

## Diagnosis – Complaint Related Diagnostic Chart

Complaint/Problem	Possible cause	Test step/Remedy <sup>1)</sup>
No. 1 Hardtop does not lock or unlock.	RST/RB hydraulic unit (A7/5) does not run.  Power soft top switch (S84). Right power soft top valve block, RB “raise” valve (Y56/1y3). Left power soft top valve block, soft top “closed”/fabric bow lock “closed” valve (Y55/1y1). Pump temperature signal. Insufficient system pressure (nominal value). Latch pins on the hardtop poorly adjusted.	23 ⇒ 1.0, 2.0, 3.0  23 ⇒ 18.0 23 ⇒ 30.0 23 ⇒ 31.0 23 ⇒ 36.0 33 ⇒ 1.0, 2.0 Check adjustment, (SMS, Job No. 77-420).
No. 2 Indicator lamp in the power soft top switch does not come on when the ignition is turned on.	Voltage supply, circuits 15, 31. Power soft top switch (S84). Power soft top control module (N52) defective.	23 ⇒ 2.0 23 ⇒ 18.0, 28.0 (SMS, Job No. 77-450).
No. 3 Indicator lamp in power soft top switch comes on with the soft top locked (no DTC display). (Gong sounds while driving)	Left soft top fabric bow “locked” switch (A22s2). Right soft top fabric bow “locked” switch (A23s2). Left front soft top “locked” switch (S84/1). Right front soft top “locked” switch (S84/2).	23 ⇒ 5.0 23 ⇒ 6.0 23 ⇒ 8.0 23 ⇒ 9.0
No. 4 Indicator lamp in power soft top switch comes on with the soft top open (no DTC display). (Gong sounds while driving)	Right soft top compartment cover “locked” switch (A25s2).	23 ⇒ 4.0

<sup>1)</sup> Observe Preparation for Test, see 22.

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Complaint/Problem	Possible cause	Test step/Remedy <sup>1)</sup>
No. 5 Roll bar cannot be raised using the RB switch (S83).	RST/RB hydraulic unit (A7/5) does not run.  RB switch (S83). Pump temperature signal. Insufficient system pressure (nominal value). Test hydraulic circuit, raising roll bar.	23 ⇒ 1.0, 2.0, 3.0  23 ⇒ 19.0 23 ⇒ 36.0 33 ⇒ 1.0, 2.0 33 ⇒ 17.0
No. 6 Roll bar cannot be raised with power soft top switch (S84). (Only possible during the soft top up or down sequence. Roll bar must have been raised previously).	Right power soft top valve block, RB “raise” valve (Y56/1y3). Test hydraulic circuit, raising roll bar.	23 ⇒ 35.0 33 ⇒ 17.0
No. 7 Roll bar cannot be lowered using the RB switch (S83).	Roll bar was automatically deployed (“Crash deployment”).  RST/RB hydraulic unit (A7/5) does not run. RB switch (S83). Right power soft top valve block, RB “lower” valve (Y56/1y2). Right power soft top valve block, RB “raise” valve (Y56/1y3). Pump temperature signal. Insufficient system pressure (nominal value). Test hydraulic circuit, lowering roll bar.	Raise RB using RB switch (S83) until a re-engagement click is heard on passenger side.  23 ⇒ 1.0, 2.0, 3.0 23 ⇒ 19.0  23 ⇒ 34.0  23 ⇒ 35.0 23 ⇒ 36.0 33 ⇒ 1.0, 2.0 33 ⇒ 18.0

<sup>1)</sup> Observe Preparation for Test, see 22.

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Complaint/Problem	Possible cause	Test step/Remedy <sup>1)</sup>
No. 8 Roll bar cannot be retracted using the power soft top switch (S84).	RST/RB hydraulic unit (A7/5) does not run.  Power soft top switch (S84). Right power soft top valve block, RB “lower” valve (Y56/1y2). Right power soft top valve block, RB “raise” valve (Y56/1y3). Pump temperature signal. Insufficient system pressure (nominal value). Test hydraulic circuit, roll bar retraction.	23 ⇒ 1.0, 2.0, 3.0  23 ⇒ 18.0  23 ⇒ 34.0  23 ⇒ 35.0 23 ⇒ 36.0 33 ⇒ 1.0, 2.0 33 ⇒ 18.0
No. 9 Roll bar raises by itself (not a crash deployment).	Roll bar activator (right) defective	SMS, Job No. 91-920.
No. 10 <b>During a soft top closing operation:</b> Soft top compartment cover does not unlock.	RST/RB hydraulic unit (A7/5) does not run.  Soft top “open” switch (soft top in storage compartment) (S84/3). RB “retracted” switch (S83/1). Power soft top switch (S84). Left power soft top valve block, soft top compartment cover “open”/soft top compartment cover lock “open” valve (Y55/1y4). Pump temperature signal. Insufficient system pressure (nominal value). Test hydraulic circuit, opening the center locks.	23 ⇒ 1.0, 2.0, 3.0     23 ⇒ 12.0 23 ⇒ 14.0 23 ⇒ 18.0  23 ⇒ 29.0 23 ⇒ 36.0 33 ⇒ 1.0, 2.0 33 ⇒ 11.0

<sup>1)</sup> Observe Preparation for Test, see 22.

## Diagnosis – Complaint Related Diagnostic Chart

Complaint/Problem	Possible cause	Test step/Remedy <sup>1)</sup>
No. 11 Soft top compartment cover does not open or raises only slowly.	Right soft top compartment cover “locked” switch (A25s2). Left power soft top valve block, soft top compartment cover “open”/soft top compartment cover lock “open” valve (Y55/1y4). Check hydraulic circuit, raising soft top compartment cover.	23 ⇒ 4.0  23 ⇒ 29.0 33 ⇒ 14.0
No. 12 Soft top does not come out of the soft top compartment or closes only slowly.	Soft top compartment “open” switch (S84/5). Soft top fabric bow “raised” switch (S84/6). Left power soft top valve block, soft top “closed”/fabric bow lock “closed” valve (Y55/1y1). Left power soft top valve block, fabric bow “open”/soft top compartment cover “closed” valve (Y55/1y3). Check hydraulic circuit, soft top closed. Check hydraulic output volume.	23 ⇒ 10.0 23 ⇒ 11.0  23 ⇒ 31.0  23 ⇒ 32.0 33 ⇒ 12.0 33 ⇒ 3.0
No. 13 Soft top remains in 90° position.	Left front door “window down” limit switch (S21/9) <sup>2)</sup> . Right front door “window down” limit switch (S21/8) <sup>2)</sup> . Left front power window motor (M10/3) not synchronized <sup>3)</sup> . Right front power window motor (M10/4) not synchronized <sup>3)</sup> .	23 ⇒ 15.0 23 ⇒ 16.0 14 ⇒ 33.0  14 ⇒ 34.0
No. 14 Front latches of soft top do not lock.	Left front soft top “locked” switch (S84/1). Right front soft top “locked” switch (S84/2). Soft top “closed” switch (reed contact) (S84/4). Left power soft top valve block, fabric bow “open”/soft top compartment cover “closed” valve (Y55/1y3). Check hydraulic circuit, locking front latches. Latch pins poorly adjusted at the soft top front latches.	23 ⇒ 8.0 23 ⇒ 9.0 23 ⇒ 13.0  23 ⇒ 32.0 33 ⇒ 13.0 SMS, Job No. 77-303.

<sup>1)</sup> Observe Preparation for Test, see 22.

<sup>2)</sup> Up to 12/94.

<sup>3)</sup> As of 12/94.

## Diagnosis – Complaint Related Diagnostic Chart

Complaint/Problem	Possible cause	Test step/Remedy <sup>1)</sup>
No. 15 Soft top compartment cover does not move or moves only slowly or does not lock.	Left front soft top “locked” switch (S84/1). Right front soft top “locked” switch (S84/2). Soft top “closed” switch (reed contact) (S84/4). Left power soft top valve block, fabric bow “open”/soft top compartment cover “closed” valve (Y55/1y3). Check hydraulic circuit, lowering soft top compartment cover.	23 ⇒ 8.0 23 ⇒ 9.0 23 ⇒ 13.0  23 ⇒ 32.0  33 ⇒ 10.0
No. 16 Fabric bow does not move down or moves down slowly.	Right soft top compartment cover “locked” switch (A25s2). Left power soft top valve block, fabric bow “open”/soft top compartment cover “closed” valve (Y55/1y3). Left power soft top valve block, fabric bow “closed” valve (Y55/1y2). Check hydraulic circuit, fabric bow closed.	23 ⇒ 4.0  23 ⇒ 32.0  23 ⇒ 33.0 33 ⇒ 15.0
No. 17 Rear latches of soft top do not lock.	Soft top fabric bow “down” switch (S84/7) Left power soft top valve block, soft top “closed”/fabric bow lock “closed” valve (Y55/1y1). Check hydraulic circuit, locking rear latches.	23 ⇒ 7.0  23 ⇒ 31.0 33 ⇒ 16.0

<sup>1)</sup> Observe Preparation for Test, see 22.

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Complaint/Problem	Possible cause	Test step/Remedy <sup>1)</sup>
No. 18 <b>During soft top opening:</b> Rear locks do not unlock.	RST/RB hydraulic unit (A7/5) does not run.  Left front power window motor (M10/3), not synchronized <sup>3)</sup> . Right front power window motor (M10/4), not synchronized <sup>3)</sup> . Soft top “open” switch (soft top in storage compartment) (S84/3). RB “retracted” switch (S83/1). Power soft top switch (S84). Soft top “closed”/fabric bow lock “open” valve (Y55/1y1). Pump temperature signal. Insufficient system pressure (nominal value). Check hydraulic circuit, unlocking rear latches.	23 ⇒ 1.0, 2.0, 3.0   14 ⇒ 33.0  14 ⇒ 34.0  23 ⇒ 12.0 23 ⇒ 14.0 23 ⇒ 18.0 23 ⇒ 31.0 23 ⇒ 36.0 33 ⇒ 1.0, 2.0 33 ⇒ 5.0
No. 19 Fabric bow does not move or moves only slowly up.	Left bow “locked” switch (A22s2). Right bow “locked” switch (A23s2). Left power soft top valve block, fabric bow “open”/soft top compartment cover “closed” valve (Y55/1y3). Left power soft top valve block, fabric bow “closed” valve (Y55/1y2). Check hydraulic circuit, fabric bow up.	23 ⇒ 5.0 23 ⇒ 6.0  23 ⇒ 32.0  23 ⇒ 33.0 33 ⇒ 6.0
No. 20 Fabric bow goes up and down.	Left bow “closed” switch (A22s1).	23 ⇒ 7.0

<sup>1)</sup> Observe Preparation for Test, see 22.

<sup>3)</sup> As of 12/94.

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Complaint/Problem	Possible cause	Test step/Remedy <sup>1)</sup>
No. 21 Center locks do not unlock.	Soft top fabric bow “raised” switch (S84/6). Left power soft top valve block, soft top compartment cover “open”/soft top compartment cover lock “open” valve (Y55/1y4). Check hydraulic circuit, unlocking center latches.	23 ⇒ 11.0  23 ⇒ 29.0 33 ⇒ 7.0
No. 22 Soft top compartment cover does not open or opens only slowly.	Right soft top compartment cover “locked” switch (A25s2). Left power soft top valve block, soft top compartment cover “open”/soft top compartment cover lock “open” valve (Y55/1y4). Check hydraulic circuit, opening soft top compartment.	23 ⇒ 4.0  23 ⇒ 29.0. 33 ⇒ 7.0
No. 23 Front latches of soft top do not unlock.	Left front soft top “locked” switch (S84/1). Left front door “window down” limit switch (S21/9) <sup>2)</sup> . Right front door “window down” limit switch (S21/8) <sup>2)</sup> . Right power soft top valve block, RB “raise” valve (Y56/1y3). Check hydraulic circuit, unlocking front locks.	23 ⇒ 10.0 23 ⇒ 15.0 23 ⇒ 16.0  23 ⇒ 30.0 33 ⇒ 8.0
No. 24 Soft top does not open or opens only slowly.	Left front soft top “locked” switch (S84/1). Right front soft top “locked” switch (S84/2). Right power soft top valve block, RB “raise” valve (Y56/1y3). Left power soft top valve block, soft top “closed”/fabric bow lock “closed” valve (Y55/1y1). Check hydraulic circuit, open soft top. Check hydraulic output volume.	23 ⇒ 8.0 23 ⇒ 9.0  23 ⇒ 30.0  23 ⇒ 31.0 33 ⇒ 9.0 33 ⇒ 3.0

<sup>1)</sup> Observe Preparation for Test, see 22.

<sup>2)</sup> Up to 12/94.

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Complaint/Problem	Possible cause	Test step/Remedy <sup>1)</sup>
No. 25 Soft top compartment cover does not close or closes only slowly or does not lock.	Soft top “open” switch (soft top in storage compartment) (S84/3). Left power soft top valve block, soft top compartment cover “open”/soft top compartment cover lock “open” valve (Y55/1y4). Left power soft top valve block, fabric bow “open”/soft top compartment cover “closed” valve (Y55/1y3). Check hydraulic circuit, close soft top compartment cover.	23 ⇒ 12.0  23 ⇒ 29.0  23 ⇒ 32.0 33 ⇒ 10.0
No. 26 Side windows do not open using the power soft top switch, but do with the power window switches.	Left front door “window down” limit switch (S21/9) <sup>2)</sup> . Right front door “window down” limit switch (S21/8) <sup>2)</sup> . Left front power window motor (M10/3) not synchronized <sup>3)</sup> . Right front power window motor (M10/4) not synchronized <sup>3)</sup> . Power soft top control module (N52).	23 ⇒ 15.0 23 ⇒ 16.0 14 ⇒ 33.0  14 ⇒ 34.0 SMS, Job No. 77-450.
No. 27 Side windows do not close using the power soft top switch, but do with the power window switches.	Left front power window motor (M10/3) not synchronized <sup>3)</sup> . Right front power window motor (M10/4) not synchronized <sup>3)</sup> . Power soft top control module (N52).	14 ⇒ 33.0  14 ⇒ 34.0 SMS, Job No. 77-450.
No. 28 Side windows do not close or open using the power window switches (first detent).	Left front power window switches (S21/1). Right front power window switches (S21/2). Left front power window motor (M10/3). Right front power window motor (M10/4). Power soft top control module (N52).	23 ⇒ 24.0 23 ⇒ 25.0 23 ⇒ 20.0, 37.0 23 ⇒ 21.0, 38.0 SMS, Job No. 77-450.

<sup>1)</sup> Observe Preparation for Test, see 22.

<sup>2)</sup> Up to 12/94.

<sup>3)</sup> As of 12/94.



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Complaint/Problem	Possible cause	Test step/Remedy <sup>1)</sup>
No. 29 Side windows do not open (one-touch opening) using the power window switches (second detent).	Left front door “window down” limit switch (S21/9) <sup>2)</sup> . Right front door “window down” limit switch (S21/8) <sup>2)</sup> . Left front power window motor (M10/3) not synchronized <sup>3)</sup> . Right front power window motor (M10/4) not synchronized <sup>3)</sup> . Left front power window switches (S21/1). Right front power window switches (S21/2). Power soft top control module (N52).	23 ⇒ 15.0 23 ⇒ 16.0 14 ⇒ 33.0  14 ⇒ 34.0 23 ⇒ 24.0 23 ⇒ 25.0 SMS, Job No. 77-450
No. 30 Side window closing convenience feature (at driver/passenger door lock or at trunk lock) does not work.	Left door actuator (S47), right door actuator (S48), trunk lid lock actuator (S49). Left door ATA/CF microswitch (S86), right door ATA/CF microswitch (S87s1), trunk lid ATA/CF microswitch (S88s1). Power soft top control module (N52).	23 ⇒ 37.0  23 ⇒ 38.0 SMS, Job No. 77-450
No. 31 <sup>3)</sup> Left side window will not synchronize (electric base setting)	Left front power window motor (M10/3). Power soft top control module (N52).	23 ⇒ 26.0 SMS, Job No. 77-450
No. 32 <sup>3)</sup> Right side window will not synchronize (electric base setting)	Right front power window motor (M10/4). Power soft top control module (N52).	23 ⇒ 27.0 SMS, Job No. 77-450

1) Observe Preparation for Test, see 22.

2) Up to 12/94.

3) As of 12/94.

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No. 33 <sup>3)</sup> Left side window does not open (4 mm) when opening left door	Window not synchronized (electric base setting).  Left door switch group, rotary tumbler microswitch (S86s2). Power soft top control module (N52).	Synchronize power window motor by closing window using window switch. When window is closed, hold switch down for an additional 1 – 2 seconds. 23 ⇒ 40.0 SMS, Job No. 77-450
No. 34 <sup>3)</sup> Right side window does not open (4 mm) when opening right door	Window not synchronized (electric base setting).  Right door switch group, rotary tumbler microswitch (S87s2). Power soft top control module (N52).	Synchronize power window motor by closing window using window switch. When window is closed, hold switch down for an additional 1 – 2 seconds.  23 ⇒ 41.0 SMS, Job No. 77-450
No. 35 <sup>3)</sup> Left side window does not close (4 mm) when closing left door	Window not synchronized (electric base setting).  Left door switch group, rotary tumbler microswitch (S86s2). Power soft top control module (N52).	Synchronize power window motor by closing window using window switch. When window is closed, hold switch down for an additional 1 – 2 seconds. 23 ⇒ 40.0 SMS, Job No. 77-450

<sup>1)</sup> Observe Preparation for Test, see 22.

<sup>3)</sup> As of 12/94.

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No. 36 <sup>3)</sup> Right side window does not close (4 mm) when closing right door	Window not synchronized (electric base setting).  Right door switch group, rotary tumbler microswitch (S87s2). Power soft top control module (N52).	Synchronize power window motor by closing window using window switch. When window is closed, hold switch down for an additional 1 – 2 seconds.  23 ⇒ 41.0 SMS, Job No. 77-450
No. 37 <sup>3)</sup> One or both side windows lose electric base setting	Voltage supply, power soft top control module (N52), connector X1, pin 1, pin 5, pin 8 (low voltage). Left front power window motor (M10/3) switching circuit. Right front power window motor (M10/4) switching circuit. Power soft top control module (N52).	23 ⇒ 1.0, 2.0 23 ⇒ 26.0 23 ⇒ 27.0 SMS, Job No. 77-450
No. 38 <sup>4)</sup> Convenience feature of the side windows does not function	Left door actuator (S47), right door actuator (S48), trunk lid lock actuator (S49). ATA/CF microswitch (S86), ATA/CF microswitch (S87s1), ATA/CF microswitch (S88s1). Power soft top control module (N52).	23 ⇒ 37.0  23 ⇒ 38.0 SMS, Job No. 77-450

<sup>1)</sup> Observe Preparation for Test, see 22.

<sup>3)</sup> As of 12/94

<sup>4)</sup> As of 06/97