



Fitting and adjusting Instructions PMDTFI0001

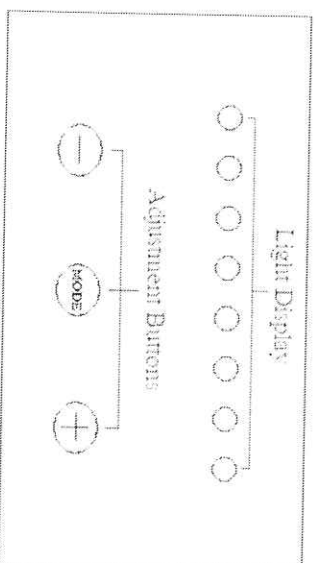


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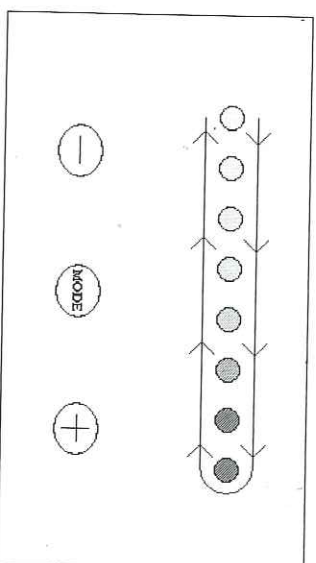
PMDTFI Instructions

1. After connecting the box, check all the wire connections to ensure proper connection. To do this, just pull on the connections to make sure they are properly locked in.
2. Be sure to check that the wire harnesses are not in direct contact with any sharp edges or other objects which could result in long term wear.
3. Turn key on so the engine system cycles without starting the scooter.
4. Start the bike up and in approximately four seconds the lights inside the PMDTFI will energize and be visible. With a proper installation, the PMDTFI will have a continuous lighting sequence where the lights come on from left to right and then back again and repeats this display for about eight seconds. With an improper installation the light display will consist of a flashing green and a flashing red light. This occurs when the PMDTFI is not receiving a proper injector signal. Recheck the wire connections for any defects. *(The flashing green and flashing red lights is common for a proper installation during deceleration because the stock fuel map shuts off the fuel injectors during this process.)*
5. At this point you are ready to adjust the PMDTFI to the base settings supplied with the unit. The first thing to do is ensure that the proper code was supplied by checking that the six programmable features are available. To begin this process press the MODE button, and to enter each successive mode, just press the MODE button again. *Note that every mode will be identifiable by a flashing light on the left side of the light display. This signifies the min value for this mode which can be increased later.*
 - a. The first mode represents the cruise adjustment. A flashing green light should appear on the left side of the light display.
 - b. The second mode represents an additional amount of fuel added during acceleration. A flashing yellow light should appear on the left side of the light display.
 - c. The third mode represents an additional amount of fuel added during full throttle. A flashing red light should appear on the left side of the light display.
 - d. The fourth mode is an adjusted value to determine the time when the acceleration fuel amount kicks in. A blue light appears on the right side and a flashing yellow light appears on the left side of the light display. *(Generally a number you only have to set once for your particular scooter)*
 - e. The fifth mode is an adjusted value to determine the time when the full throttle fuel amount kicks in. A blue light appears on the right side and a flashing red light appears on the left side of the light display. *(Generally a number you only have to set once for your particular scooter)*

General Layout

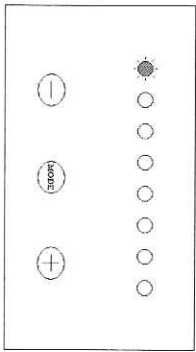


Start-Up Light Sequence

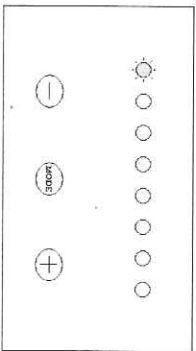


Adjustment Modes

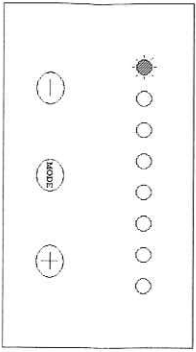
Mode 1 – Green



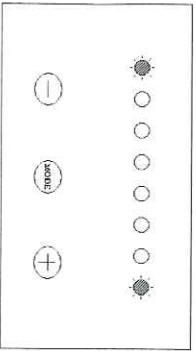
Mode 2 – Yellow



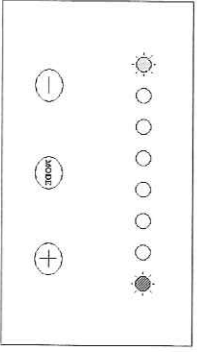
Mode 3 – Red



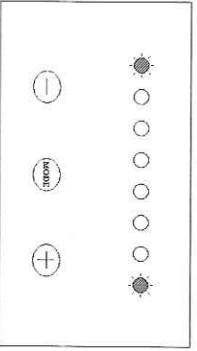
Mode 4 – Green / Blue



Mode 5 – Yellow / Blue

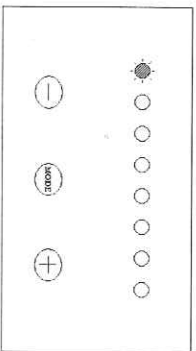


Mode 6 – Red / Blue

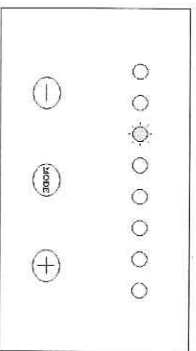


Base Settings

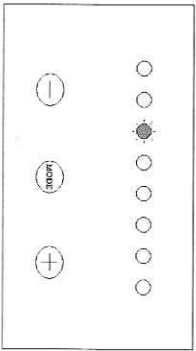
Mode 1 - 1



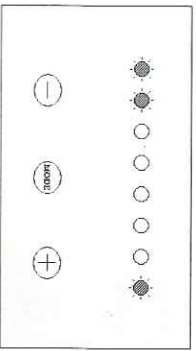
Mode 2 - 3



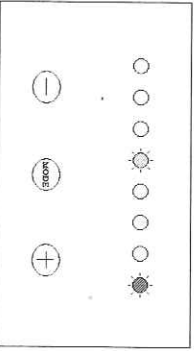
Mode 3 - 3



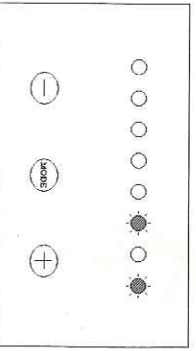
Mode 4 - 1.5

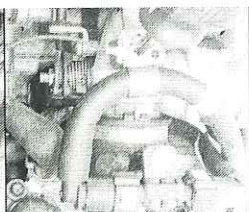


Mode 5 - 4

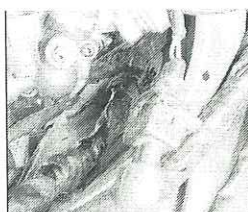


Mode 6 - 6

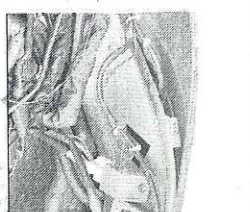




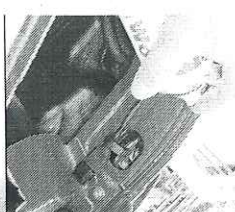
A
Before fitting commences disconnect the battery failure to do so will not allow the ECU to dump existing memory parameters. Unscrew the original earth lead screw, fit the black earth lead onto the screw from the new TFI unit and secure both earth wires back in the same location.



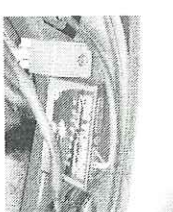
B
Disconnect the original fuel injection connection lead from the top of the fuel injector and replace with the female end lead connector from the new TFI unit
Connect the female end connector from the original wiring onto the male lead from the TFI connector this completes the wiring for the new TFI unit



C
Zip tie the TFI leads out of the way by following and zip tying to the original wiring harness, tucking away any excess lead into the right hand side bodywork to prevent heat damage from the engine or helmet bag housing.



D
Using a suitable de-greaser such as electrical contact cleaner clean the bodywork shown prior to placing the TFI unit in place, use the double sided Velcro adhesive pads supplied to secure TFI.



E
Finally check all the leads are connected correctly and are out of the way so they can't get pulled or caught on the bodywork or the engine.
Re connect battery, start engine and allow to idle for 10 minutes before riding this will allow the ECU to re-adjust to it's new parameters.

If you failed to enter a mode, try going through the sequence again and be sure to only press the M/ODE button once in between each step.

6. You are now ready to manually program each mode. Consult the base settings supplied with the unit or you can look up the most up-to-date settings by going to our website www.pmdtfi.com

To program the PMDTFI, the bike must be running in order to supply power to the box.

If at anytime you stay in an adjusting mode for longer than 15 seconds without pressing any buttons, the PMDTFI will exit adjusting mode and will return to the ready state.

To save settings at a particular mode press the MODE button which goes to the next adjustable mode or wait for the PMDTFI to exit back to the ready state.

The settings are adjusted by pressing the plus and minus buttons located on the right and left side respectively of the mode button. When entering each mode for the first time, remember a light is flashing on the left side which signifies a value of 0 for that particular mode. To start adjusting press the plus button once and notice that the light which was flashing is now flashing at a faster rate. This signifies an increase of 0.5 for the mode value. Press the plus button again and the light to the right of the last flashing light will now begin flashing. This represents a value of 1 for the mode. Now if you press the plus button again you will notice the next light to the right begins flashing. You should now have two flashing lights and the current value is 1.5 for the mode. This process continues for all the lights across the light display until you reach the right most light. When the value is 7.5 you will have the second from the right light flashing in the color of the mode and the right most light will be flashing blue. Pressing the plus button will make the value 8 which is the max value and the right most light will flash a combination of the two colors. The range of values for each mode is 0 to 8. To see a visual display of adjusting values go online to

7. Your PMDTFI should now be properly programmed and you are now ready to tune your scooter.

Always make sure your scooter is at normal operating temperature when making tuning adjustments.

Tuning for mode 1 – cruise adjustment

The cruise portion is generally handled by the O2 controller (if applicable). This adjustment will vary only slightly from our base settings. It can primarily help during warm-up if you're having lean issues.

Tuning for mode 2 – fuel addition during acceleration

Tuning for this mode depends greatly upon your individual scooter and can vary widely from the base setting. After market high flow exhaust systems and high flow air filters can cause you to tune completely different from the base settings. Note that this adjustment is only for hard acceleration.

Tuning for mode 3 – fuel addition during full throttle

This adjustment deals with the amount of fuel be added for everything above the yellow parameter (tuning mode 4) all the way to red line. For example, running to red line in 1st, shifting, running to red line in 2nd, shifting, and continuing this all the way through the gear range, you would have been engaging the red light all the time.

Tuning for mode 4 – point when acceleration throttle fuel kicks in

The base setting for this mode will rarely have to be changed. The yellow light should engage during the full throttle movements below the red engagement range (load or rpm).. If you do not see the yellow light during that time then you need to lower this setting to make the yellow light turn on sooner.

Tuning for mode 5 – point when full throttle fuel kicks in

The base setting for this mode will rarely have to be changed. The red light should be engaged during the full throttle period. For example, running to red line in 1st, shifting, running to red line in 2nd, shifting, and continuing this all the way through the gear range, the red light should be engaged the whole time. If you do not see the red light the whole time then you need to lower this setting to make the red light turn on sooner.

* *Italics – used to designate important notes commonly occurring through tech support*