

Layout of transistorized ignition

The system comprises:

Switchgear
Ignition coil
Pre-resistor 0.4 ohm (3)
Pre-resistor 0.6 ohm (4)

Operation

The ignition coil current is controlled by a transistorized circuit instead of the breaker point. The transistorized circuit is controlled by the breaker point.

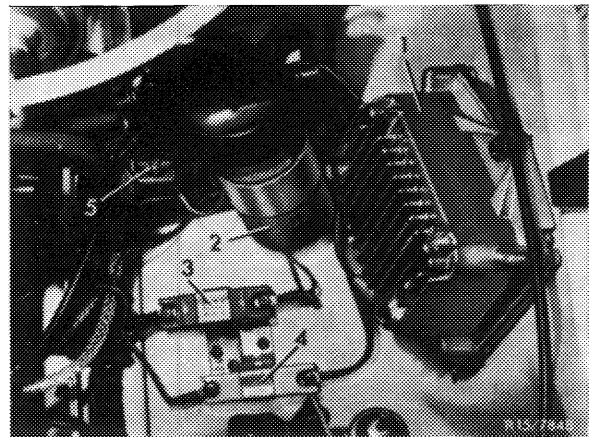
With the breaker point closed, the switching transistor is conductive. When the breaker point opens, the transistor locks and the ignition coil current is interrupted. As a result of the interrupted circuit in the primary winding, the ignition voltage is induced in the secondary winding as before for conventional coil ignition.

To increase the ignition voltage, the 0.4 ohm pre-resistor is bridged by contact 16 on starter while starting.

Switchgear (1)

The switchgear has several transistors, resistors and other electronic components in a metal housing. This housing protects the components against mechanical damage and splash water and also serves to dissipate the heat due to energy losses. Contact on switchgear is made by a 4-way round plug connection with separate coaxial connection for activation.

In the event of repairs, only the complete switchgear can be exchanged.



Ignition coil (2)

Layout and external dimensions of ignition coil correspond to those of a normal heavy-duty ignition coil. But the design of the winding is different. The ratio amounts to approx. 1:185 as compared with 1:100 for conventional ignition coils.

External identification: painted blue.

Pre-resistors

Resistors 0.4 ohm and 0.6 ohm are designed similar to the ignition coil pre-resistors installed up to now: A ceramic body encloses the resistor winding, with extending connections.

A sheet metal clamp is placed around ceramic body for attachment. The color of this clamp informs about the resistance value, which is additionally punched in as a number.

Color	Code number	Resistor
blue, anodised	0.4	0.4 ohm
metallic, anodised	0.6	0.6 ohm

General information

On vehicles with transistorized systems, do not operate engine without battery connected.

When using rapid charging units for charging vehicle battery, separate battery from other vehicle circuits.

Starting assistance with rapid chargers is not permitted.

When installing battery, pay attention to correct polarity.

Do not confuse line connections on switchgear (e.g. when testing switchgear in installed condition).

Switchgear may suffer damage if these instructions are not observed.

Instructions concerning test jobs

On engines with transistorized coil ignition, speed and dwell angle cannot always be measured in the usual manner.

Depending on type of tester used, connection at different points of ignition system is required. Always refer to operating instructions for tester. To facilitate connection of speed and dwell angle testers, an empty, offset cable shoe is screwed underneath cable connector 7.

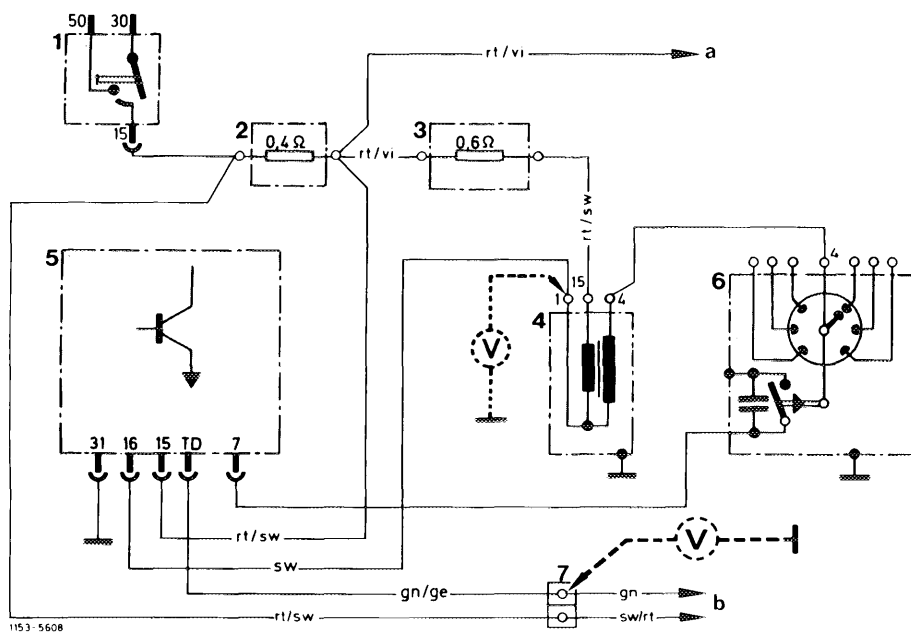
Transistorized switchgear — standard switchgear — with SI transistor

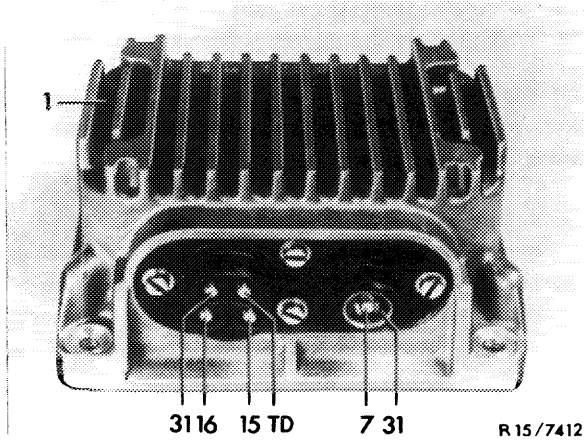
Bosch order no.	installed in model	
0 227 051 014	114.060/073	(USA) up to including model year 1974
0 227 051 024	114.060/073 116.020	(J) model year 1976 (USA) model year 1975/76

Wiring diagram

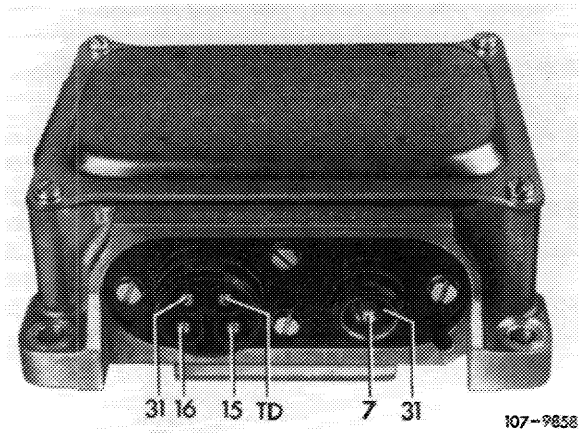
- 1 Ignition starting switch
- 2 Pre-resistor 0.4 ohm
- 3 Pre-resistor 0.6 ohm
- 4 Ignition coil
- 5 Switchgear
- 6 Ignition distributor
- 7 Cable connector with test terminal TD
- a To starter terminal 16

ge = yellow
gn = green
rt = red
sw = black
vi = purple





Switchgear 0 227 051 014



Switchgear 0 227 051 024