

Fitting Instructions

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Sumlog - Wind - Close Haul

VDO

Electrical diagram

Sumlog



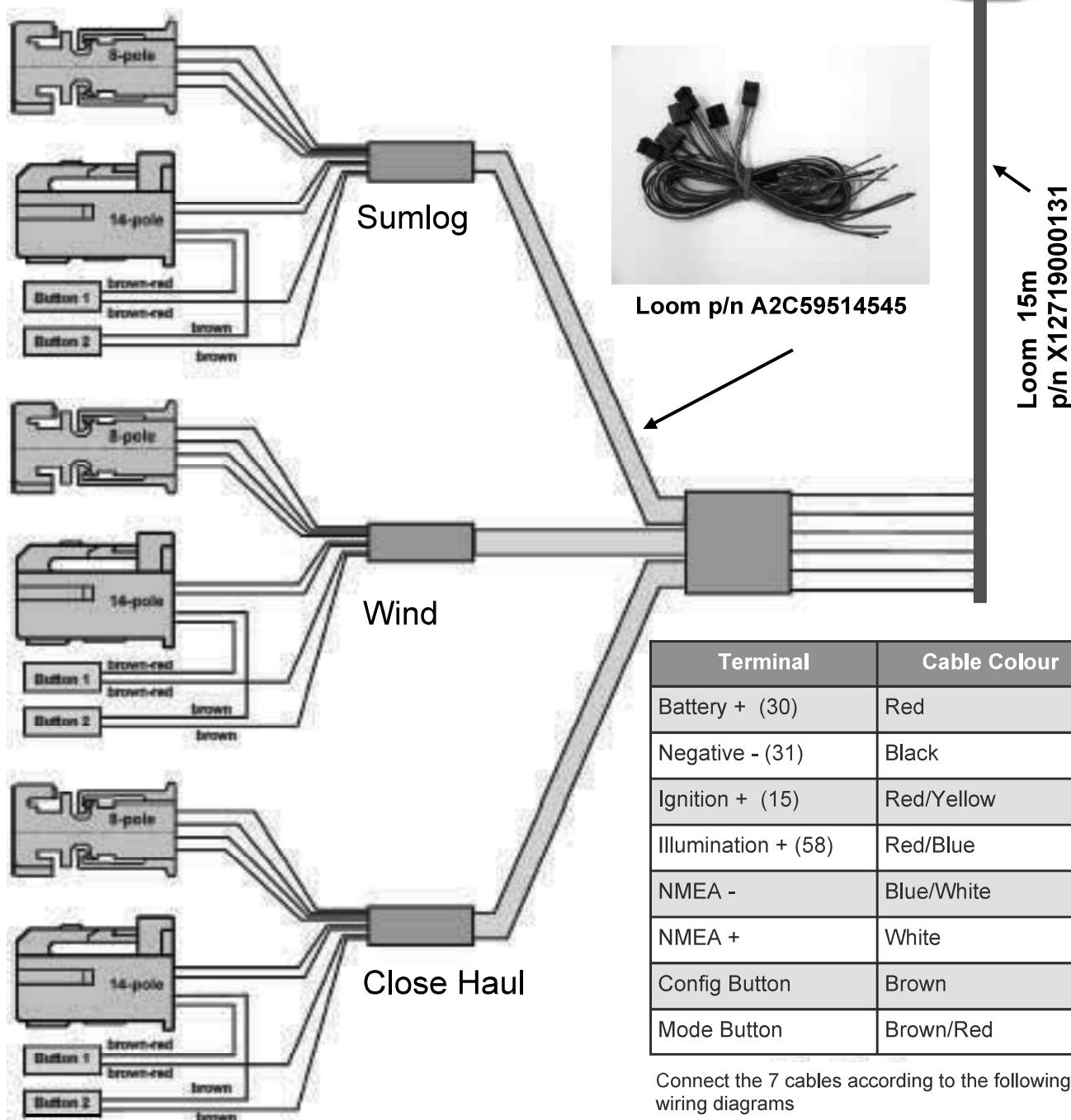
Wind



Close Haul



AirmarSensor
p/n X12719000129



Connect the 7 cables according to the following wiring diagrams

Insert the plug into the gauge. Note the inverse polarity protection nose in the process.

Sumlog - Depth

VDO

Electrical diagram

Sumlog

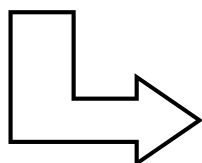
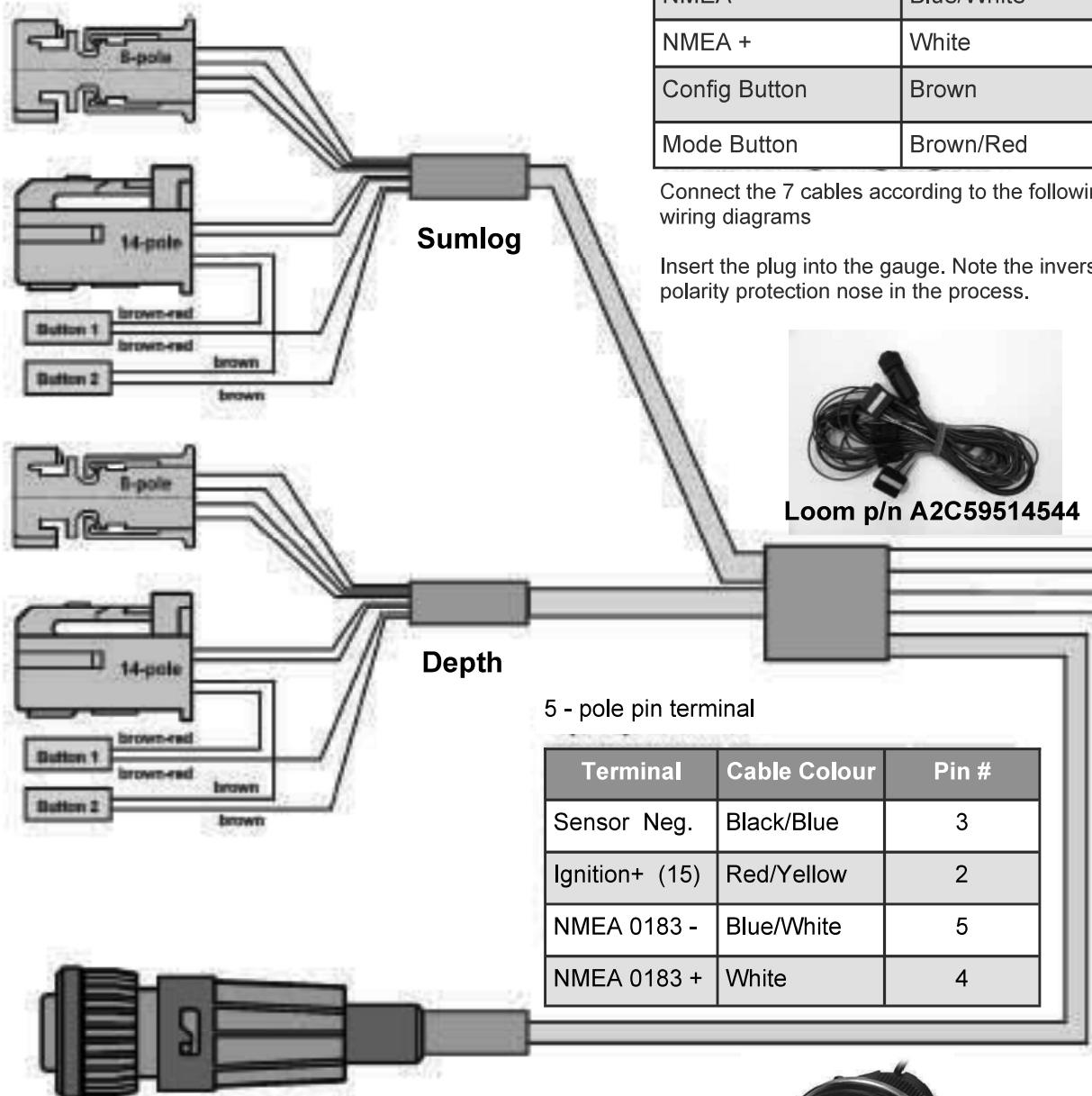
Depth



Terminal	Cable Colour
Battery + (30)	Red
Negative - (31)	Black
Ignition + (15)	Red/Yellow
Illumination + (58)	Red/Blue
NMEA -	Blue/White
NMEA +	White
Config Button	Brown
Mode Button	Brown/Red

Connect the 7 cables according to the following wiring diagrams

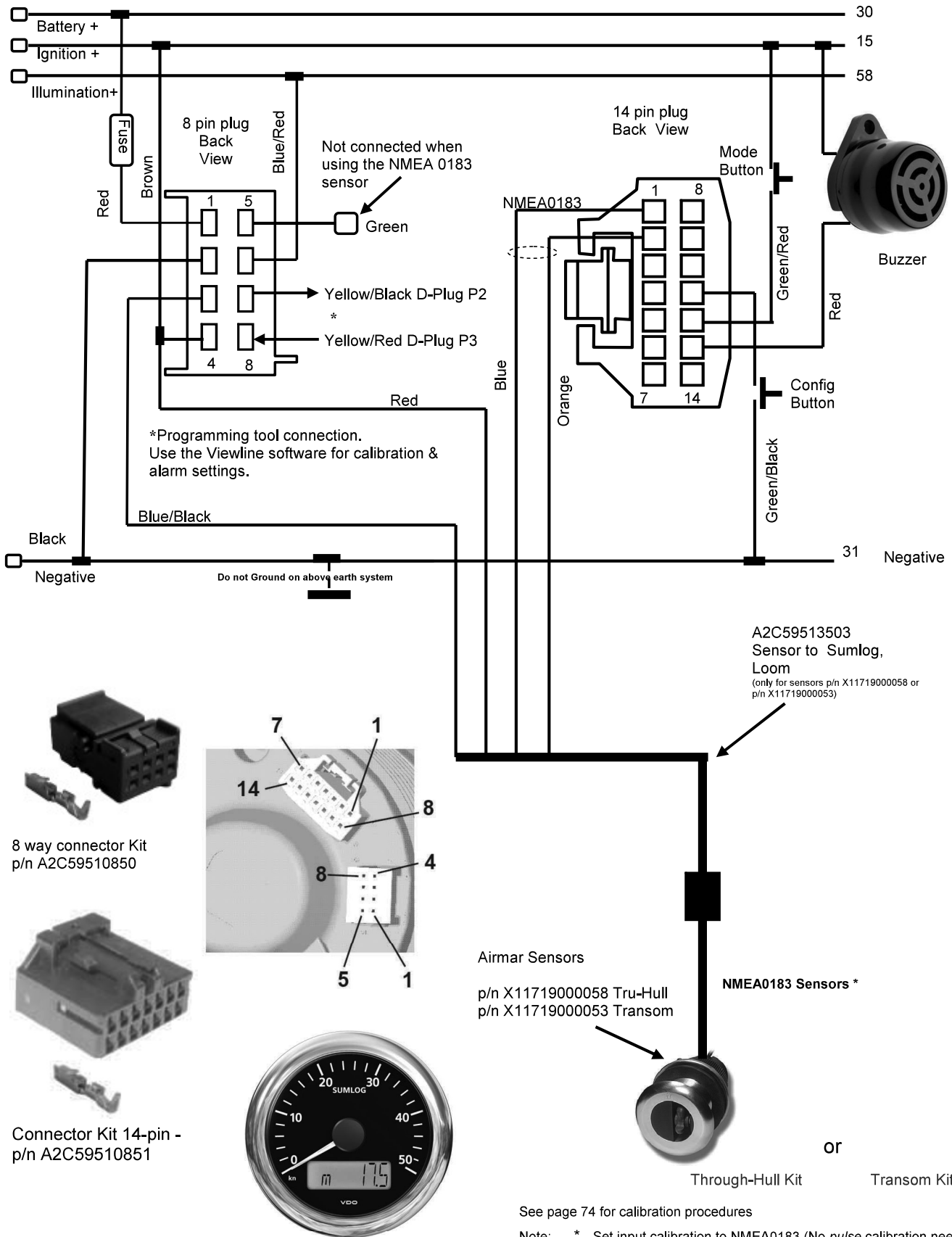
Insert the plug into the gauge. Note the inverse polarity protection nose in the process.



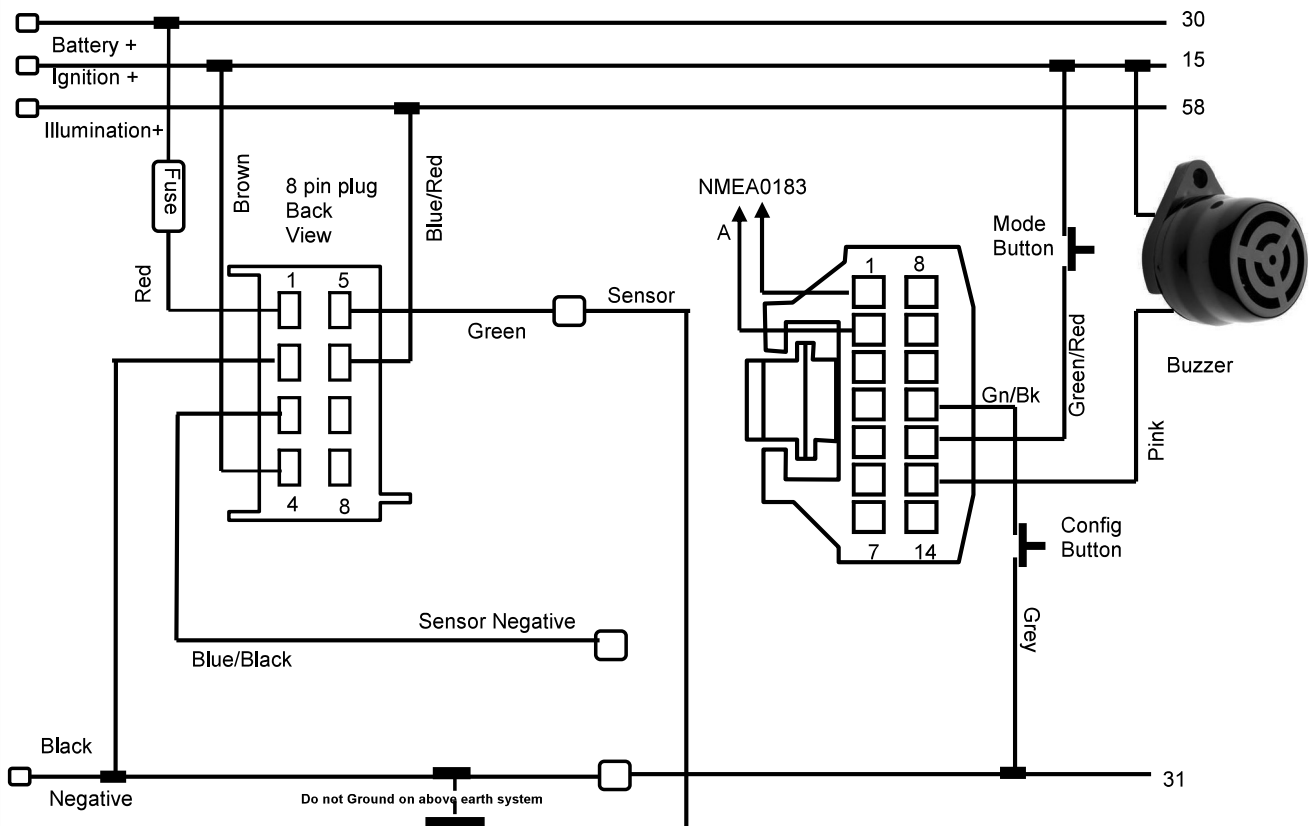
NMEA0183 Through-Hull Sensor for Water Temp, Speed, Depth



Sumlog electrical diagram



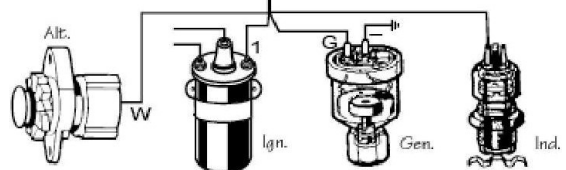
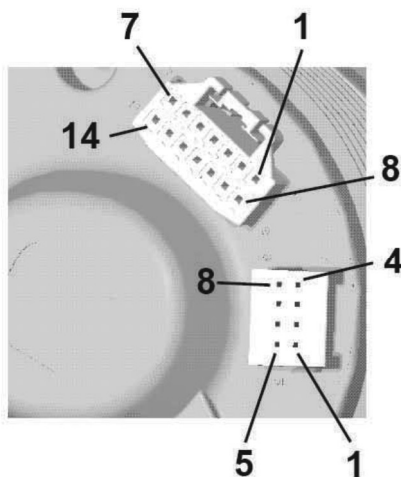
Tachourmeter electrical diagram



8 way connector Kit
p/n A2C59510850

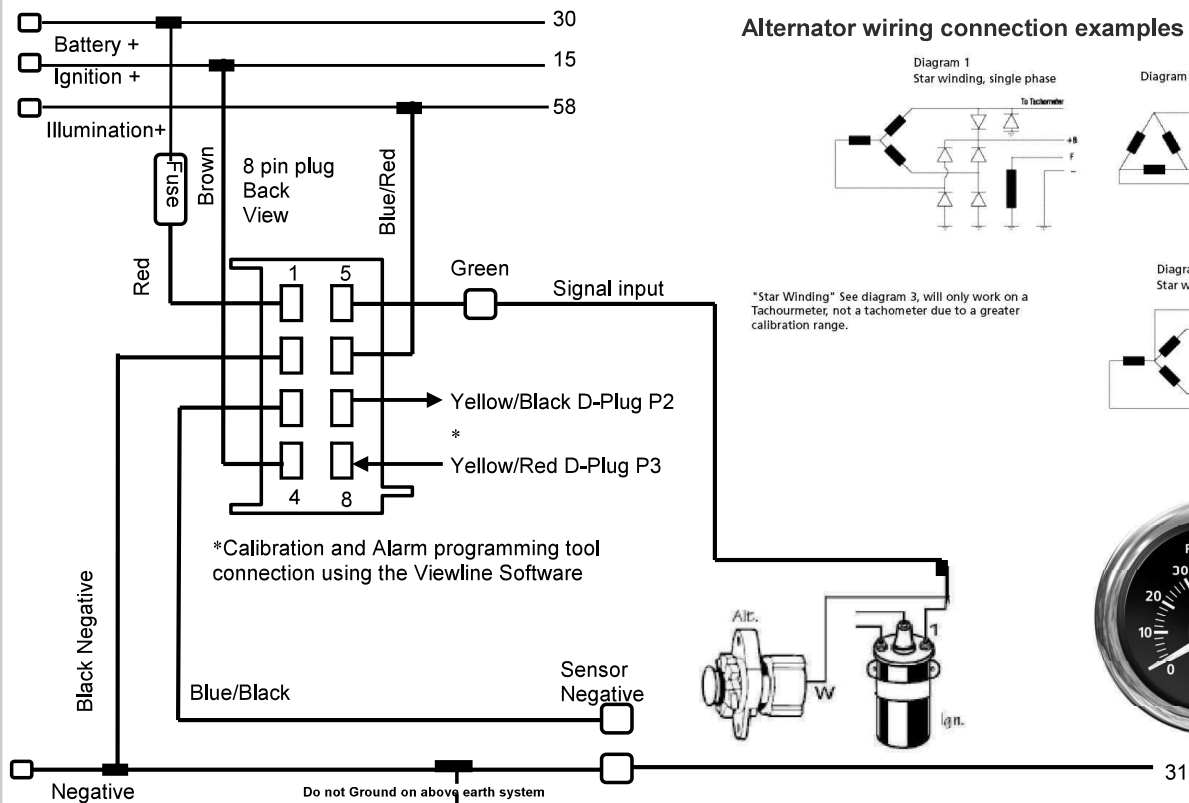


Connector Kit 14-pin -
p/n A2C59510851

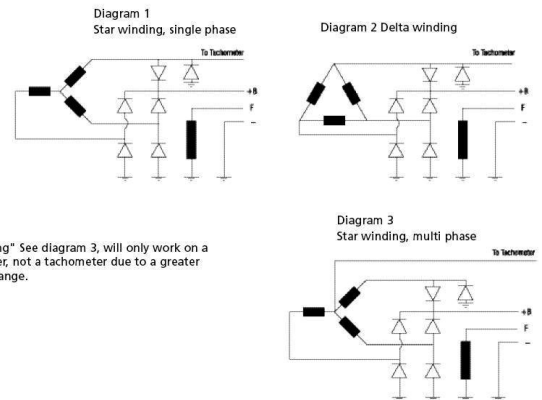


See page 81 for calibration procedures

Tachometer electrical diagram



Alternator wiring connection examples



"Star Winding" See diagram 3, will only work on a Tachometer, not a tachometer due to a greater calibration range.



The tachometer can only be calibrated using the VDO Viewline Software p/n A2C50515259 & p/n 111.000 plus an Agreement issued by a VDO Partner (in each State), must be signed.

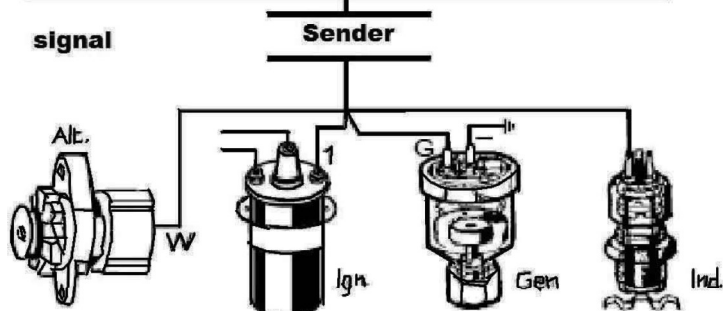
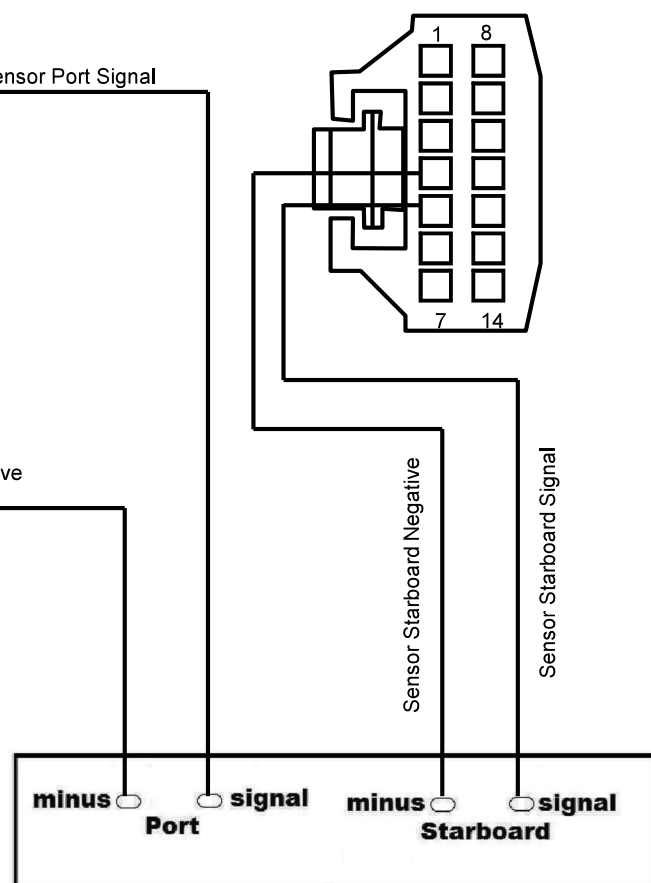
For software enquiry, contact Continental Pty Ltd, Customer Service 03 94681151.

Note: Tachometer will not operate off a Magneto signal.

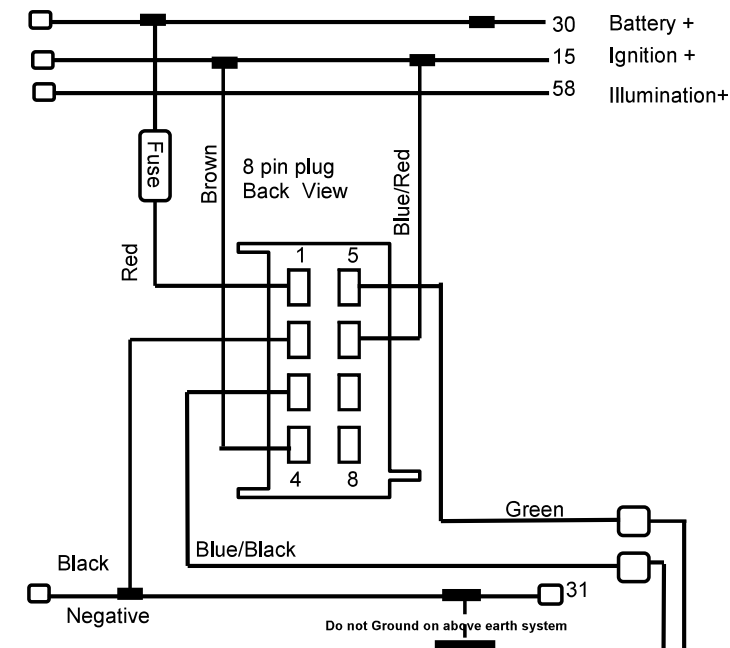
Diagram illustrating the wiring for the 8-pin plug (Back View) connected to the vehicle's electrical system. The connections are as follows:

- Battery +** (30) connects to the **Red** line, which passes through a **Fuse** and connects to pin **1**.
- Ignition +** (15) connects to pin **5**.
- Illumination+** (58) connects to pin **4**.
- Black Negative** connects to pin **8**.
- Negative** (31) connects to the **Blue/Black** line, which connects to pin **8**.
- The **Yellow/Red** line connects to pin **1** and the **Sensor Port Negative** (31).
- The **Green** line connects to pin **5**.
- The **Yellow/Black** line connects to pin **4**.

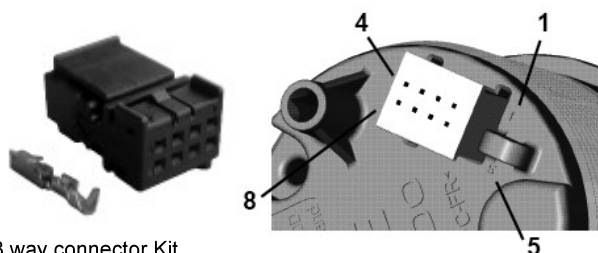
Do not Ground on above earth system



Rudder Angle Ø 52 mm & Ø 85 mm 12/24V

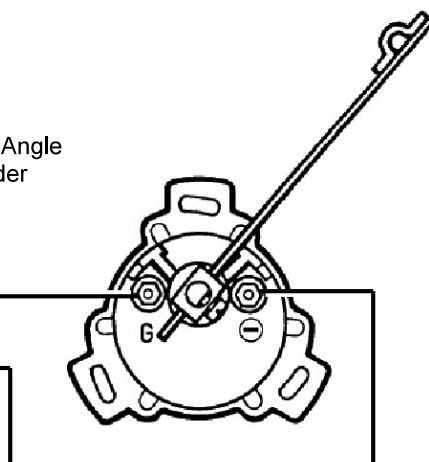


Note: For dual station installation, connect Green wire to second gauge

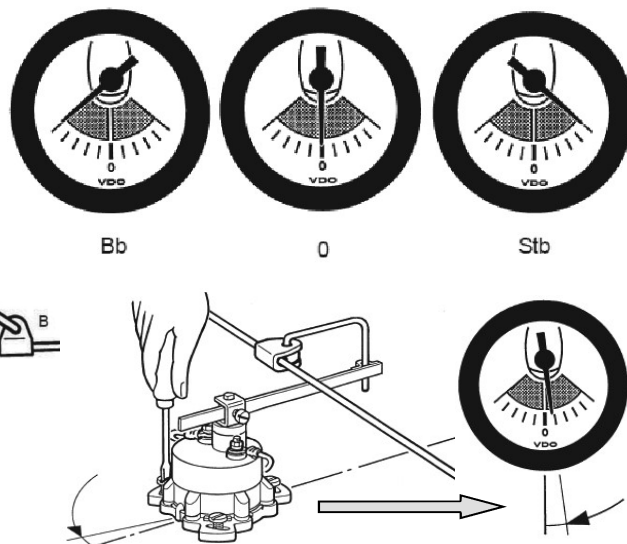
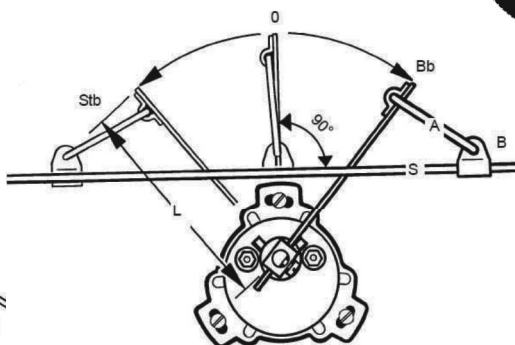
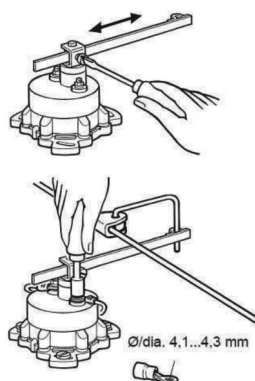


8 way connector Kit
p/n A2C59510850

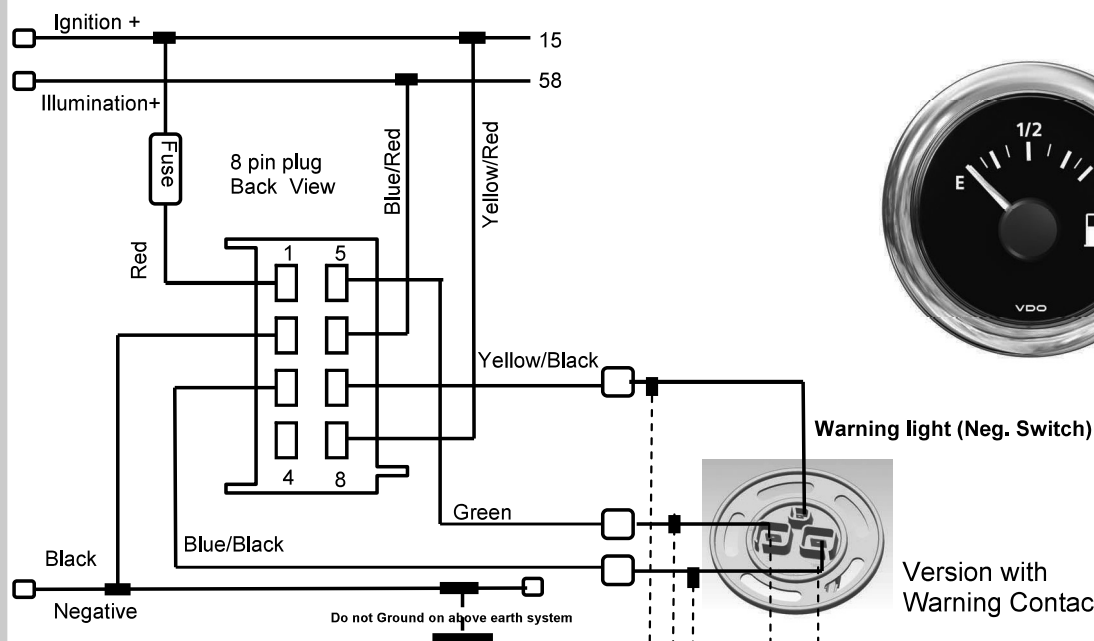
Rudder Angle
Sender



Rudder Angle sensor calibration



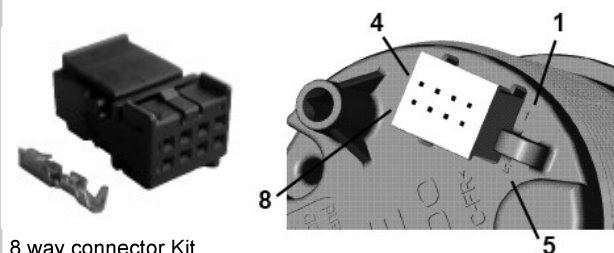
Fuel Gauge – Arm & Reed Switch Type Senders



Version with Warning Contact

Arm type sender

Version without Warning Contact



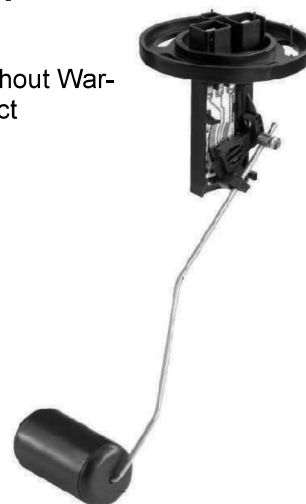
8 way connector Kit
p/n A2C59510850

Reed Switch sender

0 to 1/1

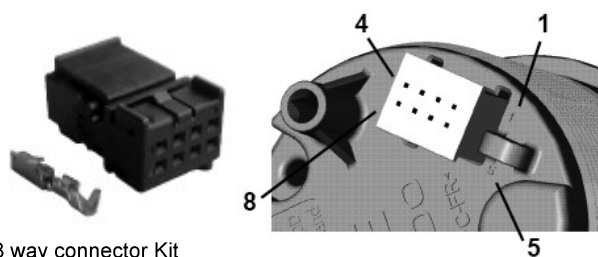
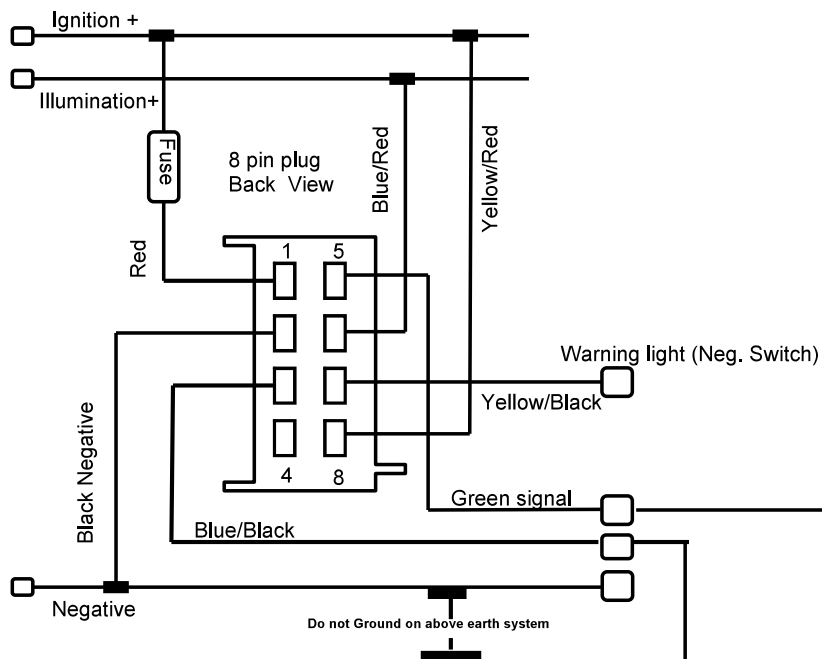


Pin 1 - Wh - Low Fuel Warning
Pin 2 - Bl - Output signal
Pin 3 - Bk - Negative

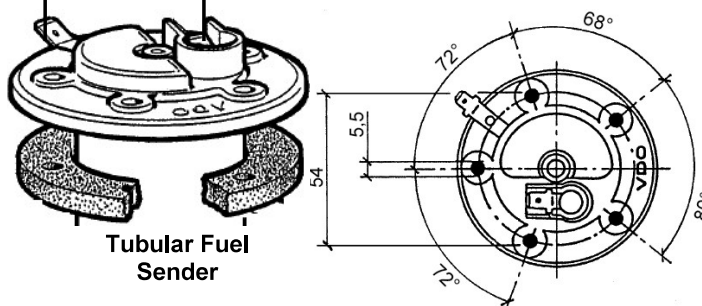


Indication	0	1/4	1/2	3/4	1/1
Resistance (Ω)	3	45	85	138	180
Deflection ($^{\circ}$)	0	17.2	41.2	73.8	88.8
Tolerance ($^{\circ}$)	+ 3.6 - 3.6	$\pm$ 3.6	$\pm$ 3.6	$\pm$ 3.6	+ 3.6 - 3.6

Fuel Gauge – Tubular Type Senders



8 way connector Kit
p/n A2C59510850

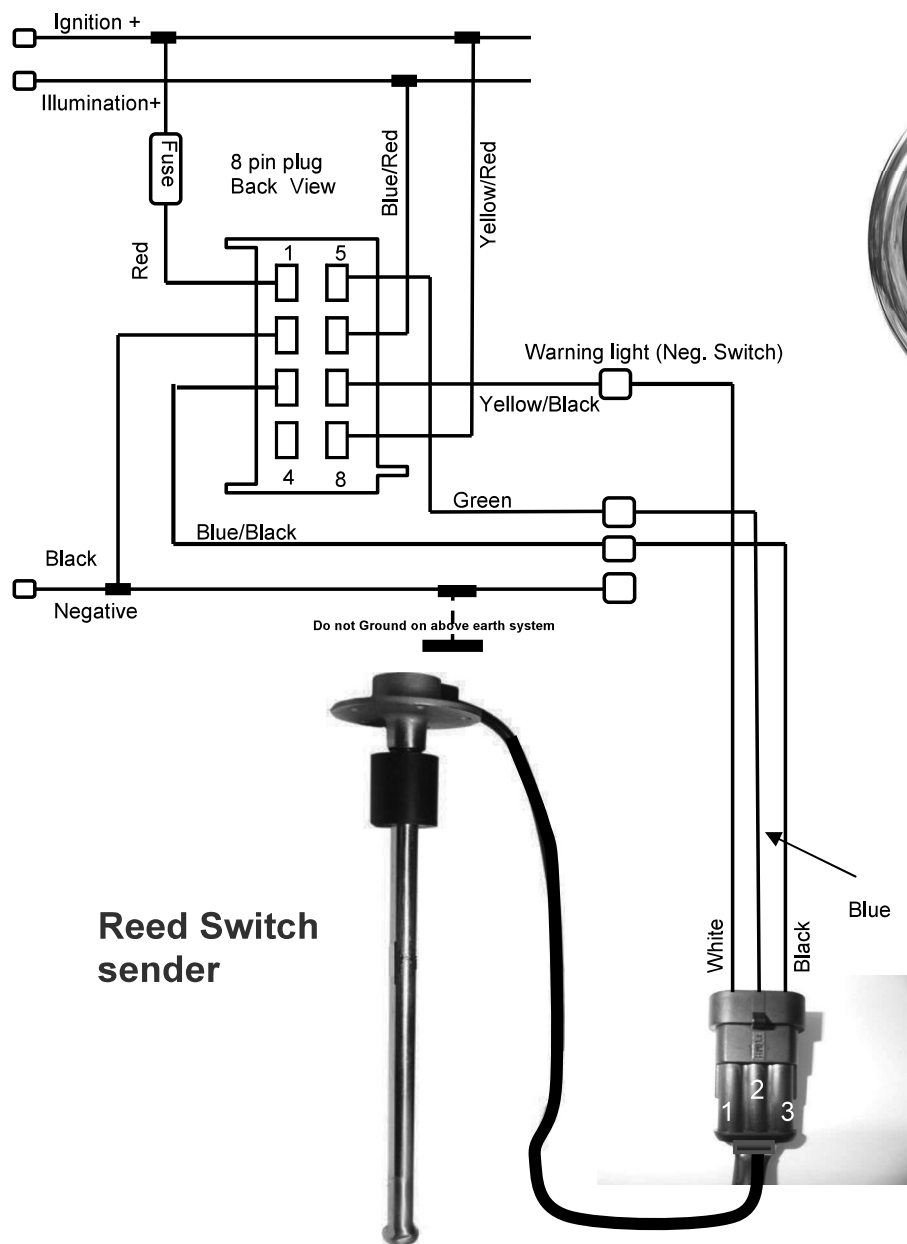


Tubular Fuel
Sender

Sender Part No.	Length	Pitch Ø	Cut-out	Ohm Full	Ohms Empty
224011000015G	150mm	54mm	41mm	4.5	69
224011000016G	160mm	54mm	41mm	4.5	74
224011000017G	170mm	54mm	41mm	4.5	79.5
224011000018G	180mm	54mm	41mm	3	64
224011000019G	190mm	54mm	41mm	3	68
224011000020G	200mm	54mm	41mm	3	68
224011000021G	210mm	54mm	41mm	3	76
224011000022G	220mm	54mm	41mm	3	80
224011000023G	230mm	54mm	41mm	3	84
224011000024G	240mm	54mm	41mm	3	65.5
224011000025G	250mm	54mm	41mm	2.5	72
224011000026G	260mm	54mm	41mm	2.5	72
224011000027G	270mm	54mm	41mm	2.5	74.5
224011000028G	280mm	54mm	41mm	2.5	75.5
224011000029G	290mm	54mm	41mm	2.5	78
224011000030G	300mm	54mm	41mm	2.5	82.8

Sender Part No.	Length	Pitch Ø	Cut-out	Ohm Full	Ohms Empty
224011000031G	310mm	54mm	41mm	2.5	84
224011000032G	320mm	54mm	41mm	2.5	69.5
224011000033G	330mm	54mm	41mm	2.5	72
224011000034G	340mm	54mm	41mm	2.5	74
224011000035G	350mm	54mm	41mm	2.5	79.6
224011000036G	360mm	54mm	41mm	2.5	69
224011000037G	370mm	54mm	41mm	2.5	71
224011000038G	380mm	54mm	41mm	2.5	73
224011000039G	390mm	54mm	41mm	2.5	75
224011000040G	400mm	54mm	41mm	2.5	74.9
224011000045G	450mm	54mm	41mm	2.5	84.3
224011000050G	500mm	54mm	41mm	2.5	75.4
224011000055G	550mm	54mm	41mm	2.5	77.6
224011000060G	600mm	54mm	41mm	2.5	85.3
224011000065G	650mm	54mm	41mm	2.5	82.2
224011000070G	700mm	54mm	41mm	2	81.6
224011000075G	750mm	54mm	41mm	2	82
224011000080G	800mm	54mm	41mm	2	68.5

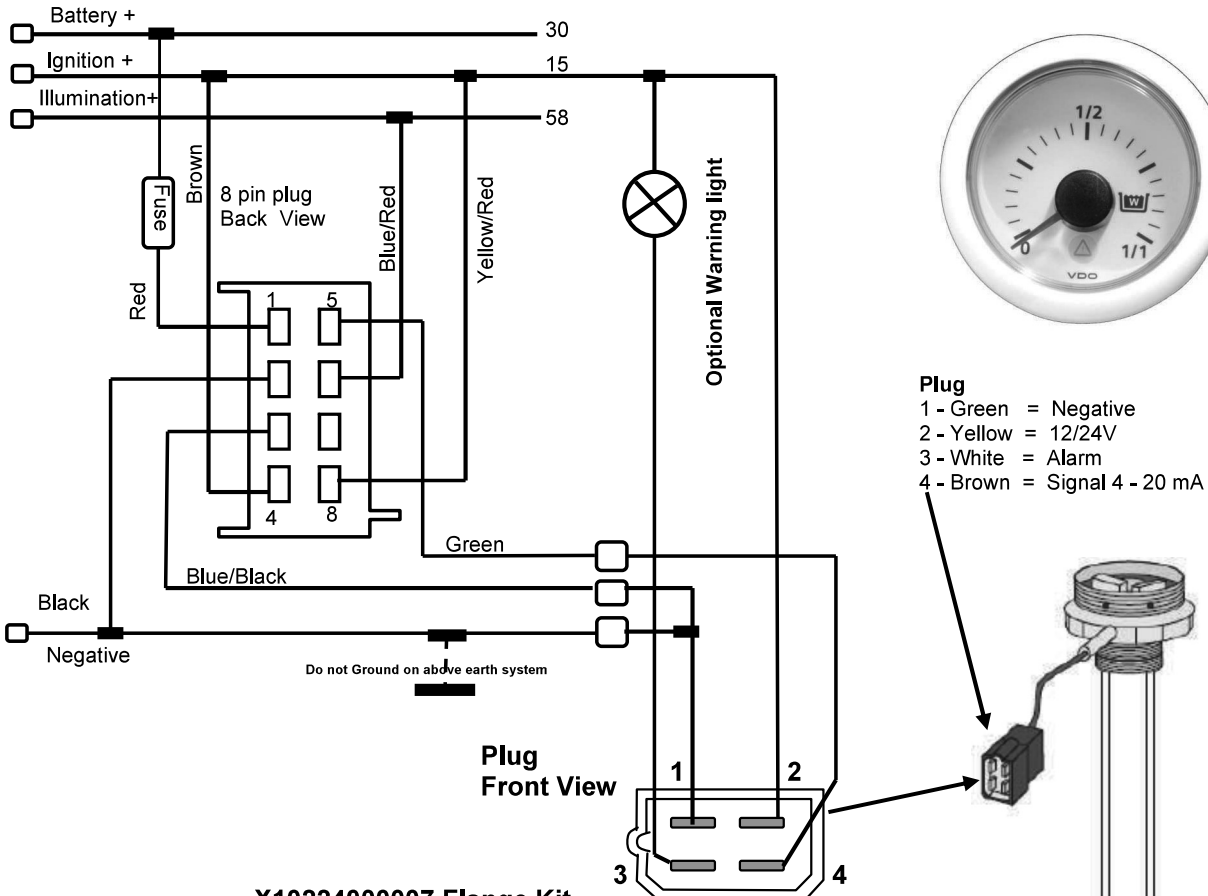
Fresh Water Gauge – Reed Switch Senders



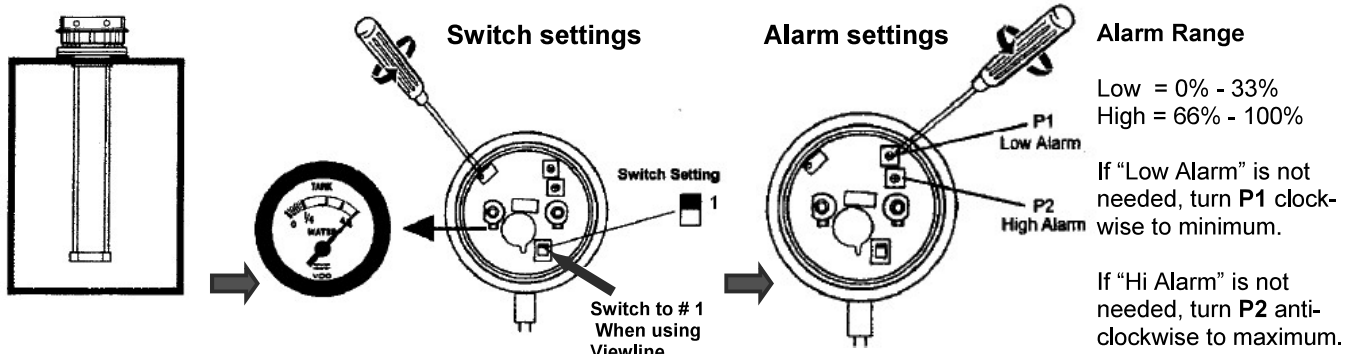
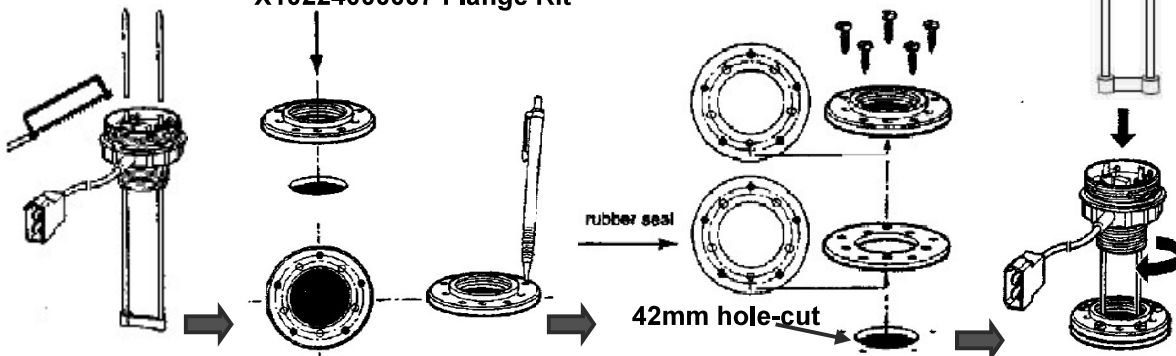
Waste Water Gauge

Connected to a 4 - 20 mA Sender

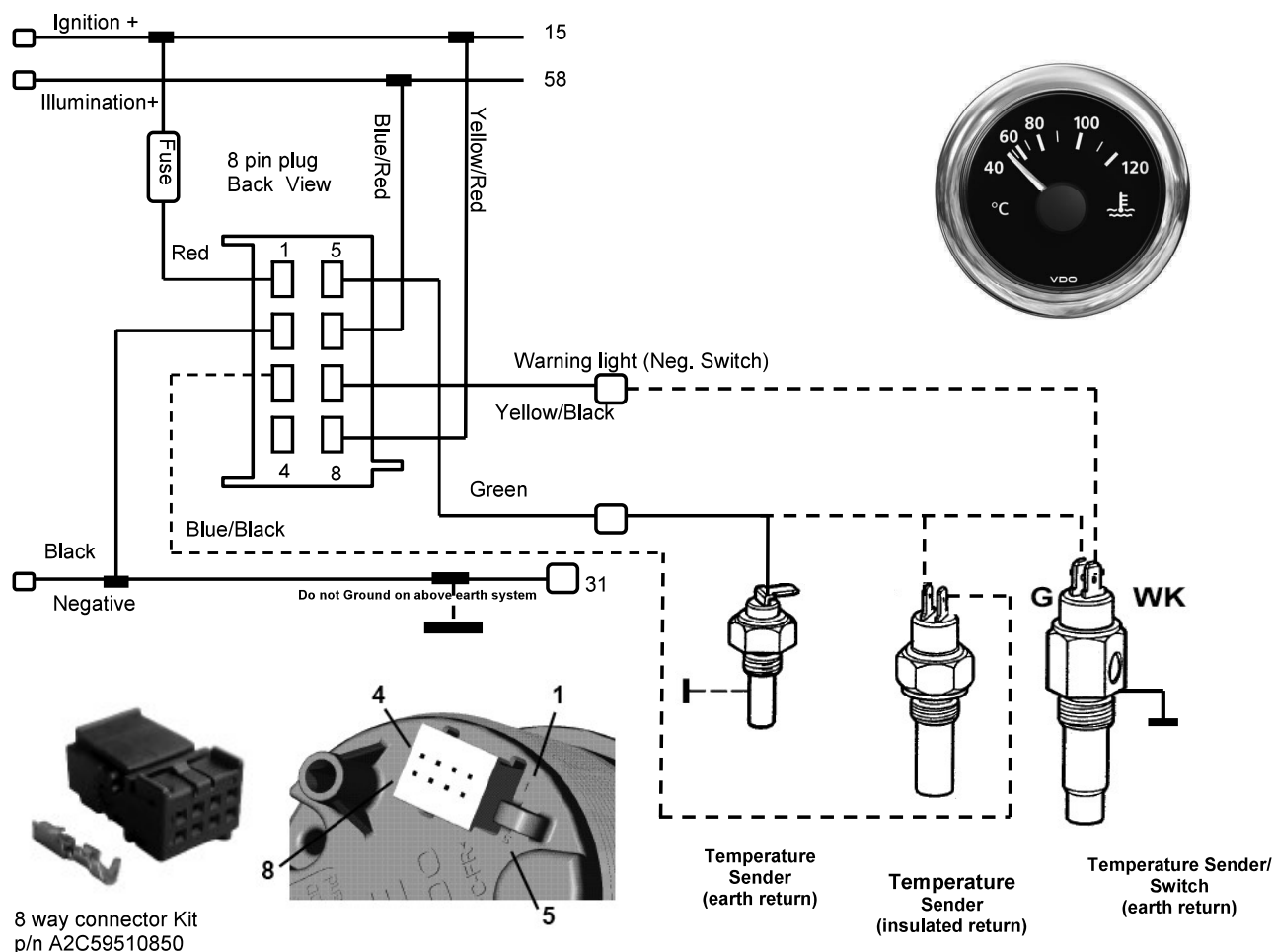
Dual Station: Two Gauges off one sensor, parallel the second gauge wires



X1022400007 Flange Kit



Temp Gauges 120° C and 150° C



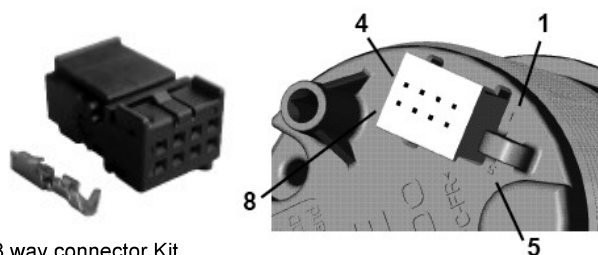
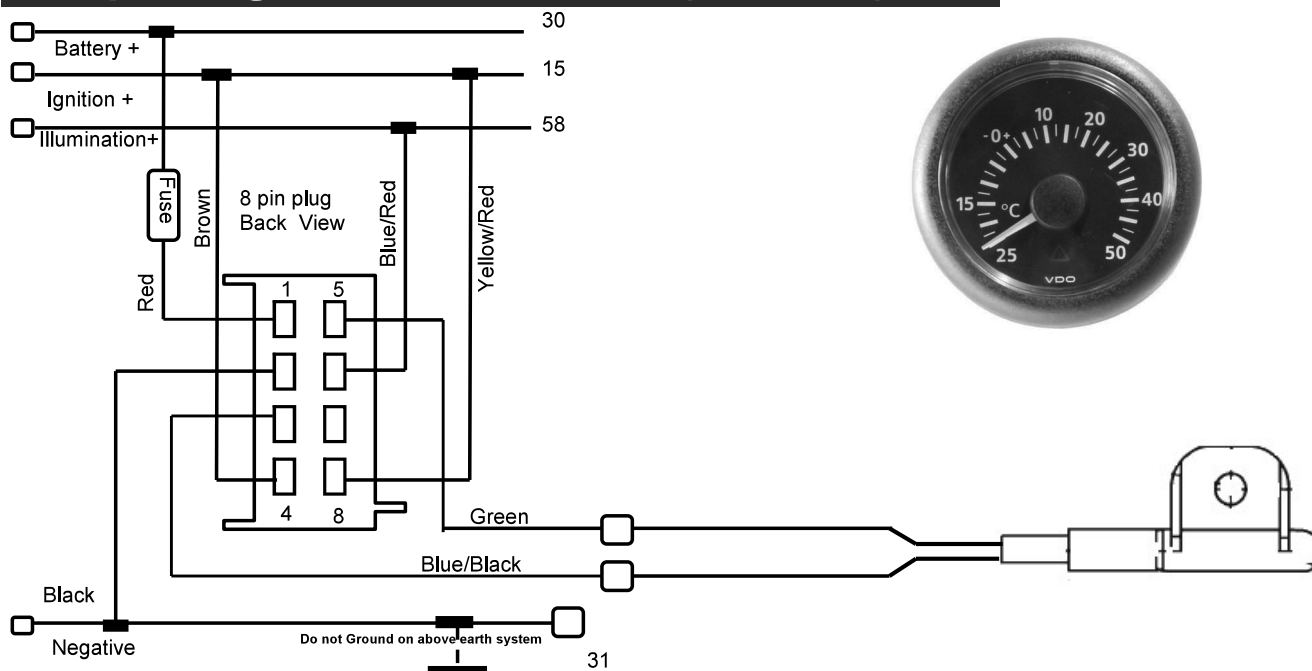
40 to 120 °C

Indication (°C)	40	50	60	70	80	90	100	110	120
Resistance (Ω)	287.4	193.3	134	95.2	69.1	51.3	38.6	29.4	22.7
Deflection (°∠)	0	3.3	8.3	15.5	25.8	40	58	75.2	88.2
Tolerance (°∠)	± 3.6	± 3.6	± 3.6	± 3.6	± 3.6	± 3.6	± 3.6	± 3.6	± 3.6

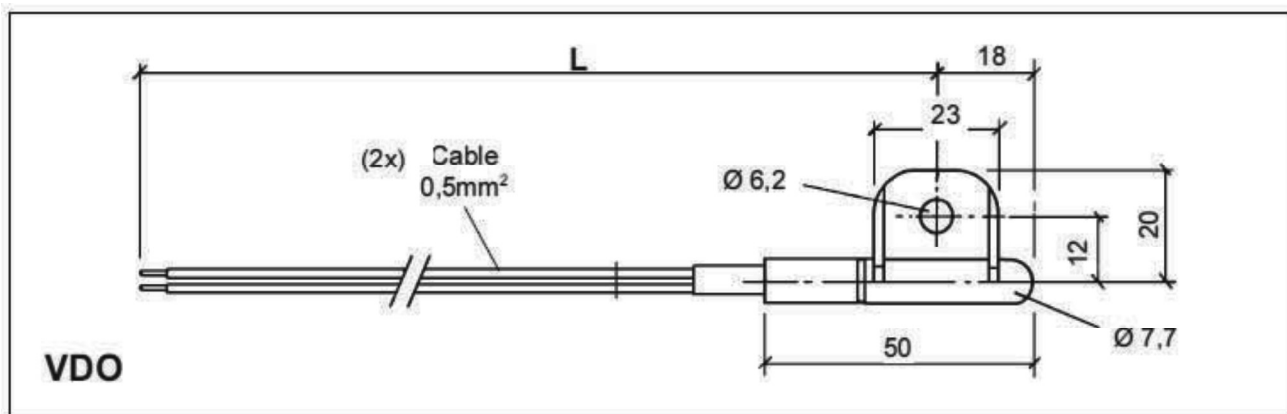
50 to 150 °C

Indication (°C)	50	80	90	100	110	120	130	140	150
Resistance (Ω)	322.8	112.5	83	62.2	47.5	36.5	28.9	23.1	18.6
Deflection (°∠)	0	12.4	19.8	29.6	42	56.8	69.7	80.2	88.1
Tolerance (°∠)	± 3.6	± 3.6	± 3.6	± 3.6	± 3.6	± 3.6	± 3.6	± 3.6	± 3.6

Temp Gauge -25° C to +50° C (Outside)



8 way connector Kit
p/n A2C59510850



Temperature Sensors for Air Temperature p/n 323809010005C L = 3000 mm

Technical Data:

Version: Thermistor, insulated return

Independent voltage

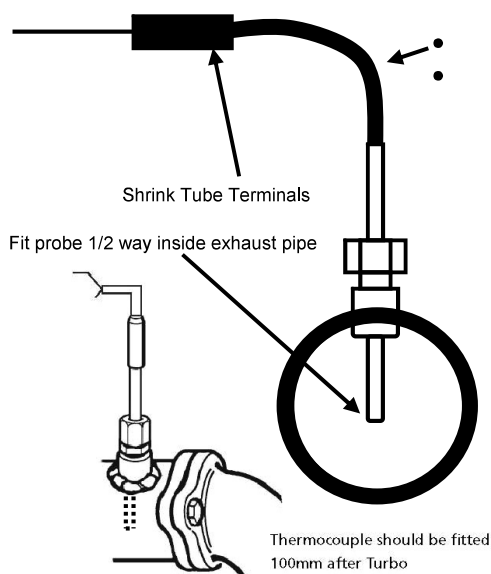
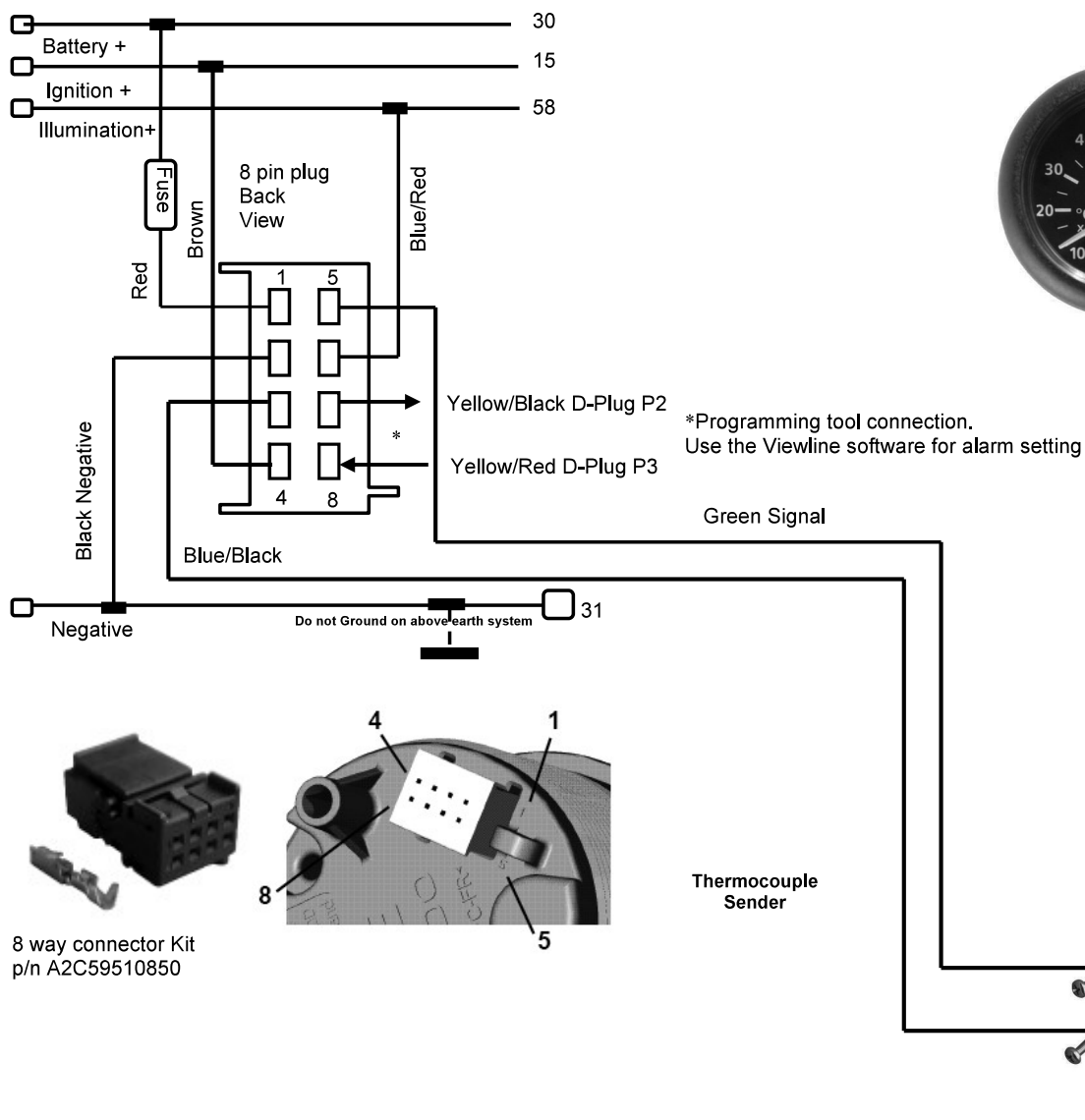
Operating temperature:

- 40°C to + 85°C max.

Temperature response time: 3 minutes minimum after switching on operating current

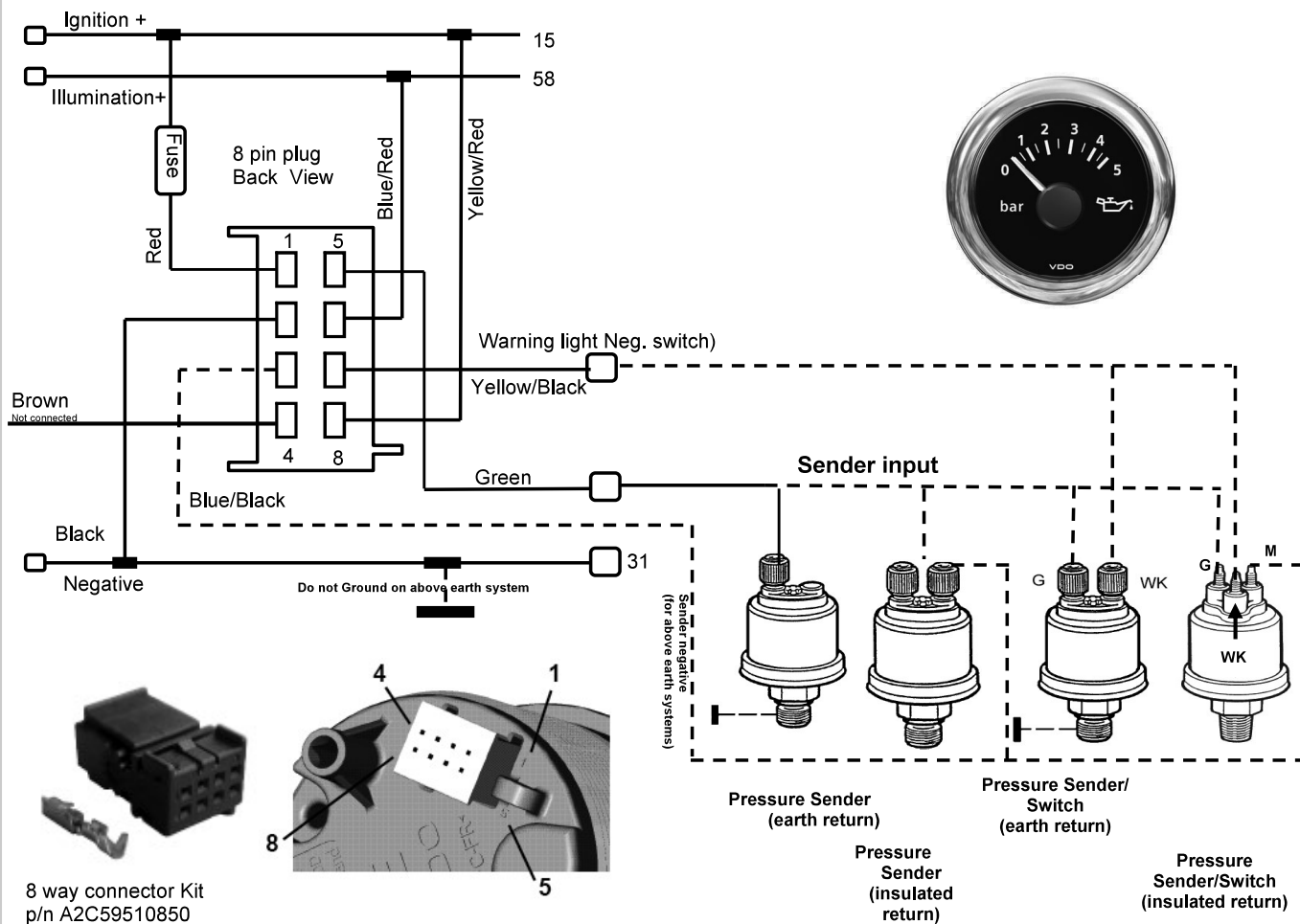
Operational value: 0 DegC = 4082 Ohms ± 26 Ohms

Pyrometer 100°C - 900°C



Deg °	Probe mV
100	4.04
200	8.137
300	12.20
400	16.4
500	20.64
600	24.902
700	29.128
800	33.277
900	37.325

Pressure Gauges 2, 5, 7, 10 Bar



Calibration Chart

2 Bar

Bar (x100Kpa)	0	1	2
Resistance	10	99	184

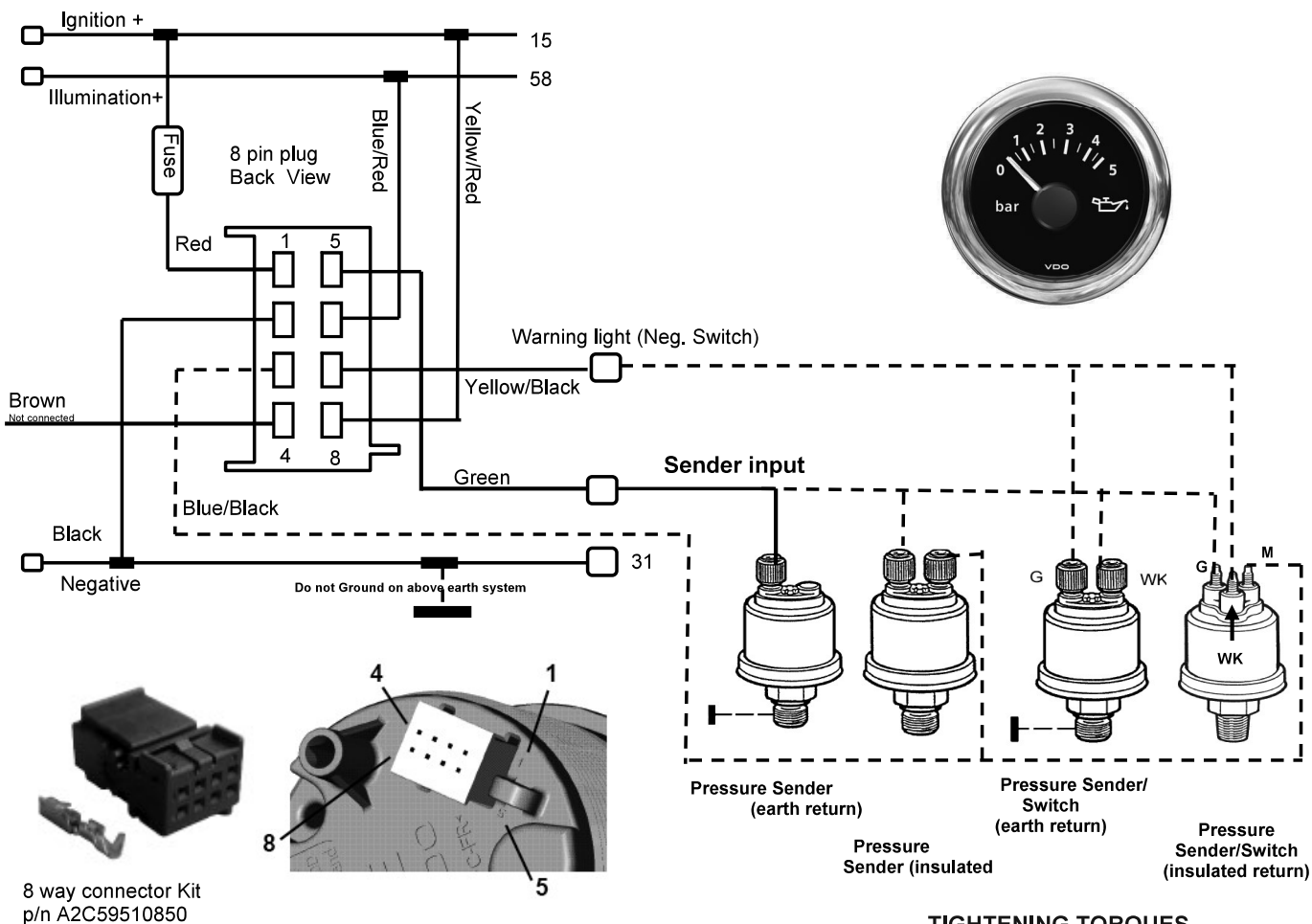
5 Bar

Bar (x100Kpa)	0	0.5	1	1.5	2	2.5	3	3.5	4	4.5	5
Resistance	10	30	48	65	82	99	116	134	151	168	184

10 Bar

Bar (x100Kpa)	0	1	2	3	4	5	6	7	8	9	10
Resistance	10	31	52	71	88	106	124	140	155	170	184

Pressure Gauges 25, 30 Bar



Note:

- Dual station senders have 1/2 of resistance range, Eg: 25 Bar is 92 Ohms
- For 0 to 30 Bar range application use a 0 to 25 Bar sender.

25 Bar (30 Bar)

Bar (x100Kpa)	0	2.5	5	7.5	10	12.5	15	17.5	20	22.5	25
Resistance	10	32	53	73	92	109	125	143	155	169	184

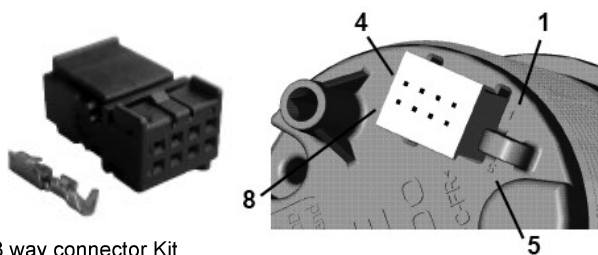
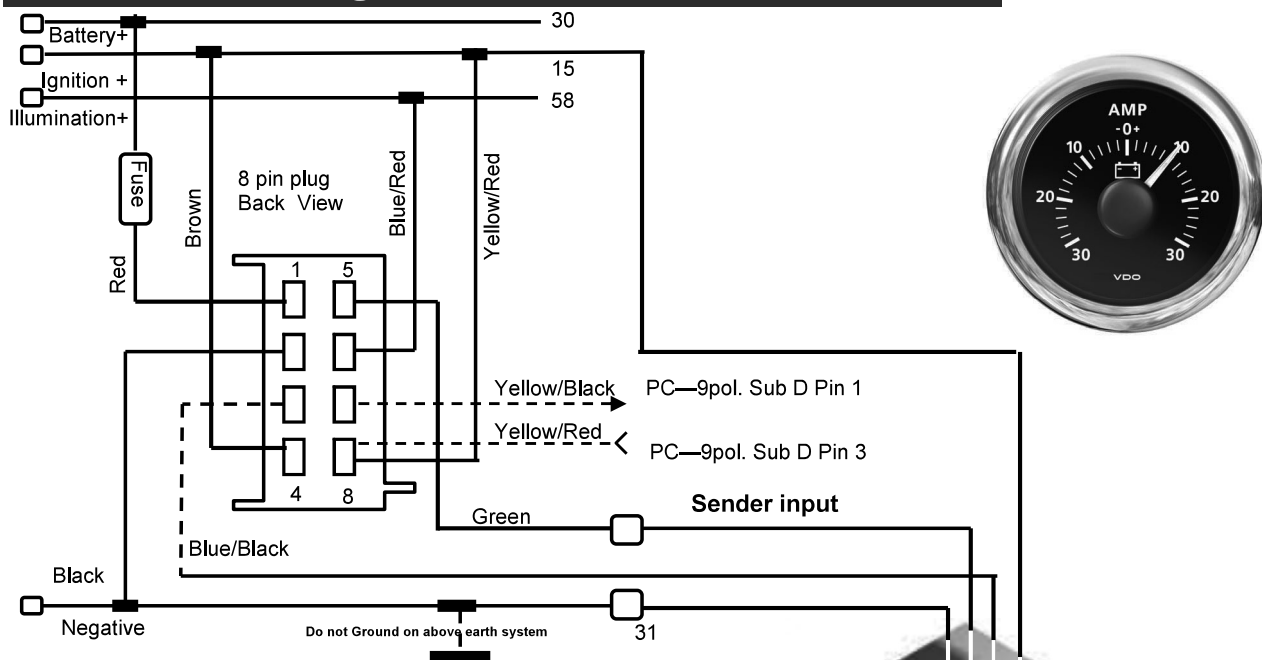
TIGHTENING TORQUES

M10 x 1.0 10 Nm
 1/8 – 27 NPTF 10 Nm
 M12 x 1.5 15 Nm
 01.02.2020 15 Nm
 M14 x 1.25 20 Nm
 M14 x 1.5 20 Nm
 1/4 – 18 NPTF 20 Nm
 1/2 in. – 20 Whit. S 20 Nm
 5/8 – 18 UNF-3A 20 Nm
 M16 x 1.5 30 Nm
 M18 x 1.5 30 Nm
 M20 x 1.5 30 Nm
 M22 x 1.5 30 Nm
 M24 x 1.5 30 Nm
 M26 x 1.5 30 Nm
 3/8 – 18 NPTF 30 Nm
 3/8 – 18 Dryseal NPTF 30 Nm
 1/2 – 14 NPTF 30 Nm
 3/4 – 16 UNF-3A 30 Nm
 R 3/8 30 Nm
 R 1/2 30 Nm

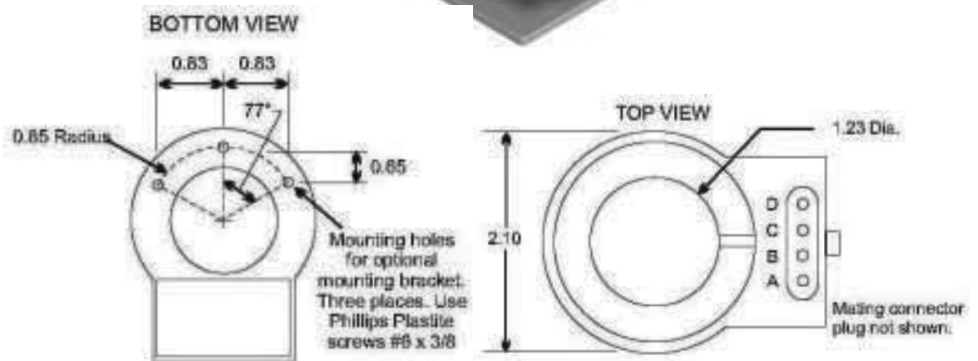
Ammeter External Shunt

VDO

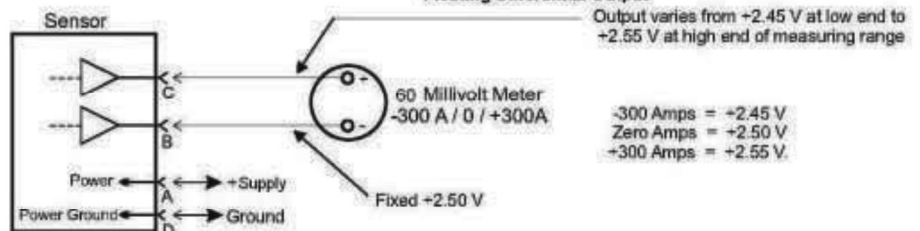
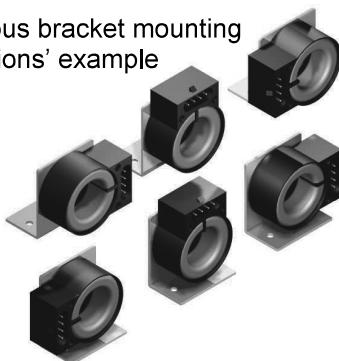
Ammeter Gauges 30, 60, 100 & 150 AMPS



8 way connector Kit
p/n A2C59510850



Various bracket mounting
positions' example



P/n **UK-UE-188** Universal Mounting Bracket Kit
P/n **UK-UE-184** Contactless Shunt Harness 3m

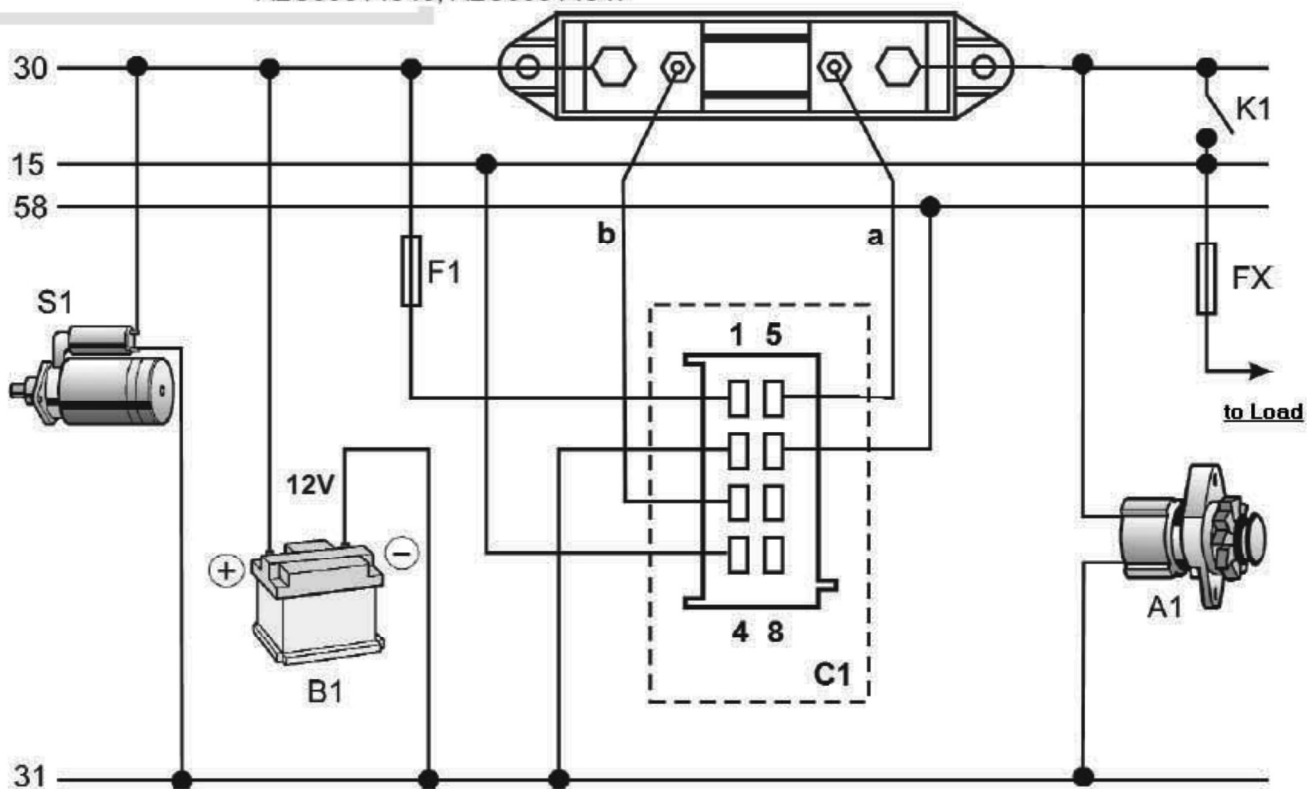
Ammeter with External Shunt

VDO

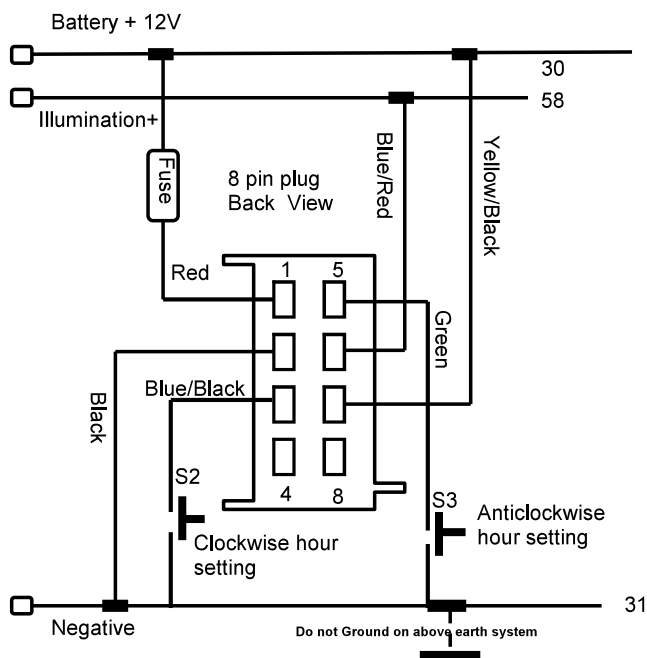
Ammeter Gauges 30, 60, 100 & 150 AMPS



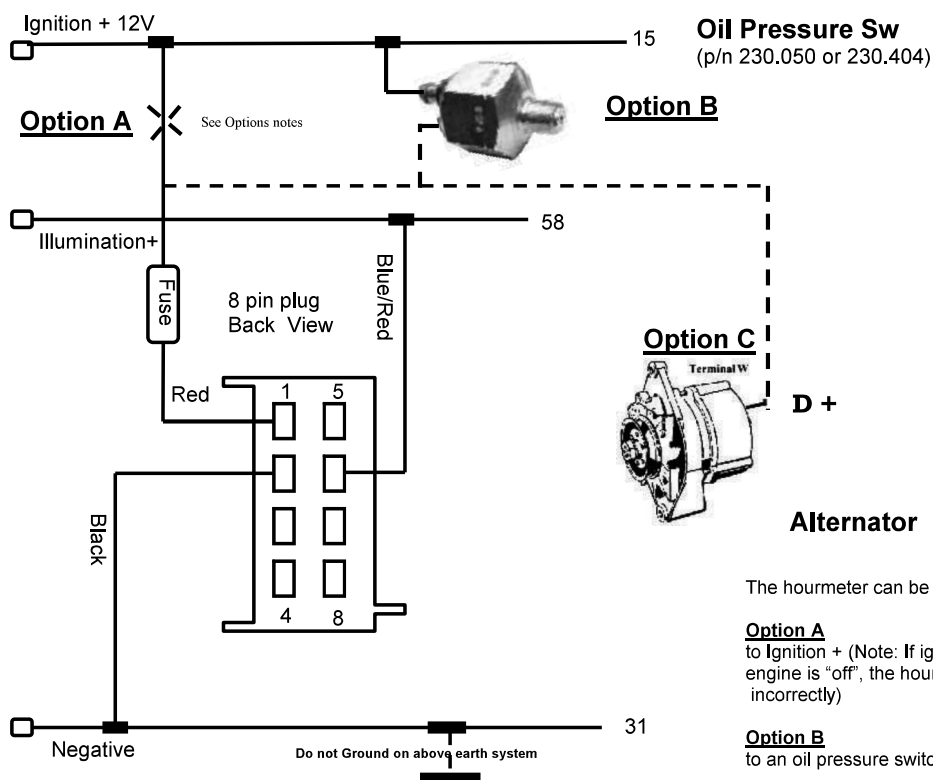
VDO (shunt): A2C59514041, A2C59514043,
A2C59514045, A2C59514047



Clock wiring diagram



Hourmeter wiring diagram



The hourmeter can be connected to a 12V supply, as follows:

Option A
to Ignition + (Note: If ignition power is let "on" and the engine is "off", the hourmeter will record engine time, incorrectly)

Option B
to an oil pressure switch (Normally "Off" contact).

Option C
to the alternator, terminal "D+"

Warning Lights

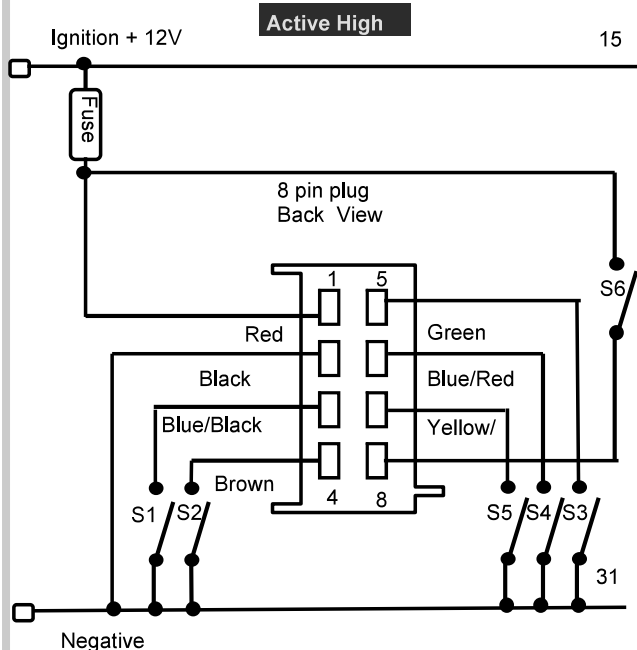
VDO

Warning Lights wiring diagram

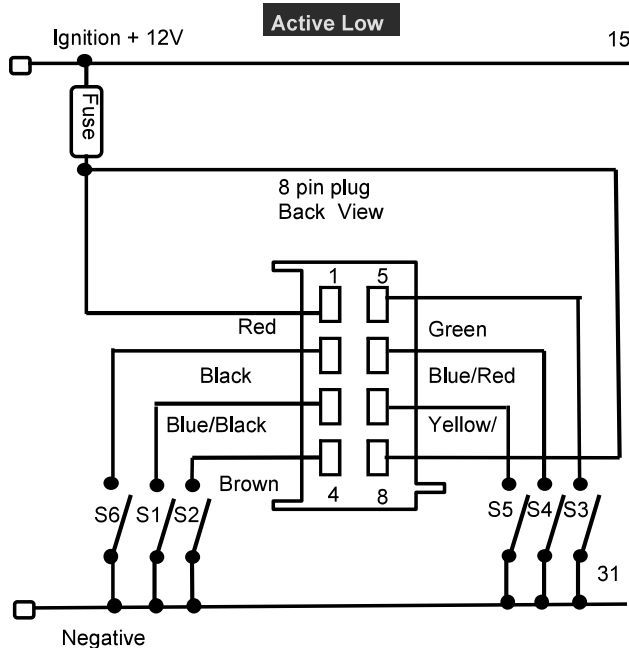


Warning Gauge Type "A"

- Pin 1 - Term. 15, ignition plus 12V, red *
- Pin 2 - WL 6, Signal Ground, black
- Pin 3 - WL 1, Ground, blue/black
- Pin 4 - WL 2, Ground, brown
- Pin 5 - WL 3, Ground, green
- Pin 6 - WL 4, Ground, blue/red
- Pin 7 - WL 5, Ground, yellow/black
- Pin 8 - WL 6, Signal plus 12V, yellow/red

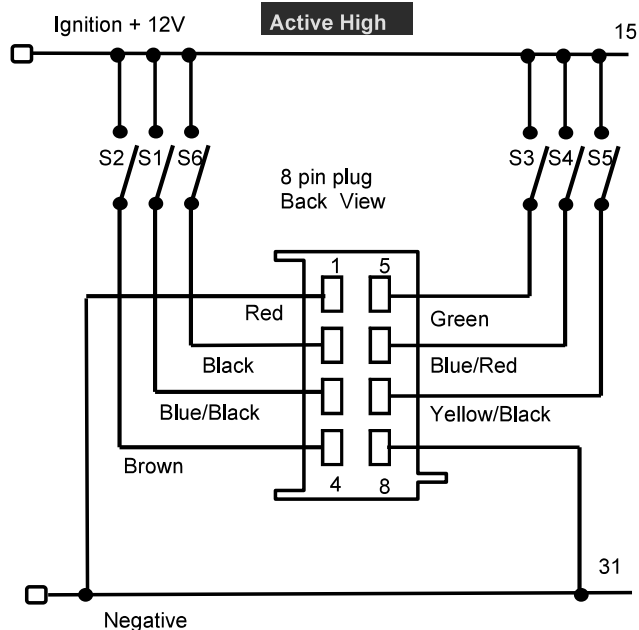


- 15 - terminal 15 - connected (ignition) plus
- 31 - terminal 31 - ground
- F1 - fuse 5A quick-response
- C1 - 8-pin MQS connector
- S1-S6 - Warning Input



Warning Gauge Type "B"

- Pin 1 - Negative, red *
- Pin 2 - WL 6, +12V Signal, black
- Pin 3 - WL 1, +12V Signal, blue/black
- Pin 4 - WL 2, +12V Signal, brown
- Pin 5 - WL 3, +12V Signal, green
- Pin 6 - WL 4, +12V Signal, blue/red
- Pin 7 - WL 5, +12V Signal, yellow/black
- Pin 8 - WL 6, Signal plus 12V, yellow/red



- 15 - terminal 15 - connected (ignition) plus
- 31 - terminal 31 - ground
- F1 - fuse 5A quick-response
- C1 - 8-pin MQS connector
- S1-S6 - Warning Input

Electronic Alarm Switch

The Electronic Alarm Switch p/n A2C59510886 is designed to trigger the gauge's warning light at a pre-set point. It can be used on tank low level, high temp, low pressure, trim and rudder-angle. The unit has a pre-wired plug for the Viewline gauges. It operates on VDO and other manufacturers (resistive) sensors.



Specification and technical data:

- Power supply: 12VDC or 24VDC
- Power consumption: < 10mA (warning lamp off)
- Operation temperature: -20°C to +70°C
- EMC: CE according to EMC Law 89/336/EEC
- Vibration resistance: max. 1g effective 25 Hz – 500Hz (duration 8 hours)
- Shock: 15g 1,5 ms half sine

Ø52mm gauges: Can be used on Temperature, Pressure, Tank, Trim, Rudder-angle.

Ø85/110mm: for optional warning lamps (Temperature, Pressure, Tank).

