VDO

CATALOGUE

1967

VDO INSTRUMENTS AUSTRALIA

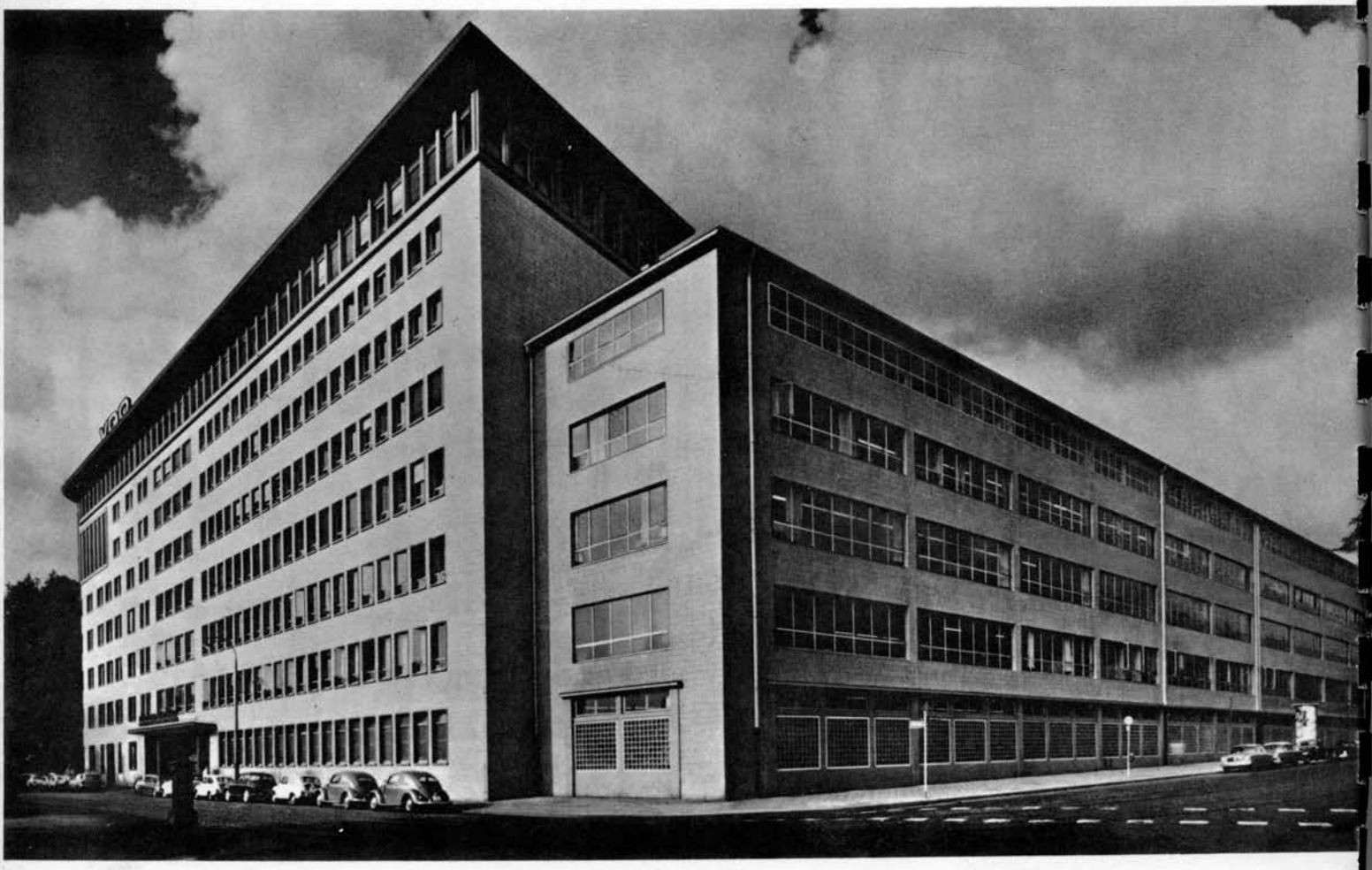
PROPRIETARY LIMITED

VDO AUSTRALIA

REG. OFFICE: 115 NORTHERN RD., HEIDELBERG WEST, 3081 CABLES: "TACHOMETER MELBOURNE"

Suggested List Prices are based on current cost structure. At all times our instruments feature the latest technological developments.

Price and design changes may become effective without notice.



Head Office and Plant 1

VDO TACHOMETER WERKE · FRANKFURT/MAIN · W13
ADOLF SCHINDLING GMBH · GRÄFSTRASSE 103

Plant II Babenhausen, Plant III Heddernheim, Plant IV Graefenwiesbach

Overseas Plants –	**VDO** INSTRUMENTS AUSTRALIA PTY. LTD.	Melbourne–Australia
	VDO do Brasil	Sao Paulo– Brazil
	International Instruments Private Ltd. (manufacturing **VDO** Instruments under Licence.)	Bangalore–India
Sales and Service Companies	– **VDO** Instruments	Detroit, Mich. U.S.A.
	INSTEK, Instrumenten Technik Ges. m.b.H.	Vienna – Austria

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VDO INSTRUMENTS AUSTRALIA PROPRIETARY LIMITED 115 Northern Road, Heidelberg West, Vic.

VDO INSTRUMENTS AUSTRALIA PTY. LTD. commenced Assembly and Manufacture of Automotive Instruments in 1958.

Since then nearly three million Instruments have been produced and supplied as original equipment to leading Australian Car Manufacturers.

Today **VDO** manufacture a wide range of instruments both for original equipment in Passenger– and Commercial Vehicles and as accessories for Cars, Trucks, Industrial Engines, Speed Boats, and other marine vessels.

Australia–wide distribution and a Service Network of more than 40 qualified **VDO** Service agents in Australia and New Zealand are our Customers' Guarantee for fast and efficient Service.

VDO

VDO Instruments Australia Pty. Ltd. have a complete Service Network covering Australia and New Zealand with more than 40 qualified Service Agents.

The address of your nearest Service Agent will be advised on request.

VDO Instruments are sold and serviced all over the Western world.

VDO Warranty

We guarantee our instruments against defects as far as such can be traced to faults of material, design or construction. Exempted from warranty are:

a) glass breakages
b) broken springs in clocks
c) drive shafts and gears
d) damage as a result of neglect and improper handling such as knocks or falls
e) if instruments are opened by a third party

Our instruments are guaranteed for 12 months from date of purchase,
except
mech. Tachourmeters 750 hours
el. Engine Hour Meters 1000 hours or 12 months from purchase
which ever occurs first.
Instruments will either be repaired free of charge or replaced at our discretion.

No further claims will be accepted whether for reduction in price, replacement or damages, also removal from and refitting to vehicles are exempted.

Instruments must be returned to us or to the nearest Authorized **VDO** Service Agent. Transport to and from our factory or the nearest Authorized **VDO** Service Agent will be at the owner's expense.

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ELECTRICAL INSTRUMENTS

UNIFORM MOUNTING INSTRUCTIONS

1. Disconnect battery earth strap.

2. Select a suitable mounting position in dashboard, ensure sufficient clearance is available behind panel for instrument and bracket. Cut 52 mm (2.1/16") diameter hole in dashboard (80 mm or 3.1/8" for tachometer). If there is no suitable hole in the firewall for passing the leads through, drill a 1/4" hole and fit a suitable grommet.

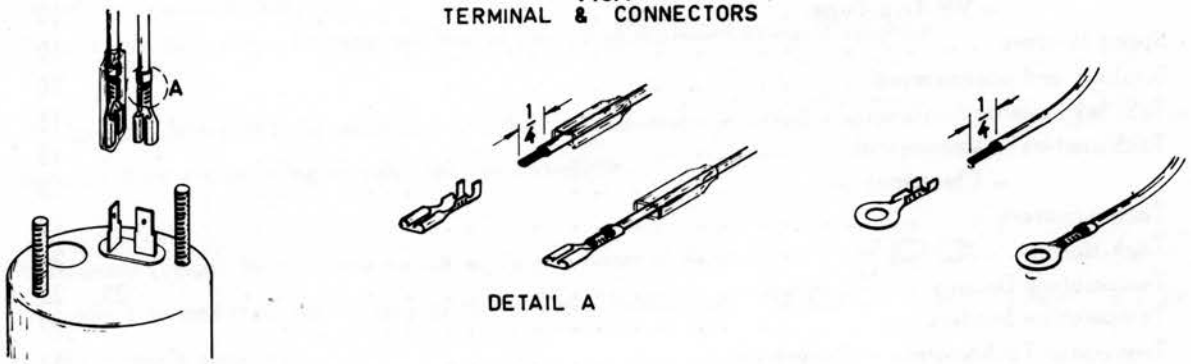
3. A mounting bracket is available for alternative fitment of the instrument below the dashboard.

4. Layout the cables from the instrument mounting position to their respective connection points and cut to length. Sizes of cables are given below.

Ammeter	6V 6 mm	PVC Automotive	29/.018"
Ammeter	12V 5 mm	PVC Automotive	19/.018"
Voltmeter	2. 5 mm		
Oil Pressure	2. 5 mm	PVC Automotive	16/.010"
Temperature	2. 5 mm		
Trans. Tachometer	2. 5 mm		

5. Bare the ends of the cables about 1/4" and after sliding the plastic insulator onto the battery connection cable to the instrument (the lead from unearthed battery terminal for voltmeters), crimp the appropriate connectors onto the bare ends and slide the insulator down. See Fig. 1 below.

FIG. 1
TERMINAL & CONNECTORS



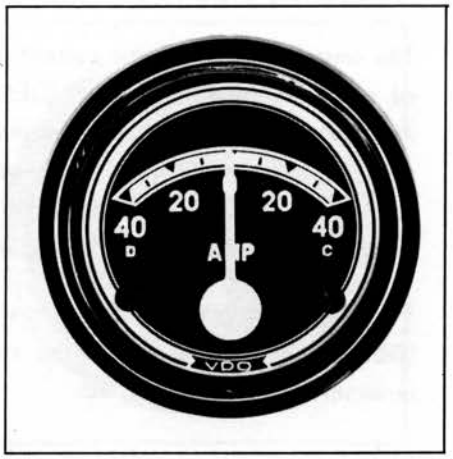
6. Connect the instrument according to the connection instructions relating to the particular instrument.

7. Connect the globe holder lead to the instrument panel illumination terminal on the headlamp switch. Proper earthing of the instrument is important

8. Reconnect battery earthing strap.

AMMETERS

Automotive Ammeters indicate direction of current flow (charge or discharge) and the relative amount of current flow. The centre point of the dial is the point of zero current flow and the two extremes of pointer travel indicate maximum charge and discharge. Therefore, the indicator must not be read for the amount of current charge or discharge but only for charge condition of the generating system.



Usual warning lights are insufficient indication of charge condition since the generator charge may be absorbed by current consuming accessories leaving the battery uncharged, a condition an ordinary warning light cannot reveal.



For use with Ammeters 1.19 and 2.19

TYPES:

Casing Dia. Pointer Pos.	Colour Dial/Pointer	Dial Range	Lighting	Catalogue Number	Suggested List Price
52 mm ecc.	Black/White	20–0–20	Interior	1.19	$ 4.00 (1)
52 mm ecc.	Black/White	40–0–40	Interior	2.19	$ 4.00 (1)
52 mm ecc.	Black/White	60–0–60	No lighting	3.19	$ 7.00
60 mm ecc.	Black/White	50–0–50	Interior	4.19	$ 5.60 (2)
52 mm ecc.	VW Special 1200/1300	40–0–40	Interior	5.19	$ 6.00 (2)
52 mm ecc.	VW Special 1500/1600	40–0–40	Interior	6.19	$ 6.00 (2)

(1) Socket and Globe Extra; (2) Socket only included
Use Part No. 7.24

VDO AMMETER FITTING INSTRUCTIONS

For mounting and wiring details, refer to the **UNIFORM MOUNTING INSTRUCTIONS.**

The ammeter measures the current transfer between the battery and generator. For negative earthed cars, the terminal marked (GEN) on the instrument, should be connected to terminal (A) on the distribution control box, and the instrument terminal marked (B) should be connected to the battery side of the starter motor solenoid switch. The original cable linking the solenoid and control box can be discarded or may be utilized by disconnecting it from the solenoid and joining another length of cable from it to the ammeter. Refer Fig. 2A.

For cars with positive earth (most British cars) the connection sequence must be reversed, i.e. (GEN) is now connected to the starter solenoid and terminal (B) is connected to the control box terminal (A). Refer Fig. 2B.

FIG. 2A

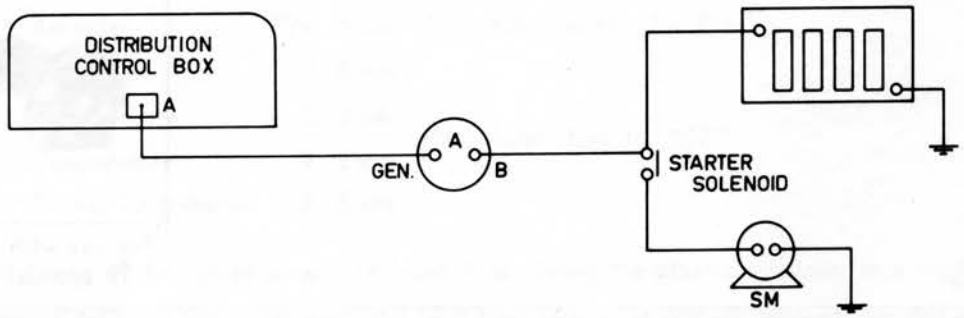
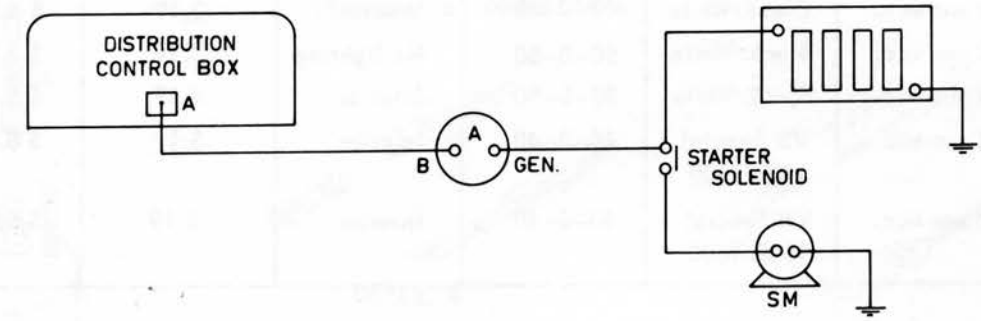
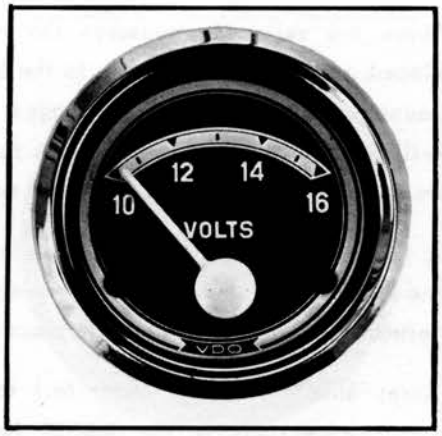


FIG. 2B



Note: Should instrument indicate "charge" when headlights are switched on and engine is stationary, then reverse the leads on the back of the ammeter.

VDO VOLTMETER



The introduction of alternators in modern motor cars and the popularity of vehicles with automatic gear boxes which are almost impossible to start without a fully working battery, make a voltmeter of VDO design an essential instrumentation. The advantage of the voltmeter is seen by the fact that the open circuit and the on load voltage of an automobile battery are indicative of the state of charge of the battery. In a fully charged battery the open circuit voltage is normally in the range of 12.6 – 12.8V whereas in a discharged state, the same battery would have an approximate open circuit voltage of 10.5 Volts. The on load voltage also provides a means of predicting an imminent failure. Under very heavy loads such as starter motor operating, the voltage will fall momentarily to anywhere between 10 and 12 Volts. Once a 'normal' value during starting has been established, any progressive drop from this value each time the starter is used is indicative of deterioration due to increasing internal resistance caused by effective plate area being decreased by sulphating. To indicate the open circuit and on load voltages, VDO voltmeters are connected permanently across the battery itself, and not through the ignition circuit as this would increase the possibility of voltage drops due to corrosion and contact resistance. The fact that the voltmeter is permanently connected does not affect the battery since the current draw is less than 10 milli-amps. Further, the instrument is automatically isolated from the circuit at voltages less than 9.8 volts by means of a Zener diode. Protection against short circuits in the associated wiring is provided by the inclusion of a line type fuse.

VDO VOLTMETER KIT

Casing Dia. Pointer Pos.	Colour Dial/Pointer	Dial Range	Lighting	Catalogue Number	Suggested List Price
52 mm ecc.	Black/White	10–16 Volts	Interior	81.33	$ 9.00

SUPPLIED WITH BRACKET, WIRES, TERMINALS, FUSE, GLOBE, SOCKET AND TERMINAL SCREWS.

FITTING INSTRUCTIONS AND READING GUIDE ENCLOSED.

VOLTMETER FITTING INSTRUCTIONS

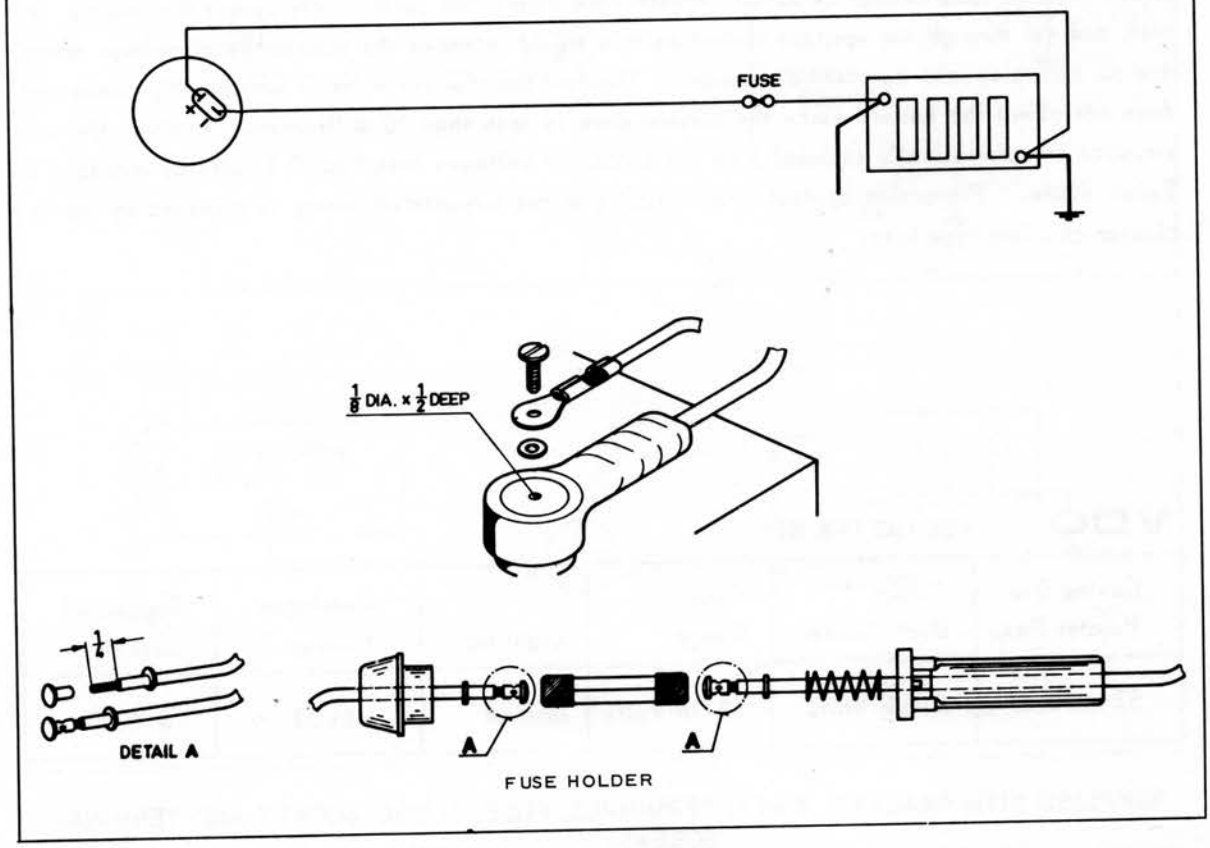
For mounting and wiring details, refer to the **UNIFORM MOUNTING INSTRUCTIONS.**

Since the voltmeter measures the voltage across the battery terminals, connections should be placed as near as practicable to the battery post, to avoid contact and corrosion resistance which cause voltage drops. We suggest that connection to the battery terminal posts can be made by drilling an 1/8" diameter hole on the top of each post and using self-tapping screws and lock-washers (between terminal post and connector) to secure the cable connectors.

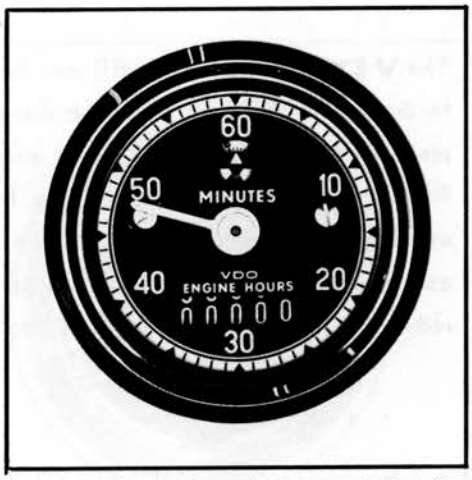
A line type automotive fuse holder is supplied. This should be placed with a 100 mAmp fuse in the lead joining the unearthed battery terminal and the terminal of corresponding polarity on the voltmeter. The fuse should be placed as close to the battery as possible.

Note: Should the instrument fail to register, or read in reverse, it is necessary to reverse the connections on the rear of the voltmeter, not on the battery (as this will render the protective fuse useless).

FIG. 3



VDO ELECTRIC ENGINE HOURMETERS



Where petrol – kerosine – diesel engines or electric motors are being used to drive valuable equipment, a **VDO** Hourmeter can easily be fitted to record operating times. In many instances it is the only way to accurately space servicing and overhaul periods, and to establish and keep cost records. It removes guesswork and rule of thumb maintenance from valuable equipment. For costing of hire units or contract work the **VDO** Hourmeter is indispensable since outside interference is immediately detected.

For extra accuracy a minute hand is featuring a 360° dial sweep and a coloured "seconds" indicator shows unit is in operation. Five digit odometer registers hours to a maximum of 99,999 engine hours. Standard feature with all **VDO** Hourmeters is sealing against dust entry and all units with the exception of the 220 V, AC meters are waterproof.

VDO Hourmeters are suitable for direct connection to generator or other power source and therefore easy to install.

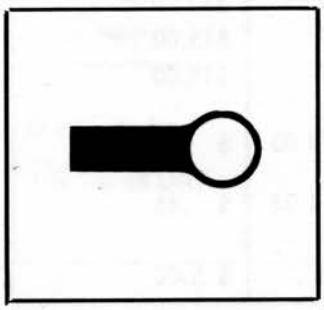
The control (stop and start) of the **VDO** Hourmeter is possible by –

1. simple connection to current source as per included Fitting Instructions, or
2. use of available **VDO** Oil Pressure or Temperature Switches.

VDO ELECTRIC ENGINE HOURMETERS

Casing Dia. Pointer Pos.	Colour Dial/Pointer	Application Nominal Volts	Proofing	Catalogue Number	Suggested List Price
60 mm conc.	Black/White	6 Volts DC	Dust/Water	21.33 *	$ 23.00
60 mm conc.	Black/White	12 Volts DC	Dust/Water	22.33 *	$ 23.00
60 mm conc.	Black/White	24 Volts DC	Dust/Water	23.33 *	$ 23.00
60 mm conc.	Black/White	36 Volts DC	Dust/Water	24.33	$ 32.00
60 mm conc.	Black/White	80 Volts DC	Dust/Water	25.33	$ 32.00
60 mm conc.	Black/White	220 Volts AC	Dust	26.33	$ 32.00

* Rubber mounting included.



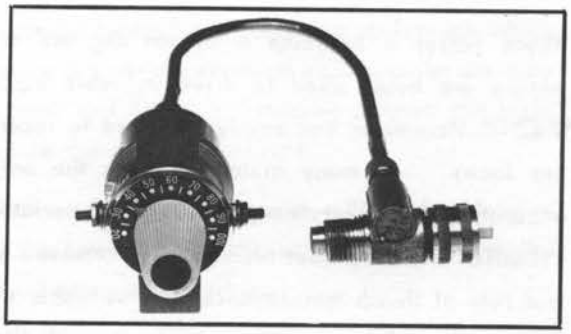
Universal Bracket
Catalogue No. 27.33
Sug. L/Price $1.20



Rubber Mounting
Catalogue No. 28.33
Sugg. L/Price $1.20

SPEED MINDER

The **VDO** SPEED MINDER can be fitted to most cars and will warn the driver if a pre-selected speed is reached or exceeded. Warning is by means of a warning light or available acoustic signal. The signal continuously operates until speed is either reduced or selector adjusted to higher speed.



For City driving the **VDO** SPEED MINDER is indispenable for drivers wishing to avoid heavy fines for exceeding speed limit. On overland journeys it may be used as a monitor for average travel speed calculated to be necessary to be maintained to arrive at a certain place at a pre-determined time.

VDO SPEED MINDER with Warning Light consisting of:

- Selector Unit with Graduation
- Double Angle Drive for connection to speedometer
- Drive Cable
- Fitting Instructions

Suit	Ratios	Speedometer Connection		Catalogue Number	Suggested List Price
Falcon Holden Valiant	800 - 1100	5/8"-18UNF		1.397	$15.00
VW/Porsche	800 - 1100	M 18x1.5		2.397	$15.00
English	800 - 1100	M 12x1		3.397	$15.00
Makes	1100-1300	M 12x1		4.397	$15.00
	1300-1600	M 12x1		5.397	$15.00
Globe 6V				NT 99 114 03	$ .45
Globe 12V				NT 99 114 04	$ .45
Switch and Buzzer				10.397	$ 5.00

VDO ELECTRIC TACHOMETER



VDO Electric Tachometers are widely used in industrial applications, but can almost universally be used in rear engined vehicles, marine vessels, etc.

Their great advantage is independency from voltage and polarity through use of special generator which can be fitted even in confined spaces.

TACHOMETER

Casing Dia. Pointer Pos.	Colour Dial/Pointer	Range Ratio	Lighting	Catalogue Number	Suggested List Price
80 mm conc.	Black/White	0–2,700 rpm 1 :1	Interior	1.33	$ 24.50
80 mm conc.	Black/White	0–3,000 rpm 1 :2	Interior	2.33	$ 24.50
80 mm conc.	Ivory/Brown	0–4,000 rpm 1 :2	Interior	3.33	$ 24.50
80 mm conc.	Black/White	0–5,000 rpm 1 :1	Interior	4.33	$ 24.50
100 mm conc.	Black/White	0–3,000 rpm 1 :2	Interior	5.33	$ 40.00
80 mm conc. Kit complete	VW Special	0–5,000 rpm	Interior	16.33	$ 45.00

Globe Holders only included

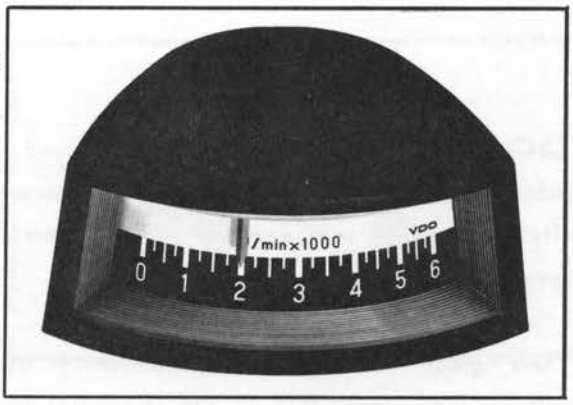
GENERATOR

Drive Connection	Catalogue Number	Suggested List Price
M 22 x 1, 5	1.34	$ 17.00
7/8'' – 18 UNF	2.34	$ 17.00



VDO PANORAMIC TACHOMETER

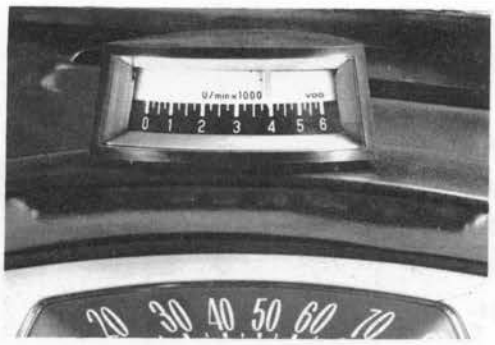
The expanded dial of the **VDO** Panoramic Tachometer allows the easy fitment of this instrument in confined areas without losing accuracy or "Quick–Glance–Reading" ability. The perfect instrument for motor minded enthusiasts who are striving for performance and economy.



This instrument combines economy with accuracy and the easiest installation possible.

Types: All instruments may be used on 6 or 12 V and positive or negative to earth electrical systems.

Number of Cylinders	Dial Range	Catalogue Number	Suggested List Price
4, 6, 8,	6000 RPM	61.33	$ 20.00
2, 4,	8000 RPM	62.33	$ 20.00
6,	8000 RPM	63.33	$ 20.00



This typical installation shows the modern shape of the **VDO** Panoramic Tachometer blending in with the dashboard.

'TOURING SPORT' TACHOMETER AND CLOCK



VDO T.S. Tachometers are transistorized and feature all the latest developments in their field. Connection is easily done by five wires only which include the interior illumination of the instrument.

The **VDO** Touring Sport Tachometer and Clock are designed for mounting on top of the dash board, thus eliminating the cumbersome task of cutting a hole into the panel, or as was the case when insufficient space provided, to have it clamped underneath the dashboard where poor readability was the result.

Placed on top of the dashboard, adjusted by means of the swivel in the base, they are exactly in the view line of the driver, without distracting his view from the road and yet giving the essential indication of the revolutions of the engine and the correct time.

T.S. Transistor Tachometer
Standard type with interior illumination; black and white dial and red pointer.

TYPES:– Polarity Independent

Voltage	Number of Cylinders	Dial Range	Catalogue Number	Suggested List Price
6V	4	6000 R.P.M.	66.33	$ 36.00
12V	4	6000 R.P.M.	67.33	$ 36.00
12V	4	8000 R.P.M.	68.33	$ 36.00
12V	6	6000 R.P.M.	69.33	$ 36.00
12V	6	8000 R.P.M.	70.33	$ 36.00
12V	8	6000 R.P.M.	71.33	$ 36.00

Adding a **VDO** T.S. Clock which is electrically wound, internally lit and available for either 6V or 12V operating voltage will result in a matching set of instruments indispensable to the motorist driving a touring or sports car.

T.S. CLOCKS
Standard type with interior illumination:

Voltage	Catalogue Number	Suggested List Price
6V	2.37	$ 16.50
12V	3.37	$ 16.50



VDO **WIRING INSTRUCTIONS**

TRANSISTORIZED TACHOMETER (80 mm) Battery Ignition Only

Connection details for conventional single distributor and ignition coil systems are as follows:

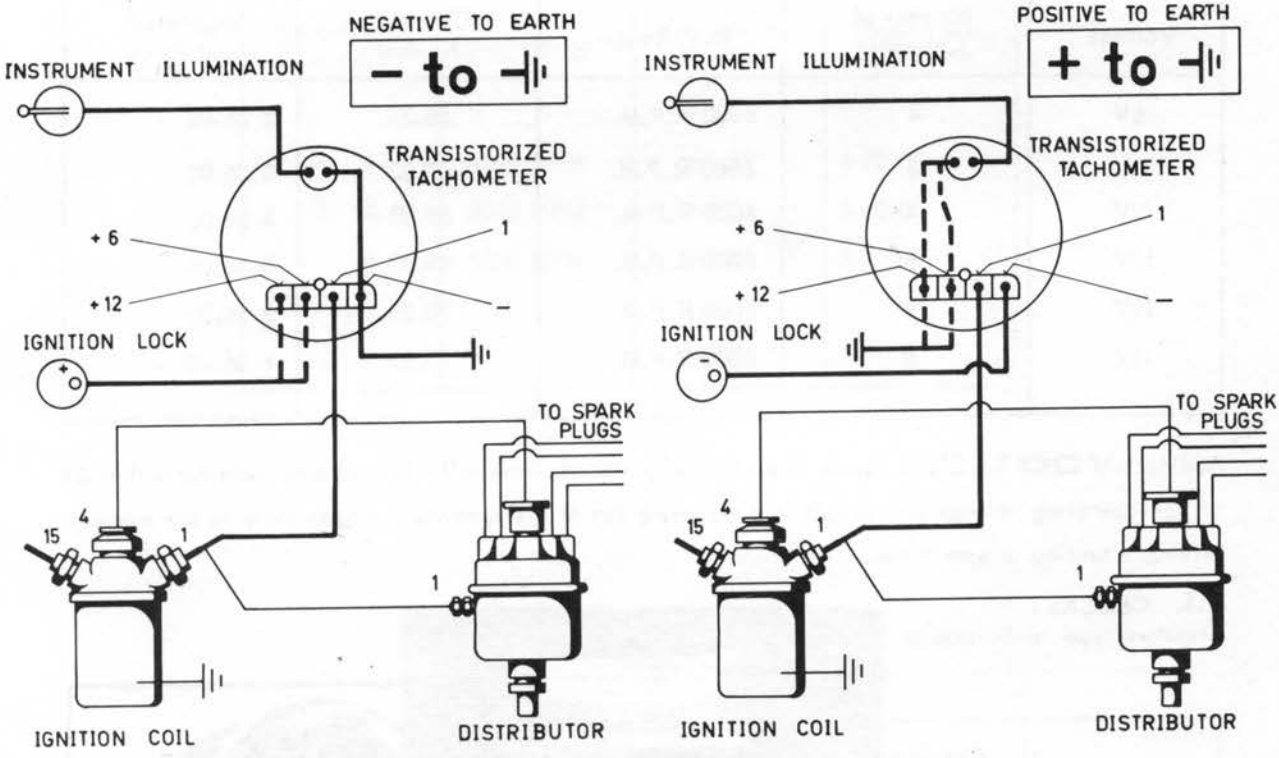
1. The +12V (or + 6V) terminal of the instrument is connected to the ignition switch (distribution side) or to earth, depending on whether the car is negative or positive earthed, respectively.

2. The terminal marked "I" on the instrument is connected to the low tension terminal on the ignition coil, which is connected to the distributor.

3. The (–) terminal on the instrument is connected either to the car body (earth) or to the ignition switch (distribution side) depending on whether the car is negative or positive earthed, respectively.

4. One terminal of lampholder is connected to the panel illumination terminal on the headlamp switch and the other to earth, see circuit diagrams.

FIG. 5



FORMULA FOR NUMBER OF IMPULSES:

$$\text{IMPULSES} = \frac{\text{Constant (2)} \times \text{Dialrange} \times \text{No. of Cylinders per Coil}}{\text{Stroke}}$$

$$\text{EXAMPLE}^{1)} = \frac{2 \times 8000 \times 6}{4} = 24000 \text{ Impulses}$$

1) Holden 6 Cyl.

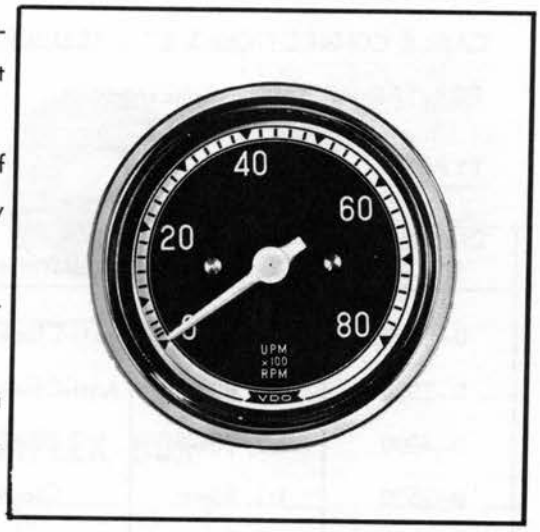
STANDARD TRANSISTOR TACHOMETERS

This **VDO** Tachometer is the classic instrument–strictly down to earth engineering without any compromise in quality and precision.

The instrument which has won the admiration of motoring experts in all fields for its dependability and accuracy.

All instruments are factory calibrated for the required application.

The **VDO** Standard Tachometer is part of a complete range of matching instruments and is therefore ideally suited for comprehensive instrumentation.



CASE DIA. 80 mm

Interior Illumination; Globe Holder,

Mounting Bracket and Fitting instructions included

TYPES:

Voltage	Number of Cylinders	Dial Range Impulses	Catalogue Number	Suggested List Price
6 V	4	8000 RPM 16000 IMP.	41.33	$ 32.00
12 V	2	8000 RPM 8000 IMP.	42.33	$ 32.00
12 V	4	8000 RPM 16000 IMP.	43.33	$ 32.00
12 V	6	6000 RPM 18000 IMP.	44.33	$ 32.00
12 V	6	8000 RPM 24000 IMP	45.33	$ 32.00
12 V	8	6000 RPM 24000 IMP	46.33	$ 32.00

Other types available: To suit Volvo Penta, Twin Coil, Transistor Ignition, Magneto Ignition. Give details when ordering – Voltage, No. of Cylinders, Polarity.

VDO TRANSISTOR TACHOMETER

For all Petrol Engines, Battery or Magneto Ignition, Automotive, Marine and Stationary.
With Zener Diode fitted for accurate reading regardless of battery condition.
With highest input impedance using never more than 30 mA current.

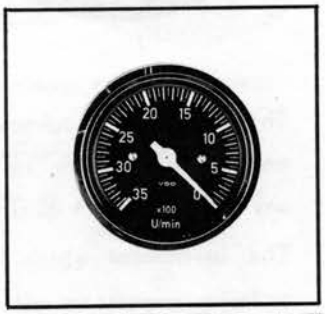
VDO MECHANICAL TACHOMETERS

CASE DIAMETER: 80 mm and 85 mm; Interior Illumination

DIAL/POINTER COLOUR: Black/White

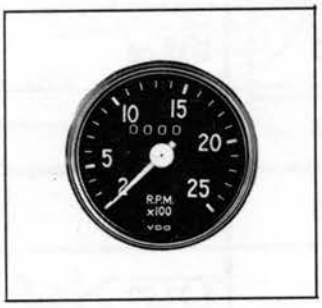
CABLE CONNECTION: 5/8" – 18 U.N.F. and M18 x 1.5 mm

POINTER POSITION: Concentric



TYPES:

Dial Range R.P.M.	Ratio / Case Dia.	Rotation	Cable Connection	Catalogue Number	Suggested List Price
0–3500	1:1; 80mm	Anti-Clockwise	M 18 x 1.5mm	1.12	$ 15.00
0–3500	1:2; 80mm	Anti-Clockwise	M 18 x 1.5mm	2.12	$ 15.00
0–4000	1:2; 80mm	Clockwise	M 18 x 1.5mm	3.12	$ 15.00
0–2500	1:1; 85mm	Clockwise	5/8"–18 UNF	4.12	$ 13.75
0–2500	1:2; 85 mm	Clockwise	5/8"–18 UNF	5.12	$ 13.75
0–2500	1:1; 85mm	Anit-Clockwise	5/8"–18 UNF	6.12	$ 13.75
0–2500	1:2; 85mm	Anti-Clockwise	5/8"–18 UNF	7.12	$ 13.75
0–3500	1:2; 85mm	Clockwise	5/8"–18 UNF	8.12	$ 13.75
0–3500	1:1; 85mm	Anti-Clockwise	5/8"–18 UNF	9.12	$ 13.75
0–3500	1:2; 85mm	Anti-Clockwise	5/8–18 UNF	10.12	$ 13.75



MECHANICAL TACHOURMETERS

Register Average Engine Hours on 4 digit Counter, Indicate Engine Revolutions

CASE DIAMETER: 85 mm; Interior illumination

DIAL/ POINTER COLOUR: Black – White

CABLE CONNECTION: 5/8" – 18 UNF

POINTER POSITION: Concentric

TYPES:

Dial Range R.P.M.	Ratio:	Rotation	Average Engine Revs.	Catalogue Number	Suggested List Price
0–2500	1:2	clockwise	1600	20.12	$ 19.00
0–2500	1:1	clockwise	1600	21.12	$ 19.00
0–2500	1:2	clockwise	2000	22.12	$ 19.00
0–2500	1:2	Anti-clockwise	1600	23.12	$ 19.00
0–2500	1:1	Anti-clockwise	1600	24.12	$ 19.00
0–2500	1:1	Anti-clockwise	1200	25.12	$ 19.00
0–3500	1:2	clockwise	2000	26.12	$ 19.00

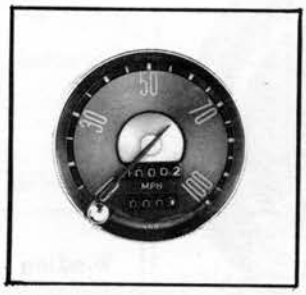
SPEEDOMETERS WITH TRIPMETER

VOLKSWAGON



VW – SPECIAL
SUIT: 1200 / 1300
Catalogue No. 50.12

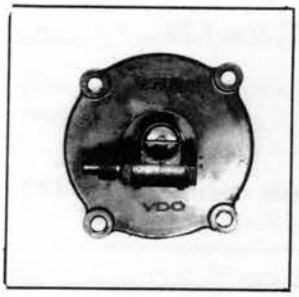
Suggested
List Price: $24.50



VW – SPECIAL
SUIT: 1500 / 1600
Catalogue No. 51.12

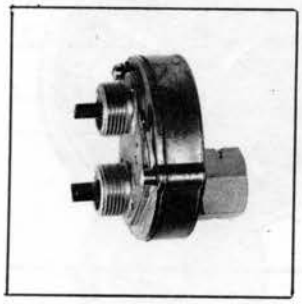
Suggested
List Price: $26.00

ANGLE DRIVES AND TRIPLEX BOX



Gearside Con. Instr. Side Con.	Ratio / Rotation	Special	Catalogue Number	Suggested List Price
Male M18 x 1.5 Nut M18 x 1.5	1:1 Non-Rvsng.	Internal □ 101 Both Ends 1)	1.21	$ 10.00
Plate Assy M 18 x 1.5 MM	1:1 Non-Rvsng.	Suit Perkins 4/270	2.21	$ 11.00
Plate Assy 5/8"-18 UNF	1:1 Non-Rvsng.	Internal □ 101	3.21	$ 14.00
Plate Assy 5/8"-18 UNF	2:1 Reversing	Internal □ 101	4.21	$ 14.00
5/8"-18 UNF 5/8"-18 UNF	1:1 Non-Rvsng.	Internal □ 101 Suit Perkins 4/236	5.21	$ 10.50
5/8"-18 UNF 5/8"-18 UNF	2:1 Reversing	Internal □ 101 Suit Perkins 6/354	6.21	$ 10.50

1) Flexible Tip Supplied



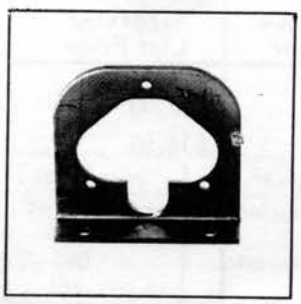
TRIPLEX:

Gearside Connection: M 22 x 1.5 mm; Left Hand Thread; Slot

Instrument Side Connection: 2 off
M 22 x 1.5 mm; Righthand Thread, Tongues

Supplied with NUT M22 x 1.5 Right-and Left Hand Thread

Ratio: 1:1



AVAILABLE RATIOS 3:1 to 1:3

Ratio	Catalogue Number	Suggested List Price
Specify!	20.21	$ 10.00
Bracket	2151263	$ .70

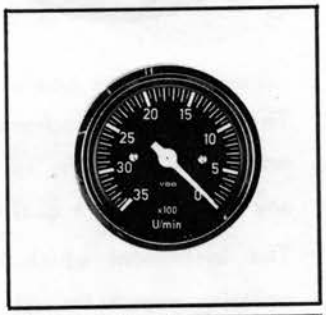
VDO MECHANICAL TACHOMETERS

CASE DIAMETER: 80 mm and 85 mm; Interior Illumination

DIAL/POINTER COLOUR: Black/White

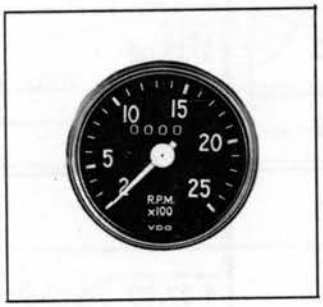
CABLE CONNECTION: 5/8" – 18 U.N.F. and M18 x 1.5 mm

POINTER POSITION: Concentric



TYPES:

Dial Range R.P.M.	Ratio / Case Dia.	Rotation	Cable Connection	Catalogue Number	Suggested List Price
0–3500	1:1; 80mm	Anti-Clockwise	M 18 x 1.5mm	1.12	$ 15.00
0–3500	1:2; 80mm	Anti-Clockwise	M 18 x 1.5mm	2.12	$ 15.00
0–4000	1:2; 80mm	Clockwise	M 18 x 1.5mm	3.12	$ 15.00
0–2500	1:1; 85mm	Clockwise	5/8"–18 UNF	4.12	$ 13.75
0–2500	1:2; 85 mm	Clockwise	5/8"–18 UNF	5.12	$ 13.75
0–2500	1:1; 85mm	Anit-Clockwise	5/8"–18 UNF	6.12	$ 13.75
0–2500	1:2; 85mm	Anti-Clockwise	5/8"–18 UNF	7.12	$ 13.75
0–3500	1:2; 85mm	Clockwise	5/8"–18 UNF	8.12	$ 13.75
0–3500	1:1; 85mm	Anti-Clockwise	5/8"–18 UNF	9.12	$ 13.75
0–3500	1:2; 85mm	Anti-Clockwise	5/8–18 UNF	10.12	$ 13.75



MECHANICAL TACHOURMETERS

Register Average Engine Hours on 4 digit Counter, Indicate Engine Revolutions

CASE DIAMETER: 85 mm; Interior illumination

DIAL/ POINTER COLOUR: Black – White

CABLE CONNECTION: 5/8" – 18 UNF

POINTER POSITION: Concentric

TYPES:

Dial Range R.P.M.	Ratio:	Rotation	Average Engine Revs.	Catalogue Number	Suggested List Price
0–2500	1:2	clockwise	1600	20.12	$ 19.00
0–2500	1:1	clockwise	1600	21.12	$ 19.00
0–2500	1:2	clockwise	2000	22.12	$ 19.00
0–2500	1:2	Anti-clockwise	1600	23.12	$ 19.00
0–2500	1:1	Anti-clockwise	1600	24.12	$ 19.00
0–2500	1:1	Anti-clockwise	1200	25.12	$ 19.00
0–3500	1:2	clockwise	2000	26.12	$ 19.00

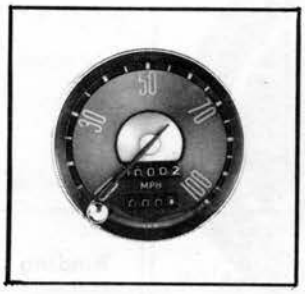
SPEEDOMETERS WITH TRIPMETER

VOLKSWAGON



VW – SPECIAL
SUIT: 1200 / 1300
Catalogue No. 50.12

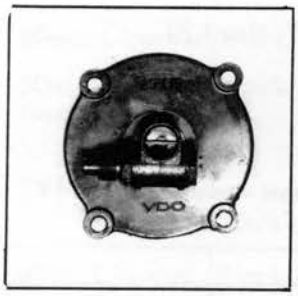
Suggested
List Price: $24.50



VW – SPECIAL
SUIT: 1500 / 1600
Catalogue No. 51.12

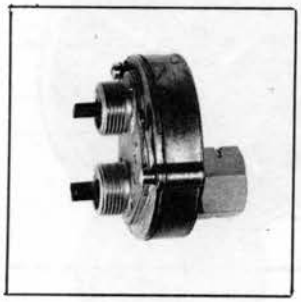
Suggested
List Price: $26.00

ANGLE DRIVES AND TRIPLEX BOX



Gearside Con. Instr. Side Con.	Ratio / Rotation	Special	Catalogue Number	Suggested List Price
Male M18 x 1.5 Nut M18 x 1.5	1:1 Non-Rvsng.	Internal □ 101 Both Ends 1)	1.21	$ 10.00
Plate Assy M 18 x 1.5 MM	1:1 Non-Rvsng.	Suit Perkins 4/270	2.21	$ 11.00
Plate Assy 5/8"-18 UNF	1:1 Non-Rvsng.	Internal □ 101	3.21	$ 14.00
Plate Assy 5/8"-18 UNF	2:1 Reversing	Internal □ 101	4.21	$ 14.00
5/8"-18 UNF 5/8"-18 UNF	1:1 Non-Rvsng.	Internal □ 101 Suit Perkins 4/236	5.21	$ 10.50
5/8"-18 UNF 5/8"-18 UNF	2:1 Reversing	Internal □ 101 Suit Perkins 6/354	6.21	$ 10.50

1) Flexible Tip Supplied



TRIPLEX:

Gearside Connection: M 22 x 1.5 mm; Left Hand Thread; Slot

Instrument Side Connection: 2 off
M 22 x 1.5 mm; Righthand Thread, Tongues

Supplied with NUT M22 x 1.5 Right-and Left Hand Thread

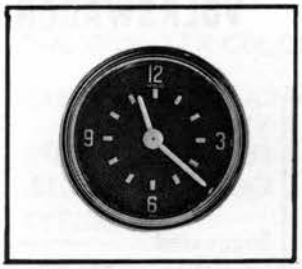
Ratio: 1:1



AVAILABLE RATIOS 3:1 to 1:3

Ratio	Catalogue Number	Suggested List Price
Specify!	20.21	$ 10.00
Bracket	2151263	$ .70

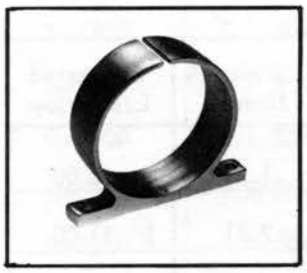
CAR CLOCKS



RELIABLE 8 DAYS MOVEMENT



Case Diameter	Dial / Pointer Colour	Winding	Lighting	Catalogue Number	Suggested List Price
52 mm	Black - Blue/ Illuminous	Rear	No Lighting	1.29	$11.00
60 mm	Black - Grey / White	Front	Interior	2.29	$17.00

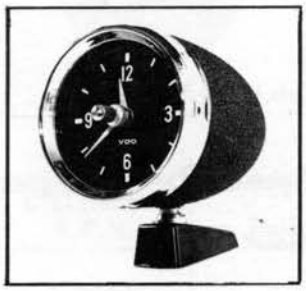


Catalogue No. 11.29

Suggested List Price $2.40

CHROME BRACKET SUIT 52 mm CLOCK CAT. No. 1.29

ELECTRICAL CAR CLOCKS



Suitable for both positive and negative to earth electrical systems
T.S. type for top of dash mounting

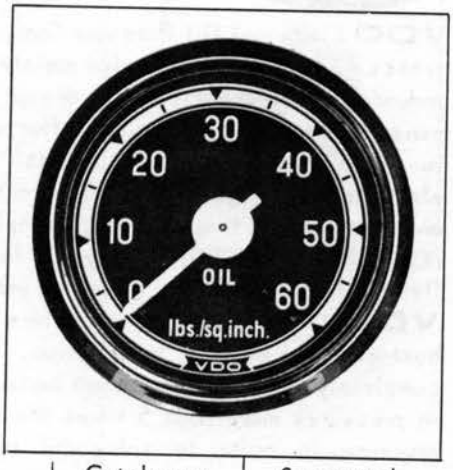


Case Diameter	Dial / Pointer Colour	Voltage	Reset	Catalogue Number	Suggested List Price
60 mm	Black / White	12V	Front	1.37	$17.00
T.S.	Black / White Red	6V	Front	2.37	$16.50
T.S.	Black / White Red	12V	Front	3.37	$16.50

VDO MECHANICAL PRESSURE GAUGES

VDO Pressure Gauges are essential for constant check of OIL, AIR or WATER Pressure. New Type Nylon Tube connection makes fitment to any Car, industrial or stationary Engine an easy task.

Globe Socket, Cone, Olive and Nut to suit 3/16" Nylon Tubing are supplied with Gauge.



TYPES: (Bourdon Movement)

Case Dia. Pointer position	Dial/Pointer Colour	Dial Range/ Imprint	Lighting	Catalogue Number	Suggested List Price
52mm; C'centric	Black/White	0-60 lbs/sq.in "OIL"	Interior	1.15	$ 5.20
52mm; C'centric	Black/White	0-100 lbs /sq.in "OIL"	Interior	2.15	$ 5.20
52mm; C'centric	Black/White	0-200 lbs./sq.in	Interior	3.15	$ 5.20
60mm; C'centric	Black/White	0-300 lbs./sq.in	Interior	5.15	$ 6.60
60mm; C'centric (suitable water)	Black/White	0-15 lbs./sq.in	Interior	6.15	$ 9.00

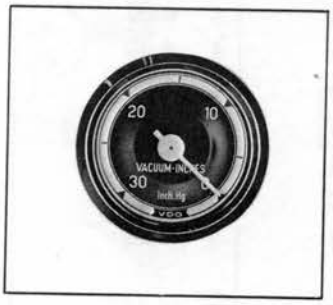
TYPES: (Diaphragm Movement) Extremly Robust; Correct Pressure Reading From 0-60 lbs sq. in. over 60 lbs/sq. in. Pressure indication only to 220 lbs/sq. inch.

60mm; C'centric	Black/White	0-220 lbs/ sq. in.	Interior	1.16	$ 10.00

WATER PRESSURE KIT:
Containing: Gauge No. 6.15, 20' Nylon Tubing 3/16", Engine Adaptor Suit 1/8–27 N.P.T.F. Engine Extension 1/8" – 27 N.P.T.F. and Fitting Instructions.

CATALOGUE NUMBER:	SUGGESTED LIST PRICE
7.15	$ 11.00

VDO Vacuum Gauge



Case Diameter : 60 mm
Pointer Position : Concentric
Dial/Pointer Colour : Black/White
Dial Range : 30 inches Hg
Lighting : Interior; Socket incl.
Rear Connection : Suit 3/16" nylon Fitting

Catalogue Number: 41.15
Suggested List Price: $ 7.00

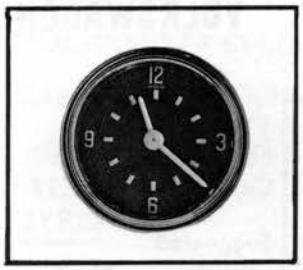
VDO Double Pressure Gauges

Case Diameter: 60 mm Complete with cones, olives and nuts suit 3/16" nylon tubing.
Dial : Black One pointer: White, One pointer: Red.
Globe Socket Included



Dial Range	Lighting	Special Feature	Cat. No.	Sugg. List Price
0–150 lbs./sq.in.	Interior	–	51.15	$ 18.00
0–150 lbs./sq.in.	Interior	Warning Contact at 40 lbs /sq. in.	52.15	$ 19.00

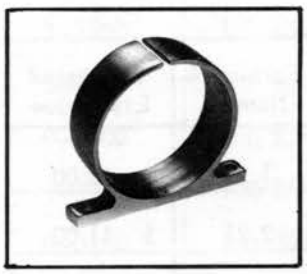
CAR CLOCKS



RELIABLE 8 DAYS MOVEMENT



Case Diameter	Dial / Pointer Colour	Winding	Lighting	Catalogue Number	Suggested List Price
52 mm	Black - Blue/ Illuminous	Rear	No Lighting	1.29	$11.00
60 mm	Black - Grey / White	Front	Interior	2.29	$17.00

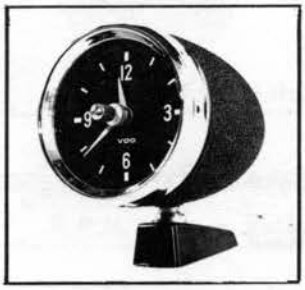


Catalogue No. 11.29

Suggested List Price $2.40

CHROME BRACKET SUIT 52 mm CLOCK CAT. No. 1.29

ELECTRICAL CAR CLOCKS



Suitable for both positive and negative to earth electrical systems
T.S. type for top of dash mounting



Case Diameter	Dial / Pointer Colour	Voltage	Reset	Catalogue Number	Suggested List Price
60 mm	Black / White	12V	Front	1.37	$17.00
T.S.	Black / White Red	6V	Front	2.37	$16.50
T.S.	Black / White Red	12V	Front	3.37	$16.50

ELECTRICAL PRESSURE GAUGES

VDO Electrical Oil Pressure Gauges are using cross coil movements, a design mainly found in high-class industrial instruments. The design of cross-coil compensates against small voltage fluctuations experienced in automotive electrical circuits. Furthermore, the electro-magnetic gauge has an advantage over the mechanical system in that it is much simpler to instal and not restricted by the critical lay-out features required for flexible hoses or copper tubing on pressure gauges. The **VDO** Oil Pressure Gauge offers high accuracy, robustness and ease of installation. The sender unit is completely sealed and for short periods may be subjected to pressures more than 5 times the maximum engine oil pressure in order to safeguard against oil leakage.



Kits available:
Containing: Gauge 52mm Dia; Black–White; 0–80 lbs; "OIL"; Interior Lighting; Complete with sender unit No. 1.36 and fitting instructions, Globe, Socket and Electrical Terminals included.

Voltage Polarity	Catalogue Number	Suggested List Price
6V negative	1.35	$ 11.50
6V positive	2.35	$ 11.50
12V negative	3.35	$ 11.50
12V positive	4.35	$ 11.50

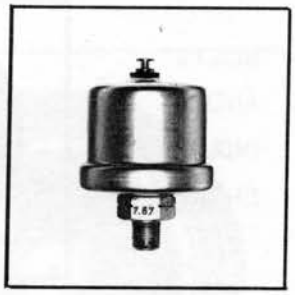
VW – SPECIAL KITS; COMPLETE WITH SENDER 3.36 and FITTING INSTRUCTIONS

SUIT 1200/1300		
6V Negative	11.35	$ 20.00
12V Negative	13.35	$ 20.00
SUIT 1500/1600		
6V Negative	15.35	$ 20.00

Gauges Only Case dia/Pointer Pos.	Dial Range–Imprint	Voltage/Polarity	Catalogue Number	Suggested List Price
52 mm ecc.	0–80 lbs "OIL"	6V negative	5.35	$ 6.00
52 mm ecc.	0–80 lbs "OIL"	6V positive	6.35	$ 6.00
52 mm ecc.	0–80 lbs "OIL"	12V negative	7.35	$ 6.00
52 mm ecc.	0–80 lbs "OIL"	12V positive	8.35	$ 6.00
52 mm ecc.	0–150 lbs	12V negative	9.35	$ 10.25
52 mm ecc.	0–150 lbs	12V positive	10.35	$ 10.25
52 mm ecc.	0–70 lbs "OIL"	6V negative	12.35	$ 10.25
VW Special	1200/1300			
52 mm ecc.	0–70 lbs "OIL"	12V negative	14.35	$ 10.25
VW Special	1200/1300			
52 mm ecc.	0–80 lbs "OIL"	6V negative	16.35	$ 10.25
VW Special	1500/1600			

ELECTRICAL PRESSURE GAUGE SENDERS

Engine Connection Range	Catalogue Number	Suggested List Price
1/8" – 27 N.P.T.F. 0–80 lbs./sq.in.	1.36	$ 7.00
1/8" – 27 N.P.T.F. 0–150 lbs./sq.in.	2.36	$ 14.50
M 10 x 1 K 0–80 lbs.	3.36	$ 11.50
1/4" – 18 N.P.T.F. 0–80 lbs/sq.in.	4.36	$ 7.75

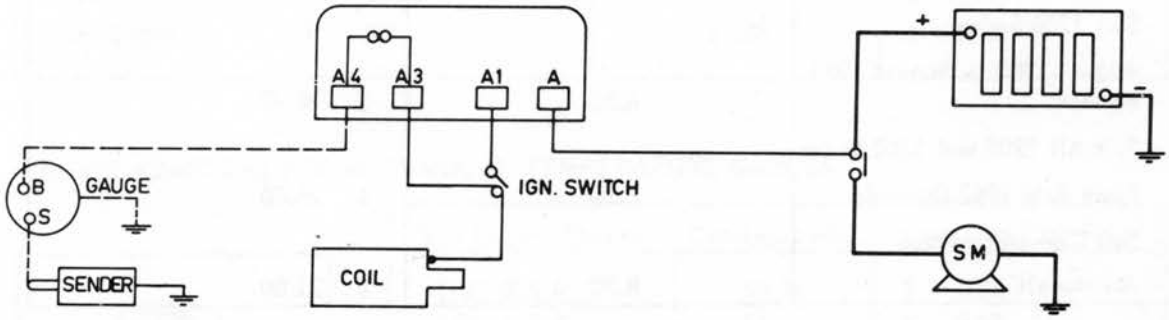


OIL PRESSURE GAUGE (Electrical) FITTING INSTRUCTIONS

For mounting and wiring details, refer to UNIFORM MOUNTING INSTRUCTIONS.

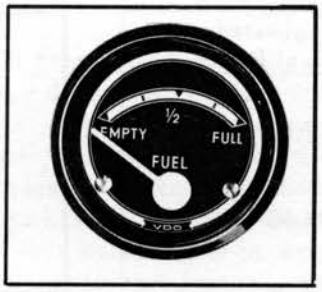
Remove existing pressure switch or plug from cylinder block and screw pressure sender unit into block, if necessary using a VDO adaptor. Connection is made from the sender unit terminal to the terminal on the instrument marked (S). The 'B' terminal on the instrument may be connected to either the AUX. IGN. (A4) terminal on the distribution control box or to the distribution box side of the ignition switch. The former is preferred since the instrument is then on a fused circuit. It is essential that the instrument is mounted so that the case is earthed to the car body.

FIG. 4



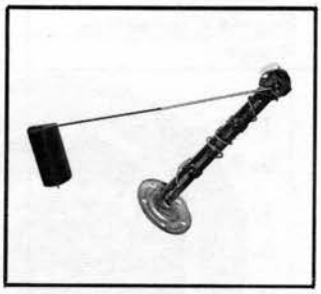
VDO ELECTRICAL FUEL GAUGES

BOATS
AND
INDUSTRIAL
ENGINES



UNIVERSAL
FUEL GAUGE KIT

Instrument Dia.: 52mm
Standard Dial
Polarity independent
Tank Sending Unit:
Adjustable from 6"–24".



Complete With: Tank Flange, Screws, Washers, Gasket & Fitting Instructions, Globe, Socket and Electrical Terminals.

Kits Available	Catalogue Number	Suggested List Price
6V	1.30	$ 15.00
12V	2.30	$ 15.00
24V	3.30	$ 15.00
Mercury 7" Tank; 12V;	4.30	$ 14.00
Tank Unit – only (With Gasket)	1.22	$ 10.00

SPECIAL KITS TO SUIT VW

Gauges with Matching Dial Characteristic VW

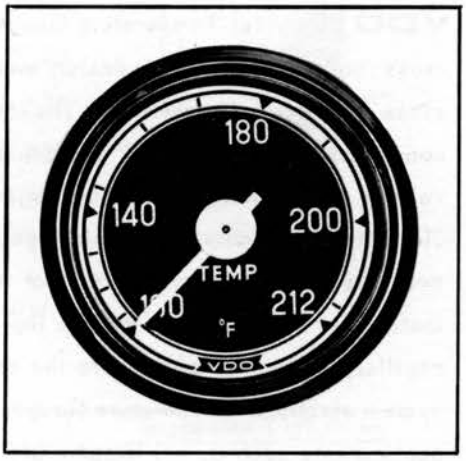
Complete with Tank Sending Unit and Fitting Instructions

VW Type; All 6V	Catalogue Number	Suggested List Price
Suit 1200 Sedan; 1955 to July 1960 Models	5.30	$ 16.00
Suit 1200 Sedan; August 1960 to August 1961 Models	6.30	$ 18.00
Suit All 1200 and 1300 Sedans From July 1962 Onwards	7.30	$ 25.00
Suit Commercial Van All Models	8.30	$ 21.00

Tank Units – Only		
Ex Kit 5.30	2.22	$ 7.50
Ex Kit 6.30	3.22	$ 8.00
Ex Kit 7.30	4.22	$ 13.00
Ex Kit 8.30	5.22	$ 13.50

VDO MECHANICAL TEMPERATURE GAUGES

VDO Temperature Gauges are essential to control correct operating temperature of engine. Overheating or undercooling may result in serious engine damage. Detect loss of coolant, defective thermostats or other faulty components of the cooling system immediately by fitting a **VDO** Temperature Gauge.

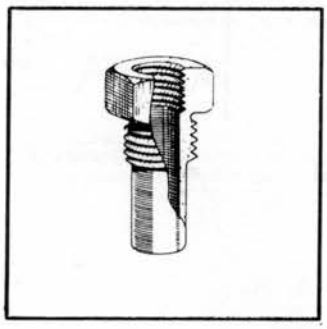


CASE DIA.: 52 mm; Dial: Black – White; Pointer: White, concentric, suitable for interior lighting; Engine Adaptor separately available. (Globe Socket included)

TYPES:

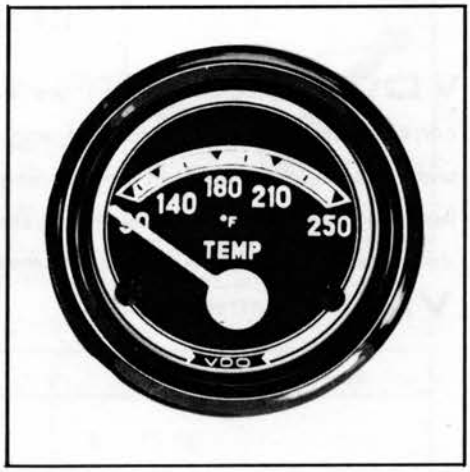
Dial Range	Length - Capillary Tubing	Catalogue Number	Suggested List Price
100 - 212°F	5' 3''	1.18	$ 7.70
100 - 212°F	7'	2.18	$ 8.70
100 - 212°F	10'	3.18	$ 10.20
100 - 212°F	12'	4.18	$ 11.20
100 - 212°F	15'	5.18	$ 12.70
100 - 250°F	5' 3''	6.18	$ 7.70
100 - 250°F	7'	7.18	$ 8.70
100 - 250°F	10'	8.18	$ 10.20
100 - 250°F	12'	9.18	$ 11.20
100 - 250°F	15'	10.18	$ 12.70
100 - 250°F	20'	11.18	$ 15.20

ENGINE ADAPTORS FOR MECHANICAL TEMPERATURE GAUGES



Suit Engine Thread	Catalogue No.	Suggested List Price
1/4'' B.S.P.	50.18	$ 0.65
3/8'' B.S.P.	51.18	$ 0.65
3/8'' – 18 N.P.T.	52.18	$ 0.65
5/8'' – 18 – NF –3	53.18	$ 0.65
1/2'' B.S.P.	54.18	$ 0.65
M14 x 1.5	55.18	$ 0.65
M16 x 1.5	56.18	$ 0.65
M18 x 1.5	57.18	$ 0.65
Hose Fitting	58.18	$ 0.65

VDO ELECTRICAL TEMPERATURE GAUGES



VDO Electrical Temperature Gauges are using **VDO** cross coil movements, a design mainly found in high–class industrial instruments. The design of cross–coil construction automatically compensates against small voltage fluctuations experienced in automotive electrical circuits. Furthermore the electrical gauge has an advantage over the mechanical system in that it is much simpler to install and not restricted by the lay–out requirements of capillary tubing. In addition to the control of the cooling system electrical Temperature Gauges are used for special applications such as oil temperature control in engine or differential or gearbox.

KITS AVAILABLE

containing: 52 mm Gauge, dial and pointer black/white, eccentric pointer
212°F and 250°F interior lighting
Engine Sender
Fitting Instructions; Globe, Socket and Electrical Terminals.

Dial Range	Voltage Polarity	Sender Thread	Catalogue Number	Suggested List Price
30-- 212°F	12V; neg.	5/8" - 18 N.F.3	1.31	$ 15.00
30 - 212°F	12V; pos.	5/8" - 18 N.F.3	2.31	$ 17.50
90 - 250°F	12V; neg.	1/8" - 27 NPTF	3.31	$ 8.00
90 - 250°F	12V; pos.	1/8" - 27 NPTF	4.31	$ 8.00
-40 - 400°F	12V; neg.	5/8" - 18 N.F.3	5.31	$ 24.00
-40 - 400°F	12V; pos.	5/8" - 18 N.F.3	6.31	$ 24.00
VW Special Suit 1200/1300 Sedan and 1200/1500 cc Commercial Van from August 1960				
90 - 250°F	6V; neg.	Dipstick	7.31	$ 17.50

ELECTRICAL TEMPERATURE SENDERS

Types:

Thread	Ex Kit	Catalogue No.	Suggested List Price
5/8"–18 N.F.3	1.31; 2.31	1.32	$ 7.00
1/8"–27 NPTF	3.31; 4.31	2.32	$ 2.75
5/8"–18 N.F.3	5.31; 6.31	3.32	$ 10.50
VW Dipstick	7.31	4.32	$ 10.50



NOTE: To be used only with gauges as referred to in kit listing.

ENGINE ADAPTORS for use with Temp. Sender 2.32

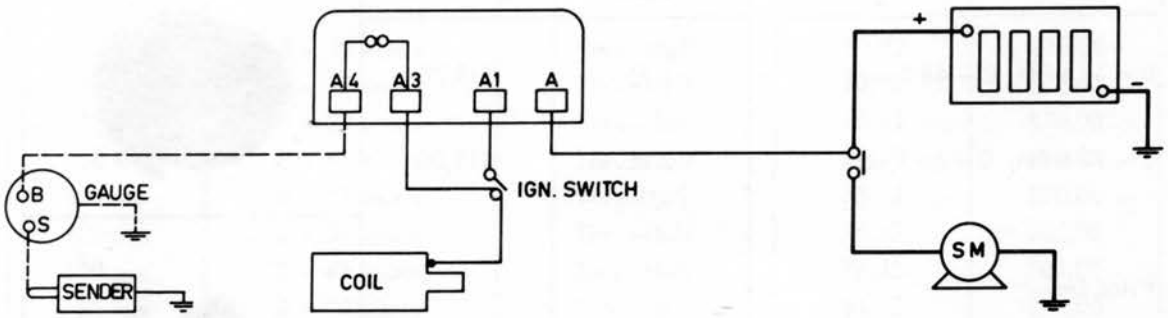
Engine Connection	Catalogue Number	Suggested List Price
1/4" – 18 NPTF	50.32	$ 0.65
3/8" –18 NPTF	51.32	$ 0.65
5/8" – 18 U.N.F.	52.32	$ 0.65
1/2" – 14 NPTF	53.32	$ 0.65

VDO TEMPERATURE GAUGE (Electrical) FITTING INSTRUCTIONS

For mounting and wiring details, refer to UNIFORM MOUNTING INSTRUCTIONS.

Remove existing temperature switch or plug from cylinder block (or head) and screw temperature sender unit into position, if necessary, using VDO adaptor. Connections are from sender unit to terminal (S) (or G) on instrument and from terminal (B) on instrument to AUX. IGN (A4) terminal on distribution box or to distribution box side of ignition switch. The former is preferred since the instrument is then on a fused circuit. Refer to circuit diagram – Fig. 4.

FIG. 4



VDO BOAT SPEEDOMETER

Instrument Dia.: 80mm

Dial/Pointer
Colour: Black/White

Interior Illumination
Globe Holder included

Complete with:

Pitot

Tubing 16'

Fitting Instructions

Know your speed on water – essential for water ski-ing. With interior illumination. Simple fitting. Streamlined plastic Pitot tube disengages when hit by obstruction.



EXCLUSIVE DESIGN OF PITOT PREVENTS OBSTRUCTION OF ORIFICE BY WEEDS OR FLOTSAM.

KIT COMPLETE:

Dial Range	Catalogue Number	Suggested List Price
0 – 50 MPH; 0 – 44 Knots	1.26	$15.70
0 – 75 MPH; 0 – 66 Knots	2.26	$19.00
Pitot Only: Suit		
0 – 50 MPH; 0 – 44 Knots	1.27	$ 5.60
0 – 75 MPH; 0 – 66 Knots	2.27	$ 8.10





VDO SUMLOG

This cable driven instrument shows speed and records total distance travelled on Odometer, incorporating a resetable Trip–Odometer.



All instruments with interior illumination

Thru–Hull



Transom Mounting



VDO Sumlog is a speedometer of modern design, operating on the well known log system. It is indispensible for safe navigating of pleasure and sports crafts, giving a constant and accurate reading of speed and distance travelled. Leading Australian yachtsmen regard the **VDO** Sumlog as a must for better tuning and accurate tacking.

VDO Sumlog kits containing: Sumlog Unit, Globeholder, 10ft. Cable, Propeller Unit and Fitting Instructions.

TYPES:

Case Dia.	Dial Range	Propeller Mounting	Catalogue Number	Suggested List Price
80 mm	0 – 10 knots	Thru–Hull	71.12	$70.00
80 mm	0 – 15 knots	Thru–Hull	72.12	$70.00
80 mm	0 – 30 knots	Thru–Hull	73.12	$70.00
80 mm	0 – 45 knots	Thru–Hull	74.12	$70.00
100 mm	0 – 15 knots	Thru–Hull	75.12	$80.00
100 mm	0 – 30 knots	Thru–Hull	76.12	$80.00
100 mm	0 – 45 knots	Thru–Hull	77.12	$80.00
80 mm	0 – 10 knots	Transom	81.12	$70.00
80 mm	0 – 15 knots	Transom	82.12	$70.00
80 mm	0 – 30 knots	Transom	83.12	$70.00
100 mm	0 – 15 knots	Transom	85.12	$80.00
100 mm	0 – 30 knots	Transom	86.12	$80.00

VDO SUMLOG

SUMLOG INSTRUMENTS.

Case Dia.	Dial Range	Catalogue Number	Suggested List Price
80 mm	0 – 10 knots	91.12	$ 20.00
80 mm	0 – 15 knots	92.12	$ 20.00
80 mm	0 – 30 knots	93.12	$ 20.00
80 mm	0 – 45 knots	94.12	$ 20.00
100 mm	0 – 15 knots	95.12	$ 30.00
100 mm	0 – 30 knots	96.12	$ 30.00
100 mm	0 – 45 knots	97.12	$ 30.00

PROPELLER UNITS

Mounting	Sumlog Range	Catalogue Number	Suggested List Price
Thru–Hull	10, 15, 30 knots	11.27	$ 41.00
Thru–Hull	45 knots	12.27	$ 41.00
Transom	10, 15, 30 knots	13.27	$ 41.00

SUMLOG CABLE

Sumlog Cable 10 ft.	1.20	$ 15.50

available in lenghts in excess of 10 ft.

specify required Length when ordering.

Extra cost per ft. in excess of 10 ft. $ 0.90

ANGLE DRIVE

suit SUMLOG – all Instruments

Catalogue Number	Suggested List Price
1.21	$ 10.00

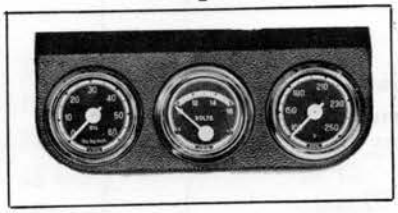
	Catalogue Number	Suggested List Price
Brackets, for mounting of instruments (See also Page 32)		
Suit 52 mm Dia.	1.23	$0.70
Suit 60 mm Dia.	2.23	$0.80
Suit 80 mm Dia.	3.23	$0.90
Suit 52/60 mm Clocks	11.29	$2.40
Suit Engine Hourmeters Cat. No. 21. 33 to 25. 33	27.33	$1.20
Reduction Ring 60/52 mm Black — Chrome	4.23	$0.45
	5.23	$1.50
Cockpit Instrument Holders Page 32		
Cable, Suit VDO Speedminder (all Types)	2.20	$1.25
Globeholders, Suit globe dia. 7 mm – Screw	1.24	$0.30
7 mm – insulated, Quickc.	2.24	$0.60
7 mm – Quickconnector	3.24	$0.30
7 mm – Ins. Screw O.D. 12 mm	6.24	$0.60
9 mm – Screw	4.24	$0.30
9 mm – Insulated	5.24	$0.60
Plug – in Socket and 12V, 2CP Globe	7.24	$0.40
Globes, 7 mm 6V 0.6 W	10.24	$0.20
7 mm 12V 2 W	11.24	$0.20
7 mm 24V 3 W	12.24	$0.25
9 mm 6V 2 W	13.24	$0.15
9 mm 12V 2 W	14.24	$0.15
9 mm 24V 2 W	15.24	$0.20
Suit Socket 7.24 12V 2CP	16.24	$0.13
Rubber Mounting, Suit Engine Hourmeters Cat. No. 21.33 to 25.33 and other 60 mm Gauges	28.33	$1.20
Tube Fittings, Suit Pressure Gauges. Set of Soldering Nipple & Nut 3/16"	6.23	$0.50
Soldering Nipple & Nut 1/4"	7.23	$0.50
Cone, Nut & Olive 3/16" Nylon Tube Fitting	8.23	$0.50

VDO cockpit

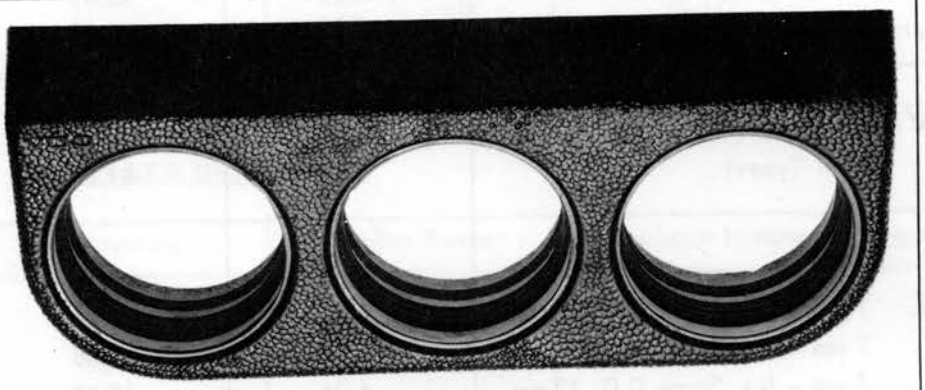
INSTRUMENT HOLDERS (52mm Dia.) AND SWITCH SET

Safe — Simple — Superior

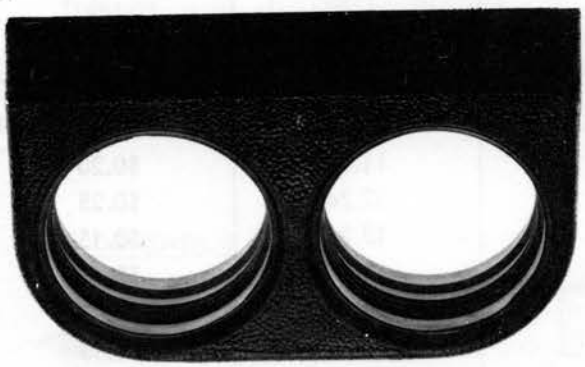
Under dash board fitment. Flexible rubber with hide effect finish. Instruments securely held by interior lips.



The "RALLY" Touch to Sports - and Touring Cars. Eliminating Instrument vibration in monocoque racing cars.



Catalogue Number:	9.23	Suggested List Price:	$ 3.20





Catalogue Number:	10.23	11.23
Suggested List Price:	$ 2.60	$ 2.00



SWITCH SET – matching

VDO Cockpit' INSTRUMENT Holders in Design and finish – Contains two 'on – off' switches to operate electrical accessories. Warning Light has many uses, and may be wired to one switch. Globe not included. (Use Part 10.24, 11.24 or 12.24.)

Catalogue Number:	20.24
Suggested List Price:	$5.00