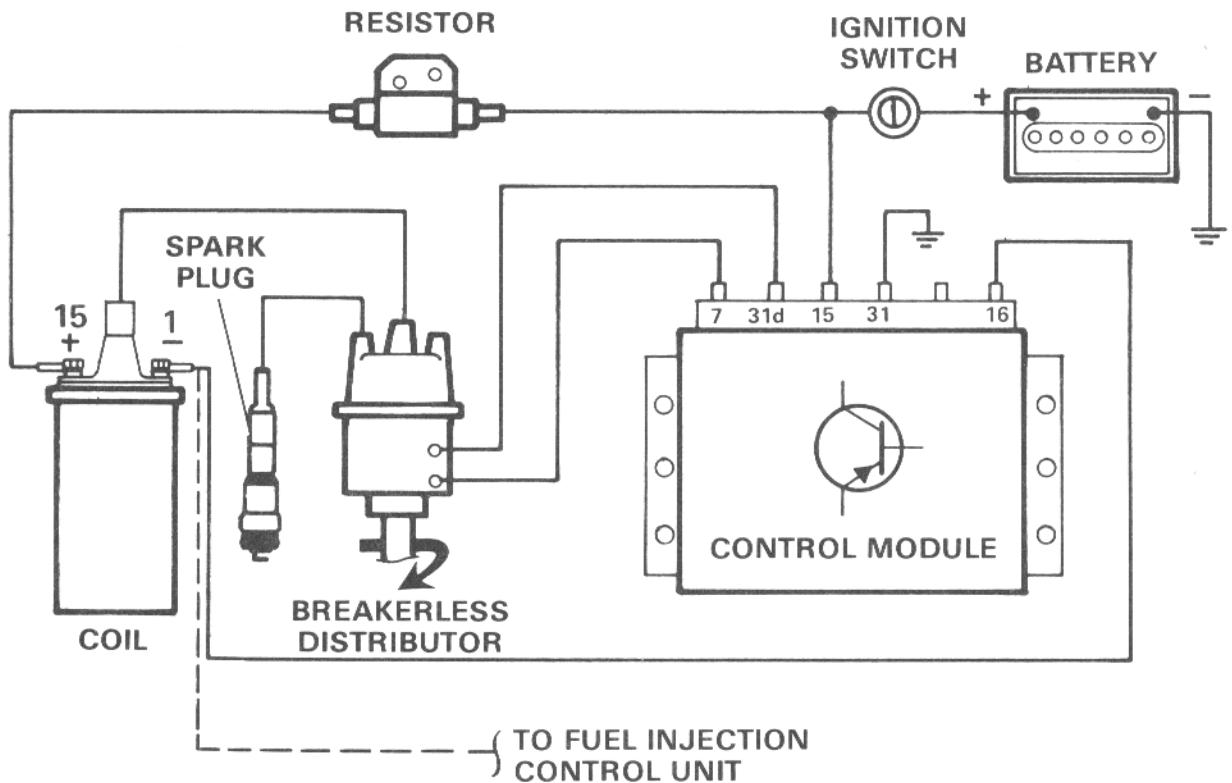


## DESCRIPTION

With ignition switch closed, battery voltage is supplied to electronic control module and through a ballast resistor to primary side of ignition coil. The resistor is used as a current limiter. Voltage is regulated by the control module to supply a regulated current to primary side of ignition coil. When the distributor turns, a trigger generates an impulse on the pickup assembly. This impulse is sensed by the control module, and turns the coil primary on and off. Each time the coil primary is turned off, a high voltage is induced in the coil secondary. The high voltage is distributed through the distributor rotor cap, to spark plugs.



## SERVICE

Before performing any service observe the following:

### DO NOT

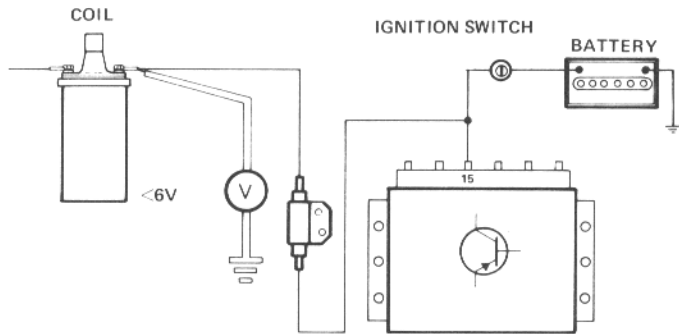
- Energize ignition unless coil support base is properly grounded.
- Crank engine with high voltage wire disconnected from coil.
- Disconnect high voltage wire from coil when engine is running.
- Start or crank engine when instrument panel is disconnected.
- Ground primary circuit or use diagnostic equipment to ground primary circuit.
- Test for current or voltage by flashing terminals with each other or to ground.
- Disconnect battery cables when engine is running. The electronic voltage regulator will be damaged.

### DO

- When required, the distributor pickup assembly may be disconnected when engine is running, or when cranking for compression testing.

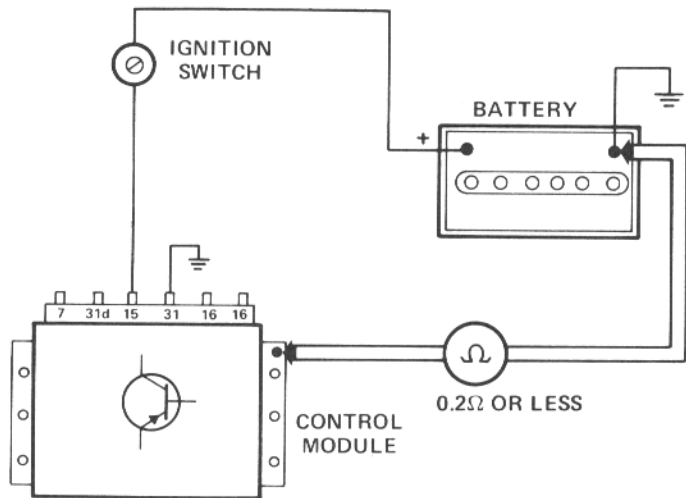
**PRIMARY INPUT CHECK**

Connect voltmeter from coil +B terminal to ground.  
 With ignition switch on, check for 12 volts (battery).  
 If not, check for faulty battery, ignition switch, wiring, or connections.



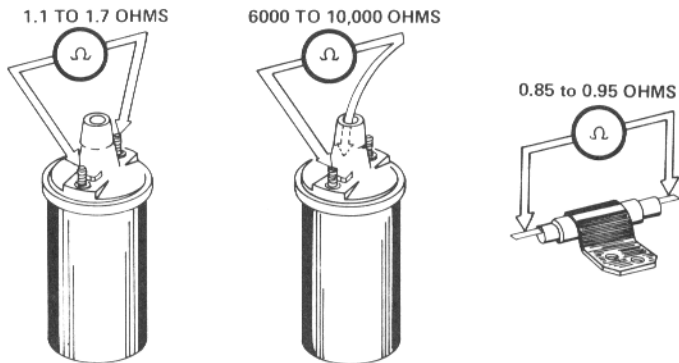
**GROUND CHECK**

With ignition switch off, connect an ohmmeter from control module support mount to battery ground terminal.  
 Check for less than 0.2 ohms.  
 If not, check support, mounting, and battery ground connections.  
 Also check that control module casing is clean, and that mounting hardware is clean and tight.



**COIL RESISTANCE CHECK**

Disconnect primary leads from coil, then connect ohmmeter to coil.  
 Check for 1.1 to 1.7 ohms.  
 Reconnect one ohmmeter lead to coil high voltage terminal.  
 Check for 6K to 10K ohms.  
 Replace coil if not within specifications.  
 Disconnect one end of resistor, then connect ohmmeter across resistor.  
 Check for 0.85 to 0.95 ohms.  
 Replace resistor if not within specifications.



## PICKUP ASSEMBLY CHECK

Disconnect pickup assembly from control module.

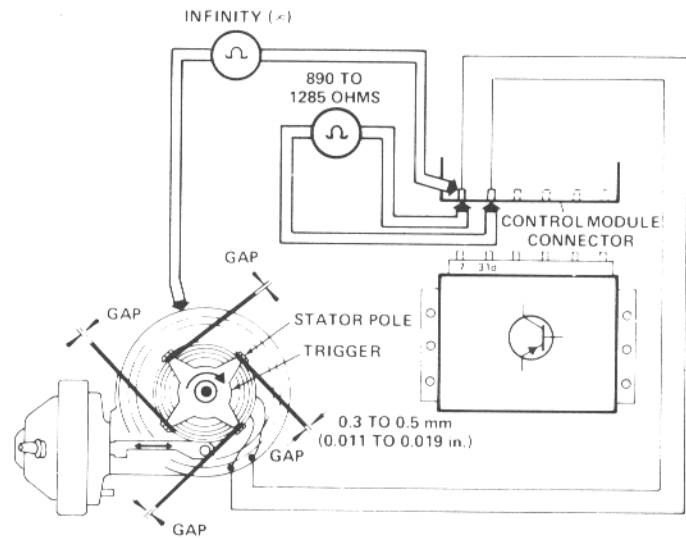
Connect ohmmeter to pickup assembly connector (terminals 7 and 31d).

Check for 890 to 1285 ohms.

Reconnect one ohmmeter lead to distributor body. Check for infinity ohms.

Replace pickup assembly if not within specifications.

Using a nonmagnetic feeler gauge check gap between stator pole and trigger. Adjust as required.



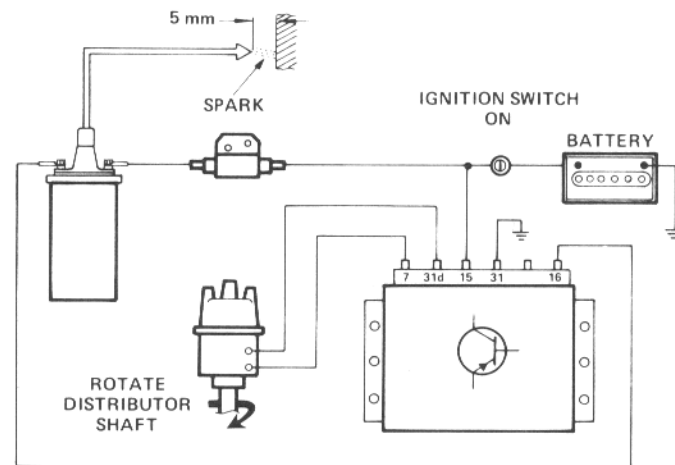
## CONTROL MODULE CHECK

Reconnect primary leads to coil, pickup assembly to control module, and resistor lead.

Disconnect high voltage wire from distributor. Do not disconnect from coil.

While holding (use insulated holder) high voltage wire about 5 mm from ground, crank engine and check for spark.

Replace control module if no spark appears.

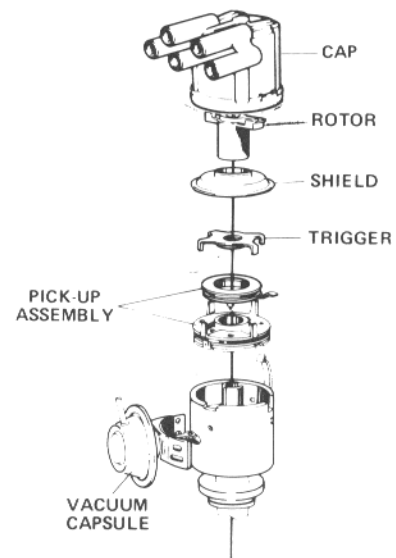


## SYSTEM PARTS CHECK

Check all parts for cracks, wear, or breaks that may affect system operation.

Check cap for corroded terminals.

Clean or replace cap as required.



## CHECKING AND SETTING IGNITION TIMING

Check ignition timing with a timing light.

Connect timing light power leads to battery or to hot side of coil. Either connection will not affect ignition system.

When using an inductive timing light, connect inductive pick-up to number 1 spark plug wire at a point where it can be separated from other spark plug wires.

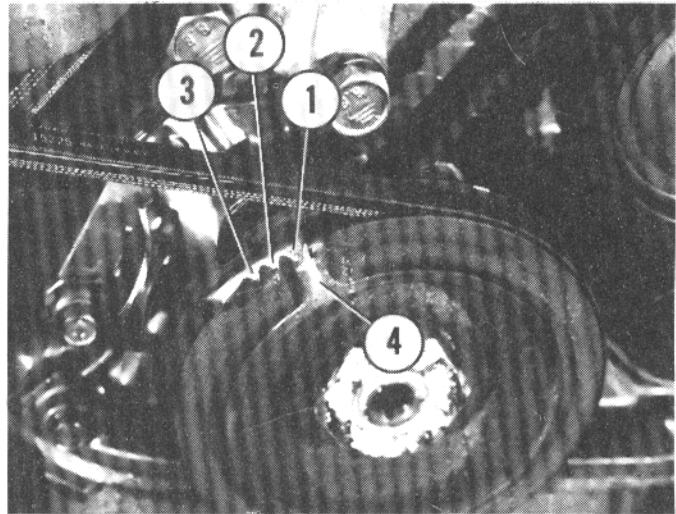
High voltage wire must not be disconnected from coil while engine is running or being cranked.

Crankshaft timing mark (4) on crankshaft pulley indexes with timing pointer.

With rpm at less than 900, timing should be 5° BTDC for vehicles with carburetor, 10° BTDC for vehicles with fuel injection.

To adjust timing, loosen nut, then turn distributor as required to obtain correct timing. Tighten nut.

1. TDC 2. 5° BTDC 3. 10° BTDC 4. Crankshaft pulley mark



## DISTRIBUTOR

### REMOVAL AND INSTALLATION

Crank engine until crankshaft pulley timing mark indexes with timing pointer.

Remove distributor cap from distributor and lay to one side.

Disconnect vacuum hose (2) from vacuum diaphragm (4).

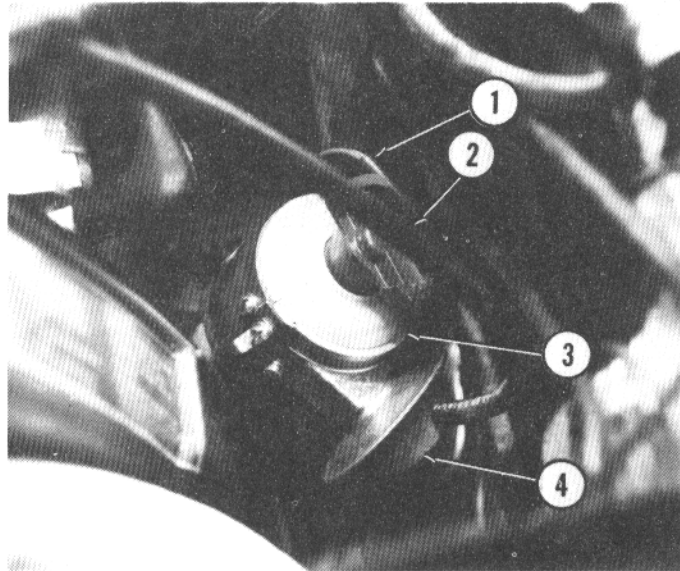
Disconnect electrical connector for distributor electrical lead (1) at side of distributor (3).

**CAUTION:** Upon installation, make certain that raised notch on electrical connector is correctly indexed with slot in distributor.

Noting rotor position for installation, remove nut, washer and plate. Remove distributor and gasket.

Install in reverse order. Set timing.

1. Electrical lead 2. Vacuum hose 3. Distributor  
4. Vacuum diaphragm

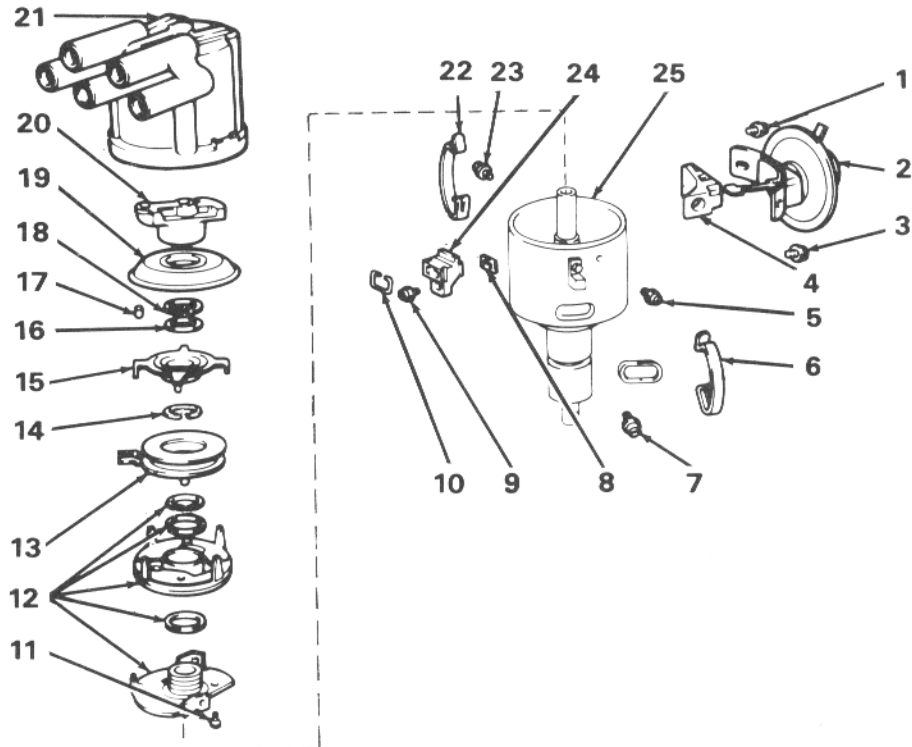


### DISASSEMBLY AND REASSEMBLY

Unclip cap (21). Remove rotor (20) and cover (19). Remove screws (1 and 3) to remove vacuum diaphragm (2). Remove lock ring (18), lockwasher (16), rotor (15) and lock ring (14). Remove screw (9) to remove connector (24). Remove screws (5, 7, and 23) to remove coil (13) and pickup assembly (12). Remove screw (11) to separate pickup assembly. Remove clip (6 and 22) only if damaged.

Reassembly is reverse of disassembly.

1. Screw
2. Vacuum diaphragm
3. Screw
4. Support
5. Screw
6. Spring clip
7. Screw
8. Gasket
9. Screw
10. Spring clip
11. Screw
12. Pickup assembly
13. Coil
14. Lock ring
15. Rotor
16. Lockwashers
17. Pin
18. Lock ring
19. Cover
20. Rotor
21. Cap
22. Spring clip
23. Screw
24. Connector
25. Body



### INSPECTION

Check distributor cap (21) for cracks, breaks, or corroded terminals. For light corrosion, clean terminals, otherwise replace.

Check rotor (20) for cracks, breaks, or corrosion. Replace if damaged.

Check rotor (15) for bent or broken tabs. Replace if damaged.

Check coil (13) for damaged wires. Check for 890 to 1285 ohms resistance. Replace if damaged.

Check pickup assembly (12) for damaged parts. Replace if damaged.

Check vacuum diaphragm (2) for leakage. Replace if damaged.

Check body (25) for worn or sticky shaft. Replace if damaged.

## ELECTRONIC CONTROL MODULE

### REMOVAL AND INSTALLATION

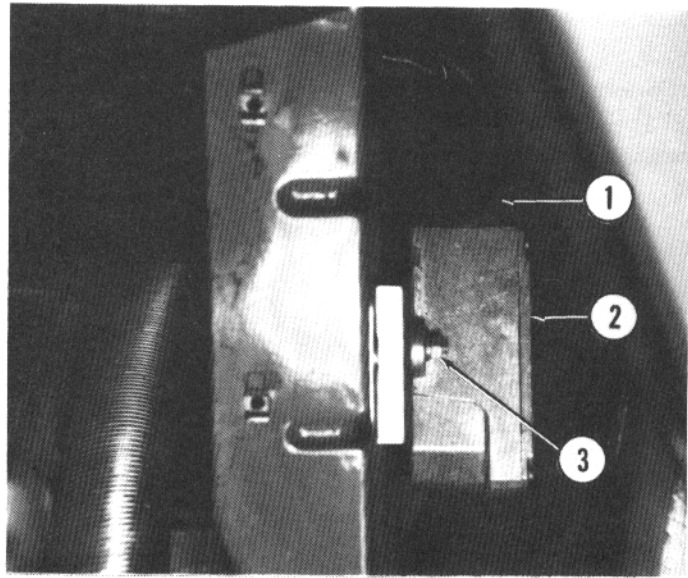
Remove two screws holding cover at right side of engine compartment.

Disconnect electrical connector (1) from control module (2).

Remove two nuts (3) holding control module to body and remove control module.

Install in reverse order.

1. Electrical connector 2. Electronic control module 3. Nut



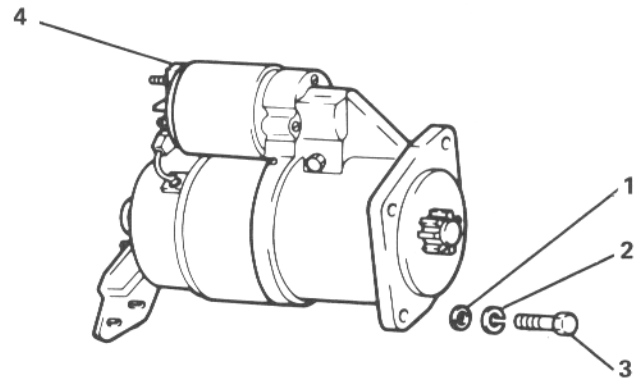
### STARTER

#### REMOVAL AND INSTALLATION

Disconnect battery ground cable. Disconnect electrical leads to starter (4).

Remove three bolts (3), lockwashers (2), and washers (1) to remove starter.

1. Washer 2. Lockwasher 3. Bolt 4. Starter



#### DISASSEMBLY AND REASSEMBLY (MARELLI)

Remove nut (4), lockwasher (3), and two washers (2).

Disconnect terminal on housing assembly (5) from stud on starter solenoid (1).

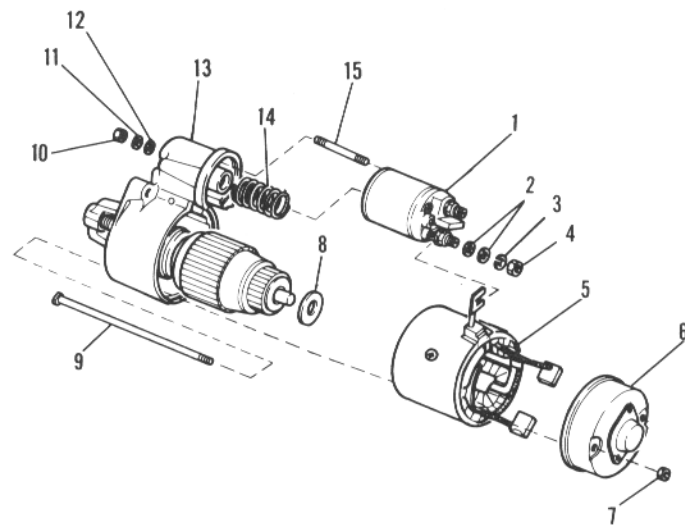
Remove nut (10), lockwasher (11), and washer (12) to remove starter solenoid (1) and spring (14).

Remove stud (15) only if damaged.

Remove two nuts (7) and bolts (9). Carefully separate support (6) from housing assembly (5) until brushes can be removed from brush holder.

Separate housing assembly (5) from support (13). Remove washer (8).

1. Starter solenoid 2. Washers 3. Lockwasher 4. Nut  
5. Housing assembly 6. Support 7. Nut 8. Washer 9. Bolt  
10. Nut 11. Lockwasher 12. Washer 13. Support 14. Spring  
15. Stud



Remove plug (13). Remove cotter pin (11) and pin (2).

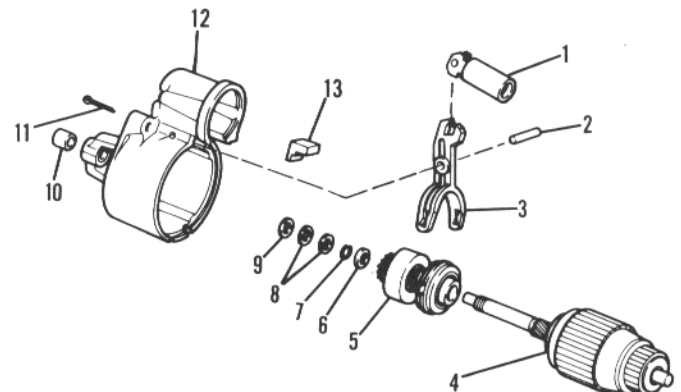
Separate armature (4) with attached parts (5 through 9), fork (3) and cup (1) from support (12). Remove washers (8 and 9).

Press on clutch (5) to remove clip (7).

Remove ring (6) and clutch (5) from armature (4).

Remove bushing (10) from support (12) only if damaged.

1. Cup 2. Pin 3. Fork 4. Armature 5. Clutch 6. Ring 7. Clip  
8. Washers 9. Washer 10. Bushing 11. Cotter pin 12. Support  
13. Plug



If damaged, remove bushing (7) by removing screw (9) and cover (8).

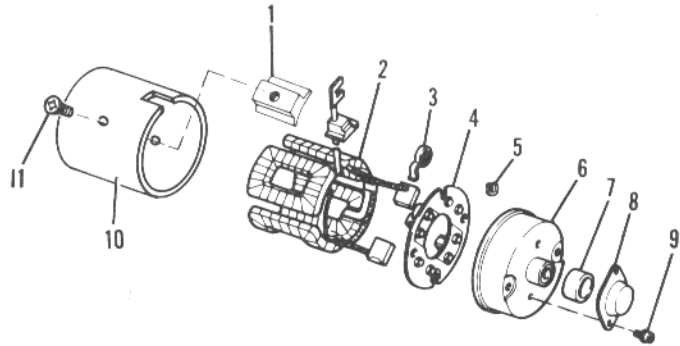
Remove brush holder (4) only if damaged.

To remove coil assembly (2), remove four screws (11) and stator cores (1). Carefully slide coil assembly (2) from housing (10).

Assembly is reverse of disassembly.

If a new coil assembly is installed, preheat to about 120°F (49°C). This will aid fitting in housing.

Lubricate inner spline at clutch with 10 W oil.



- 1. Stator core 2. Coil assembly 3. Spring 4. Brush holder
- 5. Insulator 6. Support 7. Bushing 8. Cover 9. Screw
- 10. Housing 11. Screw

### DISASSEMBLY AND REASSEMBLY (BOSCH)

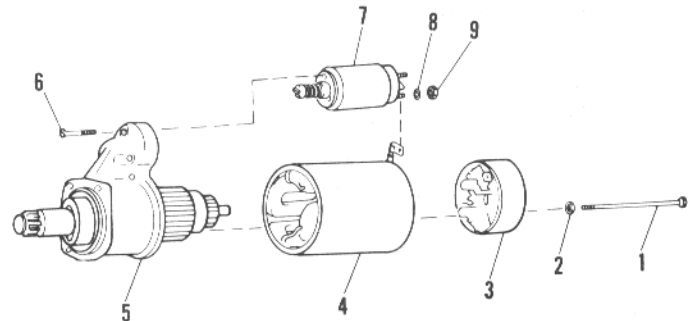
Remove nut (9) and washer (8).

Disconnect terminal on housing assembly (4) from stud on starter solenoid (7).

Remove three screws (6) to remove starter solenoid (7).

Remove two screws (1) and washers (2). Carefully separate cover (3) until brushes can be removed from brush holder.

Separate housing assembly (4) from support (5).



- 1. Screw 2. Washer 3. Cover 4. Housing 5. Support 6. Screw
- 7. Starter solenoid 8. Washer 9. Nut

Remove screw (14) and nut (16).

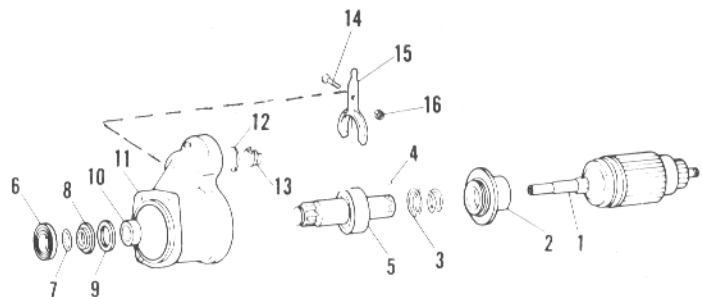
Separate fork (15) and armature (1) with attached parts (2 through 5) from support (11).

Squeeze bushing (2) and pinion (5) together to remove lock ball (4).

Separate pinion (5), spring (3) and bushing (2) from armature (1).

Remove cover (6), spring (7), cup (8), washer (9) and bushing (10) only if damaged.

Remove plug (13) and cover (12).



- 1. Armature 2. Bushing 3. Spring 4. Lock ball 5. Pinion 6. Cover
- 7. Spring 8. Cup 9. Washer 10. Bushing 11. Support 12. Cover
- 13. Plug 14. Screw 15. Fork 16. Nut



# Starting System

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If damaged, remove bushing (5) by removing screw (1), cover (2), ring (3) and washers (4).

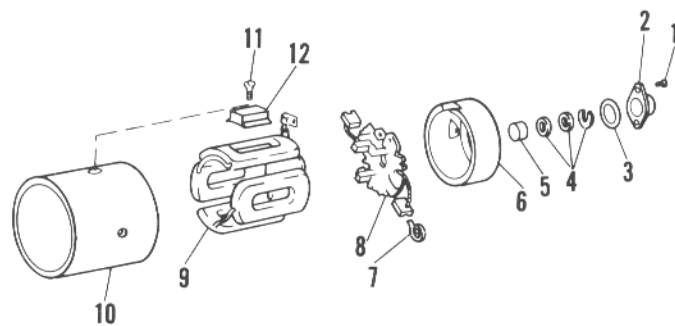
Remove brush holder (8) only if damaged.

To remove coil assembly (9), remove four screws (11) and stator cores (12). Carefully slide coil assembly (9) from housing (10).

Assemble in reverse order of disassembly.

If a new coil is installed, preheat to about 120°F (49°C). This will aid fitting in housing.

Lubricate inner spline of pinion with 10 W oil.



- 1. Screw
- 2. Cover
- 3. Ring
- 4. Washers
- 5. Bushing
- 6. Cover
- 7. Spring
- 8. Brush holder
- 9. Coil assembly
- 10. Housing
- 11. Screw
- 12. Stator core