### 7.2 Cellular Telephone (CTEL)

#### **Electrical Test Program – Antenna Test**

If customer complaint is limited to a specific geographic location or condition, explain limitations of CTEL (radio-telephone) to customer.

If customer complaint is regarding chronic static or frequently dropped calls, which are not limited to a specific geographic area, contact carrier.

⇒	Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
1.0	<b>Antenna</b> Ground		Ignition: <b>OFF</b> Radio: <b>OFF</b> CTEL: <b>OFF</b> Known good service area. Temporarily disconnect <i>Radio</i> and <i>Telefon</i> connection coax cables from antenna splitter (A28/1).	< 0.3 Ω	Loosen lower antenna mounting bracket. Tighten mast tube until resistance is < $0.3 \Omega$ . Retighten lower bracket. Reconnect coax cables.
1.1	Cable		Disconnect antenna coax cable from A28/1 and TR (A35). Replace with known good cable.	<b>No Serv</b> indicator does not come on. Reception and quality improve.	Indicator stays ON: $\Rightarrow$ 1.2. Indicator goes OFF: Replace antenna coax cable. Reception does not improves: $\Rightarrow$ 1.2 Reception improves: Replace antenna coax cable.

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$\Rightarrow$	Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
1.2	Cable		Disconnect antenna coax cable from A35. Connect magnetic mont test antenna to A35. Place test antenna on trunk lid with lid closed.		Indicator stays ON: contact arrier. Indicator goes OFF: Replace antenna.
2.0	Antenna Radio control		Ignition: <b>ON</b> Radio: Cycle <b>ON/OFF</b> CTEL: <b>OFF</b>	Antenna extends and retracts with cycling of radio.	⇒ 2.1
2.1	Radio control		Disconnect antenna control wire from junction box (X39/11) and antenna. Radio: Cycle <b>ON/OFF</b> CTEL: <b>OFF</b>	Antenna extends and retracts with cycling of radio.	Nominal value OK: $\Rightarrow$ 2.3. Nominal value not okay: see DM, Vol. 3, Drivetrain, Body & Accessories Electrical, Chassis & Body $\Rightarrow$ EB-02.06.
2.2	CTEL control		CTEL: Cycle <b>ON/OFF</b> Radio: <b>OFF</b>	Antenna extends and retracts with cycling of CTEL.	⇒ 2.3

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$\Rightarrow$	Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
2.3	CTEL control	M11 ⊥ - <sup>-</sup> (𝔥) <sup>±</sup> → → 3	CTEL: <b>ON</b> CTEL: <b>OFF</b>	11 – 14 V < 1 V	Nominal values OK: Replace antenna. Nominal values not OK: Replace X39/11.