



V 35

V 50

**MODIFICATIONS FOR ENGINES WITH COIL IGNITION**

# 1 IGNITION

## Ignition features

Coil-battery ignition with double contact breaker and automatic advance with centrifugal masses.

Ignition advance (fixed) 10°

Automatic advance 25° ± 2°

Full advance (fixed + autom.) 35° ± 2°

Contact breaker gap: 0.35-0.45 mm.

## Maintenance, checking and adjusting the double contact breaker

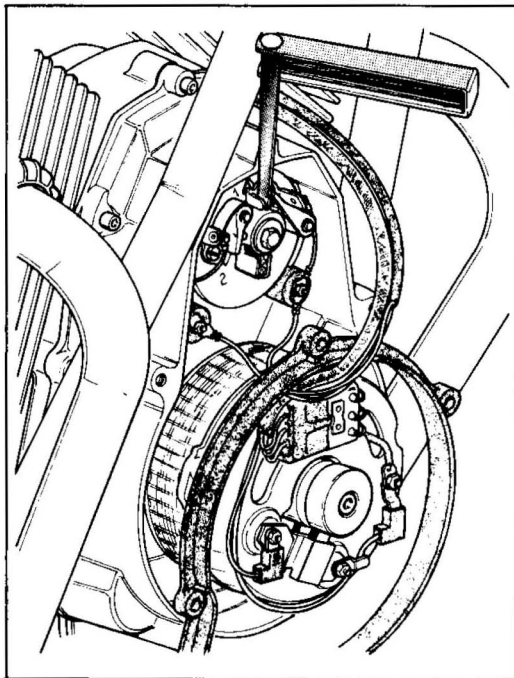
### Maintenance

Every 3000 km (2000 miles):

- Check contact breaker gap.
- Lightly moisten cam felt pad «A» with a few drops of engine oil.

### Inspection

- Remove the double contact breaker cover, after undoing its securing screws.
- If contacts are dirty or greasy, clean them



with a petrol soaked rag. If damaged or worn, replace them.

- Check contact breakers gap which should be between 0.35-0.45 mm.

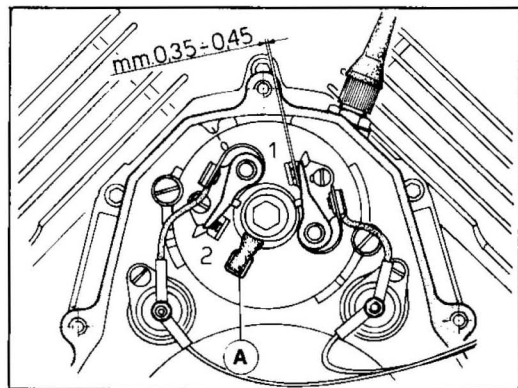
### Adjusting the contact points

Contact «1»: left cylinder.

Contact «2»: right cylinder.

- Bring cam «B» to its maximum lift, loosen screw «C» and shift plate «D» acting on the proper notch.

Repeat the same operation for the other contact.



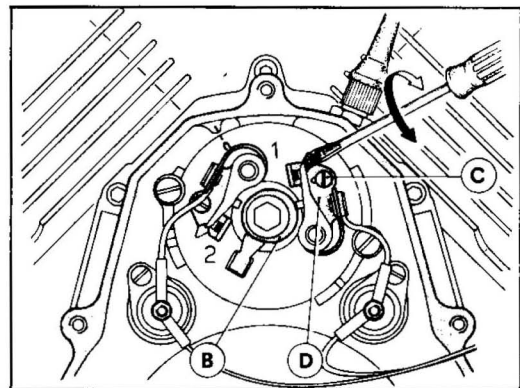
When adjusting the contact points it is necessary to check the ignition timing as well.

2

### Checking and adjusting the ignition timing (fixed advance)

With the contact breaker gap adjusted at 0.40 mm (0.015) and with the notch «O» on the contact points plate aligned with the mark on the crankcase, the engine is timed: it is advisable to check the timing acting as follows:

- To find the exact moment when the points



3 start separating, it is advisable to use an appropriate timing light to be set up between the breaker feeding clamp being checked and the ground.

- Remove the rubber cap which seals the inspection hole on the R/H side of the gear-box opposite the flywheel.

- Turn the flywheel anticlockwise (engine rotation) until the piston is at the end of its compression stroke T.D.C. (both valves closed).

At this stage mark «S» on the flywheel should coincide with the mark on the inspection hole.

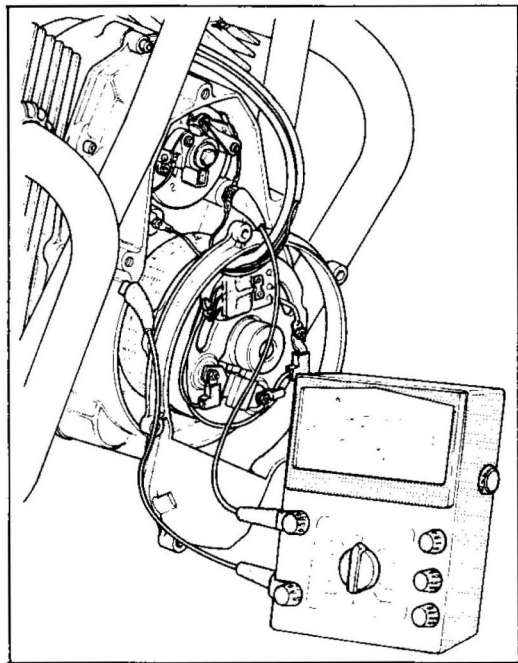
- Slightly turn the flywheel clockwise and then anticlockwise till mark «3» is perfectly aligned with the mark on inspection hole: at this point (fixed advance) contact points of the breaker «1» should start to open.

- If this does not occur, it is necessary to slacken the two screws «E» fixing the contact plate and shifting the plate same, bearing in mind that shifting in the arrow «F» direction ignition is advanced while shifting in the arrow «G» direction ignition is delayed.

- Lock screws «E» and check the opening of R/H cylinder contact (breaker n. 2) following the procedure of the L/H cylinder.

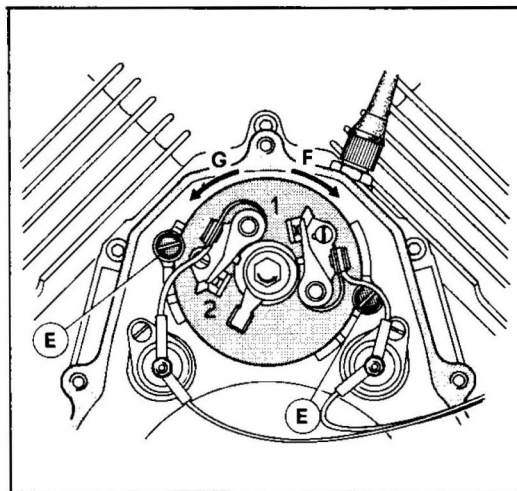
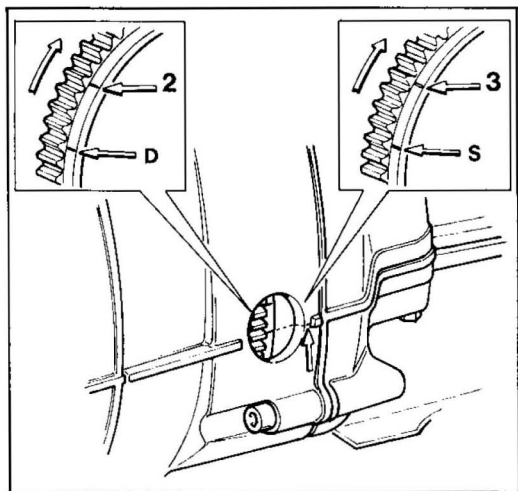
Bear in mind that marks «D» and «2» on the

flywheel indicate respectively T.D.C. position and fixed advance of R/H cylinder.



If contact breaker n. 2 does not open in the fixed advance position stamped on the flywheel, it will be necessary to change the contact gap of this breaker, or of both breakers, within the indicated gap of 0.35-0.45 mm.

Bear in mind that changing the contact gap of breaker n. 1 (L/H cylinder) it will be necessary to repeat its timing.



# KEY TO WIRING DIAGRAM

- 1 - Tachometer (3 W bulb)
- 2 - Rev-counter (3 W bulb)
- 3 - Warning light, front and rear R/H indicator (1.2 W bulb - green)
- 4 - Warning light, front and rear L/H indicator (1.2 W bulb - green)
- 5 - Neutral position warning light (1.2 W bulb - green)
- 6 - Oil pressure warning light (1.2 W bulb - red)
- 7 - Generator warning light (1.2 W bulb - red)
- 8 - High beam warning light (1.2 W bulb - blue)
- 9 - Parking warning light (1.2 W bulb - green)
- 10 - High beam bulb 40 W
- 10 - Parking position light, front (4 W bulb)
- 11 - Low beam 40 W
- 12 - High beam 45 W } (40/45 W bulb)
- 13 - Turn indicator light, right (21 W bulb)
- 14 - Turn indicator light, left (21 W bulb)
- 15 - Engine start and stop button
- 16 - 4-way connector
- 17 - 15-way connector
- 18 - 12-way connector
- 19 - Control device for: turn signals, horn and flashing lights, lighting
- 20 - Light and engine starting switch (3 positions)
- 21 - Oil pressure switch
- 22 - Neutral position switch
- 23 - Horn
- 24 - Flashing light relay
- 28 - Flasher box
- 31 - Coils

- 32 - Front brake switch
- 33 - Rear brake switch
- 34 - Rectifier
- 35 - Alternator
- 36 - Regulator
- 37 - Battery
- 38 - Terminal block with fuses
- 39 - Starting relay
- 40 - Starter motor
- 41 - Turn indicator light, rear, left (21 W bulb)
- 42 - Turn indicator light, rear, right (21 W bulb)
- 43 - Tail light
- 44 - Rear stop light (21+21 W bulb)
- 45 - Number plate lighting and rear parking light (5+5 bulb)
- 46 - 6-way Molex connector

## FUSES

### N. 1

Turn signals - Horn

### N. 2

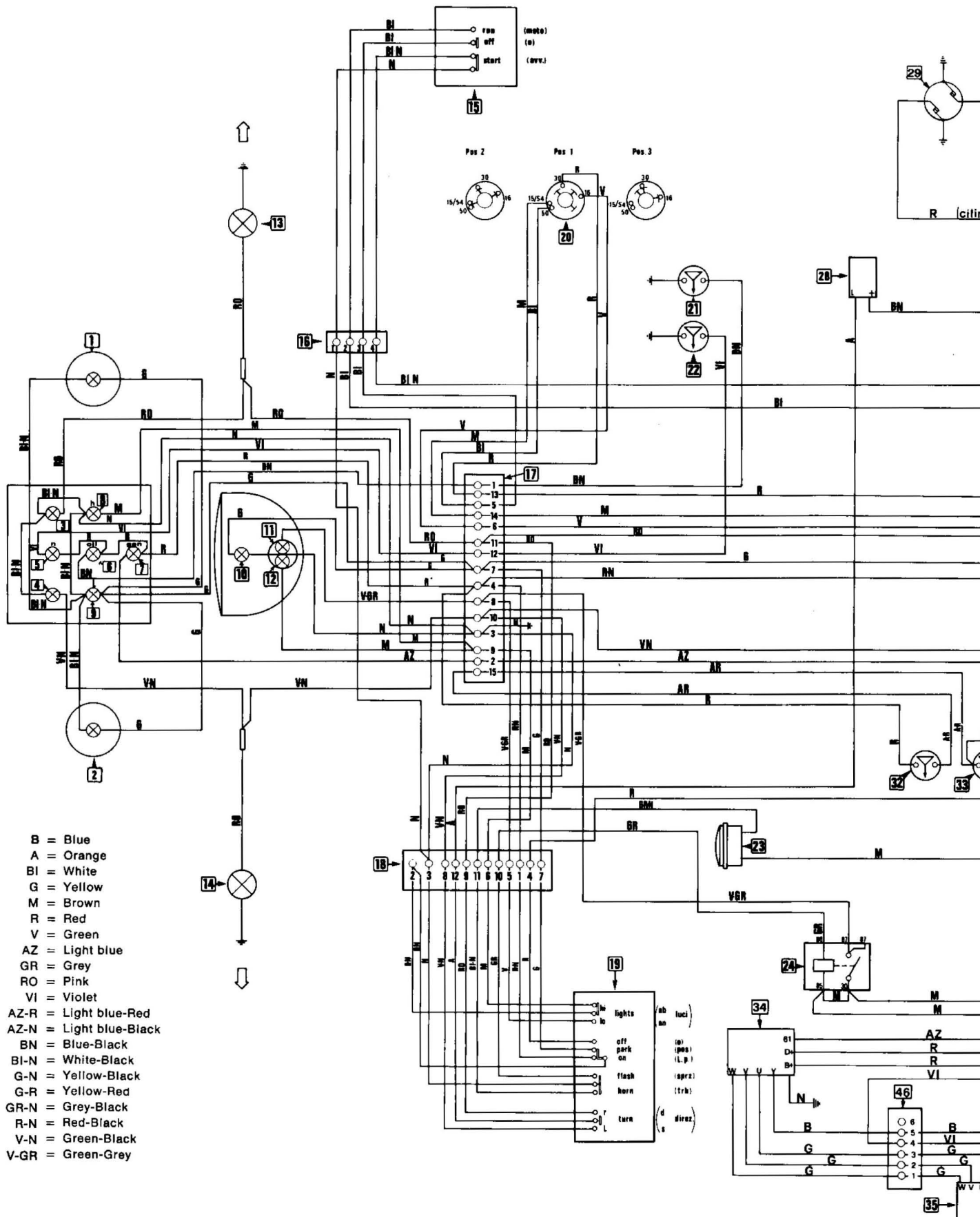
Flashing light relay - Starting relay - Rear stop light

### N. 3

Warning lights (Generator - Oil pressure - Neutral - High beam)

### N. 4

Parking light - Instrument lighting - Lighting



- B = Blue
- A = Orange
- BI = White
- G = Yellow
- M = Brown
- R = Red
- V = Green
- AZ = Light blue
- GR = Grey
- RO = Pink
- VI = Violet
- AZ-R = Light blue-Red
- AZ-N = Light blue-Black
- BN = Blue-Black
- BI-N = White-Black
- G-N = Yellow-Black
- G-R = Yellow-Red
- GR-N = Grey-Black
- R-N = Red-Black
- V-N = Green-Black
- V-GR = Green-Grey

