QuickShifter easy

User's Guide

1. Foreword

Congratulations on your purchase of a *HealTech QuickShifter easy* - next generation standalone quickshifter module.

The QSE is the only quickshifter module on the market which utilizes Bluetooth technology for setup and function tests. Can even be disabled with a few taps to restore factory condition e.g. for servicing the bike.

The unit comes with a special ring sensor which is extremely simple to install and works on all motorcycles (also with reverse/race shift pattern). It's a robust design, has no moving parts and works in every situation. Sensitivity (threshold) can be adjusted precisely to your riding style.

The QSE comes with the widest range of Plug 'n go harness kits which suit hundreds of different motorcycles.

2. How to Setup unit

1. **Install the module and sensor** as per the supplied Install Guide.

2. **Install the *QuickShifter easy* free app** on your Android phone or tablet.
   In the Google Play Store, search for **HealTech** to find the app.
   Alternatively, follow this direct link:
   https://play.google.com/store/apps/details?id=com.healtech.quickshiftereasy

3. **Turn the ignition key ON**.
   The QSE LED light should light up in GREEN color then change to solid RED. This confirms that the unit has power and ready for use.
   If the LED turns off in a short while or does not light up, you need to have the engine running to establish the Bluetooth connection.

4. **Start the QSE app** and then press **Menu → Connect** to connect to a new QSE module. The code for Bluetooth pairing: **4325**
   On some Android devices without a menu button, you need to press the app switcher button longer to open the menu. If, for some reason you can not pair with the module from the app, try it under the phone's Bluetooth connections.

   Note: If you have more QSE modules paired, you can remove them with a long press, when the (x) sign appears.

5. When the module is connected for the first time, it is advised to **tap the *Reset to defaults* button** under the Settings screen as it sets the typical values.

6. **Start the engine and let it idle**.
   Press **Menu → Settings** and verify the **Engine speed** (refer to chapter 3, *Engine speed*).
   Make sure the QSE LED light turned to solid GREEN, which means the unit receives the RPM signal correctly.

7. **Adjust the Sensor threshold**.
   Refer to chapter 3, *Sensor threshold* and *Sensor logging*.

8. The main screen shows nine RPM ranges. Go to Settings and **set the First RPM and Last RPM values** to suit your bike (refer to chapter 3).

9. **Set the engine cut-off times on the main screen** for different RPM ranges. Start with the default cut-off times and adjust if necessary. If your bike has less than 4 cylinders, typically larger values are needed. If the gearbox does not take a gear or sometimes goes into false neutral, increase the values. If the gearshift is smooth but not quick enough, reduce the values.

   Note: Do NOT go below the default cut-off times unless you are a racer and you know what you are doing. It is safer to use larger values than smaller ones.

10. After making the desired changes and you wish to store it in the module, press **Menu → Upload**. When the module is connected next time, the settings will be loaded automatically to the app from the module (even if you replace your phone).

    You can store and recall your favorite settings by pressing **Menu → File**.

    Note: While the module is connected, it always responds to a change in the application. However, if you turn the ignition key off before pressing Upload, the module will revert back to the previous settings.

3. Explaining the Settings menu

Bypass mode (disable QSE):
Check this option if you wish to disable the QSE module.

Engine speed:
Shows the actual RPM detected by the module. Check and make sure it is in sync with the tachometer of your bike. Otherwise, change the **Pulses per rev** number here.

Sensor current / maximum:
Shows the current and maximum readings from the QSE sensor.
The harder and quicker you make a gearshift, the larger number you see.
Note: This parameter is not available when an NC/NO switch is used.

Switch status:
Shows the status (*On* or *Off*) when a standard (*Normally Closed* or *Normally Open*) switch is used.
Note: This parameter is not available when the QSE sensor is selected.

Sensor threshold:
Sensitivity (threshold) can be adjusted precisely to your riding style. Adjust this number to cut the ignition at the optimal force on the gearshift lever.
Use the *Sensor logging* function to find the optimal value (*see on the next page*).
When riding the bike with QSE enabled and doing full throttle clutchless upshifts:
- If the shift lever is too hard, adjust the threshold LOWER.
- If you experience unwanted cut-offs e.g. when touching the shift lever lightly, adjust the threshold HIGHER.
Note: When using an NC/NO switch, refer to the instructions received with your switch.

First RPM:
This will be the first RPM number on the main screen. Engine cut-off is disabled under the First RPM value, so we recommend setting it well above idle speed to ensure the engine won't stall when you put the gearbox in first gear.

Last RPM:
This will be the last RPM number on the main screen.
Enter the RPM number where the red zone starts on your tachometer.
The ignition will be cut-off for the duration set by the Last RPM row if the shift occurs above that RPM. This means, you can do a quick shift above the Last RPM.

Cut-off delay:
Increase this value if the gearbox drops out of gear after a shift.
Decrease the value if the shift lever is too hard.
Note: Adjust the *Sensor threshold* properly before changing the Cut-off delay.

Cut-off test:
When the engine is running, you can test whether the engine cut-off function works normally or not.

Allow cut-off when RPM is falling:
If checked, you may do clutchless downshifts with <u>partial throttle</u> from the higher gears.
The sensor must be installed under the bolt (not in the rod) to detect both directions.
Caution: Use with care! If downshifts are not smooth on your bike, use the clutch!

PIN code:
You can setup a personal PIN code (1 to 4 digit long) to make sure no one else has access to your module. If you replace your phone or connect from another phone, you'll have to enter the PIN code at the first connection. The phone stores this code so you need to enter the personal code only at the first connection from that phone.

Beware, if you forget your personal PIN code, you'll have to contact us to get it cleared. If you wish to disable the PIN code protection, enter the current PIN and leave the new PIN fields blank.

Note: The PIN code is not related to the Bluetooth pairing code.

Sensor type:
Select whether you use the QSE sensor or a standard push or pull QuickShifter sensor from a different manufacturer, such as the *Nextup* switch.
You may also use a handlebar mounted switch, like the passing light switch to trigger the cut-off when racing rules do not allow a foot operated QuickShifter.

Sensor logging:
Use this function to check the sensor operation and to find the optimal <u>*Sensor threshold*</u> value. Follow the instructions on the screen or the steps below:
- Put the bike on a rear stand and have the side stand UP.
- Put the gearbox in TOP gear. Sit on the bike normally.
- Without the engine running, or with the engine running at idle and clutch pulled in, do a SHIFT UP motion 6 times with your NORMAL shift speed and force.
- See the average value of the six shifts and divide by two.
- Set this number for the Sensor threshold. E.g. if you see the six shifts ranging from 35 to 45 then set 20 for *Sensor threshold*.

Reset to defaults:
Push this button to set the factory default values. As always, on the main screen press Menu → Upload to store the changes in the module.

Change language:
You may change the display language with this button.

4. LED status codes

Solid RED	Unit is powered up. Engine is not running or RPM signal is not received.
Solid GREEN	Unit is powered up. Engine is running (RPM signal is received).
Flashing RED	Error detected. Connect to the application to see the problem.
Flashing GREEN	Bluetooth interface is in standby (typically, while riding). Stop the engine if you wish to connect.
Inverse color	Shift signal detected, data is sent to the module or firmware update is in progress.

5. Frequently Asked Questions

Please read our QSE FAQ before sending a question:
www.healtech-electronics.com/docs/QSE_FAQ_en.pdf

6. Troubleshooting

In case of problems or concerns, please check out our Troubleshooting Guide:
www.healtech-electronics.com/docs/QSE_Troubleshooting_en.pdf

7. Warranty

Disclaimer: Do not attempt to install the product if you don't have basic mechanical skills. HealTech Electronics Ltd. and its distributors shall not be liable for any loss or damage caused by improper installation or setup. Please read the instructions carefully. If the gearshifts are not smooth, do not force the shift lever but use the clutch until you fine tune the settings.

To ensure trouble-free operation from the start, all units have been extensively tested prior to shipment. For this reason, please make sure you followed the install steps carefully and check the connections and settings before you report a problem.

The product is covered by our 2-year replacement warranty from the date of purchase*.*

The warranty does not apply to product that has been subjected to misuse, fitted incorrectly or there's a visible damage e.g. from a crash.

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