

ACCESSORIES & EQUIPMENT

Electrical Drives - Repair Instructions - X6

CENTRAL LOCKING UNIT

67 11 510 REMOVING AND INSTALLING/REPLACING SERVODRIVE FOR FRONT LEFT OR RIGHT DOOR LOCKING MECHANISM

NOTE: Servodrive for door locking mechanism is integrated in door lock in front door. Procedure is described in 51 21 090 REMOVING AND INSTALLING/REPLACING DOOR LOCK IN LEFT OR RIGHT FRONT DOOR .

67 11 530 REMOVING AND INSTALLING/REPLACING SERVODRIVE FOR REAR LEFT OR RIGHT DOOR LOCKING MECHANISM

This operation is described in:

"Removing door lock for rear door." , see 51 21 090 REMOVING AND INSTALLING/REPLACING DOOR LOCK IN LEFT OR RIGHT FRONT DOOR .

67 11 555 REMOVING AND INSTALLING/REPLACING SERVODRIVE FOR TANK FILLER FLAP

Necessary preliminary tasks:

- Disconnect **battery negative lead** , see 61 20 900 DISCONNECTING AND CONNECTING BATTERY NEGATIVE LEAD .
- Open flap in luggage compartment panel on right

Release screws (1).

Disengage emergency release mechanism (3).

Remove distribution board (2) and place to one side.

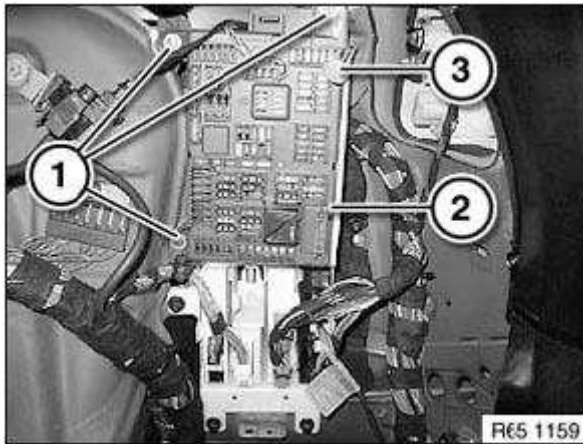


Fig. 1: Identifying Screws And Release Mechanism
Courtesy of BMW OF NORTH AMERICA, INC.

Release nuts (1) and feed out holder (2) towards rear.

Disconnect plug connection (3) and remove servodrive complete with holder (2).

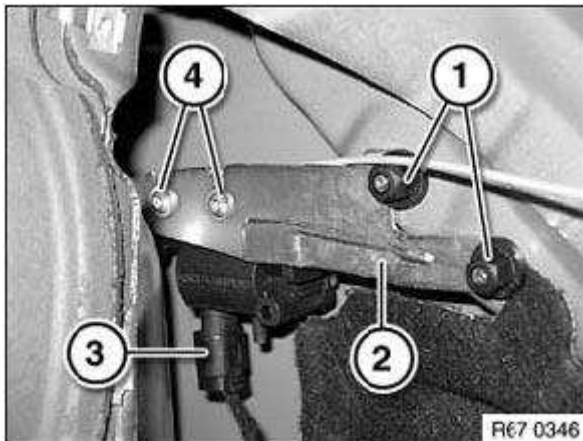


Fig. 2: Identifying Nuts, Holder And Plug Connection
Courtesy of BMW OF NORTH AMERICA, INC.

Installation:

Turn sleeve (1) with a suitable tool (e.g.: pointed pliers) approx. 45° in direction of arrow and pull out of cover housing (2).

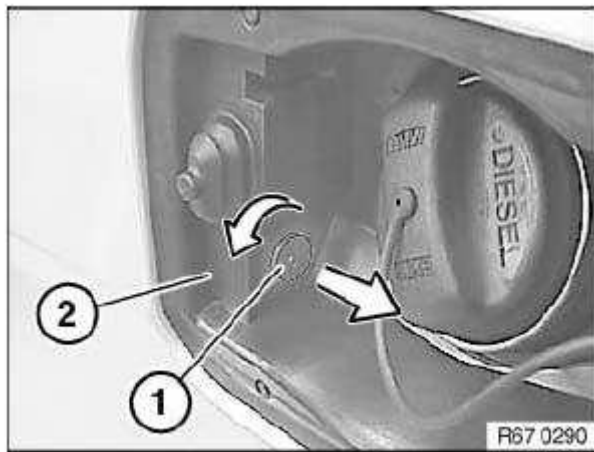


Fig. 3: Turning Sleeve

Courtesy of BMW OF NORTH AMERICA, INC.

Installation:

Slide sleeve (1) over locking pin (2).

Make sure sleeve (1) is correctly engaged in cover housing (3).

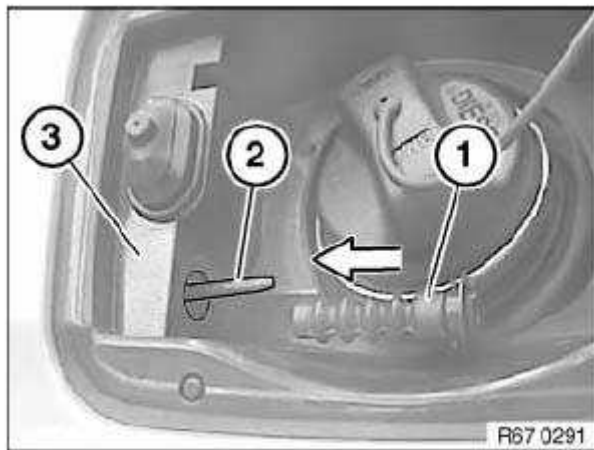


Fig. 4: Sliding Sleeve Over Locking Pin

Courtesy of BMW OF NORTH AMERICA, INC.

Replacement:

Release screws (1).

Disengage emergency actuation pull strap (2) from retainer (5) and remove towards front.

If necessary, unclip locking pin (3) in direction of arrow from servodrive for tank filler flap (4).

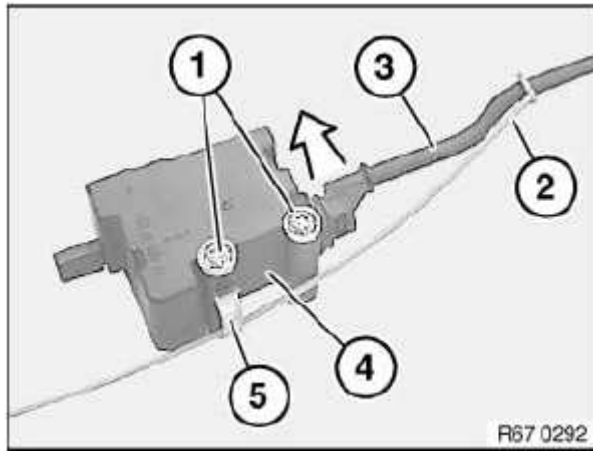


Fig. 5: Uncoupling Locking Pin

Courtesy of BMW OF NORTH AMERICA, INC.

67 11 560 REPLACING SERVODRIVE FOR REAR LID LOCK

This operation is described under:

"Removing rear lid lock ", see **51 24 110 REMOVING AND INSTALLING/REPLACING REAR LID LOCK** .

MIRROR ADJUSTMENT

67 13 001 REPLACING DRIVE UNIT FOR ELECTRICALLY OPERATED LEFT OR RIGHT DOOR MIRROR

Necessary preliminary tasks:

- Remove **mirror glass** for rear-view mirror, see **51 16 026 REPLACING MIRROR GLASS FOR REAR-VIEW MIRROR (ON FRONT DOOR)** .

Release screws (1) and remove drive (2).

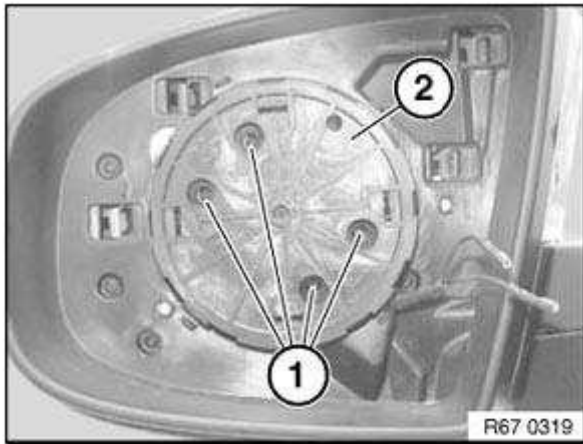


Fig. 6: Identifying Drive And Screws
 Courtesy of BMW OF NORTH AMERICA, INC.

Installation:

Fit drive for electrically operated door mirror (1) so that pin housing (2) engages exactly in plug housing (3) and locators (4) slide into guides (5).

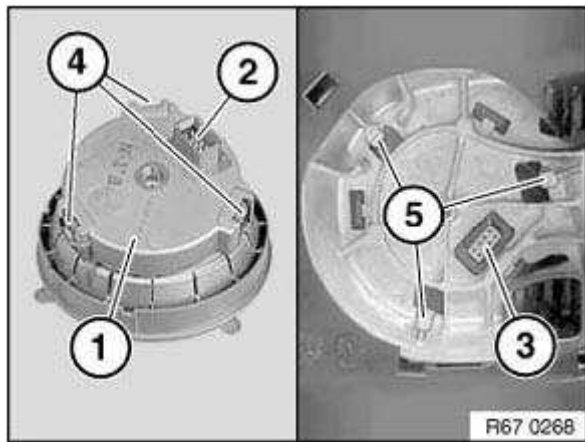


Fig. 7: Identifying Pin Housing And Locators For Electrically Operated Door Mirror
 Courtesy of BMW OF NORTH AMERICA, INC.

67 13 025 REPLACING MIRROR ELECTRONICS FOR ELECTRICALLY OPERATED LEFT OR RIGHT DOOR MIRROR

Necessary preliminary tasks:

- Remove **drive for door mirror** , see **67 13 001 Replacing drive unit for electrically operated left or right door mirror.**
- Remove **housing on door mirror** , see **51 16 040 REMOVING AND INSTALLING/REPLACING HOUSING ON LEFT OR RIGHT OUTSIDE MIRROR .**

- Remove **mirror** , see **51 16 026 REPLACING MIRROR GLASS FOR REAR-VIEW MIRROR (ON FRONT DOOR)** .

Fold door mirror (1) forwards.

Remove cap (2).

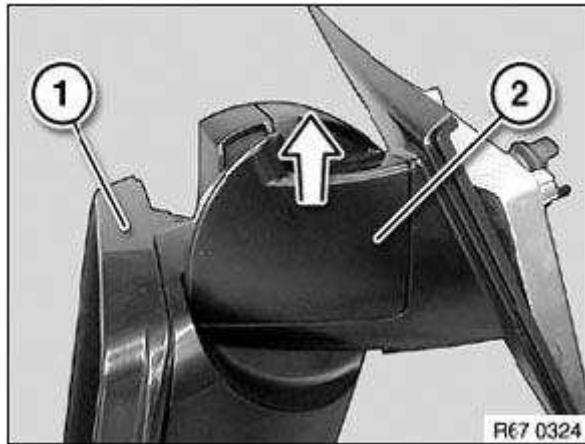


Fig. 8: Folding Door Mirror

Courtesy of BMW OF NORTH AMERICA, INC.

Press together catches (1) of plug (2) and press plug (2) through in outward direction.

Unlock plug (2) on contact carrier (3) and pull out.

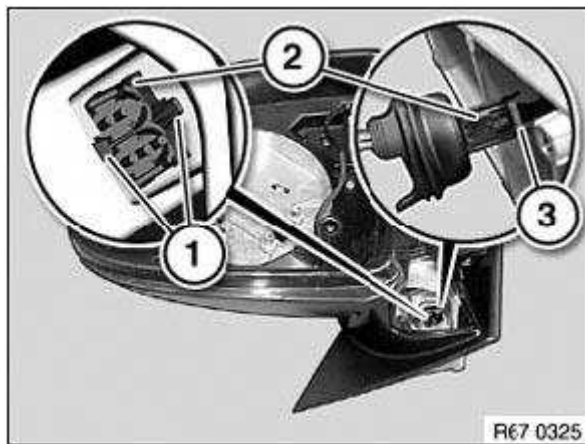


Fig. 9: Identifying Catches Of Plug

Courtesy of BMW OF NORTH AMERICA, INC.

Carefully release catches (1).

Feed out mirror electronics (2) with cable.

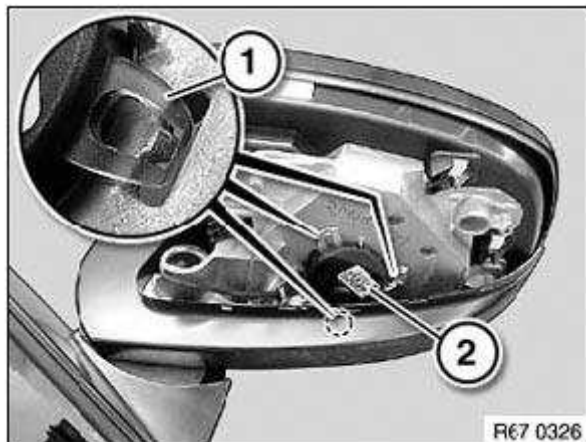


Fig. 10: Identifying Catches And Mirror Electronics
Courtesy of BMW OF NORTH AMERICA, INC.

SERVO POSITIONING DRIVE

67 16 011 REMOVING AND INSTALLING/REPLACING LEFT HEADLIGHT VERTICAL AIM ADJUSTER (XENON HEADLIGHT)

WARNING: Version with xenon headlights: Danger to life due to high voltage!
Therefore disconnect all components from voltage supply before removal.
Work on the entire xenon lighting system (control unit, ignition unit with bulb) may only be carried out by specialist personnel.

Necessary preliminary tasks:

- Remove **headlight** . See **63 12 010 REMOVING AND INSTALLING OR REPLACING LEFT HEADLIGHT (XENON HEADLIGHT)**

Disconnect plug connection (1).

Unlock servomotor (2) in direction of arrow and feed out.

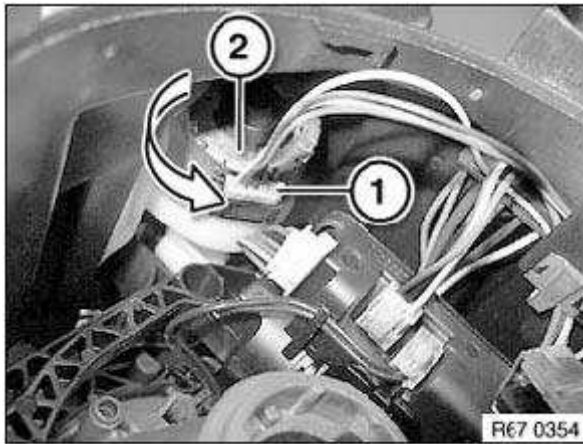


Fig. 11: Unlocking Servomotor

Courtesy of BMW OF NORTH AMERICA, INC.

NOTE: Work is shown on an E90 headlight by way of example. There may be differences in detail in the case of other vehicles.

Installation:

Slide headlight insert (1) upwards in direction of arrow.

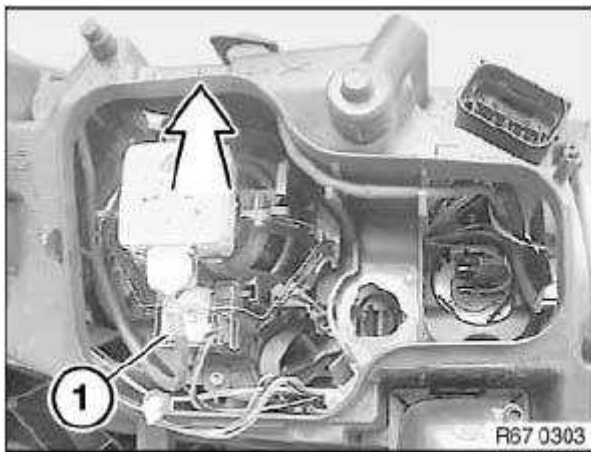


Fig. 12: Sliding Headlight Insert Upward

Courtesy of BMW OF NORTH AMERICA, INC.

Feed ball head of vertical aim adjuster (1) into mounting (2).

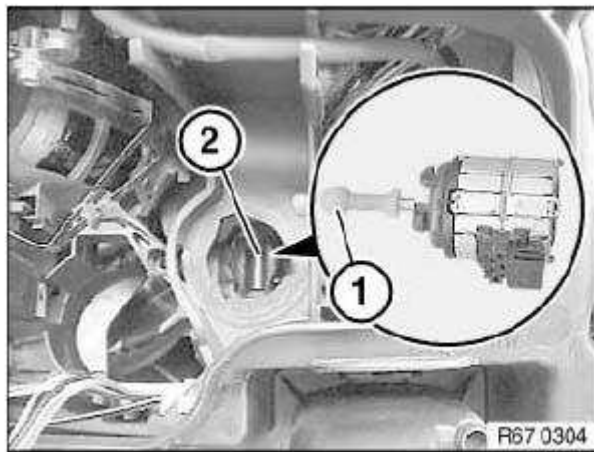


Fig. 13: Identifying Vertical Aim Adjuster And Mounting
 Courtesy of BMW OF NORTH AMERICA, INC.

Installation:

Sealing ring (1) and retaining lugs (2) must not be damaged.

Make sure retaining lugs (2) are correctly locked in guides (3).

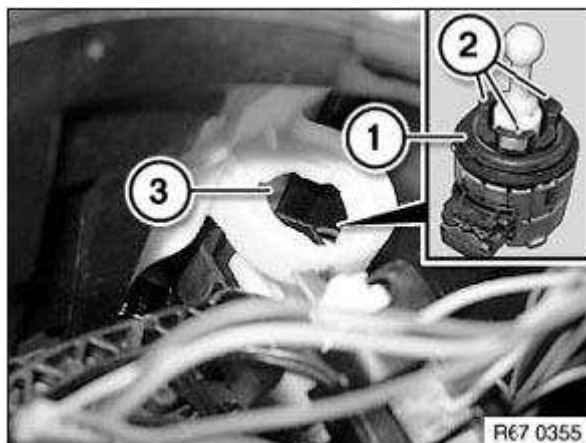


Fig. 14: Identifying Sealing Ring And Retaining Lugs
 Courtesy of BMW OF NORTH AMERICA, INC.

After installation:

- Adjust headlights, see **63 10 004 ADJUSTING HEADLIGHTS** .

67 16 016 REMOVING AND INSTALLING/REPLACING RIGHT HEADLIGHT VERTICAL AIM ADJUSTER (XENON HEADLIGHT)

Operation is described in Removing and installing/replacing **left headlight vertical aim adjuster** , see **67 16**

011 REMOVING AND INSTALLING/REPLACING LEFT HEADLIGHT VERTICAL AIM ADJUSTER (XENON HEADLIGHT) .

DRIVE, SEAT ADJUSTMENT

67 31 ... NOTES ON INITIALIZING ELECTRIC SEAT SERVODRIVES

NOTE: Initialization is carried out at the adjusting switch of the relevant seat.

In this process, the end positions of the relevant electric seat servodrive are recorded and stored.

An initialization must be performed:

- After replacing a drive unit for seat adjustment.
- After replacing/programming control unit for seat adjustment.

Operating sequence for initialization:

Move corresponding seat servodrive(s) into both end positions.

67 31 500 REMOVING AND INSTALLING/REPLACING DRIVE UNIT FOR LONGITUDINAL SEAT ADJUSTMENT

Necessary preliminary tasks:

- Remove **trims for top rail** , see **52 17 ... REMOVING AND INSTALLING/REPLACING ALL TRIMS ON LEFT OR RIGHT SEAT RAILS .**

Disconnect plug connection (1).

Release expander rivets (2).

Installation:

If necessary, replace faulty expander rivets (2).

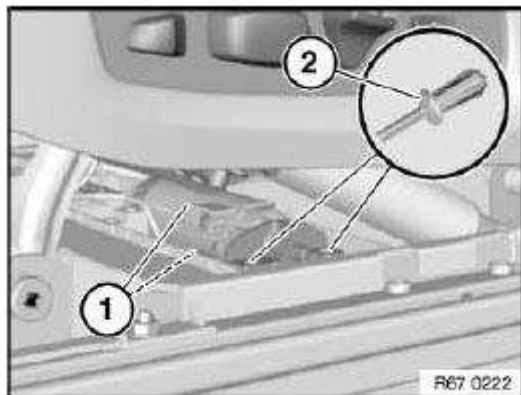


Fig. 15: Identifying Plug Connection And Expander Rivets
 Courtesy of BMW OF NORTH AMERICA, INC.

NOTE: View from rear.

IMPORTANT: Risk of damage!
 Do not kink drive shafts (4).

Lever out guide clip (3).

Raise flange (1) with drive unit for longitudinal seat adjustment (2) slightly and detach from left drive shaft.

Feed out drive unit for longitudinal seat adjustment (2) in direction of arrow and detach from right drive shaft.

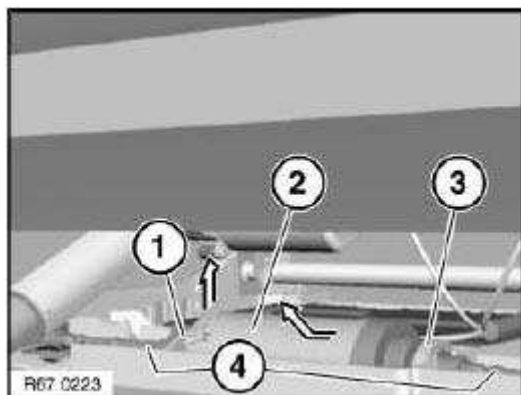


Fig. 16: Feeding Out Drive Unit For Longitudinal Seat Adjustment
 Courtesy of BMW OF NORTH AMERICA, INC.

Installation:

Make sure guide clips (3) and both drive shafts (4) are correctly seated.

Replacement:

Initialize drive unit for longitudinal seat adjustment, see 67 31 ... Notes on initializing electric seat servodrives.

67 31 510 REMOVING AND INSTALLING/REPLACING DRIVE UNIT FOR SEAT TILT ADJUSTMENT

Necessary preliminary tasks:

- Remove **front seat** , see 52 14 000 REMOVING AND INSTALLING LEFT OR RIGHT FRONT SEAT .

NOTE: **Front left trim shown removed for purposes of clarity.**

Release screws (1).

Tightening torque 52 10 6AZ, see 52 10 FRONT SEATS .

Fold back seat rail (2) slightly from seat frame (3) in direction of arrow.

IMPORTANT: Risk of damage!
Avoid subjecting electric leads to tensile load.

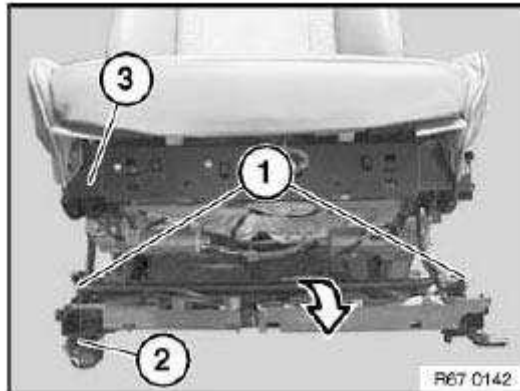


Fig. 17: Folding Back Seat Rail Slightly From Seat Frame
Courtesy of BMW OF NORTH AMERICA, INC.

WARNING: Risk of injury!
Do not move torsion bar.

Installation:

Make sure plastic bushings (1) are correctly seated in seat rail (2).

Faulty plastic bushings (1) cause noises and must be replaced.

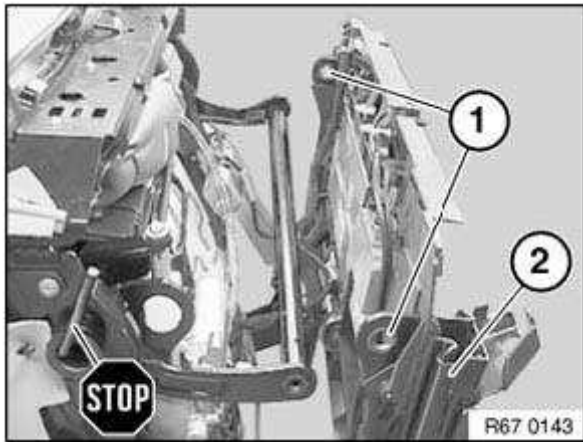


Fig. 18: Identifying Plastic Bushings And Seat Rail
Courtesy of BMW OF NORTH AMERICA, INC.

Disconnect plug connection (1) on drive unit for seat tilt adjustment (2).

NOTE: Relieve load on drive unit for seat tilt adjustment (2).
To do so, insert a suitable slotted screwdriver (3) into receptacle (4), press drive unit for seat tilt adjustment (2) downwards slightly using a lever action and release screw (5).
Tightening torque 67 31 2AZ , see 67 31 DRIVE, SEAT ADJUSTMENT .

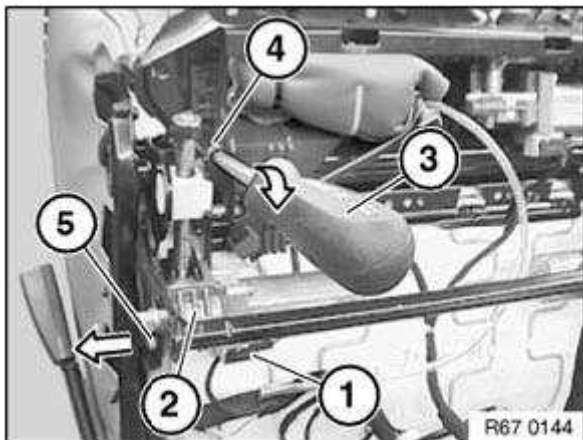


Fig. 19: Disconnecting Plug Connection For Seat Tilt Adjustment
Courtesy of BMW OF NORTH AMERICA, INC.

Then slowly move screwdriver (3) upwards and relieve load on drive unit for seat tilt adjustment (2) completely.

Tilt drive unit for seat tilt adjustment (1) upwards and feed out from receptacle (2).

If necessary, twist out drive unit for seat tilt adjustment (1) at spindle (3) to such an extent that it can be

removed.

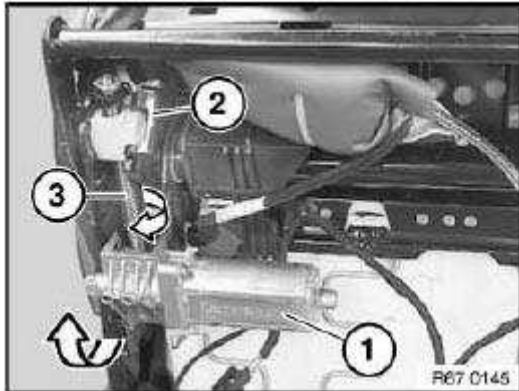


Fig. 20: Removing Drive Unit
Courtesy of BMW OF NORTH AMERICA, INC.

Replacement:

Measure dimension (A) and adjust by turning holder (1) on new drive unit for seat tilt adjustment (2).

Initialize drive unit for seat tilt adjustment, see 67 31 ... Notes on initializing electric seat servodrives.

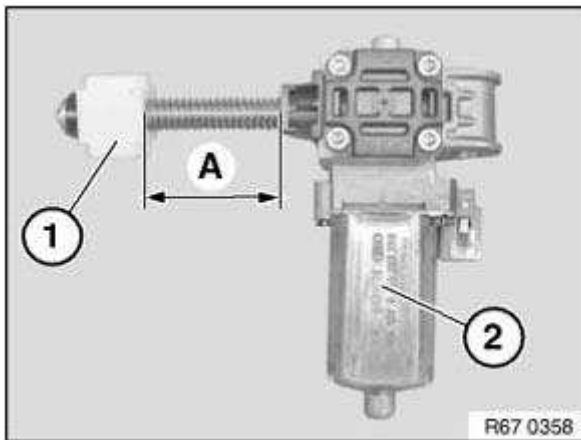


Fig. 21: Identifying Dimension (A)
Courtesy of BMW OF NORTH AMERICA, INC.

67 31 520 REMOVING AND INSTALLING/REPLACING DRIVE UNIT FOR SEAT HEIGHT ADJUSTMENT

Necessary preliminary tasks:

- Remove **front seat** , see 52 14 000 REMOVING AND INSTALLING LEFT OR RIGHT FRONT SEAT .
- Remove **outer cover on front seat** , see 52 14 040 REMOVING AND INSTALLING/REPLACING

OUTER COVER ON LEFT OR RIGHT FRONT SEAT .

Set down front seat sideways on a suitable surface.

Disconnect plug connection (1).

Release screws (2).

Tightening torque **67 31 1AZ** , see **67 31 DRIVE, SEAT ADJUSTMENT** ..

Feed out drive unit for seat height adjustment (3) and remove.

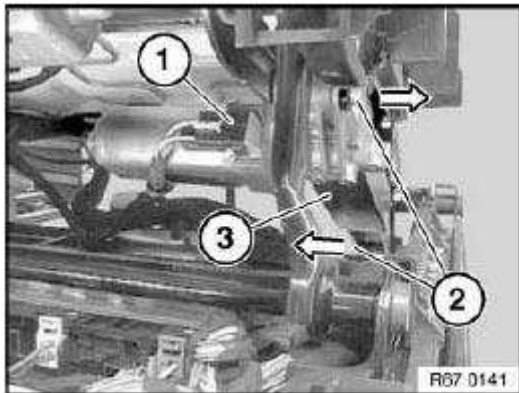


Fig. 22: Identifying Plug Connection, Screw And Drive Unit For Seat Height Adjustment
Courtesy of BMW OF NORTH AMERICA, INC.

Installation:

Fit drive unit for seat height adjustment (1) with plastic clip (2) only.

Make sure plastic clip (2) is correctly seated.

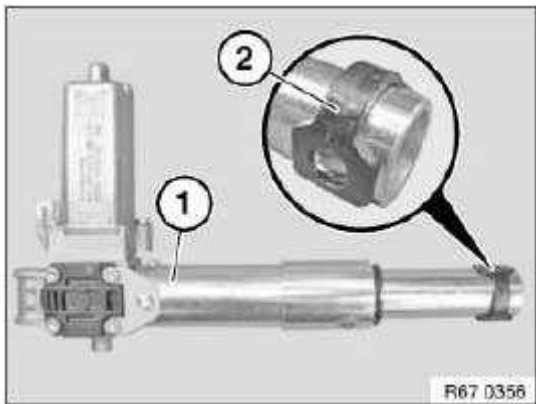


Fig. 23: Identifying Seat Height Adjustment And Plastic Clip
Courtesy of BMW OF NORTH AMERICA, INC.

Replacement:

Initialize drive unit for seat height adjustment, see 67 31 ... Notes on initializing electric seat servodrives.

67 31 530 REMOVING AND INSTALLING/REPLACING DRIVE UNIT FOR BACKREST ANGLE ADJUSTMENT

Necessary preliminary tasks:

- Remove **front seat** , see 52 14 000 REMOVING AND INSTALLING LEFT OR RIGHT FRONT SEAT .
- Remove **rear panel on front seat backrest** , see 52 14 198 REMOVING AND INSTALLING OR REPLACING REAR PANEL ON LEFT OR RIGHT FRONT SEAT BACKREST .
- Remove **covers on front seat** , see 52 14 400 REPLACING COVER FOR LEFT OR RIGHT FRONT SEAT .

If necessary, disengage backrest cover (1) on left and right in lower area and lay outwards slightly.

Release screw (4).

Detach metal retaining ring (2) on left and right from drive rod (3).

Installation:

Always replace metal retaining ring (2).

Make sure metal retaining ring (2) is correctly seated.

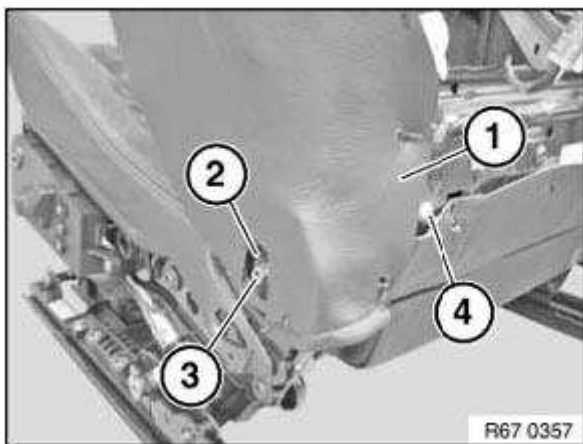


Fig. 24: Identifying Backrest Cover, Metal Retaining Ring And Drive Rod
Courtesy of BMW OF NORTH AMERICA, INC.

Pull out drive rod (1) until drive unit for backrest angle adjustment (2) is free.

Installation:

Make sure drive rod (1) is correctly seated in drive unit for backrest angle adjustment (2).

Disconnect plug connection on drive unit for backrest angle adjustment (2).

Feed drive unit for backrest angle adjustment (2) out of backrest frame (3) and remove.

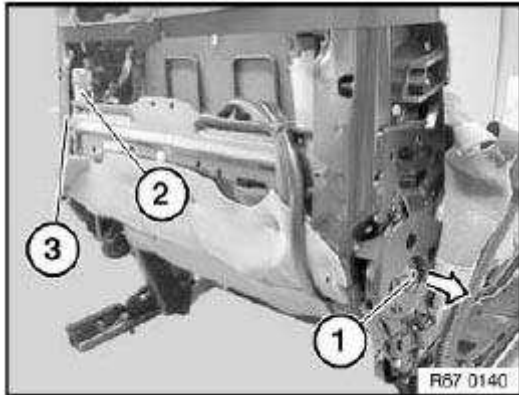


Fig. 25: Identifying Drive Rod, Backrest Angle Adjustment And Backrest Frame
Courtesy of BMW OF NORTH AMERICA, INC.

Replacement:

Initialize drive unit for backrest angle adjustment, see **67 31 ... Notes on initializing electric seat servodrives.**

67 31 540 REMOVING AND INSTALLING/REPLACING DRIVE UNIT FOR HEAD RESTRAINT ADJUSTMENT (COMFORT SEAT)

Necessary preliminary tasks:

- Remove **both rear panels on front seat backrest** , see **52 14 198 REMOVING AND INSTALLING OR REPLACING REAR PANEL ON LEFT OR RIGHT FRONT SEAT BACKREST** .

Disconnect plug connection (1).

Release screw (2).

Tightening torque **67 31 4AZ** , see **67 31 DRIVE, SEAT ADJUSTMENT** .

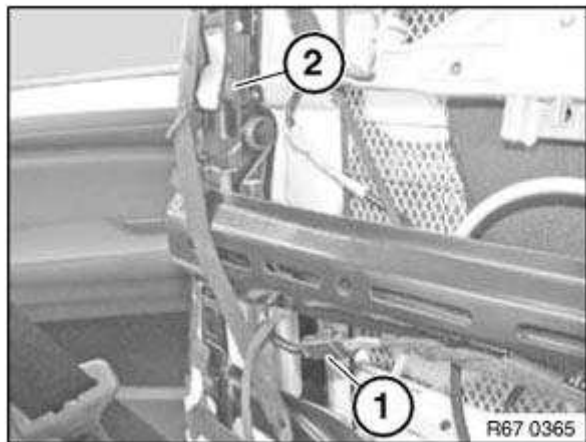


Fig. 26: Identifying Plug Connection And Screw
Courtesy of BMW OF NORTH AMERICA, INC.

Pull shaft (1) in direction of arrow out of shaft receptacle (2).

Installation:

Make sure shaft (1) is correctly seated in receptacle (2).

Release retaining ring (3).

Feed out drive unit for backrest head adjustment (4) and remove.

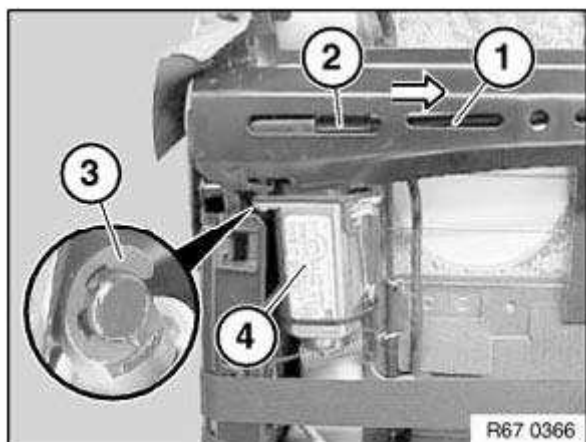


Fig. 27: Pulling Shaft
Courtesy of BMW OF NORTH AMERICA, INC.

Removal and installation only:

Do not turn spindle (1) in order not to change measurement A.

Replacement:

Adopt measurement A of removed drive unit for backrest head adjustment (2). If necessary, adjust measurement A by turning spindle (1).

Initialize drive unit for backrest head adjustment, see 67 31 ... Notes on initializing electric seat servodrives.

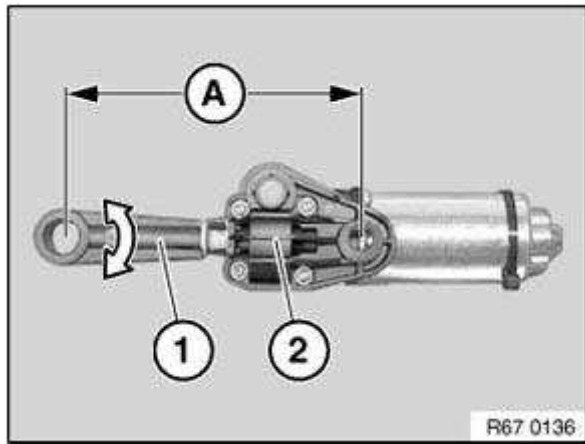


Fig. 28: Adjusting Measurement A By Turning Spindle
Courtesy of BMW OF NORTH AMERICA, INC.

67 31 560 REMOVING AND INSTALLING/REPLACING DRIVE UNIT FOR THIGH SUPPORT

This operation is described in:

"Removing **adjustment unit for thigh support.** ", see 52 16 023 REMOVING AND INSTALLING/REPLACING ADJUSTING UNIT FOR THIGH SUPPORT ON LEFT OR RIGHT FRONT SEAT .

67 31 570 REMOVING AND INSTALLING/REPLACING DRIVE FOR HEAD RESTRAINT HEIGHT ADJUSTMENT ON LEFT OR RIGHT FRONT SEAT

Necessary preliminary tasks:

Version without crash-active head restraint:

- Remove **head restraint** , see 52 14 390 REMOVING AND INSTALLING OR REPLACING FRONT LEFT OR RIGHT HEAD RESTRAINT .
- Remove **rear panel on front seat backrest** , see 52 14 198 REMOVING AND INSTALLING OR REPLACING REAR PANEL ON LEFT OR RIGHT FRONT SEAT BACKREST .

Version with crash-active head restraint:

- Remove **crash-active head restraint** . see 52 16 393 REMOVING AND INSTALLING/REPLACING FRONT LEFT OR RIGHT CRASH-ACTIVE HEAD RESTRAINT

Pull backrest cover (1) in direction of arrow over metal lugs (2) and detach.

Detach backrest cover (1) on both sides from backrest frame.

Feed backrest cover (1) out of upper backrest frame.

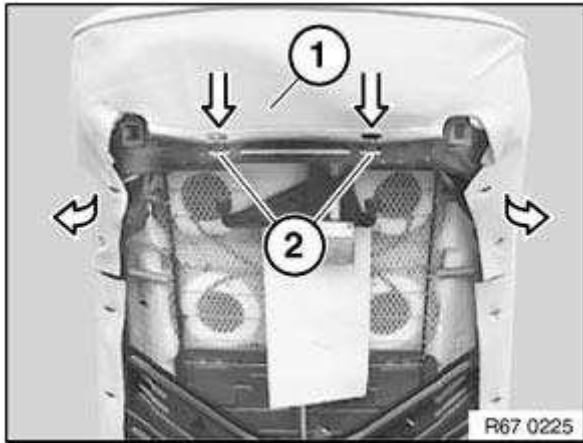


Fig. 29: Feeding Backrest Cover Out Of Upper Backrest Frame
Courtesy of BMW OF NORTH AMERICA, INC.

Disconnect plug connection (1).

Release screws (2).

Tightening torque **67 31 3AZ** , see **67 31 DRIVE, SEAT ADJUSTMENT** .

Feed out drive for head restraint height adjustment (3) in direction of arrow and remove.

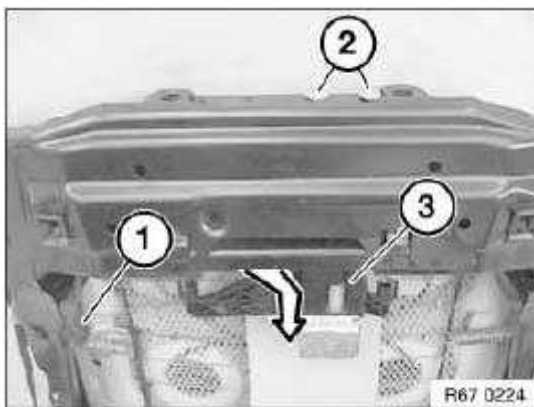


Fig. 30: Feeding Out Drive For Head Restraint Height Adjustment
Courtesy of BMW OF NORTH AMERICA, INC.

DRIVE, HEATING VENTILATION

67 32 600 REPLACING FAN FOR FRONT SEAT SURFACE (COMFORT SEAT)

WARNING: US/CDN front passenger seat (with OC3 mat) only:

If seat cover is defective, seat cover, padding and OC3 mat must be replaced together.

The same applies to a faulty OC3 mat or padding. Both parts can only be replaced together with the seat cover.

New seat cover is supplied with padding, OC3 mat and if necessary seat heating.

After fitting, the OC3 mat must be enabled with the diagnosis system.
Individual parts not available.

Necessary preliminary tasks:

- Remove **front seat** , see 52 14 000 REMOVING AND INSTALLING LEFT OR RIGHT FRONT SEAT .
- Partially remove **cover for front seat** , see 52 14 400 REPLACING COVER FOR LEFT OR RIGHT FRONT SEAT .

NOTE: For purposes of clarity, illustration shows seat padding and seat cover removed.

Lift dividing net (1), pull fan for seat surface (2) out of seat padding (3) slightly and disconnect plug connection behind.

Remove fan for seat surface (2).

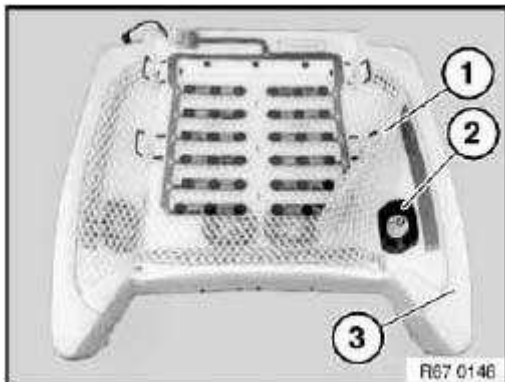


Fig. 31: Identifying Dividing Net And Seat Padding
Courtesy of BMW OF NORTH AMERICA, INC.

67 32 610 REPLACING FAN FOR BACKREST ON FRONT SEAT (COMFORT SEAT)

Necessary preliminary tasks:

- Remove **both rear panels on front seat backrest** , see 52 14 198 REMOVING AND INSTALLING OR REPLACING REAR PANEL ON LEFT OR RIGHT FRONT SEAT BACKREST .

Lay felt (1) slightly to one side and disconnect plug connection (2). If necessary, cut through cable tie.

Installation:

Ensure correct cable routing.

If necessary, raise load-area net in working area.

Feed fan for backrest (3) in direction of arrow out of cushion section and remove.

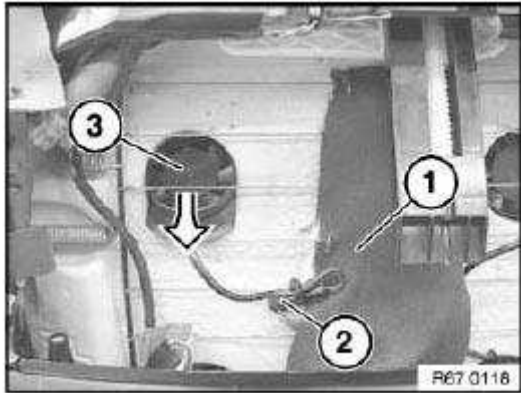


Fig. 32: Feeding Fan For Backrest

Courtesy of BMW OF NORTH AMERICA, INC.

67 32 620 REPLACING FAN FOR THIGH SUPPORT ON FRONT SEAT (COMFORT SEAT)

Necessary preliminary tasks:

- Remove **thigh support**. , see **52 17 ... REMOVING AND INSTALLING/REPLACING LEFT OR RIGHT THIGH SUPPORT** .

Unhook seat cover (1) in area (2).

Feed out plug housing (3) through opening in trim (4).

Remove trim (4).

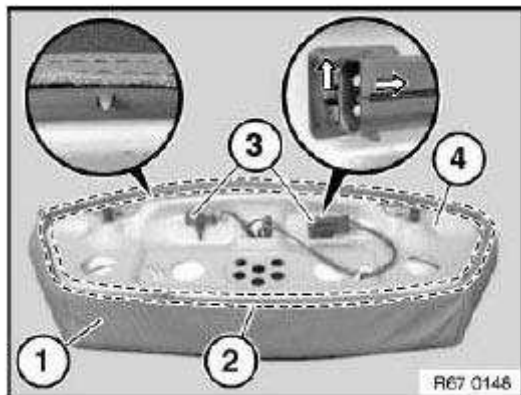


Fig. 33: Identifying Areas Of Unhooking Seat Cover
 Courtesy of BMW OF NORTH AMERICA, INC.

Feed fan (1) in direction of arrow out of thigh support cushion section (2) and remove.

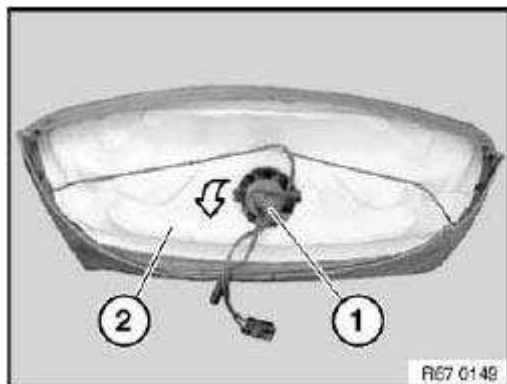


Fig. 34: Feeding Fan
 Courtesy of BMW OF NORTH AMERICA, INC.

DRIVE, ELECTRIC LOCK

67 33 510 REMOVING AND INSTALLING/REPLACING SERVOLOCK DRIVE

Necessary preliminary tasks:

- Remove **trim for tail panel at top** , see **51 46 050 REMOVING AND INSTALLING/REPLACING TOP TRIM ON TAIL PANEL** .

Unfasten plug connection (1) and disconnect.

Turn plug housing (2) approx. 45° in direction of arrow and unclip.

Release screws (3) and remove servolock drive (4).

Installation:

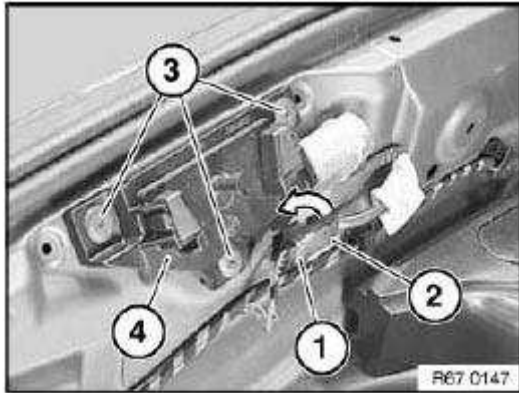


Fig. 35: Turning Plug Housing

Courtesy of BMW OF NORTH AMERICA, INC.

DRIVE, SLIDE/TILT SUNROOF

67 61 005 REMOVING AND INSTALLING/REPLACING DRIVE WITH GEAR (FRONT) FOR ACTUATING SLIDE/TILT SUNROOF

Necessary preliminary tasks:

- Remove **roof switch cluster** , see **61 31 043 REMOVING AND INSTALLING OR REPLACING ROOF SWITCH CLUSTER** .

NOTE: Secure drive with gear for actuating slide/tilt sunroof (3) against falling out.

Unfasten plug connection (1) and disconnect.

Release screws (2), tightening torque **54 13 1AZ** , see **54 0 ... NOTES ON STEEL AND GLASS SLIDE/TILT SUNROOFS (INITIALIZATION/NORMALIZATION/LEARNING OF CHARACTERISTIC CURVE)** .

NOTE: Screws (2) are microencapsulated.
Remove drive with gear for actuating slide/tilt sunroof (3).

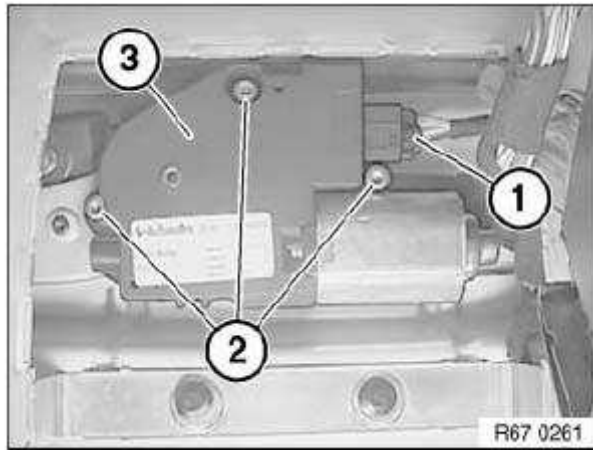


Fig. 36: Identifying Plug Connection And Screws
 Courtesy of BMW OF NORTH AMERICA, INC.

Installation:

Insert gear wheel (1) of drive with gear for actuating slide/tilt sunroof (2) exactly in gear teeth (3).

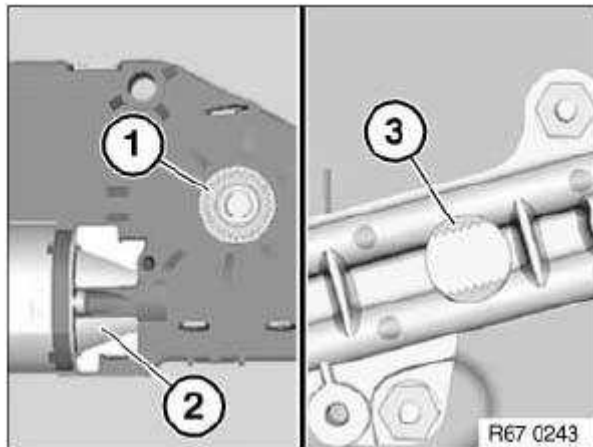


Fig. 37: Identifying Gear Wheel And Gear Teeth
 Courtesy of BMW OF NORTH AMERICA, INC.

Installation:

Replacement:

Carry out **vehicle programming/coding** , see **VEHICLE PROGRAMMING AND CODING** .

DRIVE, POWER WINDOW

NOTE: Initialization is carried out at the adjusting switch of the relevant seat.

In this process, the end positions of the relevant electric seat servodrive are recorded and stored.

An initialization must be performed:

- After replacing a drive unit for seat adjustment.
- After replacing/programming control unit for seat adjustment.

Operating sequence for initialization:

Move corresponding seat servodrive(s) into both end positions.

67 62 ... NOTES ON INITIALIZING POWER WINDOW UNIT IN FRONT DOOR

WARNING: Risk of injury!

There is no anti-trapping protection during initialization.

An **initialization** must be performed:

- In the event of malfunctions, e.g. no one-touch control function, no opening or if available no comfort function is possible
- After the power window drive has been replaced
- After work is carried out on the power window mechanism
- If necessary, after an open circuit, e.g. disconnection of the battery or disconnection of the power supply to the door
- After the door window glass has been removed and installed or replaced
- After adjustment work on the door window glass
- After adjustment work on the convertible top
- After replacement of seals

Initialization is performed on the power window switch of the relevant door.

Requirements for correct initialization:

- Terminal "R" activated
- Doors and windows closed
- Sufficient battery voltage; connect charger if necessary

Initialization comprises:

- Erasure of initialization
- Reinitialization

Erasure of initialization:

- Open door window glass fully
- Actuate power window switch in "Open" position (second switch position) and hold down for between 15 and 20 seconds

This clears initialization of the power window. Anti-trapping protection and one-touch control (toll) function are inactive.

Check whether one-touch control (toll) function is inactive, otherwise repeat procedure.

Reinitialization:

- Close door window completely
- After upper end position is reached, interrupt actuation of power window switch and then hold switch again for approx. 1 second in "Close" position (second switch position)
- Open door window glass fully
- After upper end position is reached, interrupt actuation of power window switch and then hold switch again for approx. 1 second in "Open" position (second switch position)
- Close door window completely
- After upper end position is reached, interrupt actuation of power window switch and then hold switch again for approx. 1 second in "Close" position (second switch position)

This completes initialization.

NOTE: Carry out function check (one-touch control function, antitrapping protection and, if necessary, comfort function).

NOTE: The power window can also be initialized in the BMW diagnosis system by means of a diagnosis job.

67 62 000 REMOVING AND INSTALLING/REPLACING FLAT MOTOR FOR FRONT LEFT OR RIGHT POWER WINDOW UNIT

Necessary preliminary tasks:

- Remove **sound insulation in front doors** , see **51 48 060 REMOVING AND INSTALLING/REPLACING SOUND INSULATION IN LEFT OR RIGHT FRONT DOOR** .
- Remove **front section of power window unit** , see **51 33 000 REMOVING AND INSTALLING (REPLACING) POWER WINDOW UNIT IN LEFT OR RIGHT FRONT DOOR** .

Release screws (1) and detach flat motor (2) from power window unit.

Installation:

Retaining pins (3) must not be released!

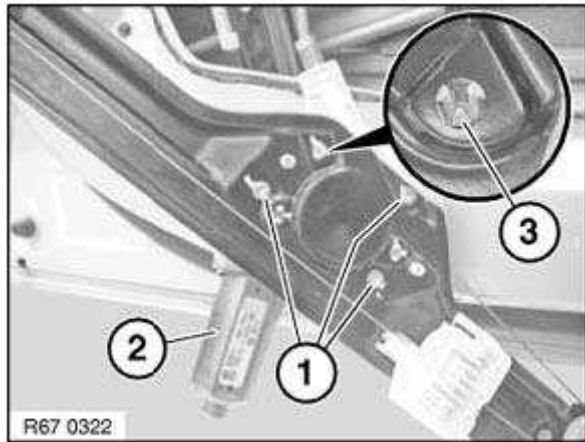


Fig. 38: Identifying Flat Motor, Pins And Screws
Courtesy of BMW OF NORTH AMERICA, INC.

IMPORTANT: To ensure tension-free installation of flat motor, observe the specified screwing sequence without fail.

Tighten first screw (1), then screw (2) and finally screw (3).

Tightening torque 67 62 1AZ , see 67 62 DRIVES, POWER WINDOWS .

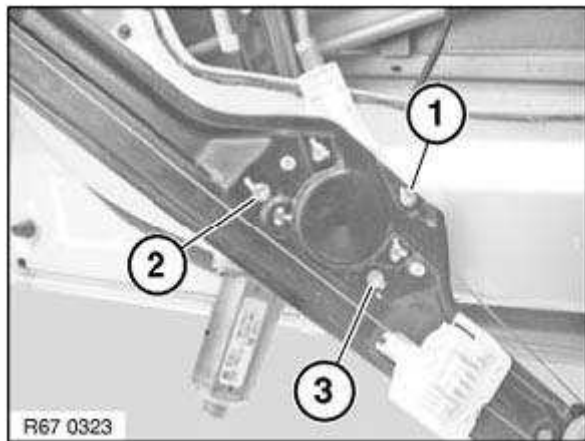


Fig. 39: Identifying Flat Motor Screws
Courtesy of BMW OF NORTH AMERICA, INC.

After installation:

A normalization must be carried out in order to activate antitrapping protection.

Normalization sequence:

- Ensure adequate system voltage
- All doors closed
- Press correspond power window switch in "Close" position and hold for approx. 2 seconds with window closed

NOTE: If normalization is unsuccessful or the power window unit malfunctions, it will be necessary to carry out normalization via the control unit functions in the diagnosis system.

- Front power window: footwell module
- Rear power window: junction box

67 62 020 REMOVING AND INSTALLING/REPLACING FLAT MOTOR FOR REAR LEFT OR RIGHT POWER WINDOW UNIT

Necessary preliminary tasks:

- Remove **rear power window unit** , see 51 37 000 REMOVING AND INSTALLING/REPLACING COMPLETE REAR LEFT OR RIGHT POWER WINDOW UNIT .

Release screws (1) and detach flat motor (2) from power window unit.

Installation:

Retaining pins (3) must not be released!

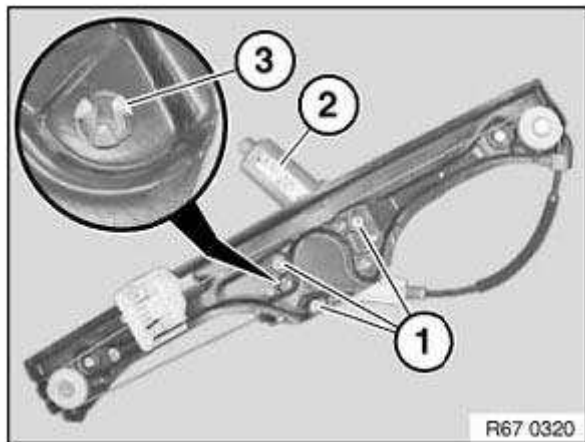


Fig. 40: Identifying Flat Motor, Screws And Pin
Courtesy of BMW OF NORTH AMERICA, INC.

IMPORTANT: To ensure tension-free installation of flat motor, observe the specified screwing sequence.

Tighten first screw (1), then screw (2) and finally screw (3).

Tightening torque **67 62 1AZ** , see **67 62 DRIVES, POWER WINDOWS** ..

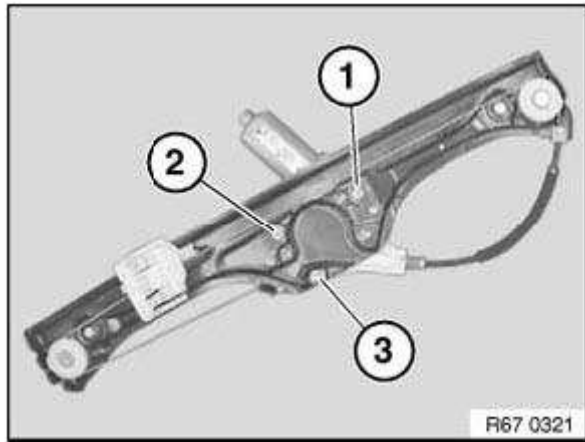


Fig. 41: Identifying Flat Motor Screws

Courtesy of BMW OF NORTH AMERICA, INC.

After installation:

A normalization must be carried out in order to activate antitrapping protection.

Normalization sequence:

- Ensure adequate system voltage
- All doors closed
- Press correspond power window switch in "Close" position and hold for approx. 2 seconds with window closed

NOTE: **If normalization is unsuccessful or the power window unit malfunctions, it will be necessary to carry out normalization via the control unit functions in the diagnosis system.**

- Front power window: footwell module
- Rear power window: junction box

DRIVE, WIPER/HEADLIGHT

67 63 512 REPLACING WIPER MOTOR

This operation is described in:

Removing complete **console for windscreen wiper system** , see **61 61 270 REMOVING AND INSTALLING OR REPLACING BRACKET FOR WINDSCREEN WIPER SYSTEM COMPLETE**

WITH MOTOR .

DRIVE, SEAT ADJUSTMENT

67 66 010 REMOVING AND INSTALLING/REPLACING LUMBAR SUPPORT DRIVE MECHANISM ON FRONT SEAT, LEFT OR RIGHT

Necessary preliminary tasks:

- Remove **rear panel on front seat backrest** , see **52 14 198 REMOVING AND INSTALLING OR REPLACING REAR PANEL ON LEFT OR RIGHT FRONT SEAT BACKREST** .

Unhook cover (1) in areas (2).

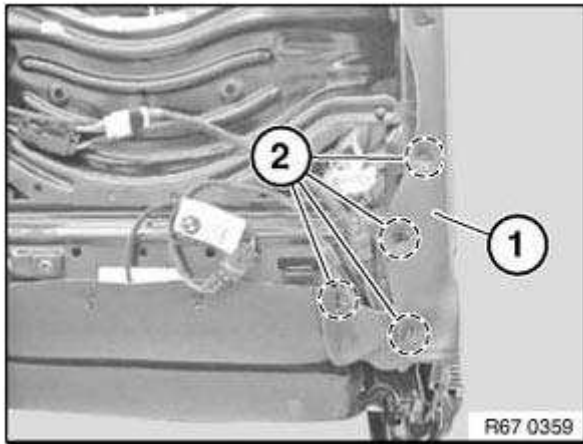


Fig. 42: Identifying Unhooking Areas
Courtesy of BMW OF NORTH AMERICA, INC.

Disconnect plug connection (1).

Release clips (2).

Feed out drive unit for lumbar support (3) in upward direction.

Installation:

If necessary, replace faulty clips (2).

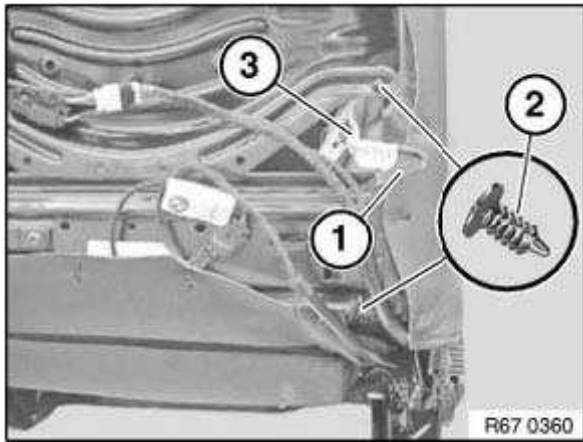


Fig. 43: Identifying Plug Connection, Clips And Drive Unit For Lumbar Support
Courtesy of BMW OF NORTH AMERICA, INC.

Release cable tie (1) from jacket (2).

Feed out drive unit for lumbar support out of jacket (2).

Detach hose (3).

NOTE: Gently heat hose (3) if stuck.

Installation:

Make sure hose (3) is laid without kinks.

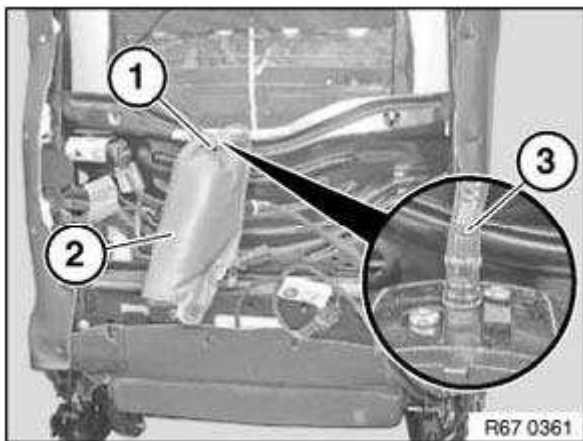


Fig. 44: Identifying Heat Hose And Cable Tie Of Jacket
Courtesy of BMW OF NORTH AMERICA, INC.

**67 66 012 REMOVING AND INSTALLING/REPLACING DRIVE UNIT FOR LUMBAR SUPPORT
ON LEFT OR RIGHT FRONT SEAT (COMFORT SEAT)**

Necessary preliminary tasks:

- Remove **both rear panels on front seat** , see **52 14 198 REMOVING AND INSTALLING OR REPLACING REAR PANEL ON LEFT OR RIGHT FRONT SEAT BACKREST** .

Unhook backrest cover (1) from backrest.

Disconnect plug connection (2).

Release cable tie (3).

Installation:

Replace cable ties (3).

Make sure cable ties (3) are correctly seated

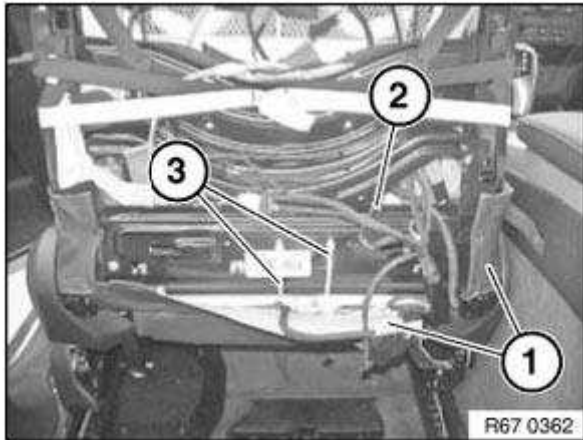


Fig. 45: Identifying Backrest Cover, Plug Connection And Cable Tie
Courtesy of BMW OF NORTH AMERICA, INC.

Disconnect quick-connect couplings (1 and 2).

Installation:

Seals in quick-connect couplings (1 and 2) must not be damaged.

Make sure quick-connect couplings (1 and 2) are correctly seated

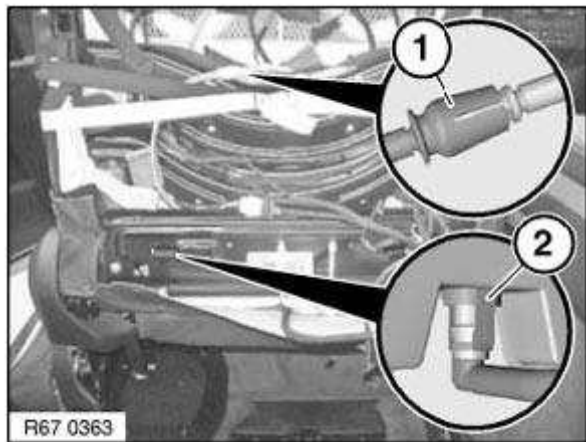


Fig. 46: Identifying Quick-Connect Couplings
 Courtesy of BMW OF NORTH AMERICA, INC.

NOTE: Drive unit for lumbar support (1) is shown in semi-removed state.

IMPORTANT: Risk of damage!
 Lines on drive unit for lumbar support (1) must not be kinked.

If necessary, press backrest (3) inwards and feed drive mechanism for lumbar support (1) upwards out of backrestframe (2).

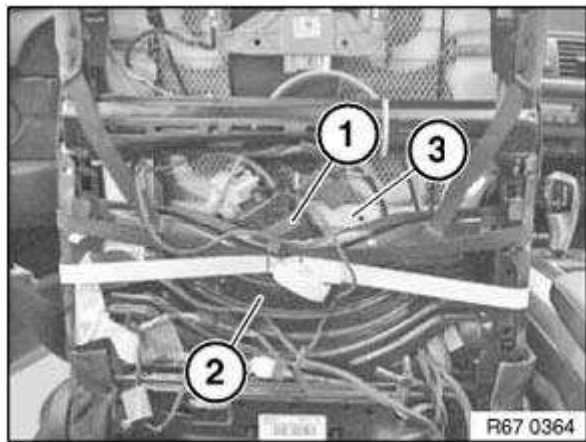


Fig. 47: Identifying Lumbar Support, Backrest And Backrestframe
 Courtesy of BMW OF NORTH AMERICA, INC.

ACCESSORIES & EQUIPMENT

Electrical Drives - Tightening Torques

MIRROR ADJUSTMENT

67 13 DRIVE, SEAT ADJUSTMENT

DRIVE, SEAT ADJUSTMENT-TIGHTENING TORQUE SPECIFICATIONS

	Type	Thread	Tightening specification	Measure
1AZ Drive for seat height adjustment to seat	E60, E61, E65, E66, E67, E70, E71			8 Nm
2AZ Drive for seat tilt adjustment to seat	E60, E61, E65, E66, E67, E70, E71			8 Nm
3AZ Drive for head restraint height adjustment to seat	E60, E61, E65, E66, E67, E70, E71			2.5 Nm
4AZ Drive for backrest head adjustment to seat	E60, E61, E65, E66, E70, E67, E71			10 Nm

DRIVE, SEAT ADJUSTMENT

67 31 DRIVE, SEAT ADJUSTMENT

DRIVE, SEAT ADJUSTMENT-TIGHTENING TORQUE SPECIFICATIONS

	Type	Thread	Tightening specification	Measure
1AZ Drive for seat height adjustment to seat	E60, E61, E65, E66, E67, E70, E71			8 Nm
2AZ Drive for seat tilt adjustment to seat	E60, E61, E65, E66, E67, E70, E71			8 Nm
3AZ Drive for head restraint height adjustment to seat	E60, E61, E65, E66, E67, E70, E71			2.5 Nm
4AZ Drive for backrest head adjustment to seat	E60, E61, E65, E66, E70, E67, E71			10 Nm

DRIVE, POWER WINDOW

67 62 DRIVES, POWER WINDOWS

DRIVES, POWER WINDOWS-TIGHTENING TORQUE SPECIFICATIONS

	Type	Thread	Tightening specification	Measure
1AZ Motor to window	E46, E85, E86, E93			4.5 Nm

regulator				
	E31, E36, E65, E66			5 Nm
	E81, E82, E83, E88			3 Nm
	E60, E61, E63, E64, E87, E90, E91, E92, E93			6 Nm
	E70, E71		Observe screwing sequence	6 Nm
	E89		Replace screws	7.6 Nm