$\Rightarrow$	Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
1.0	Left front seat Seat heater relay (stage 1) (K59) Function		Replace seat heater relay (stage 1) (K59) with relay of same type i.e. with <b>right</b> seat heater relay (K59). Start engine. HHT activation: Stage 1	ON Relay (K59) is activated. OFF	If the values are OK: K59 If the values are not OK: ⇒ 1.1
1.1	Left front seat Seat heater relay (stage 1) (K59) Activation	K59 2 — ( → ( ( ) + ) — 1	Remove relay (K59) from its socket. Start engine. HHT activation: Stage 1 F1	ON 11 – 14 V	Wiring, ⇒ 1.2

$\Rightarrow$	Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
1.2	Left front seat Seat heater relay (stage 1) (K59) Activation	X55/3 B3 — (	Disconnect X55/3 connector. Start engine. HHT activation: Stage 1 F1	ON 11 – 14 V	Wiring.
2.0	Left front seat Seat heater relay (stage 2) (K59/1) Function		Replace seat heater relay (stage 2) (K59/1) with relay of same type i.e. with <b>right</b> seat heater relay (K59/1). Start engine. HHT activation: Stage 2 F3	ON Relay (K59/1) is activated. OFF	If the values are OK: K59/1 If the values are not OK: ⇒ 2.1
2.1	Left front seat Seat heater relay (stage 2) (K59/1) Activation	K59/1 2 — ( —————————————————————————————————	Remove relay (K59/1) from its socket. Start engine. HHT activation: Stage 2 F3	ON 11 – 14 V	Wiring, ⇒ 2.2

# **Electrical Test Program – Test**

$\Rightarrow$	Test scope	Test con	nection		Test condition	Nominal value	Possible cause/Remedy
2.2	Left front seat Seat heater relay (stage 2) (K59/1) Activation	B4 — <b>c</b>	X55/3 <del>-</del> - <b>(Y</b> ) <sup>+</sup> -	<b>)</b> — B5	Disconnect X55/3 connector. Start engine. HHT activation: Stage 2 F3	ON 11 – 14 V	Wiring.
3.0	Left front seat heater switch (S51/1) Function	<	<b>-</b> ¯Ω <u>+</u> -	N10 <b>&gt;</b> —B12 (4)	Disconnect connect 4 at N10 Press switch (S51/1): Heating stage 1 Heating stage 2	< 1 $\Omega$ approx. 470 $\Omega$	Wiring, S51/1
4.0	Left front seat heater Voltage supply	В6 —€	X55/3 <b>~</b> <u>\(\varphi\)</u> + <u>+</u>	<b>)</b> — B5	Disconnect connect X55/3 Ignition: <b>ON</b>	11 – 14 V	Wiring, Convenience relay (F1k14)
5.0	LF/RF seat cushion/backrest heater element (R13/1, R13/2) (stage 1) Voltage supply	X54/9 B — <b>ఁ</b>	<b>-</b> - <b>(Y</b> ) <sup>±</sup> <b>-</b>	X54/10 <b>)</b> — В	Disconnect connect X54/9 and X54/10 Start engine. HHT activation Stage 1	ON 11 – 14 V	Wiring.

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$\Rightarrow$	Test scope	Test connectio	n	Test condition	Nominal value	Possible cause/Remedy
5.1	LF/RF seat cushion heater element (R13/1, R13/2) (stage 2) Voltage supply	X54/9 B <b>-∢ -⁻ℚ</b>		Disconnect connect X54/9 Start engine. HHT activation: Stage 2 F3	ON 11 – 14 V	Wiring.
6.0	LF seat cushion heater element (R13/1) Resistance	X54/9 A <b>~ ~</b> □		Disconnect connector X54/9	5 – 10 Ω	Wiring, R13/1
6.1	LF backrest heater element (R13/2) Resistance	X54/10 A — ( —————————————————————————————————		Disconnect connector X54/10	5 – 10 Ω	Wiring, R13/2
7.0	Right front seat Seat heater relay (stage 1) (K59) Function			Replace seat heater relay (stage 1) (K59) with relay of same type i.e. with <b>left</b> seat heater relay (K59). Start engine. HHT activation: Stage 1	ON Relay (K59) is activated. OFF	If the values are OK: K59 If the values are not OK: ⇒ 7.1

$\Rightarrow$	Test scope	Test connec	ction	Test condition	Nominal value	Possible cause/Remedy
7.1	Right front seat Seat heater relay (stage 1) (K59) Activation	2—(		Remove relay (K59) from its socket. Start engine. HHT activation: Stage 1 F1	ON 11 – 14 V	Wiring, ⇒ 7.2
7.2	Right front seat Seat heater relay (stage 1) (K59) Activation	B3 — ( =	- <b>-(V → )</b> — B5	Disconnect X55/4 connector. Start engine. HHT activation: Stage 1 F1	ON 11 – 14 V	Wiring.

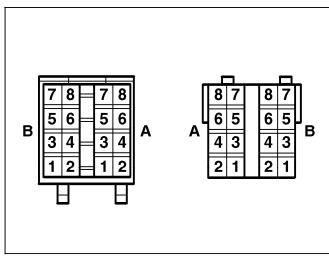
$\Rightarrow$	Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
8.0	Right front seat Seat heater relay (stage 2) (K59/1) Function		Replace seat heater relay (stage 2) (K59/1) with relay of same type i.e. with left seat heater relay (K59/1). Start engine. HHT activation: Stage 2 F3	ON Relay (K59/1) is activated. OFF	If the values are OK: K59/1 If the values are not OK: ⇒ 8.1
8.1	Right front seat Seat heater relay (stage 2) (K59/1) Activation	K59/1 2 <b>— (</b>	Remove relay (K59/1) from its socket. Start engine. HHT activation: Stage 2 F3	ON 11 – 14 V	Wiring, ⇒ 8.2
8.2	Right front seat Seat heater relay (stage 2) (K59/1) Activation	X55/4 B4 — <b>(</b> → ① → B5	Disconnect X55/4 connector. Start engine. HHT activation: Stage 2 F3	ON 11 – 14 V	Wiring.

$\Rightarrow$	Test scope	Test connection		Test condition	Nominal value	Possible cause/Remedy
9.0	Right front seat heater switch (S51/2) Function		N10 → <b>&gt;</b> —B11 (4)	Disconnect connect 4 at N10 Press switch (S51/2): Heating stage 1 Heating stage 2	$<$ 1 $\Omega$ approx. 470 $\Omega$	Wiring, S51/2
10.0	Right front seat heater Voltage supply	X55/ B6 <b>— (</b>		Disconnect connect X55/4 Ignition: <b>ON</b>	11 – 14 V	Wiring, Convenience relay (F1k14)
11.0	RF/RF seat cushion/backrest heater element (R13/3, R13/4) (stage 1) Voltage supply	X54/9 B — <b>₹</b>		Disconnect connect X54/9 and X54/10 Start engine. HHT activation Stage 1	ON 11 – 14 V	Wiring.
12.0	RF/RF seat cushion/backrest heater element (R13/3, R13/4) (stage 2) Voltage supply	X54/9 B — <b>₹</b> —— <b>*</b>		Start engine. HHT activation: Stage 2 F3	ON 11 – 14 V	Wiring.

$\Rightarrow$	Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
13.0	RF seat cushion heater element (R13/3) Resistance	X54/9 A — <b>∢</b> ——————————————————————————————————	Disconnect connector X54/9	5 – 10 Ω	Wiring, R13/3
13.1	RF backrest heater element (R13/4) Resistance	X54/10 A <b>(</b>	 Disconnect connector X54/10	5 – 10 Ω	Wiring, R13/4

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

Connector Layout - Left front seat connector block (X55/3), Right front seat connector block (X55/4)



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