QS PRO & QS PRO 2 Set-up App Instructions
For Bluetooth BLE (Android 4.4+)

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. Older 2015 versions (see below) of the shifter DO NOT have Bluetooth BLE capability, instead they have Classic Bluetooth (v2.0), see the instructions for these below.

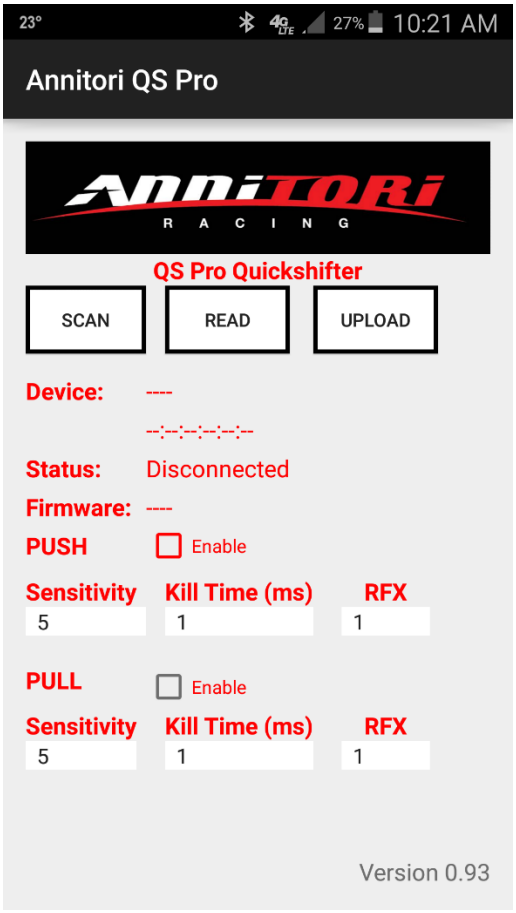
Your device must have Bluetooth v4.0 (BLE) or better, and Android v4.4 or newer, both of which have been around since 2011. We have seen the app work with Android 4.3, but this is the first version of Android that added Bluetooth BLE, and can be "iffy" depending on the device and firmware. Android 4.4 and higher seems to be fine.

***Android users: See SPECIAL install instructions below ***

YOU MUST turn on "Location" inside our app or you will not be able to connect. To do this you need to go into your "Application Manager":

a. **Find and open "SETTINGS"**
b. **Find "APPLICATIONS or APPS", whatever your phone calls your app storage area and click on this. You should see a listing of all the apps you have installed on your phone.**
c. **Find "Annitori QS PRO or Annitori QS PRO 2", apps should be listed alphabetically so it will be near the top of the list**
d. **Click on "Annitori QS PRO or Annitori QS PRO 2"**
e. **If you are in the correct place, you should see "Uninstall" and "Force Stop" as options at the top of your screen now. If you do not see these, back out and correctly locate our app.**
f. **Once correctly in, scroll down and you will see "PERMISSIONS".**
g. **Click on "PERMISSIONS" to open it.**
h. **You will see "LOCATION" as an "on/off" option**
i. **Turn "Location" ON. It must be ON for the app to work!**
j. **After turning "LOCATION" on, back out of the App Manager to your home screen, you are ready to go!**

If you are having any trouble with this, please contact us at info@annitori.com and we will assist you!



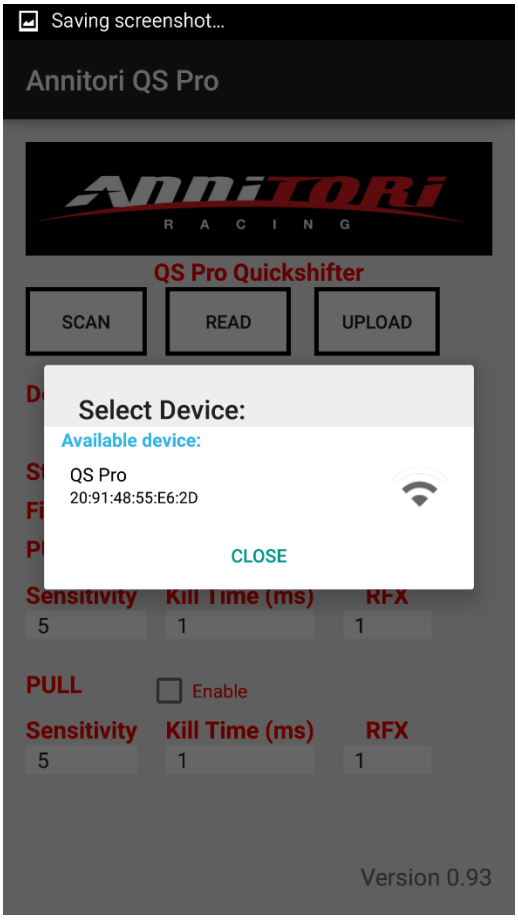
1) Turn on your device Bluetooth.

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:

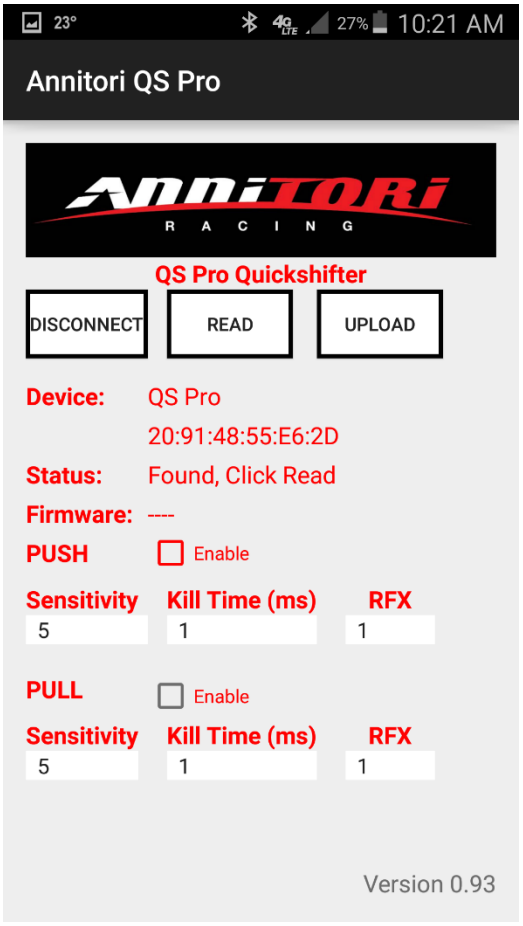
4) With the app closed, start your motorcycle. This is very important, you must start your machine BEFORE you open the app, so that the BT on the shifter is searching as you open the Annitori App to connect.

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 “MAC” address pop up, this is the number that appears in the box as in this image. This number is the unique number that identifies your QS PRO shifter. When this appears, the app has found your shifter

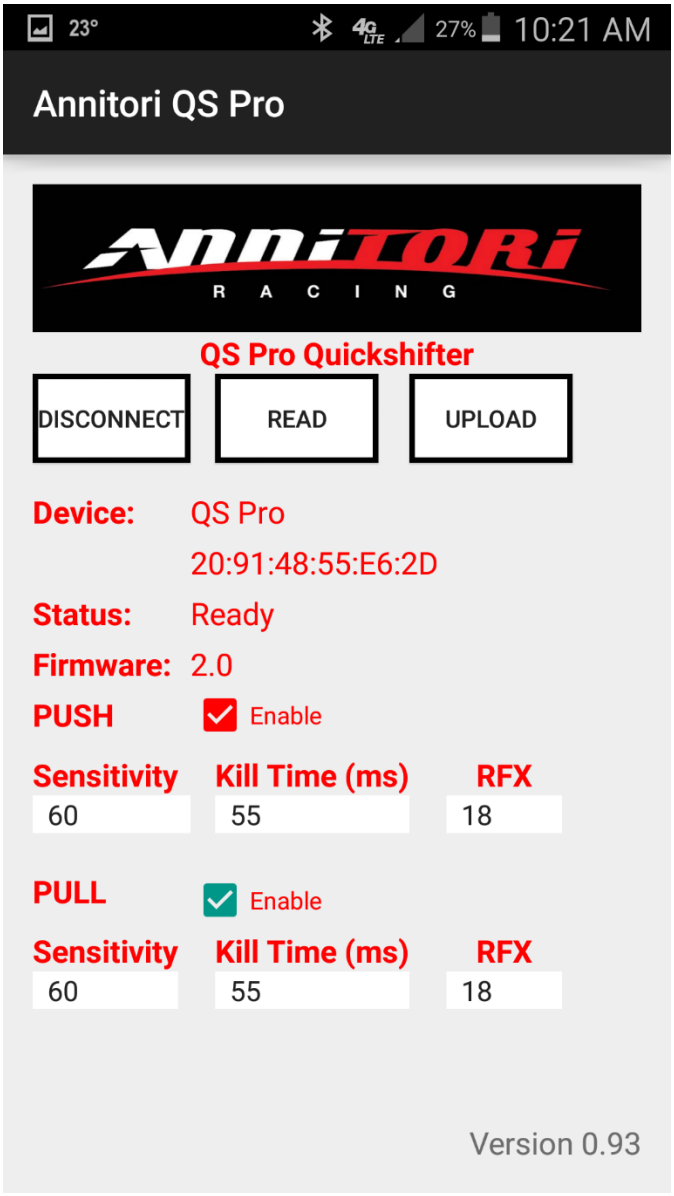
7) Click on the “QS PRO / MAC address” to connect the app to the shifter. Do not click on close, this will stop the process.



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

9) Note that the settings are not correct. No direction is clicked, 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.

After clicking on QS PRO, wait 5 seconds (5,4,3,2,1) before clicking READ, this gives the app time to read the shifter.



10) After 5 seconds, 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.

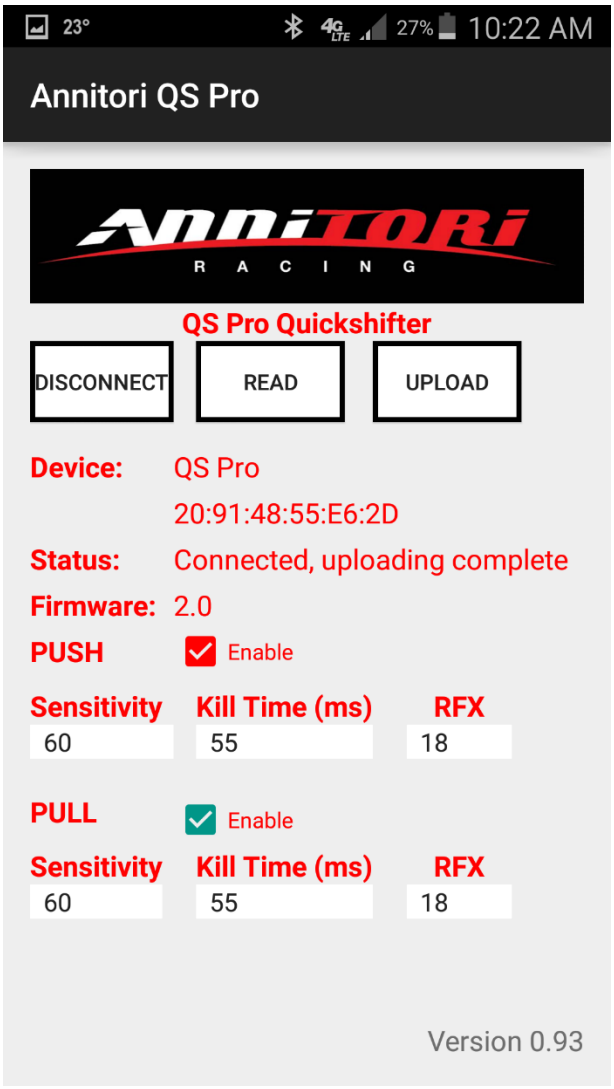
11) Note that when the read is correct and actual, you will see the STATUS as "Ready", the Firmware will show a version number, and the Sensitivity, Kill Time and RFX will all have realistic values. Now you know you are connected. If you do not see these, you are NOT reading the shifter and need to start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

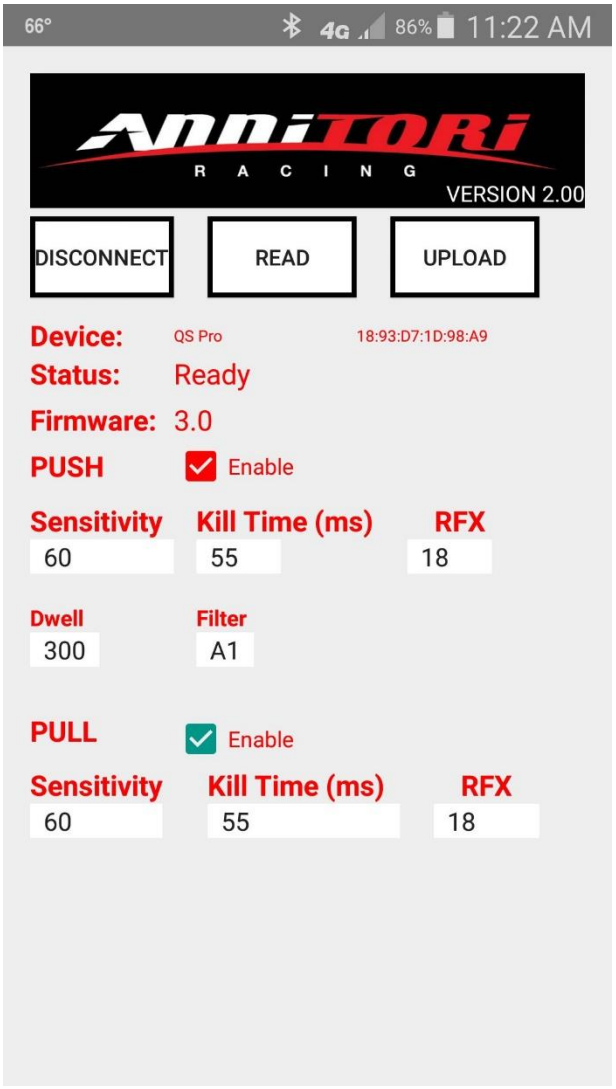
d) **Sensitivity** – touch the number and a spinner will come up with the options. A sensitivity of 10 means more pressure to activate the kill signal, 80 means very light.

** 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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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.

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.

** 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!

Testing the QS PRO for shift signal

"the Driveway Test"

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. Do not have the bike on a stand, simply sit on the bike with both wheels on the ground. 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 engine for a few milliseconds; 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!

Android 6.0+ installation instructions

Android 6.0 has a new requirement for Bluetooth, you need to turn on “BLUETOOTH LOCATION” in the settings of the app.

Download and install the QS PRO app.

Then, go to SETTINGS, find and open your APP MANAGER, then open our QS PRO app. Scroll down to PERMISSIONS.

Turn (allow) BT LOCATION on.

Exit the app.

Start the bike, open the app, click SCAN and click on the QS PRO

Wait 5 seconds (5,4,3,2,1)

Click READ.

All should be good!

QS PRO Set-up App Instructions
Bluetooth 2.0 setup (2015)

All QS PRO's shipped since February 28, 2015 have Classic Bluetooth capability for entering and using the setup features of the shifter. Older versions of the shifter DO NOT have Bluetooth capability, sorry, but do still have the full NFC functions. If you are unsure, simply turn on your Bluetooth and scan, our shifter will show up as "xx-06" or "QS PRO" when you scan. If you see these, you have a Bluetooth version.

This is NOT iPhone 6, 5 or 4s Bluetooth, except for the older versions, we believe the iPhone 4 and older. Why? Because unlike Android, Apple choose to NOT be "backwards" compatible when they upgraded to the BLE version of Bluetooth. So with the Apple products Apple chose to drop the older compatibility and offer only the newest version of Bluetooth. Yes, we are working on the Apple version next, but since almost everybody has some sort of regular Bluetooth device around we thought we would get this out quicker for the 70+% of Android users around the world.

1) Turn on your device Bluetooth.

2) Download the app to your phone or device, install and open the app.

3) Start your motorcycle and open the QS PRO Bluetooth App. Then hit "SELECT" at the top. The password is "1234" to pair the shifter with your phone. You want to do this from inside the app, using the SELECT button at the top. Click on the "Select" button, click on the device you want to pair with, and then enter the password.

4) Once paired, the shifter settings will appear at the bottom half of the app. The shifter comes loaded with 60 Sens, 55ms, RFX 18

5) 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 numbers. Choose what you wish to enter. Kill time is in 1 millisecond increments.

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! **

6) When you have your choices made, click UPLOAD and make sure you have successfully written to the shifter.

DONE…!

VERSION 1.9 and newer: "RFX"

You will notice you have a feature called "RFX", a 3rd spinner you can adjust. It is one of the most advanced features of any shifter available, some very cool software technology from our engineers.

First and foremost – the base setting is 18, do not adjust this until you have ridden your motorcycle and tested the operation of the shifter. RFX is an adjustment only for bikes that have problems, and allows us to help you sort almost all issues using this function.

IF YOUR BIKE AND SHIFTER WORK AND RUN FINE – NO NEED TO ADJUST THIS AT ALL…!!! Leave it at the base setting of 18 and have fun!

IF you experience issues while riding your bike related to the shifter, please contact us directly via email at info@annitori.com, or toll free 1-888-963-1212, Monday – Friday, 9am – 5pm CST.

Troubleshooting:

First, always check to see that at the top of the app you can see your shifter in the "Device" line, and that your status is "Connected" and that you have a Version Number showing. Also, the "Upload" box needs to be illuminated, if it is dark you are not connected. If yes to these, then:

1) Make sure your Bluetooth is on
2) Make sure you are connected to your shifter. Hit CONNECT and/or DISCONNECT a few times and wait for the confirmation to be sure that you are connected. If this does not work, exit the app and then open the app again.
3) If the UPLOAD box does not illuminate, you are not connected. See #1 and #2 above.
4) If you are unsure if the settings were saved, exit out or disconnect, then re-enter the app, re-pair and see what your settings are.

Please play around with the app a little bit for us, make sure you understand how things work, and PLEASE email us if there are any questions or problems at all.

Toll Free: 1-888-963-1212 (9am – 5pm, Central Standard Time, Monday - Friday)
Website: www.AnnitoriQS.com Email: info@annnitori.com

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. Do not have the bike on a stand, simply sit on the bike with both wheels on the ground. 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.

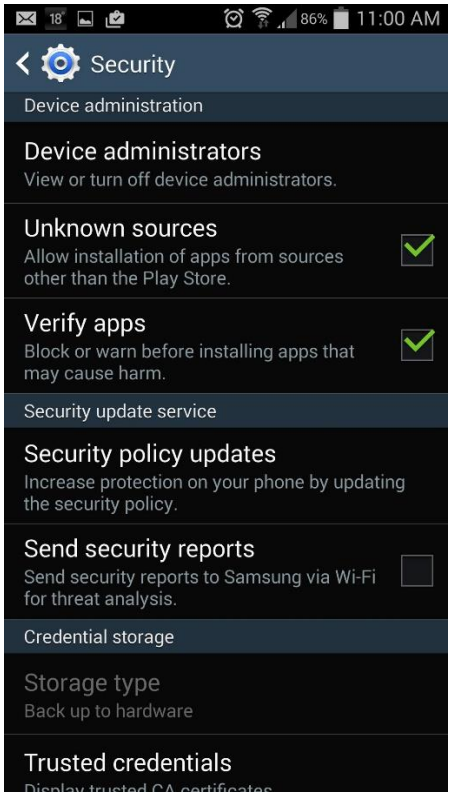
If you have "both" directions (PUSH and PULL) enabled, you can do the same test for the other direction. Shift into 1st gear, hold the 5,000 rpm's (do not let the clutch out!) then shift down again as if you are going to "zero" gear. Is there a kill signal?

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

Bluetooth app installation tips

If you are getting “cannot open file” or anything else that is not allowing the app to install on your phone, here are some tips to resolve these issues:

1) If our app is being downloaded from outside of the Google Play Store (from our site or from our email sent to you), you need to go into “Settings/Security” and turn on the “Unknown Sources” feature. Google blocks any app that tries to load that is not from their Play Store, so you need to check this box so our app will load. You can uncheck this after you load our app to prevent other unknown apps in the future.



2) After you download, go into your apps, find the “My Files” (or File Manager) app.

3) Open this, then open “All Files”, then open where you downloaded the app to (usually Device Storage), then open “Download”, and you should see our app there.

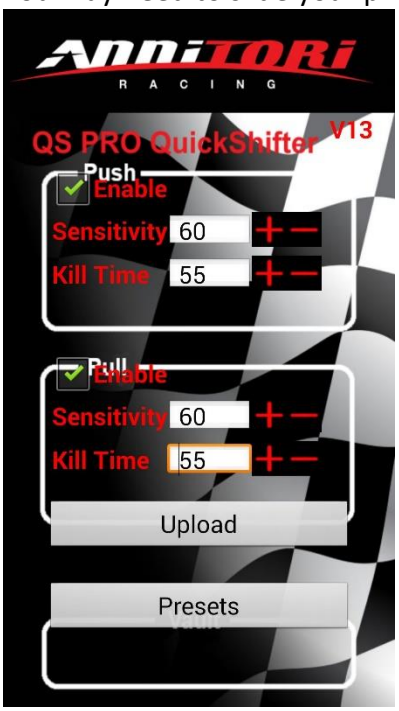
4) Click on the app from there, and install.

Hope this information helps, as always if you get stuck or need any assistance, find us toll free at 1-888-963-1212 (9-5 CST, USA) or email us at info@annitori.com

QS PRO Set-up App Instructions
NFC setup (only units before March 2015)

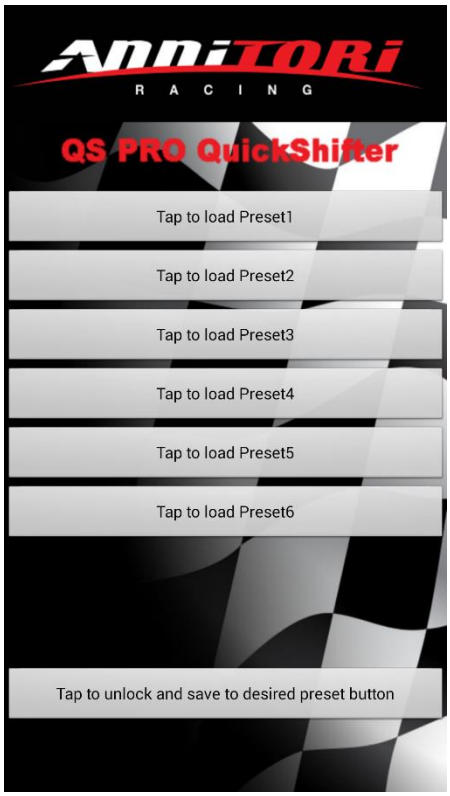
Make sure the app is opened, and that you have the NFC feature of your phone turned on. You will normally see an "N" on the top of your screen by the WiFi and other symbols.

NFC is "Near Field Communication", very cool stuff. It actually powers itself, so you can communicate even without power on the QS PRO controller. If you want to sit at the kitchen table with QS PRO and make changes, you can do that with NFC.
Place your phone up against the backside of the controller, the side with the black potting fluid. You may need to slide your phone around a bit to get your antenna to connect to the antenna on the QS PRO, but when it does, you will hear a "beep" and the settings will appear. Should look something like this:



Check the box with which direction you want to enable, PUSH, PULL or leave them both checked for a kill signal in both directions (or uncheck both to turn the shifter off). The direction has nothing to do with your foot movement, it is about how the sensor is being used. If when you are upshifting you are "pushing" on the sensor, that is PUSH. If your upshift is "pulling" on the sensor, that is PULL. If you don't know, with your bike off just sit next to your bike and upshift by hand - are you pushing or pulling on the sensor? That will answer the question for you.

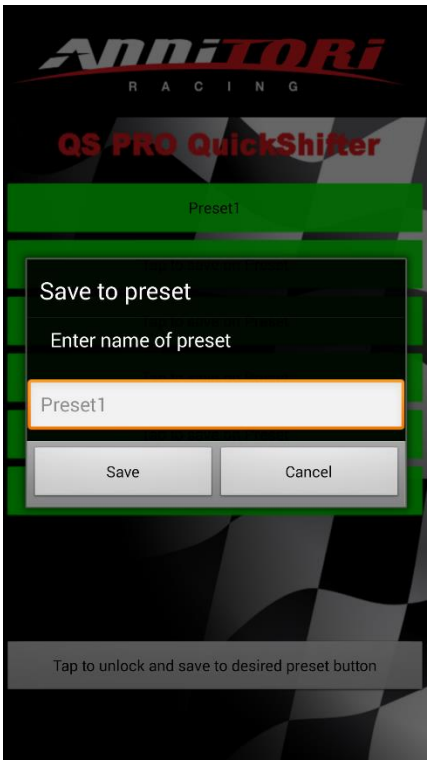
Sensitivity and kill time are obvious, "+" or "-" to move up and down the numbers. For almost all bikes you should be using sensitivity in the 50-70 range, with kill times in the 50ms to 60ms range. Over 60ms and shifts will be getting clunky, and below 50ms you are risking gearbox damage. Not that you 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!



The “Presets” section of the app is where you can store settings. Maybe you have two bikes you are switching the QS PRO between. Maybe you use the bike for trackdays, and run normal shift on some occasions, and GP shift on others. You can store these so that when you change, all you have to do is tap and load, almost instantly!

On the left is the screen you will see when you enter the Presets section of our QS PRO.

Tap on the bottom bar and the Preset choices will highlight, then tap on one of the Presets



The screen on the left will appear, and you can now name your preset and Save.

Anytime you want to load a preset, simply pull up the preset screen, connect the QS PRO controller to the app, and upload.

That simple!

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@annnitori.com