



Manuals.plus /

› Motorcraft /

› Motorcraft YH1705 Air Conditioning System Switch User Manual

Motorcraft YH1705

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Model: YH1705

INTRODUCTION

This manual provides essential information for the proper installation, operation, and maintenance of the Motorcraft YH1705 Air Conditioning System Switch. Designed as a direct replacement part, this switch is crucial for the correct functioning of your vehicle's air conditioning system. Please read this manual thoroughly before attempting any installation or service.



Figure 1: Front view of the Motorcraft YH1705 Air Conditioning System Switch, showing the electrical connector and threaded metal fitting.

INSTALLATION

Safety Warning:

- Always disconnect the vehicle's battery before performing any electrical work to prevent injury or damage to the electrical system.
- Air conditioning systems contain pressurized refrigerants. Improper handling can lead to severe injury. It is highly recommended that installation be performed by a qualified automotive technician.
- Wear appropriate personal protective equipment, including safety glasses and gloves.

General Installation Steps:

1. **Identify the Location:** Locate the existing A/C system switch in your vehicle. Its exact position varies by vehicle make and model, but it is typically found on the A/C compressor, accumulator, or a refrigerant line. Consult your vehicle's service manual for precise location.
2. **Depressurize A/C System (if necessary):** If the switch is located on a high-pressure or low-pressure line that requires system depressurization, this step must be performed by a certified technician using proper recovery equipment. *Do not attempt to vent refrigerant into the atmosphere.*
3. **Disconnect Electrical Connector:** Carefully disconnect the electrical connector from the old switch.
4. **Remove Old Switch:** Using an appropriate wrench, unscrew and remove the old A/C system switch. Be prepared for a small amount of refrigerant or oil to escape if the system was not fully depressurized.

5. **Inspect and Prepare:** Inspect the new Motorcraft YH1705 switch for any damage. Ensure the O-ring or sealing washer (if supplied) is correctly seated.
6. **Install New Switch:** Thread the new YH1705 switch into its mounting location. Tighten to the vehicle manufacturer's specified torque. *Do not overtighten.*
7. **Reconnect Electrical Connector:** Securely connect the electrical connector to the new switch.
8. **Recharge A/C System (if necessary):** If the A/C system was depressurized, it must be properly evacuated and recharged with the correct type and amount of refrigerant and lubricant by a qualified technician.
9. **Test System:** Reconnect the vehicle's battery. Start the engine and test the A/C system to ensure proper operation. Check for any leaks around the new switch.



Figure 2: Rear view of the Motorcraft YH1705 Air Conditioning System Switch, showing the threaded end and part number markings.

OPERATION

The Motorcraft YH1705 Air Conditioning System Switch is an automatic pressure switch designed to monitor the refrigerant pressure within the vehicle's A/C system. Its primary function is to protect the A/C compressor from damage due to excessively high or low refrigerant pressure.

- **Low Pressure Cut-Off:** If the refrigerant pressure drops below a safe operating level (e.g., due to a leak), the switch will open its circuit, preventing the A/C compressor from engaging. This protects the compressor from running without sufficient lubrication, which can cause severe damage.
- **High Pressure Cut-Off:** If the refrigerant pressure rises above a safe operating level (e.g., due to an overcharge, restricted airflow through the condenser, or a faulty cooling fan), the switch will also open its circuit, disengaging the compressor. This prevents damage to the compressor and other A/C system

components from excessive pressure.

- **Normal Operation:** When refrigerant pressure is within the specified operating range, the switch maintains a closed circuit, allowing the A/C compressor clutch to engage when commanded by the vehicle's climate control system.

As an automatic component, the YH1705 switch operates without direct user intervention. Its proper functioning is critical for the longevity and efficiency of your vehicle's air conditioning system.

MAINTENANCE

The Motorcraft YH1705 Air Conditioning System Switch is a sealed, maintenance-free component. Regular maintenance is not required for the switch itself. However, periodic inspection of the surrounding area is recommended as part of general vehicle maintenance:

- **Visual Inspection:** Periodically check the switch and its electrical connector for any signs of corrosion, damage, or loose connections.
- **Leak Detection:** If you suspect an A/C refrigerant leak, inspect the area around the switch for oily residue, which can indicate a leak. Address any leaks promptly to prevent system damage.
- **System Performance:** Ensure your vehicle's A/C system is performing optimally. Any significant decrease in cooling performance or unusual noises from the A/C system should be investigated by a qualified technician.

TROUBLESHOOTING

If your vehicle's air conditioning system is not functioning correctly, the A/C system switch could be a contributing factor. Below are common symptoms and potential causes related to the switch:

Symptom	Possible Cause	Action
A/C compressor does not engage (no cold air)	Low refrigerant pressure, faulty A/C pressure switch, electrical connection issue.	Check refrigerant levels. Inspect switch wiring and connector. Test switch continuity (requires specialized tools and knowledge).
A/C compressor cycles on and off rapidly	Low or high refrigerant pressure, faulty A/C pressure switch.	Check refrigerant levels. A rapid cycle often indicates low refrigerant.
A/C system blows warm air intermittently	Intermittent fault in A/C pressure switch, electrical connection, or other A/C components.	Inspect electrical connections. Professional diagnosis is recommended.

Important Note: Diagnosing and repairing automotive A/C systems can be complex and requires specialized tools and knowledge. If you are unsure about any troubleshooting steps, it is highly recommended to consult a certified automotive technician.

SPECIFICATIONS

Feature	Detail
Product Type	Auto Part (Air Conditioning System Switch)
Brand	Motorcraft
Model Number	YH1705
UPC	031508532182
Item Weight	0.845 ounces
Product Dimensions (L x W x H)	1.5 x 1.08 x 2.75 inches
Operation Mode	Auto
Contact Type	Normally Open
Connector Type	Screw
Terminal	Screw
Circuit Type	1-way
Mounting Type	Panel Mount
Actuator Type	Push Button
Contact Material	Metal
International Protection Rating	IP00
Number of Positions	1
Color	Black
Country Of Origin	China

WARRANTY INFORMATION

Motorcraft parts are designed and manufactured to meet strict quality standards. Specific warranty terms for the YH1705 Air Conditioning System Switch are typically provided at the point of purchase or can be found on the official Motorcraft website. Generally, Motorcraft parts come with a limited warranty against defects in material and workmanship.

For detailed warranty information, please refer to the documentation included with your purchase or visit the official Motorcraft website. Keep your proof of purchase for warranty claims.

SUPPORT & CONTACT

For technical assistance, questions regarding installation, or warranty claims, please contact Motorcraft customer support or visit their official website.

Official Website: www.motorcraft.com

Customer Service: Refer to the "Contact Us" section on the official website for phone numbers or email support.

Professional Assistance: For complex issues or installation, it is always recommended to seek assistance from a certified automotive technician.

