










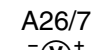



4.5 Infrared Remote Central Locking (RCL)

Models 129, 140, 202 as of M.Y. 1996, 210 up to 06/96


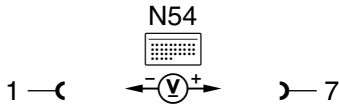
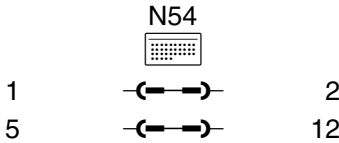

Electrical Test Program – Test

⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
1.0		RCL control module (N54) Voltage supply  Circuit 		Ignition: ON	✓ F	Wiring, Battery.
2.0		RCL control module (N54) Voltage supply Circuit 15	 1 —  — 9	Ignition: OFF Ignition: ON	< 1 V 11 – 14 V	Wiring, Circuit 31, ⇒ 2.1
2.1		Circuit 15	 —  — 9 	Ignition: OFF Ignition: ON	< 1 V 11 – 14 V	Wiring. Circuit 15.
3.0		RCL receiver (interior rear view mirror) (A26/7) Voltage supply	 2 —  — 11	—	4.5 – 5.5 V	Wiring, A26/7, N54, ⇒ 3.1
3.1		(A26/7) Voltage supply	 7 —  — 8	Remove A26/7.	4.5 – 5.5 V	Wiring, N54

4.5 Infrared Remote Central Locking (RCL)

Models 129, 140, 202 as of M.Y. 1996, 210 up to 06/96


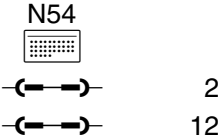

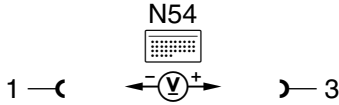
Electrical Test Program – Test

⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
4.0		RCL receiver (interior rear view mirror) (A26/7) IR signal control line		Lock vehicle by pointing IR transmitter at RCL receiver (interior rear view mirror), keep IR transmitter button pressed. After vehicle completes locking process, read value. Afterwards, release button and read second value.	Difference of values between button depressed and button released approx. 0.3 – 1.0 V	Wiring, A26/7, IR transmitter.
5.0	81103	RCL receiver (interior rear-view mirror) (A26/7), IRCL function indicator (E34) Red indicator lamps		Disconnect N54 from  . No or only 1 bridge (part no. 124 589 37 63 00) connected. Both bridges connected.	Red indicator lamps off. Red indicator lamps light.	Wiring, A26/7, E34

4.5 Infrared Remote Central Locking (RCL)

Models 129, 140, 202 as of M.Y. 1996, 210 up to 06/96


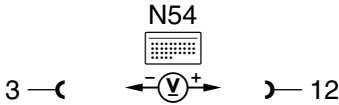
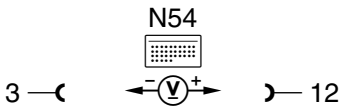
Electrical Test Program – Test

⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
6.0	81104	RCL receiver (interior rear-view mirror) (A26/7), RCL function indicator (E34) Green indicator lamps		Disconnect N54 from  No or only 1 bridge (part no. 124 589 37 63 00) connected. Both bridges connected.	Green indicator lamps off. Green indicator lamps light.	Wiring, A26/7, E34
7.0		RCL control module (N54), output deactivation (PSE/CL, CF, ATA) (models 140, 202 only)		All doors are closed and locked . Unlock vehicle by pointing IR transmitter at RCL receiver (interior rearview mirror), while keeping IR transmitter button pressed.	11 – 14 V < 1 V Green indicator lamps blink, Vehicle unlocks.	Wiring, N54, PSE control module (A37–A37/5), Power soft top control module (N52), CF control module (N57), ATA control module (N26). Wiring, ⇒ 3.0, 4.0, 6.0, N54

4.5 Infrared Remote Central Locking (RCL)

Models 129, 140, 202 as of M.Y. 1996, 210 up to 06/96


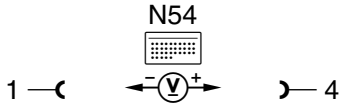
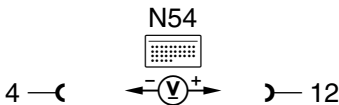
Electrical Test Program – Test

⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
8.0		RCL control module (N54), output deactivation (PSE/CL, CF, ATA) (model 210 only)		<p>All doors closed and locked.</p> <p>Unlock vehicle by pointing IR transmitter at RCL receiver (interior rearview mirror), while keeping IR transmitter button pressed.</p>	<p>< 1 V</p> <p>6 – 8 V Green indicator lamps blink, Vehicle unlocks.</p>	<p>Wiring, N54, Combination control module (N10-1).</p> <p>Wiring, ⇒ 3.0 – 5.0, N54</p>
9.0		RCL control module (N54), output activation (PSE/CL) (model 210 only)		<p>All doors closed and unlocked.</p> <p>Lock vehicle by pointing IR transmitter at RCL receiver (interior rearview mirror), while keeping IR transmitter button pressed.</p>	<p>< 1 V</p> <p>11 – 14 V, Vehicle locks, red indicator lamps blink,</p>	<p>Wiring, N54, Combination control module (N10-1).</p> <p>Wiring, ⇒ 3.0 – 5.0, N54</p>

4.5 Infrared Remote Central Locking (RCL)

Models 129, 140, 202 as of M.Y. 1996, 210 up to 06/96


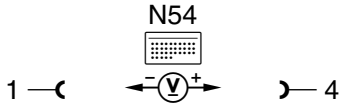

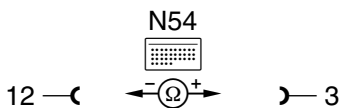


Electrical Test Program – Test

⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
10.0		RCL control module (N54), output deactivation (PSE/CL) (models 140, 202 only)		<p>All doors closed and unlocked.</p> <p>Lock vehicle by pointing IR transmitter at RCL receiver (interior rearview mirror), while keeping IR transmitter button pressed.</p>	<p>11 – 14 V</p> <p>< 1 V</p> <p>Vehicle locks, red indicator lamps blink.</p>	<p>Wiring, N54, PSE (A37–A37/5), CF control module (N57), ATA control module (N26).</p> <p>Wiring, ⇒ 3.0 – 5.0, N54</p>
11.0		RCL control module (N54), output activation (PSE/CL) (model 129 only)		<p>All doors closed and unlocked.</p> <p>Lock vehicle by pointing IR transmitter at RCL receiver (interior rearview mirror)</p>	<p>Vehicle locks, red indicator lamps blink, 11 – 14 V for approx. 0.6 sec. (values measurable by using Fluke 83, 88).</p>	<p>Wiring, ⇒ 3.0 – 5.0, N54, PSE (M14/2 [model 129]), N52, N57, N26</p>

4.5 Infrared Remote Central Locking (RCL)

Models 129, 140, 202 as of M.Y. 1996, 210 up to 06/96


















Electrical Test Program – Test

⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
12.0		RCL control module (N54), output deactivation PSE/CL (model 129 only)		<p>All doors closed and locked. Disconnect supply pump (M14/2).</p> <p>Unlock vehicle by pointing IR transmitter at RCL receiver (interior rearview mirror).</p>	<p>Green indicator lamps blink. 11 – 14 V for approx. 0.6 seconds. (values measurable by using Fluke 83, 88).</p>	<p>Wiring, ⇒ 3.0, 4.0, 6.0, N54</p>
13.0		Control line deactivation (PSE/CL, CF, ATA) Γ1+ (models 129, 140, 202 only)		<p>Disconnect N54 from .</p> <p>Disconnect PSE (M14/2, or A37–A37/5).</p> <p>Disconnect ground wire from .</p> <p>Model 129 only: disconnect N52, N26.</p>	>20 kΩ	Wiring.

4.5 Infrared Remote Central Locking (RCL)

Models 129, 140, 202 as of M.Y. 1996, 210 up to 06/96









Electrical Test Program – Test

⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
14.0		Control line deactivation (PSE/CL, CF, ATA) Γ1- (models 129, 140, 202 only)		Disconnect N54 from  Disconnect PSE (M14/2, or A37–A37/5). Disconnect ground wire from  Model 129 only: disconnect N52, N26.	>20 kΩ	Wiring.
15.0		Control line activation (PSE/CL, CF, ATA) Γ1+ (models 140, 202 only)		Disconnect N54 from  Disconnect PSE (A37–A37/5). Disconnect ground wire from 	>20 kΩ	Wiring.
16.0		Control line activation (PSE/CL, CF, ATA) Γ1- (models 140, 202 only)		Disconnect N54 from  Disconnect PSE (A37–A37/5).	>20 kΩ	Wiring.
17.0	 	Control line deactivation/activation (PSE/CL) Γ1+ (model 129 only)		Disconnect N54 from  Disconnect PSE (M14/2). Disconnect ground wire from 	>20 kΩ	Wiring.

4.5 Infrared Remote Central Locking (RCL)

Models 129, 140, 202 as of M.Y. 1996, 210 up to 06/96


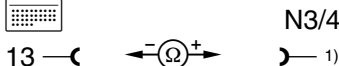

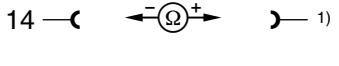

Electrical Test Program – Test

⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
18.0	B1100 B1101	Control line deactivation/activation (PSE/CL) Γ1- (model 129 only)	 N54 1 — 4	Disconnect N54 from  Disconnect PSE (M14/2).	>20 kΩ	Wiring.
19.0	B1100 B1101	Control line deactivation/activation (PSE/CL, CF, ATA) Γ1+ (model 210 only)	 N54 12 — 3	Disconnect N54 from  Disconnect combination control module (N10-1). Disconnect ground wire from  .	>20 kΩ	Wiring.
20.0	B1100 B1101	Control line deactivation/activation (PSE/CL, CF, ATA) Γ1- (model 210 only)	 N54 1 — 3	Disconnect N54 from  Disconnect combination control module (N10-1).	>20 kΩ	Wiring.
21.0	B1102	<i>Non-USA vehicles only, continue to next test step.</i>	— — —	—	—	—
22.0	B1102	<i>Non-USA vehicles only, continue to next test step.</i>	— — —	—	—	—
23.0		<i>Non-USA vehicles only, continue to next test step.</i>	— — —	—	—	—

4.5 Infrared Remote Central Locking (RCL)

Models 129, 140, 202 as of M.Y. 1996, 210 up to 06/96

Electrical Test Program – Test


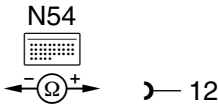


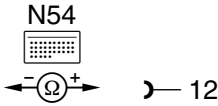


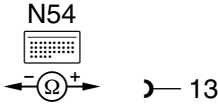

⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
24.0		CAN L data line Motor electronics activation -//- (CAN only)	N54  N3/4 1)	Disconnect N54 from  . Disconnect N3/4 (HFM-SFI) or N3/7 (IFI), N3/10, N3/11, N3/12, (ME-SFI) or N3/13 (DAS) control module.	<1 Ω	Wiring.
25.0		CAN H data line Motor electronics activation -//- (CAN only)	N54  N3/4 1)	Disconnect N54 from  . Disconnect N3/4 (HFM-SFI) or N3/7 (IFI), N3/10, N3/11, N3/12, (ME-SFI) or N3/13 (DAS) control module.	<1 Ω	Wiring.

1) Prior to testing, please see appropriate ETM (group 7) to determine control module harness socket number.

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
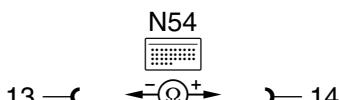

Electrical Test Program – Test

⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
26.0		CAN L data line Motor electronics activation Γ1+ (CAN only)		Disconnect N54 from  . Disconnect ground wire from  . Disconnect N3/4 (HFM-SFI) or N3/7 (IFI), N3/10, N3/11, N3/12, (ME-SFI) or N3/13 (DAS) control modules.	>20 kΩ	Wiring.
27.0		CAN H data line Motor electronics activation Γ1+ (CAN only)		Disconnect N54 from  . Disconnect ground wire from  . Disconnect N3/4 (HFM-SFI) or N3/7 (IFI), N3/10, N3/11, N3/12, (ME-SFI) or N3/13 (DAS) control modules.	>20 kΩ	Wiring.
28.0		CAN L data line Motor electronics activation Γ1- (CAN only)		Disconnect N54 from  . Disconnect N3/4 (HFM-SFI) or N3/7 (IFI), N3/10, N3/11, N3/12, (ME-SFI) or N3/13 (DAS) control modules.	>20 kΩ	Wiring.

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Models 129, 140, 202 as of M.Y. 1996, 210 up to 06/96


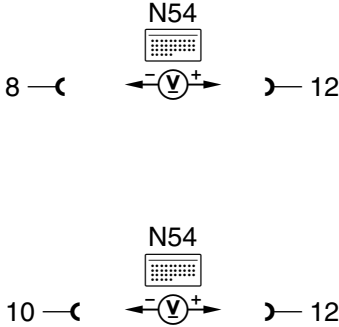

Electrical Test Program – Test

⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
29.0		CAN H data line Motor electronics activation Γ1- (CAN only)		Disconnect N54 from  Disconnect N3/4 (HFM-SFI) or N3/7 (IFI), N3/10, N3/11, N3/12, (ME-SFI) or N3/13 (DAS) control modules.	>20 kΩ	Wiring.
30.0		CAN H/CAN L data line Motor electronics activation Γ1 to each other (CAN only)		Disconnect N54 from  Disconnect N3/4 (HFM-SFI) or N3/7 (IFI), N3/10, N3/11, N3/12, (ME-SFI) or N3/13 (DAS) control modules.	>20 kΩ	Wiring.
31.0		Non-USA vehicles only. Continue to next test step.				

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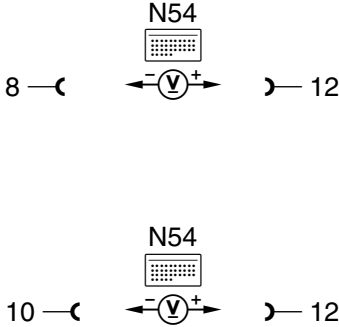

Electrical Test Program – Test

⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
32.0		Left front door lock switch (S86/1)		Disconnect N54 from  Disconnect trunk lid lock switch (S88/2). S86/1: Rest position S86/1: Hold: unlock S86/1: Rest position S86/1: Hold: lock	 < 1 V 11 – 14 V < 1 V 11 – 14 V	Wiring, S86/1

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Electrical Test Program – Test

⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
33.0		Trunk lid lock switch (S88/2) (CF)		Disconnect N54 from  . Separate left front door separation point (X35/1). S88/2: Rest position S88/2: Hold: unlock S88/2: Rest position S88/2: Hold: lock	 < 1 V 11 – 14 V < 1 V 11 – 14 V	Wiring, S88/2