

# Magic Capsule

## Automatic Fuel Control Device

### INTROCUCTION OF ITEM

What is a Magic Capsule?



Magic capsule is a new technology that overturns automobile engineering  
Fuel supply pressure and automatic control of fuel

**Changes in the engine speed during operation mean changes in driving conditions.**

**The fuel pressure required by the engine varies depending on the operating conditions.**

At this time, the fuel pressure supplied to the engine can be completely burned when each condition is satisfied. In order to realize this, it is absolutely necessary for automobile engineers to temporarily shut off fuel supply dependent on forced injection based on engineering theory, and to accurately read the degree of vacuum in the cylinder which changes according to the engine speed .

It is practically impossible to accurately read the vacuum degree of the piston acting inside the cylinder according to the engine speed which changes during traveling with the logic of the conventional automobile engineering. However, from the scientific point of view, it is possible to find out the vacuum pressure inside the cylinder which varies instantaneously according to the engine speed in real time by physical method.

This is because the vacuum pressure acting in real time inside the cylinder of the engine according to the engine speed is the fuel pressure required by the engine itself for the actual running. In this way, a proper fuel supply method of an internal combustion engine such as an automobile can achieve complete combustion only when the engine supplies the fuel required by itself according to changing driving conditions.

## Fuel supply pressure and automatic control of fuel atomization

"Magic Capsule" realizes automobile science.

Fuel supply pressure and automatic control of fuel atomization In 'Magic Capsule', perform the functions from step 1 to step 3.

### **Step 1: Primary air buffer space**

**Step 1**, here, all existing cars are functioning to thoroughly block unreasonable fuel pressure supplied by the fuel supply system to the engine. This is not the fuel pressure required by the engine.

### **Step 2: Secondary air buffer space**

**In the second step**, the function of reading the vacuum pressure caused by the up-and-down motion of the piston in the cylinder is very important according to the engine speed. In addition, the function of automatically adjusting the size of the fuel particles to be injected into the engine according to the number of revolutions of the engine, in real time so as to be completely burned at a given ignition time.

### **Step 3: A multi-layered nozzle layer**

**In step 3**, the controlled fuel supply pressure in the primary air buffer space and the controlled vacuum pressure in the secondary air buffer space are precisely calculated, and the function of real-time automatic adjustment is made so that the engine can inhale necessary amount of fuel by itself.

### **※Note**

"Magic Capsule" should not be cut to check inside the product. When the product is cut, the air layer in the primary air buffer space is destroyed and can not be reused. When the nozzle layer formed inside the product is cut, the air layer in the secondary air buffer space is destroyed, Do not cut the product on the floor.

## The problem of vehicle fuel supply

### **What is the problem of vehicle fueling?**

Just as a person has a pulse and blood pressure, the engine has engine speed and fuel supply pressure. The blood pressure of a person changes according to the degree of activity, and at the same time, the blood pressure is automatically adjusted by the heart to the pulse rate. Car engines using fuel are no different. If the engine speed changes according to the operating conditions, the fuel pressure must be supplied at a pressure suitable for the engine speed. However, all existing automobile engines, both old and new, do not have the ability to automatically adjust the fuel supply pressure to match the engine speed, like the human heart. However, the fuel supply system of all the existing automobiles is that the supplied fuel pressure is already defined by the manufacturer irrespective of the changing engine speed during operation.

The fuel supply pressure specified by the manufacturer is set to excessive pressure beyond the required level so that the fuel is not exhausted under any conditions while driving. The fuel pressure thus set is supplied only on the fuel injection time basis. Because of this problem, all cars are wasted fuel in the whole section during operation only because there are only a few wastes and wasted fuel according to the conditions of operation. Such wasted fuel will cause incomplete combustion in the engine to generate unnecessary exhaust gas and increase unnecessary carbon emissions.

## Proper fuel supply is not possible with automotive logic.

Engineering is doing ' suction - compression - explosion - exhaust '  
but in fact ' injection - compression - explosion - exhaust '.

Engine engines, such as automobiles or ships, can be powered by a four-stroke cycle called 'suction-compression-explosion-exhaust'. This is a series of processes in which air and fuel are sucked into the cylinder by the piston, compressed and then exhausted by the ignition plug when the explosion occurs.

All four are very important, but the most important administration is inhalation. Suction refers to the first process of sucking in air and fuel as the piston descends from the top dead center to the bottom dead center in the cylinder. The air is sucked by the piston. However, the fuel is not inhaled but is supplied by forced injection by a fuel supply system utilizing a fuel pump or a high-pressure pump. In other words, the fuel supply of all existing automobiles is not a suction as opposed to the engineering, but a four-stroke cycle by injection-compression-explosion-exhaust. This fuel supply problem has caused all internal combustion engine engines such as automobiles to generate environmental pollutants that increase the atmospheric environment and global warming.

**'Inhalation administration' and 'Injection administration' have the opposite result.**

'Suction' means sucking in with your own strength, but 'injecting' means pushing forcefully by any external force. The fuel supply by suction can be carried out by the engine itself by selecting the fuel of the pressure necessary for the changing engine speed during running. However, fueling by injection forces the fuel into the engine, regardless of the changing engine speed, with the supply pressure already set by the manufacturer.

Currently, automotive engineering refers to inhalation administration, but in fact it is not an inhalation but an injection administration. This is the biggest problem of automobile engineering due to fuel supply. As a result, although fuel supply by forced injection is inevitably accompanied by various environmental pollutants, fuel supply by inhalation has the opposite result that environmental pollutants can not be generated.

## Problems in Automotive Engineering

The engine completes when it coexists with 'automobile engineering' and 'automobile science'.

Engines used in automobiles, ships, motorcycles or heavy equipment using fossil fuels such as gasoline, diesel, and LPG are referred to as internal combustion engines in automotive engineering. The engine consists of numerous mechanical and electronic components. Every single component of the engine is important. However, the most critical technology to be evaluated in a fuel-powered internal combustion engine is the ability to use the fuel properly. Because no matter how perfect the mechanical and electronic functions of the engine are, the lack of technology to properly use the fuel causes environmental pollutants in the engine that boasts perfection.

The main reason for the environmental pollutants of all existing automobiles is that they lack the technical ability to use the fuel properly even though there are no mechanical faults or electronic faults that make up the engine. Finally, in order to fundamentally solve the environmental pollutants generated by the engine, it is necessary to judge the technologies using the engine and the fuel from different concepts and solve them in different areas.

### **Area of 'Automotive Engineering'**

Automotive engines have made remarkable progress for hundreds of years, from the old mechanical engine, which was based on the old mechanical, to the advanced new engine age, in which the electronic control device dominates the engine. This is the accomplishment of the enthusiasm of many engineers in the international community who majored in automotive engineering following the history of internal combustion engines. However, environmental pollutants from internal combustion engine engines, including automobiles, are polluting the atmosphere and accelerating global warming even at this moment, and the global village faces a crisis that can no longer be resolved to preserve the global environment.



This has been a success for parts that harmonize mechanical and electronic components in terms of automotive engineering according to the internal combustion engine, but it is evidence that they have repeatedly failed in the technology of using fuel properly. In conclusion, it can be concluded that automotive engineering should be limited to the area of completing the mechanical and electronic configuration of the engine. This is because the completion of the correct fuel supply is impossible in terms of automobile engineering.

#### **The area of 'technology of fuel supply science'**

If mechanical and electronic roles are completed in terms of automobile engineering, then the technology of correct fuel supply, which can not be solved by automotive engineering, needs to be solved in the field of automobile science. The logic of automotive engineering is that it is virtually impossible to selectively supply the fuel pressure required by the engine in accordance with the engine speed that changes during driving. However, from a scientific point of view, the vacuum pressure acting by the up-and-down movement of the piston inside the cylinder of the engine can be detected by a physical method. At this time, the vacuum pressure acting inside the engine is the fuel pressure required by the engine itself.

The only way to induce the engine to inhale the required pressure of the fuel itself in response to the changing engine speed is based solely on science. Therefore, the fuel supply used in internal combustion engines, such as automobiles, should not be dependent on automotive engineering but within the realm of automotive science.

## Product installation precautions

### **MAGIC CAPSULE**

1. The product must be mounted on the fuel line supplied to the engine.
2. The support to which the product is to be fixed must be firmly mounted in a position to withstand vehicle (engine) vibration.
3. The bolts of the support and the product are fixed to prevent them from being released by vibration.
4. Make sure that the hose position of the IN / OUT line of the product has not changed.
5. The connecting hose of the product must use the high pressure hose specified by the head office.
6. The high-pressure hose is connected so that it does not break more than 90 degrees.
7. After installation, the product should be level.
8. After the installation of the product, the product should not be in contact with other parts of the engine room.
9. Make sure that there is a leak in each area where the hose is connected.

### **WARRANTY REPAIR**

1. The warranty period is one year from the date of purchase.
2. Even if the warranty period is within the warranty period, the following cases will be treated as a fee.
  1. Failure or damage caused by customer's carelessness or mistake of operation
  2. Failure or damage caused by repairs made by a third party other than our designated repair shop or A / S agent
3. A / S expenses incurred after the warranty period will be charged for A / S expenses according to the Company's standard, and separate charges may be incurred depending on the A / S location.



### **MIGRATION AND REPLACEMENT**

1. This product can be installed and used with vehicles that use the same fuel and engine with similar displacement and output. (However, the previous installation fee will be charged.)
2. If you need to replace the product due to vehicle replacement, you can purchase at discounted price in accordance with our company's compensation and sales regulations.

### **PRECAUTIONS**

1. This warranty is valid only in Korea.
2. This warranty is a document that guarantees the quality of the product and is not related to any services, events or prizes that we have not implemented.
3. The effectiveness of the product may vary depending on driving habits, road conditions, vehicle maintenance status and age.
4. Sudden acceleration and sudden deceleration can be a factor that can deteriorate the performance of the product as well as the load on the vehicle.
5. For more information, please contact your dealer or distributor.

## How to install the product

### **Mounting Method and Location**

1. The engine condition is normal. It should be confirmed. If there is a problem, the product should be installed after maintenance.
2. If the muffler is opened or leaked, the product should be installed after repair or replacement.
3. After sensing the weight of the accelerator pedal, compare the pedal feel after mounting the product.
4. Measure the degree of soot generation by stepping on the accelerator pedal in the idling state.

<When there is no measuring instrument>

1. Gasoline / LPG vehicles: Emissions are not visible to the naked eye.
2. Diesel vehicle: Step on the accelerator pedal to check the color of the soot. Even with the same product, the effect may vary depending on the mounting position, so be careful when selecting the position to maximize the effect

### **Mounting Tips for Gasoline Vehicles**

1. And the fuel supply line to which the fuel filter and the injector are connected is cut and mounted.
2. The top of the product is marked with an arrow pointing towards the product and an arrow pointing from the product.
3. When connecting the fuel supply line connected to the fuel filter to the product, connect it to the supply pipe at the arrow point to the product.
4. The arrowhead supply pipe from the product connects to the fuel supply line connected to the injector injecting fuel into the engine. At this time, it is important to connect the length of the hose to be connected as short as possible to within 25 cm.

## Precautions When Installing Gasoline Vehicles

1. Never install the product upside down or lay it side-by-side. After installation, the product must be level.
2. The shorter the connection of the supply hose to the product and the injector, the better the effect and care should be taken not to exceed 25Cm.
3. Since the structure differs from vehicle to vehicle, the fuel line supplied to the engine and the by-pass line used for the engine and remaining fuel must be clearly distinguished and installed in the fuel supply line connected to the injector.
4. It is ideal to install the product at the same height as the injector or at a slightly higher height. To maximize the effect of the product, it should be avoided to install it lower than the injector if possible.
5. If the product is installed on the by-pass line that is used in the engine and the remaining fuel is returned, there is an increased risk of accidents such as a drop in the connecting hose due to the return pressure as well as an increase in the fuel consumption. .

### **Tips on Installing Diesel Vehicles**

1. The product must be mounted between the fuel filter and the fuel supply line connected to the flange pump (pumper, injection pump, high pressure pump).
2. The top of the product is marked with an arrow pointing towards the product and an arrow pointing from the product.
3. When connecting the fuel supply line connected to the fuel filter to the product, connect it to the supply pipe at the arrow point to the product.
4. The arrowhead supply pipe from the product connects to the fuel supply line connected to the injector injecting fuel into the engine. At this time, it is important to connect the length of the hose to be connected as short as possible to within 25 cm.

## Precautions When Installing Diesel Vehicles

1. Never install the product upside down or lay it side-by-side. After installation, the product must be level.
2. The shorter the connection of the supply hose to the product and the injector, the better the effect and care should be taken not to exceed 25Cm.
3. Since the structure differs from vehicle to vehicle, the fuel line supplied to the engine and the by-pass line used for the engine and remaining fuel must be clearly distinguished and installed in the fuel supply line connected to the injector.
4. It is ideal to install the product at the same height as the injector or at a slightly higher height. To maximize the effect of the product, it should be avoided to install it lower than the injector if possible.
5. If the product is installed on the by-pass line that is used in the engine and the remaining fuel is returned, there is an increased risk of accidents such as a drop in the connecting hose due to the return pressure as well as an increase in the fuel consumption. .

### **Tips on Installing LPG Vehicles**

1. Among the solenoid valves divided into liquid (red) and vapor (yellow), the pipe connecting nut to the liquid solenoid valve must be disassembled and the product installed.
2. The top of the product is marked with an arrow pointing towards the product and an arrow pointing from the product.
3. Unscrew and remove the copper pipe nut connected to the liquid solenoid valve and connect the separated copper pipe to the supply pipe at the arrow pointing into the product.
4. The arrowhead supply pipe from the product is connected by a copper pipe to the liquid solenoid valve. At this time, it is important to connect the liquid solenoid valve as close as possible to not exceed 25 cm.

## Precautions When Installing LPG Vehicles

1. Never install the product upside down or lay it side-by-side. After installation, the product must be level.
2. The copper pipe entering the liquid solenoid valve from the product must use the specified copper pipe.
3. The shorter the length of the connecting copper pipe, the better, but care should be taken not to exceed 25Cm.
4. Since the products used in LPG vehicles are configured to be connected by copper pipes, they must be installed using tools necessary for copper pipe work.

### Common Items Before Installation

1. When the position to be mounted is selected, it should be completely mounted so that the product does not fall under any conditions of engine vibration or running when installing the magic capsule by using "a" or "-" connecting parts in the parts box.
2. Before cutting the fuel hose, avoid using cotton gloves, check for the presence of a fire hazard, and make sure that there are no factors that could cause a fire, such as smoking or using a lighter.
3. When the fuel line is disconnected, residual pressure is left in the fuel hose, so fuel must be injected at the moment of cutting.
4. The hose must use the high pressure hose specified by us.
5. The hose from the fuel tank side of the cut fuel hose should be connected to the IM side of the magic capsule. The magic capsule OUT side is connected to the supply pipe where the injector is arranged for the gasoline vehicle. For the diesel vehicle, it should be connected to the IN side of the flange pump. For the LPG vehicle, it is connected to the IN side of the liquid solenoid valve. At this time, it is important to recognize that the shorter the connection line between the supply pipe, the flange pump, the high-pressure pump, and the solenoid valve IN connected to the OUT side of the magic capsule supplied to the engine, Care must be taken. The inlet side of the fuel capsule from the fuel capsule to the magic capsule may be somewhat longer when installed on the OUT side, but the shorter the product and the engine should be installed.
6. When the installation is complete, check that the product is leveled and re-check that each connection is securely fastened to the band.

### **Common After Installation**

1. After the completion of installation, the fuel lines connected with the product should be firmly fixed with cable bands or the like so that they will not be ruptured due to friction with the surrounding fuels.
2. Check the tightening of the connected hose and the breakage of the fuel hose which may interfere with the fuel supply.
3. In order to facilitate the installation of the product, the parts of the vehicle which have been separated must be properly checked and inspected.
4. In order to make an initial start after mounting, the start-up may be delayed somewhat until the proper pressure is maintained.
5. Check the fuel hose connections after startup, check for leaks, and check the leaks for at least 5 minutes after raising the rpm by stepping on the accelerator pedal.
6. Make sure that all instruments on the driver's seat instrument panel are functioning normally.
7. Make sure that the tool or parts you used before starting the engine after the work is completed remain in the engine room.



## NEWS PAPER - KOREA HERALD BUSINESS

The fuel supply system of the vehicle constitutes an important element of an engine. Its core function is to ensure the smooth and uninterrupted supply of fuel to other peripherals of an engine. An automobile fuel supply system comprises of various components and devices like fuel cells, carburetor, fuel pump, fuel tank, fuel coolers, automobile filters which are used for storing fuel and distributing it to internal combustion engine as in when needed.

Today, almost every automobile has a pressurized fuel supply system equipped with a pump that is used for pushing fuel from the fuel tank to engine of the vehicle. But on this great wave exposed weaknesses and errors, what would you believe? If you are about wasting fuel and more than 15 percent it. What should I do to solve this problem?



Have you ever listened to our programmes(ECU)? In automotive electronics, Electronic Control Unit (ECU) is a generic term for any embedded system that controls one or more of the electrical system or subsystems in a transport vehicle. Types of ECU include Electronic/engine Control Module (ECM), Powertrain Control Module (PCM), Transmission Control Module (TCM), Brake Control Module (BCM or EBCM), Central Control Module (CCM), Central Timing Module (CTM), General Electronic Module (GEM), Body Control Module (BCM), Suspension Control Module (SCM), control unit, or control module.

Taken together, these systems are sometimes referred to as the car's G.U.I. (Technically there is no single computer but multiple ones.) Sometimes one assembly incorporates several of the individual control modules (PCM is often both engine and transmission) Some modern motor vehicles have up to 80 ECUs. Embedded software in ECUs continues to increase in line count, complexity, and sophistication. Managing the increasing complexity and number of ECUs in a vehicle has become a key challenge for original equipment.

They think it is not natural and could cause many problems. Thus, we blow of many ways in which car use is costly and harmful and The cause of sudden acceleration incidents on some automobiles has not been identified yet. Korea's 3EN TECH CO.,LTD is watched by all the world with (MAGIC CAPSURE) ,and He held a number of patents for his many innovations. And yes, there are so many 'this' and 'that's about how we as the people of Earth must make an effort to minimize our impact on the environment. You can use the plots in combination with the optimization plot to find the best operating conditions for the focal points.



## Product Mounting Photos

### AUDI A8



# Product Mounting Photos

## KIA SPORTAGE R



**BMW 750LI**





## Product Mounting Photos

### G4 REXTON



## DAEWOO PRIMA 5T



## Product Mounting Photos

### HYUNDAI COUNTY 25 PASSENGER BUS





**VOLVO EW145B EXCAVATOR**

