

A correctly dimensioned electrical system contributes to comfortable and problemfree boat ownership. Batteries must be charged to the correct capacity, i.e., to supply the correct number of amp hours (Ah). In turn, this requires an alternator that supplies a sufficient charge to the batteries. Insufficiently dimensioned, oxidized or badly connected cables, incorrect main switch, etc., lead to current leakage and insufficient charging. In other words, there is every reason to examine the electrical systems and if necessary, improve it to attain the benefits of maximum battery capacity. Today's boats are equipped with more and more electrically powered accessories for both comfort and safety.

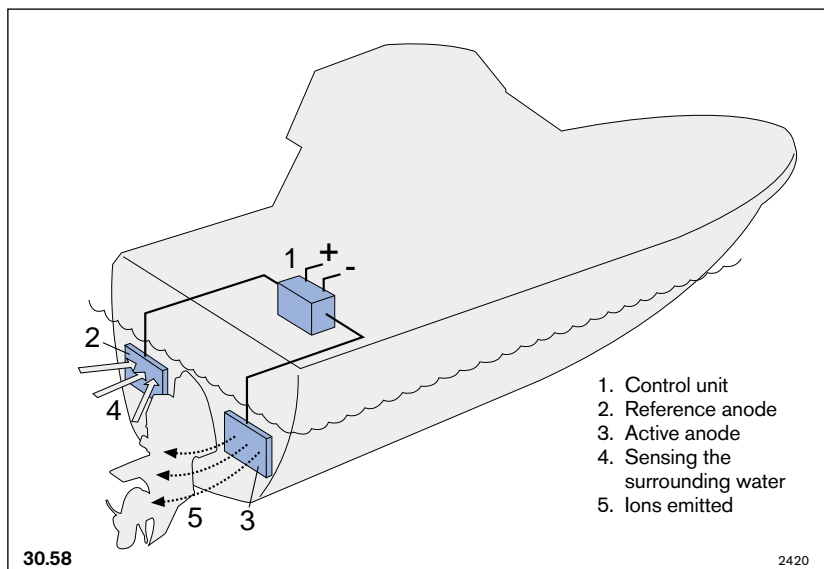
30.8 CHARGE DISTRIBUTOR



Power for lighting, radio transmitters, TV, stereo equipment, fans, heating, etc., drain battery power. As the charging of batteries takes a relatively long time, an extra charge alternator and an extra battery are good investments. You could also choose to invest in our Volvo Penta 220 V Power System to greatly improve onboard comfort.

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Electrical system



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ACTIVE ELECTRONIC ANTI-CORROSION SYSTEM FOR DRIVE

Developed and produced for optimum protection against galvanic corrosion. The system is a complement to Volvo Penta's original sacrificial anodes and is thus not intended to replace these. The new electronic anti-corrosion system is especially recommended for boats that are used in water with varying degrees of corrosiveness, or where extra protection against corrosion is needed in respect of the installation.

Function: The system works using an on-board electronic control unit together with a reference anode and an active anode, both fitted beneath the water line. The reference anode senses the electrical potential of the surrounding water and sends a signal to the control unit, which in turn sends an appropriate current to the active anode. Different combinations of water temperature, chemical composition and exposed surface require different levels of current. The active anode then emits varying levels of ions into the water surrounding the drive; these ions effectively prevent galvanic corrosion, thus protecting the drive.

Volvo Penta's active anti-corrosion system is designed for 12 V electrical systems and has absolutely no moving parts, so minimum maintenance is required. The system is supplied complete with cabling and detailed installation instructions. Standard tools, a drill and suitable underwater sealant are all that is required for most installations.



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30.57 KIT FOR MOUNTING DIRECTLY ONTO THE DRIVE'S SHIELD

Part no. 3851984-9. Fits SX and DP-S drives.

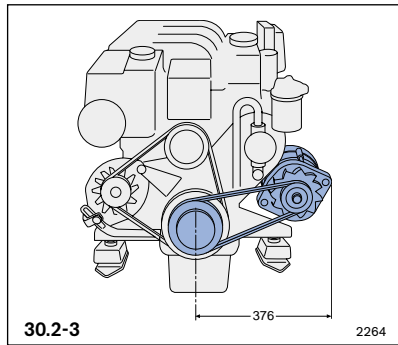
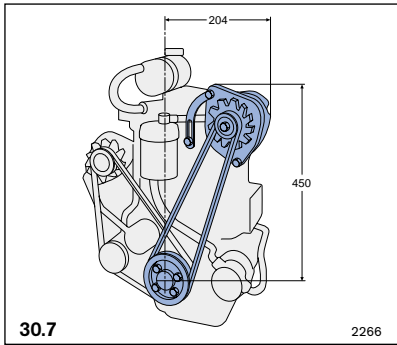
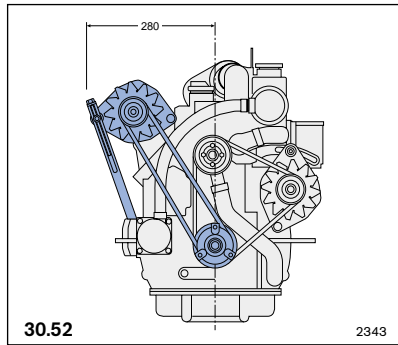
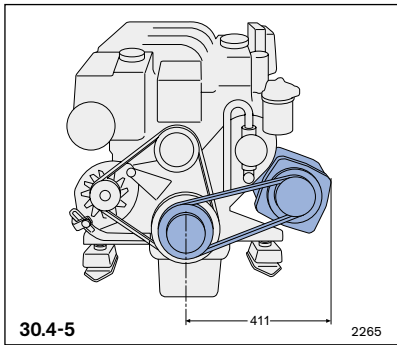
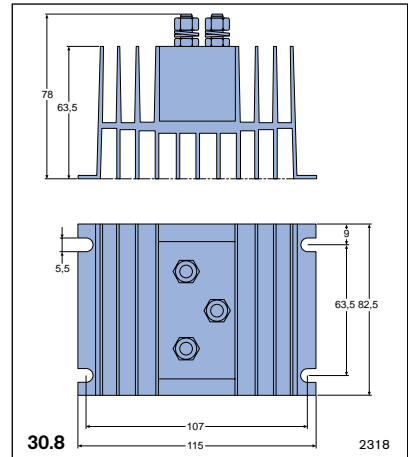
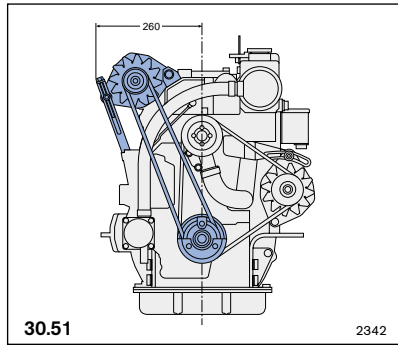
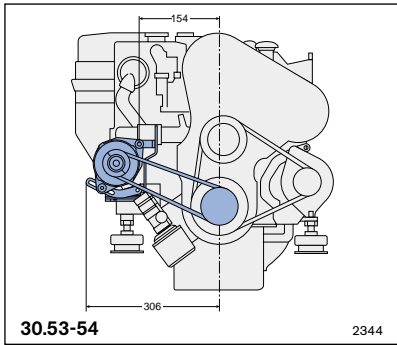
30.58 KIT FOR MOUNTING ON THE STERN (UNIVERSAL KIT)

Part no. 3851790-0. Suitable for protection of other Volvo Penta drives and other available types of drive.

30.100 KIT FOR MOUNTING DIRECTLY ONTO THE DRIVE'S SHIELD.

Part no. 3857622-9. To fit shield 3868850-3 for 7.4 and 8.2 litre petrol engines. Fits SX and DP-S drives.

Always use Original Volvo Penta sacrificial anodes, including when the electronic anti-corrosion system has been installed!



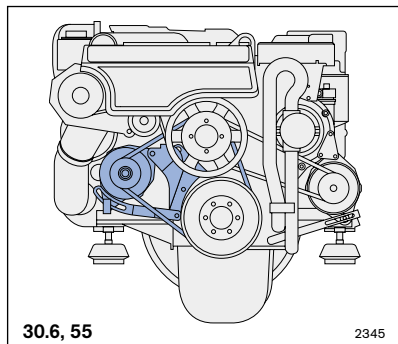
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ALTERNATOR KIT

Alternator kit for extra battery charging capacity, with built-in, fully transistorized charging regulator.

Pos.no.	Part no.	Capacity
30.2	858620-8	12 V/50 A 1)
30.3	858679-4	24 V/25 A 1)
30.4	861156-8	12 V/130 A 1)
30.5	861155-0	24 V/100 A 1)
30.6	860705-3	12 V/50 A 1)
30.7	828944-9	12 V/50 A
30.51	3581043-1	12 V/60 A 3)
30.52	3581044-9	12 V/60 A
30.53	3581045-6	12 V/60 A 1)
30.54	3581046-4	24 V/40 A 1)
30.55	3581630-5	12 V/60 A alt 1, 2) 24 V/40 A

1) Cannot be combined with servo steering.
2) Alternator must be ordered separately.



See the selection chart for information.
3) Drive belt must be ordered separately. See the selection chart for information.

30.8

CHARGE DISTRIBUTOR

Part no. 873120-0. The charge distributor is specially adapted for Volvo Penta's alternators. Two independent battery circuits can be charged at the same time. The starter motor battery will always be charged, even when onboard power consumption has been great and the second battery is flat.

For alternators 12-24 V/50-60 A. Equipped with sensor for directly monitoring the voltage of the battery in use.



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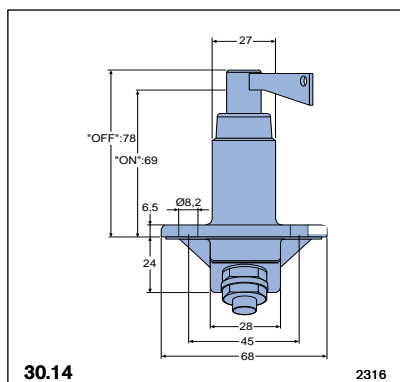
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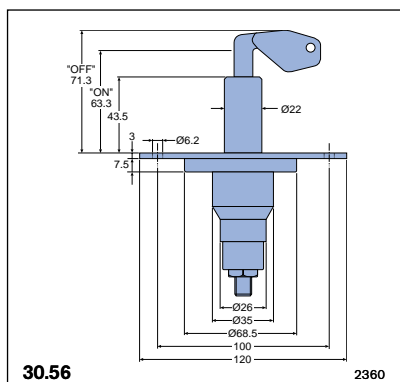
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**30.10-13
BATTERY**

12 V dry charged, virtually maintenance-free battery, manufactured to Volvo Penta specifications.

Pos.no.	Part no.	Cap. Ah	Dim., mm L x W x H
30.10	862311-8	70	271x173x223
30.11	862312-6	88	353x175x190
30.12	862313-4	110	346x172x233
30.13	862314-2	140	513x189x223

**30.14, 56
MAIN SWITCH**

Pos.no.	Part no.
30.14	1140319-3
30.56	3987034-0

Single pole switch in corrosion resistant material for marine use. With removable switch control. Breaks the power circuit for all electrical equipment and is thereby particularly useful in terms of comfort, safety and theft.

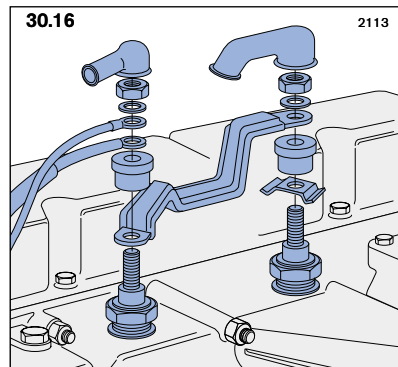
Pos.no.	Max load	Working load	Cont. load
30.14	1000 A for 5 s	450 A for 5.5 min	150 A
30.56	3000 A for 5 s		300 A

30.14 approved in SAE J1171 for installations in petrol engine rooms.



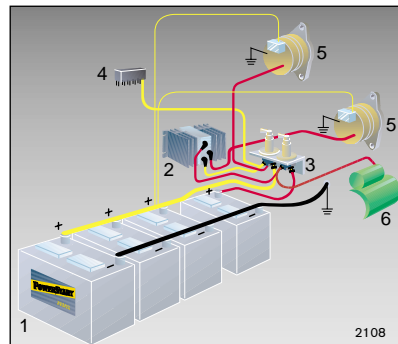
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1 Battery, 2 Charge distributor, 3 Main switch, 4 Fuse, 5 Alternator, 6 Starter motor.

**30.15
SUPPRESSOR**

Part no. 1140072-8. For effective suppression of generators, both 12 and 24 V. Recommended when equipment that operates at lower frequencies than 150/100 kHz is installed onboard, e.g., Decca navigator or similar.

**30.16
AIR PRE-HEATER, KIT**

Part no. 874117-5. For engine starting in low ambient temperatures. The kit includes two glow plugs that are installed in the intake pipe. The glow plugs are activated with the ignition key via a relay and warm up the intake air.

Warning! Never use start spray/gas on engines equipped with glow plugs.

**30.17-18
SAFETY SWITCH**

The safety switch is an important safety device, particularly for fast boats. The switch is in two parts one of which is connected, via a cord, to the pilot. Should the pilot fall in the boat or fall overboard, the electrical current to the engine is broken and the engine stops.

Pos.no.	Part no.
30.17	873977-3
30.18	839422-3



30.70-79

VOLVO PENTA 220 V POWER SYSTEM

Volvo Penta's 220 V Power System gives you 220 V onboard, wherever you happen to be. 220 V and 10 A for drill or any other power tools, microwave oven, vacuum cleaner, hob, refrigerator and freezer, TV, water heater and battery charger – all the comforts of home. With the Volvo Penta 220 V Power System onboard you can use standard products and there is no need to pay extra for expensive specialist products, for 12 or 24 V.

The system is very compact so it will not steal valuable space onboard. The alternator is as small as a car alternator and the control box does not take up any more space than two telephone directories.

Whenever the engine is running the system delivers a more uniform electricity supply than a conventional 220 V wall socket. You get 220 V at precisely 50 Hz with a perfect sine wave, regardless of the load and alternator speed.

The system consists of an alternator that is mounted directly on the engine, a control box and an installation kit. The alternator produces alternating current, which is fed to the control box by a special cable with an outer sheath of metal. The sheath protects the inner cables, and provides protection against electromagnetic radiation, to prevent interference with GPS, radar or other electrical equipment. This means that it also meets the requirements of the military standard (DEF STAN 59/41).

The control box converts the raw alternating current into perfect alternating current, which permits the use of sophisticated electronic equipment such as videos and computers. The secret lies in the fact that the control box does not transform – but converts – the alternating voltage electronically. The electronic components inside the control box are fully encapsulated to withstand the exposed environment onboard. The Volvo Penta 220 V Power System is CE marked.

Technical data

Voltage	220 (230) V
Voltage type	Alternating current (AC)
Frequency	50 Hz
Waveform	Sine wave
Current, max.	10 A
Weight, alternator	5.0 kg
Weight, control box	9.3 kg
Dimensions, alternator	150 x 130 mm
Dimensions, control box	350 x 315 x 130 mm



Product benefits:

- Provides a very uniform supply – can be used to power standard products
- Compact and lightweight
- Complies with military EMC standard (DEF STAN 59/41)
- Easy to install
- Minimal maintenance
- Can be easily combined with onshore power

Pos.no.	Part no.	220 V system
30.70	3582336-8	Control box
30.71	3582337-6	Alternator 10 A
30.72	3582338-4	Cable 3 m
30.73	3582339-2	Cable 5 m
30.74	3582340-0	Cable 7 m
30.75	3582341-8	Cable 10 m
30.76	3582333-5	Installation kit for 2020, 2030
30.77	3582334-3	Installation kit for 2040
30.78	3582335-0	Installation kit for MD22
30.79	3582347-5	Three-position switch (mains, off, 220 V Power System)
30.82	874069-8	Electrical distributor