

# STARTER SOLENOID REBUILD KITS

## ⚠ WARNING

### NOTE

*This instruction sheet references Service Manual information. A Service Manual for your model motorcycle is required for this installation and is available from a dealer.*

### Kit Contents

See Figure 3 and Table 1.

## REMOVAL

### Remove Existing Components

## ⚠ WARNING

**To prevent accidental vehicle start-up, which could cause death or serious injury, disconnect negative (-) battery cable before proceeding.**

## ⚠ WARNING

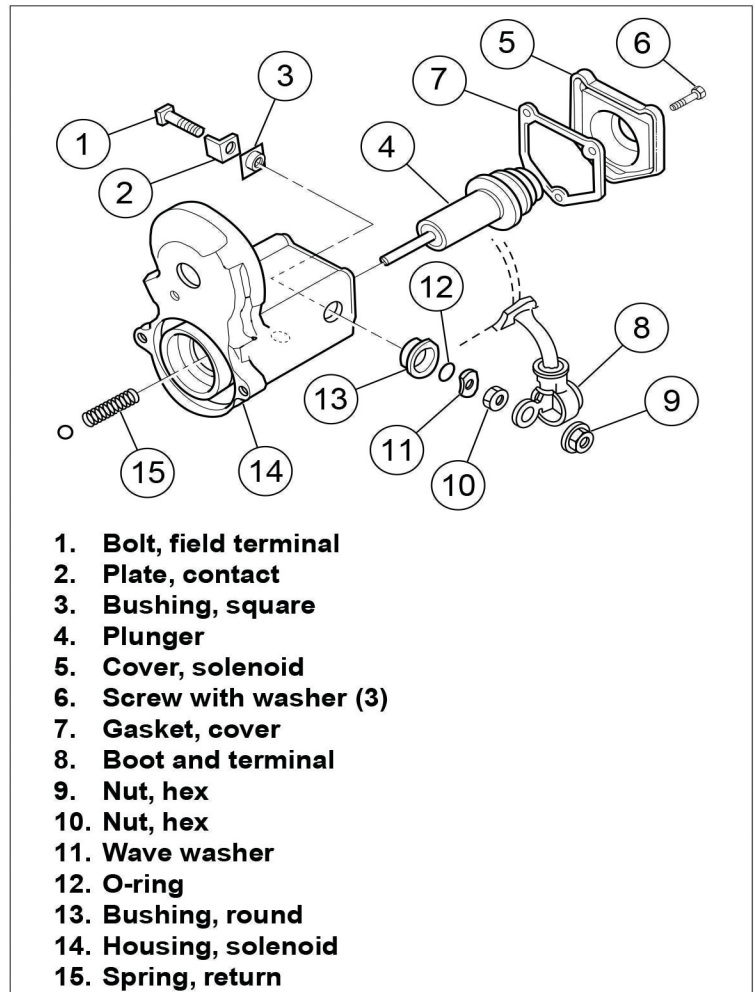
**Do not allow positive (+) battery cable to contact ground with negative (-) cable connected. Resulting sparks can cause a battery explosion, which could result in death or serious injury.**

1. Remove seat following the instructions in the appropriate Service Manual.
2. Disconnect battery cables, negative (-) cable first following the instructions in the appropriate Service Manual.
3. Remove existing starter following the instructions in the appropriate Service Manual.

### Remove Solenoid Plunger and Field Terminal

1. See Figure 1. Remove boot (8) from copper field terminal bolt (1).

2. Remove hex nut (9) holding field wire terminal to bolt.
3. Remove three solenoid cover screws with washers (6), cover (5) and gasket (7). Discard gasket.
4. Remove plunger (4) and return spring (15) from housing (14). Discard plunger.
5. Remove spring from plunger and set aside.
6. Remove and discard field terminal nut (10), wave washer (11), O-ring (12) and round bushing (13).
7. Push copper bolt (1), contact plate (2) and bushing (3) out of solenoid housing. Discard bolt, contact plate and bushing but save solenoid housing for later use.



**Figure 1. Solenoid Plunger and Field Terminal**

## INSTALLATION

### Install Field Terminal Parts

1. See Figure 3. From inside of solenoid housing, insert center ferrule of square bushing (3) through field terminal bolt hole.
2. Position contact plate (2) between bushing and hold-in winding terminal with holes aligned.

#### NOTE

Be sure leg of contact plate with curved edge is next to plunger opening.

3. Insert copper bolt (1) through hold-in terminal, contact plate and bushing.
4. From outside of housing, place center ferrule of round bushing (8), O-ring (9) and wave washer (10) over bolt threads.
5. Thread thin hex nut (11) onto bolt. Snug into place, but do not tighten.

### Remove Power Terminal Parts

1. See Figure 2. Remove hex nut with lockwasher (10) from copper power terminal nut (9). Remove battery cable and save for later use.
2. Remove and discard power terminal nut (9), wave washer (8), O-ring (7) and round bushing (6).
3. Push copper bolt (2), contact plate (3) and bushing (4) out of solenoid housing (1). Discard bolt, contact plate and bushing.
4. Remove and discard paper insulator washer (5).

### Install Power Terminal Parts

#### NOTE

Kit 32-9266 contains two power terminal contact plates. Replace this contact with the "like part" in the starter motor being serviced.

1. See Figure 3. Place contact plate (5) over slightly open jaws of a vise with hole side flat and leg upward.

#### NOTE

The knurled shaft of the copper power terminal bolt is a slight press-fit into the contact plate.

2. Insert 27 mm copper bolt (4) threads down through hole in contact plate and tap bolt into hole until bolt head touches plate.
3. From inside of solenoid housing, insert center ferrule of a square bushing (3) through paper insulator washer (13) (if applicable) and power terminal bolt hole.
4. Insert threads of bolt and contact plate assembly through bushing with contact leg positioned with curved edge toward plunger opening. Hold in this position.
5. From outside of housing, place center ferrule of round bushing (8), O-ring (9) and wave washer (10) over bolt threads.
6. Thread thin hex nut (11) onto bolt. Snug into place, but do not tighten at this time.

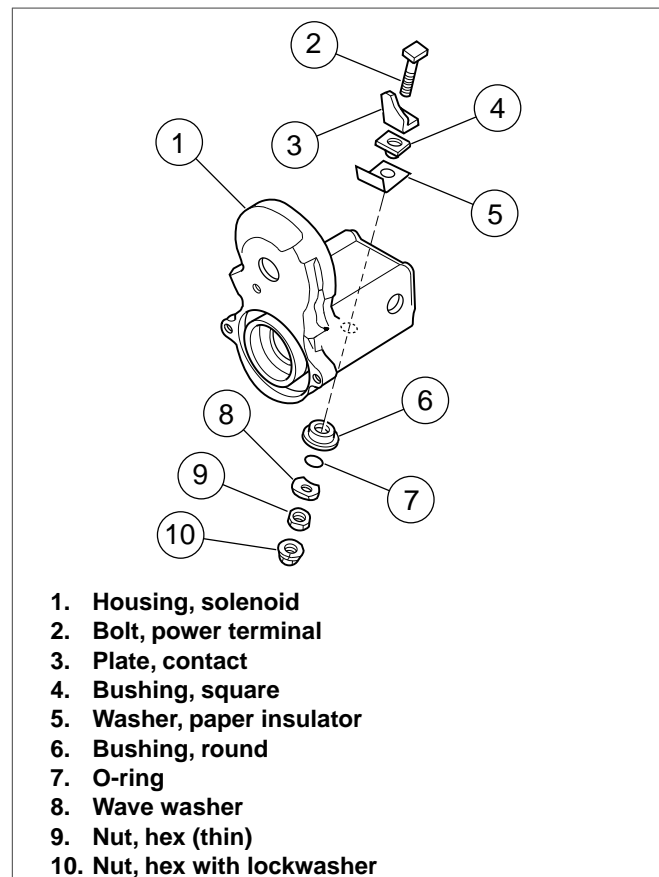


Figure 2. Power Terminal

### Install Solenoid Plunger, Gasket and Cover

1. See Figure 3. Place original return spring over new plunger (6). Insert plunger into opening in solenoid housing, spring end first. Be sure spring is seated all the way into the guide hole.
2. While holding pressure inward on the plunger, tighten nuts (11) on terminals to 65-80 **in-lbs** (7.3-9.0 Nm). This will ensure alignment of contact plates (2 and 5) to plunger washer.
3. Place new gasket (7) in solenoid cover.
  - a. Position cover and gasket against housing with holes aligned.
  - b. Position clip over unpainted hole in cover (if applicable).
4. Fasten cover, clip and gasket to solenoid housing with three screws and washers previously removed. Tighten screws securely.
5. Place field wire terminal (F) over copper bolt (1). Thread on hex nut removed earlier and tighten to 65-80 **in-lbs** (7.3-9.0 Nm). Place boot over terminal.

### Final Assembly

1. Install starter on the vehicle following the instructions in the appropriate Service Manual.

## ⚠ WARNING

Connect positive (+) battery cable first. If positive (+) cable should contact ground with negative (-) cable connected, the resulting sparks can cause a battery explosion, which could result in death or serious injury.

2. Connect the battery cables, positive (+) cable first.

## ⚠ WARNING

After installing seat, pull upward on seat to be sure it is locked in position. While riding, a loose seat can shift causing loss of control, which could result in death or serious injury.

3. Install seat following the instructions in the appropriate Service Manual.

## SERVICE PARTS

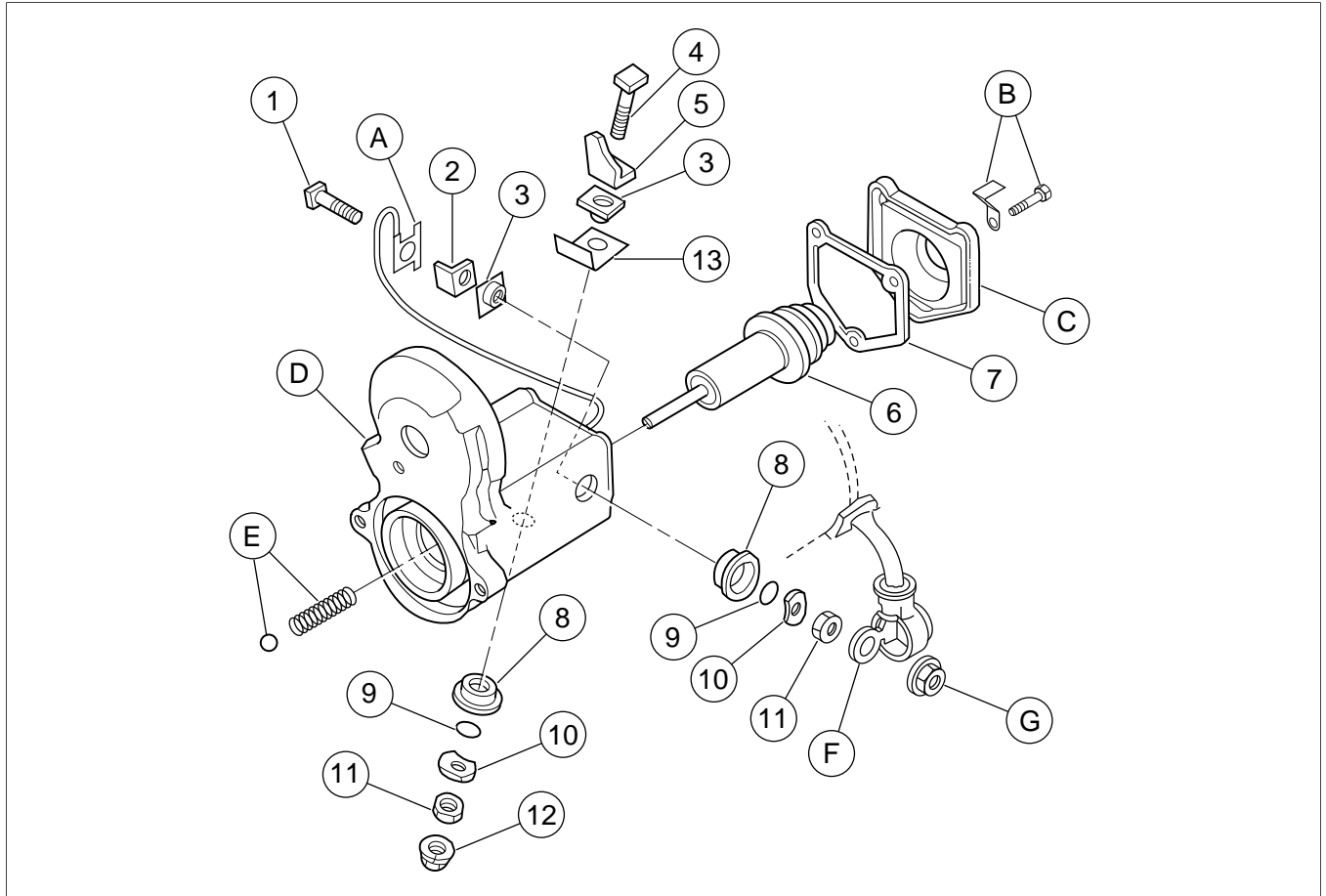


Figure 3. Service Parts: Starter Solenoid Rebuild Kit

Table 1. Service Parts: Starter Solenoid Rebuild Kit

Item	Description (Quantity)	
1	Bolt, copper, field terminal, with smooth shoulder	
2	Plate, contact, field terminal	
3	Bushing, square (2)	
4	Bolt, copper, power terminal, 27 mm long, with knurled shoulder	
5	Plate contact, power terminal, longer contact Plate contact, power terminal, shorter contact	
6	Plunger, short stem (Kit 31604-91A) Plunger, long stem (Kit 31604-06)	
7	Gasket, cover	
8	Bushing, round (2)	
9	O-ring (2)	
10	Washer, wave (2)	

**Table 1. Service Parts: Starter Solenoid Rebuild Kit**

Item	Description (Quantity)	Part Number
11	Nut, hex (thin) (2)	
12	Nut, hex with lockwasher	
13	Washer, paper insulator	
<b>Reference items:</b>		
A	Hold-in terminal	
B	Screw and clip (clip is not present on later models)	
C	Solenoid cover	
D	Solenoid housing	
E	Return spring and ball	
F	Field wire terminal	
G	Field terminal nut	