

HEALTHTECH ELECTRONICS XT-S01 X-Tre Power Box Performance Module User Manual

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Before installing this product, please make sure you got the right part for your bike. See the part number on the packaging and use the Product Advisor on our website to check compatibility.

These instructions are applicable to a wide range of motorcycles and describe the main installation steps needed for a successful installation.

You can find motorcycle-specific Supplementary Manuals on our website. Please visit: www.healtech-electronics.com/XTRE

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. If in doubt, please consult with your dealer.

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Installation

- 1. Check the supplied parts:
 - X-TRE Power Box (with Velcro strips)
 - Wiring harness
 - Yellow butt connectors, gel-filled (2 pcs)

- Red tap connector, gel-filled
- 4p jumper-plug
- Cable ties (2+1 pcs), HealTech stickers (2+2 pcs)
- 2. Make sure the ignition key is in the OFF position. Remove the seat.
- 3. Locate the ECM (Engine Control Module).
- 4. Locate the Black wire with a thin dark Green stripe (B/G), in the ECM connector. The wire position for different models is as follows:

DL-1000 (2019-2020) GSX-R600 (2008-2017) GSX-R750 (2008-2017) GSX-R1000 (2007-2017) GSX-S750 (2015-2021) GSX-S1000 (2015-2021)	Black connector, pin no. 23 Middle row, 2nd terminal from lef t to right at the back (wire) side of the connector
SFV400 / SFV650 / Gladius (2009-2015) Boulevard C90 / Intruder C1500 / VL1500 (2013-2017) Boulevard C50 / Intruder C800 / VL800 (2009-2017)	Large connector, pin no. 31 Bottom row, 4th terminal from le ft to right at the back (wire) side of the connector
ALL other years and models	Black / Large connector, pin no. 6 Top row, 6th terminal from right to left at the back (wire) side of the connector

5. Peel off about 2 cm (0.8") from the black sleeve (tape) around the wires.

You may disconnect the ECM plug to have more space around the wires.

- 6. Cut the B/G wire, about 4 cm (1.6") away from the connector.
- 7. Use one Yellow butt connector supplied to splice the XTRE Black/Green wire (also labeled "to ECM") to the B/G wire end, which goes to the ECM connector.

Usage: Insert the two unstripped wires all the way, and press down the yellow cap with pliers. Remove the excess gel around the connector with a dry cloth.

Visually inspect the splice, and confirm the yellow cap is completely down.

- 8. Same way, use the other Yellow butt connector to splice the XTRE Black/White wire to the B/G wire end, which is at the wiring harness side.
- 9. If you disconnected the ECM connector, re-connect it now.
- 10. B-King only: Remove the left side plastic engine cover (3 screws) and left frame side cover (pull out). Other models: Prop up the fuel tank.
- 11. Locate the GPS (Gear Position Sensor) coupler.

XT-S01: This 3-pole, white, triangular connector is at the back under the fuel tank, on the left side. You may find more than one of these connectors under the fuel tank. You need the one that has Blue, Pink, and Black/White leads.

XT-S02: This 6-pole, semi-transparent connector has 5 wires.

- 12. Disconnect the GP sensor coupler. A long, flat head screwdriver may be needed to depress the release tang while the connector is separated.
- 13. Connect the two X-TRE plugs to the GP sensor plugs.

Make sure that none of the metal pins have been pushed out of position, and that the connectors are seated properly.

- 14. Route the XTRE harness to the box and connect the 4p plug.
- 15. Connect the XTRE Red wire to a switched +12V wire, e.g. at the 2-pole rear brake light switch connector, at the fuse box or at the ECM connector (Orange/Green or White/Green wire). Use the Red wire tap connector supplied only if the wire outer diameter is less than 3mm (0.12").
 - Usage: Place unstripped run wire (switched +12V) inside the run channel. Close side covers until latched. Insert unstripped tap wire (XTRE Red wire) completely and check its position. Insert the blade (u-contact) and press down with finger pressure. Then, depress the u-contact with pliers. Close hinged top cover until latched. Remove the excess gel around the connector with dry cloth.
- 16. Test the Gear Indicator operation. The ignition must be ON, the side stand must be UP, and the engine stop switch should be in the RUN position.
- 17. If the GI works normally, mount the XTRE box to the inner side of the frame with the supplied Velcro strips, and secure the box and cables with cable ties. Otherwise, refer to chapter 3, Troubleshooting.
- 18. Install the fuse box, relay switch, side covers, fuel tank, and seat.

Operation

The unit is fully functional after installation. It will improve throttle response, and acceleration and will also remove the speed limiter on 1000cc+ bikes. As such, using this product is not allowed on public roads.

X-TRE will not disable the in-dash factory gear position indicator. The module automatically turns off the mapping in Neutral for smooth idle operation.

The unit is fully compatible with other electronics and performance modifications.

Reviewing the TRE mode in use

- Put your gearbox in 1st gear
- Have the ignition key in the OFF position, stop switch in the RUN position, and side stand UP, then wait at least 5 seconds
- · Turn ignition ON
- The gear indicator will show the map in use (4, 5, or 6) for a few seconds, then it will return to normal operation.

Selecting TRE mode

Put your gearbox in 4th, 5th, or 6th gear, depending on which mapping you'd like to set as per the table below:

B-King, DL1000 and all Cruiser models	4
GSX-R1000 (see note), Hayabusa	5
ALL other models	6

- Have the ignition key in the OFF position, stop switch in the RUN position, and side stand UP, then wait at least 5 seconds
- Turn ignition ON
- The gear indicator will show the new map (4, 5, or 6) for a few seconds, then it will blink once. The setting is stored, and the gear indicator will work normally.

Note:

- You can try different settings and see how it works on your bike.
 - E.g. using mode 6 on the GSXR1000 2007+ models gives better overall performance but sets the RPM limit lower by about 450 RPMs.
- The unit retains the setting when the battery is removed or disconnected.

Restoring factory condition

- Disconnect the 4p plug from the X-TRE box, and connect the jumper plug supplied to the harness connector.
- Disconnect the 3p plugs from the box, and connect the bike connectors together.
- You can now remove the box from the bike, factory condition is restored.

Troubleshooting

In case of problems, please check the following in this order:

- 1. Make sure the ECM connector is connected and seated properly.
- 2. Make sure the side stand is UP, the engine stop switch is in the RUN position and the ignition is ON when you test the gear indicator function.
- 3. Make sure you did not disconnect anything else or bent a hose accidentally.
- 4. Check the 4p and 3p connectors. Make sure the connectors are locked and none of the pins have been pushed out of position.
 - Select neutral, and turn ignition ON. The green neutral indicator should work normally. Otherwise, there is a loose connection in the 3p plugs.
- 5. Turn ignition off and wait a few seconds. Have the side stand still UP and the stop switch in the RUN position. Turn ignition ON while you watch the **X-TRE status LED**.
 - If the LED does not respond at all, redo the splice at the Red wiretap connector, or connect the Red wire to the battery positive terminal.
 - If the LED blinks once when the ignition is turned on then remains On, check the connection of the X-TRE Black/Green wire, and make sure it is connected to the B/G wire at the ECM connector side.
 - If the LED blinks once when the ignition is turned on then remains Off, and the gear indicator still does not function, check the connection of the Black/White wire, and make sure it is connected to the B/G wire at the main wiring harness side.
- 6. If the gear indicator works but shows one gear only, check the connections at the 3p plugs, and make sure the sensor wires are Blue, Pink and Black/White. Otherwise, you got the wrong connector.

If the problem persists, please contact us for advice and describe the situation in detail.

Warranty

The X-TRE is built to last: all leads are protected against reverse voltage, short circuits, and high energy transients. Only high-quality components have been used, and the epoxy layer construction gives extreme protection for the internal parts from shocks, vibrations, and water.

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 installation steps properly, and refer to the troubleshooting guide

before you report a problem.

Our dealers are offering a 30-day money-back guarantee on HealTech products, thus you will get your money back if the product does not fulfill your expectations. (All parts must be returned in original condition for a full refund.)

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

www.healtech-electronics.com

Documents / Resources



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XT-S01, XT-S02, X-Tre Power Box Performance Module

References

- <u>h HealTech Electronics Smart Tech for your Ride!</u>
- <u>A X-Tre Power Box performance module by HealTech Electronics Ltd.</u>

Manuals+,