


This ignition system is widely free of maintenance requirements and guarantees adequate ignition voltage even at max. speeds and a more accurate adherence to firing point.

Ignition coil and series resistors are similar to breaker-controlled transistorized ignition, while the electrical layout of the switching unit has been modified.

Identification: Yellow paint dot on housing top up to production date 930 and a different Bosch no. 0 227 100 001.



Gefährliche Hochspannung!
Vorsicht bei Arbeiten an der Zündanlage

Danger! High voltage
Observe caution when working on the ignition system

Danger! Haute tension
Attention lors de travaux au système d'allumage

1154-9352

Components of ignition system:

Ignition coil

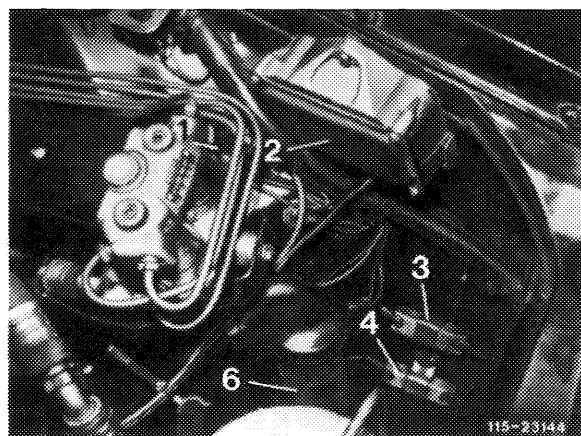
Design and external dimensions of ignition coil are similar to those of a normal high performance ignition coil. However, the coil layout is different. The transformation ratio amounts to approx. 1 : 185, as compared with 1 : 100 for conventional ignition coils.

Identification: Blue paintwork and sticker Transistor, Bosch no. 0 221 122 001.

Series resistors

Series resistors 0.4 Ω and 0.6 Ω are similar to those of former ignition coil series resistors: The resistance coil is surrounded by a ceramic body with projecting connections.

A sheet metal clamp is placed around ceramic body for fastening. The color of this clamp provides information with regard to resistance value, which is also punched in as a number.



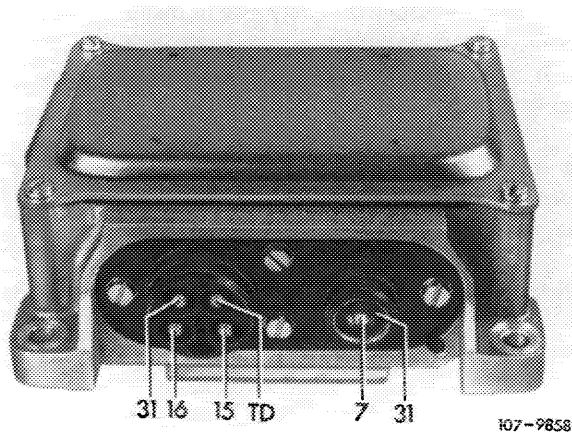
- 1 Cable connector
- 2 Switching unit
- 3 Series resistor 0.4 Ω
- 4 Series resistor 0.6 Ω

Color	Code number	Series resistor
anodized, blue	0.4	0.4 Ω
anodized, metallic	0.6	0.6 Ω

Switching unit

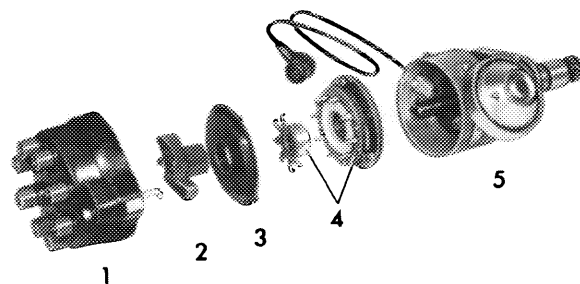
The switching unit contains several transistors, resistors and other electronic components in a metal housing. This metal housing protects the components against mechanical damage and splash water and serves also for eliminating dissipated electric heat. Contact on switching unit is made by a 4-point round plug connection and coaxial plugs for activation.

In the event of repairs, only the complete switching unit can be replaced.



Ignition distributor

Instead of the contact breaker, the ignition distributor is provided with a transmitter section, which operates according to the induction principle. Ignition timing by centrifugal force and vacuum is similar to former ignition distributor.



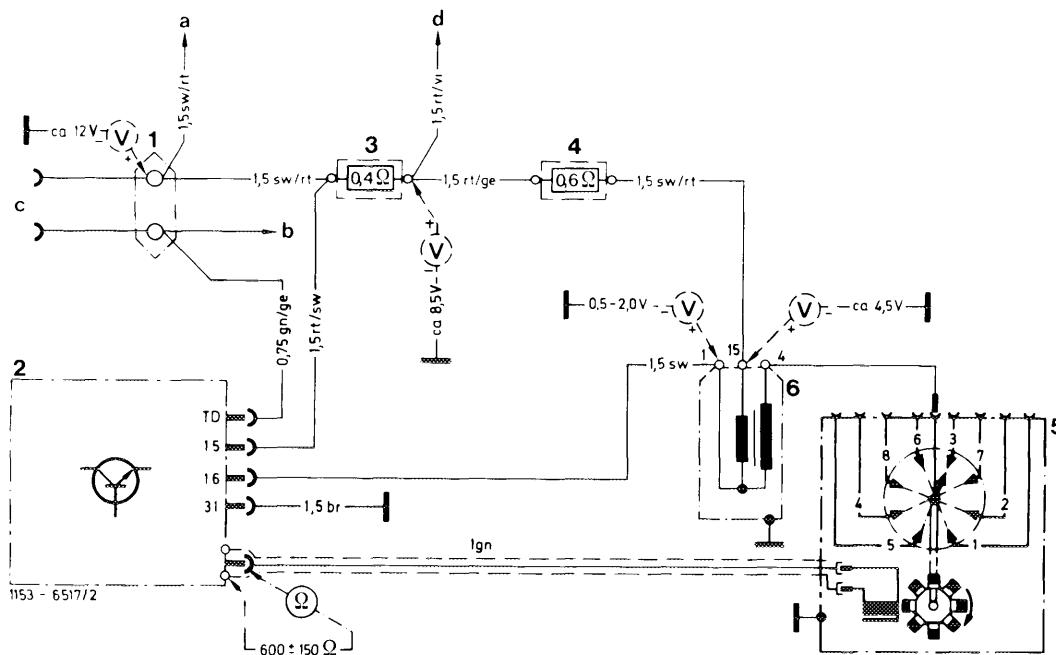
- 1 Ignition distributor cap
- 2 Ignition distributor rotor
- 3 Shielding cap
- 4 Transmitter section
- 5 Ignition distributor housing

115-10505

Operation of transmitter section

A rotor with its number of teeth corresponding to number of engine cylinders, produces during its rotation per tooth a change of magnetic flux in a magnetic field, established by a permanent magnet. As a result, an induction coil located in magnetic field establishes a control voltage (0.3 V–100 V) which depends in its size on engine speed, with a steep change from positive to negative half wave. This steep change of polarity of control voltage is used in switching unit following zero passage from impulse shaping, impulse amplification and interruption of primary current.

If the primary current is interrupted, the ignition voltage is induced in secondary winding of ignition coil. The dwell angle control in switching unit adapts the current flow time of primary current to engine speed, which means that with increasing speed the dwell angle is also increasing, so that adequate ignition voltage is assured also in upper speed range.



Wiring diagram breakerless transistorized ignition system TSZ 4

- | | | |
|---|--|-------------|
| 1 2-point cable connector | a Ignition starting switch terminal 15 | Color code |
| 2 Switching unit | b Instrument cluster, revolution counter | br = brown |
| 3 Series resistor 0.4 Ω | c Diagnosis socket | ge = yellow |
| 4 Series resistor 0.6 Ω | d Terminal 16 starter | gn = green |
| 5 Ignition distributor with transmitter section | | rt = red |
| 6 Ignition coil | | sw = black |