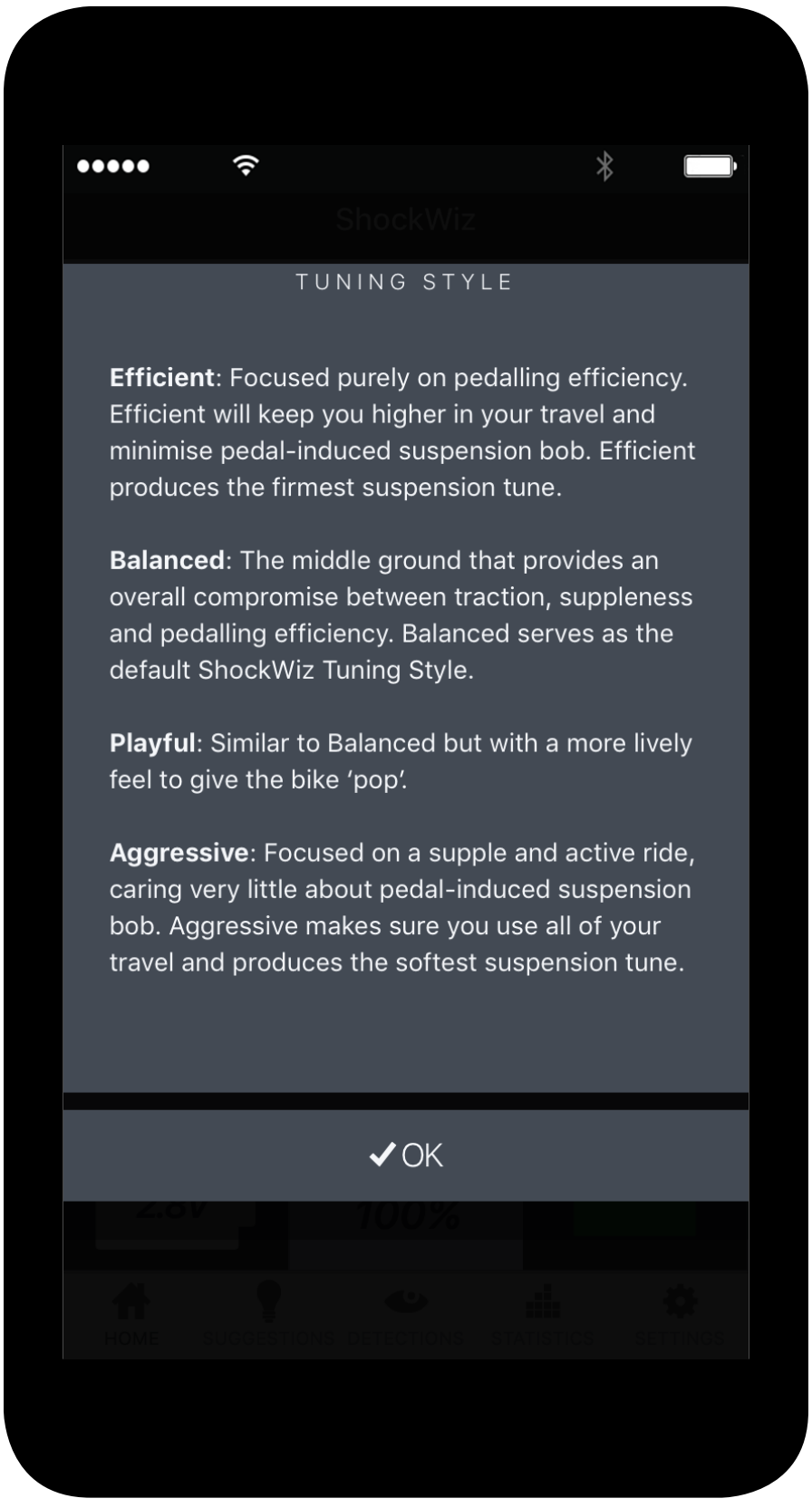


Select **Tuning Style**.

Balanced is the default setting.

Select Tuning Style



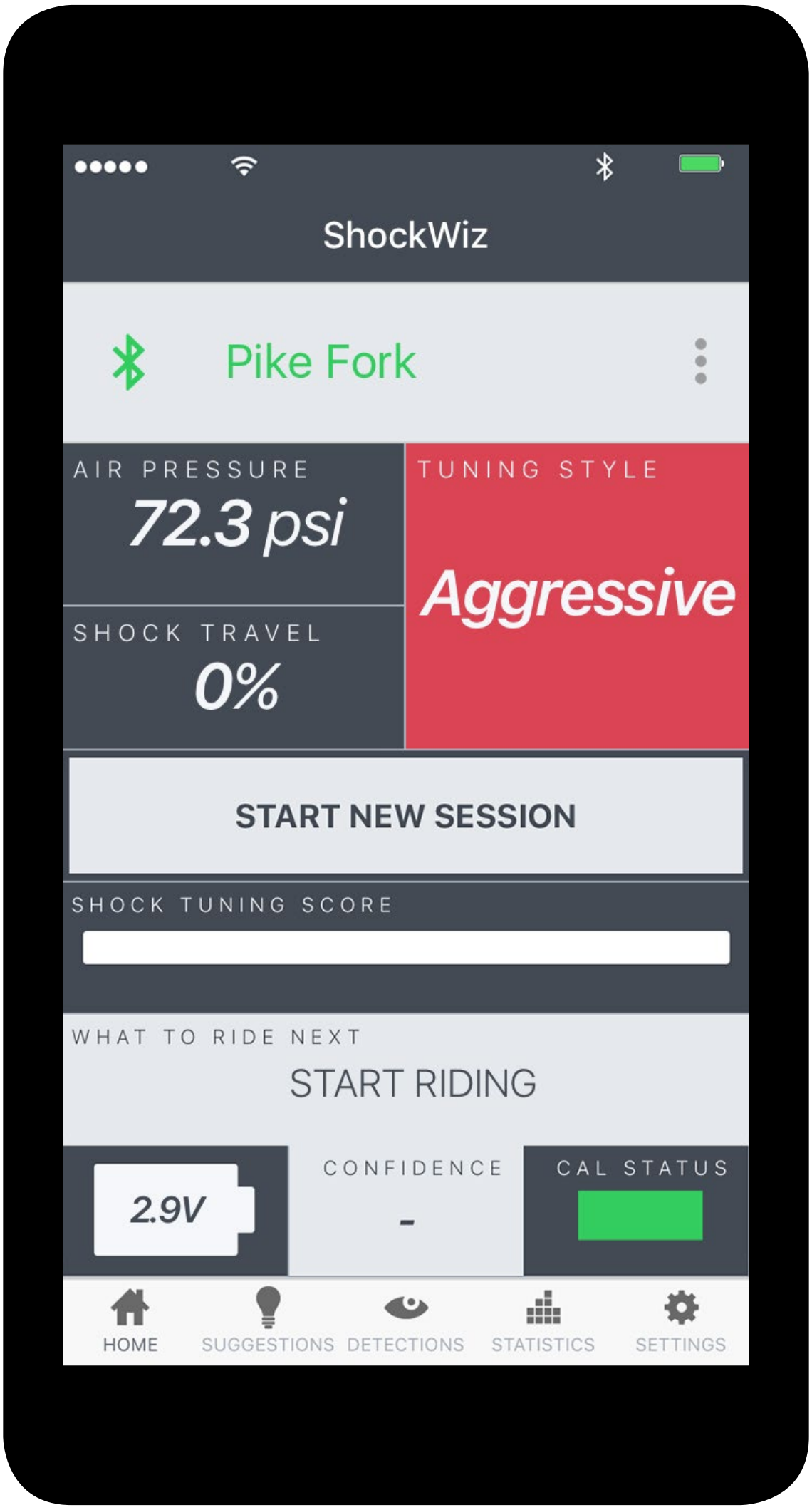


Select your preferred **Tuning Style**.

This can be changed at any time and will not erase ride data.

Select **Info** for **Tuning Style** details.

Select Tuning Style



The selected **Tuning Style** will be displayed on the **Home** screen.

ShockWiz™ is now ready to analyze your suspenion.

Ride Session

ShockWiz™ records your suspension's performance during the ride **Session.** ShockWiz wirelessly transfers data to the ShockWiz App when your connected smartphone or tablet is in close proximity to the ShockWiz device.

ShockWiz must be 'on' for data to transfer to the app. Bounce the front wheel to turn ShockWiz on, and Connect to the app, if idle for more than 10 minutes.

When a ride **Session** is complete, you will review performance in the app and make adjustments to the suspension as recommended.

ShockWiz does **not** have to be connected to the ShockWiz app while riding. All data collection and analysis is performed within the ShockWiz device and uploads to the app when connected. Results can be viewed in the app at any time. ShockWiz saves ride data until a new **Session** is started.

IMPORTANT

While tuning with ShockWiz, any time a damping adjustment is made to your suspension, you must select **Start New Session** to clear all existing ride data.

Any time air spring pressure is changed, you must reset **Baseline Air Pressure** in the **Settings** screen.

Any time **Air Spring Ramp** is changed, you must remeasure the **Compression Ratio** in the **Calibration Wizard**.

Refer to the suspension manufacturer for adjustments available on your suspension.

Riding with ShockWiz

ShockWiz™ must record particular suspension movements during a ride **Session**.

ShockWiz converts measured suspension pressure into **Shock Travel** percentage by using the **Compression Ration** and **Baseline Air Pressure** established during the **Calibration** procedure.

By monitoring suspension movement, ShockWiz builds a set of **Detections** to analyze performance. When the number of **Detections** are sufficient, ShockWiz can determine which suspension **Settings** should be adjusted to improve performance.

For effective results, follow these ride **Session** recommendations:

1. Ride a variety of terrain including the following:
- Rocky, rolling, and flat terrain
- Climbing and descending
- Jumps and drops
- Sucessive small, medium, and large bumps
- Low and high speed bumps

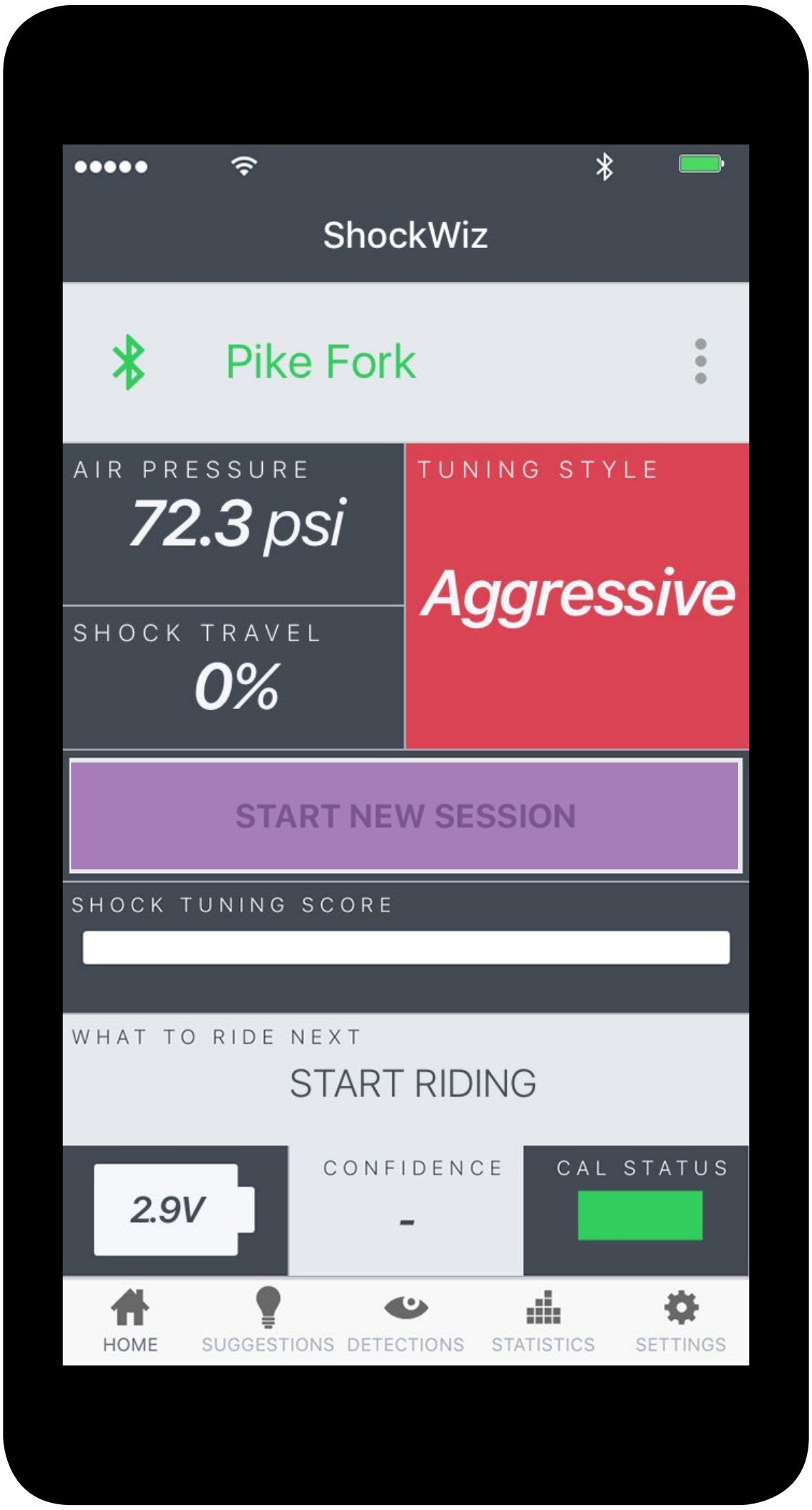
2. Do not make air pressure or damper changes to the suspension during the ride **Session**.

*If changes to air pressure and/or damper settings are made, a new **Session** must be started prior to further riding.*

When **Start New Session** is selected, ShockWiz resets the **Detections** recorded in the prior **Session**.

3. Do not lock the suspension out, and do not adjust threshold, or pedal platform, during the **Session**.

Start New Session

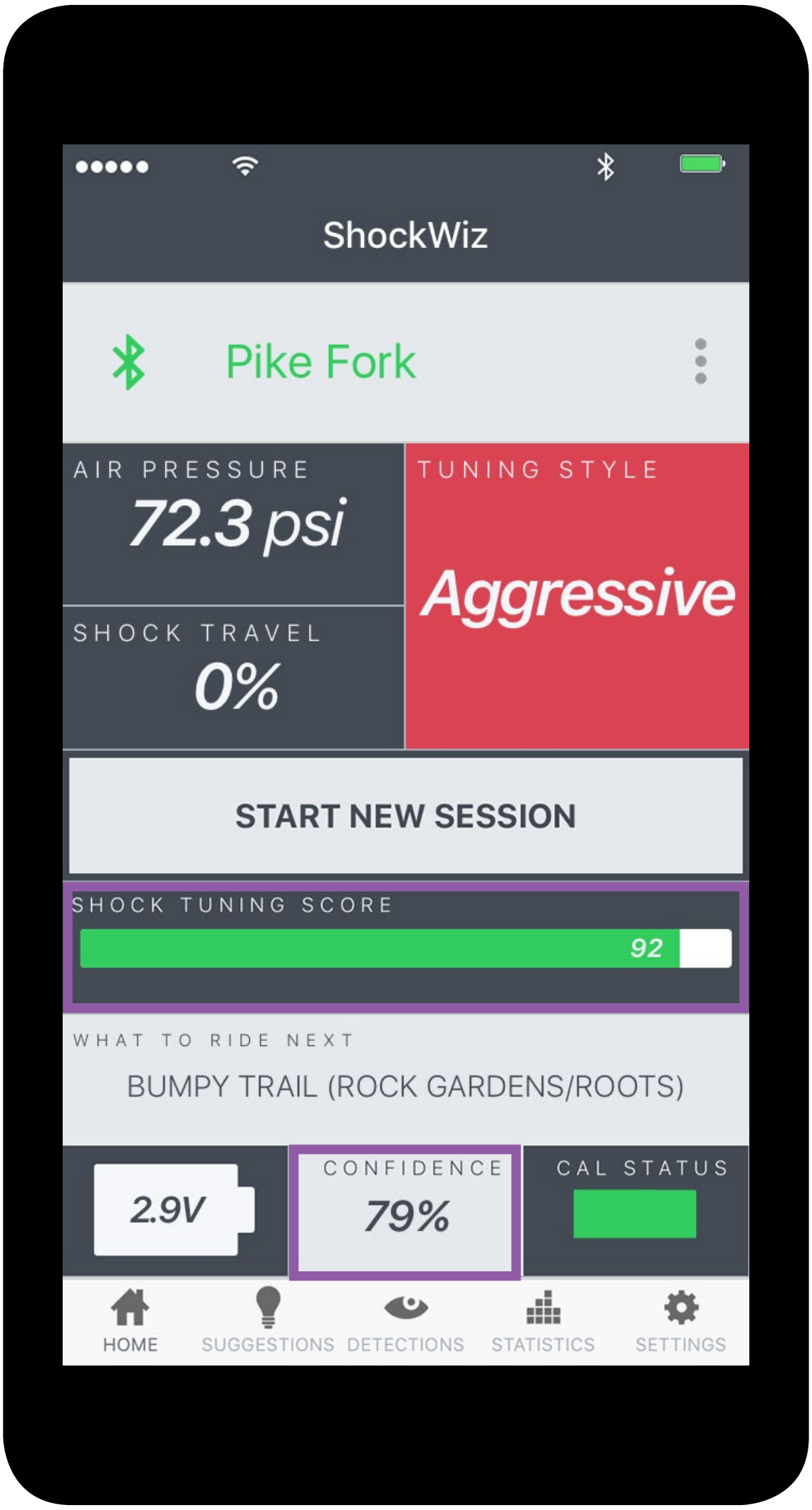


It's time to start a new **Session** and go for a ride!

Select **Start New Session** and go for a ride so ShockWiz™ can collect data to analyze.

*Selecting **Start New Session** resets the ShockWiz data set and clears **Suggestions** and **Detections**.*

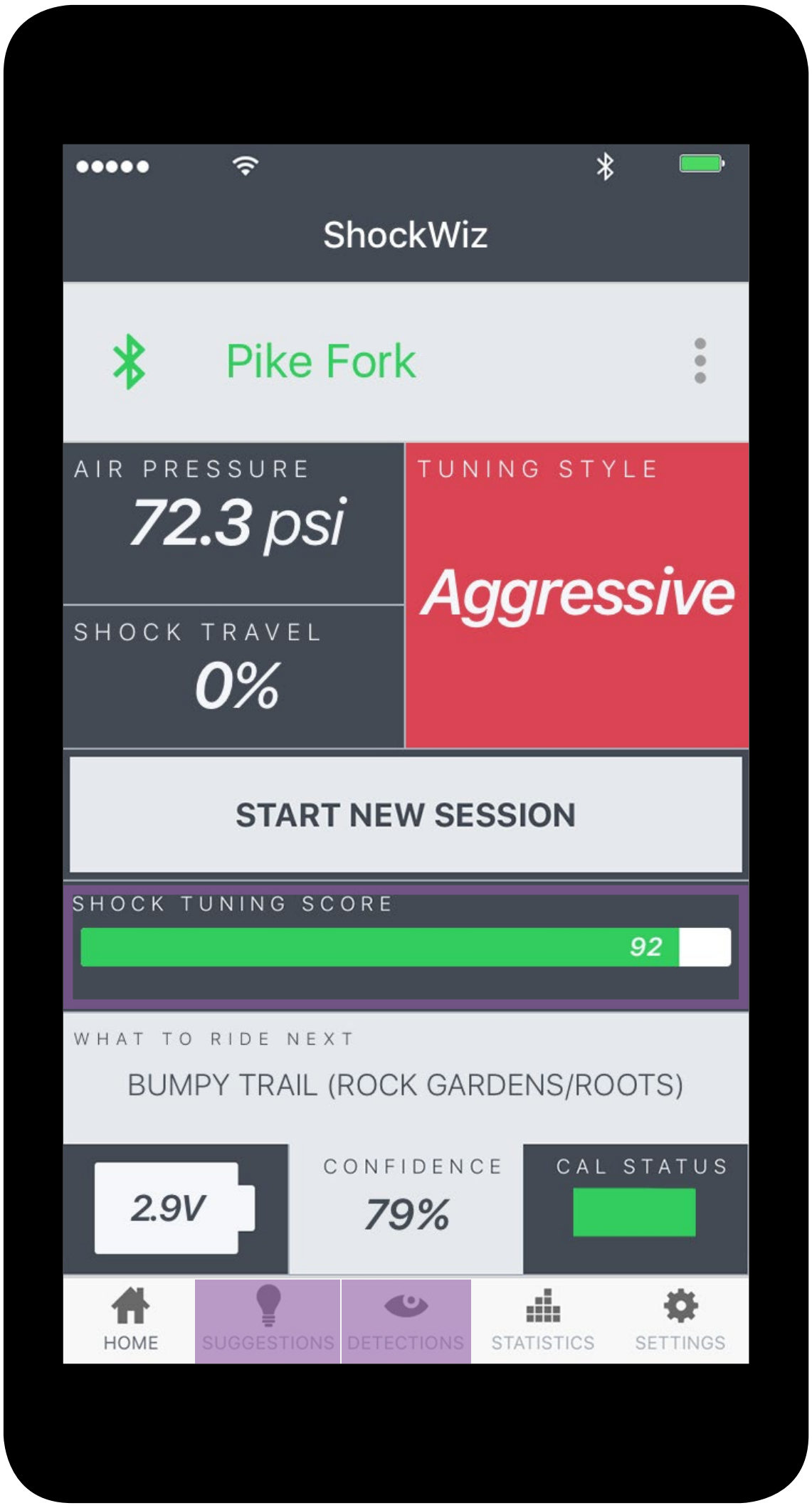
Shock Tuning Score



When the ride **Session** is over, open the app and check your **Shock Tuning Score** and **Confidence**.

If you are using more than one ShockWiz™, you must connect the app to each separately.

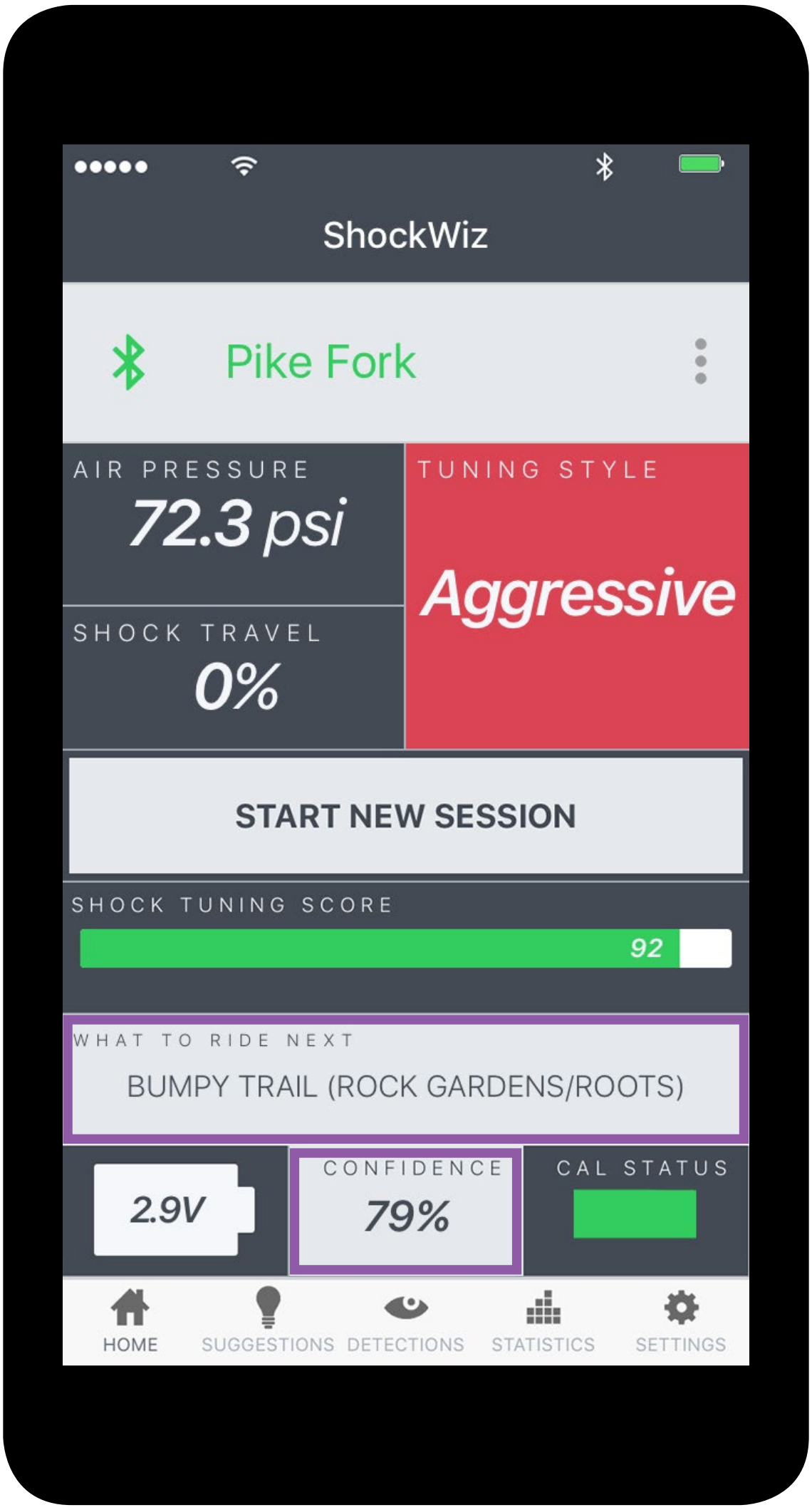
Shock Tuning Score



Shock Tuning Score is a value placed on your current suspension performance during the ride **Session.**

To improve the **Shock Tuning Score**, select **Detections** to review suspension behaviors, and **Suggestions** to review recommended suspension adjustments to improve negative suspension behavoirs.

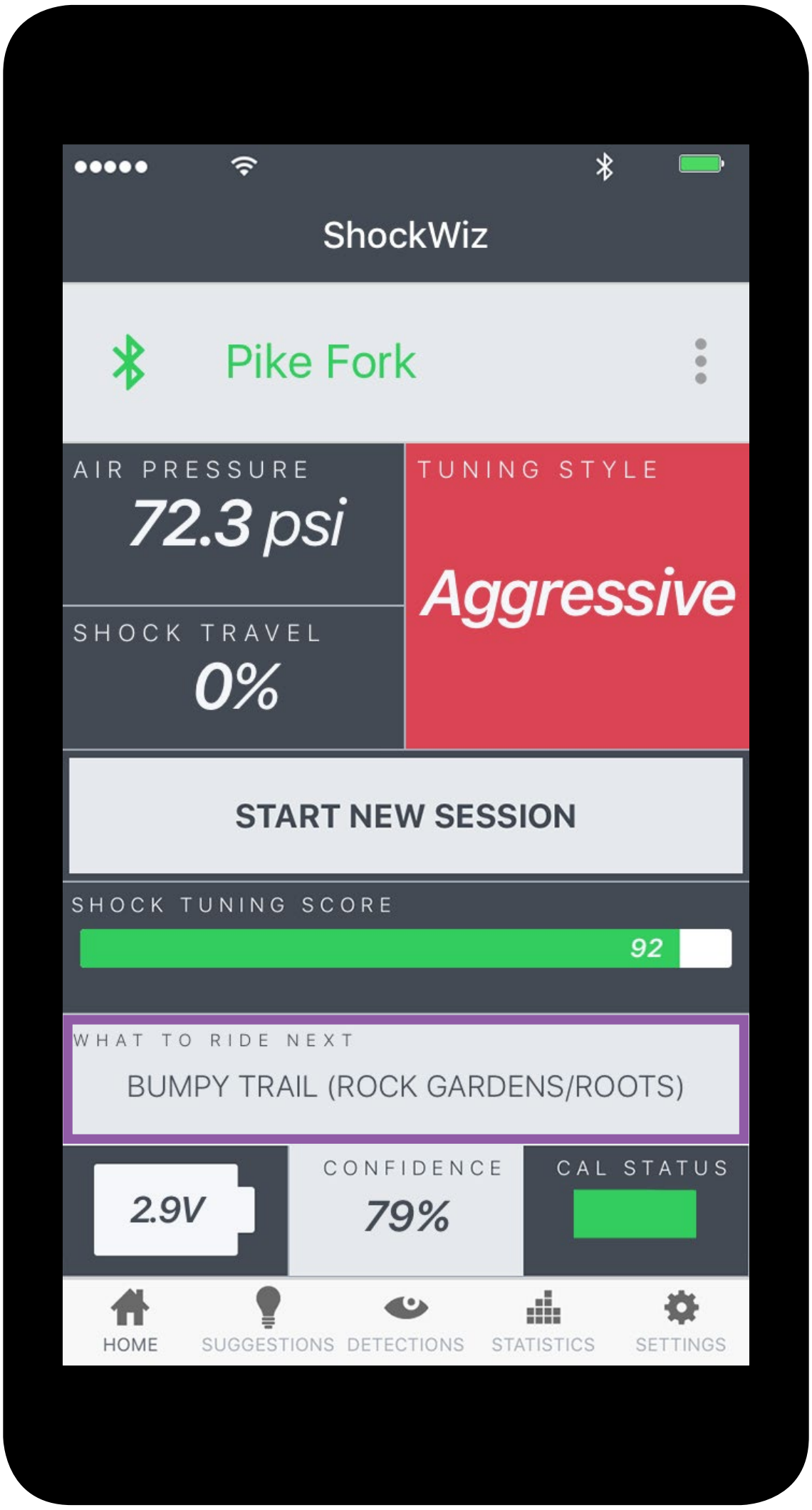
Confidence



Confidence indicates the percentage of sufficient data collected that ShockWiz™ needs to provide an effective **Shock Tuning Score** and tuning **Suggestions**. Suspension tuning adjustments are not recommended unless **Confidence** reads greater than 50%.

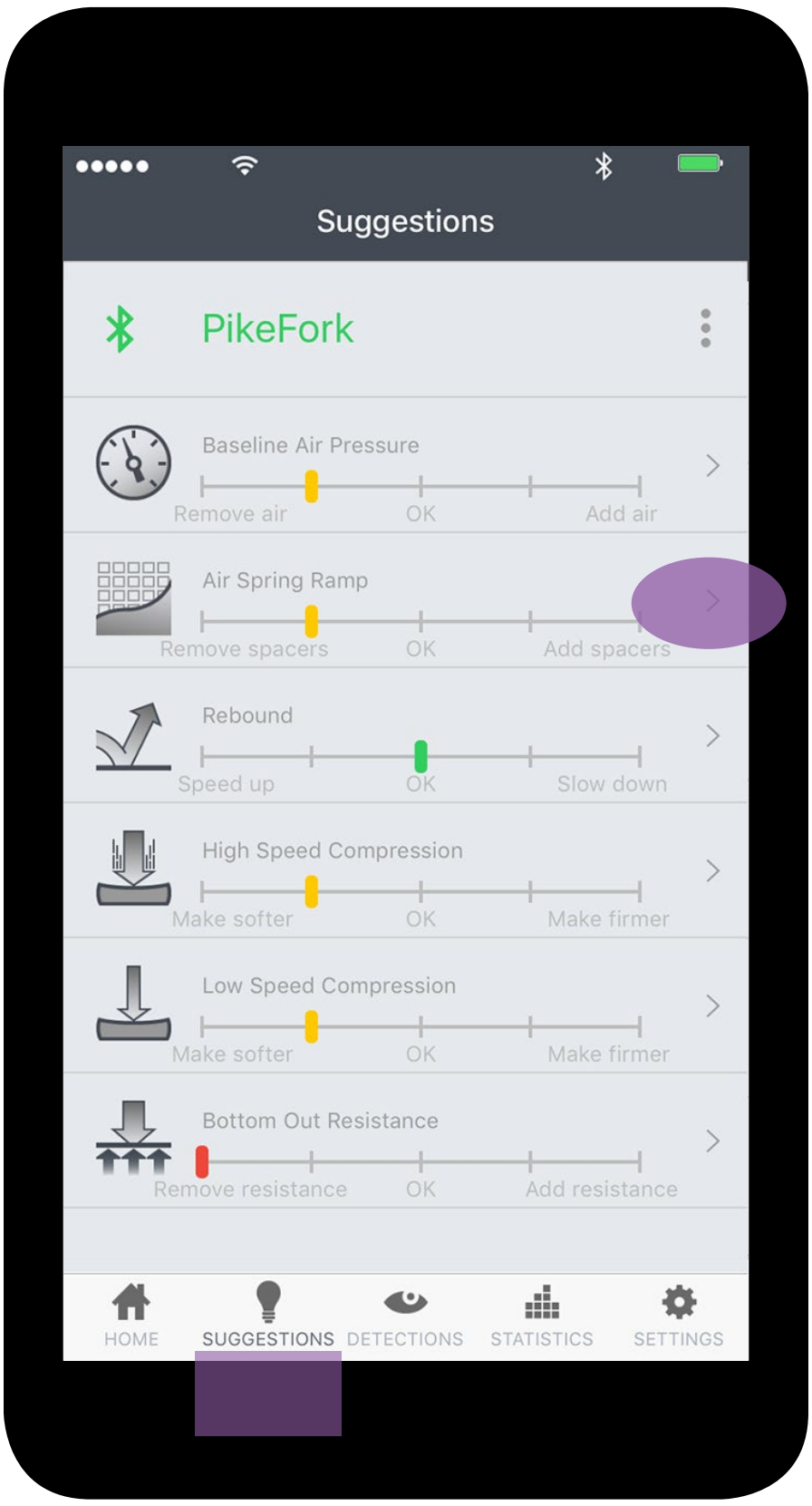
If **Confidence** reads less than 50%, refer to **What To Ride Next**.

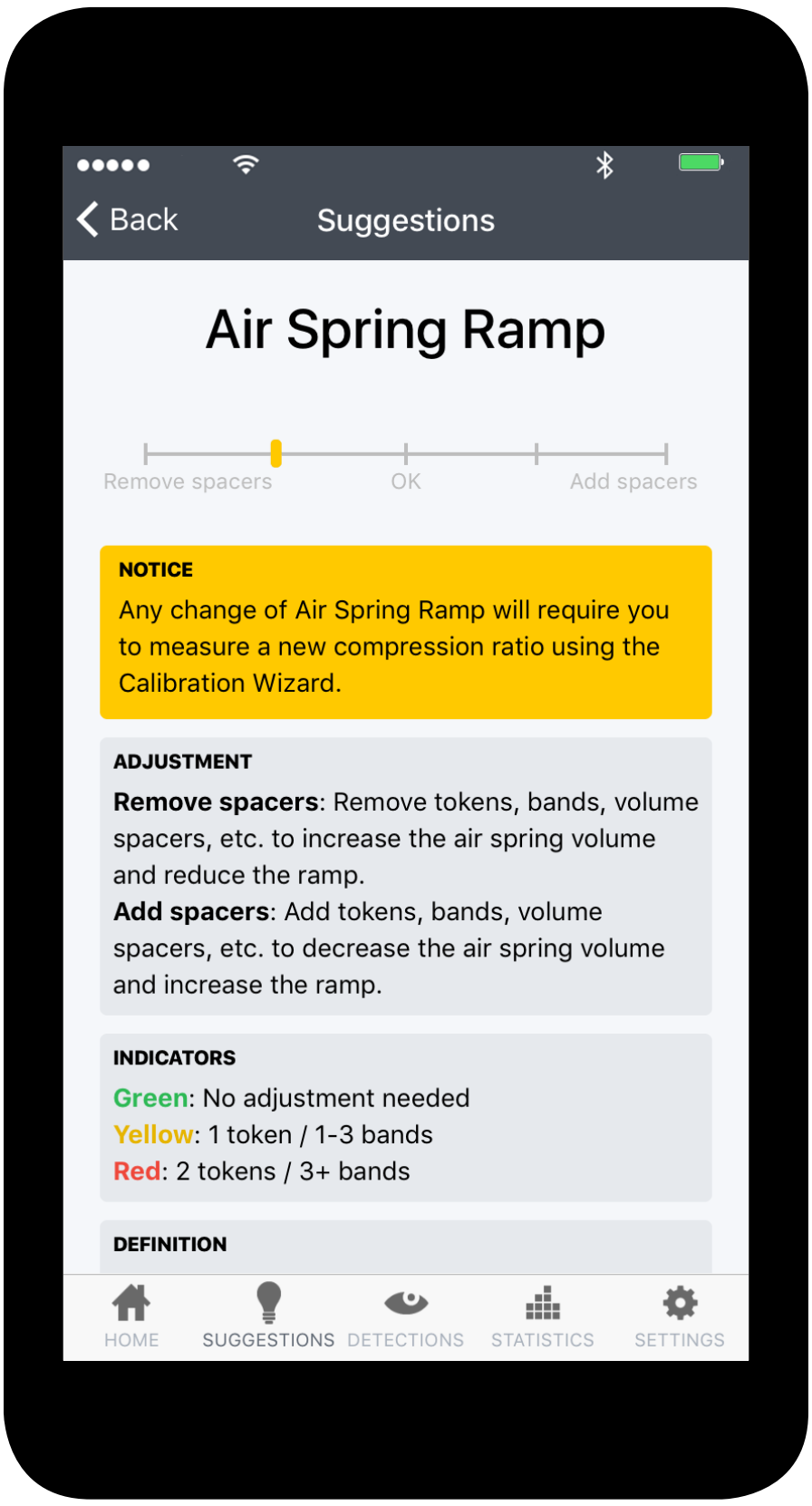
What To Ride Next



To increase **Confidence** percentage, ride the suggested terrain in **What To Ride Next** so ShockWiz™ can collect the additional ride **Detections** required.

Suggestions





Review **Suggestions** when the **Confidence** score exceeds 50%.

Adjustments are not recommended if a green bar is visible at **OK**. Adjustments are recommended if a yellow (small change) or red (large change) bar is visible.

If '**Not enough data**' is indicated, ShockWiz™ was unable to collect enough data during the **Session** to make a **Suggestion**.

Select any **Suggestion** for more information.

Suggestions

Make each suggested adjustment, as is available, to your suspension in the order listed in **Suggestions**.

Move on to the next adjustment when the previous **Suggestion** indicates '**OK**' after each ride Session.

If **Air Spring Ramp** is adjusted, you must complete the **Calibration** process again.

If **Air Spring Ramp** is not adjusted, **Baseline Air Pressure** can be adjusted individually.

Adjust **Rebound** damping next, followed by **High Speed Compression** and **Low Speed Compression.**

Repeat the entire process for each suspension component until you are satisfied with the **Shock Tuning Score** and ride quality.

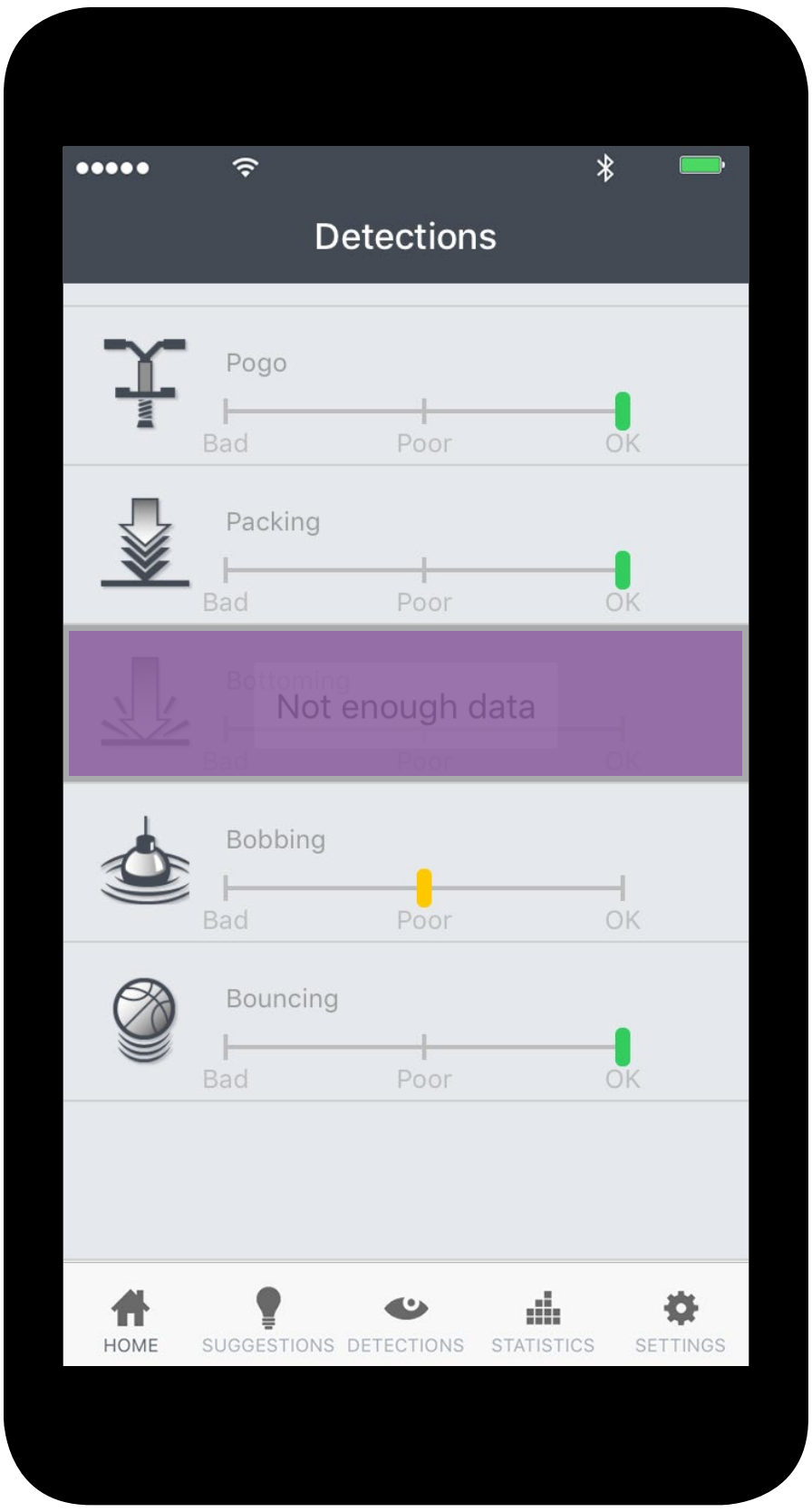
IMPORTANT

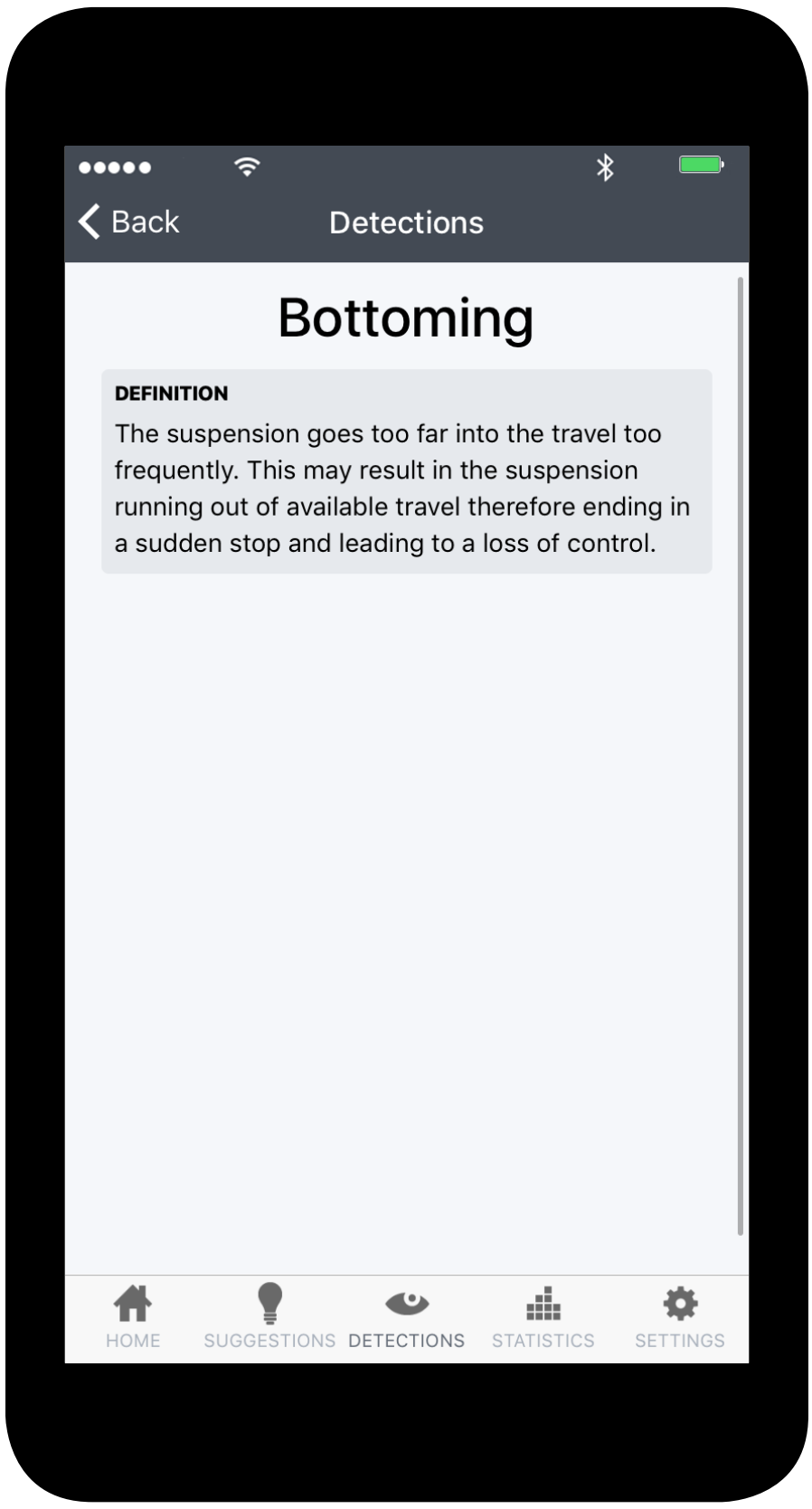
While tuning with ShockWiz™, any time an adjustment is made to the suspension component, you **must** start a new **Session** within the app before riding and collecting new data.

*Reference the unique notice found at the top of each **Suggestion's** information page for instruction on what to do after adjustments to that setting are made.*

Go to www.shockwiz.com for more tuning information.

Detections





To further review how **Suggestions** have been determined, go to **Detections** to review a rating of undersirable suspension characteristics.

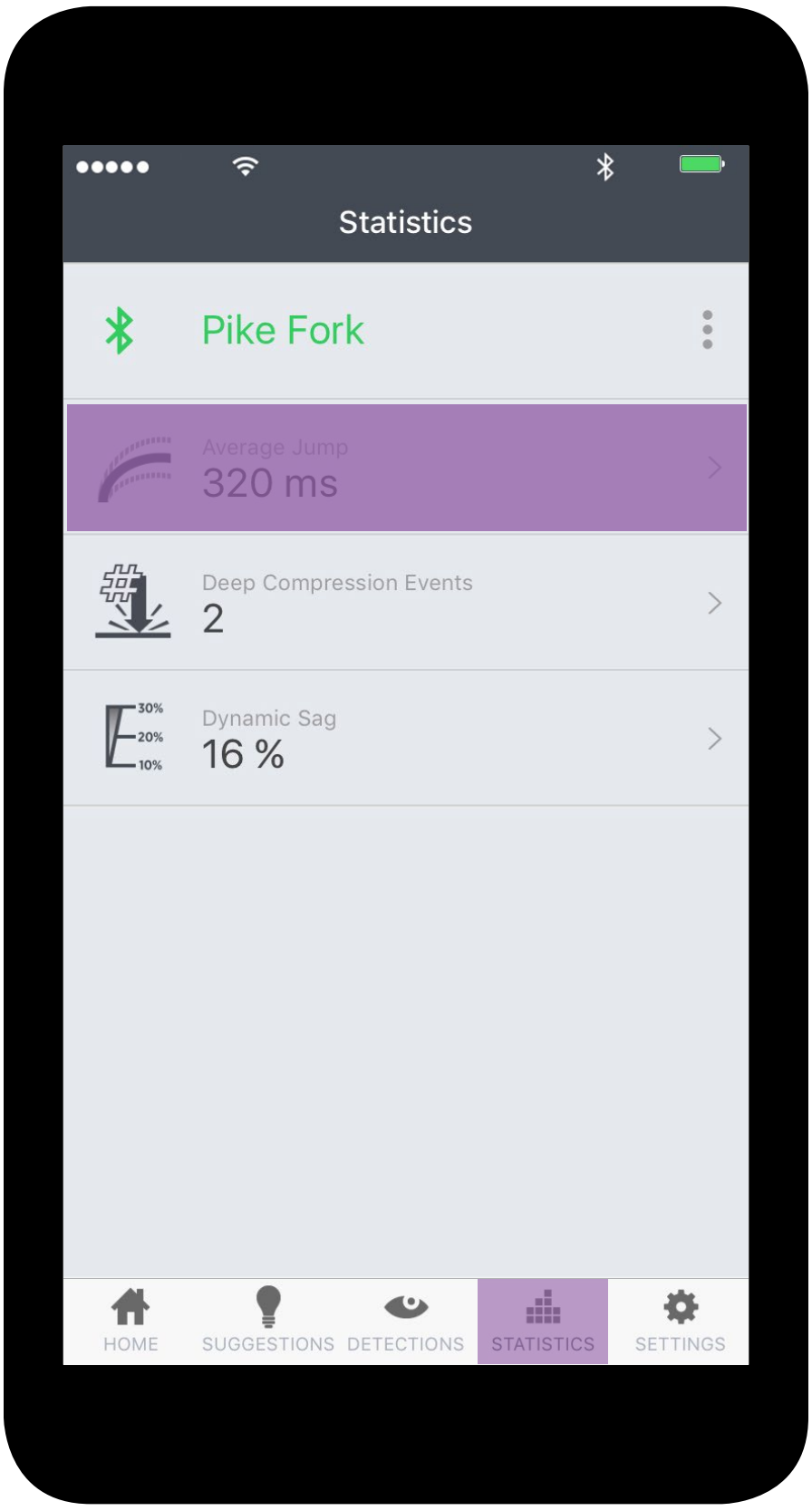
When sufficient data is collected, a **Suggestion**, or suspension adjustment, is made to improve that negative performance behavior.

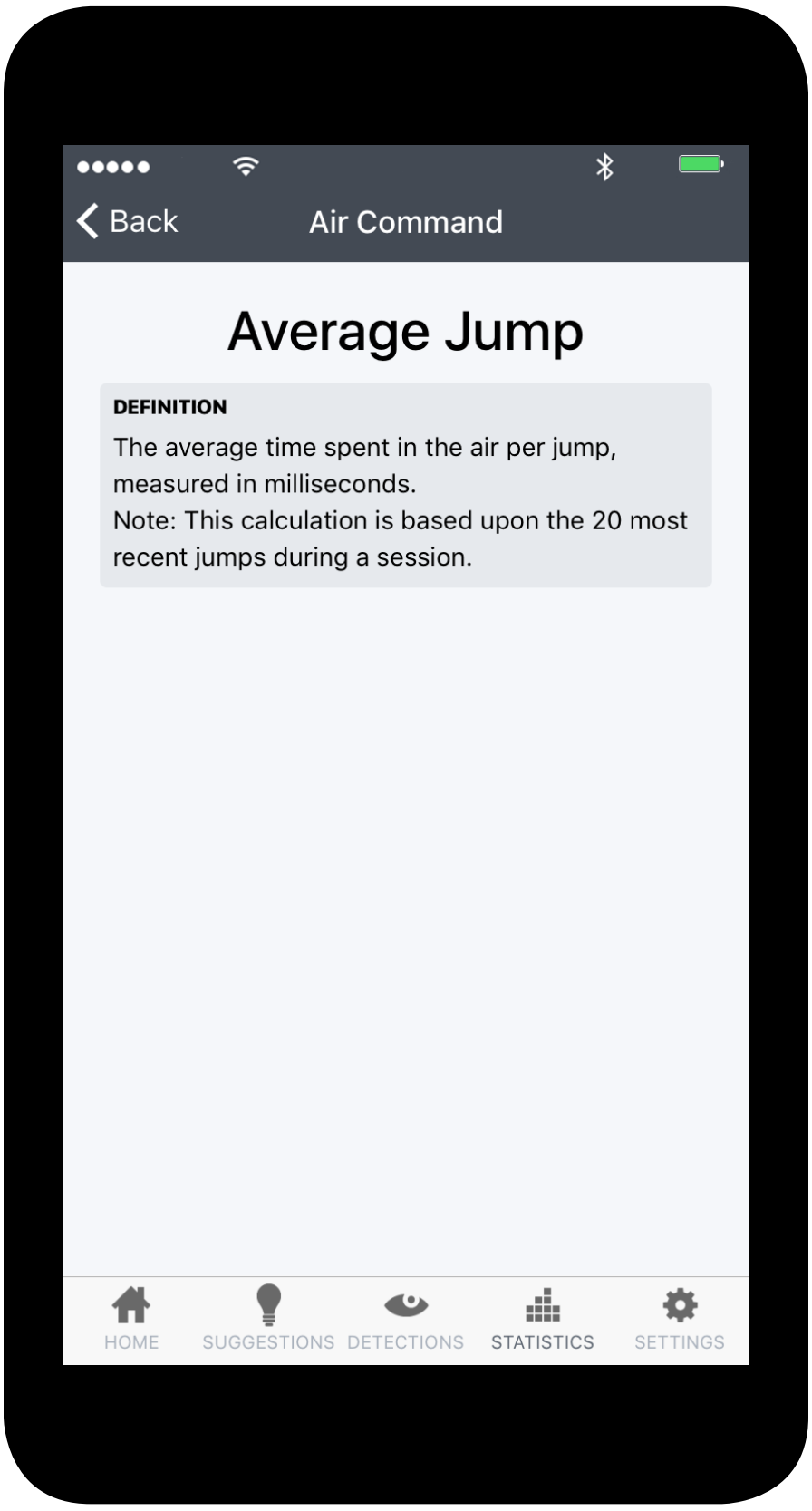
If ShockWiz™ did not collect enough data during a **Session** for a particular **Detection**, '**Not enough data**' will be reported. More ride data is needed for that particular **Detection**.

Select any **Detection** for more information.

Refer to **What To Ride Next** as an indicator of why a **Detection** may read '**Not enough data**'.

Statisitcs

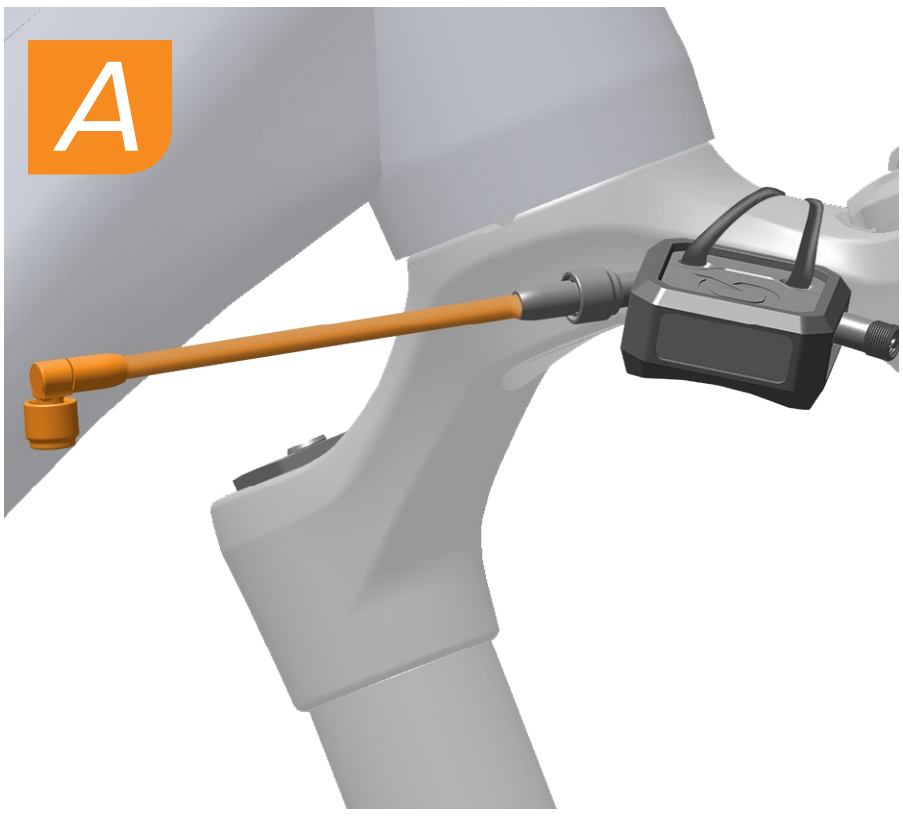


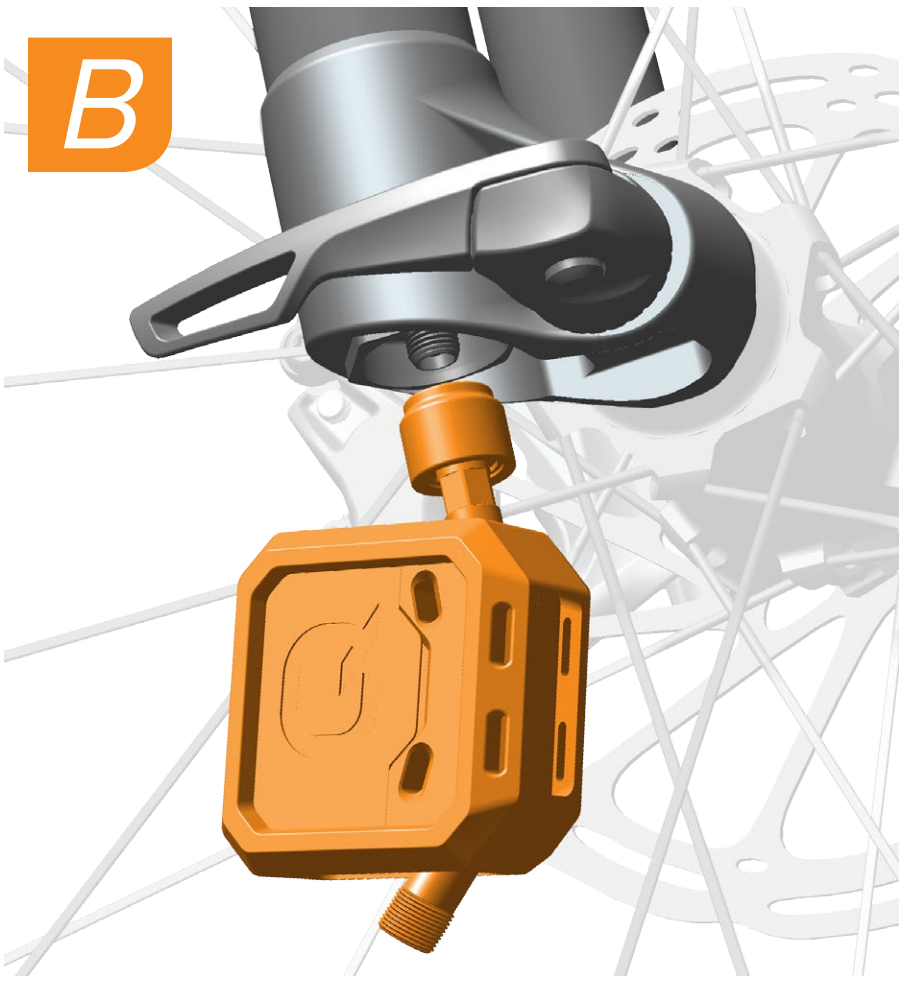


Statistics displays additional ride metrics captured during the ride **Session**.

Select any **Statistic** for additional information.

Removal





(A) Unthread the hose coupler from the fork or shock air valve.

The hose coupler must be removed from the fork or shock **first** *to avoid suspension air pressure loss.*

Cut the cable ties and remove ShockWiz from the fork or shock.

Install the fork or rear shock air cap.

(B) Unthread the air valve coupler from the fork.

Install the fork air cap.

Maintenance

Clean ShockWiz™ after use.

Remove the rubber mounting boot and use a damp cloth to wipe off dirt and debris.

NOTICE

Do not use a pressure washer to clean.

Do not use acidic or grease dissolving agents. Chemical cleaners and solvents can cause permanent damage to the electronics.

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