## **Operation method of EMS**

## (Please make sure order below before you operate the equipment)

2-1. Plug the single-phase 2P 240V power cord andapply to the normal power line DC 12V, which is rectified through direct-current power supply.







2-2. Turn on the key switch, after turning on theemergency stop switch to clockwise direction, to activate the ECU, sensors and actuator.







2-3. Verify the sensor value change, trouble code, and system operation change (ignition time and fuel injection amount), when the injector isoperated, and a spark is formed at the ignition plug with adjustment of variable output control knob of TPS Vol.



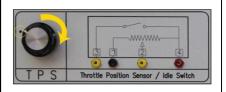


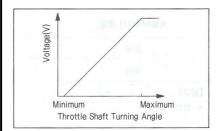


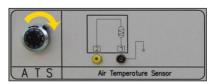


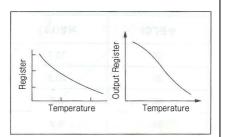
## [Reference]

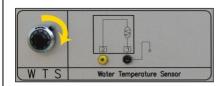
- TPS Knob should be positioned at "0"(end to counterclockwise direction)
- When TPS Vol. is turned to clockwise direction, theacceleration speed of intake/exhaust air isincreased, and the injector and ignition plug. Operation has changed.
- 2-4. Verify the output value change, trouble code output, and system operation change (ignition time and fuel injection amount), using variable control knob of TPS, ATS, WTS, MAP and O2.

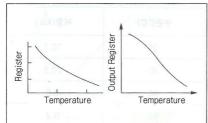




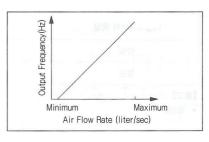




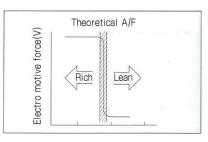






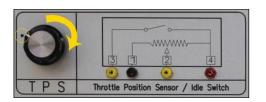




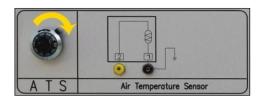


## [Reference] How to set up

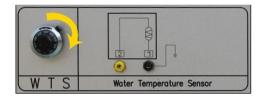
– The trouble code is produced, and the warninglamp lights up when the setting is inadequate.



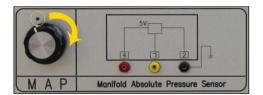
- 1. TPS Vol. About  $0.4 \sim 0.8V$
- 1. TPS  $-0.4 \sim 0.8V$



- 2. ATS Vol. About 20°C
- 2. ATS 20°C



- 3. WTS Vol. About 50∼80°C
- 3. WTS 50~80℃



- 4. MAP Vol. About 2.7 ~ 3.2V
- 4. MAP  $-2.7 \sim 3.2V$



- 5. O2 Vol. About 0.5V
- 5.02 0.5V
- 2-5. When the equipment stops, set the TPS knob at the default position and turn the ignition key off.



