

# Technical Bulletin



Model(s)	Year	Eng. Code	Trans. Code	VIN Range From	VIN Range To
New Beetle Sedan	1998 - 2005	All	All	All	All
Golf, GTI, R32, Jetta, Jetta Wagon	1999 - 2005	All	All	All	All

## Condition

Window, Driver and Passenger Door Window Regulator, Repairing

64 08 05 Sept. 11, 2008 2010640 Supersedes T. B. Group 64 number 07-05 dated Jul. 9, 2007 due to additional model year coverage.

## Technical Background

Driver or passenger door window regulator will not operate due to broken or damaged cables or clamps.

## Production Solution

No production change required.

## Service

While performing this Technical Bulletin:

If new style cast clamps are installed;

- Perform Technical Bulletin 2012394. You must clean glass, scuff rubber isolators and apply adhesive as described in this bulletin when reinstalling the window glass.

In addition, replace clamps on opposite side (unless opposite side has been previously repaired using parts listed below) using clamps from second kit (discard unused cable from second kit).

If original plastic clamps are installed or clamps are broken:

- Continue with this bulletin.



Tip:

Window regulator/cable assemblies can be repaired using special tool kit JC4100 and the appropriate procedure.

Regulator/cable assemblies should always be repaired unless carrier or cable pulleys have been damaged and must be replaced.

If cables or clamps are damaged, replace cable assembly and clamps.

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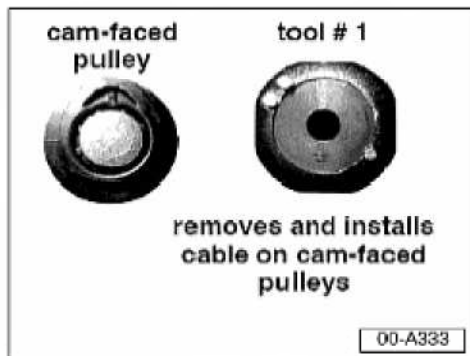


## Special Tool JC4100

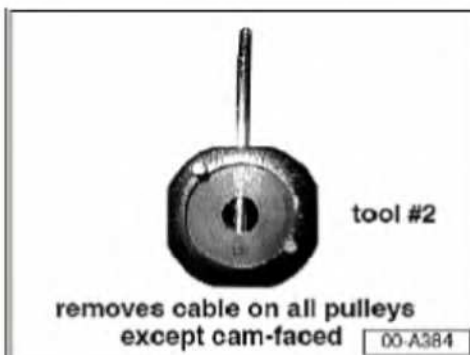


JC4100 tool kit contains:

- Locking pliers (clamping tool).
- Special cable removal/installation tools with various pin configurations for different cable pulleys (numbered 1 through 4).
- Instruction sheet.

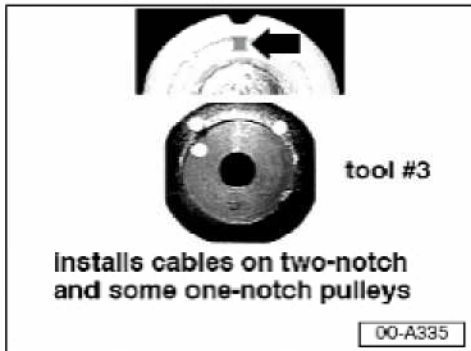


- Tool #1, for removing and installing cable on all cam-faced pulleys.

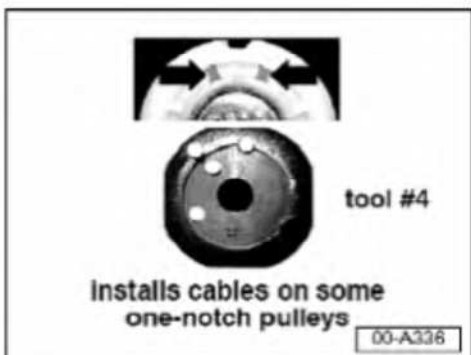


- Tool #2, with long hook, for removing cable on all pulleys except cam-faced

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- Tool #3, for installing cable on two-notch and some one notch pulleys with reinforcing rib that aligns with notch (arrow).

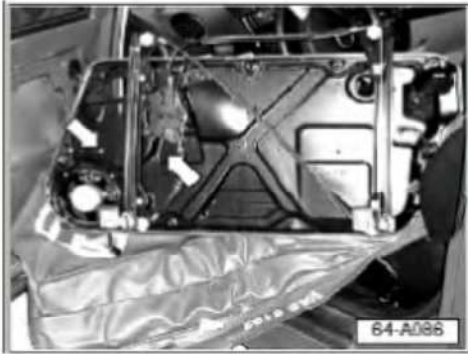


- Tool #4, for installing cable on one-notch pulleys with offset reinforcing ribs (arrows).

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## Window regulator, repairing



### Identifying repair procedure

Remove window regulator motor from carrier assembly, loosen carrier from door. See Repair Manual Group 64 in Elsaweb.



#### Tip:

It is not necessary to completely remove carrier from vehicle to perform repair.

To allow carrier to be placed inside vehicle as shown:

- Disconnect mirror and speaker connectors.
- Reach behind carrier and pinch first and second wiring harness cables ties (arrows) and push through carrier (this allows enough slack in harness to pivot carrier to position shown).
- Place carrier assembly inside vehicle on a clean protective surface such as VAS 5193 fender cover (as shown) to protect seat, interior trim and door sill trim.
- Check integrity of cables, clamps and pulleys.

If cables or clamps are damaged:

- Install Kit (cable assembly and clamps).
- In addition, on opposite side, replace clamps (unless opposite side has been previously repaired using parts listed in previous table) using clamps from a second kit (discard unused cable from second kit).



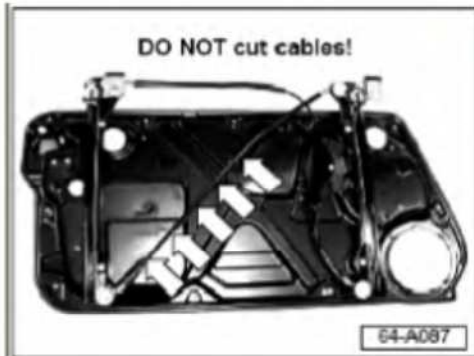
Prior to start of repairs:

- Protect speakers from damage. Install locking pliers (clamping tool) to regulator (to release tension on cables) when replacing clamps only.
- Identify type of pulleys (cam-faced, one or two notches, pulley reinforcement rib locations) and tools required for cable removal and installation.

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## Window regulator, replacing damaged cable assembly

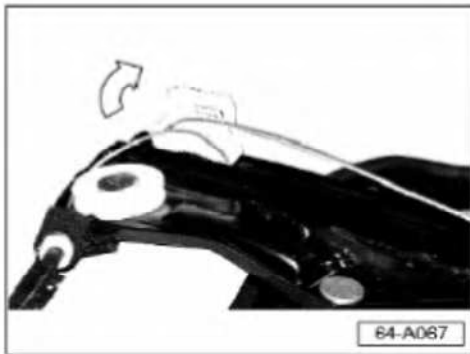


### Tip:

To aid in demonstrating procedure, illustrations show carrier removed from vehicle.

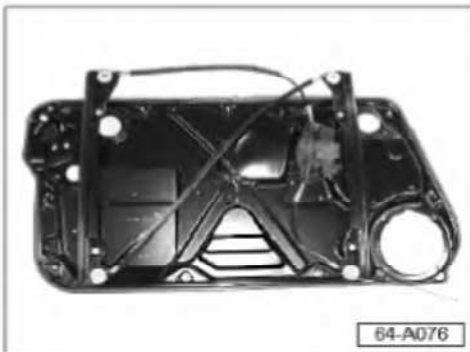
- Remove cables from pulleys to regulator only) using appropriate removal tool at both tracks DO NOT cut cables!
- Leave single cable (arrows) attached (cable is not replaced).
- Move window clamps to top of carrier (clamps must be at top of carrier to be removed).

## Window clamp, removing from track



With clamps at top of carrier:

- Flip window clamp up (arrow) and remove from track as shown (noting cable placement).
- Disengage cable crimped ends from window clamp.



If replacing clamps only, see "Window clamp, installing on track" .

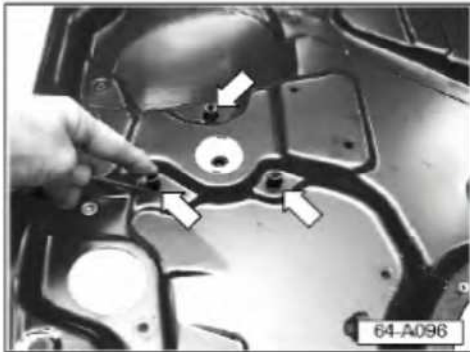
- Remove regulator assembly (see "Regulator, removing from carrier assembly" ).
- Single cable remains in installed position.



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## Regulator, removing from carrier assembly



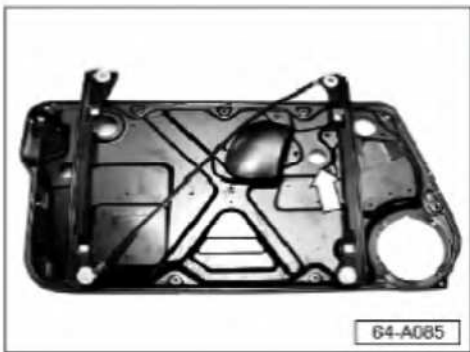
On opposite side of carrier:

- Using a small flat blade screw driver to press lock tabs on three mounting pins (arrows) inward while applying downward pressure to regulator with finger (as shown).



Tip:

Note placement of foam isolator washers at each mounting pin location (may come off with motor).

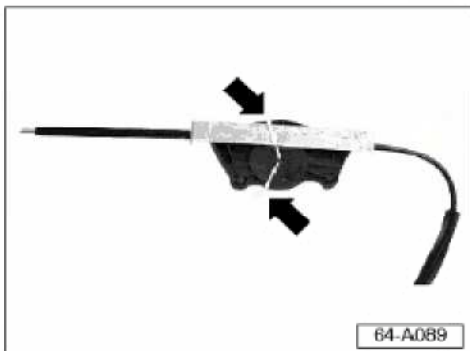


Tip:

New washers are included in kit and must be installed between window regulator and motor on final assembly of motor to regulator.

- Clean any grease and dirt from tracks and around regulator insertion hole (arrow).
- Carrier assembly is now ready to install new cables.

## Regulator assembly, preparing for installation



- Remove three foam washers from assembly.
- Unfold cables, tie wraps (arrows) through center of assembly are removed later in procedure).



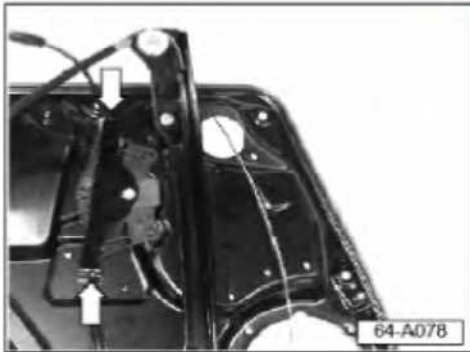
Tip:

Orientation of tie wraps should be such that the locking block of the tie wrap does not interfere with installation of regulator to the carrier assembly.

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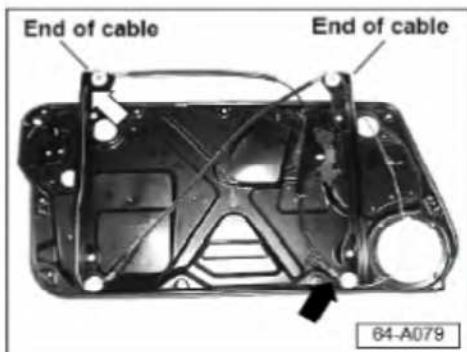
## Regulator/cable assembly, installing



### Tip:

Slide long cable (from regulator) under single cable (already installed).

- Attach regulator to carrier by inserting three pins from regulator into the carrier assembly (pressing gently to seat).
- Slide cable sheathing ends into regulator (arrows).



- Insert short cable (from regulator assembly) into carrier assembly nearest speaker hole (black arrow), leaving cable loose (as shown) DO NOT route cable around this pulley at this time.
- Insert long cable into carrier assembly opposite speaker hole (white arrow), routing cable around pulley (use correct tool as necessary).



### Tip:

Cable ends must end up near top of regulator for insertion into A-pillar clamp (clamp nearest speaker).

A-pillar clamp is always installed first and can only be installed at top of carrier.

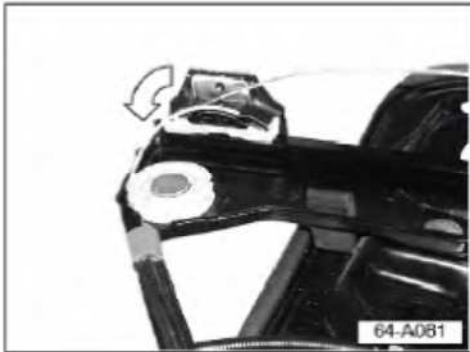
With regulator/cable assembly installed onto carrier assembly:

- Locate new clamps, remove isolators and set isolators aside for installation later in this procedure.
- Install new clamps, see "Window clamp, installing on track."

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## Window clamp, installing on track



- Install window clamp on track and insert cable crimped ends in identical position as removed (not overlapping).



### Tip:

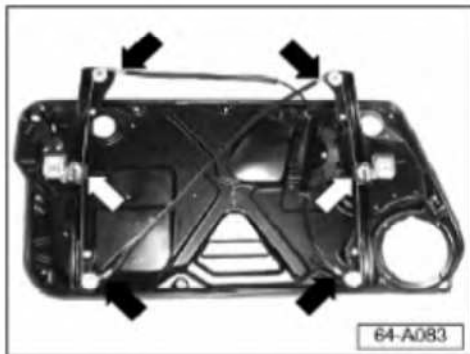
First cable is fitted into deep pocket, then insert second cable into shallow pocket.

- Flip clamp down towards track.
- Install second window clamp (B-pillar clamp) near the center of the track and insert cable crimped ends in identical position as removed (not overlapping).



### Tip:

First cable is fitted into deep pocket, then insert second cable into shallow pocket.



With both window clamps installed on tracks:

- Check the four plastic cable guide ends (black arrows) for correct engagement into housing.

With both clamps at the middle of carrier assembly as shown (white arrows):

- Install cable on last pulley, see "Cable, installing on pulley (notched pulleys)".



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Cable, installing on pulley (notched pulleys)



Install cable on last pulley as follows:

- Place cable over pulley.
- Insert correct installation tool pin (Tool #3 or #4) into pulley notch (white paint mark on side of tool indicates correct pin).

With remaining pins of tool engaged into face of pulley:

- Rotate tool and pulley 360 degrees until cable is wrapped around pulley.



Tip:

It may be necessary to rotate pulley an additional 360 degrees to set cable into pulley groove.

Cable, installing on pulley (cam faced pulleys)



- Place cable over cam on pulley as shown.
- Grab both clamps and slide to bottom of assembly (cable will self-install into pulley groove).
- Use correct tool (as necessary) if cable will not self-install.

After installing cable on pulley:

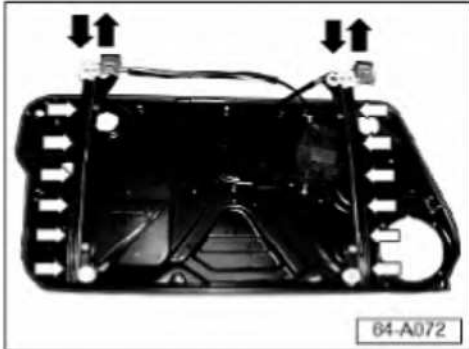
- Remove tie wraps from regulator.
- Install three foam washers on mounting pins on motor side of carrier.
- Carefully install motor assembly while holding cable housing assembly against the carrier.



Tip:

Failure to hold cable housing assembly against carrier may allow housing to fall away from carrier, which may cause housing pulley to come apart.

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- Remove metal clamp or locking pliers.
- Temporarily connect power and window switch to motor assembly and cycle regulator several times.
- Lubricate guides and track along full length, on top, and underside of track (white arrows) on contact surfaces with lubricant Part No: 00045002.
- Cycle regulator again (several times) to verify proper function.

Prior to removing power:

- Move clamps into the proper window installation position (so fasteners can be tightened once window is installed).
- Carefully install carrier into door and reinstall window regulator motor onto carrier assembly, see Repair Manual Group 64 in Elsaweb.

## Mating Glass to Window Regulator Clamps



- Clean glass where it inserts into window regulator clamps using 3M® General Purpose Adhesive Cleaner Part No: 08641.
- Locate the rubber isolators (included in kit) and scuff the area they contact the glass with 120 grit sand paper to remove gloss.
- Clean scuffed area with 3M® General Purpose Adhesive Cleaner Part No: 08641.

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- Apply a 10mm diameter spot of 3M® Channel Bonding and Sidelite Adhesive, Part No: 08641, to one side of the rubber on each isolator.



Tip:

Adhesive application tool is available locally.



New Beetle Shown:

- Install rubber isolators into regulator clamps.



New Beetle Shown:

- Install glass into window regulator clamps, see Repair Manual Group 64, Glass, Window regulators, Door window adjusting.
- Apply loctite 242® (obtain from local supplier) to exposed window regulator clamp bolt threads.
- Tighten each window regulator clamp bolt to 11 Nm (97 in. lbs.).
- Reset pinch protection as necessary.
- Close and clean window.



Tip:

DO NOT operate window for 30 minutes. This will allow adhesive to cure.

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## Warranty

To determine if this procedure is covered under Warranty, always refer to the Warranty Policies and Procedures Manual <sup>1)</sup>					
Model(s)	Year(s)	Eng. Code(s)	Trans. Code(s)	VIN Range From	VIN Range To
New Beetle Sedan	1998 - 2005	All	All	All	All
Golf, GTI, R32, Jetta, Jetta Wagon	1999 - 2005	All	All	All	All
Claim Type:		Use applicable Claim Type <sup>1)</sup>			
SAGA Coding					
Service Number:	Damage Code	Damage Location (Depends on Service No.)	Parts Manufacturer (removed part)		
5730	0055	Use applicable when indicated in ElsaWeb (L/R)	____ <sup>2)</sup>		
Labor Operation <sup>3)</sup> : Install 1 super kit including clamps and glass mating procedure on opposite door		64534199 = 160 TU			
Labor Operation <sup>3)</sup> : Install 2 super kits (1 left door and 1 right door) (including clamps and glass mating procedure on both doors)		64534299 = 200 TU			
Outside Labor (total cost from Sublet Bills );		\$5.00 max.			
Diagnostic Time <sup>4)</sup>					
GFF Time expenditure	01500000 = XX TU max.			NO	
Road Test	01210002 & 01210004			NO	
Technical Diagnosis	0132xxxx = XX TU max.			NO	
Claim Comment: Input "As per Technical Bulletin 2010640" in comment section of Warranty Claim.					



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DO NOT claim labor for this procedure in conjunction with technical bulletin 2012394.

- <sup>1)</sup> Vehicle may be outside any Warranty in which case this Technical Bulletin is informational only
- <sup>2)</sup> Code per warranty vendor code policy.
- <sup>3)</sup> Labor Time Units (TUs) are subject to change with Elsa updates.
- <sup>4)</sup> Documentation required per Warranty Policy & Procedures Manual.

## Required Parts and Tools

### Required Parts

Model	Part Number	Description
Regulator/Cable (Superkit)		
Jetta Sedan	1JM 898 461A	Left (4 dr.)
Jetta Wagon	1JM 898 462A	Right (4 dr.)
Golf	1JE 898 751F	Left (2 dr.)
GTI	1JE 898 752F	Right (2 dr.)
New Beetle	1CM 898 655A	Left
	1CM 898 656A	Right

### Required Tools and Supplies

Description	Part No:	Quantity
Super Kit	JC4100*	1 or 2
Loctite®	242	-
3M® Channel Bonding and Slidelite Adhesive	08641	-
3M® General Purpose Adhesive Cleaner	08987	—

\* Call Volkswagen Tools and Equipment Program (EQS), which is Equipment Solutions, at 1-800-892-9650 for product.

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## Additional Information

All part and service references provided in this Technical Bulletin are subject to change and/or removal. Always check with your Parts Dept. and Repair Manuals for the latest information.