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## AEROFLOW PERFORMANCE

### ELECTRONIC THORLTLE CONTROLLER

### WARNING!

THIS PRODUCT REQUIRES DETAILED KNOWLEDGE OF AUTOMOTIVE SYSTEMS. WE RECOMMEND THAT THIS INSTALLATION BE CARRIED OUT BY A QUALIFIED AUTOMOTIVE ELECTRICIAN.

#### INTRODUCTION

Congratulations on your purchase of Aeroflow Performance electronic throttle controller. Aeroflow Performance products cannot and will not be responsible for any damage, or other conditions resulting from misapplication of the parts described herein. However, it is our intention to provide the best possible products for our customer, products that perform properly and satisfy your expectations. Should you have any questions? Please call technical support at +61 2 8825 1900 and have the product part number on hand when calling.

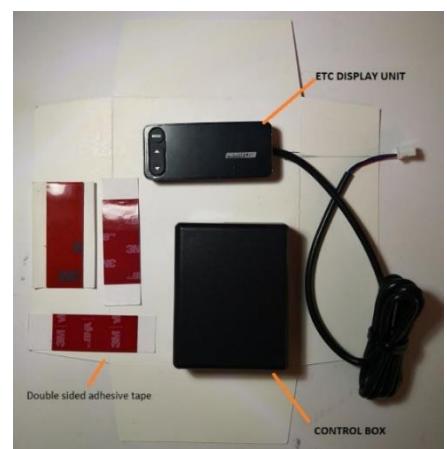
The Aeroflow Performance Electronic Throttle Controller (ETC) unit is a throttle response controller that allows you to tune the throttle curve of your vehicle's engine. By providing new points of reference for your vehicles throttle mapping this will either sharpen or dampen your vehicles throttle response. This is designed to work with most fly by wire throttle vehicles which tend to have delay from the moment the accelerator pedal is pressed. The ETC reduces and eliminates this delay by giving you the ability to adjust the throttle's sensitivity.

The ETC unit is equipped with a clear display and settings menu for easy operation. There are 3 road driving modes (Normal, Economy, Performance) offer different settings for different driving styles and conditions. The Performance mode and Economy mode also feature up to 9 adjustable settings in each mode. The 4th driving mode includes an anti-slip mode designed to easily move the car in low friction terrain and the unit also offers the anti-theft mode that is built into the unit.

The ETC is an easy to DIY install. Purchase the unit itself and the required harness **SOLD SEPARATELY** to suit the vehicle. Please see the attached harness and plug information at the end of these instructions. This harness will allow you to plug in-between your factory pedal assembly and pedal plug, the wiring is then simply run through the dash and the unit is mounted in a suitable location.

#### CONTENTS OF BOX

- 1 x Electronic Throttle Control (ETC) display unit
- 1 x ETC control box
- 3 x Double sided adhesive tape (one for the display unit and two for the control box)
- 1 x Instruction Manual



#### FEATURES OF ETC

- Anti-Slip function - Easy to move the car in low friction terrain.
- Drag Racing function - Increases the speed for the throttle response rapidly when in racing mode.
- 9 levels of adjustable power mode (PM) which allows quick accelerator response suitable for competition/racing use.
- 7 levels of adjustable Eco mode (EM) which can lower the fuel consumption suitable for urban driving.
- Anti-Theft function - Lock your accelerator pedal to prevent theft of the vehicle.
- DAC digital signal output with built-in high-speed processors to increase the stability and accuracy of the signal. This provides 1000 times/sec processing speed to prevent accurate real time readings.

## **WARNING**



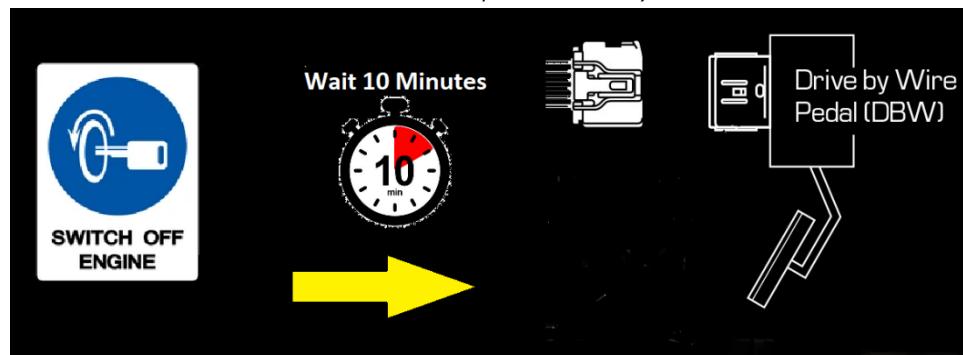
Please read all instructions before attempting installation

- Installer must run the initial setup when first installing this ETC (even when reinstalling into the same or another vehicle)
- Please ensure the engine is off and transmission is in "Park" position while setting up the ETC
- The damage or an unexpected result due to incorrect installation is out of the liability of our warranty, such as reversed polarity on electronical connections or incorrect usage. Any loss personal or any property due to incorrect usage is out of our liability of responsibility.
- Please remove the negative connection of the battery before installation to prevent damage to the ETC or potential fire hazards caused by a short circuit.
- Ensure to correctly run and secure all wires. Avoid sharp edges that could cause the wiring to rub though and make contact, causing a short circuit. If necessary, wrap wires in extra protective covers.
- Never operate the ETC while driving.
- The ETC unit is designed for DC12 Volt vehicles only.
- Do NOT disassemble this product or modify any of the components as it will void all warranty.
- Please be aware with driving in reverse when the ETC is in **POWER** mode. The accelerator pedal will be very sensitive.

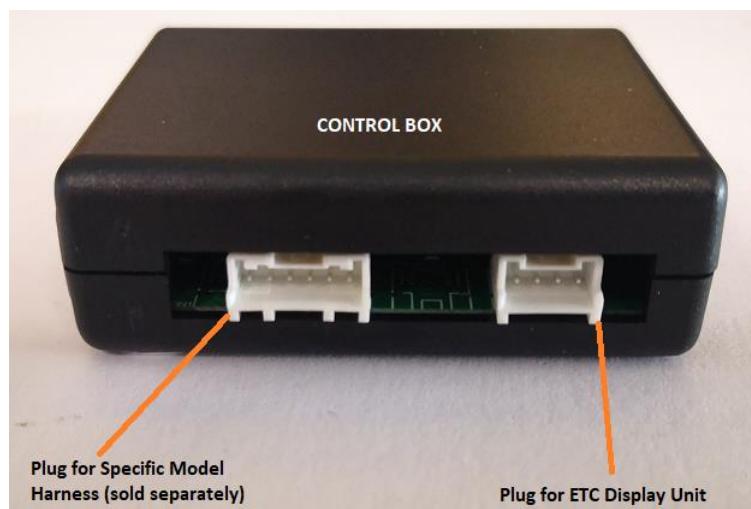
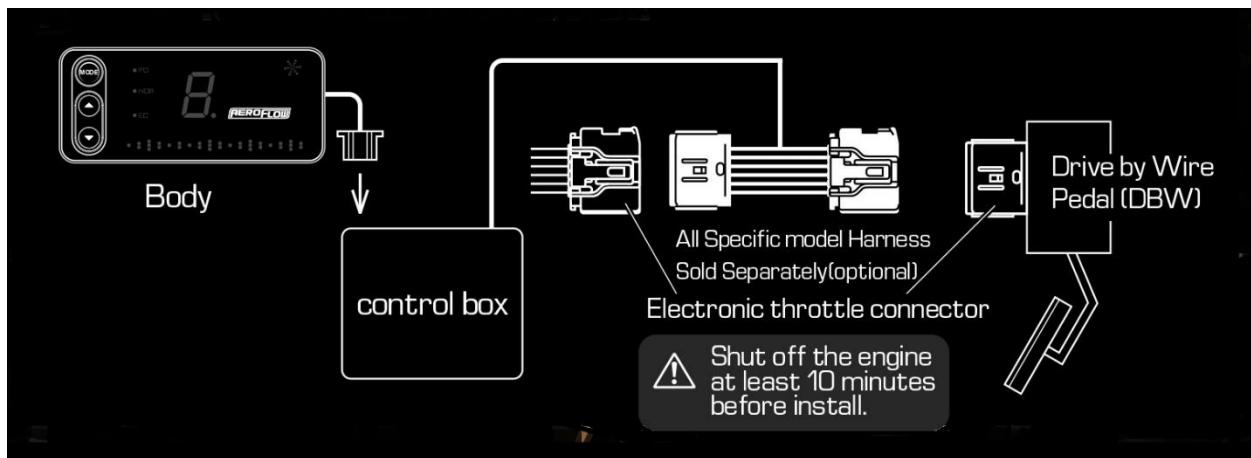
### **BEFORE INSTALLATION**

Shut off the engine at least 10 minutes before attempting installation of this ETC unit.

Otherwise, the engine check light might be on after the installation.

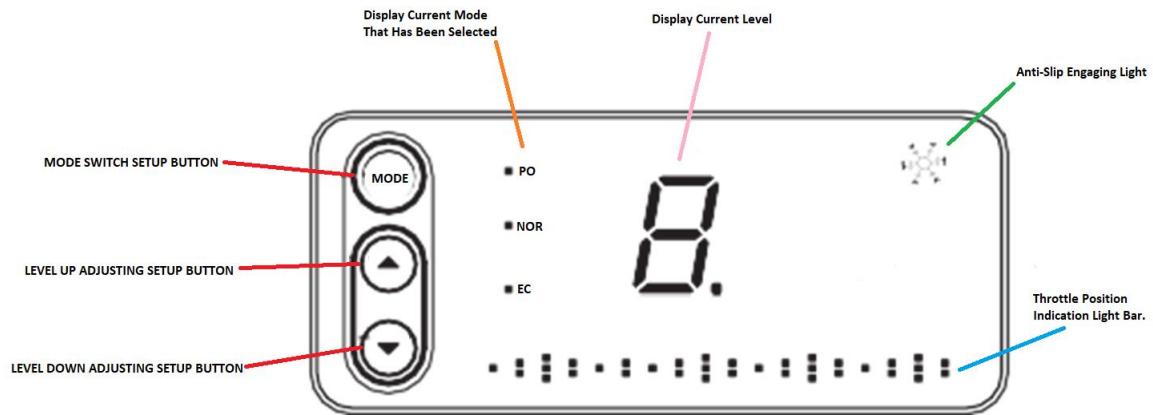


### **WIRING DIAGRAM FLOW CHART**



### **SETUP**

The ETC display unit is synchronized with the vehicles ECU power. This means the display will shut down after a certain amount of time after the accessories have been switched off. This can vary from vehicle to vehicle depending on models.

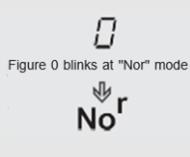


### Calibration (initial setup)

This calibration setup must be done after every installation. This calibration setup is a must to help the unit get the correct throttle signal from the vehicle. This ETC unit will not function correctly without this calibration setup.

Preparation before beginning this calibration setup:

1. Make sure all the wires and fitting are well connected.
2. Turn on ACC without starting the Engine. Shift the gear to "P" or "N" position

Re-do the initial setup again when the code below is shown	
 press  Press the "MODE" button and locate to "NOR" mode.	 Figure 0 blinks at "NOR" mode <b>Nor</b>

STEPS	CODE (shown on display current level)
 ON Turn on ACC without starting the engine. (The engine must be off)	 <b>0</b> Display 0 <small>Only under NOR mode this set up would be available</small>
 MODE press Press and hold "Mode" button until the the display shows code 'L'	 <b>76...10</b> <small>The display will show a number that starts at 0 and counts back from 7,6,5...1,0, L</small>
 Release Release the "Mode" button once the display finishes the countdown to L	 <b>L</b> <small>"L" will blink and the light bar will only show 1 grid.</small>
 0% Do not step on pedal so the ETC can calibrate with throttle pedal is on 0% operation.	 <b>L</b> <small>"L" will blink and the light bar will only show 1 grid.</small>
 Press  Press any button on the display unit	 <b>H</b> <small>"H" will blink with full grid of indicating light bar.</small>
 100% Step down the throttle pedal all the way down so the ETC can calibrate with 100% throttle open operation.	 <b>H</b> <small>"H" will blink with full grid of indicating light bar.</small>
 Press  Press any button on the display unit	 <b>0</b> <small>Figure shows 0 with full grid indicate light bar.</small>
 When the indicate light bar shows full and all bars are lit up, the setup is completed. Release the accelerator afterwards.	 <b>0</b> <small>Release the accelerator pedal and the indicate light bar will decrease.</small>
<b>SETUP CALIBRATION COMPLETED</b>	
Re-do the initial setup again when ETC is installed on other car.	

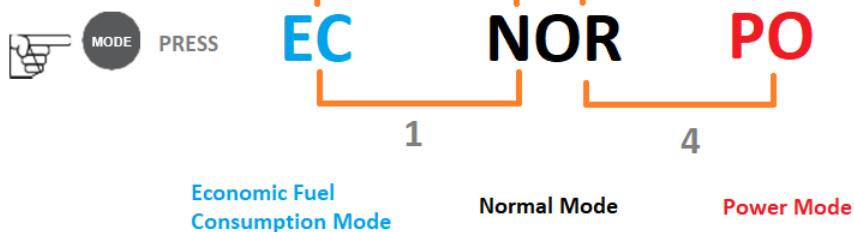
### RESET

Please reset the ETC when it is installed on another vehicle.

1. Turn on the accessories (ACC) without starting the engine. (the engine must not be running for this)
2. Set the ETC controller to the **NOR** mode. This reset can only be done under this **NOR** mode.
3. Press and hold the "MODE" button until the figure starts counting down on the display. Then press and hold either the "LEVEL UP adjusting switch" or "LEVEL DOWN adjusting switch".
4. After reset, press "MODE" button and the display unit which show "0" while blinking. The user can now start the calibration (initial setup).

## OPERATION

### MODE SWITCH



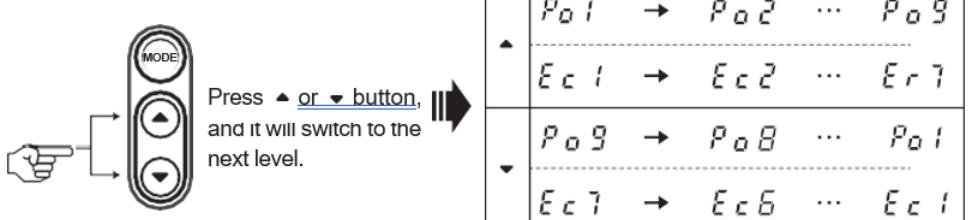
Each press of the "MODE" button will switch to the different modes in the order listed above (1,2,3,4)

### LEVEL ADJUST SWITCH

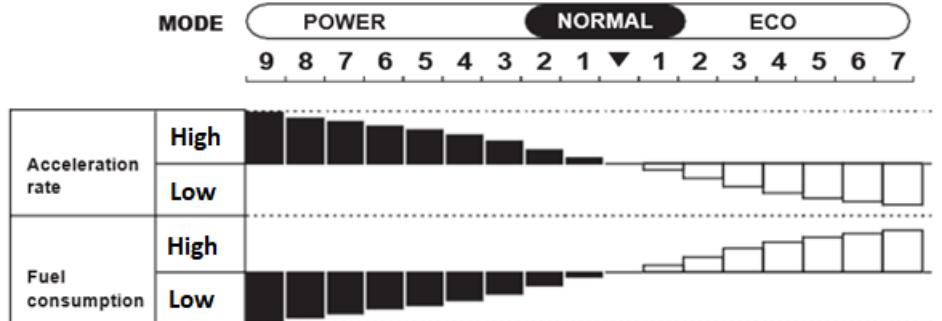
Both the **POWER** and **ECO** modes have adjustable levels which can be adjusted by using the LEVEL UP and LEVEL DOWN buttons under the MODE button.

The **POWER** mode has 9 levels of adjustment.

The **ECO** mode has 7 levels of adjustment.



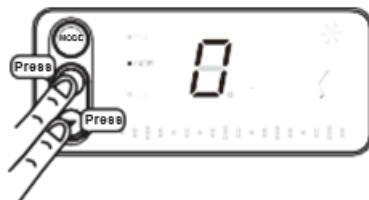
**NOTE:** Fuel consumption will vary depending on the modes chosen below is rough guideline



### ANTI-SLIP FUNCTION

To turn on the ANTI-SLIP function, follow the below steps:

- Under any mode or level, press the LEVEL UP and LEVEL DOWN button at the same time



- When you enter the ANTI-SLIP mode the symbol will show in the right upper corner of the ETC display screen and the figure light will be off.



To turn off the ANTI-SLIP function, simply just hit the MODE button to exit out back into the mode you had on chosen previously.



## ANTI-THEFT FUNCTION

To turn on the ANTI-THEFT function, follow the below steps:

1. First select ECO mode.
2. Once under ECO mode Hold Down the MODE button and wait for 2 seconds.



3. It will enter anti-theft mode when the display light is off. During this mode the accelerator pedal will not respond and the vehicle will not be able to be driven.



To turn off the ANTI-THEFT function, start the engine. Long press the MODE button for 2 seconds until the display light is back on.



## DRAG RACING MODE

**WARNING-** This mode is recommended for off road / competition use only.

**WARNING-** When using the mode, the accelerator pedal is extremely sensitive. DO NOT use this mode when reversing the vehicle.

To turn on the DRAG RACING function, follow the below steps:

1. When the ETC is in POWER mode, Hold Down the MODE button and wait for 2 seconds. Until the display starts to blink.
2. When it is in drag racing mode the POWER light and display number will constantly blink.



To turn off the DRAG RACING mode, simply just hit the MODE button to exit out back into the mode you had on chosen previously.



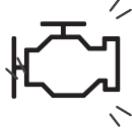
## TROUBLESHOOTING

### RESET CHECK ENGINE LIGHT

Take following steps to reset the engine check light:

If the engine check light is on because of incorrect installation and instruction, please try the instruction as below:

1. Please turn off engine and wait for a few minutes then start engine up, the light will be off.
2. If first solution above failed, please remove the negative terminal off the battery and wait for 10 minutes then reconnect the terminal.
3. If both two of these methods failed, please use the OBDII scanner (reader) to complete a diagnosis or clear any codes present.

Symptom	Cause	Trouble shooting
No reaction when ACC is on.	Plug or harness is not connected.	Double check every plug and harness again.
Engine check light is on 	Disconnect the plug or harness before ACC is completely shut off.	Please check following note "Reset engine check light" for reference.
	No calibration performed after installation. Did not leave 10 mins after turning off the engine for product installation.	Perform the calibration (initial setup) then reset engine checklight (ref as following). Please check following note "Reset engine check light" for reference.
Press MODE button the display shows 0 with blinks and stays in NOR mode.	Incorrect calibration setup.	Re-do calibration setup.

*For more information or technical enquires*

*Contact: Aeroflow Performance on*

*Phone: (02) 8825 1979 Website: [www.aeroflowperformance.com](http://www.aeroflowperformance.com)*





