ENCENDIDOS SIN DISTRIBUIDOR o ESTÁTICOS

DIS

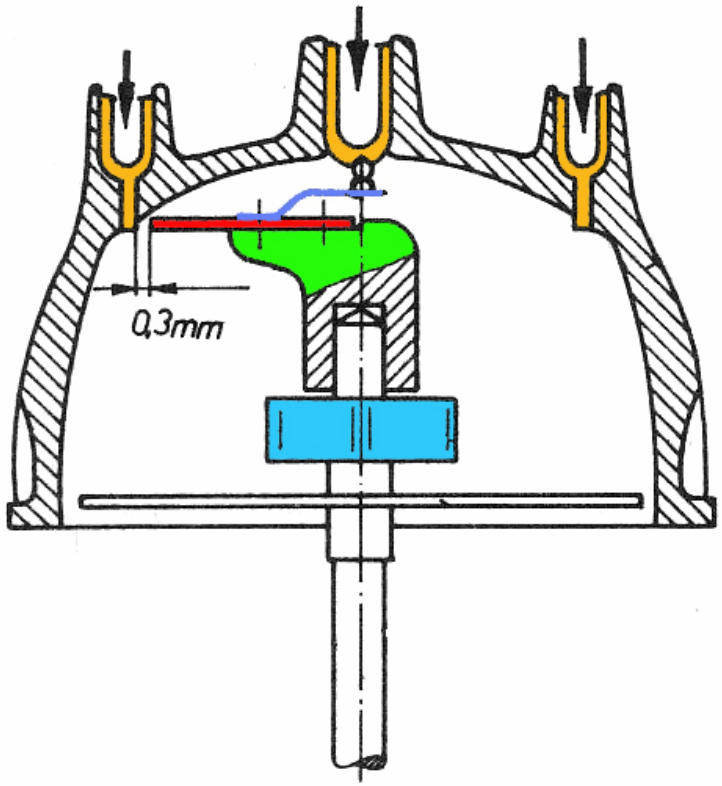
Distribuitorless Ignition System

Direct Ignition System

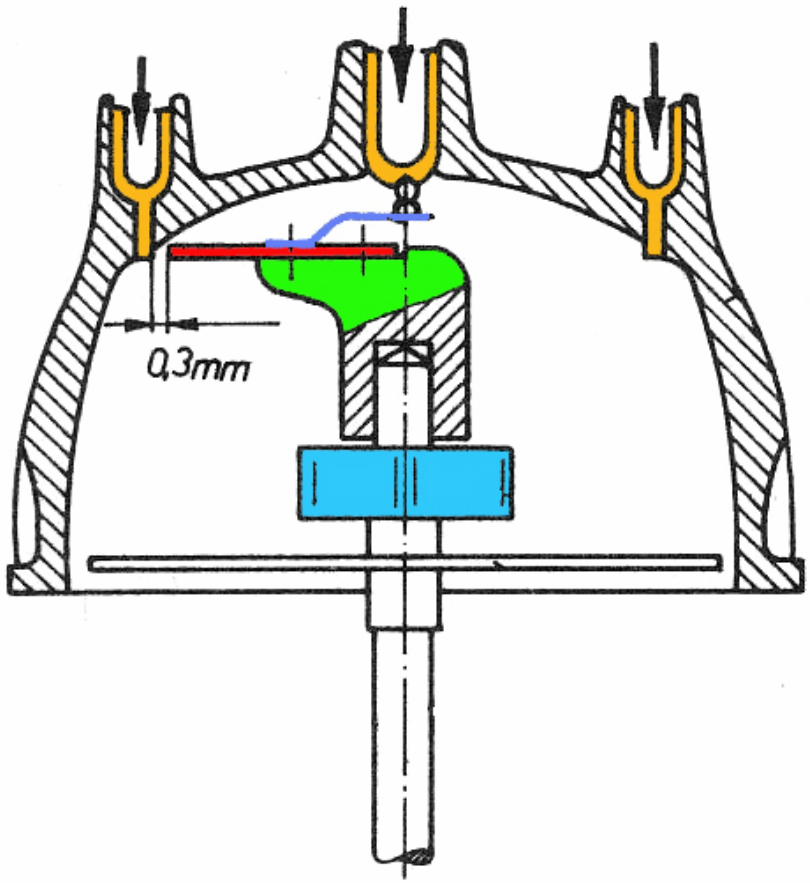
El DISTRIBUIDOR es un componente mecánico

Por lo que

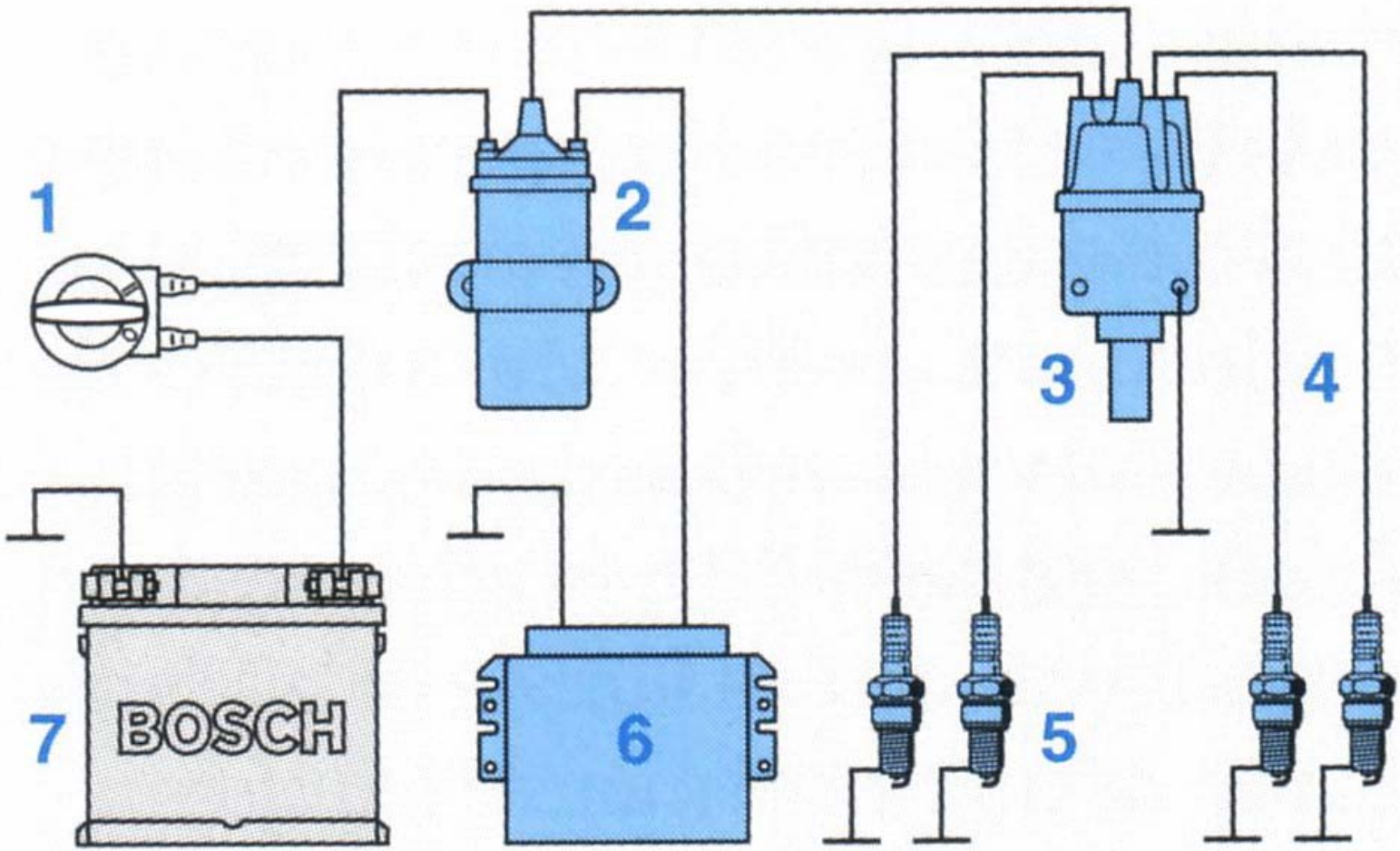
- Está sometido a desgastes
- Hay ligeras pérdidas de energía



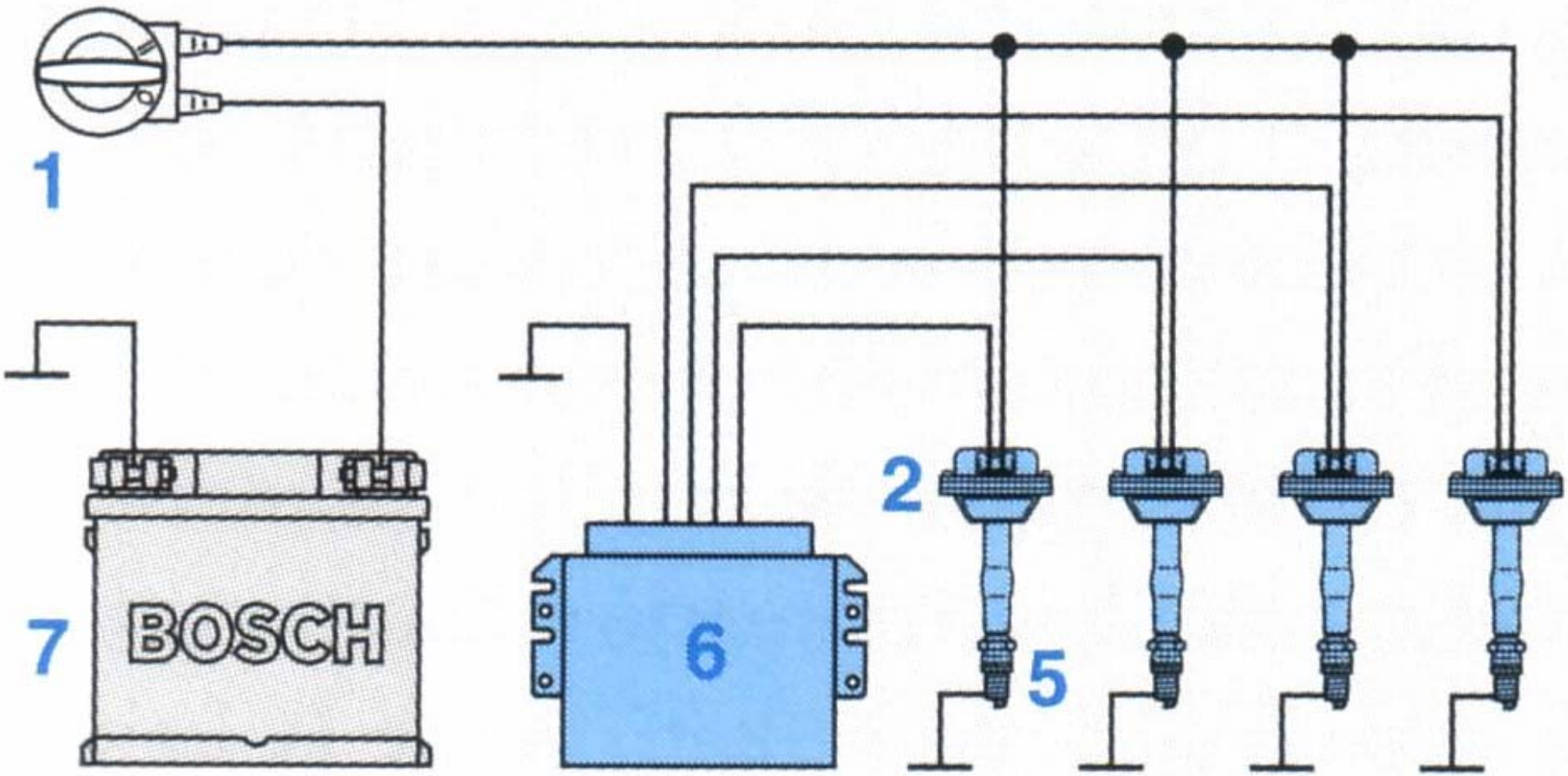
Detalle de un DISTRIBUIDOR



Principio de la DISTRIBUCIÓN 01



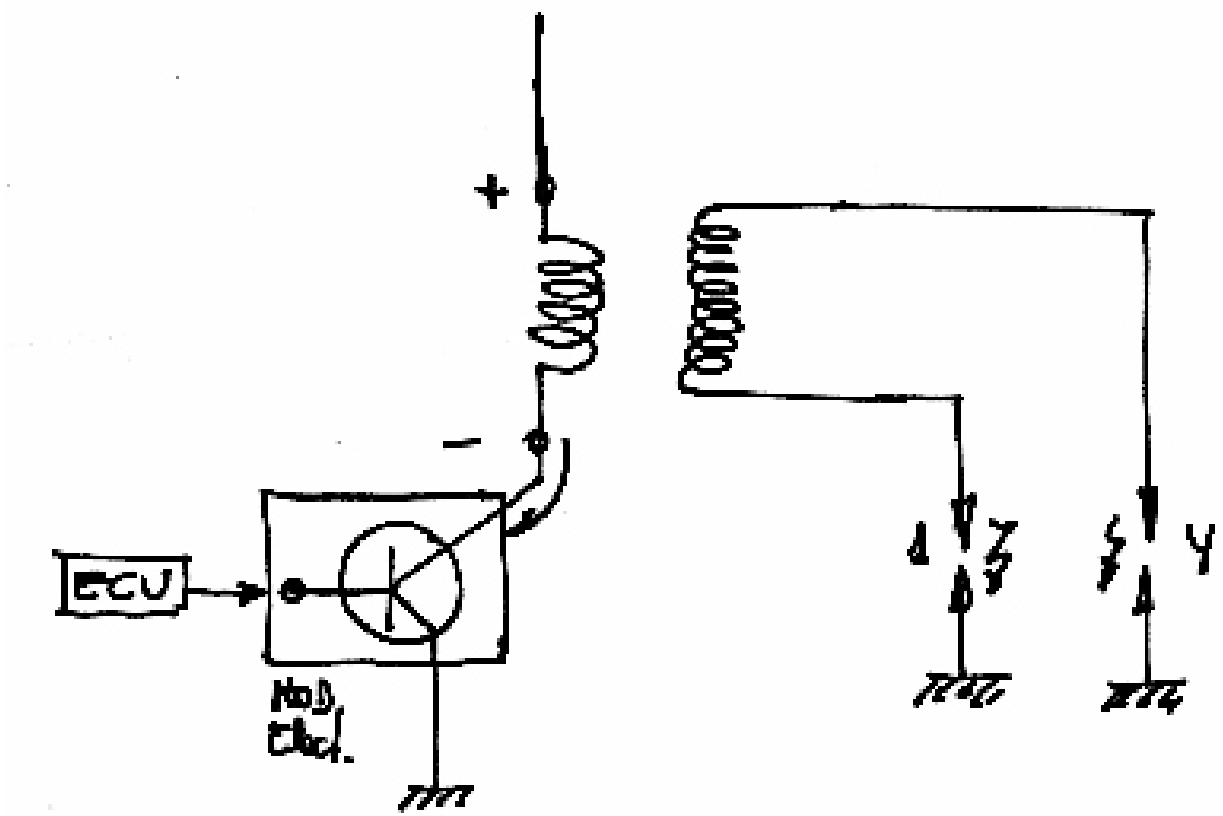
Principio de la DISTRIBUCIÓN 02



CLASIFICACIÓN

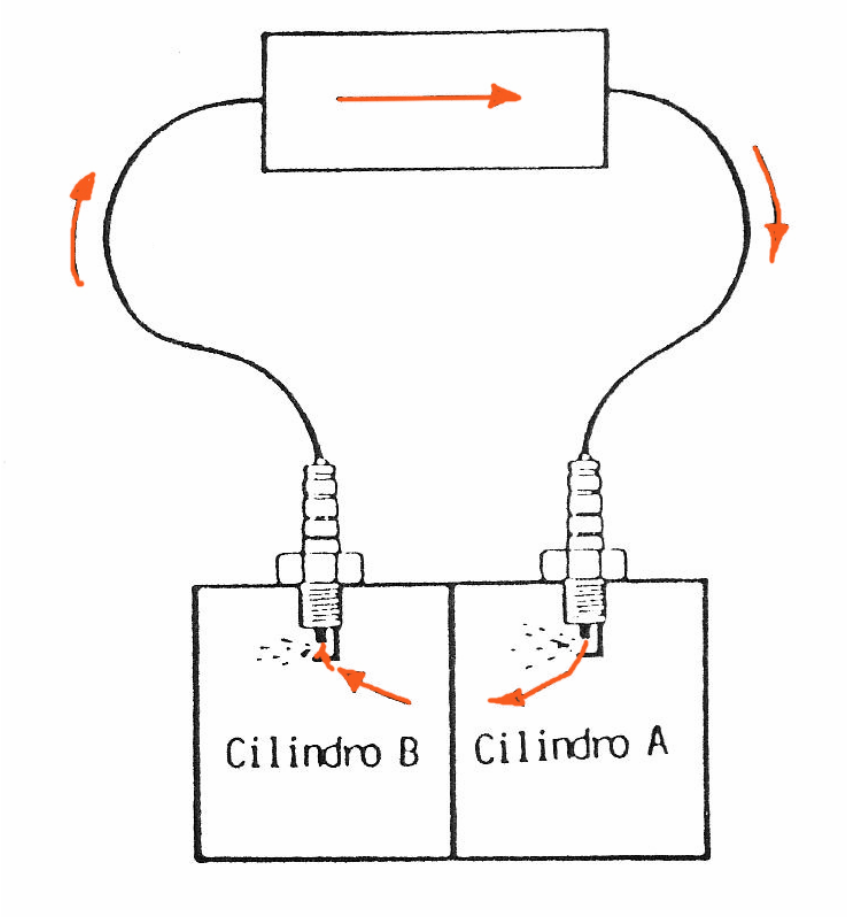
- **De CHISPA PERDIDA: las bobinas actúan sobre dos cilindros.**
- **Encendido directo o integral: la bobina y la bujía se integran en un mismo elemento**
  - **a) Encendido Independiente: una bobina para cada cilindro**
  - **b) Encendido simultáneo: una bobina para cada dos cilindros**

Encendido de chispa perdida: Principio básico de funcionamiento

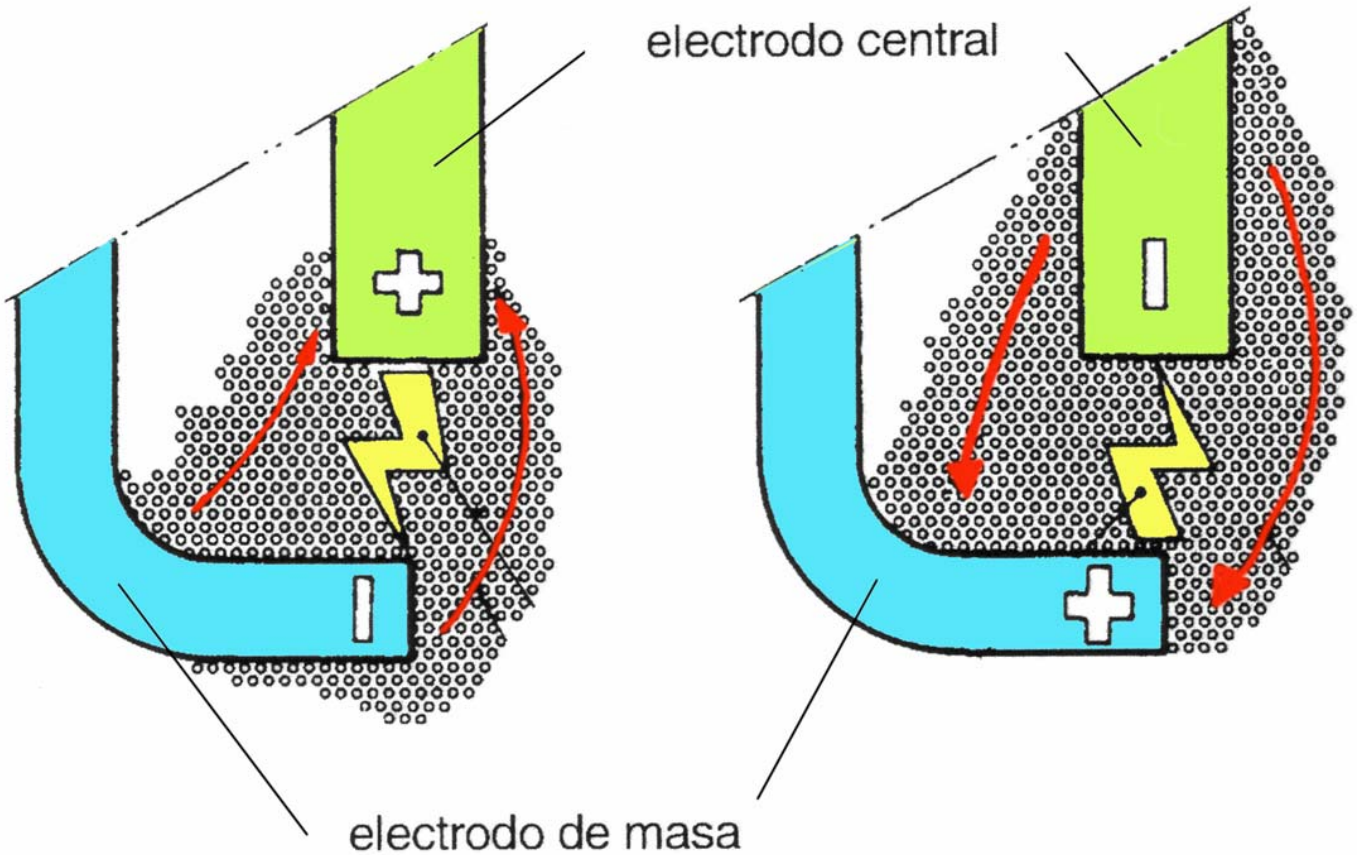


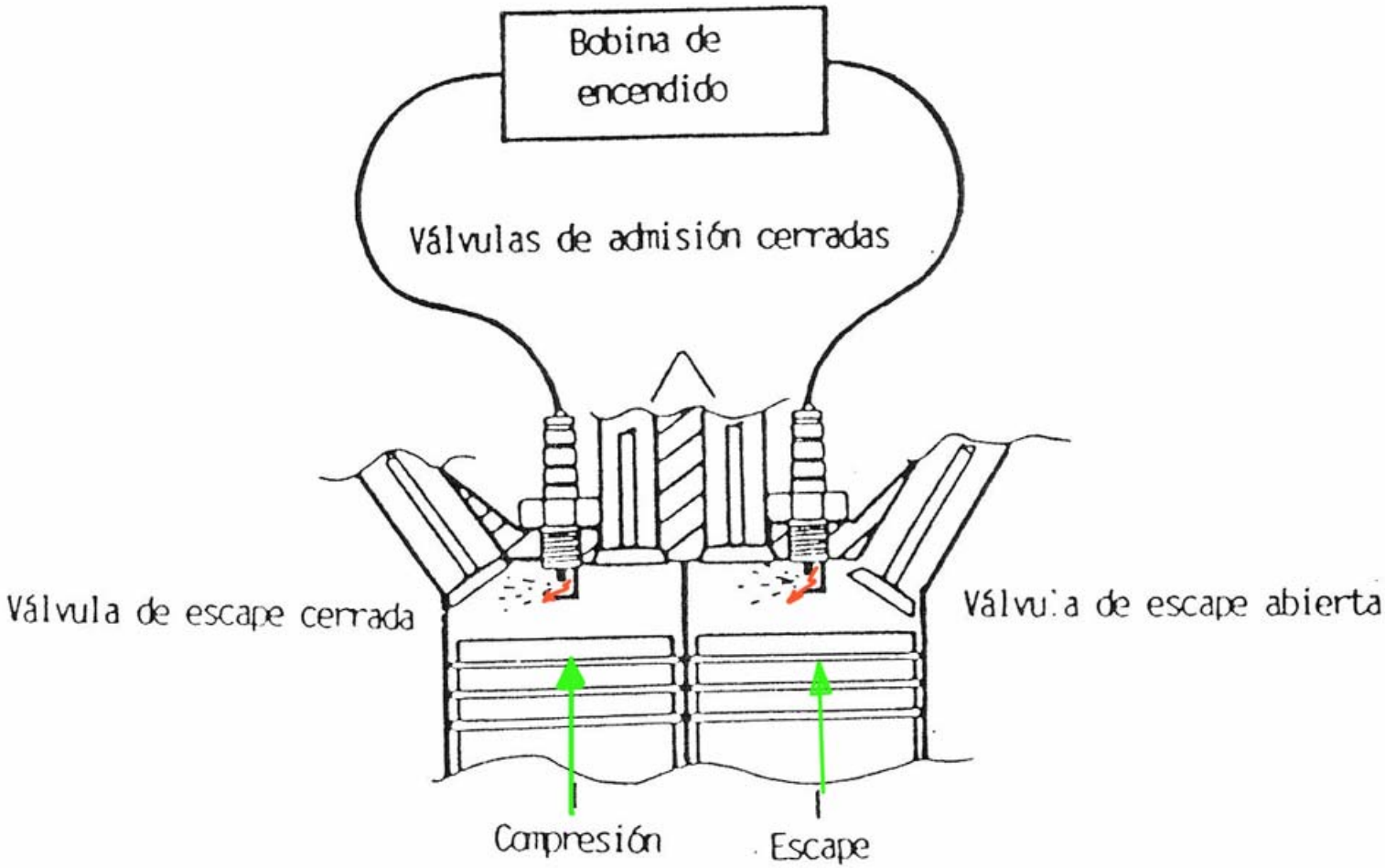
Sólo se aprovecha una chispa, la otra se pierde

Principio básico de funcionamiento



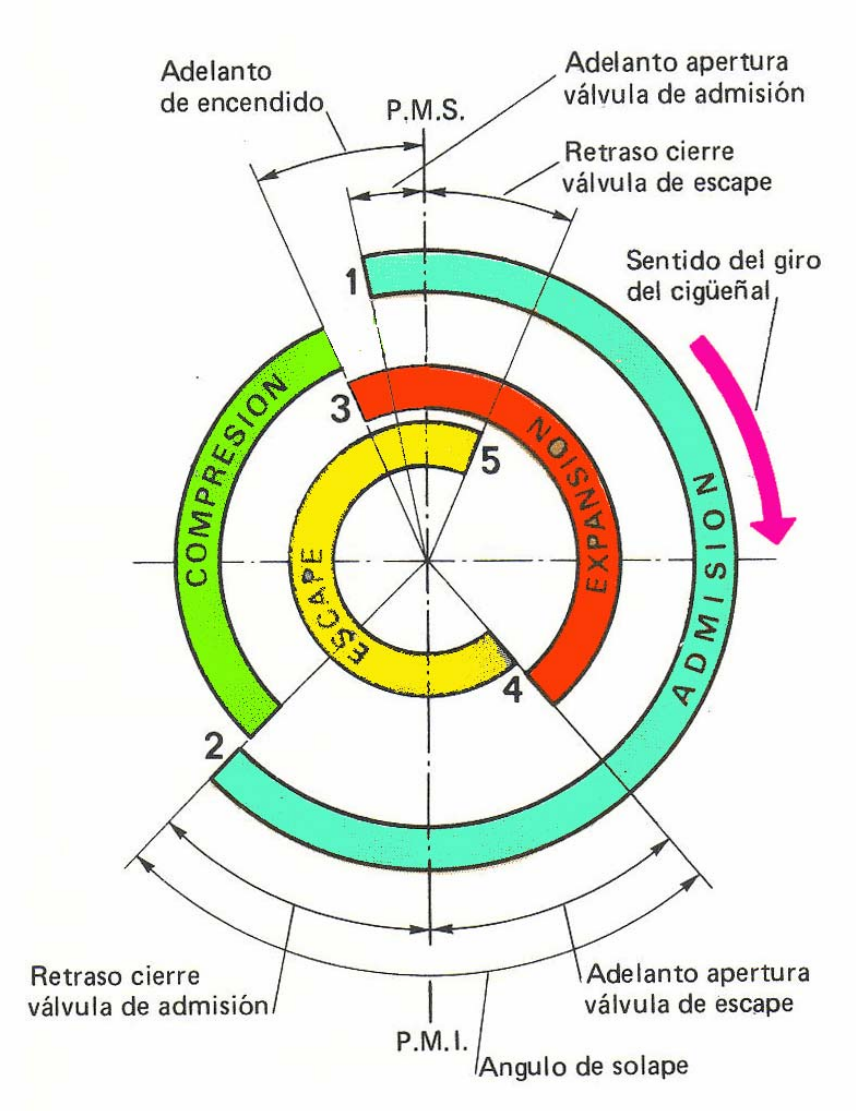
Sentido de la corriente



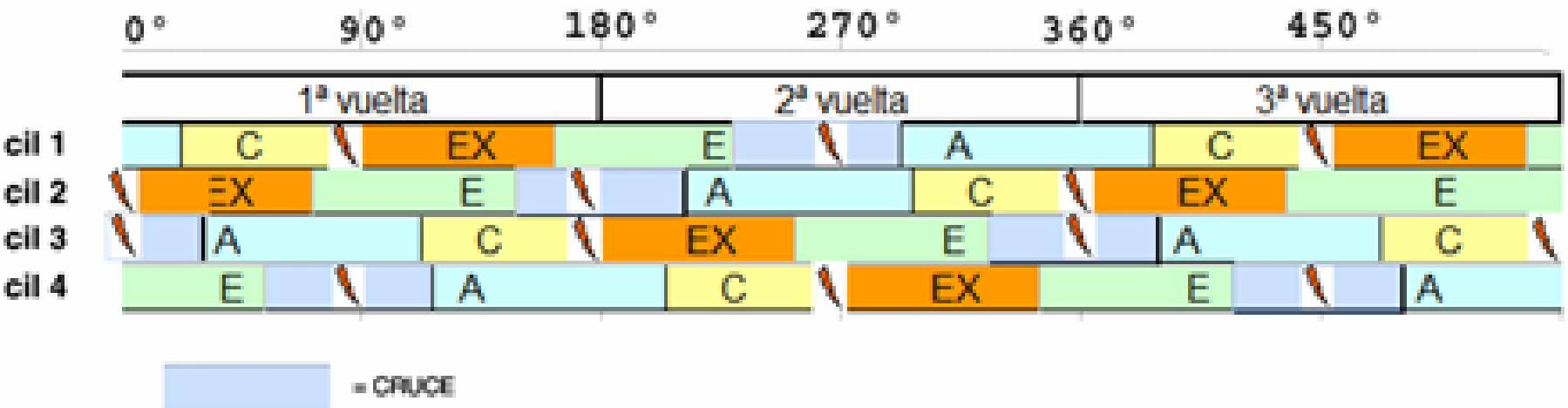


LOS DOS PISTONES SE APROXIMAN AL PMS

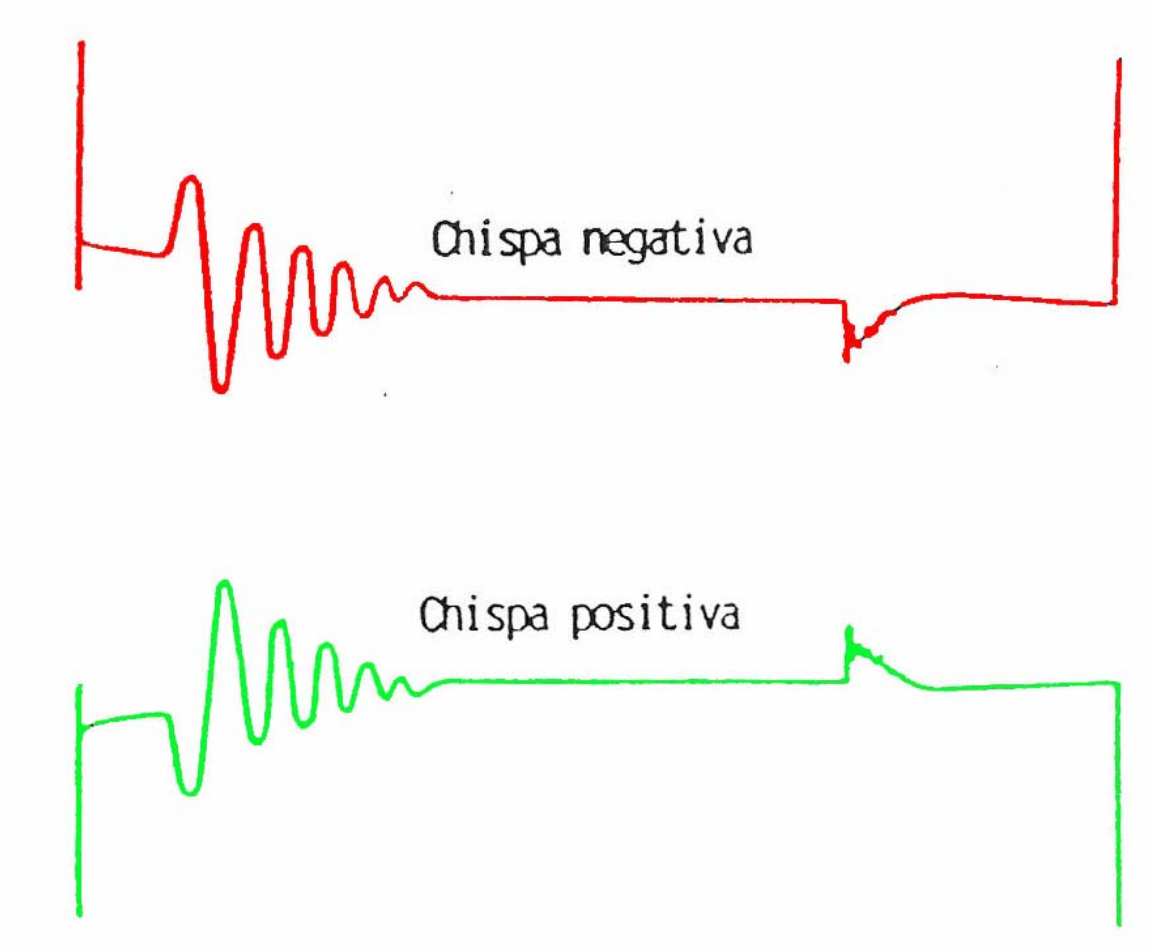
Diagrama de DISTRIBUCIÓN



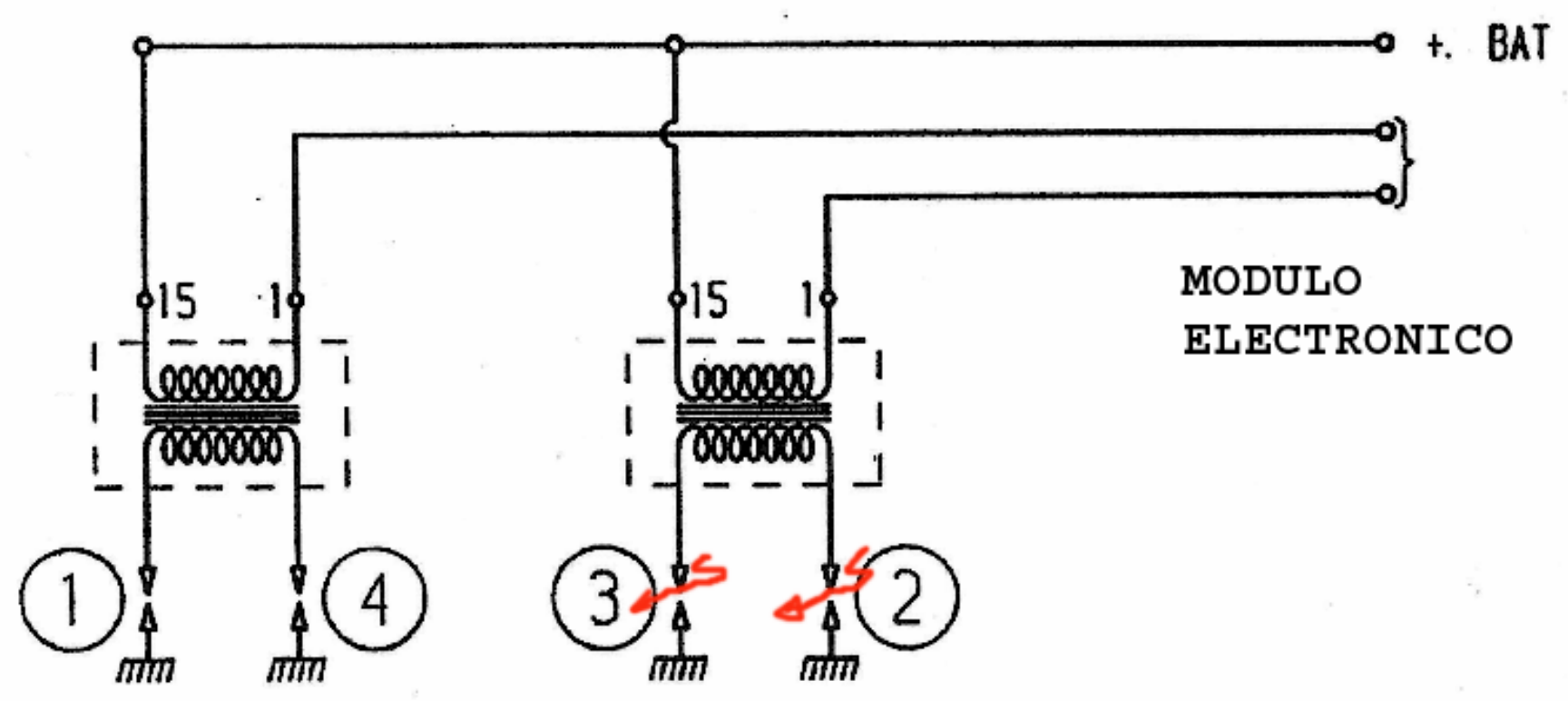
Principio básico de funcionamiento



FORMA de las ONDAS SECUNDARIAS

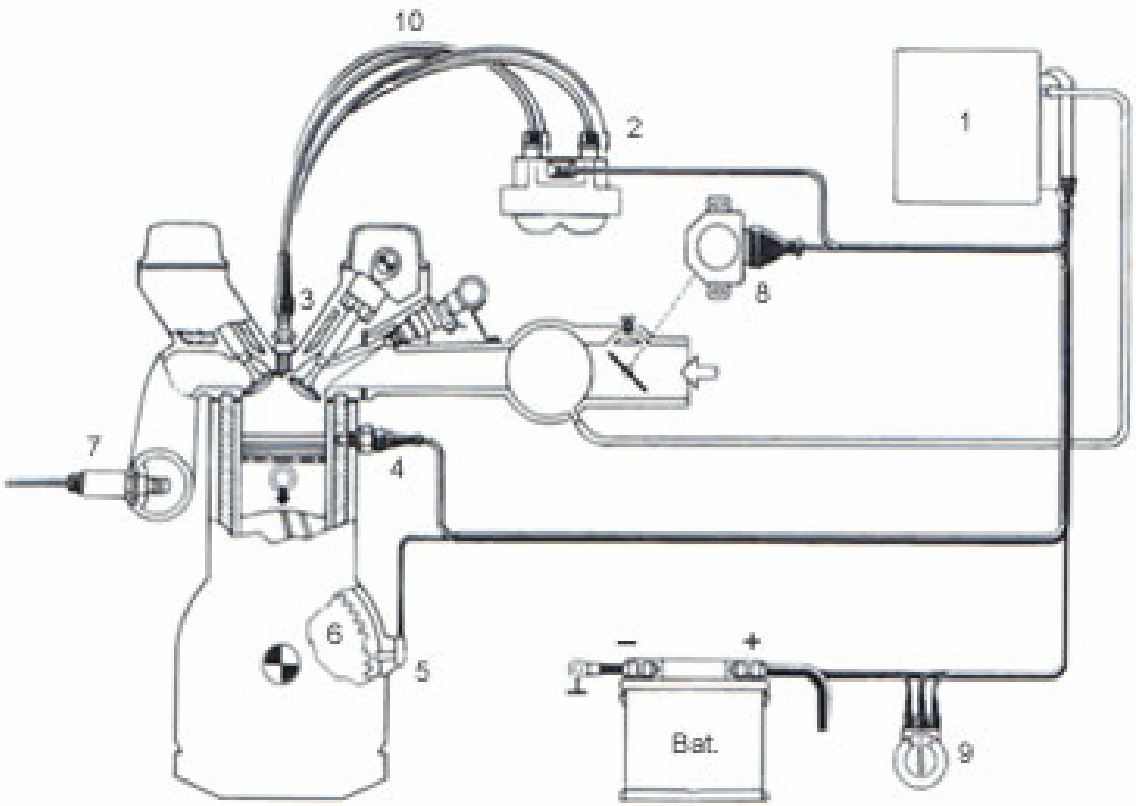


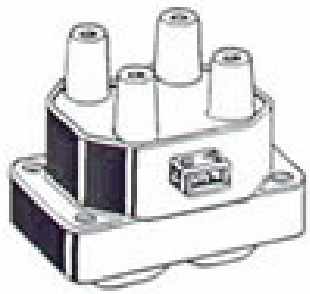
Esquema básico



BOSCH VZ

Esquema de un sistema de encendido estatico (DIS), Bosch lo denomina **VZ.**

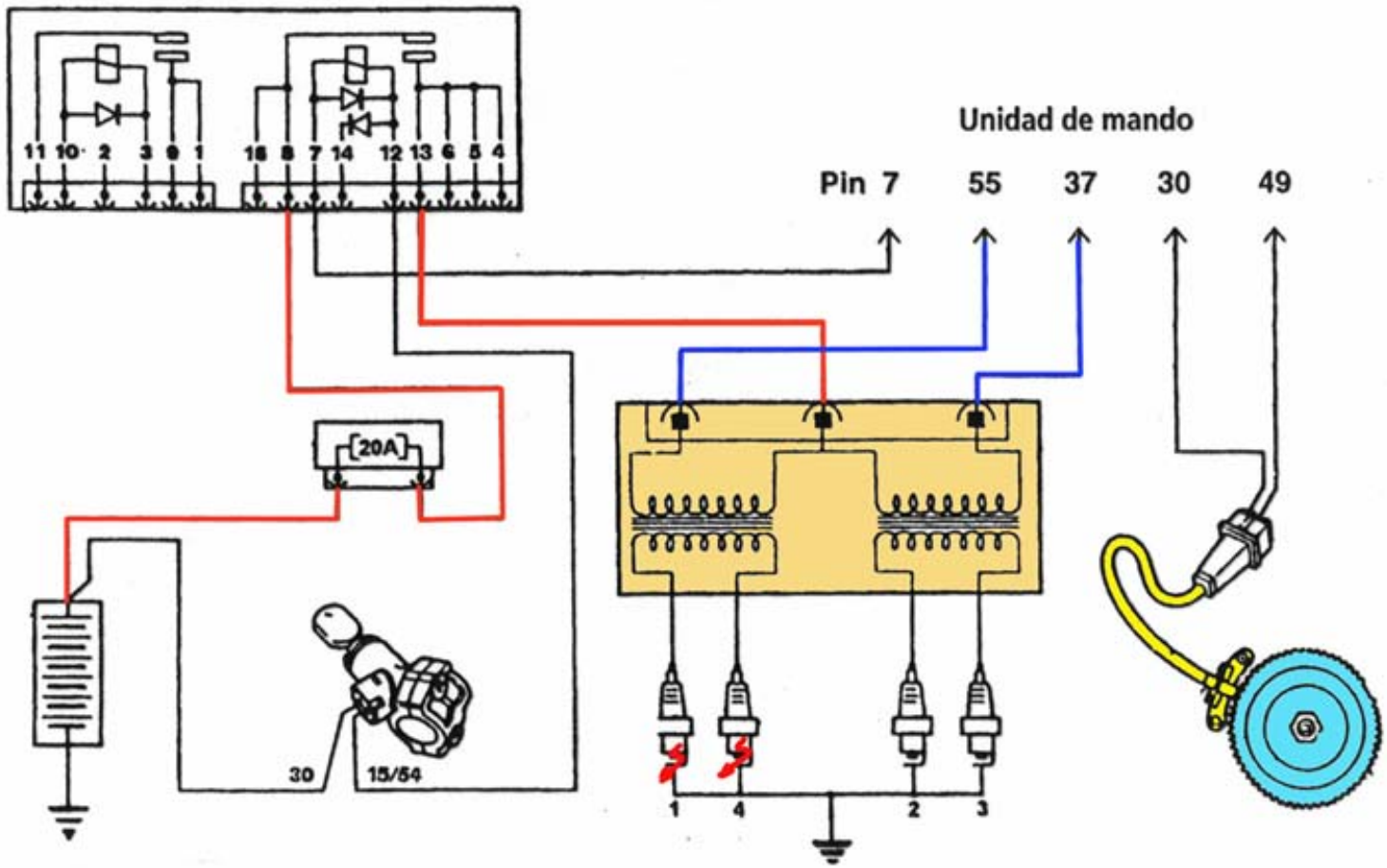




Bobina de encendido

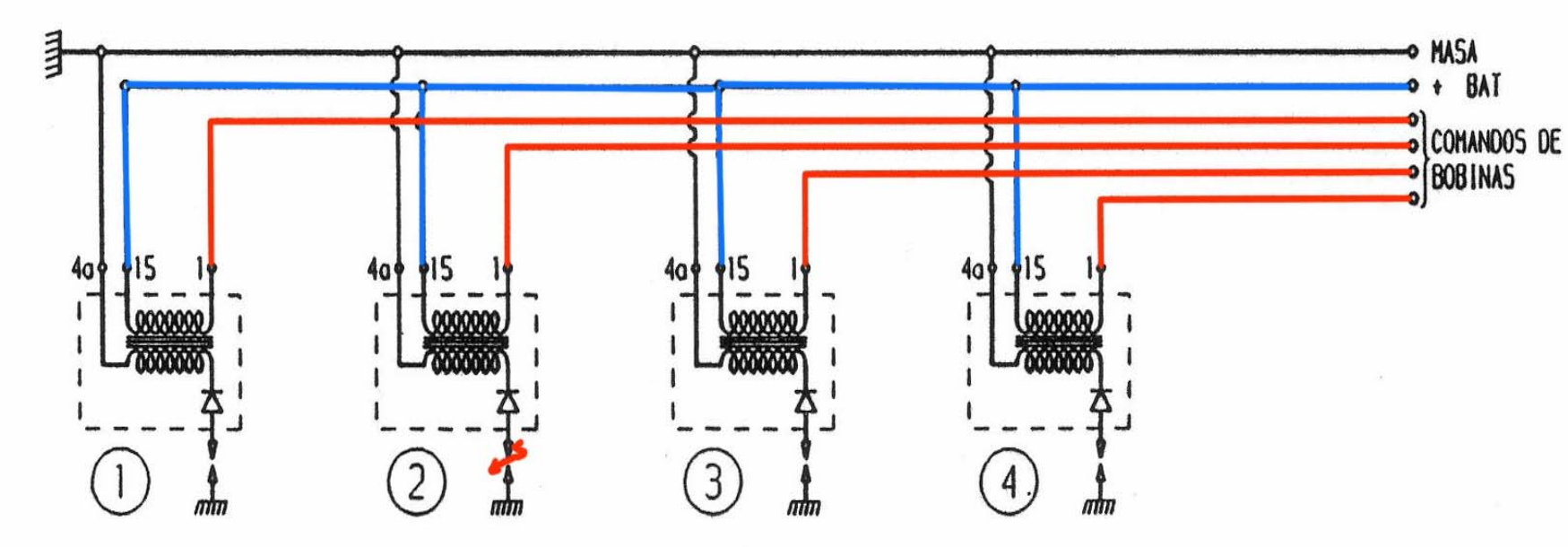
1.- Unidad de control (centralita) con etapas finales de potencia intergrada
2.- Bobina de encendido doble (de chispa perdida)
3.- Bujia
4.- Sensor de temperatura del motor
5.- Sendor de revoluciones y PMS
6.- Rueda fónica
7.- Sonda Lambda
8.- Interruptor de mariposa
9.- Llave de contacto
10.- Cables de alta tensión

Esquema real FIAT

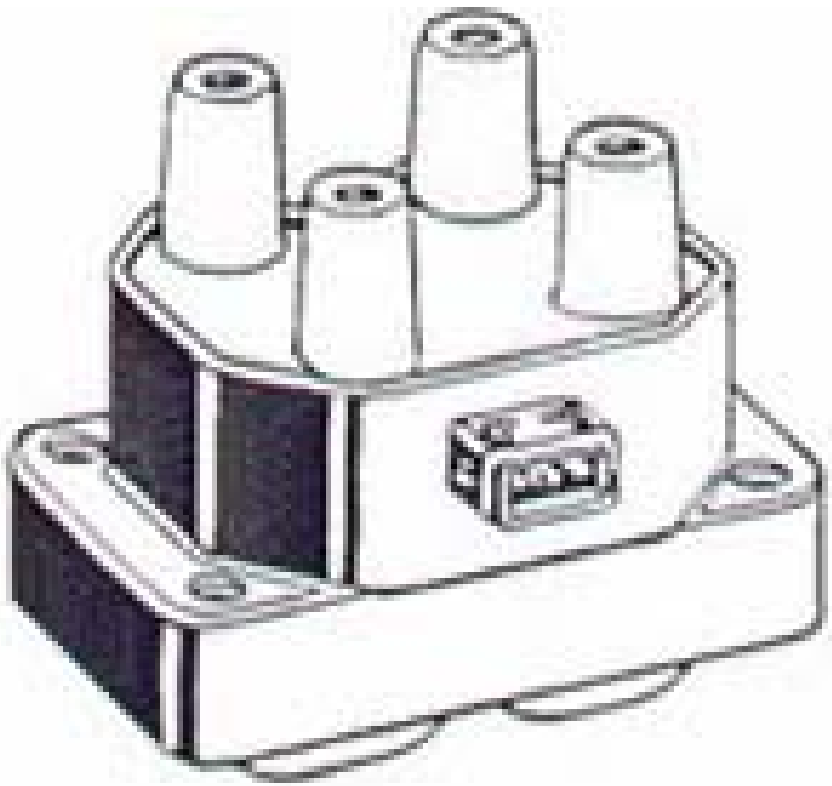


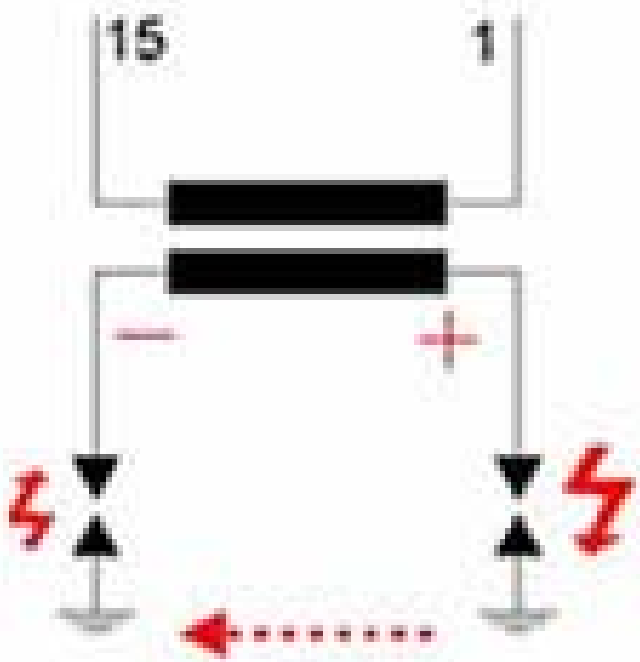
Encendido directo o integral:

la bobina y la bujía se integran en un mismo elemento


MASA
+ BAT
COMANDOS DE BOBINAS
4a
15
1
1
2
3
4

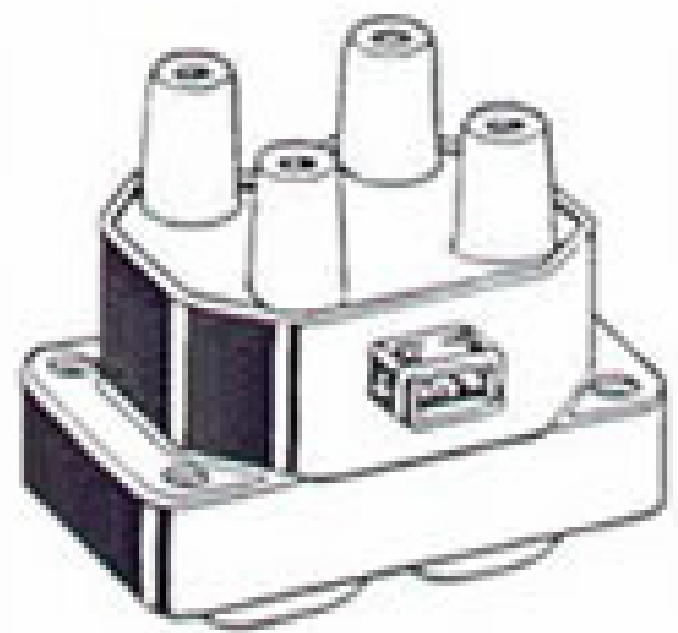
Bobinas

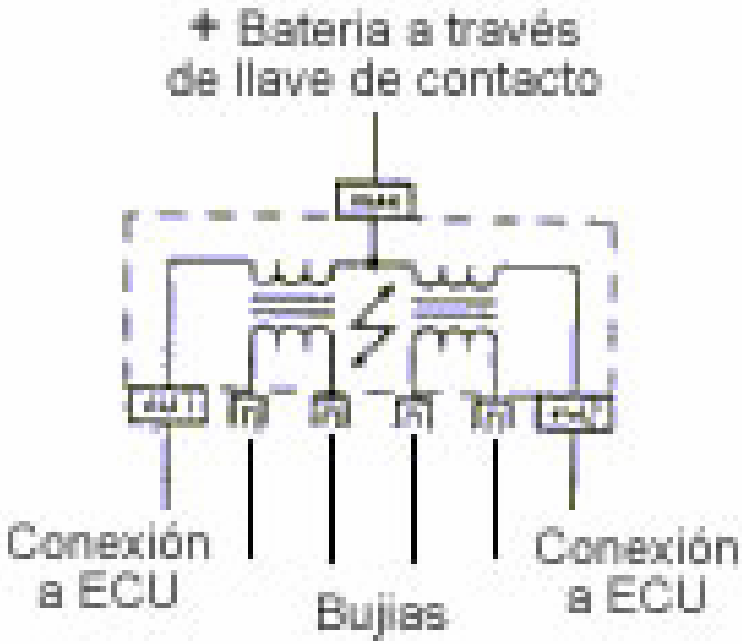




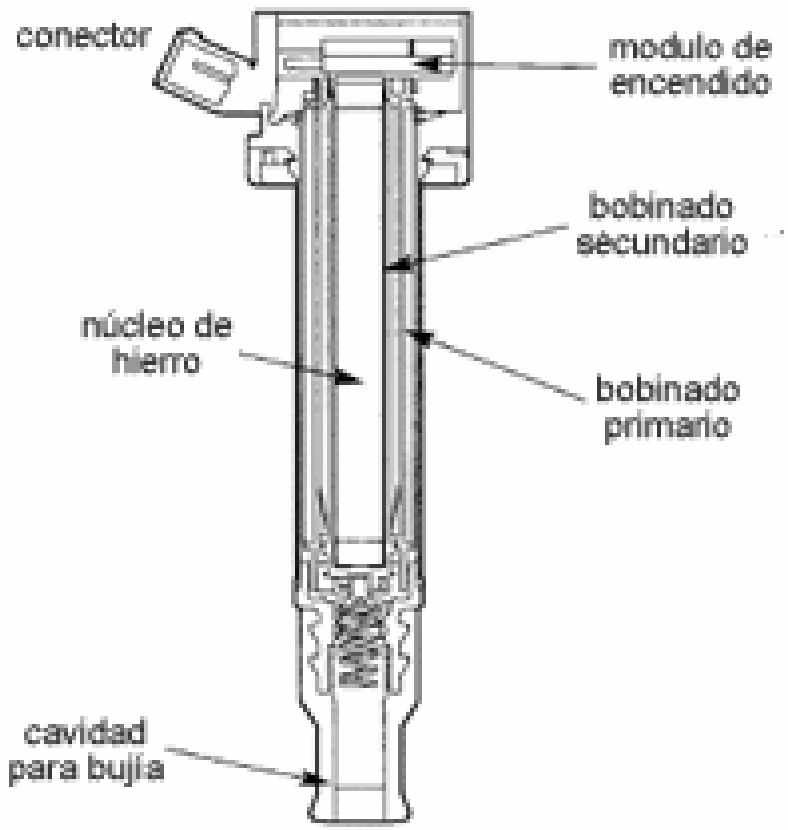
Bobinas

Bobina de encendido doble (chispa perdida)

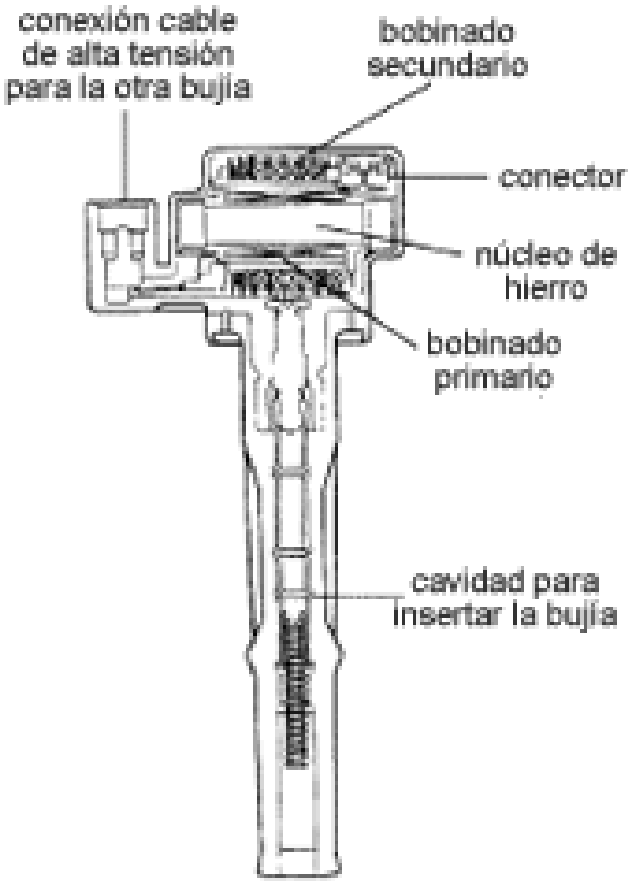




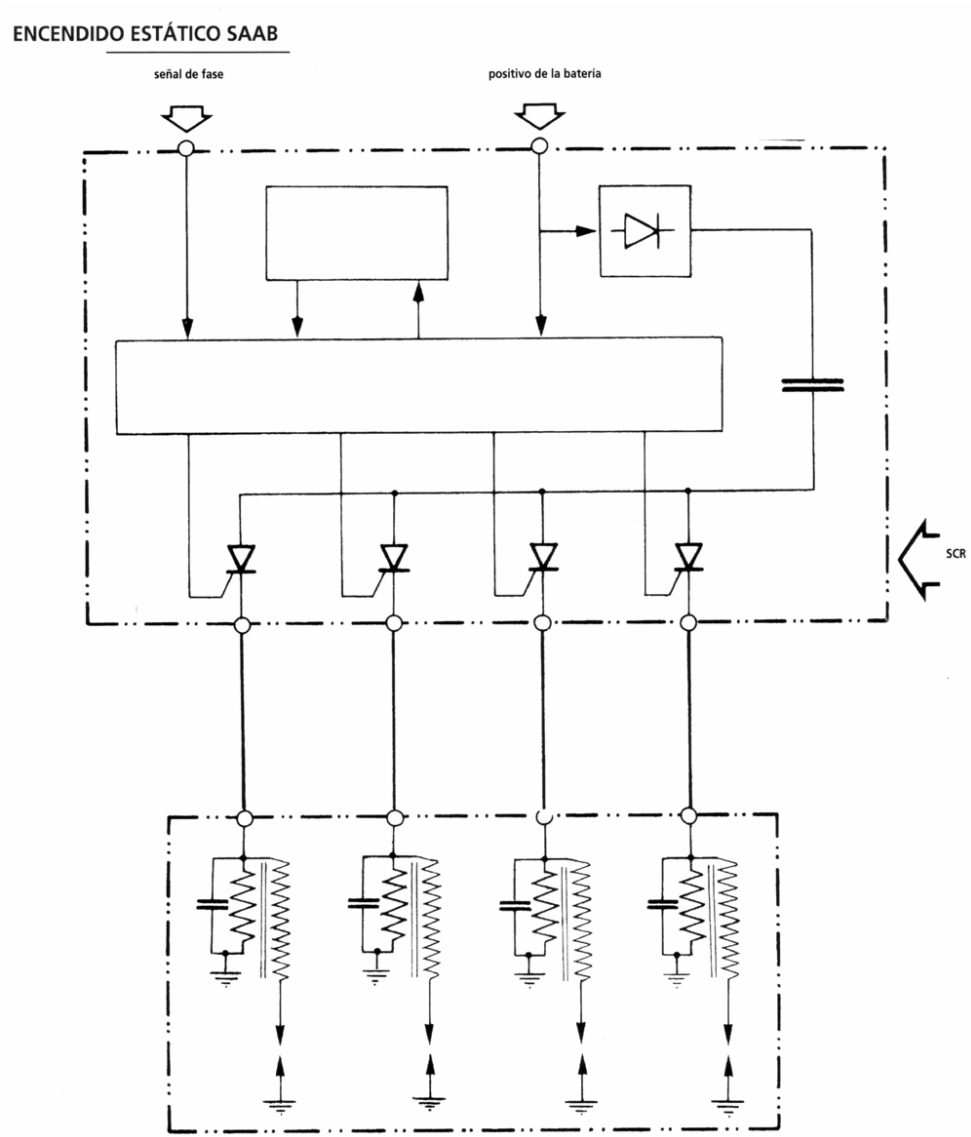
Bobinas: tipo LÁPIZ o TOP-PLUG



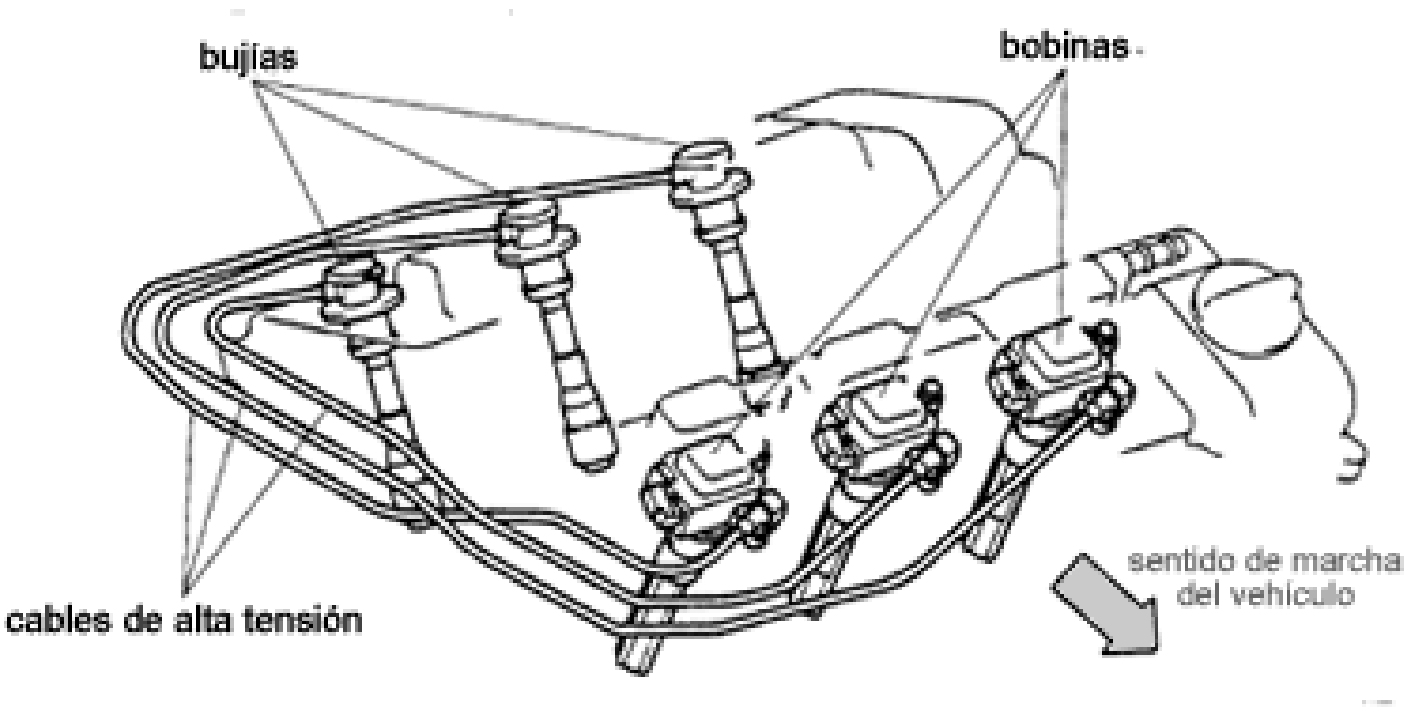
Bobinas: tipo LÁPIZ o TOP-PLUG s



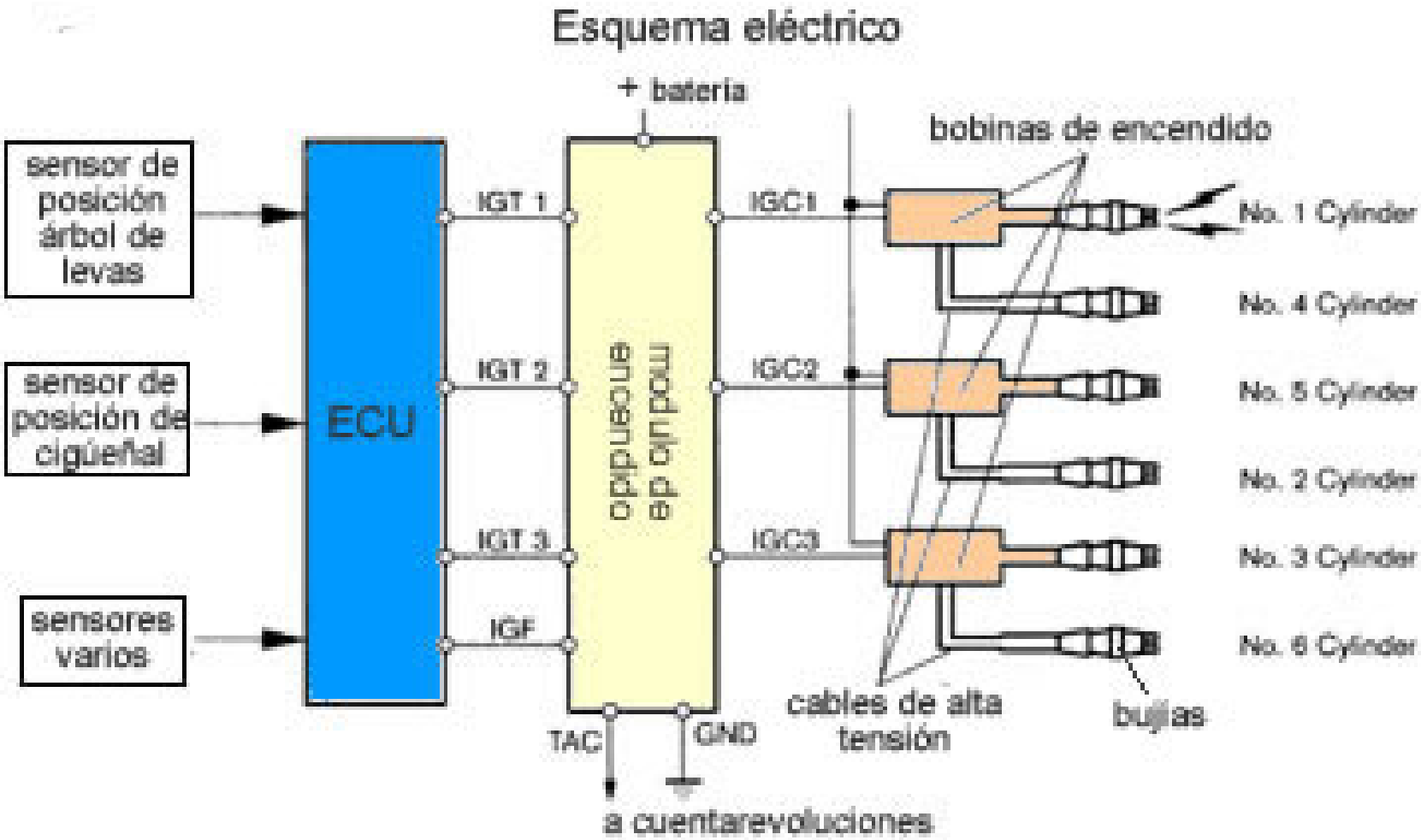
Encendido capacitivo SAAB



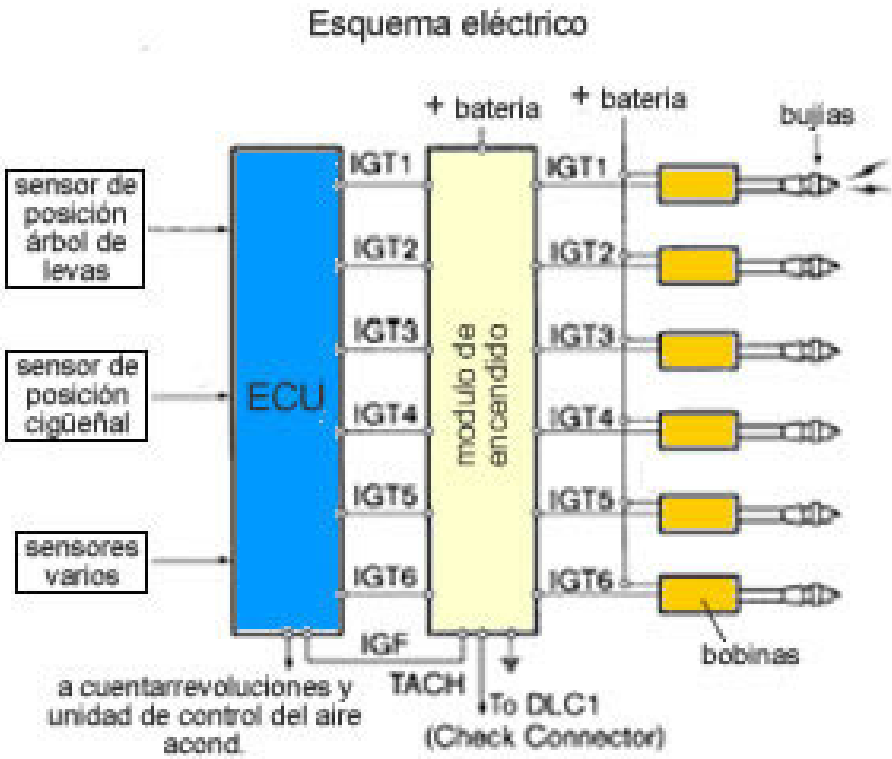
Bobinas

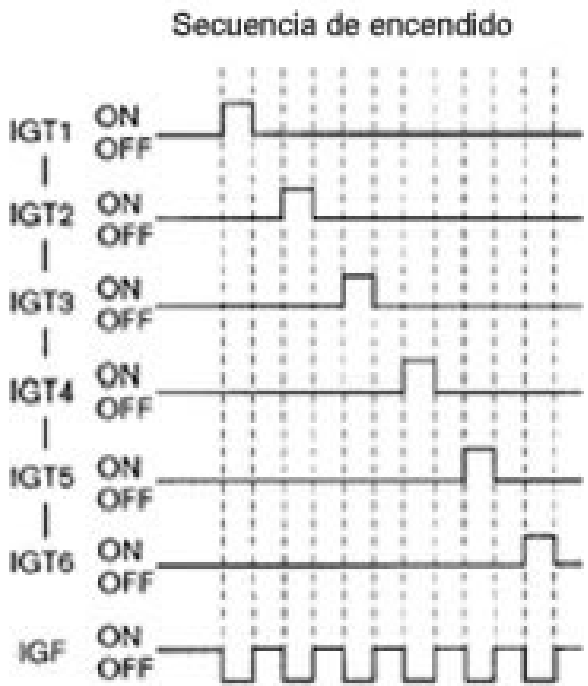

bujías
bobinas
cables de alta tensión
sentido de marcha
del vehículo

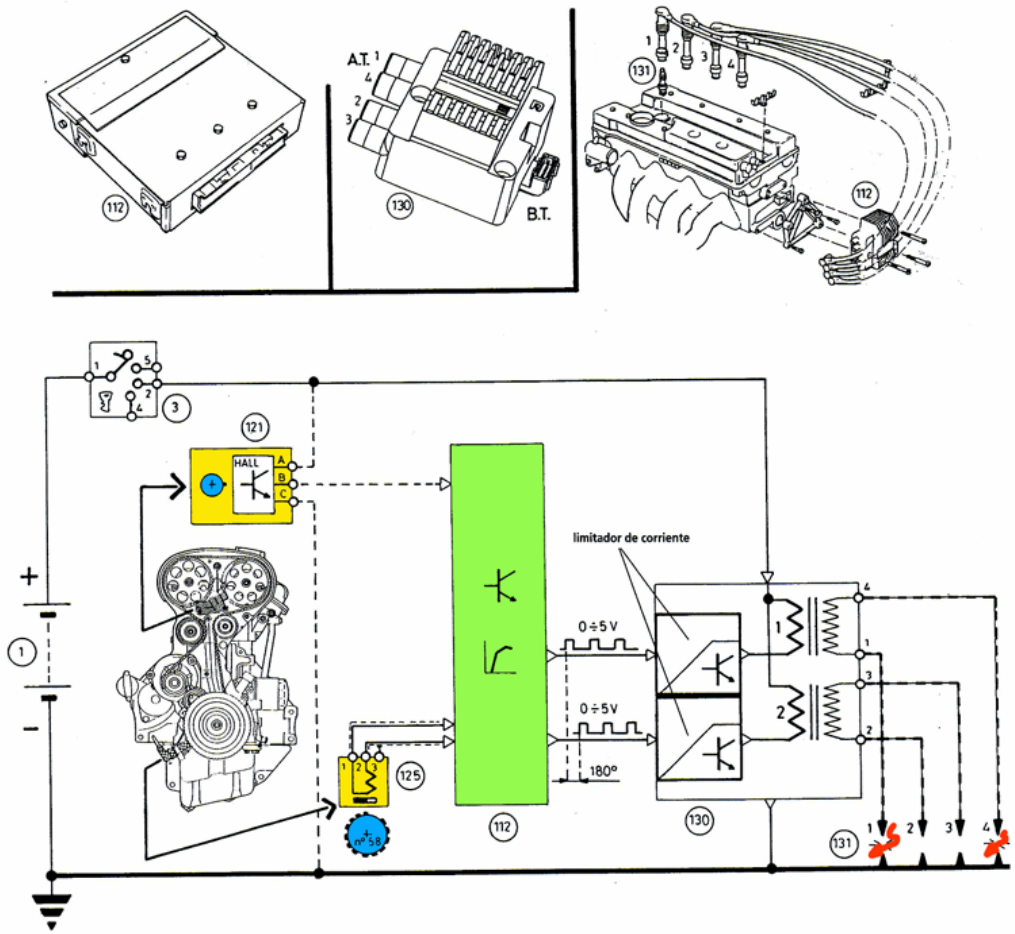
Distintas organizaciones



Distintas organizaciones







ESQUEMA DEL SISTEMA ENCENDIDO DIS, MOTORES X12SZ, C14SE Y C16XE

1 Batería
3 Conmutador de encendido y arranque
112 Unidad de mando del sistema de inyección y encendido
121 Sensor de posición del árbol de levas del cilindro nº 1 (sólo en motor C16XE)
125 Sensor de posición del cigüeñal
130 Bobina de encendido con amplificador de potencia, sistema DIS
131 Bujías

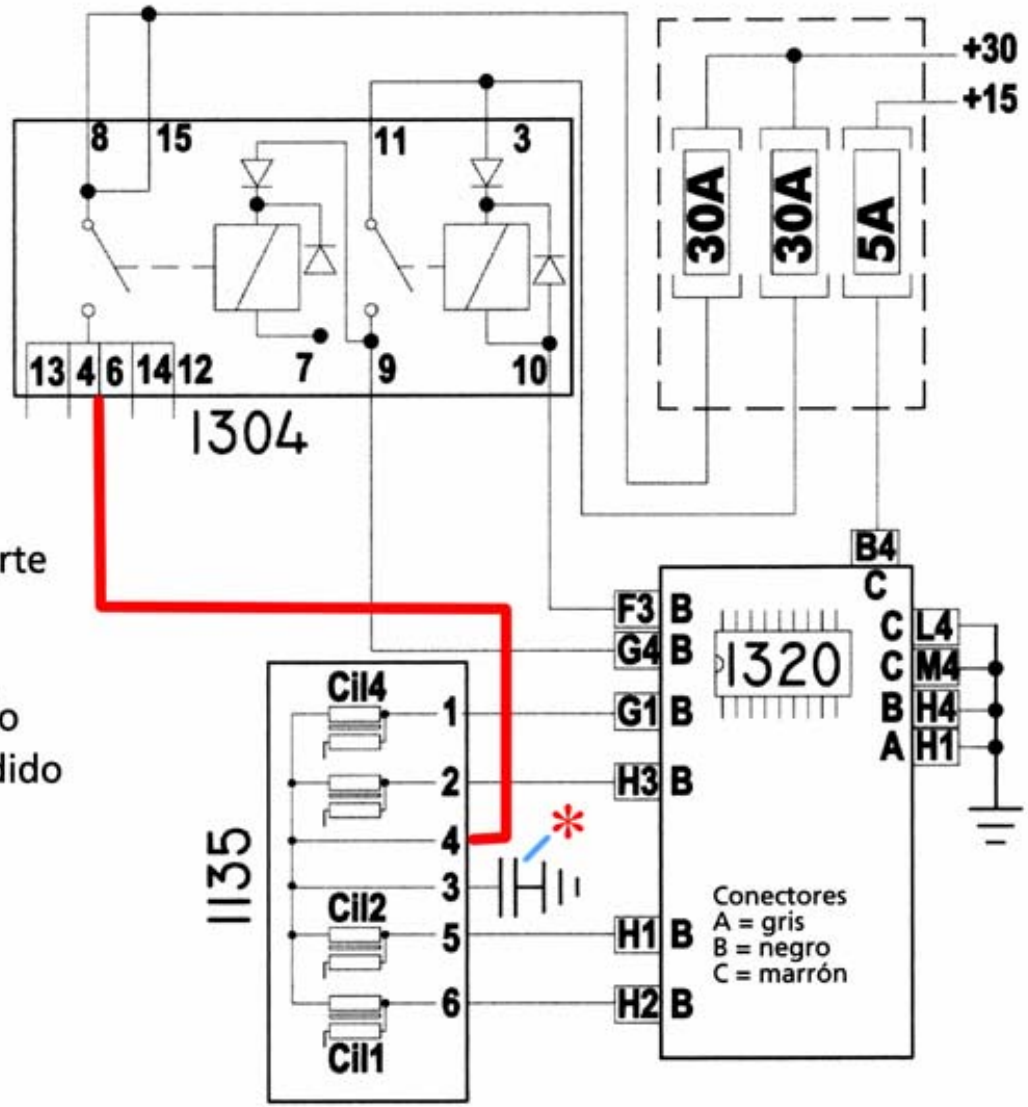
Esquema de la parte del encendido.

1304) relé alimentación

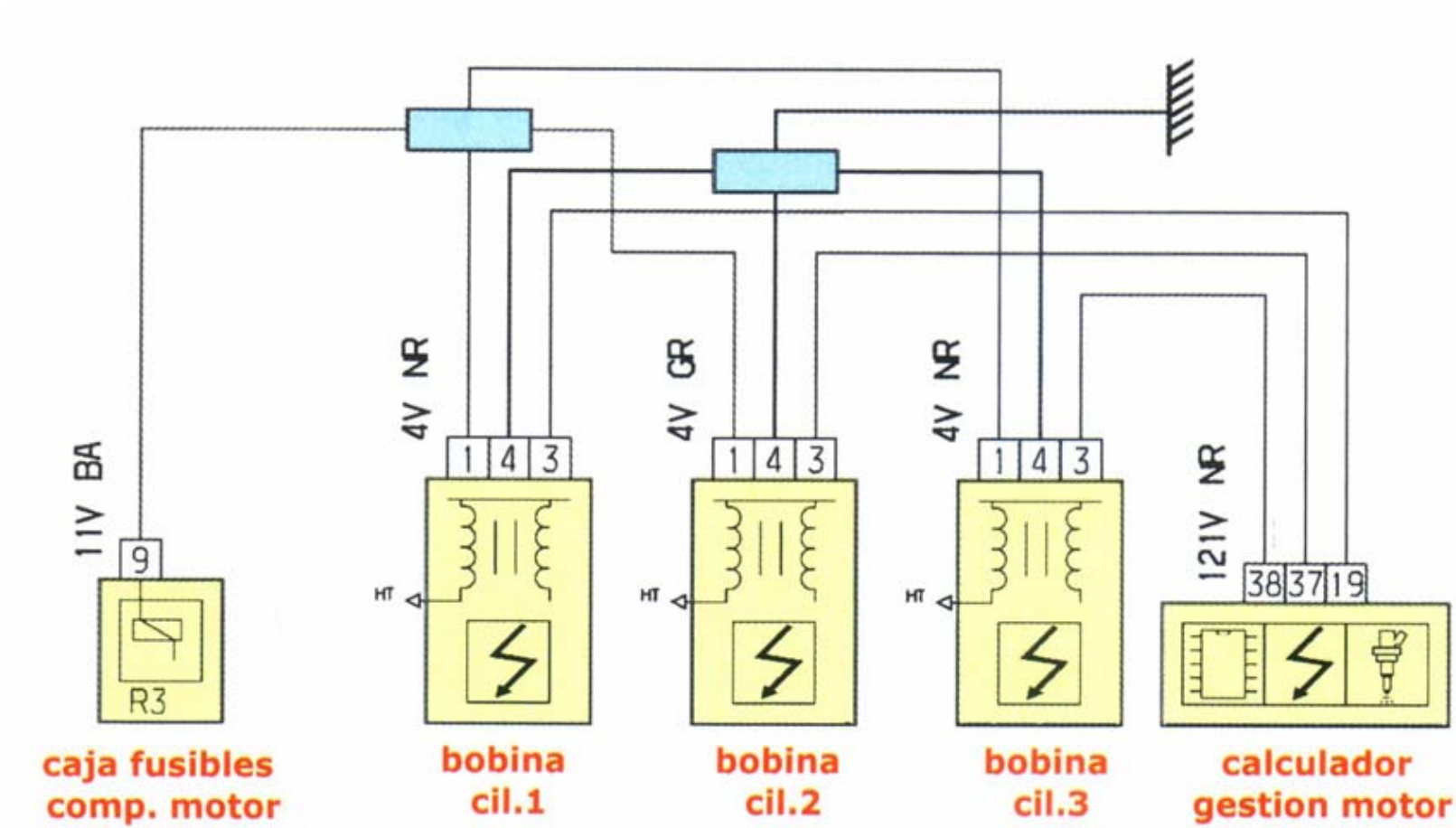
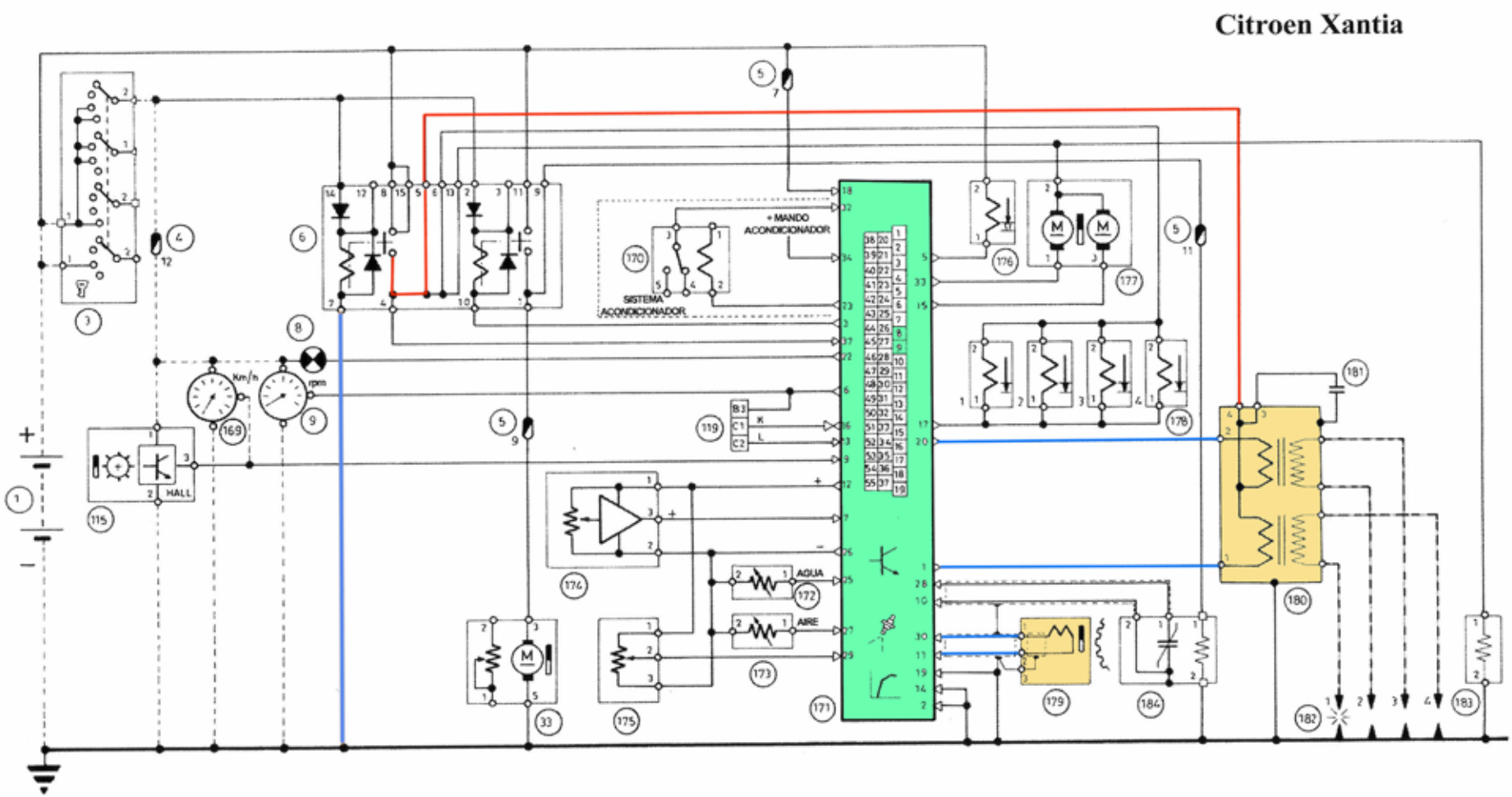
1135) bobina de encendido

1320) centralita de encendido e inyección IAW 4MP

*



3 cilindros


11V BA
9
R3
4V NR
1 4 3
HT
4V GR
1 4 3
HT
4V NR
1 4 3
HT
121V NR
38 37 19
caja fusibles
comp. motor
bobina
cil.1
bobina
cil.2
bobina
cil.3
calculador
gestion motor

Esquema real