

ZDTOPA 36710-42010, 36710-42020, 36710-42021

ZDTOPA 12V 4PCS Glow Plug User Manual

Models: 36710-42010, 36710-42020, 36710-42021
Compatible for Hyundai H-1 H-100 2.5 D (1994-2004)

1. PRODUCT OVERVIEW

The ZDTOPA 12V 4PCS Glow Plugs are high-quality aftermarket replacement parts designed to ensure reliable cold starting for compatible diesel engines. These glow plugs are essential components in diesel combustion systems, pre-heating the combustion chamber to facilitate ignition, especially in cold weather conditions.

This set includes four glow plugs, manufactured from high-quality stainless steel, offering excellent durability, waterproof properties, and corrosion resistance for a long service life. Their design ensures rapid heating and sustained high-temperature performance, crucial for efficient engine operation.

Key Features:

- **Reference OE Numbers:** 36710-42010, 36710-42020, 36710-42021, 36710-42060, 36710-42550, 36710-42000, 1106543G01, 1106563G00.
- **Vehicle Fitment:** Specifically compatible with Hyundai H-1 and H-100 2.5 D models from 1994 to 2004.
- **Material:** Constructed from high-quality stainless steel for enhanced durability and resistance to environmental factors.
- **Performance:** Designed for rapid heating and sustained high-temperature operation, improving cold start reliability.
- **Corrosion Resistance:** Undergoes salt spray testing to ensure superior anti-corrosion capabilities.



Figure 1: A set of four ZDTOPA glow plugs, showcasing their design and construction.

2. INSTALLATION (SETUP)

Proper installation is crucial for the optimal performance and longevity of your new glow plugs. If you are unsure about any step, it is recommended to consult a qualified mechanic.

2.1 Safety Precautions

- Ensure the engine is completely cool before beginning installation to prevent burns and damage to components.
- Disconnect the vehicle's battery (negative terminal first) to prevent accidental electrical shorts.
- Wear appropriate personal protective equipment, including gloves and eye protection.
- Work in a well-ventilated area.

2.2 Installation Steps

1. **Locate Glow Plugs:** Identify the glow plugs, typically found on the cylinder head of the diesel engine. They are usually connected by a common electrical bus bar.
2. **Remove Electrical Connections:** Carefully disconnect the electrical connectors and remove the bus bar from the old glow plugs.
3. **Clean Area:** Clean any dirt or debris around the base of the glow plugs to prevent contaminants from entering the combustion chamber when the plugs are removed.
4. **Remove Old Glow Plugs:** Using an appropriate glow plug wrench or socket, carefully loosen and remove the old glow plugs. Apply penetrating oil if they are seized, and allow time for it to work. Avoid excessive force to prevent breakage.
5. **Inspect and Prepare:** Inspect the glow plug bores for carbon buildup or damage. Apply a small amount of anti-seize compound to the threads of the new ZDTPA glow plugs to facilitate future removal and prevent seizing.
6. **Install New Glow Plugs:** Hand-thread the new glow plugs into their respective bores to ensure they are not cross-threaded. Once hand-tight, use a torque wrench to tighten them to the manufacturer's specified torque setting. *Refer to your vehicle's service manual for exact torque specifications.*
7. **Reconnect:** Reattach the electrical bus bar and connectors to the new glow plugs. Ensure all connections are secure.
8. **Reconnect Battery:** Reconnect the vehicle's battery (positive terminal first, then negative).
9. **Test:** Start the engine and check for proper operation and any warning lights.



Figure 2: A view of the ZDTOPA glow plugs, highlighting their quality control stamp.

3. OPERATION

Glow plugs operate automatically as part of the vehicle's engine management system. When the ignition is turned on, especially in cold conditions, the engine control unit (ECU) activates the glow plugs. They rapidly heat up, pre-heating the air and fuel mixture within the combustion chamber to a temperature sufficient for diesel ignition.

Once the engine starts, the glow plugs may remain active for a short period (after-glow) to reduce emissions and improve engine smoothness during warm-up. The glow plug indicator light on your dashboard will illuminate when the glow plugs are active and turn off when the engine is ready to start.

4. MAINTENANCE

While glow plugs are designed for durability, regular inspection and timely replacement are important for maintaining optimal engine performance and cold-start reliability.

4.1 Inspection

- Periodically check the electrical connections to the glow plugs for corrosion or looseness.
- While difficult to visually inspect the heating element without removal, look for any external signs of damage or excessive carbon buildup on the visible parts.

4.2 Replacement

- Glow plugs typically have a lifespan, and it is recommended to replace them as a set according to your vehicle manufacturer's recommended service intervals, or when signs of failure appear.
- Even if only one glow plug fails, replacing all of them as a set is often advisable to ensure consistent performance and prevent future issues, as the remaining plugs may be nearing the end of their service life.



Figure 3: Close-up view of a single ZDTOPA glow plug, showing the quality control mark.

5. TROUBLESHOOTING

If you experience issues with your vehicle's starting performance, faulty glow plugs could be a contributing factor. Here are common symptoms and basic troubleshooting steps:

5.1 Common Symptoms of Faulty Glow Plugs

- **Hard Starting:** Especially noticeable in cold weather, the engine may crank for an extended period before starting.
- **Misfires or Rough Idling:** After starting, the engine may run roughly or misfire until it warms up.
- **Excessive White Smoke:** Unburnt fuel due to insufficient combustion can lead to white smoke from the exhaust, particularly during cold starts.
- **Check Engine Light:** In some modern vehicles, a faulty glow plug may trigger a diagnostic trouble code (DTC) and illuminate the check engine light.

5.2 Basic Diagnostic Steps

- **Visual Inspection:** Check for obvious damage to the glow plug wiring or connectors.
- **Resistance Test:** Using a multimeter, measure the resistance of each glow plug. A glow plug with significantly higher resistance or an open circuit (infinite resistance) is likely faulty. *Consult your vehicle's service manual for expected resistance values.*
- **Voltage Test:** Check for proper voltage supply to the glow plugs when activated.

If troubleshooting indicates a faulty glow plug, replacement is necessary. It is often recommended to replace all glow plugs as a set to ensure balanced performance and prevent future issues.



Figure 4: Another perspective of a ZDTOPA glow plug, emphasizing its robust construction.

6. SPECIFICATIONS

Attribute	Value
Brand	ZDTOPA
Model	36710-42010, 36710-42020, 36710-42021
Item Weight	7 ounces (0.2 Kilograms)
Package Dimensions	5.2 x 4.3 x 4 inches
Manufacturer Part Number	ZD-22GP0087
Material	Alloy Steel

Attribute	Value
Vehicle Service Type	Truck, Van
Compatible OE Numbers	36710-42010, 36710-42020, 36710-42021, 36710-42060, 36710-42550, 36710-42000, 1106543G01, 1106563G00

7. WARRANTY AND SUPPORT

For specific warranty information regarding your ZDTOPA Glow Plugs, please refer to the product packaging or contact ZDTOPA customer support directly. Keep your proof of purchase for any warranty claims.

If you encounter any issues or have questions not covered in this manual, please reach out to the manufacturer's customer service for assistance. Contact details can typically be found on the product packaging or the official ZDTOPA website.

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