## **Electrical Test Program – Speaker Test**

$\Rightarrow$	Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
1.0	Model 129 Speakers		Radio: <b>ON</b> CTEL: <b>OFF</b>	Radio audio is heard through all speakers.	⇒ 2.0
2.0	Model 129 Audio switchover relay module (A35/2) Wiring		Check for proper connection of relay harness.	Radio audio is heard through all speakers.	⇒ 2.1
2.1	Wiring		Ignition: <b>ON</b> Radio: <b>OFF</b> CTEL: <b>ON</b> Press <i>C</i> (clear) to generate an audio tone.	CTEL audio is heard through left front door speaker group (H4/1) and left front speaker (H4/9).	⇒ 2.2
2.2	Voltage supply Circuit 30	X39/20 2 <b>—</b> (	Ignition: <b>ON</b> Radio: <b>ON</b> CTEL: <b>ON</b> Do not disconnect X39/20. Take reading from back of connector.	11 – 14 V	Nominal value OK: ⇒ 2.5  Nominal value not OK:  Wiring,  Fuse (F22/2-1).

## **Electrical Test Program – Speaker Test**

$\Rightarrow$	Test scope	Test connection		Test condition	Nominal value	Possible cause/Remedy
2.3	Voltage supply Control voltage	۱	- 1	Do not disconnect X39/23. Take reading from back of connector.	11 – 14 V	Nominal value OK: ⇒ 2.5  Nominal value not OK:  Wiring.
2.4	Control voltage	X39/20 2 <b>-( √-()</b> <sup>+</sup> <b>-</b> 2	<b>)</b> —3	Enter 611 Press SND.	< 1 V	Nominal value OK: ⇒ 2.5  Nominal value not OK: 26
2.5	Model 129 Audio switchover relay module (A35/2)			Install known good relay.	Audio returns.	Audio: Replace A35/2.  No audio: Replace relay harness.
3.0	Model 129 CTEL junction box (X39/11)			Disconnect speaker wire connector (2) from X39/11. Connect test headset to X39/11 at connector 2. Press <i>C</i> (clear) to generate an audio tone.	Audio tone heard over test headset.	Nominal value OK: ⇒ 2.5  Nominal value not OK: ⇒ 3.1
3.1				Connect test headset to test point #2. Press C (clear) to generate an audio tone.	Audio tone heard over test headset.	Nominal value okay: Replace X39/11 Nominal value not OK: 27

## **Electrical Test Program – Speaker Test**

7.2

$\Rightarrow$	Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
4.0	Model 140 Speakers		Ignition: ON Radio: OFF CTEL: ON Connect test headset to CTEL speaker harness. Press IDC keys to generate an audio tone.	Keytone audio is heard through headset.	Nominal value OK: Speakers, Wiring.  Nominal value not OK: ⇒ 4.1
4.1	Wiring		Disconnect speaker output wiring from X39/11. Connect to test headset. Press IDC keys to generate an audio tone.	Keytone audio is heard through headset	Nominal value OK: Wiring.  Nominal value not OK: ⇒ 5.0
5.0	Model 140 CTEL junction box (X39/11)		Connect test headset to test point #2. Press IDC keys to generate an audio tone.	Audio tone heard over test headset.	Nominal value OK: Replace X39/11 Nominal value not OK: 27