

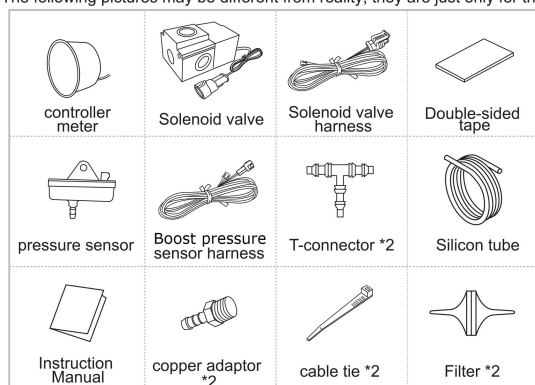
# ELECTRONIC BOOST CONTROLLER >

ver. 0. 0. 1

## INSTRUCTION MANUAL

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The following pictures may be different from reality, they are just only for the reference.



- Please attach the user's manual to the product when transferring to others.

### CHARACTERISTICS

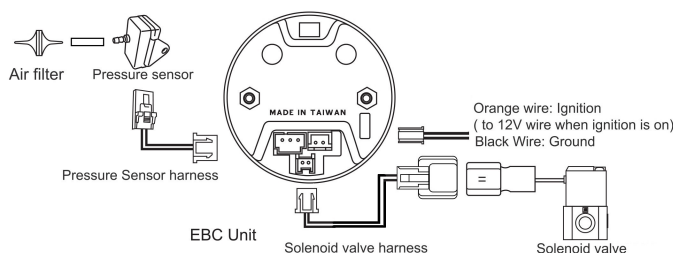
- With the speed solenoid valve to control boost pressure stably.
- Display the boost pressure and monitor the working status of turbo at the same time
- Protect function: The boost pressure will be lowered for protecting the engine if the pressure exceeds the setting value.
- Dual boost mode setting: Separate A and B boost levels can be input independently from each other, and selected depending on driving conditions.
- Warning Function: To prevent damage to the turbo and engine. If the boost exceeds the warning value, an audible beep will occur.
- Applicable for both Actuator and Wastegate system.
- Range: EBC can control up to 3bar

### IMPORTANT

- Please read the manual carefully and complete before installation.
- The first time installation, please be sure to set the beginning pressure value (B) and High Boost Pressure (H) to protect engine and surrounding system.
- The product is electronic boost controller, but unable to adjust the value higher or lower than the range what turbo or engine can bear. For example, the value exceeds the limitation of turbo before reaching target boost pressure.
- Please note the ID of vacuum pipe should be 4mm. The caliber size of vacuum pipe (which connects with turbo, solenoid valve and wastegate) will affect the accuracy of boost pressure control.
- The product is the device which adjusts pressure, but unable to adjust fuel feed. Some vehicles need to increase or decrease fuel feed within enhancing boost pressure, otherwise the engine or turbo may be broken due to insufficient oil. Please be careful for installation and adjustment.
- The product is professional tuning product. We won't take any responsibility except the problem of product.

### HARNESS

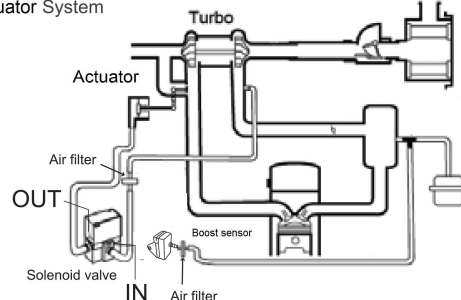
#### Basic cabling



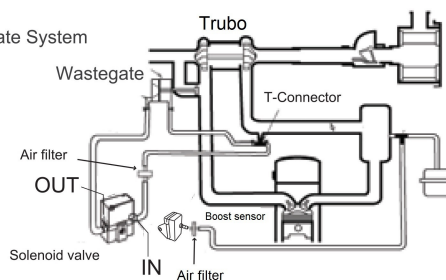
The harness and wires are designed to use with EBC only. Please do not use with other products or the product will be damaged.

#### Basic cabling

##### Actuator System



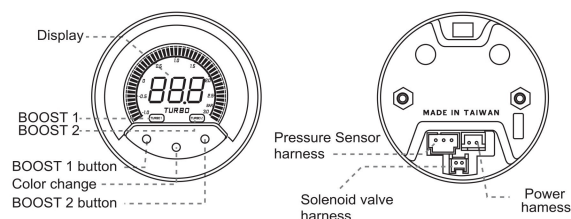
##### Wastegate System



⚠ Please note that installing tube not be too long or it may make the turbo works slowly. Solenoid valve should be installed in the place of engine bay where won't be affected by rain or high temperature.

### OPERATION INSTRUCTION

#### EBC layout and detailed description:



⚠ Warning: Start to use the EBC, it must set the "beginning pressure value" and "High boots value", otherwise it will damage the engine.

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### Step 1 Set 'Beginning pressure value' (B) and 'High Boost Pressure' (H)

1. To set 'Beginning pressure value' could refer the stock pressure of wastegate spring
2. 'High Boost Pressure' is the security for engine, so the setting boost pressure is the max value engine could bear. If the boost level exceeds the setting value, it will be lowered to stock pressure.

The more GAIN value, the higher boost pressure →

0 Bar (0 Psi)    0.4 Bar (6 Psi)    1.2 Bar (17 Psi)    1.4 Bar (20 Psi)

Stock Pressure (Wastegate) / Beginning pressure value (B)    Target Boost Pressure    Engine Limited setting value / High Boost Pressure

⚠ GAIN value must be adjusted separately in Boost 1 & 2

	4. Check the setting button
Beginning value mode 	5. Press the button for 2sec. into beginning value setting mode, displaying BX.X (e.g. b0.4)
High Boost Pressure mode 	6. Press the button into High Boost Pressure mode, display HX.X (e.g H1.4)

Enter into setting mode, press the ahead right button to decrease 0.1 bar, press left one to increase 0.1 bar  
No reaction within 5 or press the setting button behind the main unit to finish setting than back to standby mode.

### Step 2 Adjust GAIN value and warning value

1. GAIN value should be adjusted repeatedly then just be able to set the target boost pressure.
2. Two different preset boost pressure of Boost 1 and Boost 2, GAIN value must be adjusted separately to get the ideal boost pressure (reaction).

- Please select Boost 1 mode

Adjust GAIN value 	Adjust Warning value 
Press GAIN button for 2 sec. into the setting mode	Press warning button for 2 sec. into the setting mode
Display flashing shows the present GAIN value 	Display flashing shows the present warning value 
Press the right button to increase value, press the left one to decrease value (to adjust downward then displays OFF means boost setting returns to the factory setting before installing EBC) Complete setting after 5 sec. of inactivity 	Press left button to increase warning value, press right one to decrease value. Complete setting after 5 sec. of inactivity 

#### How to change Boost 1 & Boost 2 and set

<p>Press Boost 1, left button</p> <p>In Boost 1 mode </p> <p>Press ▲ for 2 sec.    Press ▼ for 2 sec.</p> <p>Enter into GAIN setting mode    Enter into WARN setting mode</p> <p>Complete setting after 5 sec. of inactivity</p> <p>BOOST 1 </p>	<p>Press Boost 2, right button</p> <p>In Boost 2 mode </p> <p>Press ▲ for 2 sec.    Press ▼ for 2 sec.</p> <p>Enter into GAIN setting mode    Enter into WARN setting mode</p> <p>Complete setting after 5 sec. of inactivity</p> <p>BOOST 2 </p>
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Once set, just need to press the left or right button to enter into the preset boost pressure of Boost 1 and Boost 2 mode.

### Advanced Adjustment

If can't reach the target boost pressure by above, please do the set again by following instructions.

1. If the boost pressure can't be enhanced, please adjust the beginning pressure value for 0.2bar, and increase GAIN value form 30 till reach the target boost pressure.

Low Boost (Low boost, always happened in the small turbo equipped with big wastegate).  
Adjust GAIN upward

0 Bar (0 Psi)    0.2 Bar (3 Psi)    0.4 Bar (6 Psi)    1.2 Bar (17 Psi)    1.4 Bar (20 Psi)

Beginning pressure value (B)    Stock pressure (Wastegate original pressure value)    Target Boost Pressure    Engine Limited setting value / High Boost Pressure value (H)

2. If boost gauge is too high, please increase the beginning pressure 0.2bar, and decrease GAIN value from 50 or adjusted downward

Over Boost (Over boost, always happened in big turbo equipped with small Acuator)  
Adjust GAIN value upward or downward

0 Bar (0 Psi)    0.4 Bar (6 Psi)    0.6 Bar (9 Psi)    1.2 Bar (17 Psi)    1.4 Bar (20 Psi)

Stock pressure (Wastegate original pressure value)    Beginning pressure value (B)    Target Boost Pressure    Engine Limited setting value / High Boost Pressure value (H)

⚠ Warning: If it is unable to set the target boost pressure by repeat adjustment which means the setting boost value exceeds the bearing range of mechanical element.  
E.g. The small turbo equipped with wastegate with big caliber which is hard reach the preset boost pressure or unable to keep it be stable because the pressure is instantly released too much

### Troubleshooting

Please check up following troubleshooting table for remedy if problems occur

Symptom	Cause	Trouble shooting
No display or action after turn on the switches	+12V poor connection	Check the status of read line and orange link in connection Check if +12V or IGN is in correct connection
	Negative (-) poor contact	Check the status of black line in connection Check if it is properly grounded to the specific spot
EBC stays in warning status	Warning value was set at the current pressure	Check if warning value is set properly
	Poor contact of pressure sensor in connection	Check if pressure sensor and its control circuit is correctly connected.
Boost pressure value can not be reach in acceleration	The boost pressure setting exceeds the working range of mechanical parts	The device is an electronic pressure controller which can not be adjusted to lower or higher than that of the working range of turbo engine.
	Please make sure if wastegate works normally	Unable to shut off wastegate completely which may influence the value of Please check if it works normally
Unable to show the correct boost pressure after using for a period of time	Vacuum pipe broken	Please check if the vacuum pipe connect with the engine, sensor, valve and wastegate is broken, fallen of or incorrectly connected
The boost pressure abruptly increased which exceeded the setting in acceleration	Poor contact with valve	Please check if the valve and valve extension wires connected well or with the broken and damaged wires
	Poor contact with pressure sensor	Please check if the press sensor and wire connected correctly
	Vacuum pipe broken	Please check if the vacuum pipe connect with the engine, sensor, valve and wastegate is broken, fallen of or incorrectly connected
	Wastegate works irregularly	Please check if wastegate works normally or the strange noise in occurrence

Please collect all accessories as well as device and send to dealer if the product requires maintenance or warranty service.