

## Volvo 1800 and Smiths Tachometers Models

Volvo 1800		Tachometer Model			
Model	CH#	Ch #	Engine Type (Part #)		
P1800	MY61	A	1	1	61-63 Jensen B18B 1 (496800) Smiths RV 1310/00 6K Redline Remote Rev Counter Unit
P1800S	MY63	A	6000	6000	B18B 1 (496800) B18B 2 (496812)
P1800S	MY63	B	6001	6001	B18B 2 (496812) & (496817) Smiths RV 1310/02 6.5K Redline Remote Rev Counter Unit
1800S			8000		Remote Rev Counter Unit
1800S	MY64	D	8001		
			9882		
			9883		
			9884		B18B 2 (496812) & (496817) Smiths RVI 3410/00 6.5K Redline Rev Counter Loop on Tach
			9885		
			9886		
			9887		
			9888		B18B 2 (496812) & (496817) Smiths RV 1310/02 6.5K Redline Remote Rev Counter Unit
			9894		
			9895 ?		Excluded from Tach Info in Parts Books
			9896		
					B18B 2 (496812) & (496817) Smiths RV 1310/02 6.5K Redline Remote Rev Counter Unit
			9904		
			9905		
			9906		B18B 2 (496812) & (496817) Smiths RVI 3410/00 6.5K Redline Rev Counter Loop on Tach
			9907		
			9908		
			9909		
			9910		
			9911		
			9912		B18B 2 (496812) & (496817) Smiths RVI 1310/02 6.5K Redline Remote Rev Counter Unit
			9940		
			9941 *		

9941 \* Probable typo "9441" in Parts Book - 9441 is listed for introduction of new RVI 3410/00 part # 670580, but close reading indicates it was actually 9941.

● Colour Dots indicate "original" cars with evidence of Tach Model installed - these cars comply with Parts Book info - Dot colour indicates Tach Model & positioned by Ch #

⊙ Colour Dots with ? indicate "original" cars and Tach Model used, but these cars had an unexpected Tach Model - there is a possibility of a replacement part fitted early in the car's life, so the original Tach status unclear without more evidence. These examples highlight the difficulty of verifying "originality" in cars over 50 or 60 years old.

## Tachometers Used in Volvo P1800, P1800S, 1800S, 1800E and 1800ES model range 1961 - 1973.

Version 1.3 - May 2022

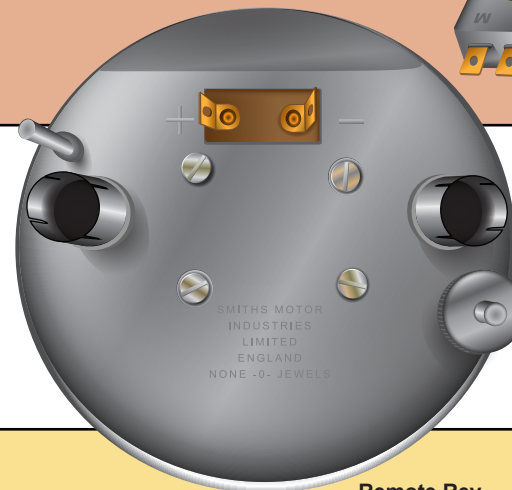
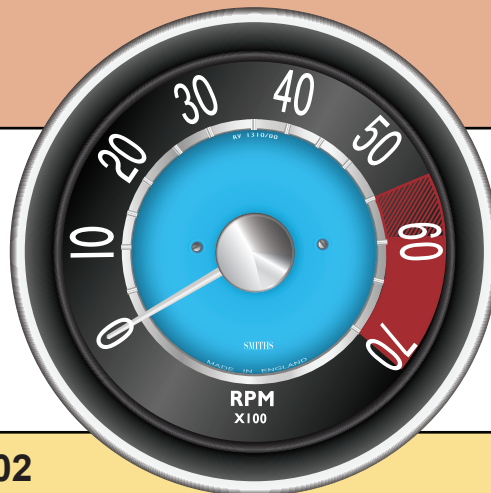
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### SMITHS RV 1310/00

Volvo Part # 668370 Swedish Text, #665257 English Text

Gauge gets signal from a Remote Rev Counter Unit

80 mm Diameter Gauge  
Warning Zone at 5.5k RPM  
Redline from 6.0k RPM  
Model Number displayed at top on Dial



**Remote Rev Counter Unit**  
Ignition Voltage Sensor unit, fitted near the horns in front of the radiator. Tachometer gauge responds to signals from this unit.



### SMITHS RV 1310/02

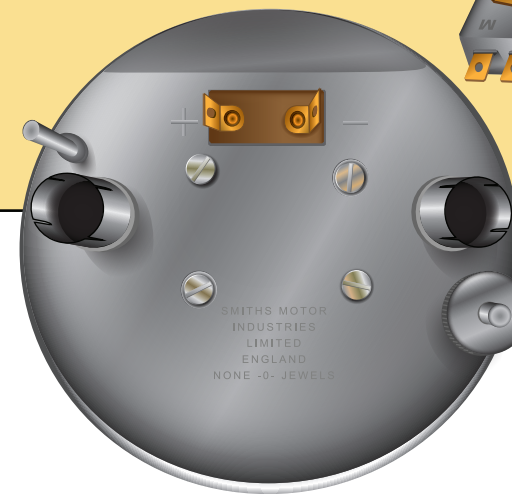
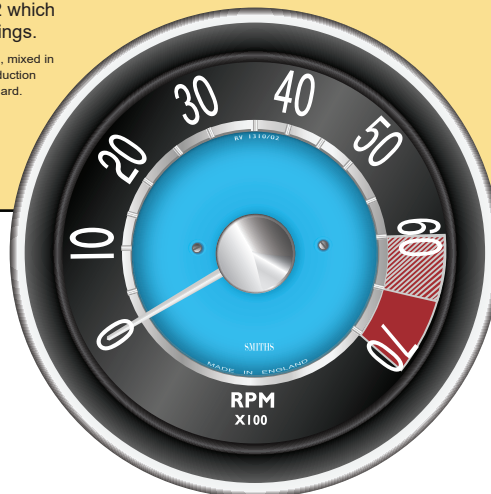
Volvo Part # 668371

Gauge gets signal from a Remote Rev Counter Unit

Introduced after B18B 2 Engine 496812 which allowed higher revs with new Valve Springs.

Engine 496812 was first installed in late Jensen production, mixed in with the 496800 engines until the last few cars. When production moved to Sweden, 496812 with RV 1310/02 became standard.

80 mm Diameter Gauge  
Warning Zone at 6.0k RPM  
Redline from 6.5k RPM  
Model Number displayed at top on Dial



**Remote Rev Counter Unit**



#### Colour Code : Tachometer Model

SMITHS RV 1310/00

SMITHS RV 1310/02

SMITHS RVI 3410/00

SMITHS RVI 3410/00A

SMITHS RVI 3412/00

## Volvo 1800 and Smiths Tachometers Models

Volvo 1800		Tachometer Model	
Model	CH #	Ch #	Engine Type (Part #)
1800S	MY64 D	9941 *	Continued B18B 2 (496812) & (496817) Smiths RVI 3410/00 6.5K Redline Rev Counter Loop on Tach
		9999 *	
		10000	
		12500	
1800S	MY65 E	12501	
		16500	
1800S	MY66 F	16501	Tach Change * B18B 3 (496819) Smiths RVI 3410/00A 6.5K Redline Rev Counter Loop on Tach
		21000	
1800S	MY67 M	21001	B18B 3 (496842) & (496864) Smiths RVI 3410/00A 6.5K Redline Rev Counter Loop on Tach
		25500	
1800S	MY68 P	25501	
		28300	
1800S	MY69 S	28301	B20B (496922) & (496923) Smiths RVI 3410/00A 6.5K Redline Rev Counter Loop on Tach
		29993	30000
1800E	MY70 T	29994	30001
		32792	
1800E	MY71 U	32793	
		37542	
1800E	MY72 W	37543	
		39414	39414
1800ES	MY72 W	1	1
		3070	
1800ES	MY73 Y	3071	
		8078	8078

As can be seen from the chart, the installed Smiths Tachometer models changed back and forth in small batches a few times during MY64 year, 5 cars with 3410/00, then 16 with previous model, then 7 cars with 3410/00, then 28 cars with previous model. This could be attributed to supply issues from Smiths (with industrial disputes of the 60's), or perhaps cars were separated from the main production line for Production Fitment Testing and Staff Training before the RVI 3410/00 Tachometer finally became standard installation on the production line from Chassis # 9941. The Parts Books list the last Remote Sensor Unit at Ch # 9999 \*, but that logically occurred at Ch # 9940 and with the new Tach Model (without a Remote Sensor) installed from Ch # 9941.

This document began with initial work by JG Coutts - investigating anomalies in accepted history of Tachometers in Volvo 1800's. This document draws on technical work by R Kwas (sw-em.com), J Knapp (v1800.org) and "A Gentleman's Guide to Smiths Electronic Tachometers" by Alex Miller, as well as other resources, it has been aided by evidence submitted by members of the Classic Volvo Community. For technical information on Smiths Tachometers the above listed technical resources would be highly recommended.

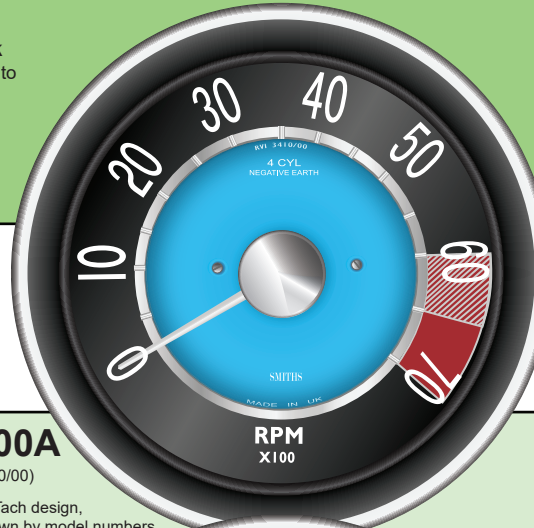
This document is intended as an information and historical source for clearly identifying instruments fitted to Volvo 1800 cars across the model range.

### SMITHS RVI 3410/00

Volvo Part # 670580

Gauge gets signal through a current sensing loop on the back  
White wire from Coil / Distributor looped to induce electrical signal for gauge.

80 mm Diameter Gauge  
Warning Zone at 6.0k RPM  
Redline from 6.5k RPM  
Model Number displayed at top on Dial



Originally supplied with a small plastic block to assist with holding the loop wire correctly, the size of the loop influences the accuracy of the inductive signal.



### SMITHS RVI 3410/00A

Volvo Part # 670580 (same as RVI 3410/00)

Smiths introduced a "Rationalised Movement" Tach design, with fewer components yet same function - shown by model numbers with "A" at the end - no other external differences. Functionally /00 & /00A are interchangeable.

Some examples have a rubber plug and hole to allow adjustment without removing the case.

Tach Change \* Unclear exactly when /00A was introduced, possibly from MY66 but it could have been during MY65.

Model Number displayed at top on Dial



### SMITHS RVI 3412/00

Volvo Part # 682159

Sensing of Current Pulse is internal to gauge  
Red wire from Coil, White from Distributor with unique connectors to maintain polarity.

Rubber plug, or Guarantee Sticker, over hole in case - hole to allow adjustment without removing case.

80 mm Diameter Gauge  
Warning Zone at 6.0k RPM  
Redline from 6.5k RPM  
Model Number displayed at bottom on Dial

