



QS PRO & QS PRO 2 Apple Set-up App Instructions (iPhone iOS 9+)

All QS PRO's shipped since December 1, 2015 have the newest version Bluetooth BLE capability for entering and using the setup features of the shifter using your BLE equipped Apple or Android phone.

Your device must have Bluetooth v4.0 (BLE) or better, and Apple iOS 9.0 or newer, available on iPhone 4S and newer. Here is a good, but probably not perfectly complete list:

iPhone

iPhone 4S
iPhone 5
iPhone 5c
iPhone 5S
iPhone 6
iPhone 6 Plus
iPhone 6S
iPhone 6S Plus
iPhone 7
iPhone 7 Plus
...all iPhones after!

iPod Touch

iPod Touch (5th Gen)
iPod Touch (6th Gen)
...all after!

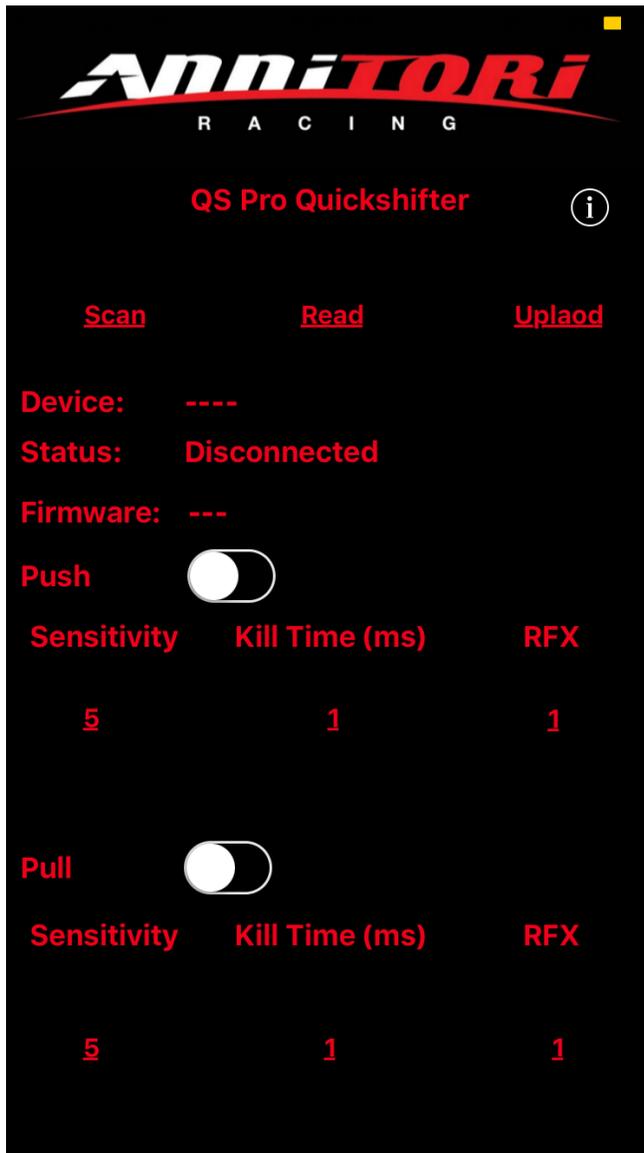
iPad

iPad (3rd Generation)
iPad (4th Generation)
iPad Air
iPad Air 2
iPad Pro
iPad Mini (1st Generation)
iPad Mini 2
iPad Mini 3
iPad Mini 4
...all after!

iPad 1 & 2 do not support Bluetooth Low Energy

You must go to the Apple App Store and search for the “Annitori QS PRO” app, Apple does not allow any “sideloading” of 3rd party apps, which means we cannot send you the app file nor can you get it anywhere but in the App Store.

Simply go to the App Store in your iPhone, search for the Annitori QS PRO app, and install it from there.



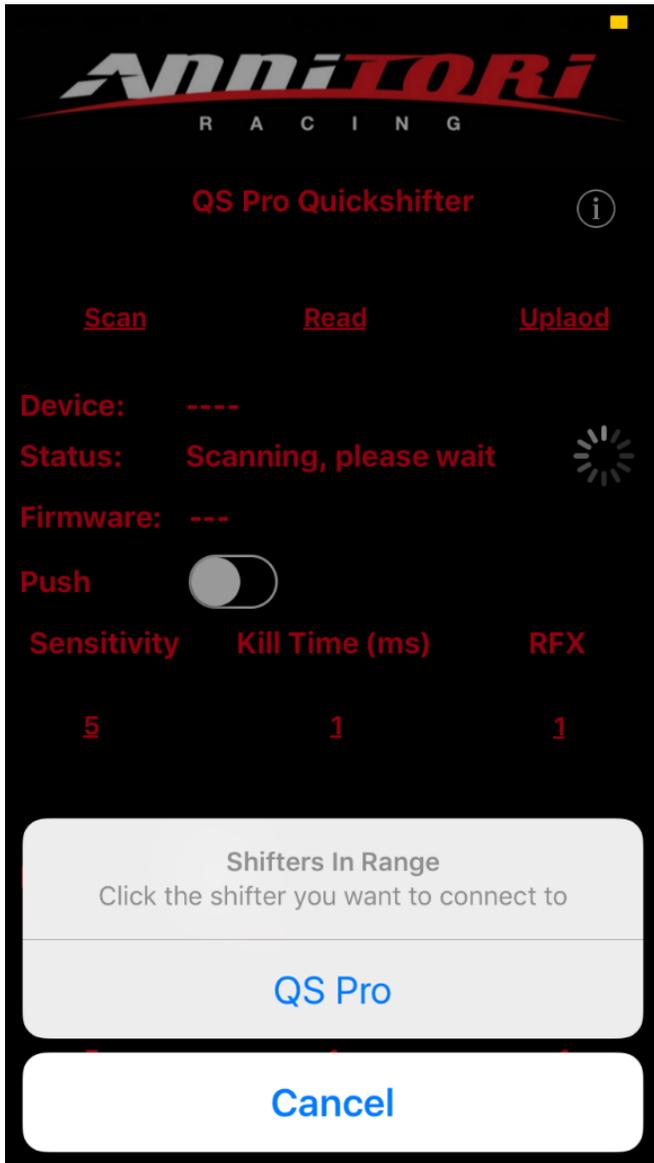
1) Turn on your device Bluetooth.

2) Download the app to your phone or device, open the download, click install and open the app to be sure you have it.

3) Then close the app to begin pairing process listed in #4 below:

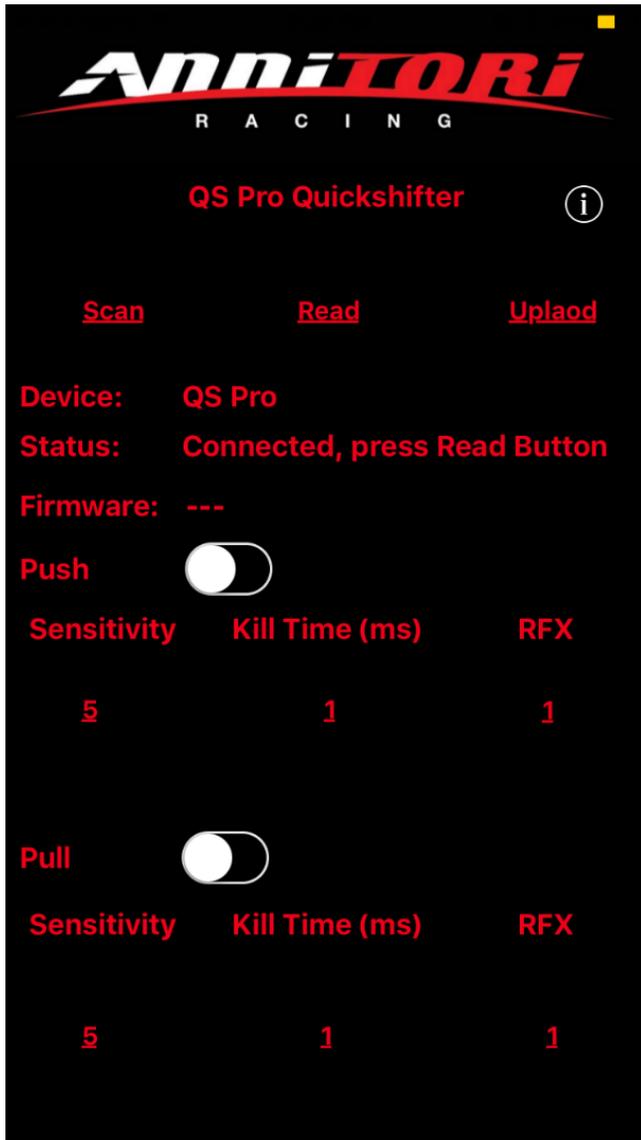
4) With the app closed, start your motorcycle. This is very important, you must start your machine BEFORE you open the app, so that the Bluetooth (BT) on the shifter is searching as you open the Annitori App to connect.

5) After the bike is started, open the app and you will first see an image of our QS PRO, and then the setting page at left. Click "SCAN" at the top left so the app will begin searching for the shifter.



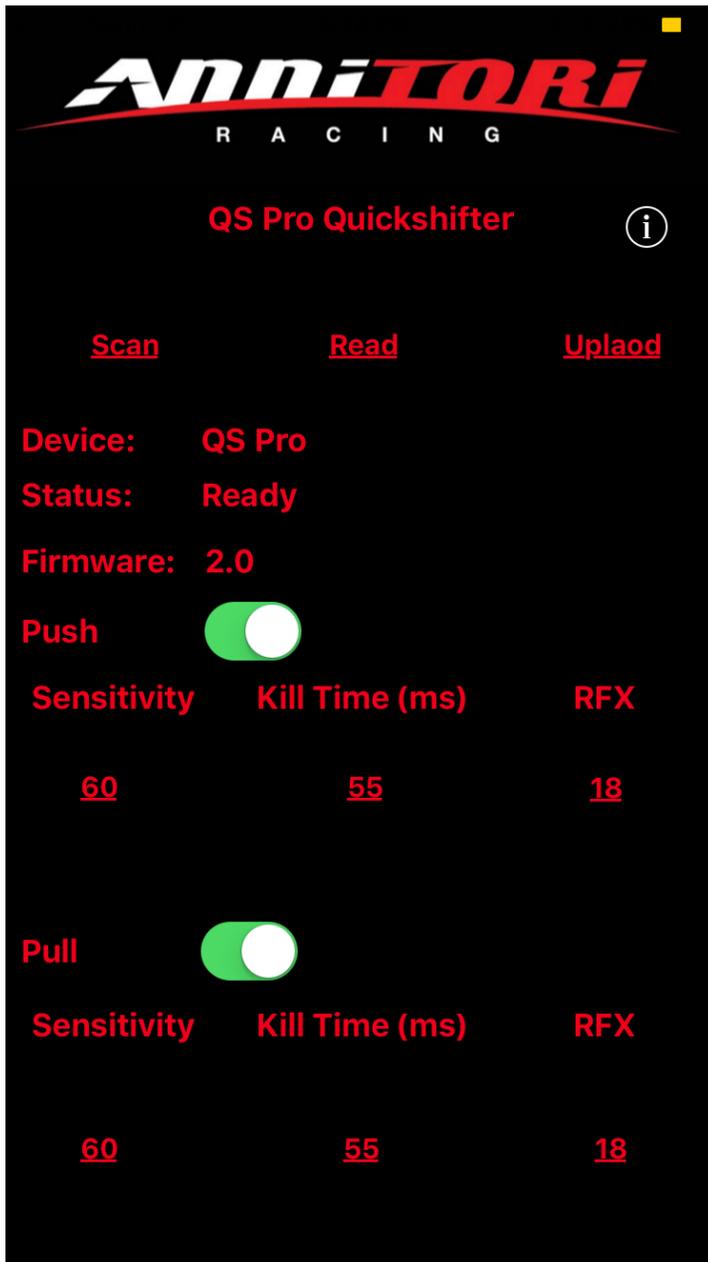
6) You will see your "QS PRO" pop up, this is the name that appears in the box at the bottom as in this image. When this appears, the app has found your shifter

7) Click on the "QS PRO" to connect the app to the shifter. Do not click on cancel, this will stop the process.



8) When the app has connected with the shifter it will show the screen here, with “Connected, press Read Button” in the status bar.

9) Note that the settings are not correct. No direction is clicked (green means enabled), Sensitivity is at 5, Kill Time at 1ms, RFX at 1. These are NOT settings you would ever use with our shifter, so you know you are not yet reading your QS PRO. Connected and Reading are TWO DIFFERENT things! When connected AND reading, you will see these settings change to what is in your shifter.



10) Click the center READ button. It will take a second or two to gather the information from the processor (if not, click READ again) and you will see the image displayed (or your personal settings) at left.

11) Note that when the read is correct and actual, you will see the STATUS as “Ready”, the Firmware will show a version number, and the Sensitivity, Kill Time and RFX will all have realistic values. Now you know you are connected. If you do not see these, you are NOT reading the shifter and need to start the process over again.

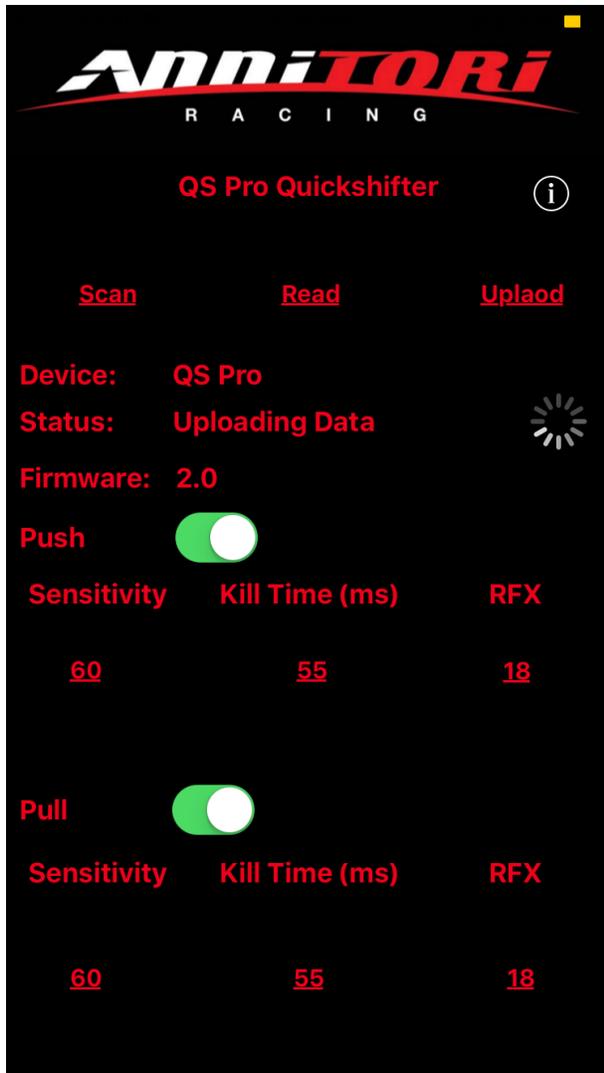
** Remember – “PUSH” and “PULL” are not about how your lever is moving, but is determined by how the linkage is acting on the sensor. It is very easy to determine what is your upshift direction. With the bike not running, sit next to your machine and move the shift lever with your hand for an upshift while watching the sensor. Are you “pushing” or “pulling” on the sensor when you upshift? This determines the direction to use in the app.

12) If ever in doubt, simply exit the app and start over, this whole process takes 10 seconds. **In fact, we STRONGLY recommend that after any settings change or use of the app, when done, EXIT the app completely. This way you know you are out, and can only come back in from the start. You will know you are coming in**

from the start if you see the image of our shifter first when you open the app. If ever in need of help, contact us, always happy to assist you!

13) You are now ready to make changes to your QS PRO settings, please check your FIRMWARE (middle of your settings screen) version and follow the appropriate instructions below.

Firmware Versions 2.4 and earlier



14) The shifter comes pre-set with both directions Enabled, 60 Sensitivity, 55ms for Kill Time and RFX 18. (If you do not have these settings on initial use, please change and UPLOAD so you can start from the base values.)

15) NOTE: RFX (which is a series of algorithms we can change for older bikes or bikes that have electrical issues) should be at 18, and always left at 18 unless you are having problems and have been in contact with our Customer Service directly. They will instruct you to make any changes, otherwise leave RFX at 18 and never change it.

16) As you can see, making changes are now very simple to do!

a) **PUSH** (check the box to enable that direction, uncheck to disable)

b) **PULL** (check the box to enable that direction, uncheck to disable)

c) **Kill time** – touch the number and a spinner will come up with all the kill time values in milliseconds. Choose the kill time you wish to enter.

d) **Sensitivity** – touch the number and a spinner will come up with the options. A sensitivity of 10 means more pressure to activate the kill

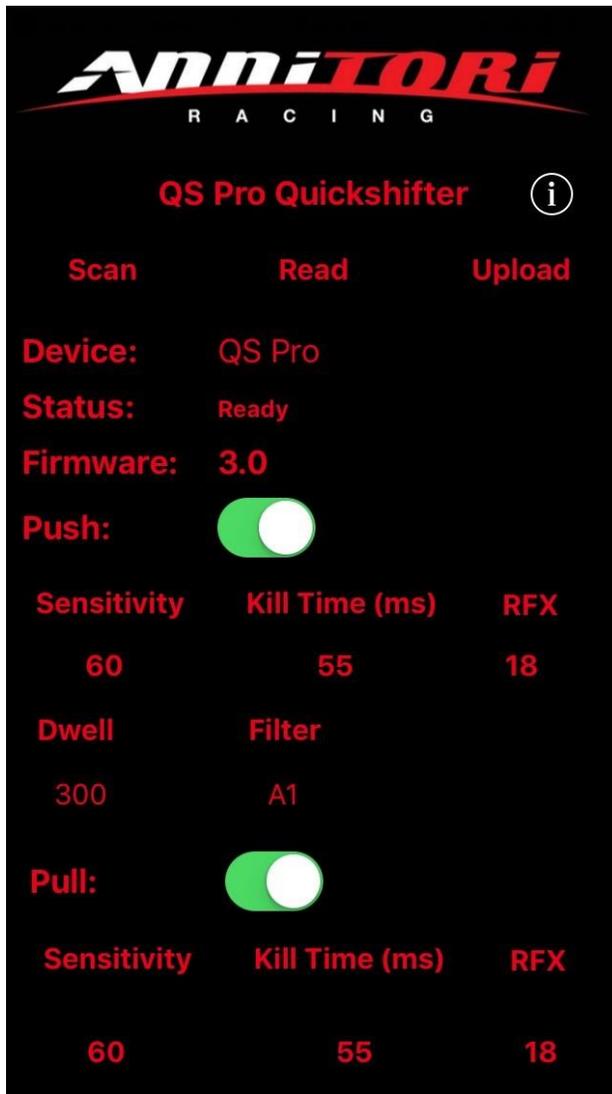
signal, 80 means very light.

** For almost all bikes you should be using sensitivity in the 50-70 range, with kill times in the 50ms to 60ms range. Over 60ms and shifts will be getting clunky, and below 50ms you are risking gearbox damage. Not that you cannot go there, you are in control of your choices. But just be very sure of what you are doing, and why you are doing it. It is your gearbox and we are not responsible for the settings you choose! Sensitivity is particular to your linkage, your bike, and your “feel”. In general, LESS sensitive is better (but do NOT grind your gearbox!) because this creates more preload on the selector drum, which brings the gears closer, which means a shorter kill time can be used. All of which means faster, smoother, quicker shifts! Contact us if you have any questions, always happy to help!

17) When you have your choices made, click UPLOAD and make sure you have successfully written to the shifter as in the image to the above, after which the status will return to “Ready”

When finished making setting changes, always EXIT OUT of the app, so it is not running in the background with your phone bouncing around in your pocket. You risk making “butt changes” to your shifter if the app is left open, so be careful!

Firmware Versions 3.0 and newer



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d) **Sensitivity** – touch the number and a spinner will come up with the options. A

sensitivity of 10 means more pressure to activate the kill signal, 80 means very light.

e) **Dwell** – this is the amount of time (in milliseconds) after you complete a shift that the shifter WILL NOT shift again no matter what you do. This is to avoid problems with bikes that have overly strong pedal return bounce, off road conditions, or shift styles that don't work with high technology sensors. Your Dwell is pre-set and probably never needs to be changed, but for people who have installed extremely short gearing (nothing a stock bike would have) or people who do a lot of "short shifting", machines run in very bumpy or off-road conditions, etc., you are now able to adjust this setting to fit your particular needs.

f) **Filter** – these are 4 different software versions we can use for bikes that are having problems, do not change this unless you are told to do so by our Customer Support. 99% of bikes are perfectly fine with the base setting you received, but for "odd" bikes or problem bikes these additional software variations let us help more effectively. Think of it as having more tools in your toolbox in case you ever need them, but unless something is broken and needs fixing, you don't need a toolbox at all. These filter variations are just more tools in the toolbox for us to help odd bikes with.

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17) When you have your choices made, click UPLOAD and make sure you have successfully written to the shifter as in the image to the above, after which the status will return to "Ready"

When finished making setting changes, always EXIT OUT of the app, so it is not running in the background with your phone bouncing around in your pocket. You risk making "butt changes" to your shifter if the app is left open, so be careful!

Testing the QS PRO for shift signal

To make sure you have a kill signal there is a simple test you can do while just sitting on your bike in your driveway.

To test, start the bike, hold the clutch in and shift to 6th gear. **KEEP THE CLUTCH IN – DO NOT RELEASE THE CLUTCH AT ANY TIME DURING THIS TEST!** You are not driving the motorcycle, only sitting on the bike in your driveway and doing these static tests.

Then hold about 5k rpm's so you can hear the steady sound of the exhaust very easily. **DO NOT LET THE CLUTCH OUT!**

Now, move the shift lever as if you are going to shift from 6th into 7th gear. You should hear a “burp” in the exhaust note. Sounds like a misfire because we are killing your coils; it is the sound of the kill signal. You can do it multiple times to be sure you hear the sound, it is very distinct and easy to hear.

If you have “both” directions (PUSH and PULL) enabled, you can do the same test for the other direction. Shift into 1st gear, hold the 5,000 rpm's (**do not let the clutch out!**) then shift down again as if you are going to “zero” gear. Is there a kill signal?

Quick and easy way to test if your installation is complete and the shifter is working!

We think this covers all the basic aspects of the Set-up app, let us know if you have any questions!

Toll Free: 1-888-963-1212 (9am – 5pm, Central Standard Time, Monday - Friday)

Website: www.AnnitoriQS.com

Email: info@annitori.com

