Throttle position (TP) sensor

Checking supply voltage - <u>Fig. 10</u>

Technical Data	
Terminals	**Voltage**
1 & earth	5 V approx.

- Ensure ignition switched OFF.
- Disconnect TP sensor multi-plug.
- Switch ignition ON.
- Check voltage between harness multi-plug terminal and earth.

Checking earth connection - <u>Fig. 10</u>

Technical Data	
Terminals	**Resistance**
3 & earth	Zero

- Ensure ignition switched OFF.
- Disconnect TP sensor multi-plug.
- Check resistance between harness multi-plug terminal and earth.

Checking operation - <u>Fig. 11</u>

Technical Data		
Terminals	**Condition**	**Voltage**
2 & 3	Throttle closed	0,45-0,55 V
2 & 3	Throttle fully open	4,0 V approx.

- Ensure ignition switched OFF.
- Do not disconnect multi-plug. Access TP sensor multi-plug terminals.
- Switch ignition ON.
- Check voltage between multi-plug terminals.
- Operate throttle valve while checking voltage between terminals 2 and 3.
- Voltage change should be smooth.

Checking resistance - <u>Fig. 12</u>

Technical Data		
Terminals	**Condition**	**Resistance**
1,6		
2 & 3	Throttle closed	500 Ω approx.
2 & 3	Throttle fully open	4000 Ω approx.
2,0		
2 & 3	Throttle closed	2000 Ω approx.
2 & 3	Throttle fully open	10000 Ω approx.

- Ensure ignition switched OFF.
- Disconnect TP sensor multi-plug.
- Check resistance between TP sensor terminals.
- Operate throttle valve while checking resistance between terminals 2 and 3.
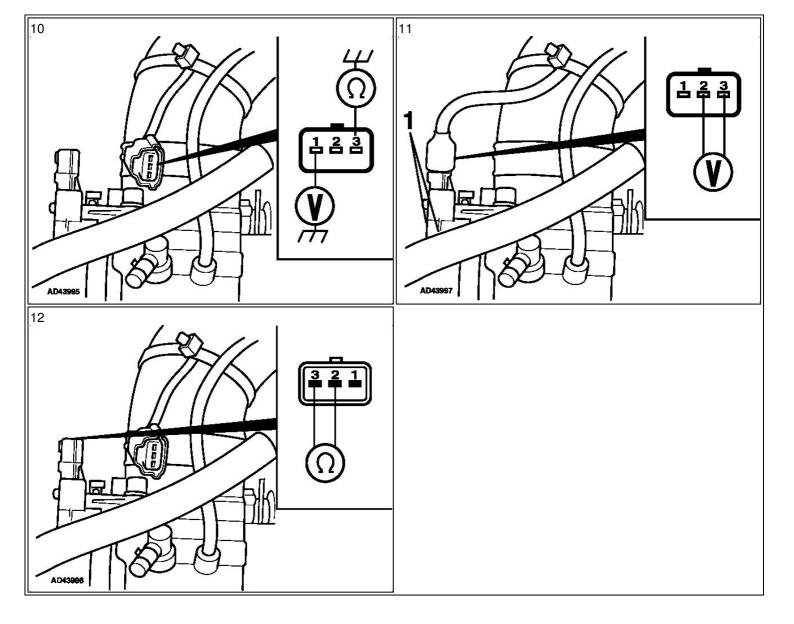- Resistance change should be smooth.

Adjustment - <u>Fig. 11</u>

Technical Data		
Terminals	**Condition**	**Voltage**
2 & 3	Throttle closed	0,45-0,55 V

- Ensure engine is at normal operating temperature.
- Do not disconnect multi-plug. Access TP sensor multi-plug terminals.
- Slacken TP sensor screws **<u>Fig. 11</u>** [1].
- Start engine. Allow to idle.
- Turn TP sensor until voltage between terminals 2 and 3 is as specified.
- Tighten TP sensor screws.
- To reset idle position memory:
- Disconnect TP sensor multi-plug.
- Wait 10 seconds.
- Reconnect multi-plug.
- Switch ignition OFF.

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3 2 1

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