Two Brothers Racing

U.S.A.
Absolute Top Level™

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V.A.L.E.™
VARIABLE AXIS LOCKING EXHAUST

Two Brothers Racing
Juice Box™ – Fuel Controller
2006-08 Kawasaki ZX-14R Installation & Operation Manual
Part # 008-149

Parts Incuded

Qty.	Description	Part Number	
1	Juice Box™ Fuel Control Kit	008-149	(#9140059)
3	Zip Ties		
1	Adhesive Velcro Square		

IMPORTANT - PLEASE READ CAREFULLY

We recommend that this performance part be installed by a qualified motorcycle technician. If you have any doubts as to your ability to install this performance part, please consult with your local motorcycle dealer. Read all instructions first before starting installation. Make sure the vehicle and exhaust system are completely cool before starting the installation. Also, make sure the vehicle is secure during installation. Be sure to save all stock components for possible use later.

The Juice Box™ is legal ONLY for closed course race vehicles. The Juice Box™ is not applicable, nor inteded for use on EMISSIONS CONTROLLED street, highway or off-road vehicles. The Juice Box™ is not applicable, nor inteded for use on aircraft.

Warranty

Installation Instructions

Thank you for purchasing a genuine Two Brothers Racing JUICE BOX™. This product represents a radical step forward in tuning fuel-injected motorcycles and ATVs for optimal performance using "load-based" technology. We at Two Brothers Racing hope that you will find this development as exciting and useful as we do. And remember: Proper Fuel = Maximum Power!

1. Make sure the vehicle is completely cool before starting the installation. Also, make sure the vehicle is secure and will not roll around.

2. Remove the eleven bolts that secure the left side panels. Remove the two plastic pop-rivets, one inside the front left panel near the front wheel and above the left front turn signal and one where the right and left lower panels join behind the front wheel. Gently pull the left side panels off. (Fig 1)

Fig 1
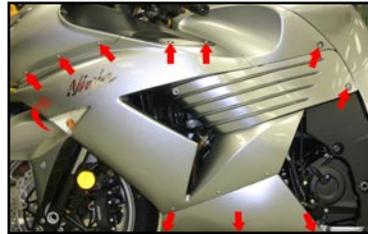
3. Remove the bolt that secures the tank plastic to the frame near the steering stem. (Fig 2)

Fig 2
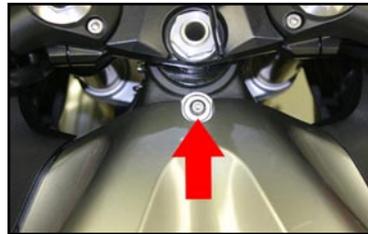
4. Locate the brown 16 pin block connector directly behind the throttle bodies, under the tank and disconnect. (Fig 3)

Fig 3

5. Connect the JUICE BOX™ connectors to these connectors. Route the JUICE BOX™ harness along the main stock harness and up to the front of the bike. Attach the ground lead (black wire) to the silver bracket with bolt that attaches to the frame near where the ram air tube enters the air box. (Fig 4)

Fig 4

6. Attach the adhesive backed hook and loop material to the back of the JUICE BOX™ and the black left side trim panel just left of the instrument cluster. (Fig 5)

Fig 5

7. Start the bike. The green LED should scroll left to right and back for about 3-5 seconds and then go to 1-2 steady or slowly flashing green LED's. If the number 1 green LED and number 8 red LED's continue flashing after startup or idling, an injector wiring error is indicated. Re-check the wires from the JUICE BOX™ and make sure they are connected to the proper wire of your bike's stock harness. MAKE SURE you have the correct wires selected in the stock harness. DO NOT PROCEED UNLESS ABOVE CONDITIONS ARE MET.

8. Bike reassembly is opposite of disassembly.

9. NOTE: Re check your wire routing and JUICE BOX™ location and make certain that in no way the wires can come into contact with any moving parts or high heat source and that the JUICE BOX™ is mounted in a way as to not cause a handling problem with the machine.

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1. It is recommended that the pre-programmed settings of the Juice Box™ be used. However, the Juice Box™ can be adjusted to suit different engine modifications, states of tune and environmental conditions. To begin this process, press the mode button. To enter each successive mode, just press the mode button again. Note that every mode will be identifiable by the color(s) of the flashing LED(s) on the LED display. **There are six modes** that are distinguished by an LED color or color combination. **The 6 modes are as follows, respectively: Green, Yellow, Red, Green-Blue, Yellow-Blue and Red-Blue.**

2. You are now ready to manually program each mode. Consult the base settings supplied with the unit.

   To program the Juice Box™, the bike must be running in order to supply power to the Juice Box™.

   Simply press the mode button to activate the first mode. If at anytime you stay in an adjustment mode for longer **than 5 seconds** without pressing any buttons, the Juice Box™ will exit the adjustment mode and will return to the operational mode.

   To save settings in a particular mode press the MODE button which goes to the next adjustable mode or wait for the Juice Box™ to exit back to the operational mode.

   The settings in each mode are adjusted by pressing the (+) and (-) buttons located on the right and left side of the mode button, respectively. For easy reference, the LEDs are numbered 1 through 8. However, the LEDs can be adjusted to the following positions: 0.5, 1, 1.5, 2, 2.5, 3, 3.5, 4, 4.5, 5, 5.5, 6, 6.5, 7, 7.5, 8. For example, in a particular mode, if LED 4 is flashing then the LED display is set to 4 in that mode. If the (+) button is pressed once then LEDs 4 and 5 will flash simultaneously and the LED display is set to 4.5. If the (+) button is pressed once again, only LED 5 will flash and the LED display is set to 5. The LED display can also be set to 0.5 by pressing the (-) button and scrolling the colored LED to position 1 and then pressing the (-) button once more until the LED in position 1 is flashing twice as fast as normal.

   I. *The first mode* (Green Mode) represents an additional amount of fuel added under cruise conditions. A flashing green LED should appear on the LED display. To add more fuel, scroll the flashing green LED to the right using the (+) button. To add less fuel, scroll the flashing green LED to the left using the (-) button. If you set the flashing green LED to the 0.5 position on the LED display, **no fuel will be added to the stock fuel curve.**

   II. *The second mode* (Yellow Mode) represents an additional amount of fuel added during acceleration. A flashing yellow LED should appear on the LED display. To add more fuel, scroll the flashing yellow LED to the right using the (+) button. To add less fuel, scroll the flashing yellow LED to the left using the (-) button. If you set the flashing yellow LED to the 0.5 position on the LED display, **no fuel will be added to the stock fuel curve.**

   III. *The third mode* (Red Mode) represents an additional amount of fuel added during full throttle conditions. A flashing red LED should appear on the LED display. To add more fuel, scroll the flashing red LED to the right using the (+) button. To add less fuel, scroll the flashing red LED to the left using the (-) button. If you set the flashing red LED to the 0.5 position on the LED display, **no fuel will be added to the stock fuel curve.**

   Note: If the flashing green, yellow and red LEDs in modes 1 through 3 (Green, Yellow and Red) are set to the 0.5 position on the LED display then the Juice Box™ will not add any fuel to the bike's stock fuel curve. This setting will essentially turn off the Juice Box™ even though it is still attached to the bike's fuel injection system. The bike will run as though the Juice Box™ is not installed. The Juice Box™ LEDs will still operate normally even though no fuel is being added.

   IV. **The fourth mode** (Green-Blue Mode) is *Not Required* for this particular model.

   V. *The fifth mode* (Yellow-Blue Mode) is an adjustment to determine the time when the acceleration/Yellow Mode fuel amount turns on. A flashing yellow LED appears on the LED display while at the same time a flashing blue LED appears on the 8th LED. To increase the sensitivity and therefore cause the Yellow Mode fuel to turn on sooner, scroll the flashing yellow LED to the left using the (-) button. To decrease the sensitivity and therefore cause the Yellow Mode fuel to turn on later, scroll the flashing yellow LED to the right using the (+) button.

   VI. *The sixth mode* (Red-Blue Mode) is an adjustment to determine the time when the full throttle/Red Mode fuel amount turns on. A flashing red LED appears on the LED display while at the same time a flashing blue LED appears on the 8th LED. To increase the sensitivity and therefore cause the Red Mode fuel to turn on sooner, scroll the flashing red LED to the left using the (-) button. To decrease the sensitivity and therefore cause the Red Mode fuel to turn on later, scroll the flashing red LED to the right using the (+) button.

Cleaning

If the unit requires cleaning, use a cloth that is only lightly dampened with water or mild detergent.

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('06-08) ZX-14R Dual Slip-on Settings:

ZX-14R baseline settings with stock air filter and TBR Dual Slip-on system. (G=0.5, Y=3, R=0.5, GB=N/A YB=4, RB=3)

Mode 1 - Green	Mode 2 - Yellow	Mode 3 - Red

Mode 4 - Green/Blue	Mode 5 - Yellow/Blue	Mode 6 - Red/Blue

('06-08) ZX-14R 4-2-1 Full Exhaust System Settings:

ZX-14R baseline settings with stock air filter and TBR 4-2-1 Full system. (G=0.5, Y=4, R=0.5, GB=N/A YB=4, RB=3)

Mode 1 - Green	Mode 2 - Yellow	Mode 3 - Red

Mode 4 - Green/Blue	Mode 5 - Yellow/Blue	Mode 6 - Red/Blue

For Race Use Only

For additional settings please visit our website at www.twobros.com.