

Tachometer in Volvo Amazon

WHEN THE TOP OF THE LINE MODEL 123GT was introduced in the summer of 1966 (model year 1967) it came with a tachometer. This was assigned part number 281046 and was manufactured by Smiths for Volvo. The tachometer is transistorized and features a warning field for excessive engine speeds. Its placement on the dash pad is best illustrated by a picture (see below). The same tachometer was later sold as an accessory to Volvo Amazon, and is included in an accessories catalogue printed in June 1967 (RK 2711).

Smiths' tachometer for the Amazon has a rectangular shaped foot, as compared to other Volvo models where round foot occurs. It also comes in two different variants, one early and one late, but where Volvo didn't bother to keep these under different part numbers; both are called 281046. The early variant has red needle, 10 x 100 RPM grading and a chrome ring. This is the variant found on the 123GT model year 1967 (and apparently also on early 123GT of model year 1968). Since model year 1967 is by far the most common model year for the 123GT it is also this variant of the tachometer that is the most common. The later variant instead has white needle, 1 x 1000 RPM grading and a silver matte ring, the latter to avoid disturbing reflexes for the driver (and in line with other changes made for the same purpose on the model year 1968).



A good choice of placement, and consequently where you most often find them, is on top of the dash pad and slightly to the right of the instrument housing (left on right hand drive cars) in accordance with the picture above. If you are looking for a placement identical to that on the 123GT it should be placed slightly more to the left than in the picture above, i.e. not centered on the second dash stripe to the right of the instrument housing but a little bit more to the left. This official image from Volvo may be of help:



It is of course possible to fit the tach in other locations as well, but with above placement you know at least that the cables are long enough. Start by drilling a hole (6-8 mm) in the dash pad and through the instrument panel top. Change to a bigger drill (13 mm) and drill the hole wider. Thread the cables through the hole and secure the tach in the dash top using the nut that came with it.

Smiths' revolution counter on foot has five cables: one black, two red and two white. Of the two white, one is longer than the other. Install the unit by connecting the black to ground. One of the two red cables is connected to the instrument lights on the back of the light switch, connection 58b. This is how it is wired on the 123GT but also means that the rheostat will not control the tach. It is also possible to connect this cable to connection 58a of the light switch, which is the rheostat of the instrument lights. The other red cable connects to the 25 A fuse (the upper, shorter fuse in the fuse box). One white cable (the short one) is connected on the coil's negative connection (marked 1 or - on the coil) instead of the black (which is removed) and the other white cable (the long one) is connected to the distributor (where the just removed black cable was). If the tachometer doesn't work, switch the two white cables.

On cars with electronic ignition system (for instance 123IGNITION) the tachometer is connected with the two white cables in series between the ground cable of the coil (usually black) and the minus on the distributor. The Smiths tachometer works fine with 123IGNITION. For other models, companies like JDO-instruments (www.jod1.com) and CASU (www.casu.nl) offer rebuilds of the Smiths tachometer to work with electronic ignition systems.



The Smiths tachometer that came factory installed on the 123GT model year 1967 has a chrome ring, red needle and a 10 x 100 RPM scale. This was changed with the model year 1968 and the unit now had a silver ring (non-reflecting), white needle and a 1 x 1000 RPM scale. However, both have the same part number, 281046, and the latter was sold as accessory from 1969. The picture to the left is from the 1969 accessories catalogue and shows the early variant of the tachometer.

Instruments mounted on top of the dash pad were later prohibited in several countries due to safety reasons. In Sweden they are not allowed on cars registered for traffic after January 1st, 1970.

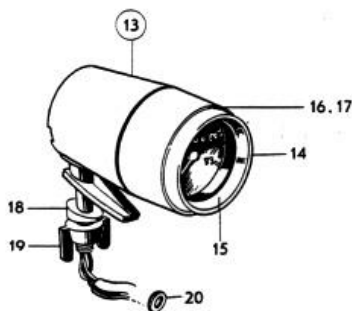
Waiver. The text in this summary has been prepared with uttermost care but is, despite of this, strictly a guide to be used in conjunction with normal and cautious vehicle shop practice, including the safe operation of electric equipment. I cannot accept liability for your actions. Work smart! Work safely!"

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Reservdelskatalog Parts catalogue

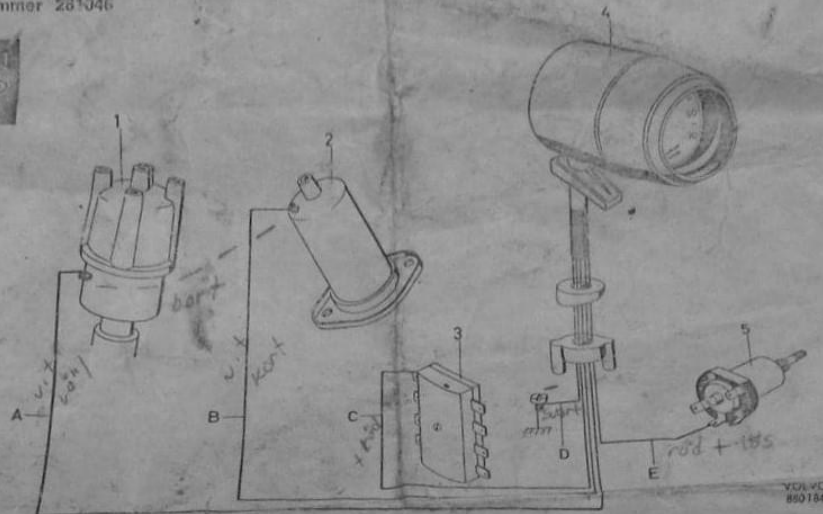


Side Page	Grupp Group	INSTRUMENT MED MONTERINGSDETALJER		INSTRUMENT AND INSTALLATION COMPONENTS		Utgåva Issue
Pos. Fig.	Antal Qty		Detalj nr Part No	Benämning	Description	Anmärkning Notes
13	1	.	281046-3	VARVRÄKNARE	REVOLUTION.	SPEC UTF 5314
14			682963-4	.FRONTKÄPAFRONT HOUSING	
15				.GLASLENS	LAGERFÖRES EJ
16				.PACKNINGPACKING.	LAGERFÖRES EJ
17				.RINGRING	LAGERFÖRES EJ
18			672585-7	.BRICKAWASHER.	
19			67258E-5	.VINGMUTTERBUTTERFLY NUT	
20			667512-8	GUMMIBUSSNING	RUBBER BUSHING	SPEC UTF 5576



Monteringsanvisning för varvräknare till 120-serien

Detaljnummer 281046



1. Strömfördelare
2. Tändspole
3. Säkringsdosa
4. Varvräknare
5. Ljusomkopplare

- A. Lång vit kabel
- B. Kort vit kabel
- C. Röd kabel
- D. Svart kabel
- E. Röd kabel

1. Distributor
2. Ignition coil
3. Fusebox
4. Rev. counter
5. Light switch

- A. Long white cable
- B. Short white cable
- C. Red cable
- D. Black cable
- E. Red cable

1. Zündverteiler
2. Zündspule
3. Sicherungsdose
4. Drehzahlmesser
5. Lichtschalter

- A. Langes weißes Kabel
- B. Kurzes weißes Kabel
- C. Rotes Kabel
- D. Schwarzes Kabel
- E. Rotes Kabel

Denna typ av varvräknare skall monteras något till vänster om vagnens mittlinje uppe på instrumentbrädan.

Montering sker lämpligen enligt följande:

1. Förborra instrumentbrädan underifrån med ett mindre borrh. Borra därefter upp hålet till 13 mm.
2. Drag igenom kablarna, placera varvräknaren på plats och träd på bricka och vingmutter under instrumentbrädan så som bilden visar. Drag ej fast vingmuttern hårdare än att varvräknaren går att leda.
3. Tag bort gummitätningen som sitter i hålet för chokewire och vattentemperaturmätarslang på torpeden. Träd igenom kabelhärvan, utom den lösa röda kabeln (E), genom det förut nämnda hålet i torpeden.
4. Den lösa röda kabeln (E) som är kvar inne i vagnen monteras på ljusomkopplarens nedre del un-

der instrumentbrädan. De båda vita sammankopplade kablarna på ljusomkopplaren dras ur och kopplas ihop med den röda kabeln (E) från varvräknaren. Därefter monteras alla tre på ljusomkopplaren där de båda vita kablarna satt.

5. I motorrummet demonteras den tunna primärkabeln som går mellan tändspole och strömfördelare. Istället monteras här den längsta vita kabeln (A) från varvräknaren nere vid strömfördelaren och den kortare (B) uppe vid tändspolen.
6. Den svarta jordkabeln (D) monteras på en av skruvarna som håller chassi-plåten uppe på pedal-kåpan.
7. Den röda kabeln kopplas till säkringsdosans övre högra uttag.
8. Klipp upp den gamla gummitätningen för hålet i torpeden och montera tätningen igen.