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### Mechanical Speedometer (cable driven), All Manufactures

With cable driven speedometers, there are potentially two gears that can go bad. First is the odometer gear pictured. You will need to count the number of teeth on the original gear before ordering. 10, 11, 11 tooth Super beetle, 12,13,14,15,16,17,18,19,21,24 (Chevrolet/GMC), 25



Second is the lead gear on the same rail. Check to make sure it is tight on the shaft. Using a small screwdriver, see if it spins on the shaft. If it does, you should replace it also. There are three sizes. All you need to do is measure the overall thickness. 1/8'' = 4.57 mm, 3/16'' = 5.44 mm or  $\frac{1}{4}' = 6.35 \text{ mm}$ 



# AC Cobra/Shelby Cobra

 With Smiths Speedometer
 Smiths 20 tooth gear

<u>Audi</u> On VDO units you need to open and count the teeth on the old gears to ensure that you order the correct tooth count. Part numbers from any part of the speedometer do not help in determining the tooth count.

80	1986-1992		E15	? small pod
90	1988-1995		E15 (small pod) or E20 (med. pod)	? small pod or ? medium pod
100 C4 platform	<u>1992-1997</u>		<u>E15</u>	<u>? small pod</u>
5000	Late 1986		E25 or E26	15 tooth Large Pod
A6 C4 platform	1992-1997		<u>E15</u>	? small pod
Late Model vehicles with electronic Requires one		gear per gauge. , Tachometer, Temperature and Fuel	E7 Gear	

**<u>Bentley</u>** On VDO units you need to open and count the teeth on the old gears to ensure that you order the correct tooth count. Part numbers from any part of the speedometer do not help in determining the tooth count.

Euro Spec in KM20x29	

<u>BMW</u> On VDO & MotoMeter units you need to open and count the teeth on the old gears to ensure that you order the correct tooth count. Part numbers from any part of the speedometer do not help in determining the tooth count. We have listed the most common combinations.

E23	1977-1986 7 Series	E1=12 tooth	E2=48x12 No Neck	E3=48x17 or 48x19 Neck
E23	1977-1986 7 Series (Euro-KM)	20x23		
E24	1976-1989 6 Series	E1=12 tooth	E2=48x12 No Neck	E3=48x17 or 48x19 Neck
E28	1982-1988 5 Series	E1=12 tooth	E2=48x12 No Neck	E3=48x17 Neck
E30	1982-1993 3 Series VDO	E1=12 tooth	E2=48x12 No Neck	E3=48x12 or 48x14 Neck
E30	1982-1994 3 Series VDO South America	E1=12 tooth	E2=48x12 No Neck	E3=48x12 or 48x16 Neck

# Updated: 20 February 2019

Opualcu.	. 20100	Tuary 2019							
E30	1982-1 (US Sp	993 3 Series Mo ec)	otoMeter	E1=12 tooth	MM2=44x	16	MM3	=40x22	MM4=35x22
E30	(Asian/	1982-1993 3 Series MotoMeter (Asian/Euro) R and K Series Motor Cycle		E1=12 tooth	MM2=44x	16	MM3	b=40x28	MM4b=28x22
E30	1982-1993 3 Series MotoMeter (Asian/Euro) R and K Series Motor Cycle		E1=12 tooth	MM2c=44x17			c=38x23 mm diam.	MM4c=33x26	
E30	1982-1993 3 Series MotoMeter (Portugal/Greece) R and K Series Motor Cycle		E1=12 tooth	MM2c=44	<17		d=38x28 mm diam.	MM4c=33x26	
E30	1982-1993 3 Series MotoMeter (Asian/Euro) R and K Series Motor Cycle		E1=12 tooth	MM2d=43	x16		e=39x28 color is Red	MM4e=28x22 Inside gear is start shaped. OEM color is tan	
E30		eter (Asian/Euro < Series Motor (			MM2e=43x17				
E30		eter (Australia) K Series Motor C	Cycle				MM3	F=40x34	
E30	Z1 1989-1991			E20		17 medium pod			
E31	1989-1	999 8 Series		Either Seat Rec	line Gear			E31 seat gear	
E36		000 3 Series		Driver's Seat R		- White			ottom Gear= Pink
E36		993.5 ; 1997.5-	-2000	Passenger Seat					t Bottom Gear= Pink
E36		-1997.5			assenger Seat Recline Gear= White Passenger Seat Bottom				
E36		002 Z3			g Kit for Both Seats Z3 Seat Bushing kit				
E39	Octobe	r 2000-2003 5 9	Series	Headlight Adjus	ht Adjuster kit (one per side) Fits both xenon and star		and standard		
2002	1968-1	977		Mechanical 10 t				Thin lead Gear	
E53-X5/E8	83-X3	1999-2010	Transfer	Case Actuator M					
E60-S85		5/03-12/09	Throttle	Actuator Gear K	it				
E61-S85		12/05-04/10	Throttle	Actuator Gear K	it				
E63-S85		03/04-07/10	Throttle	irottle Actuator Gear Kit					
		Throttle	Actuator Gear K	it					
		onic Parking Brake Actuator Gear Repair Kit							
		Case Actuator M				R			
		Case Actuator M	lotor Gear -	27 10 7 566	6 296G	R			
		Transfer	• Case Actuator M	lotor Gear -	27 10 7 566	6 296G	R		
E90-S65		01/07-10/11	Throttle	Actuator Gear K	it				
E92-S65		07/06-06/13	Throttle	Actuator Gear K	it				
E93-S65		03/07-10/13	Throttle	Actuator Gear K	it				

# <u>Cadillac</u>

Escalade 2004-2006 Seat Bushing Kit for Both Seats
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# <u>Chevrolet</u> On VDO units you need to open and count the teeth on the old gears to ensure that you order the correct tooth count. Part numbers from any part of the speedometer do not help in determining the tooth count.

1997-1999	M24
Avalanche 2003-2006	Seat Bushing Kit for Both Seats
Corvette 1997-2004	Seat Bushing Kit for Both Seats
Express 1996-2008	Seat Bushing Kit for Both Seats
Savana 1996-2008	Seat Bushing Kit for Both Seats
Sierra 1999-2007	Seat Bushing Kit for Both Seats
Silverado 2003-2007	Seat Bushing Kit for Both Seats
Suburban 1997-2006	Seat Bushing Kit for Both Seats
Tahoe 2005-2006	Seat Bushing Kit for Both Seats
Yukon 2000-2006	Seat Bushing Kit for Both Seats

# <u>Chrysler/Dodge</u> On VDO units you need to open and count the teeth on the old gears to ensure that you order the correct tooth count. Part numbers from any part of the speedometer do not help in determining the tooth count.

correct tooth count. Part numbers nom any part of the speedometer do not help in determining the tooth count.					
All with Electronic Speedometer except	E20	16 tooth Medium Pod			
Monaco					
Monaco	E25	15 tooth Large Pod			

**<u>Eagle</u>** On VDO units you need to open and count the teeth on the old gears to ensure that you order the correct tooth count. Part numbers from any part of the speedometer do not help in determining the tooth count.

Premier	E25	15 tooth Large Pod

**Ford** On VDO units you need to open and count the teeth on the old gears to ensure that you order the correct tooth count. Part numbers from any part of the speedometer do not help in determining the tooth count.

Bronco (analog odometer)			Worm Gear	
Contour (analog odometer)			Worm Gear	
Crown Victoria (only if odometer and		E20	16 tooth Medium Pod	
are stacked in middle of speedomet	ter)			
Crown Victoria (only if odometer and	d trip	Drive Gear (2 each)	Worm Gear (2 each)	
are <b>split</b> left and right in the cluster	)			
Expedition (analog odometer)			Worm Gear	
Explorer (analog odometer)			Worm Gear	
F-Series Pickup (analog odometer)			Worm Gear	
Fairmont Australia 1982-1988		988	20x29	
Falcon Australia	1982-1	988	20X29	
Fairlane Australia	1979-1	988	20x29	
Mustang D		Drive Gear	Worm Gear (only need to replace if original is black)	
Ranger (analog odometer)		Worm Gear		
Taurus (analog odometer)		Worm Gear		
Thunder Bird		E20	16 tooth Medium Pod	

<u>Holden</u> On VDO units you need to open and count the teeth on the old gears to ensure that you order the correct tooth count. Part numbers from any part of the speedometer do not help in determining the tooth count.

Astra LD Australia	1987-1989	E25	15 tooth Large Pod
Commodore VN, VP, VR, VS	1988-1997	E25	15 tooth Large Pod

#### <u>Hummer</u>

H2 2003-2006

Seat Bushing Kit for Both Seats

### <u>Infiniti</u>

211111111		
All	2002-200?	Driver's or passenger's Power Seat Gear (Has neck and collar)
All	2002-200?	Driver's or passenger's Power Seat Gear (NO neck or collar)

#### Jaeger and Smiths Odometer Gears

20, 25, 32 mold is currently being made with availability roughly 4 March 2015. Other three tooth counts to follow shortly

### John Deere On VDO units you need to open and count the teeth on the old gears to ensure that you order the

correct tooth count. Part numbers from any part of the speedometer do not help in determining the tooth count.							
With electronic Tachometer with	E1=12 tooth	E2=48x12 No Neck	E3=48x15 Neck				
odometer							

 LaForza
 On VDO units you need to open and count the teeth on the old gears to ensure that you order the correct tooth count. Part numbers from any part of the speedometer do not help in determining the tooth count.

 1989 20×29

#### Land Rover

Discovery LR3	2005-2009	Transfer Case Actuator Motor Gear - IGH500040GR
Discovery LR4	2010-2015	Transfer Case Actuator Motor Gear - IGH500040GR
Range Rover	2006-2014	Transfer Case Actuator Motor Gear - IGH500040GR
Range Rover Sport	2006-2014	Transfer Case Actuator Motor Gear - IGH500040GR

# <u>Lincoln</u> On VDO units you need to open and count the teeth on the old gears to ensure that you order the correct tooth count. Part numbers from any part of the speedometer do not help in determining the tooth count.

If odometer and trip are <b>stacked</b> in	E20	16 tooth Medium Pod
middle of speedometer)		
If odometer and trip are <u>split</u> left and right	Drive Gear (2 each)	Worm Gear (2 each)
in the cluster)		

 Mazda
 On VDO units you need to open and count the teeth on the old gears to ensure that you order the correct tooth count. Part numbers from any part of the speedometer do not help in determining the tooth count.

 B series Pick-up
 Worm Gear

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<u>Mercedes-Benz</u> On VDO units you need to open and count the teeth on the old gears to ensure that you order the correct tooth count. Part numbers from any part of the speedometer do not help in determining the tooth count. We have listed the most common combinations.

nave listed the most com	imon combinations.					
107 = SL Class 1972-1980			M18 or M25	Medium Lead Gear or	Thick Lead Gear	
107 = SL Class	1981-1989		E1=12 tooth	E2=48x12 No Neck	E3=48x12, 48x	(16 or 48x17 Neck
107 = SL Class	1981-1989		E1=12 tooth	E2=48x12 No Neck	E3=48x12 or 4	8x13 Neck
Asian and Canadian Spec						
107 = SL Class	1981-1989		E1=12 tooth	E2=48x12 No Neck	E3=48x12 or 4	8x18 Neck
Euro Spec						
123 Chassis	1976-1985		M18	Medium Lead Gear or	Thick Lead Gear	•
124 = E Class	1984-1995		M18 or M25	Medium Lead Gear o	r Thick Lead Gea	r
124 = E Class	1984-1995		Bosch wiper tran	ismission Gear (U Shap	oed) /SWF gear n	ot available
126 = S Class Gas	1981-1991		E1=12 tooth	E2=48x12 No Neck	E3=48x12 or 4	8x16 Neck
126 = S Class Diesel	1981-1991		E1=12 tooth	E2=48x12 No Neck	E3=48x12 or 4	8x15 Neck
126 = S Class	1981-1991		E1=12 tooth	E2=48x12 No Neck	E3=48x12 or 4	8x18 Neck
Euro Spec						
126 = S Class	1981-1991		E1=12 tooth	E2=48x12 No Neck	E3=48x12 or 4	8x13 Neck
Asian and Canadian Spec						
129 = SL Class	$\theta = SL Class$ 1990-1998 with analog		E15	12 tooth Small Pod or 16 tooth Small Pod		
	odometer					
129 = SL Class	1990-2002		Bosch wiper tran	<u>ismission Gear (U Shap</u>		
140 = S Class	1992-1999		E15 12 tooth Small Pod or 16 tooth Small Pod			
140 = S Class	1992-1999		Wiper transmiss	ion Gear		
164/166 GL	2006-2012		TS Electric Motor Gear (transfer case actuator motor)- 164 540 01 88GR			
164/166 ML	2005-2011		TS Electric Motor Gear (transfer case actuator motor) - 164 540 01 88GR			
201 = 190 Class	1982-1993		Bosch wiper tran	smission Gear (U Shap	oed) /SWF gear n	ot available
202 = C Class	1993-2000		Wiper transmiss	ion Gear (must grind sl	haft to install)/Ge	ar inside of motor
			is <b>NOT</b> available	-		
Powerliner Tractor	With analog odometer		E1=12 tooth	E2=48x12 No Neck		14,15,16,17,18,19
					or 21 Neck	
Late Model vehicles with el	ectronic gauges that		uires one gear per			E7 Gear
sweep when the ignition key is first turned. Spe			edometer, Tachon	neter, Temperature and	d Fuel Gauges	

# <u>Mercury</u> On VDO units you need to open and count the teeth on the old gears to ensure that you order the correct tooth count. Part numbers from any part of the speedometer do not help in determining the tooth count.

Cougar	E20		16 tooth Medium Pod
Grand Marquis (only if odometer and trip are	E20		16 tooth Medium Pod
stacked in middle of speedometer)			
Grand Marquis (only if odometer and trip are	Drive Gear (2 eac	h)	Worm Gear (2 each)
<b>split</b> left and right in the cluster)			
Mystique (analog odometer)		Worm Gear	

MerkurOn VDO units you need to open and count the teeth on the old gears to ensure that you order the correcttooth count. Part numbers from any part of the speedometer do not help in determining the tooth count.Scorpio1988-1989E2016 tooth Medium Pod

<u>Nissan</u> On VDO units you need to open and count the teeth on the old gears to ensure that you order the correct tooth count. Part numbers from any part of the speedometer do not help in determining the tooth count.

Pintara/Sentra 1986-1993			E25	15 tooth Large Pod
Pulsar N13	1987-1990		E25	15 tooth Large Pod
R31 Skyline	1985-1989		E25	15 tooth Large Pod
Car and SUV	2002-200?	Driver's or passe	nger's Power Seat Gea	r (Has neck and collar)
Car and SUV	2002-200?	Driver's or passe	nger's Power Seat Gea	r ( <u>NO</u> neck or collar)

### OKA Australia

Buses, Trucks and Vans	20 x ?? Need to count teeth on old gear to verify
	correct tooth count.

#### **Pontiac**

Firebird / Trans AM	1985-1992	15 x 11 includes shoulder bolt, nut and tap.
		US SPEC ONLY

PorscheOn VDO units you need to open and count the teeth on the old gears to ensure that you order the correcttooth count. Part numbers from any part of the speedometer do not help in determining the tooth count.911 (Mechanical)1965-1975M17 (Best to confirm tooth count)

### Updated: 20 February 2019

911 US-MPH (Base, Carrera, SC	, Turbo)	1975-1989	20x30	
911 Euro-KM and Asian		1975-1989	20x22 or <b>20x32</b> (Best	t to confirm tooth count)
(Base, Carrera, SC, Turbo)			, , , , , , , , , , , , , , , , , , ,	,
911 Middle East-KM		1975-1989	20x29	
(Base, Carrera, SC, Turbo)				
911 US-MPH (C2, C2 Turbo, C4)		1990-1998	E15	16 tooth Small Pod
911/930 US-MPH		1986.5-1988	E25	15 tooth Large Pod
911/964 US-MPH Option 1		1989-1993	E15	16 tooth Small Pod
911/964 US-MPH Option2		1989-1993	E25	15 tooth Large Pod
911/964 Australia		1989-1993	E20	15 tooth Medium Pod
911/964 Singapore		1989-1993	E15	17 tooth Small Pod
911/993 US-MPH (C2, C4, T Tur	bo)	1993-1998	E15	16 tooth Small Pod
911/993 Middle Eastern (C2, C4	, T Turbo)	1993-1998	E20	15 tooth Medium Pod
911/993 Euro-KM (C2, C4, T Turbo)		1995-1998	E15	17 tooth Small Pod
912 (Mechanical)		1965-1976	M17	
914 (Mechanical)		1970-1976	M17	
924S US-MPH (Mechanical)		1976-1988	M17	
924S Euro-KM (Mechanical)		1976-1988	M11	
928 US-MPH (Base, GT, GTS, S4	•)	1978-1995	20x21	
928 Euro-KM (Base, GT, GTS, Se	4)	1978-1991	20x21 or <b>20x29</b> (Best to confirm tooth count)	
944 US-MPH (Mechanical)		1982	M15	
944 US-MPH (Mechanical)		1983	M11	
944 US-MPH (Mechanical)		1984-1985.1	M17	
944 Euro-KM (Base, S, S2, Turbo)		1982-1985.1	20x23 or 20x30 (Best	to confirm tooth count)
944 US-MPH (Base, S, S2, Turbo)		1985.2-1991	20x21 or 20x22 (Best	to confirm tooth count)
944 US-MPH (Base, S, S2, Turbo)		1991	E25	15 tooth Large Pod
944 Euro-KM		1985.2-1991	20x22 or <b>20x30</b>	
968		1992-1995	E15	12 or 16 tooth Small Pod
986 Boxster	1997-2004	Left and Right (	Convertible Top Transmissi	on Gears
987(-2) Boxster	2005-2011	Left and Right (	Convertible Top Transmissi	on Gears

# **<u>Rolls Royce</u>** On VDO units you need to open and count the teeth on the old gears to ensure that you order the correct tooth count. Bart numbers from any part of the speedometer do not help in determining the tooth count.

concer tooth count. I are ne	inders nom any part of the spectrometer do not help in determining the tooth count.
US Spec in MPH	20x23
Euro Spec in KM	20x29
RR1, RR2, RR3	Electronic Parking Brake Actuator Gear Repair Kit

<u>Saturn</u> On VDO units you need to open and count the teeth on the old gears to ensure that you order the correct tooth count. Part numbers from any part of the speedometer do not help in determining the tooth count.

1991-1994	E25	15 tooth Large Pod	
1991-1994	Shift Grommet, Manual shifting Satu	rn (located at base of shifter under center console)	

# Shelby Cobra/AC Cobra

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With Smiths SpeedometerSmiths 20 tooth gear
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### Smiths and Jaeger Odometer Gears

20, 25, 32 mold is currently being made with availability roughly 4 March 2015. Other three tooth counts to follow shortly

Vixen Motor HomeOn VDO units you need to open and count the teeth on the old gears to ensure that you order<br/>the correct tooth count. Part numbers from any part of the speedometer do not help in determining the tooth count.1986-198920x23 or 20x29

# <u>Volkswagen</u> On VDO units you need to open and count the teeth on the old gears to ensure that you order the correct tooth count. Part numbers from any part of the speedometer do not help in determining the tooth count.

Mechanical (cable driven)	Lead Gear (need t	o measure original gear, see top off page)	
Beetle and Super Beetle	1972-	<b>VW11</b> , VW12	
Bus (Type 2)	1968-1979	VW11	
Rabbit	1980-1982	M21	
Late Model vehicles with electronic gauges that sweep when the ignition key is first turned.		Requires one gear per gauge. Speedometer, Tachometer, Temperature and Fuel Gauges	

# VOLVO LISTED ON BACK PAGE // TURN OVER

<u>Volvo</u> On VDO units you need to open and count the teeth on the old gears to ensure that you order the correct tooth count. Part numbers from any part of the speedometer do not help in determining the tooth count.

200 Series	1986-1991	E25	15 tooth Large Pod	
200 Series	1992-1993	E25 or E26	15 tooth Large pod	
440/460 (Only with Analog VDO Odometer)	1987-1997	E20	? tooth medium pod	
700 Series (Only with VDO unit)	1982-1988	E26	15 Tooth Large pod	
850	1992-1997	E15	12 tooth Small Pod	
850	1992-1997	Horn Kit (consist of 4 each: bolt, washer, Plastic grommet, speed nut)		
C/S/V 70 Series	1996-2000	Horn Kit (consist of 8 plastic bushings)		
FM Heavy Duty Truck	With analog odometer	E1=12 tooth		3=48x12,13,14,15,16,17,18,19 21 Neck
VDO unit		UAF 2115 bipola	r Integrated circuit chip (Ha	as to be soldered) not common