

Power window repair on a PORSCHE 928S EU model from 1984 using other than 928 parts alternative for the 928 reference motor

Search engine terms:

PORSCHE 928S; 1984; POWER WINDOWS ELECTRIC MOTOR NOT FUNCTIONING; REPAIR; HOW TO; BOSCH; BROSE; ALTERNATIVE PARTS FOR 928

This is a write-up of my experiences and repairs of the LEFT (driver) side window that would not open or close at all; and gave a sort of “click” in the door when activating the power window switch on the central console.

First of all, do all the obvious checks (see elsewhere on the net and on the excellent site of Theo Jenniskens – 928 Tech tips):

1/ check if the switch works

2/ check if the switch receives power (check the fuse and relay)

3/ check if the power arrives at the window motor connector.

Obviously, you will have to remove the complete door panel (see other write ups on the net). So the only thing left is a blocked motor mechanism.

The basic problem with this power window design is that the window is very large (and therefore heavy) and is guided on only one vertical guide. The window assembly motor is working very (and maybe too) hard. Combine this with moisture from the wind seals (inevitable) and yellow grease that hardens after all those years and there you are ☹

(As opposed to the design of a 911, where the window is smaller and has 2 vertical guides; and uses a similar motor and rarely causes any problem)

The basic problem is: how to repair this __at a reasonable price__!

A 928 replacement motor that is used is hard to find (since this is a very weak part) and used ones are often in a far from perfect shape, hence you are never absolutely sure if it will work flawlessly.

A new 928 motor is ridiculously priced in OEM channels. Not to mention the price at Porsche.

Let's take a look at the PORSCHE ERSATSTEILE CATALOG (PET – in German); but I included some screen shots of the PORSCHE PARTS CATALOG in English.

MAIN GROUP 8 – SUBGROUP 04 – ILLUSTRATION 15

The screenshot shows a technical drawing of a power window mechanism on the left and a parts list table on the right. The drawing includes various components labeled with numbers 1 through 20. The parts list table has columns for Pos, Part Number, Name, Remarks, Qty, and Model.

Pos	Part Number	Name	Remarks	Qty	Model
		power windows			
1	928 537 075 06	power windows	/L	1	
(1)	928 537 076 06	power windows	/R	1	
1A	928 624 013 04	engine and transmission for window opener	/L	1	
	F >>92ES8 41154				(J)
	F >>92ES8 49584				
(1A)	928 624 013 03	engine and transmission for window opener	/L	1	
	F 92ES8 41155>>				(J)
	F 92ES8 49585>>				
1A	928 624 014 04	engine and transmission for window opener	/R	1	
	F >>92ES8 41154				(J)
	F >>92ES8 49584				
(1A)	928 624 014 03	engine and transmission for window opener	/R	1	
	F 92ES8 41155>>				(J)
	F 92ES8 49585>>				
1B	928 537 909 02	power windows without engine and transmission	/L	1	
	F >>92ES8 41154				(J)
	F >>92ES8 49584				
1B	928 537 909 04	power windows without engine and transmission	/L	1	
	F 92ES8 41155>>				(J)
	F 92ES8 49585>>				
1B	928 537 910 02	power windows without engine and transmission	/R	1	
	F >>92ES8 41154				(J)
	F >>92ES8 49584				
1B	928 537 910 04	power windows without engine and transmission	/R	1	
	F 92ES8 41155>>				(J)
	F 92ES8 49585>>				

As you can see, there are TWO versions of the mechanism (1B) and the power window motor (1A); or together (1) = (1A) + (1B). Halfway model year 1984, a change was made.

Early models of the 928 (from 1979 to 1984) use a 8 teeth motor and matching mechanism // until serial 92ES8 41154 for EU models (see screen shot)
 Later models (from 1984 to 1995) use a 10 teeth motor.

Thus, in PORSCHE references

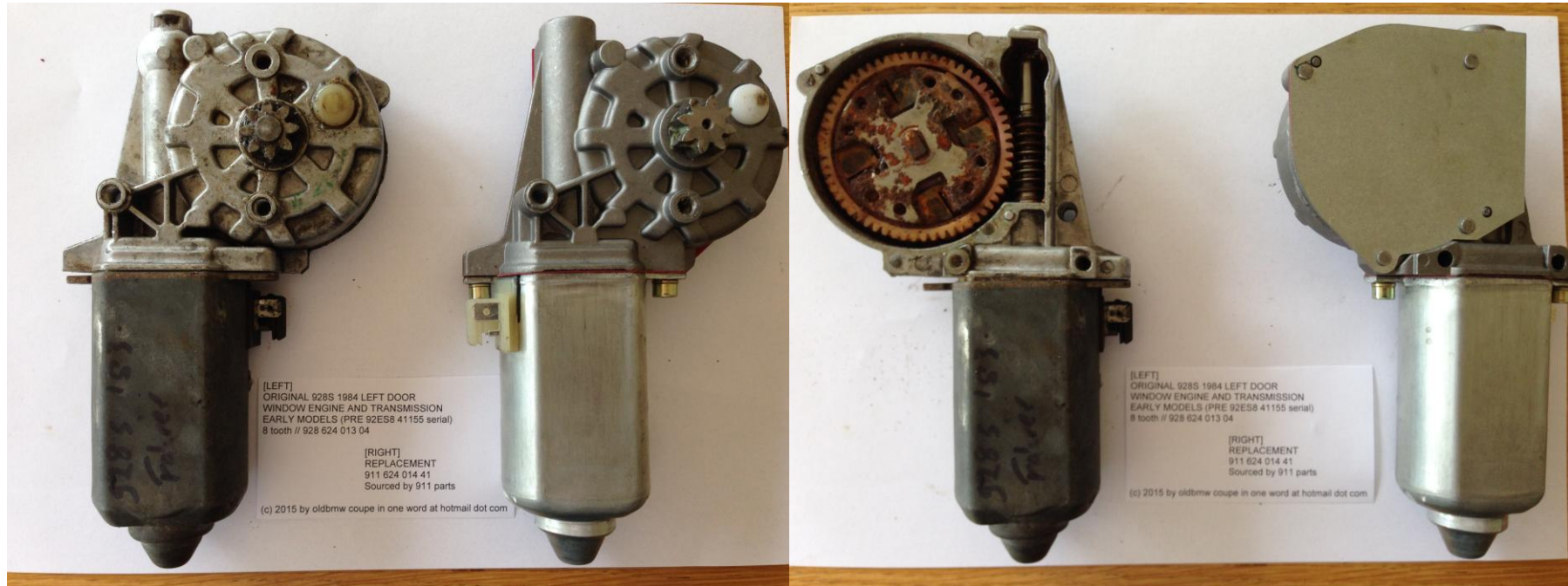
1978 untill begin 1984	8 teeth	LEFT	928 624 013 04
		RIGHT	014 04
Late 1984 untill 1995	10 teeth	LEFT	928 624 013 03
		RIGHT	014 03

The problem is that these references are NOT used on the spare part, the only thing that can be retrieved are the BOSCH number of the motor (but not of gear that is connected to the motor) and/or the BROSE references, since this is the manufacturer of the door mechanism and the corresponding gear.



The FPE number is actually the BOSCH number, which is useful for an ebay search.
See pic above: (FPE 12V) **0130 821 063**

A comparison of the original 8 teeth motor (LEFT), against the replacement (RIGHT):

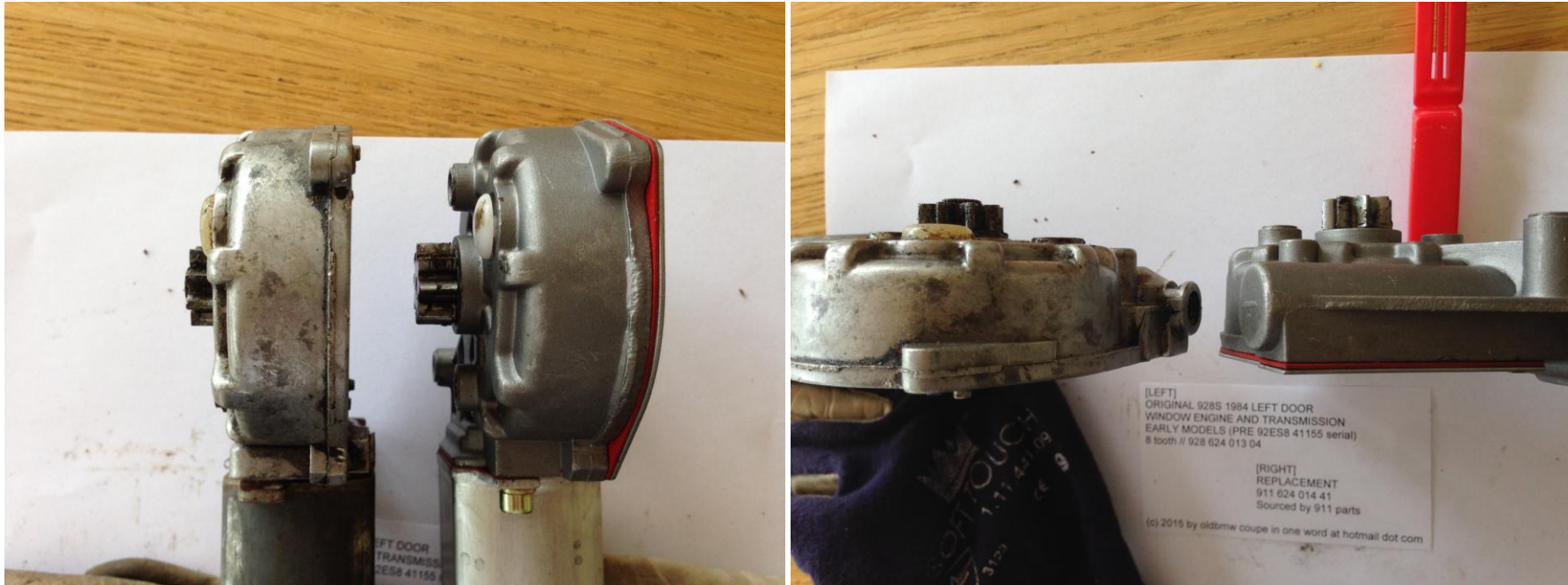


As you can see, the motor body is completely interchangeable,
BUT the electrical connection is on the other side; this can easily be fixed by removing the motor from the gear (slowly by turning and NOT by pulling!); turn it for 180 degrees and put it back together. The alternative is to pull a little on the electrical cables in the door or (better!) to make a new intermediate connection.

Be carefull for the wiring coloring, this will not damage your motor but will prevent you from pushing “up” and have your window to go “down”.

But one cannot buy the motor itself as far as i know, it always comes as (motor + gear).

The same but from behind. You will notice that the replacement has a somewhat “higher” 8 teeth gear, but the built-in spacers on top of the gear housing begin also a little “lower” so that the result towards bolting it in the mechanism is exactly the same. The perceived “extra” height does not in any way hinder the rotation.



Great!
Now, what is so spectacular?

Well, the simple fact that the replacement motor is a “standard”, [easy to find 911 motor with 911 references](#) and – odd as it may seem – that is a LOT cheaper than the “exact” 928 reference. By a lot cheaper i mean 1/3 of the 928 price. [A very knowledgeable person suggested me that the practise of “renumbering” exactly the same piece for different cars/models is a well know PORSCHE practice.]

[LEFT]
ORIGINAL 928S 1984 LEFT DOOR
WINDOW ENGINE AND TRANSMISSION
EARLY MODELS (PRE 92ES8 41155 serial)
8 tooth // 928 624 013 04

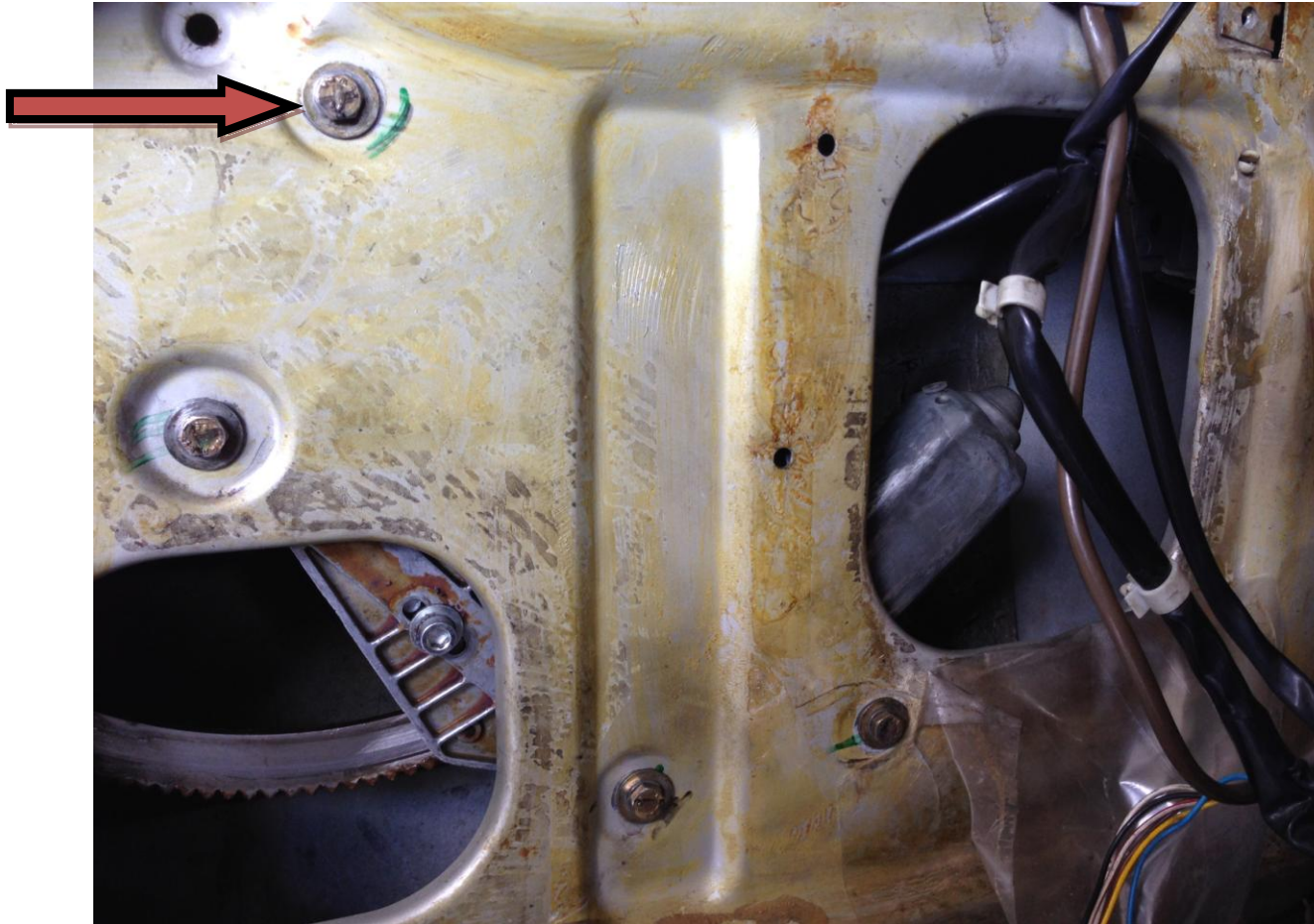
RIGHT
REPLACEMENT - ALTERNATIVE

911 624 014 41 standard 911 motor - Sourced by 911 parts – say hello to Thorsten from me!

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All trademarks recognized as such – use at your own risk – no guarantee whatsoever, but yes, it worked for me. Let me know if it did for you.

Additional info:

The easiest way to remove the motor is by removing all of the 4 bolts holding the mechanism **EXCEPT** for the one in the upper left and then to rotate the mechanism until the bolts of the motor become accessible.



Concerning the fact that a SAAB 90 model (first series) is a perfect replacement: that is true; but IMO of rather little use unfortunately since these parts are:
1/ also very hard to find,
2/ uncertain as to function correctly and
3/ at almost the same price as the 928 reference...

For those that look for proof that the 8 or 10 teeth mechanism is perfectly interchangeable:

Pos	Part Number	Name	Remarks	Qty	Model	Pos	Part Number	Name	Remarks	Qty	Model
3	N 012 226 5	spring washer A 6		8		17	N 014 761 2	pan-head screw M 6 X 12		4	
4	928 537 263 02	guide tube	/L	1		18	N 012 226 5	spring washer B 6		4	
(4)	928 537 264 02	guide tube	/R	1		18A	999 025 108 02	washer 6,4		4	
5	900 186 011 02	pan-head screw M 6 X 10		4		19	928 537 285 02	insert		2	
6	900 151 007 02	washer B 7,4		4		20	999 093 004 02	hexagon-head bolt		6	
7	N 012 006 4	lock ring B 6		4				- - - E N D - - -			
8	928 537 259 02	slide lower	/L	2							
(8)	928 537 260 02	slide lower	/R	2							
9	928 537 289 02	slide upper	/L	2							
(9)	928 537 290 02	slide upper	/R	2							
10	900 075 016 02	hexagon-head bolt M 6 X 22		4							
11	N 011 524 7	washer B 6,4		4							
12	N 012 006 4	lock ring B 6		4							
13	928 537 319 03	sealing for door slot	/L	1							
(13)	928 537 320 03	sealing for door slot	/R	1							
14	928 537 321 03	sealing for door slot outer	/L	1							
14	928 537 322 03	sealing for door slot outer	/R	1							
15	928 537 323 03	window guide	/L 85-	1							
(15) A	928 537 324 03	window guide	/R -84	1							
(15)	928 537 324 03	window guide	/R	1							
-	999 920 004 02	u-clamp		10							
16	928 537 085 03	stop		4							

To be complete; the fact that the guide (part number 4) has no changes linked to serial number/production date (as opposed to the mechanism (1) / (1A) / (1B)) proves that an upgrade from a 8 teeth mechanism_and_motor to a 10 teeth version mechanism_and_motor is perfectly possible without having to change any other part inside the door.