

## Fuses

The fuses are placed in the relay box at the rear left-hand side of the engine. The fuses disconnect the current when overloaded.

**MD2010A, -2020A, -2030A and -2040A** are fitted with two fuse blocks each with four fuses (15A) for plus (+) and minus (-).

**MD2010B/C, -2020B/C, -2030B/C and -2040B/C** have only one fuse block with four fuses (15A) for plus (+).

Re-connect the electrical system, after inspection and work, if one fuse has triggered by moving the cable connection to the next contact.

## Relays

The relays are placed in the relay box on the rear left-hand of the engine.

The start and glow functions are controlled via their own switching relay. These relays are identical and therefore if necessary can be interchanged.

## Alternator

### Voltage regulator with sensor system

The voltage regulator to the standard alternator (14V/60A) is provided with a sensor system.

The sensor system compares the charge voltage between the alternator's connections B+ and 13- with that between the batteries' plus and minus poles. The voltage regulator then compensates any voltage drop in the cables between alternator and batteries by increasing the charge voltage when necessary from the alternator.

On delivery from Volvo Penta the sensor system is not activated. Connection has, however, in all probability been carried out in connection with the installation of the engine.

### Connection of sensor system

**Important! Stop the engine and then switch off the current with the main switches before working on the electrical system.**

1. Release the yellow sensor conductor from connection B+ on the alternator.
2. Splice the conductor (yellow, 1.5 mm<sup>2</sup>, 16 AWG) and connect it to the batteries' plus pole (+).

## Charging distributor

As an accessory the engine's standard alternator can be provided with a charging distributor. Two separate battery circuits can thereby be charged simultaneously. The charging distributor separates both groups from each other so that the engine's start battery is maintained fully charged even if the "accessory batteries" are weak or almost flat.

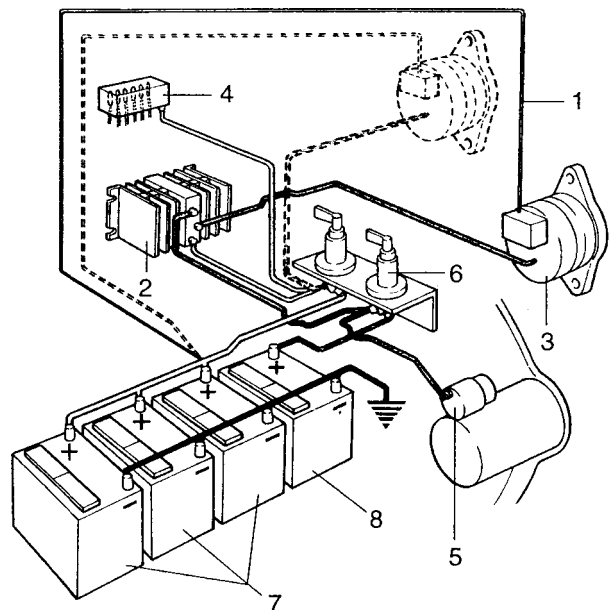


Fig. 112. Connection of sensor system to standard alternator, principle drawing

1. Sensor conductor (yellow, 1.5 mm<sup>2</sup>, 16 AWG)
2. Charging distributor (accessory)
3. Alternator
4. Fuse panel (accessory)
5. Starter motor
6. Main switch
7. Accessory batteries (accessory)
8. Start battery (engine)