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Blip Box fault diagnosis guide

This document is intended to point the service technician to the most likely causes of installation or user faults found on Blip Box.

Fault – There is no up-shift cut or down-shift blip, but the LEDs on the box work when I press the pedal and there are no flashing diagnostic problems.

1. The Blip Box has been programmed for the wrong load cell direction, or the Cordona shift sensor has been setup for the wrong direction. Check the physical direction of the engine shift lever arm and see if this is standard or reversed, then compare with the map loaded into the Blip Box. Do not get confused with standard or GP shift. Only the engine lever direction matters.
2. The rear speed sensor is either disconnected or disabled in the software
3. The clutch switch has been by-passed (linked together permanently) or is faulty and permanently linked.
4. (Ducati only), There is a fault with either of the speed sensors, or DTC control module which creates a DTC error and this disables the blip function (note this can also be intermittent and usually re-sets at power on, then fails again after some distance on the track)

Fault – There is no up-shift cut or down-shift blip, but there is a 9 x LED blink code on the module
5. The QS has been disabled within the dashboard settings.
6. The ignition is OFF and / Or the bike systems are powering off

Fault – There is a Blip but no up-shift
7. Check the physical connection of the wires from the Blip Box to the bike up-shift wiring
8. Incorrect wiring used, such as Ducati 899/1199 wiring on a 959
9. Incorrect Blip Box firmware, such as Ducati 899/1199 firmware on a 959

Fault – The Up-shift and Down-shift work but sometimes there are missed shifts and the foot pressure does not feel correct.
10. Check the angle between the engine lever arm and the link rod, it should be 90degrees at rest. If not, then adjust the rod length to make it correct.
11. Make sure you are applying a firm and repeatable foot movement, making a slow foot movement will always find false neutrals or missed shifts. Take time to practice.
12. Check the linkage for loose components or bearings with excessive free play especially make sure the rubber O ring is fitted at the front rod end to take up lateral free play and vibration (Ducati ony)
13. Incorrect shift load due to non-standard footrests. Adjust with WinBlip as necessary
14. Engine mapping is non-standard. Modify blip maps to suit the modified mapping. Any change in your engine map that affects the relationship between the twist grip and engine throttle will affect this.
15. Damage to the load cell, check that there is 2.5v on pin 2 of the sensor either with the WinBlip software or a multimeter. Note that the Blip Box self-calibrates at 'power on' to correct for load cell voltage drift as long as it is within 2.2 to 2.8v
16. Blip Box is not self-calibrating at power-on, because
    a. There is a Ducati DDA module installed and this inhibits the Blip Box switching off.
    b. The Yamaha R1-M CCU module needs updating and is not allowing the Blip Box to switch off
    c. Both of these also cause flat batteries.

Fault – After the Blip down-shift the bike makes a small push forward, like there is too much, or too long a blip
17. The wrong blip map has been loaded, check what is in the module using WinBlip
18. Engine mapping is non-standard. Modify blip maps to suit the modified mapping. Any change in your engine map that affects the relationship between the twist grip and engine throttle will affect this. Modify the blip map using WinBlip
19. The engine has been modified or tuned so is more responsive to the throttle than before. Modify the blip map using WinBlip

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Fault – The blip is working but it takes too much pressure to complete the shift.
20. Check the angle between the engine lever arm and the link rod, it should be 90degrees at rest. If not, then adjust the rod length to make it correct.
21. The wrong blip map has been loaded, check what is in the module using WinBlip
22. Engine mapping is non-standard. Modify blip maps to suit the modified mapping. Any change in your engine map that affects the relationship between the twist grip and engine throttle will affect this. Modify the blip map using WinBlip
23. There is an engine fault such as bad fuelling map and the engine is not immediately responsive to the throttle

Fault – Sometimes I use the bike and all works perfectly, other times it does not, until I power off and on again
24. During power ON the Blip Box self-calibrates the load cell, so if your foot is resting on the lever, or the linkages are not free to move there can be a big offset applied to the load cell signal and it will not work correctly until another self-calibration is done. (see also fault 4 on previous page)

Faults – When I turn on the bike the module flashes 3 times, then a series of double flashes for about 20 seconds
25. Perfectly normal, this is the self-calibration phase and is not a fault as long as the LEDs stop after 20 seconds.