

# **Ignition Coil**



Product Specification

#### FeaturesProducts SpecificationsApplication

# Product introduction



# Ignition Coil/High Voltage Cable

Low-voltage DC electricity is converted into high-voltage electricity, with voltages reaching tens of thousands of volts, which breaks through the ionization of air through the spark plug inside the cylinder to generate electric sparks, and repeats storage and discharge at different frequencies based on different engine speeds. When the primary coil is connected to a power source, a strong magnetic field is generated around it as the current increases, and magnetic energy is stored in the iron core. The ignition coil is the component that allows the spark plug to emit sparks and ignite the gas mixture in the cylinder. Generally, an ignition coil and spark plug are included in a set for each cylinder.

# **Ignition Coils**



#### 1.Ignition coil internal iron core

Low iron material, smooth and rounded riveting can reduce the product's exposure to the outside and guarantee the input and output performance.

#### 2. Ignition coils Enameled wire

ELEKTRISOLA enameled wire is used, with heat resistance up to 180°C, and Japanese NITTOKU winding machines are used to ensure the quality of the high-pressure winding.

#### 3. Ignition coil secondary side skeleton.

Japanese PPO material used, electrical strength 33 KV/mm.

#### 4. Epoxy resin for ignition coil

Epoxy resin from Kyocera Japan is used, with good permeability and high insulation performance.

#### 5. Ignition coil module

① PCB thickness is 1.2 mm to provide mechanical strength and electrical performance of the module.

- <sup>②</sup> The copper foil is 2 ounces thick, with wire spreading to ensure the ability to pass high currents.
- ③ The PCB board uses a computer numerical control routing that can effectively reduce edge burrs.

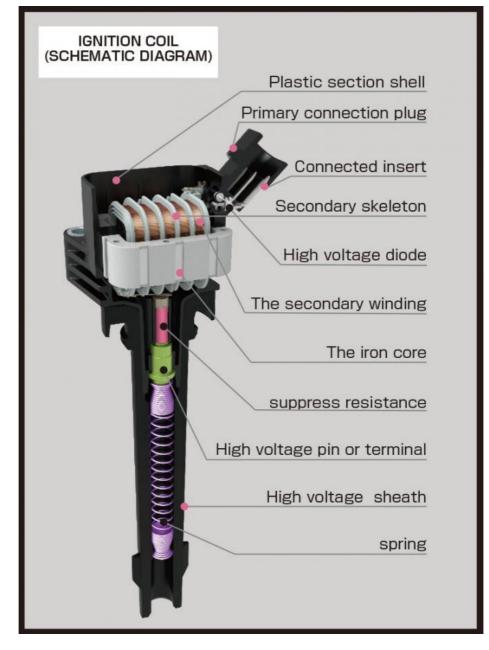
Components are reflow soldered after the SMT automatic placement process and solder paste is made from high-temperature lead-free solder paste to guarantee favorable module soldering and reliable electrical connections in high-temperature environments.

⑤ Surface-mounted heat sink for high power tubes, which significantly enhances the thermal performance of the module.

© Through-holes in the PCB not only is epoxy encapsulation facilitated, but also it is helped to dissipate heat through the through-holes during coil operation.

The terminal holes for the primary coil and secondary positive voltage are kept at a safe distance from other components and wires, effectively preventing high voltage interference to the module.

# **Product Structure**



### **Product Advantages**

1. Excellent winding process

Adopting Japanese NITTOKU, the winding surface is flat and free from missed or loose wires, guaranteeing the stability of product quality.

2. Argon welding, quality and environmentally friendly.

3. Germany Hedrich & Hubers epoxy casting system with vacuum casting equipment, high-precision machines, strong stability, able to guarantee the quality and consistency of products.

4. Quality control of raw materials

① We conduct rigorous test analyses of all batches coming into the factory, including material test analysis, compressive strength, eccentricity, etc., to ensure that all raw materials are acceptable.

<sup>(2)</sup> We inspect the pressure resistance of sub-frames, which are important parts.

③ For electroplated parts, we conduct salt spray tests.

#### 5. R&D

To respond to the needs of the global aftermarket, our R&D team designs products by reverse engineering and conducts rigorous durability testing.

## **Maintenance Points**

1. The screw derived from the ignition coil high voltage and high voltage wire connection shall be solid and reliable.

2. If the connection is loose, it is easy to discharge the sparks and make the connection place location burn.

3. A single end of the ignition coil secondary winding attaches to the spark plug via the high-voltage wire and spark plug cap. The high voltage wire and spark plug cap must not be loosened when in use.

### Installation Procedure

1. Open the engine hatch and remove the bonnet, if present, so that the bare ignition coils of the engine cylinders can be seen.

2. Gently lift the yellow plug outward so as not to break it, and while pressing the black snap handle, at the same time slowly pull the plug outward. Do not mix the plugs, as they are compatible with each cylinder.

3. Removing the fixing screw of the ignition coil for each cylinder using the corresponding socket tool, pull out the ignition coil.

4. Put the new ignition coil back into the ignition coil hole, making sure it is firmly seated on the end of the spark plug.

5. Secure the ignition coil with the fixing bolt, insert the ignition coil plug corresponding to each cylinder and then press the socket plug inward to the locked position.

6. After installation, test the ignition coils for proper operation, and if they are normal, replace the bonnet back on the engine to finish.

#### Why choose us?

Our Auto Engine Systems are designed to meet the highest industry standards.

We hope to become an enterprise that is recognized by employees, trusted by shareholders and respected by society.

Our prices are competitive, without compromising on quality or service.

Our company's information management department maintains our company's huge business, develops information system, improves our company's overall management level and service level and provides clear data support system for business management strategic decision-making.

Our Auto Engine Systems are designed for optimal performance and durability.

We focus on customer value orientation, through continuous innovation and improvement of scientific management, to provide customers with the highest quality Ignition Coil and the most intimate service, while actively fulfilling social responsibilities and advocating humanistic care.

Our factory is equipped with state-of-the-art technology to ensure precision manufacturing.

We provide our customers with excellent Ignition Coil by taking quality as the foundation, innovation as the driving force, and industry standards as the criterion.

Our products are rigorously tested to ensure they meet industry standards.

Our goal is quite straightforward, that is to become a pioneer in the research and development of new technologies in related fields of the industry.

Hot Tags: ignition coil, China ignition coil manufacturers, suppliers, factory, diesel filters, 5066 spark plug, blue spark plug wires, ignition igniter module, Petrol Ignition Coil for Cayenne, black spark plug on one cylinder

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