

3.1 Remote Trunk Release (PSE/RTR) Model 140

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Preparation for Test refer to 22 PSE/CL

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Diagnosis – Function Test (Remote Trunk Release)

Preparation for Test:

1. Check fuses F2–4, F3, F11, F15 ok,
2. Battery voltage 11 – 14 V.
3. Vehicle is unlocked via IR transmitter.
4. Rear trunk lid is closed.
5. Trunk lid has not been locked separately (using mechanical key).

Test step/Test scope	Test condition	Nominal value	Possible cause/Remedy ¹⁾
⇒ 1.0 Open trunk lid via remote trunk release switch (S15).	Press remote trunk release switch (S15).	Trunk lid opens.	Trunk lid does not open and pump motor in PSE control module (A37) does not run. 23 ⇒ 1.0 Trunk lid does not open even though pump motor in PSE control module (A37) runs. 32 ⇒ 1.0, 32 PSE ⇒ 2.0, Mechanical fault in trunk lid lock.

1) Observe Preparation for Test, see 22.

Diagnosis – Function Test (Remote Trunk Release)

Test step/Test scope	Test condition	Nominal value	Possible cause/Remedy ¹⁾
<p>⇒ 2.0 Open trunk lid via IR transmitter.</p>	<p>Vehicle locked via IR transmitter. Point IR transmitter at an IR receiver and press IR transmitter button two times within 0.8 seconds.</p>	<p>Trunk lid opens.</p>	<p>Trunk lid does not open and pump motor in PSE control module (A37) does not run. 23 ⇒ 2.0, IR transmitter, RCL control module.</p> <p>Trunk lid does not open even though pump motor in PSE control module (A37) runs. 32 ⇒ 1.0, 32 PSE ⇒ 2.0, Mechanical fault in trunk lid lock.</p>

1) Observe Preparation for Test, see 22.

Electrical Test Program – Component Locations (RTR)

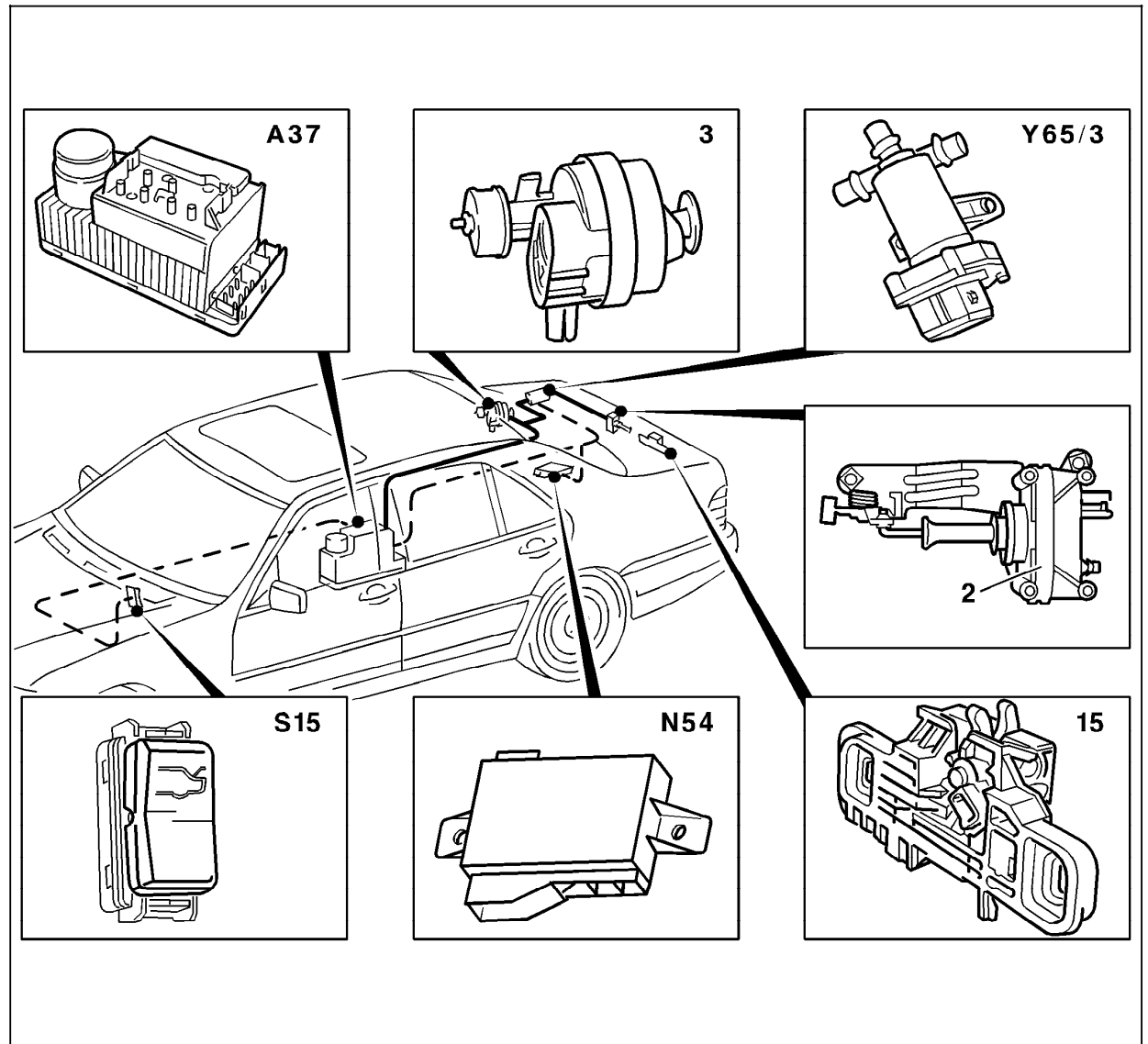


Figure 1

- A37 PSE control module
- N54 RCL control module (shown in sedan up to 08/95)
(as of 12/94: located behind passenger-side AB)
- S15 Remote trunk release switch
- Y65/3 RTR control valve (CL)
- 2 Remote trunk release actuator
- 3 Filler flap actuator
- 15 Lock
- 1 IR transmitter key
- - Electrical wire
- Pneumatic line

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Electrical Test Program – Preparation for Test (CL)

Preliminary work:

Diagnosis - Diagnostic Trouble Code (DTC) Memory 11 PSE

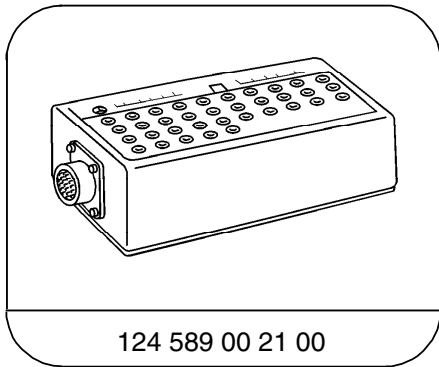
Preparation for Test:

1. Check fuse F2-5, F4-3 and fuse F4-11.
2. Provide access to PSE control module (A37, A37/1).
3. Disconnect convenience feature (CF) control module (N57), anti-theft alarm (ATA) control module (N26), infrared remote central locking (IRCL) control module (N54).
4. Connect socket box with test cable according to connection diagram, see 22 Figure 1.

Electrical wiring diagrams

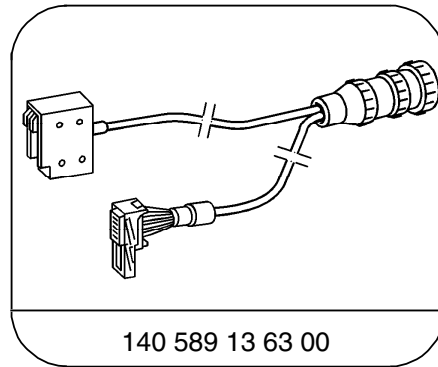
See Electrical Troubleshooting Manual, Model 140, Volume 2.

Special Tools



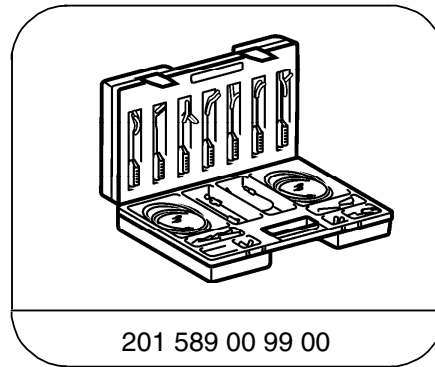
124 589 00 21 00

35-pin socket box



140 589 13 63 00

21-pin test cable



201 589 00 99 00

Electrical connecting set

Equipment

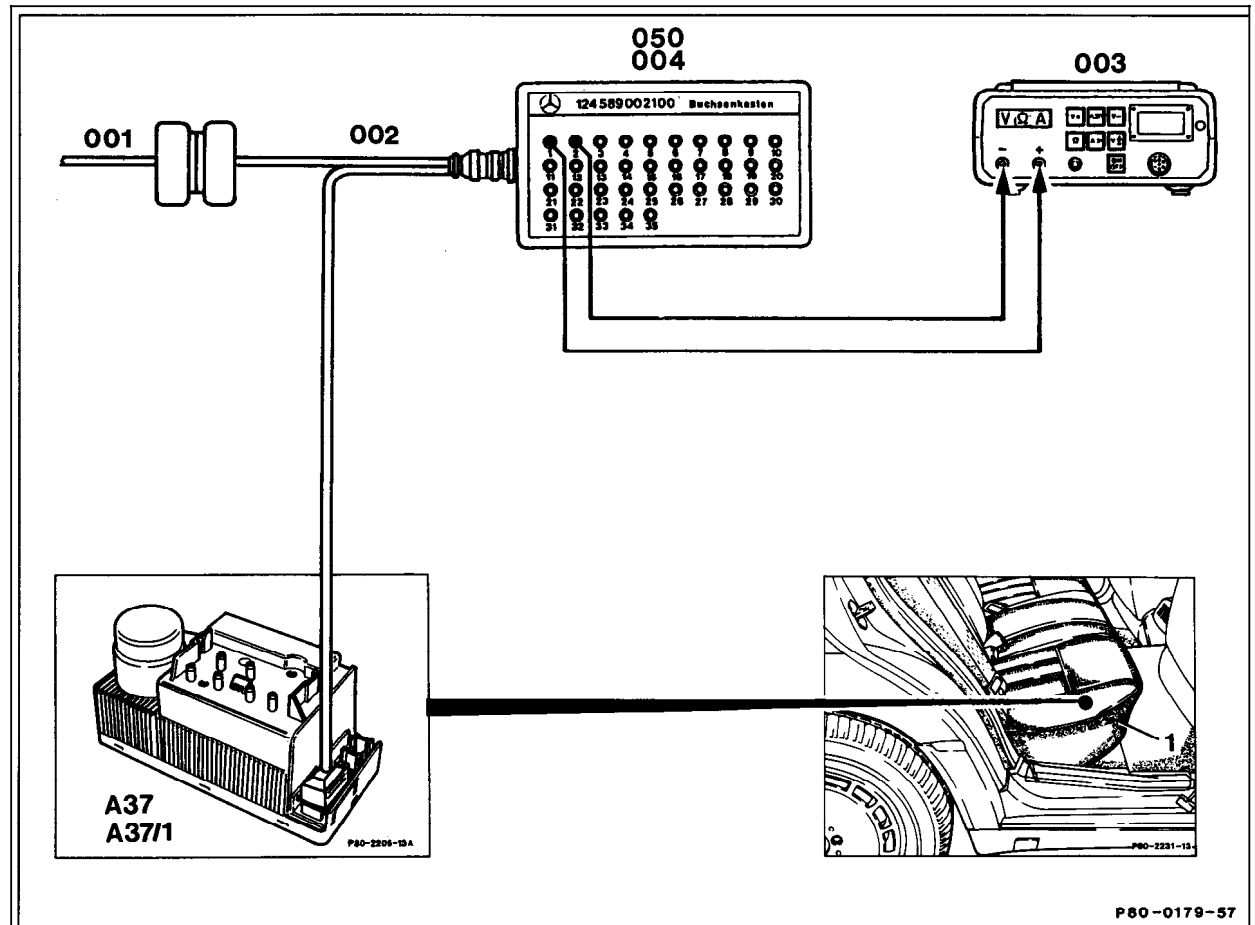
Multimeter ¹⁾

Fluke models 23, 83, 85, 87

¹⁾ Available through the MBUSA Standard Equipment Program.

Electrical Test Program – Preparation for Test (CL)

Connection Diagram - Socket Box




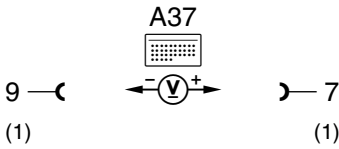

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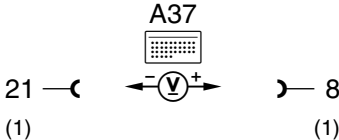
Figure 1

- 001 PSE control module connector
- 002 Test cable
- 003 Multimeter
- 004/050 Socket box (35-pole)
- A37, A37/1 PSE control module

Electrical Test Program – Test

⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
1.0		Remote trunk release via remote trunk release switch (S15)		Trunk lid closed. Trunk lid not locked with mechanical key. Remote trunk release switch (S15): Press switch:	Trunk lid opens.	Wiring, ⇒ 1.1, ⇒ 3.0, 23 PSE ⇒ 1.0, 32 ⇒ 1.0, 32 PSE ⇒ 2.0, PSE control module (A37).
1.1		Remote trunk lid release switch (S15)		Disconnect PSE control module (A37) from  . S15: Rest position S15: Hold pressed	< 1 V 11 – 14 V	Wiring, S15

Electrical Test Program – Test

⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
2.0		Remote trunk release via IR transmitter		Trunk lid closed. Trunk lid not locked with mechanical key. Vehicle locked via IR transmitter. Point IR transmitter at an IR receiver and press IR transmitter button two times within 0.8 seconds.	Trunk lid opens.	Wiring, ⇒ 3.0, 23 PSE ⇒ 1.0, 23 RCL, 32 ⇒ 1.0, 32 PSE ⇒ 2.0, PSE control module (A37).
3.0		Activate RTR control valve (Y65/3) (CL)		S15: Rest position S15: Hold pressed	< 1 V 11 – 14 V, as long as PSE pump runs (use fluke 83, 88 to measure voltage).	Wiring, ⇒ 1.1, 23 PSE ⇒ 1.0, PSE control module (A37).

Pneumatic Test Program – Component Locations (RTR)

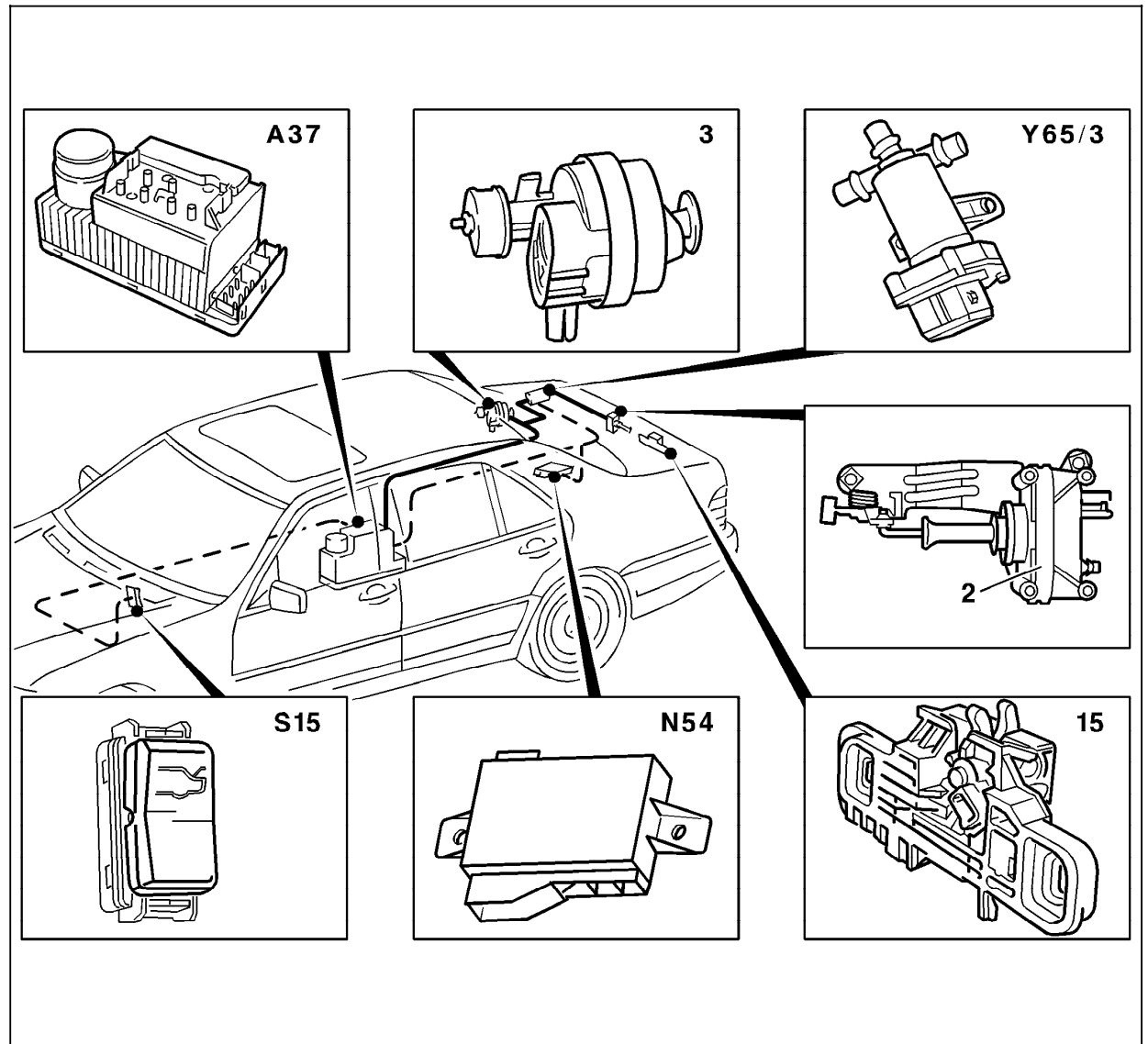


Figure 1

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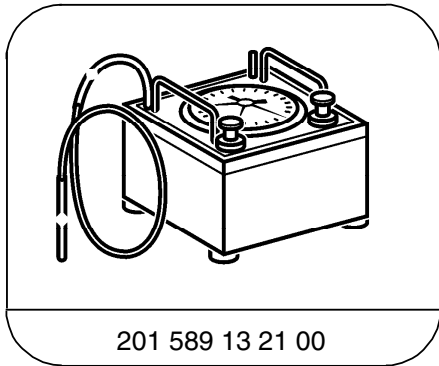
Pneumatic Test Program – Test (RTR)

Preliminary work:
 Diagnostic Trouble Code (DTC) Memory 12 PSE

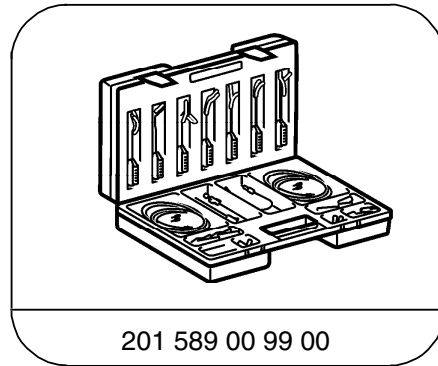
Data (mbar)

Test procedure	Permissible deviation
Allowable system leakage of 300 mbar vacuum in 1 minute.	30 mbar
Allowable leakage of actuators with line at 300 mbar vacuum in 1 minute.	25 mbar

Special Tools



Tester



Electrical connecting set

Pneumatic Test Program – Test (RTR)

A. Pneumatic lines with filler flap actuator, RTR control valve (Y65/3) (CL), remote trunk lid release actuator

Preparation for Test:

As of model year 1995:

1. Disconnect pneumatic line connected to connector **F** of pneumatic distributor.
2. Connect tester to disconnected pneumatic line using rubber hose, part no. 007 997 61 82.
3. Remove trim on right side of trunk.
4. Apply battery voltage to electrical connector of RTR control valve (Y65/3).



If an actuator does not operate correctly and no leakage is found, check the respective lines for kinks or blockages.

After testing, reconnect prior disconnected pneumatic line using rubber hose part no. 007 997 61 82 to pneumatic distributor.

Parts Required for Test:

- | | | |
|---|--------------------------|---------------|
| 2 | Rubber hose, 50 mm long | 007 997 61 82 |
| 1 | Pneumatic line, 1 m long | 000 158 14 35 |

Parts Required for Repair

- | | |
|----------------------------|---------------|
| Rubber hose (as necessary) | 007 997 61 82 |
|----------------------------|---------------|

Note:

The connections on the PSE control module and pneumatic multiple connector are marked with their German acronyms. In other words:
ZV (German) = **CL** (English),
SRU (German) = **MVA** (English),
OSL (German) = **OSB** (English).

⇒	Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
1.0	Pneumatic lines with filler flap actuator, RTR control valve (Y65/3) (CL), remote trunk lid release actuator pressurized	Yellow connector on tester to connector	Apply 600 mbar pressure to entire system.	Pressure loss 25 mbar in 1 minute.	⇒ 2.0, ⇒ 3.0, 32 PSE/CL ⇒ 5.0, 32 PSE/CL ⇒ 7.0

Pneumatic Test Program – Test (RTR)

B. RTR control valve (Y65/3) (CL)

Preparation for Test:

1. Remove trim on right side of trunk.
2. Disconnect pneumatic line from filler flap at RTR control valve (Y65/3).
3. Connect tester at disconnected pneumatic line at RTR control valve (Y65/3).
4. Disconnect electrical connector at RTR control valve (Y65/3).

Parts Required for Test:

- | | | |
|---|--------------------------|---------------|
| 1 | Pneumatic line, 1 m long | 000 158 14 35 |
| 2 | Rubber hose, 50 mm long | 007 997 61 82 |

⇒	Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
2.0	RTR control valve valve (Y65/3) (CL)	Yellow connector on tester.	Apply 600 mbar pressure to RTR control valve (Y65/3).	Pressure loss 25 mbar in 1 minute.	RTR control valve leaks. Replace.

Pneumatic Test Program – Test (RTR)

C. RTR pneumatic actuator

Preparation for Test:

1. Remove RTR pneumatic actuator.
2. Connect tester to RTR actuator using connector 202 805 03 44.

Parts Required for Test:

- | | | |
|---|-------------------------|---------------|
| 1 | Connector | 202 805 03 44 |
| 1 | Pneumatic line, 1m long | 000 158 14 35 |
| 2 | Connector, 50 mm long | 007 997 61 82 |

⇒	Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
3.0	RTR pneumatic actuator pressurized	Yellow connector on tester.	Apply 600 mbar pressure to RTR actuator.	Pressure loss 25 mbar in 1 minute.	RTR actuator leaks. Replace.