

Manuals+

[Q & A](#) | [Deep Search](#) | [Upload](#)

Manuals.plus /

> [AUTOKAY](#) /

> AUTOKAY Ignition Coil Instruction Manual

AUTOKAY 166-0772, 12-853-57-S, 12-853-80-S

AUTOKAY Ignition Coil Instruction Manual

Brand: AUTOKAY

Model: 166-0772, 12-853-57-S, 12-853-80-S

1. PRODUCT OVERVIEW

The AUTOKAY 166-0772 Ignition Coil is a critical component in the ignition system of compatible engines. Its primary function is to transform the low voltage from the vehicle's battery into the thousands of volts required to create an electric spark in the spark plugs, igniting the fuel-air mixture in the engine's cylinders. This ensures efficient engine operation and reliable starting.

This ignition coil is designed for specific Onan and John Deere engine models, as well as the Toro Wheel Horse 520-H Garden Tractor. It is an aftermarket replacement part manufactured to meet or exceed original equipment specifications.

2. PACKAGE CONTENTS

Upon opening the package, verify that all the following components are present:

- 1x Ignition coil
- 3x Mounting bolts
- 1x Mounting bracket
- 1x Lock clip
- 1x Capacitance (capacitor)
- 1x Insulating sleeve
- 1x Connection terminal



Image 2.1: Overview of the AUTOKAY Ignition Coil and included accessories.

ALL-IN-ONE-KIT

cut Down on Time and Costs for Individual Items



Image 2.2: The complete "All-in-One-Kit" for the ignition coil, showing all parts ready for installation.

3. COMPATIBILITY AND FITMENT

This ignition coil is compatible with a range of Onan engine models and specific John Deere and Toro Wheel Horse models. Please verify your engine's model and serial number against the list below to ensure proper fitment.

Compatible Engine Models:

- For Onan P218G Engine (Serial numbers 420,001 to 999,000 & Serial numbers 10,001 to 120,000)
- For Onan P220G Engine (Serial numbers 420,001 and above)
- For Onan P224G Engine
- For Onan Points Models: BF, BFA, BG, BGA, BGE, B43E, B43G, B43M, B43, B48, B48G, CCK, CCKA, CCKB, NHA, NHB, NHC, NHE, NHP, N52M
- For John Deere Models (specific models not listed, refer to OEM part numbers)
- For Toro Wheel Horse 520-H Garden Tractor 1992 (Model 41-20OE03)

Important Note:

If your John Deere 317 has a Kohler engine, this ignition coil will not be compatible. Always check your engine model to confirm compatibility before purchasing and installing.

Replaces Part Numbers:

- 166-0772, 166-0804, 166-0648, 541-0522, 166-0761, HE166-0761, HE541-0522, 714000, NN10245, 98-1705, 166-0722, c32296, 166-0820, 166-0535, 166-0543, 166-0643, 166-0638, 1660772, 166-0346, 1660346

STATUS & COMPATIBILITY

Replaceable your old accessories



- ★ Brand New
- Aftermarket Products ★
- ★ Professional Design
- Reliable Performance ★

Image 3.1: Visual representation highlighting the compatibility and status of the ignition coil as a brand new, aftermarket product with professional design and reliable performance.

4. SETUP AND INSTALLATION

Installation of an ignition coil typically involves disconnecting the old unit and connecting the new one. Due to the electrical nature of this component and its role in engine operation, it is highly recommended that installation be performed by a qualified mechanic or an individual with experience in engine repair.

General Installation Steps (Consult Service Manual for Specifics):

1. **Safety First:** Disconnect the battery's negative terminal to prevent accidental electrical discharge.
2. **Locate Old Coil:** Identify the existing ignition coil on your engine.
3. **Disconnect Wires:** Carefully disconnect all electrical wires 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:** Mount the new AUTOKAY ignition coil using the provided mounting bracket and bolts. Ensure it is securely fastened.
6. **Connect Wires:** Reconnect the electrical wires and spark plug wires to the new coil in their correct positions. The provided connection terminal and insulating sleeve may be used as needed.
7. **Connect Capacitance:** Install the capacitance (capacitor) as per your engine's wiring diagram. This component helps suppress electrical noise.
8. **Reconnect Battery:** Reconnect the battery's negative terminal.
9. **Test:** Start the engine and check for proper operation.

For a visual guide on the product components, please refer to the video below:

Your browser does not support the video tag.

Video 4.1: An overview of the AUTOKAY Ignition Coil components, demonstrating the physical appearance and various angles of the product.

PRODUCT DETAILS



Excellent
quality

Trustworthy

Image 4.1: Close-up views of the ignition coil, highlighting its terminals and overall construction for detailed inspection.

Multi-View Display



Image 4.2: Various angles of the ignition coil, providing a comprehensive multi-view display of the product's design.

5. OPERATING PRINCIPLES

The ignition coil operates on the principle of electromagnetic induction. When the engine's control unit sends a signal, current flows through the coil's primary winding, creating a magnetic field. When this current is interrupted, the magnetic field collapses rapidly, inducing a very high voltage in the secondary winding. This high voltage is then sent to the spark plugs, creating the necessary spark for combustion.

Proper functioning of the ignition coil is essential for consistent engine performance, fuel efficiency, and reduced emissions.

6. MAINTENANCE

Ignition coils are generally low-maintenance components. However, periodic inspection can help ensure their longevity and optimal performance:

- **Visual Inspection:** Regularly check the coil for any signs of physical damage, cracks, or discoloration, which could

indicate overheating or electrical issues.

- **Connection Integrity:** Ensure all electrical connections to the coil are clean, tight, and free from corrosion. Loose or corroded connections can lead to poor performance.
- **Spark Plug Wires:** Inspect spark plug wires for wear, cracks, or damage. Damaged wires can reduce the effectiveness of the ignition coil.
- **Engine Environment:** Keep the engine compartment clean and free of excessive dirt, oil, or debris that could affect the coil's operation or lead to premature failure.

7. TROUBLESHOOTING

If you experience issues with your engine's ignition system after installing or while using the AUTOKAY ignition coil, consider the following common troubleshooting steps:

- **No Spark or Weak Spark:**
 - Verify all connections are secure and clean.
 - Check for proper voltage supply to the coil.
 - Inspect spark plugs and spark plug wires for damage or wear.
 - Ensure the capacitance (capacitor) is correctly installed and functioning.
- **Engine Misfires or Rough Idling:**
 - This could indicate an intermittent coil failure or issues with other ignition components.
 - Check for proper engine timing.
- **Engine Not Starting:**
 - Confirm the coil is receiving power.
 - Ensure the correct coil is installed for your engine model (refer to Section 3: Compatibility and Fitment, especially the note regarding Kohler engines).
- **Overheating Coil:**
 - Check for proper resistance values (refer to Specifications).
 - Ensure there are no short circuits in the wiring.

If issues persist after basic troubleshooting, professional diagnosis is recommended.

8. SPECIFICATIONS

Detailed technical specifications for the AUTOKAY 166-0772 Ignition Coil:

Attribute	Value
Length	32cm (approx. 12.6 inches)
Horsepower Rating (for compatible engines)	18hp
Type	Ignition Coil
Primary Resistance (Set 1)	3.12Ω
Primary Inductance (Set 1)	6.67mH

Attribute	Value
Secondary Resistance (Set 1)	20.5K Ω
Secondary Inductance (Set 1)	41.30H
Primary Resistance (Set 2)	4.25 Ω
Primary Inductance (Set 2)	9.48mH
Secondary Resistance (Set 2)	37.85K Ω
Secondary Inductance (Set 2)	59.96H
Item Weight	0.63 Kilograms (approx. 1.39 pounds)
Connector Gender	Male
Installation Type	Bolt-On
OEM Part Number	166-0772
UPC	366215630495

PRODUCT SIZE

AUTOKAY



Image 8.1: Diagram showing the approximate dimensions of the ignition coil, including height and width measurements.

PRODUCT FEATURES

3 major advantages



DURABLE



HIGH QUALITY



EASY TO INSTALL



Image 8.2: Visual representation of the product's key features: durable, high quality, and easy to install.

9. WARRANTY AND SUPPORT

For information regarding warranty coverage, returns, or technical support, please contact AUTOKAY directly through their official channels or the retailer from whom the product was purchased. Always retain your proof of purchase for any warranty claims.

You can visit the official AUTOKAY store for more information: [AUTOKAY Store](#)