Volvo Penta instruments are specially adapted for marine operations in corrosion-resistant materials, both sealed and fitted with built-in lighting. They are supplied either as a complete kit including front ring, transducers and cables and installation instructions or as separate components.

38.156 VOLVO PENTA IMMOBILISER, KIT
Part no. 1140659-2. Make life difficult for unwelcome boarders - fit Volvo Penta’s new electronic immobiliser! The immobiliser is controlled electronically, and when activated blocks any starting attempts by shutting off the fuel feed. The immobiliser also includes connections for a siren or flashing light in order to raise the alarm in the event of unauthorised starting attempts or attempts to deactivate.

The Volvo Penta immobiliser is specially made for Volvo Penta marine diesel engines. It is simple to install and is easily activated by a handy remote control. An indicator light shows the active state. If switched off inadvertently the immobiliser is automatically reactivated after a few minutes. Can be fitted with 12V or 24V electrics. For twin engines, two immobilisers are required.

The kit contains:
- The electronic unit (control unit) with connections for fuel cut-off valve, power supply, alarm, etc.
- 16 pole cable with contact for connection to the electronic unit.
- Antenna for receiving remote control signals.
- A status indicator (light) with cable for connection to the control unit.
- Cables for connecting a fuel cut-off valve, and cables for dedicated power supply to the system.
- One fuel cut-off valve.

Optional extras:
- 38.157 EXTRA FUEL CUT-OFF VALVE
  Part no. 874282-9
- 38.158 EXTENSION CABLE
  Part no. 874119-1. Extension cable, if required to extend the electronic unit, 8 pole, 5 m.
- 38.159 EXTENSION CABLE
  Part no. 874258-7. Extension cable, if required to other components, 2 pole, 3 m.
- 38.160 REMOTE CONTROL HANDSETS.
  Part no. 874253-8. (Up to 5 remotes can be programmed).

Note! Alarm components, such as sirens/flashing lights, circuit breakers etc., are not supplied by Volvo Penta.
38.162

**VOLVO PENTA EDC DISPLAY**

Part no. 874293-4. New instrument for engine monitoring of electronically controlled diesel engines. Monitors all of your engine functions on one instrument at the touch of a button. Easily customised to suit your own individual requirements, e.g. analogue or digital display, 8 different languages, different types of units (e.g. litres or gallons).

**Functions include:**
- Engine speed
- Current or average fuel consumption
- Turbo boost pressure
- Coolant temperature
- Battery voltage

The extensive choice of data available and the ability to customise information make the Volvo Penta EDC Display superior to traditional instruments. Just press a button to switch between basic engine data, such as engine speed, turbo boost pressure, coolant temperature and battery voltage, to current or average fuel consumption. You can choose between litres per nautical mile or litres per hour. Press the button again to see a graphic display of engine data from the last 8 hours.

**Fuel consumption and operational hours from reset.**

Since the display has an input from the navigation system in the boat, boat speed data taken from the log or GPS can contribute to information about fuel consumption per nautical mile. The only system requirement is that the information conforms with the NMEA 0183 standard. No matter whether you prefer gallons or litres, Fahrenheit or Celsius, BAR or PSI, you can choose to display the information the way you want.

To be able to choose the language is a great advantage, not only for yourself, but also if you want to give relevant engine facts to service personnel in different countries, or if someone of a different nationality was put in charge of navigation. Choose one of 8 languages: Dutch, English, Finnish, French, German, Italian, Spanish and Swedish.

Using the Volvo Penta EDC Display, you can choose alarm limits yourself, for example you can get immediate information when the battery voltage drops, the turbo boost pressure rises, or the coolant temperature is too high. Other facilities include monitoring and reminders about service intervals.

When installing a new engine you don’t need the complete instrument panel. Together with a simpler instrument panel kit part no. 874036-7 and oil pressure gauge the EDC Display will give you all necessary alarm and monitoring functions.

**Voltage** 12/24 V  
**Dimensions** 110 mm x 110 mm  
**Installation depth** 33 mm  
**NMEA Inputs** 1

38.162

**NEW!**

Engine speed, coolant temperature, battery voltage, boost pressure.

**Fuel consumption and operational hours from reset.**

Since the display has an input from the navigation system in the boat, boat speed data taken from the log or GPS can contribute to information about fuel consumption per nautical mile. The only system requirement is that the information conforms with the NMEA 0183 standard. No matter whether you prefer gallons or litres, Fahrenheit or Celsius, BAR or PSI, you can choose to display the information the way you want.

To be able to choose the language is a great advantage, not only for yourself, but also if you want to give relevant engine facts to service personnel in different countries, or if someone of a different nationality was put in charge of navigation. Choose one of 8 languages: Dutch, English, Finnish, French, German, Italian, Spanish and Swedish.

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When installing a new engine you don’t need the complete instrument panel. Together with a simpler instrument panel kit part no. 874036-7 and oil pressure gauge the EDC Display will give you all necessary alarm and monitoring functions.

**Voltage** 12/24 V  
**Dimensions** 110 mm x 110 mm  
**Installation depth** 33 mm  
**NMEA Inputs** 1

**See the selection charts at the end of the catalogue for the correct part.**
The Volvo Penta Multi Display gives you all the information you need about boat, wind or water conditions: Speed in water or speed over ground, water temperature, wind speed, battery status, compass, position, bearing... in analogue or digital mode.

Just press a button to retrieve the data you want to see. Sub-menus will guide you to the information of your choice and to the variety of ways to display the information. You decide how you want your information presented. For example speed can be displayed in digital figures, as a graph which describes variations over time, or in a combination of speed and depth.

You can combine the information according to your own choice in blocks of 2 or 4 items of data on the same screen. The Volvo Penta Multi Display retrieves information from a compass, the GPS antenna and from sensors for depth, speed and temperature.

Examples of different screens.

Speed/Depth

Navigation

Multi

Miscellaneous
As standard, all instruments have a circular front ring but can be fitted with different sized rectangular instrument frames for a modular instrument panel construction. A third installation alternative is for the instruments to be flush-mounted in custom designed instrument panels.

Please refer to pictures A, B, C and D for installation alternatives.

**OPERATING CLOCK – KIT**
Part no. 1140464-7. The operating clock is a precision quartz instrument which shows the total number of hours and minutes that the engine has run. It is an important aid to monitoring correct oil change and other service intervals.

Installation dimension: B

**OPERATING CLOCK, INSTRUMENT ONLY**
Part no. 872479-1. Instrument only for 38.1. Including mounting bracket but excluding front ring. Front ring, see 38.25.

**VOLTOMETER, KIT**
Part no. 858878-2. With the engine running, the voltmeter shows the alternator charge voltage to the battery. When the engine is shut down, it shows current battery voltage.

Installation dimension: A
38

FUEL GAUGE, KIT
Part no. 873808-0. The fuel gauge shows the quantity of fuel in the fuel tank – an important function for marine safety. The sensor, which is installed in the fuel tank, is equipped with a float that follows the level of fuel in the tank.

Installation dimension: A

FUEL GAUGE, INSTRUMENT
Part no. 863940-3. Instrument only for 38.4. Including mounting bracket but excluding front ring. Front ring, see 38.25.

FUEL GAUGE SENSOR
Part no. 873772-8. Sensor only for 38.4.

FRESH WATER GAUGE, KIT
Part no. 1140462-1. The gauge shows the water level in the fresh water tank. The sensor, which is installed in the tank, is equipped with a float that follows the level of the water in the tank.

Installation dimension: A

FRESH WATER GAUGE, INSTRUMENT
Part no. 863942-9. Instrument only for 38.7. Including mounting bracket but excluding front ring. Front ring, see 38.25.

FRESH WATER GAUGE SENSOR
**38.10 RUDDER INDICATOR, KIT**
Part no. 1140465-4. The indicator shows the angle of the rudder and is an invaluable aid when manoeuvring and mooring in crowded harbours.

Installation dimension: A

**38.11 RUDDER INDICATOR, INSTRUMENT**
Part no. 863944-5. Instrument only for 38.10. Including mounting bracket but excluding front ring. Front ring, see 38.25.

**38.12 RUDDER INDICATOR SENSOR**
Part no. 837772-3. Sensor only for 38.10.

**38.13 RUDDER INDICATOR, KIT FOR DRIVES**
Part no. 1140463-9. The indicator shows the drive angle and is an invaluable aid when manoeuvring and mooring in crowded harbours. Complete kit for connection of sensor to the steering arm of the drive.

Installation dimension: A

**38.14 CLOCK, KIT**
Part no. 1140597-4. The clock displays hours and minutes. Supplied with separate push button switch for easy setting of correct time.

Installation dimension: B

**38.15 CLOCK**

**38.24 TURBO-CHARGE PRESSURE GAUGE**
Part no. 873855-1. For turbo charged diesel engines. Displays the current charging air pressure in the inlet manifold after the turbo charger.

Installation dimension: A
38.17 SYNCHRONIZING TACHOMETERS, INSTRUMENTS
Part no. 856809-9. Instruments only for 38.16. Including mounting bracket but excluding front ring. Front ring, see 38.27.

38.21 PRESSURE LOG KIT
Part no. 1140433-2. A pressure log for speed of up to 65 knots. The instrument is hermetically sealed with double glass to prevent misting. The glass has a reflection-free convex shape and a non-glare interior light which permits night sight without eye strain.

The kit contains: Instrument, pitot tube, installation fittings.

Installation dimension: C

38.22 PRESSURE LOG – INSTRUMENT
Part no. 856810-7. Instrument only for 38.21. Including mounting bracket but excluding front ring. Front ring, see 38.27.

38.23 PRESSURE LOG PITOT TUBE
Part no. 856818-0. Pitot tube (transducer) only for 38.21.

YOU BOUGHT YOUR DREAM BOAT. NOW KEEP THAT DREAM AFLOAT.

It’s no coincidence that many of the world’s most attractive boats have Volvo Penta power in the engine compartment. In these circles, power, durability and unfailing reliability are as highly prized as good looks and seaworthiness. The fact that there are high-quality spare parts that also meet the same high standards makes it all that much better. Choose Genuine Volvo Penta parts for your service and repairs and you can continue to enjoy your place in the sun.
38.25
FRONT-RING FOR 52 MM INSTRUMENTS
Part no. 858643-0. Circular instrument fitting for instruments with a diameter of 52 mm. Required hole diameter 60 mm.

38.26
FRONT-RING FOR 72 MM INSTRUMENTS
Part no. 873517-7. Circular instrument fitting for instruments with a diameter of 72 mm. Required hole diameter 90 mm.

38.27
FRONT-RING FOR 85/100 MM INSTRUMENTS
Part no. 858805-7. Circular instrument fitting for instruments with a diameter of 85 or 100 mm. Required hole diameter 117 mm.

38.28
SQUARE INSTRUMENT FRAME FOR 52 MM INSTRUMENTS
Part no. 858822-2. Square instrument frame for instruments with a diameter of 52 mm. External dimensions: 62.5 x 62.5 mm. Required hole diameter 52 mm.

38.29
SQUARE INSTRUMENT FRAME FOR 85/100 MM INSTRUMENTS
Part no. 858823-0. Square instrument frame for instruments with a diameter of 85 or 100 mm. External dimensions: 125 x 125 mm. Required hole diameters 85 or 100 mm.

38.30
INSTRUMENT PANEL FOR 52 MM INSTRUMENTS
Part no. 858873-3. For one extra instrument with 38.25 front-ring and two push-button switches. External dimensions: 140 x 90 mm.

38.31
INSTRUMENT PANEL FOR 52 MM INSTRUMENTS
Part no. 858874-1. For two extra instruments with 38.25 front-rings and two push-button switches. External dimensions: 190 x 90 mm.

38.32
PRESSURE SWITCH – SPRING-LOADED
Part no. 828718-7. For signal horn, etc. Spring-loaded switch, switches on when pressed, off when released. Suitable for instrument panels 38.30-31.

38.33
PUSH-BUTTON SWITCH – TWO POSITIONAL
Part no. 828719-5. ON/OFF switch suitable for navigation lights, etc. Press-ON/Press-OFF. Suitable for instrument panels 38.30-31.

38.208
HOLDER FOR 52 MM INSTRUMENTS
Part no. 873207-5. For one instrument.

38.309
HOLDER FOR 72 MM INSTRUMENTS
Part no. 873208-3. For one instrument.
38.34 INSTRUMENT PANEL, STANDARD
Part no. 873594-6. Intended for either Main control position or Flybridge installation.

1. Opening for tachometer
2. Alarm buzzer
3. Toggle switch for pre-heater/alarm test
4. Instrument panel lighting ON/OFF switch
5. Start button
6. Warning light panel for:
   - coolant temperature
   - oil pressure
   - battery charging
   - pre-heater

Also order cover plate (38.40) or tachometer (38.41).

38.35 INSTRUMENT PANEL, STANDARD
Part no. 873593-8. Intended for either Main control position or Flybridge installation.

1. Opening for tachometer
2. Alarm buzzer
3. Push-button switch for alarm test
4. Push-button switch for instrument panel lighting
5. Ignition lock
6. Warning light panel for:
   - coolant temperature
   - oil pressure
   - battery charging
   - pre-heater

Also order cover plate (38.40) or tachometer (38.41).

38.36 INSTRUMENT PANEL, DE LUXE
Part no. 873590-4. Intended for either Main control position or Flybridge installation.

1. Opening for tachometer
2. Coolant temperature gauge
3. Oil pressure gauge
4. Voltmeter
5. Warning light panel for:
   - coolant temperature
   - oil pressure
   - battery charging
   - pre-heater
6. Push-button switch for alarm test
7. Push-button switch for instrument panel lighting
8. Alarm buzzer
9. Ignition lock

Tachometer (38.41) should also be ordered.

For double coolant temperature and oil pressure gauge installations, new sensors must be fitted to the engine (this applies to 31-44 engines).

Coolant temp sensor: 840074-9 (38.49)
Oil pressure sensor: 866836-0 (38.50)
38.37 INSTRUMENT PANEL KIT
Part no. 874036-7. For custom designed instrument panels intended for either Main control position or Flybridge installation.

Includes:
- Panel with alarm buzzer
- Push-button switch for alarm test
- Push-button switch for instrument panel lighting
- Ignition lock
- Warning light panel
- Cable connections

If required, also order:
- Tachometer 873992-2 (38.41)
- Front ring 873517-7 (38.26)
- Mounting bracket 873208-3 (38.209)
- Instrument kit 873286-9 (38.38)

38.38 INSTRUMENT KIT
Part no. 873286-9. For custom designed instrument panels intended for either Main control position or Flybridge installation.

Includes:
- Coolant temperature gauge
- Oil pressure gauge
- Battery charge meter

If required, also order:
- Front rings 858643-0 (38.25) – 1 per instrument
- Mounting brackets 873207-5 (38.208) – 1 per instrument

For double coolant temperature and oil pressure gauge installations, new sensors must be fitted to the engine.

- Coolant temp sensor: 840074-9 (38.49)
- Oil pressure sensor: 868836-0 (38.50)

38.39 INSTRUMENT PANEL KIT
Part no. 873582-1. For custom designed instrument panels intended for either Main control position or Flybridge installation.

Includes:
- Panel with alarm buzzer
- Push-button switch for alarm test
- Push-button switch for instrument panel lighting
- Start button
- Stop button
- Warning light panel
- Cable connections

If required, also order:
- Tachometer 873992-2 (38.41)
- Front ring 873517-7 (38.26)
- Mounting bracket 873208-3 (38.209)

38.40 COVER PLATE
Part no. 858648-9. To cover the tachometer opening in the instrument panel should a tachometer not be installed.

38.41 TACHOMETER KIT
Part no. 873992-2. Also includes operating clock. Suitable for both standard and De Luxe instrument panels (38.34, 35, 36) and instrument panel kits (38.37, 39).

If required, also order:
- Front ring 873517-7 (38.26)
- Mounting bracket 873208-3 (38.209)

Installation dimension: D

38.42 Y-CONNECTOR FOR FLYBRIDGE
Part no. 1140598-2. For the connection of the Flybridge instrument panel to the existing main instrument panel. The connector has 16-pole snap on connectors.

38.43 HANDED FLYBRIDGE INSTRUMENT PANEL
Part no. 860184-1. Excluding instruments, lamps and switches. The same design and dimensions as 38.38 but in mirror image.

See the selection charts at the end of the catalogue for the correct part. 55
**38.45** PETROL ENGINE INSTRUMENT PANEL
Part no. 3851008-7. Intended for either Main control position or Flybridge installation. Includes:
1) Voltmeter, part no. 873199-4
2) Coolant temperature gauge, part no. 856811-5
3) Tachometer, part no. 856808-1
4) Oil pressure gauge, part no. 856812-3
5) Push-button switch for instrument panel lighting, part no. 828585-0
6, 7) Fuses, part no. 841518-4
8) Ignition lock, part no. 856659-8

For double coolant temperature and oil pressure gauge installations, new sensors must be fitted to the engine. See 38.48, 51.

**38.91** CABLE CONNECTION KIT
Part no. 3858640-0. Used for connecting instrument kit (38.92) to engine electrical system.

Cable harness, part no. 3858602-0
Starter/ignition switch, part no. 856659-8
2 fuses, part no. 841518-4
Switch for instrument lighting, part no. 828585-0

Warning lamp comprising:
Lamp holder part no. 808175-4
Bulb part no. 19923-2
Holder, part no. 839455-4

**38.92** INSTRUMENT KIT WITH NEW TACHOMETER
Part no. 3858636-8.

Tachometer part no. 8555604-9
Coolant temperature gauge part no. 856811-5
Oil pressure gauge part no. 856812-3
Voltmeter part no. 863930-4

**38.48-49** SENSOR, ENGINE COOLANT TEMPERATURE
Intended for use with double instrumentation and replaces the standard sensor.

**38.50-51** SENSOR, ENGINE OIL PRESSURE
Intended for use with double instrumentation and replaces the standard sensor.

**38.77** SENSOR KIT FOR INSTRUMENT PANEL, DE LUXE VERSION (38.36)
Part no. 873669-8. Only for MD2010, MD2020, MD2030 and MD2040.
38.52
ALARM PANEL DISPLAY
Part no. 858876-6. Used when alarm
functions are moved from the instrument
panel and separately installed. The panel
contains symbols for coolant temperature, oil
pressure, battery charging and pre-heater.

Note! The display panel is merely an empty
housing, the required connections, lamps,
etc., must be taken from the instrument panel.

Dimensions: 113 x 50 mm

38.54
Y-CONNECTOR, FLYBRIDGE
Part no. 3851005-3. For the connection of
the Flybridge instruments to the existing main
instrument panel. The connector has 11-pole
snap on connectors.

38.89
CABLE CONNECTION KIT, DUAL
INSTALLATION
Part no. 3857221-0. The connection kit is
used with dual installations of V6/V8 engines
with electronic fuel injection. If one engine is
electronically throttled back as a result of
overheating or some other problem, the other
engine will also be reduced to the same
speed automatically, for added safety and
comfort onboard.

38.55-57, 86-87, 93-96
EXTENSION CABLES
Both ends of the extension cables are
equipped with snap-on connectors which fit
directly between the engine cables and the
instrument panel.

<table>
<thead>
<tr>
<th>Pos.no.</th>
<th>Part no.</th>
<th>Length, m</th>
</tr>
</thead>
<tbody>
<tr>
<td>38.55</td>
<td>846648-4</td>
<td>3</td>
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<tr>
<td>38.56</td>
<td>846649-2</td>
<td>5</td>
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<tr>
<td>38.57</td>
<td>846650-0</td>
<td>7</td>
</tr>
<tr>
<td>38.86</td>
<td>873838-7</td>
<td>9</td>
</tr>
<tr>
<td>38.87</td>
<td>873839-5</td>
<td>11</td>
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<tr>
<td>38.93</td>
<td>3858151-8</td>
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<td>38.94</td>
<td>3858152-6</td>
<td>6</td>
</tr>
<tr>
<td>38.95</td>
<td>3858154-2</td>
<td>3 1)</td>
</tr>
<tr>
<td>38.96</td>
<td>3858155-9</td>
<td>6 1)</td>
</tr>
</tbody>
</table>

1) From engine, use cable:
   – 3858151-8 (38.93), L = 3 m or
   – 3858152-6 (38.94), L = 6 m

38.62-63
DIODE CABLE
Required for pre-heater and stop function on
certain installations.

<table>
<thead>
<tr>
<th>Pos.no.</th>
<th>Part no.</th>
</tr>
</thead>
<tbody>
<tr>
<td>38.62</td>
<td>873567-2</td>
</tr>
<tr>
<td>38.63</td>
<td>873568-0</td>
</tr>
</tbody>
</table>

38.64, 88
DIGITAL POWER TRIM INSTRUMENT KIT
For Flybridge installation. Equipped with
display showing the trim angle of the drive.
Control panel 3855650-2 (38.65) is suitable
for controlling Power Trim.

Note! 3855650-2 must be ordered
separately.

<table>
<thead>
<tr>
<th>Pos.no.</th>
<th>Part no.</th>
<th>Drive type</th>
</tr>
</thead>
<tbody>
<tr>
<td>38.64</td>
<td>8772239-9</td>
<td>DP-E</td>
</tr>
<tr>
<td>38.68</td>
<td>38556252-4</td>
<td>DP-S</td>
</tr>
</tbody>
</table>

Installation dimension: A

38.65
POWER TRIM CONTROL UNIT
Part no. 3855650-2. For custom made
Power Trim control units:
   Push-button switch for by-pass,
   part no. 828718-7 (38.32).
   Toggle switch, part no. 828742-7 (38.68).
   Rubber seal for toggle switch,
   part no. 828743-5

Manoeuvring from controls – see group 27.

38.69
ANALOG POWER TRIM INSTRUMENT
Part no. 3860439-3. For DPX drive. Shows
the drive trim angle. Control unit 3855650-2
can be used to operate the Power Trim.
38.66  ANALOG POWER TRIM INSTRUMENT KIT
Part no. 873136-6. For SP/DP drives control unit 873226-5 (38.67) is also required and must be separately ordered.

Installation dimension: A

38.67  CONTROL UNIT FOR 38.66
Part no. 873226-5. For Flybridge installations extension cables 856821-4 and 853066-9 are also required. These must be separately ordered. Two relays (part no. 872300-9) are also required.

38.68  TOGGLE SWITCH
Part no. 814322-4.

38.70  EXTENSION CABLE FOR POWER TRIM (38.64)
Part no. 853052-9. L = 3 m.

38.75  START LOCK KIT, TWO LOCKS
Part no. 872625-9, with dual control stations and single engine installations or a single control station and twin engine installation.
The kit contains: 2 identical start locks, 4 identical keys.

38.76  START LOCK KIT, FOUR LOCKS
Part no. 872628-2. For additional comfort and security with dual control station and twin engine installations.
The kit contains: 4 identical start locks, 8 identical keys.

38.215  Y CONNECTOR FOR POWER TRIM, FLYBRIDGE
Part no. 3855712-0.

38.216-218  EXTENSION CABLE FOR POWER TRIM
Pos.no. Part no. Length, m
38.216  3855711-2  5
38.217  3855710-4  3
38.218  3857048-7 Pigtail

38.219  ANALOG POWER TRIM INSTRUMENT SET
Part no. 3851787-6.

38.220  SENSOR FOR POWER TRIM, FLYBRIDGE
Part no. 3855115-6. Replaces existing single control station sensor.

38.221  FEEDER
Part no. 873618-3.

38.222  ELECTRONIC TRIM LIMITER FOR SX AND DP-S DRIVES
Part no. 3855584-3.
38.79
OIL LEVEL ALARM, SENSOR, 12V
Part no. 866854-3. The oil level alarm further increases safety at sea. The alarm can be connected either to a separate warning light or to Volvo Penta’s new alarm panel (38.85).

An oil level sensor is connected to a special dipstick via a plastic hose. The alarm reads off the oil level before starting and activates the alarm if the level is too low. When the ignition key is turned from the 0 position to the drive position and the oil level is satisfactory, the lamp test lasts for 2 seconds. The light will stay on if the oil level is insufficient. The alarm operates only before starting and not while the engine is running.

The alarm panel (38.85) and the dipstick (38.81) are ordered separately. Cables are ordered separately according to the installation instructions.

38.81
OIL LEVEL ALARM, DIPSTICK

<table>
<thead>
<tr>
<th>Engine</th>
<th>Part no.</th>
<th>Corresp. standard dipstick</th>
</tr>
</thead>
<tbody>
<tr>
<td>D22</td>
<td>886850-1</td>
<td>838800-1 1)</td>
</tr>
<tr>
<td>D41</td>
<td>866851-9</td>
<td>838801-9 1)</td>
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<tr>
<td>D31/41</td>
<td>866841-0</td>
<td>861087-5 2)</td>
</tr>
<tr>
<td>D42/43/44</td>
<td>866841-0</td>
<td>861087-5 3)</td>
</tr>
<tr>
<td>D61/71/72</td>
<td>866842-6</td>
<td>861166-5 3)</td>
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<td>D63</td>
<td>8725056-8</td>
<td>886746-1</td>
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<tr>
<td>D100/102</td>
<td>866844-4</td>
<td>821101-3 4)</td>
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<tr>
<td>D121/122</td>
<td>866847-7</td>
<td>4772194-5 4)</td>
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<tr>
<td>D121/122</td>
<td>866848-5</td>
<td>822542-7</td>
</tr>
<tr>
<td>D162/163</td>
<td>866849-5</td>
<td>849975-8</td>
</tr>
</tbody>
</table>

1) Engines with metal oil pipes and dipstick with red grip
2) Engines with plastic oil pipes and dipstick with yellow grip
3) Engine slope greater than 5 degrees
4) Engines with a low oil sump

38.82
ALARM FOR LOW COOLANT LEVEL
Part no. 861759-9. The coolant level alarm prevents overheating by issuing a warning about low coolant level before the engine is started. When the ignition key is turned from the 0 position to the drive position and the coolant level is inadequate, the light will stay on but no buzzer alarm will sound. The alarm operates only before the engine is started, not while it is running. The alarm is connected to either a separate warning lamp or to Volvo Penta’s new alarm panel (38.85).

The kit contains sensors and relays. The alarm panel (38.85) is not included and cables are ordered separately according to the installation instructions.

For 12 V or 24 V systems.
38.83 WATER ALARM
Part no. 1140609-7. Suitable for use in conjunction with fuel filters/water separators 23.19, 22, 24, 25, 43, 51, 53. By means of a warning lamp and audio signal (buzzer), the alarm indicates when it is time to drain the water separator. Once the water has been drained off, the warning light is automatically extinguished. For 12 V or 24 V systems.

38.84 WATER ALARM SENSOR

Note! No components other than the sensor are included.

38.85 ALARM PANEL
Part no. 873609-2. The alarm panel includes lights and a buzzer that warn of the following:
– low engine oil level
– low coolant level
– water in the fuel filter

The alarm panel can be used with 12 V or 24 V systems. 38.79-80, 82 are connected to the alarm panel.

Installation of alarm panel on older engines:
The alarm panel is designed to be electrically connected to the standard alarm panel of the new instrument panel. Alarm panels on older instrument panels can be replaced with the new type of alarm panel, part no. 873737-1. This makes it possible to connect the new alarm panel 38.85.

38.98-100 AUDIBLE ALARM KIT FOR PETROL ENGINES

<table>
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<tr>
<th>Pos no.</th>
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<tr>
<td>38.98</td>
<td>3857955-3</td>
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<tr>
<td>38.99</td>
<td>3857455-4</td>
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<tr>
<td>38.100</td>
<td>3857956-1</td>
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</tbody>
</table>

Gives audible warning of low engine oil pressure and/or high coolant temperature. For greater convenience and safety onboard.

To select correct alarm kit for your petrol engine, see the selection charts at the end of the catalogue.
MD2010, MD2020, MD2030, MD2040

See the selection charts at the end of the catalogue for the correct part.
See the selection charts at the end of the catalogue for the correct part.
Instruments

T(A)MD31, T(A)MD41, KAMD43, KAMD44, AD31, (A)D41, KAD32, KAD43, KAD44

2:nd

1:st

DP-E
See the selection charts at the end of the catalogue for the correct part.
Petrol engines with SX/DP-S drive, analog Power Trim instrument
Petrol engines with DP-S drive, digital Power Trim instrument

See the selection charts at the end of the catalogue for the correct part.