## GLOW PLUG TROUBLE TRACER CHART

### Destroyed/lacking probe tip

**Causes:**
- Ignition unit failure.
- Incorrect/irregular fuel jet direction.
- Incorrect number or size of sealing causing incorrect spraying position.

**Remedy:**
- Check the correspondence of ignition unit with the car type and proper installation of the ignition unit.
- Check the glow plug installation hole for carbon fouling.
- Replace your plugs.

### Dimples on the probe tip

**Causes:**
- Ignition unit failure.
- Incorrect/irregular fuel jet direction.
- Incorrect number or size of sealing causing incorrect spraying position.
- Glowing time too long or excessive temperature (12-V glow plug used in the 24-V system or vice versa)
- Alternator & regulator failure.

**Remedy:**
- Check the correspondence of the ignition unit with the car type and proper installation of the ignition unit.
- Check the glow plug installation hole in the cylinder head for carbon fouling.
- Check ignition pump timing.
- Replace your plugs.

### Broken probe tip

**Causes:**
- Glowing time too long or voltage too high (12-V glow plug used in the 24-V system or vice versa)
- Alternator & regulator failure.
- Inappropriate tool used or damage of the cylinder head/not tightened.

**Remedy:**
- Check the glow plug installation hole thread in the cylinder head for carbon fouling.
- Check engine oil consumption.
- Replace your plugs.

### Bulging ring on the probe tip

**Causes:**
- Oil in the combustion chamber (probable cause: car engine wear).

**Remedy:**
- Check the cylinder head hole thread in the cylinder head for carbon fouling.
- Check the correspondence of the ignition unit with the car type and proper installation of the ignition unit.
- Check the ignition pump installation hole in the cylinder head for carbon fouling.
- Check the ignition pump and its timing.
- Replace your plugs.

### Probe deformation (due to overheatting)

**Causes:**
- Ignition unit failure.
- Incorrect/irregular fuel jet direction.
- Incorrect number or size of sealing causing incorrect spraying position.
- Alternator & regulator failure.

**Remedy:**
- Check the correspondence of the ignition unit with the car type and proper installation of the ignition unit.
- Check the glow plug installation hole thread in the cylinder head for carbon fouling.
- Check ignition pump timing.
- Replace your plugs.

### Lacking probe

**Causes:**
- Ignition unit failure.
- Incorrect/irregular fuel jet direction.
- Incorrect number or size of sealing causing incorrect spraying position.
- Injection unit operation/firing failure.

**Remedy:**
- Check ignition system voltage.
- Check on-board voltage and glow plug voltage.
- Check charging system voltage.
- Check fuel injection timing.
- Replace your plugs.

### Probe in contact with the glow plug body

**Causes:**
- Tightening torque too high.
- Inappropriate tool used or damage of the cylinder head hole thread.

**Remedy:**
- Check the cylinder head hole thread for damage/carbon fouling.
- Check the correspondence of the ignition unit with the car type and proper installation of the ignition unit.
- Check the glow plug installation hole thread in the cylinder head for carbon fouling.
- Check ignition pump and its timing.
- Replace your plugs.

### Carbon fouling between the plug body and the probe glow

**Causes:**
- Ignition unit failure.
- Incorrect/irregular fuel jet direction.
- Incorrect number or size of sealing causing incorrect spraying position.

**Remedy:**
- Check the correspondence of the ignition unit with the car type and proper installation of the ignition unit.
- Check the glow plug installation hole thread in the cylinder head for carbon fouling.
- Check ignition pump timing.
- Replace your plugs.

### Carbon fouling in the glow plug seat

**Causes:**
- Incorrect glow plug seating.

**Remedy:**
- Check the glow plug installation hole thread in the cylinder head for damage/carbon fouling.
- Check correct tightening of the glow plug.
- Replace your plugs.

### Carbon fouling in the glow plug hexagon/ thread

**Causes:**
- Tightening torque too high.
- Inappropriate tool used or damage of the cylinder head hole thread.

**Remedy:**
- Check the glow plug installation hole thread in the cylinder head for damage/carbon fouling.
- Check correct tightening of the glow plug.
- Replace your plugs.

### Power supply terminal bent

**Causes:**
- Tightening torque too high.
- Inappropriate tool used or damage of the cylinder head hole thread.

**Remedy:**
- Check the glow plug installation hole thread in the cylinder head for damage/carbon fouling.
- Check correct tightening of the glow plug.
- Replace your plugs.

### Power supply terminal broken off

**Causes:**
- Tightening torque too high.
- Inappropriate tool used or damage of the cylinder head hole thread.

**Remedy:**
- Check the glow plug installation hole thread in the cylinder head for damage/carbon fouling.
- Check correct tightening of the glow plug.
- Replace your plugs.

### Other damage

**Causes:**
- Ignition unit failure, incorrect/irregular fuel jet direction.
- Incorrect number or size of sealing causing incorrect spraying position.
- Glowing time too long.
- Ignition pump operation/firing failure.

**Remedy:**
- Check the correspondence of the ignition unit with the car type and proper installation of the ignition unit.
- Check the glow plug installation hole thread in the cylinder head for carbon fouling.
- Check ignition pump and its timing.
- Replace your plugs.