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Mpulse MPS-MR31

Mpulse Ignition Coil MPS-MR31 User Manual

Model: MPS-MR31 | Brand: Mpulse

PRODUCT OVERVIEW

The Mpulse Ignition Coil MPS-MR31 is engineered to enhance vehicle ignition system performance. It is designed for a faster rise time and improved spark duration, delivering higher spark energy to ensure reliable voltage for smooth engine operation and reduced emissions.

This ignition coil is a direct replacement for various Chevrolet, GMC, Pontiac, Cadillac, Buick, and Oldsmobile models. Refer to the [Compatibility](#) section for a detailed list of compatible vehicles.

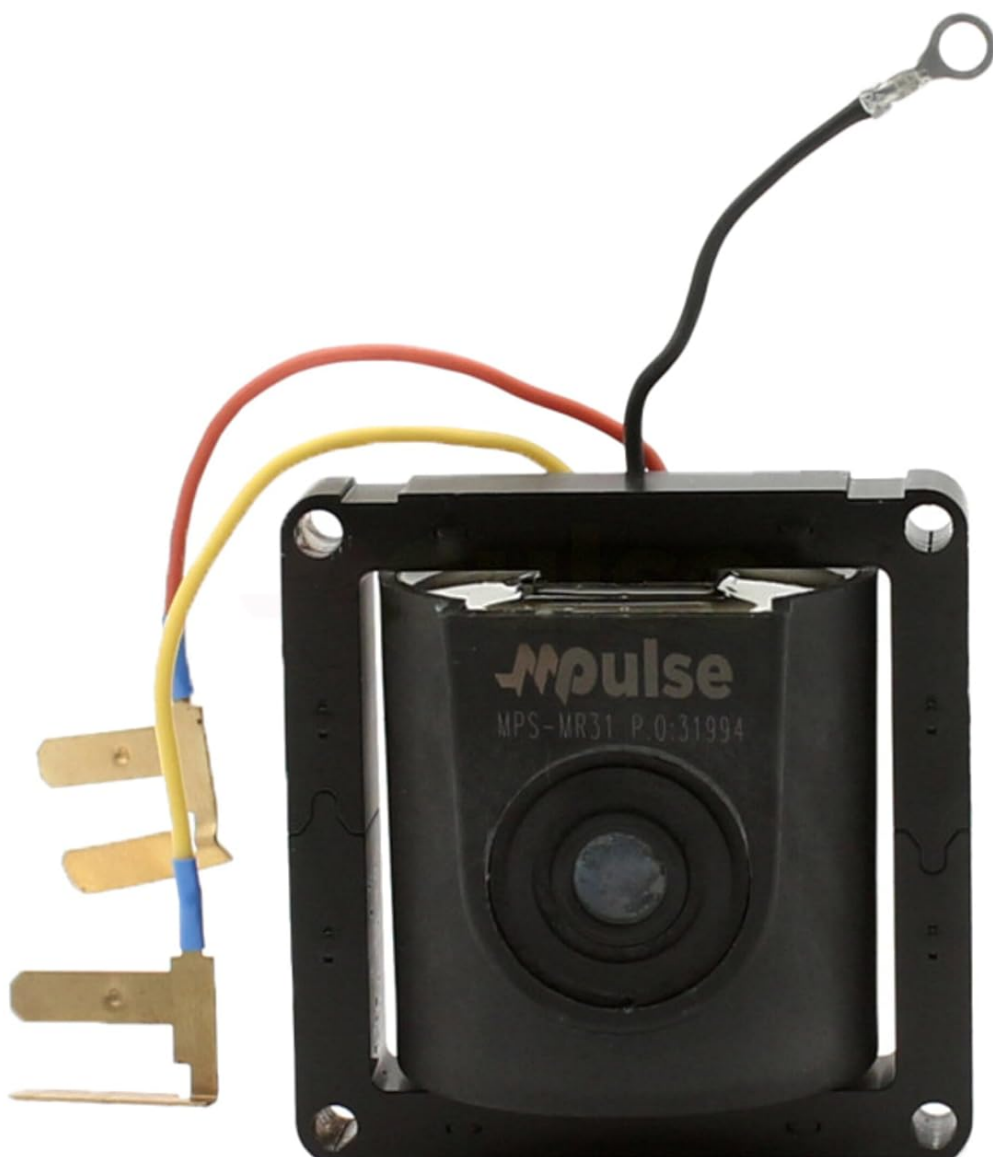


Figure 1: Mpulse Ignition Coil MPS-MR31. This image shows the main product, a black ignition coil with electrical connectors and mounting points.

VEHICLE COMPATIBILITY AND FITMENT

It is crucial to confirm vehicle compatibility before installation. The MPS-MR31 ignition coil is compatible with a wide range of vehicles. Always verify the year, make, model, and sub-model of your vehicle to ensure proper fitment.

IMPORTANT!

VEHICLE FITMENT CHECK

1.

Select your vehicle: Year ▼ Make ▼ Model ▼

Confirm your vehicle Year, Make, Model, Sub-Model and confirm the position of the part you are purchasing.

2.

✓ This fits your: 2015 Volkswagen Passat ▼

See all products that fit this vehicle

This product fits this position on your 2015 Volkswagen Passat:

- Front and Rear

| **Notes:** Vehicle Production Date To 6/30/14

NOTE:

There may be notes to carefully check even after the vehicle fitment is confirmed.

These notes provide specific information supplementing the fitment such as disc rotors size, brakes type, the part position, the production date, transmission type (2wd/4wd), operating parking brake (power or manual) and more.

We recommend to double check the fitment, verify the note carefully (if any), validate the position needed and make sure the product picture match the part you need to avoid having to return the product.

Figure 2: Vehicle Fitment Check Guidance. This image illustrates the importance of verifying vehicle compatibility and reviewing specific fitment notes before purchase or installation.

The following is a partial list of compatible vehicles. For a comprehensive list, please cross-reference with the part reference numbers provided in the specifications section and consult your vehicle's service manual or a qualified mechanic.

- 1987-1990 Cadillac Fleetwood
- 1987 Cadillac Eldorado
- 1987 Chevrolet C20
- 1987 Pontiac Firebird (With Canada Emissions)
- 1986-1990 Cadillac DeVille
- 1981 Chevrolet Bel Air, G20
- 1980-1986 Chevrolet G10
- 1980-1986 GMC G1500
- 1980-1985 Chevrolet C50, C70
- 1980-1984, 1986-1990 Cadillac Commercial Chassis

- 1980-1984 GMC C5000
- 1980-1982 Chevrolet G30
- 1980-1982 GMC Caballero, G2500, G3500
- 1980-1982 Pontiac Phoenix
- 1980-1981 Chevrolet C10 Suburban, Camaro, Corvette, K10 Suburban, K5 Blazer, P20
- 1980-1981 GMC C2500, Jimmy, K1500, K2500, K2500 Suburban
- 1980-1981 Oldsmobile Omega
- 1980 Buick Skylark
- 1980 Chevrolet Citation

INSTALLATION AND SETUP

Installation of an ignition coil typically involves working with the vehicle's electrical system. It is recommended that installation be performed by a qualified mechanic or an individual with experience in automotive electrical systems.

General Installation Steps:

1. **Safety First:** Disconnect the vehicle's battery to prevent electrical shock or damage to the vehicle's electrical system.
2. **Locate the Old Coil:** Identify the existing ignition coil(s) in your vehicle. Their location varies by vehicle make and model.
3. **Disconnect Wiring:** Carefully disconnect the electrical connectors and spark plug wires from the old coil. Note their positions for correct re-connection.
4. **Remove Old Coil:** Unbolt and remove the old ignition coil from its mounting bracket.
5. **Install New Coil:** Position the Mpulse MPS-MR31 ignition coil and secure it with the mounting bolts. Ensure it is firmly seated.
6. **Reconnect Wiring:** Reconnect the electrical connectors and spark plug wires to the new coil, ensuring all connections are secure and correctly oriented.
7. **Reconnect Battery:** Reconnect the vehicle's battery.
8. **Test:** Start the vehicle and check for proper engine operation. Listen for any unusual noises or observe any warning lights.

Always refer to your vehicle's specific service manual for detailed, model-specific installation instructions.

OPERATING PRINCIPLES

The ignition coil is a vital component of your vehicle's ignition system. Its primary function is to transform the low voltage from the vehicle's battery into the high voltage required to create a spark across the spark plug gap. This spark ignites the air-fuel mixture in the engine's cylinders, initiating combustion.

- **Voltage Transformation:** The coil contains primary and secondary windings. When current flows through the primary winding, it creates a magnetic field.
- **Spark Generation:** When the current to the primary winding is interrupted, the magnetic field collapses rapidly, inducing a very high voltage in the secondary winding.
- **Engine Performance:** A properly functioning ignition coil, like the Mpulse MPS-MR31, ensures consistent and powerful sparks, leading to efficient combustion, smooth engine performance, and optimal fuel economy.

MAINTENANCE

Ignition coils are generally low-maintenance components. However, regular inspection of related ignition system parts can help prolong the life of your coil and ensure optimal engine performance.

- **Spark Plugs:** Inspect and replace spark plugs according to your vehicle manufacturer's recommendations. Worn or fouled spark plugs can put additional strain on the ignition coil.
- **Spark Plug Wires:** Check spark plug wires for cracks, fraying, or signs of damage. Damaged wires can lead to misfires and coil stress.
- **Electrical Connections:** Periodically inspect the electrical connectors to the ignition coil for corrosion or looseness. Ensure they are clean and securely attached.
- **Cleanliness:** Keep the area around the ignition coil clean and free from excessive dirt, oil, or moisture.

TROUBLESHOOTING COMMON ISSUES

If you experience issues with your vehicle's ignition system, a faulty ignition coil could be a cause. Common symptoms of a failing ignition coil include:

- **Engine Misfires:** The engine may run rough, hesitate, or misfire, especially under acceleration.
- **Reduced Fuel Economy:** Inefficient combustion due to a weak spark can lead to increased fuel consumption.
- **Check Engine Light:** The "Check Engine" light may illuminate, often accompanied by specific diagnostic trouble codes (DTCs) related to ignition system faults.
- **Rough Idling:** The engine may idle unevenly or vibrate excessively.
- **Difficulty Starting:** The vehicle may crank but fail to start, or take longer to start.

Troubleshooting Steps:

1. **Check Diagnostic Trouble Codes (DTCs):** Use an OBD-II scanner to retrieve any stored codes. Codes like P0300 (Random/Multiple Cylinder Misfire Detected) or P030X (Cylinder X Misfire Detected) often point to ignition issues.
2. **Inspect Connections:** Ensure all electrical connections to the ignition coil and spark plugs are clean, tight, and free of corrosion.
3. **Inspect Spark Plugs and Wires:** Visually inspect spark plugs for wear or damage and spark plug wires for cracks or burns. Replace if necessary.
4. **Test Coil (Advanced):** A multimeter can be used to test the resistance of the coil's primary and secondary windings. Consult your vehicle's service manual for specific resistance values. If values are outside specifications, the coil may be faulty.

If you are unsure about diagnosing or repairing ignition system issues, it is best to consult a professional automotive technician.

SPECIFICATIONS

Attribute	Detail
Brand	Mpulse
Model Number	MPS-MR31
Manufacturer Part Number	MPS-MR31
UPC	827098082264

Attribute	Detail
Item Weight	700 g (0.7 Kilograms)
Parcel Dimensions	19 x 11.5 x 9 cm
Country of Origin	China
Vehicle Service Type	Car
Part Reference Numbers	GN10189, 161104, IC19, 36-1119, 5193, DR-31, C-614, EC614, MR31

WARRANTY INFORMATION

The Mpulse Ignition Coil MPS-MR31 is covered by a **limited lifetime warranty** against manufacturer defects. This warranty ensures that the product is free from defects in material and workmanship under normal use and service. For warranty claims or further details regarding the terms and conditions of the warranty, please retain your proof of purchase and contact Mpulse customer support.

CUSTOMER SUPPORT

For technical assistance, installation questions, or warranty inquiries, please contact Mpulse customer support. While specific contact details are not provided in this manual, you can typically find support information on the official Mpulse website or through the retailer where the product was purchased. When contacting support, please have your product model number (MPS-MR31) and proof of purchase readily available to expedite the process.

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Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page’s manual context to help answer it.

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Email

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Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

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