



# INSTRUCTIONS

-J00405

REV. 1-1-95

Kit Number 67175-92A

## TACHOMETER KIT

### General

This kit is designed for installation on 1992 and later XL model motorcycles equipped with speedometers and no tachometer.

#### **WARNING**

The rider's safety depends on the correct installation of this kit. **USE THE APPROPRIATE SERVICE MANUAL PROCEDURE!** If the procedure is not within your capabilities or you do not have the correct tools, have your Harley-Davidson dealer perform the installation.

To install this kit, you must remove/install the following: speedometer, headlamp, indicator lights, speedometer bracket, handlebars and risers. You will also have to disconnect the indicator lights' wires from the headlamp electrical connectors. Read all the instructions carefully before you begin the tachometer installation.

This kit contains the following component:

| QTY | DESCRIPTION         |
|-----|---------------------|
| 1   | Tachometer assembly |

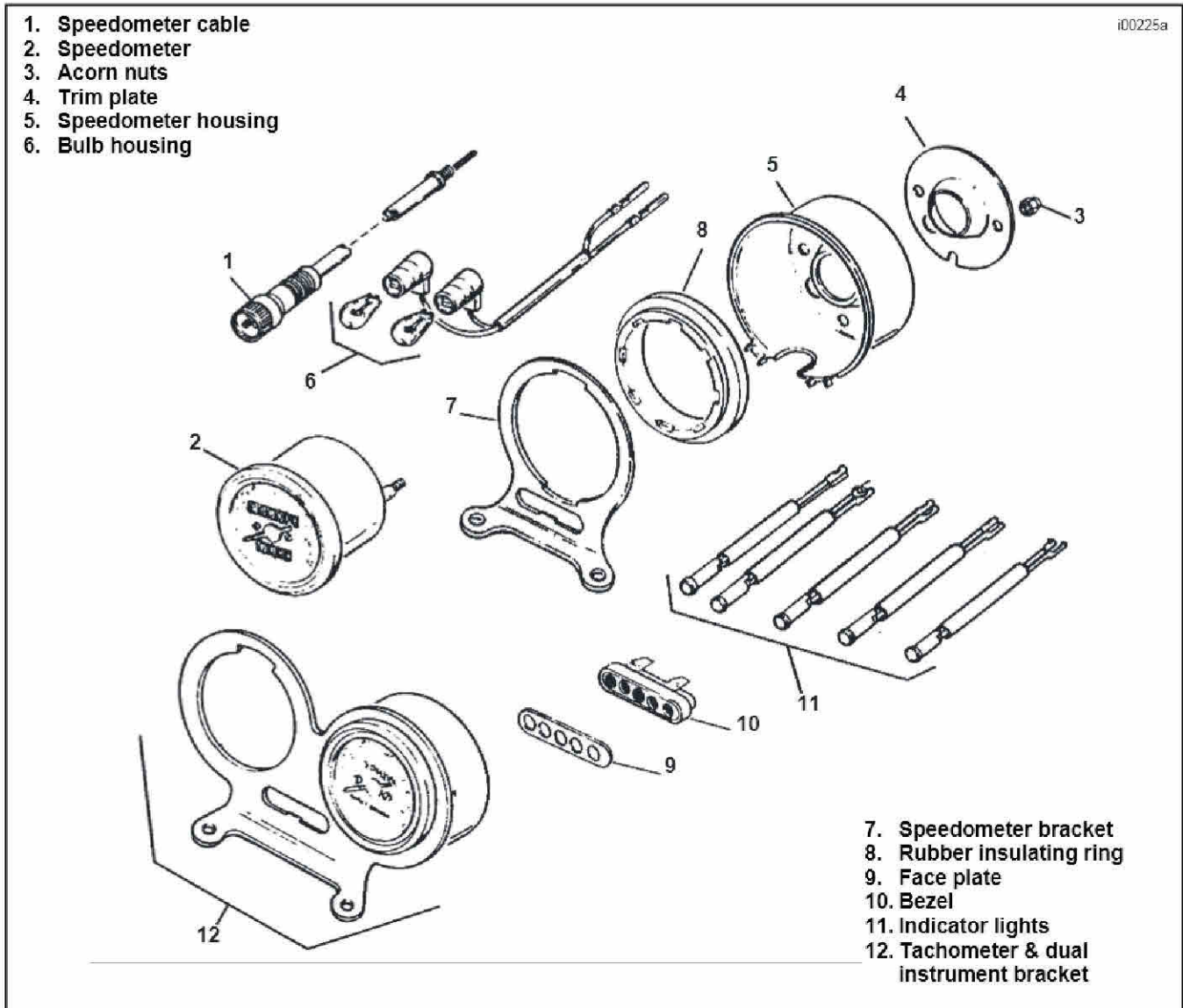


Figure 1. Speedometer

## Removal

| Special Tools                 | Torque Values (ft.-lbs) |
|-------------------------------|-------------------------|
| HD-93762-71 Pin terminal tool | None                    |

### SPEEDOMETER

#### **⚠WARNING**

To prevent short circuits while installing this kit, disconnect the battery cables (negative cable first) before you begin this procedure.

1. See Figure 1. Disconnect speedometer cable (1) from the speedometer (2).

2. Remove acorn nuts (3) from the rear of the speedometer (2). Remove the trim plate (4) and speedometer housing (5).
3. Gently pull the bulb housings (6) out of the rear of the speedometer.
4. Remove the speedometer from the speedometer bracket (7). Remove the rubber insulating ring (8) and save.

### HEADLAMP

#### **⚠CAUTION**

Never touch the quartz bulb with your fingers. Fingerprints will etch the glass and cause the bulb to fail. Always wrap the bulb in paper or a clean dry cloth during handling.

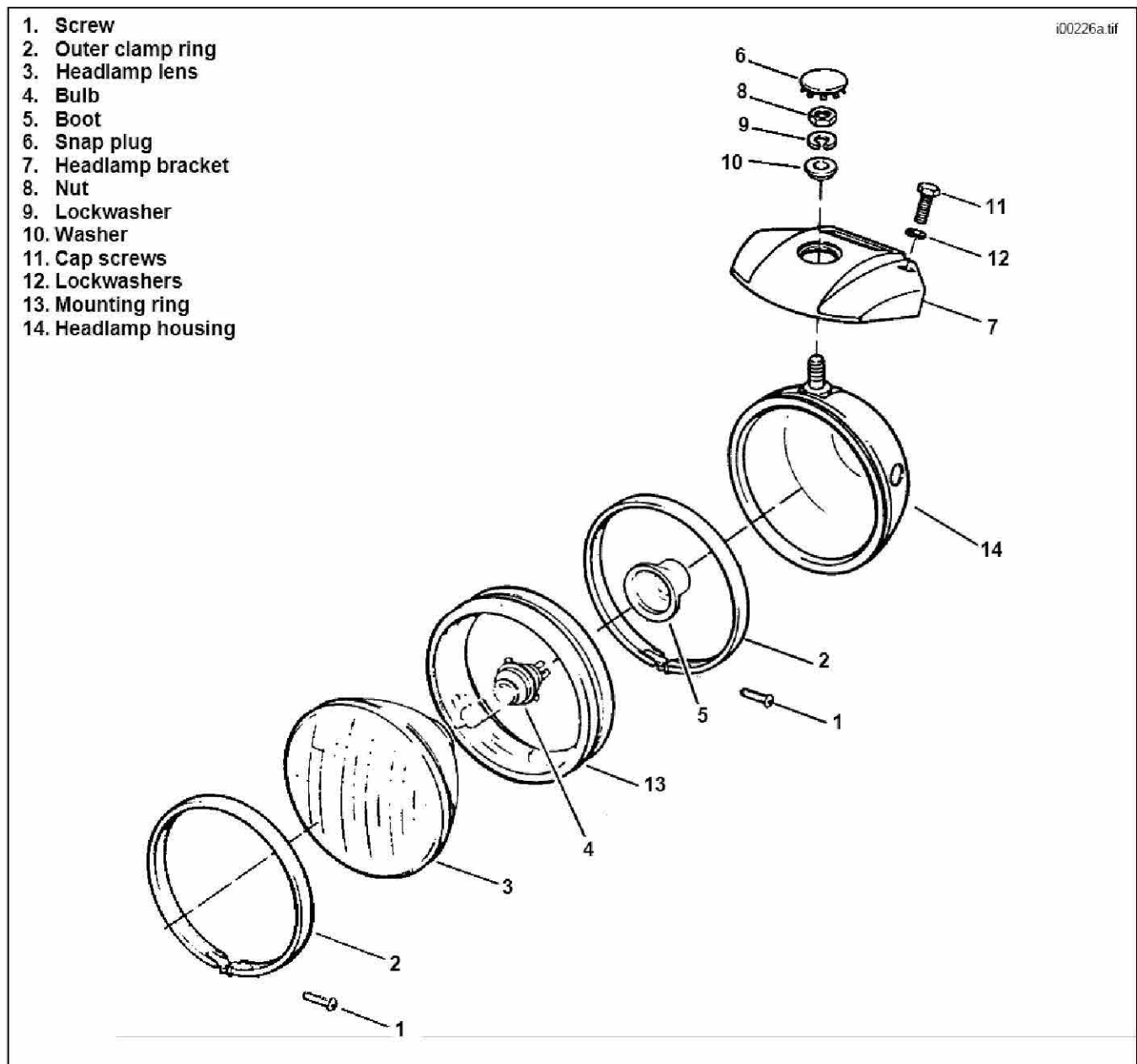


Figure 2. Headlamp

### **⚠WARNING**

The bulb contains Halogen gas under pressure. Handle bulb carefully and wear eye protection to avoid possible injury.

1. See Figure 2. Loosen screw (1) securing the outer clamp ring (2). Remove the outer clamp ring and headlamp lens (3). Remove bulb (4) and boot (5) as an assembly.
2. Remove the snap plug (6) on top of the headlamp bracket (7) and remove the nut (8), lockwasher (9) and washer (10) beneath it.
3. Remove cap screws (11) and lockwashers (12) securing the headlamp bracket (7) , and remove the bracket.
4. See Figures 3, 6A, 8 and 9. Disconnect the 12-pin electrical connector located at the top center of the headlamp housing by squeezing the tabs and pulling. Disconnect the 2-pin electrical connectors outside the headlamp housing the same way.

### **INDICATOR LIGHTS AND WIRES**

1. See Figure 1. Use a thin-blade screwdriver and pry the indicator light face plate (9) from the bezel (10).
2. Push the indicator lights (11) backward (toward the rider) and out of the bezel.
3. Squeeze the bezel tabs and remove the bezel from the bracket.

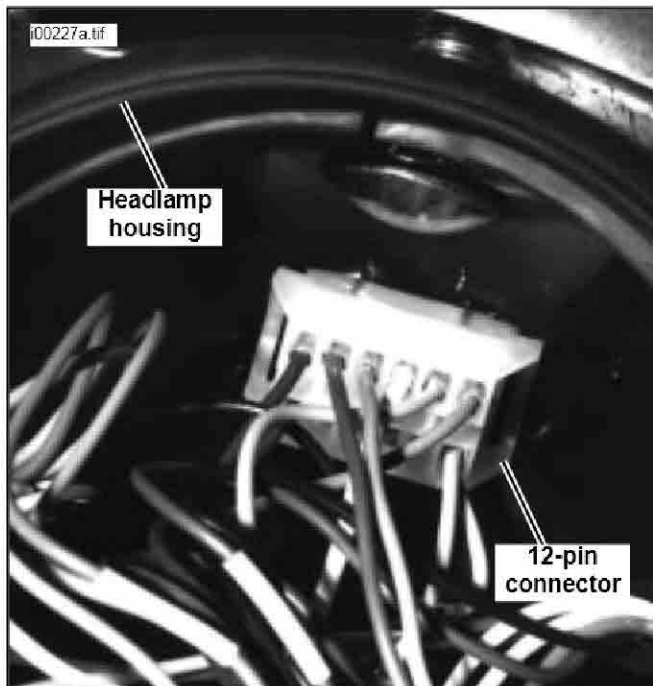


Figure 3. Headlamp Electrical Connector -1992 & 1993

### **NOTE**

In the following step, use masking tape or tags to identify the position of each wire.

4. See Figure 8. On 1992 and 1993 models , use the PIN TERMINAL TOOL, Part No. HD-93762-71. On 1994 models, remove orange secondary locks from housing. Carefully remove the indicator lights' wire pins from the electrical connectors. Use masking tape or tags to identify the position of each wire. Disconnect the ground wires of the high beam and right hand indicators at the upper left fork bracket.
5. Pull bezel, indicator lights and wires out of speedometer bracket.

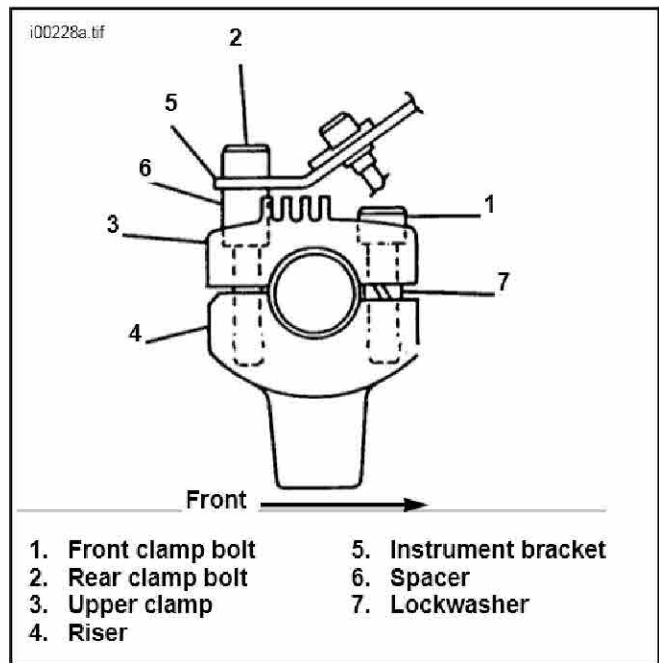


Figure 4. Instrument Bracket Mounting (Dual Instrument Mounting Bracket Shown)

### **HANDLEBARS AND RISERS**

1. See Figure 4. Remove the front and rear handlebar clamp bolts (1 and 2). Remove speedometer bracket (5), spacers (6) and upper clamp (3),

### **NOTE**

When removing the speedometer bracket, Note the position of the parts. The bracket (6) and spacer (7) are mounted at the rear and the lockwasher (8) is mounted at the front of the handlebar clamp.

2. See Figure 5. Remove the two riser stud nuts (1) and, on 1992 and 1993 models, the ground wire (2), at the underside of the upper fork bracket and move the handlebar (3) clear of risers (4). Lift up the risers with studs (5).

## Installation

| Special Tools                                  | Torque Values<br>(See Below)              |
|--|---|
| HD-93764-71 Socket terminal tool (if required) | Handlebar clamp bolts -<br>12 - 15 ft-lbs |
|  | Riser stud nuts -<br>25 - 30 ft-lbs       |
|  | Ground screw -<br>15 - 21 in-lbs          |

### HANDLEBARS AND RISERS

- See Figure 5. Exchange the position of the two risers (left riser to the right and right riser to the left). Loosely thread on the riser stud nuts. On 1992 and 1993 models, be sure to install ground wire.
- See Figure 4. Mount the handlebar on risers (4) and position the upper handlebar clamp in alignment with holes in the risers (wide spaced holes at the rear of the handlebar).
- Place lockwasher (7) between upper clamp (3) and riser under front clamp bolts.
- Insert shorter clamp bolt (1) through upper clamp (3), lockwasher (7) and riser (4). Install front clamp bolts (1) and torque to 12 - 15 ft-lbs.

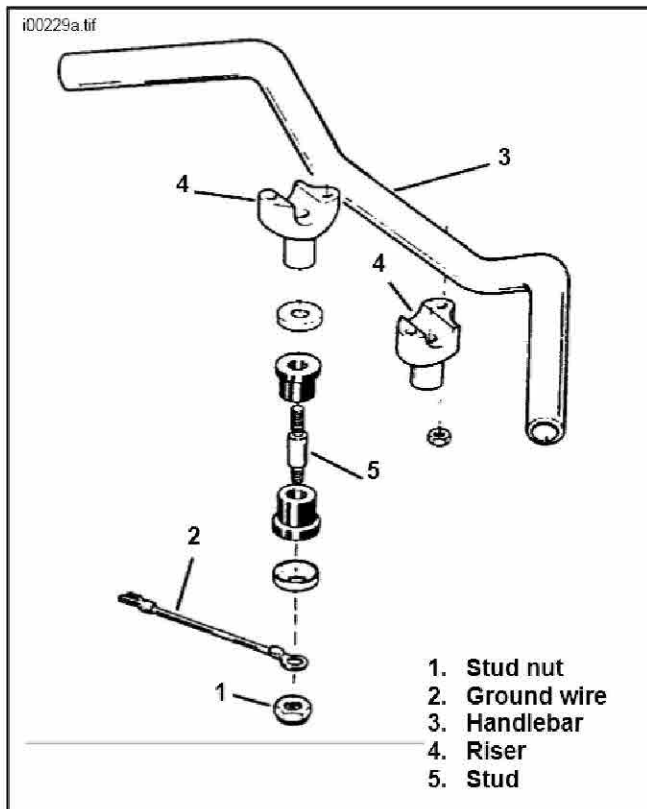


Figure 5. Handlebar Clamp Assembly  
1992 - 1993 Models Only

- See Figure 4. Place the tachometer and dual instrument bracket (5) in position over the rear holes in upper clamp (3). Place a spacer (6) under the bracket and over each rear hole in handlebar riser (4). Insert longer bolt (2) through bracket (5), spacer (6), upper clamp (3) and riser (4). Install rear clamp bolts (1) finger tight.
- Be sure handlebar and risers are aligned and tighten clamp bolts (2) to 12-15 ft-lbs.
- See Figure 5. Tighten riser stud nuts (1) to 25-30 ft-lbs.

### INDICATOR LIGHTS AND WIRES

- See Figure 4. Install bezel in new bracket. Place indicator lights and wires in bezel.

#### NOTE

See Figure 8. Be sure indicator lights are in the proper order.

- See Figure 8. Lead indicator lights' wires back to the electrical connectors from which they were removed. Press each pin into the correct (previously marked) position in the electrical connectors until it snaps into place. After pressing each pin into place, give the wire a slight tug, to be sure pin is properly seated.

### INSTALLING INSTRUMENTS

#### Tachometer

- On 1992 and 1993 models. Cut off the two socket terminals on the ends of the orange and pink tachometer wires as close to the ends as possible. Strip the ends of the two wires and install the two socket terminals supplied in the kit.

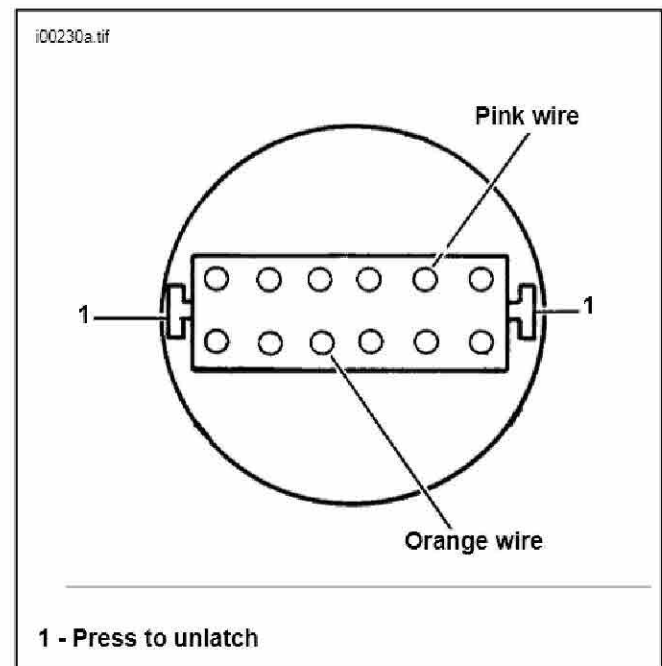


Figure 6. Tachometer Connections - 1992 & 1993  
(Looking at side of socket connector that mates w/pins)

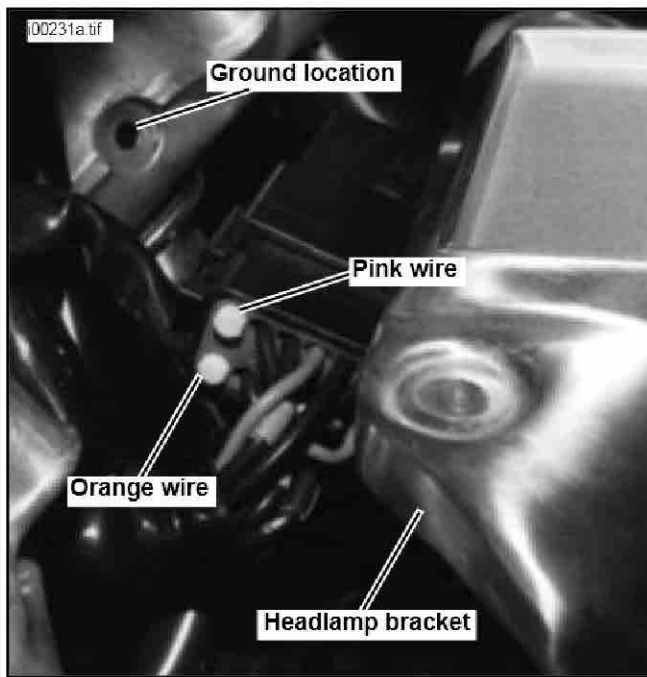


Figure 6A. Tachometer Connection - 1994 and Later

- See Figures 6, 6A, 8 and 9. Push the sockets of the orange and pink tachometer wires into the socket connector boot at the locations shown. Install the sockets in the socket electrical connector at the proper locations; that is, orange-to-orange and pink-to-pink. After pressing each socket terminal into place, give the wire a slight tug, to be sure socket is properly seated.
- On 1994 models.** See Figure 6A. After all wires are in place, reinstall the orange secondary lock in the pin housing.

**NOTE**

The **PIN SIDE** of the connector is **INSIDE** the headlamp housing. The **SOCKET SIDE** of the connector is **OUTSIDE** the headlamp housing.

**NOTE**

ON 1992 and 1993 models, if you install the sockets improperly, you will have to use **SOCKET TERMINAL TOOL** Part No. HD-93764-71 to remove the sockets from the connector.

- See Figure 8. On 1992 - 1993 models, use the ground screw holding black wires on upper left triple clamp. Install those black wires with the black tachometer wire to upper left triple clamp. Torque screw to 15 - 21 in-lbs.
- 1994 models only.** See Figure 6A. Locate the sheet metal screw and lockwasher from kit and ground ring terminal from tachometer into the hole in upper left triple clamp.
- Connect the 12-pin connector in the headlamp housing.

**Speedometer**

- See Figure 1. Install the speedometer (3) using the rubber insulating ring (8) from the old speedometer bracket.

- Insert the speedometer bulb housings (6) and install the cover (5) and trim plate (4). Secure cover and plate with acorn nuts (2).

**Headlamp**

- See Figure 2. Place the headlamp bracket in position and install cap screws (11) and lockwashers (12) securing the bracket (7).
- Place the headlamp in position in the bracket and install headlamp washer (10), lockwasher (9) and nut (8).
- Install bulb (4) and boot (5). Install headlamp lens (3). Tighten screw (1) and outer clamp ring (2).

**Check and Adjust**

- See Figure 7. If necessary, adjust the handlebar to the rider's normal position. Hold the handlebar and loosen rear clamp bolt (1). Position and adjust handlebars and torque rear screws to 12 - 15 ft-lbs.

**CAUTION**

When handlebar installation is complete, the upper and lower clamps have contact with the cast in boss (2) in front and have a slight gap at the rear.

- Connect the battery cables, positive cable first.

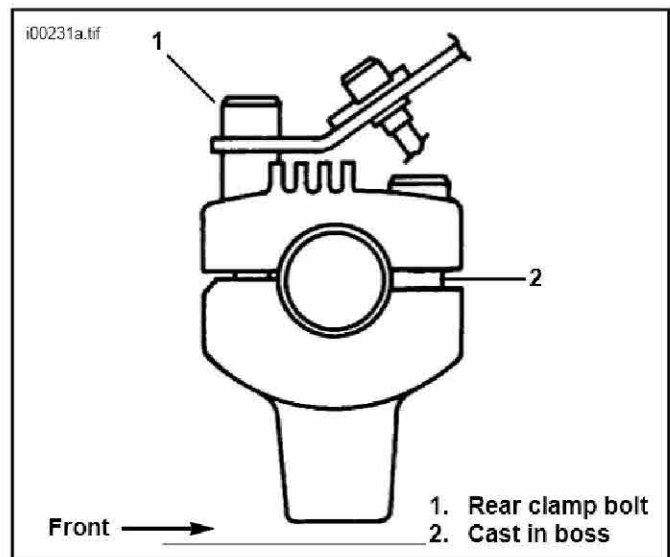
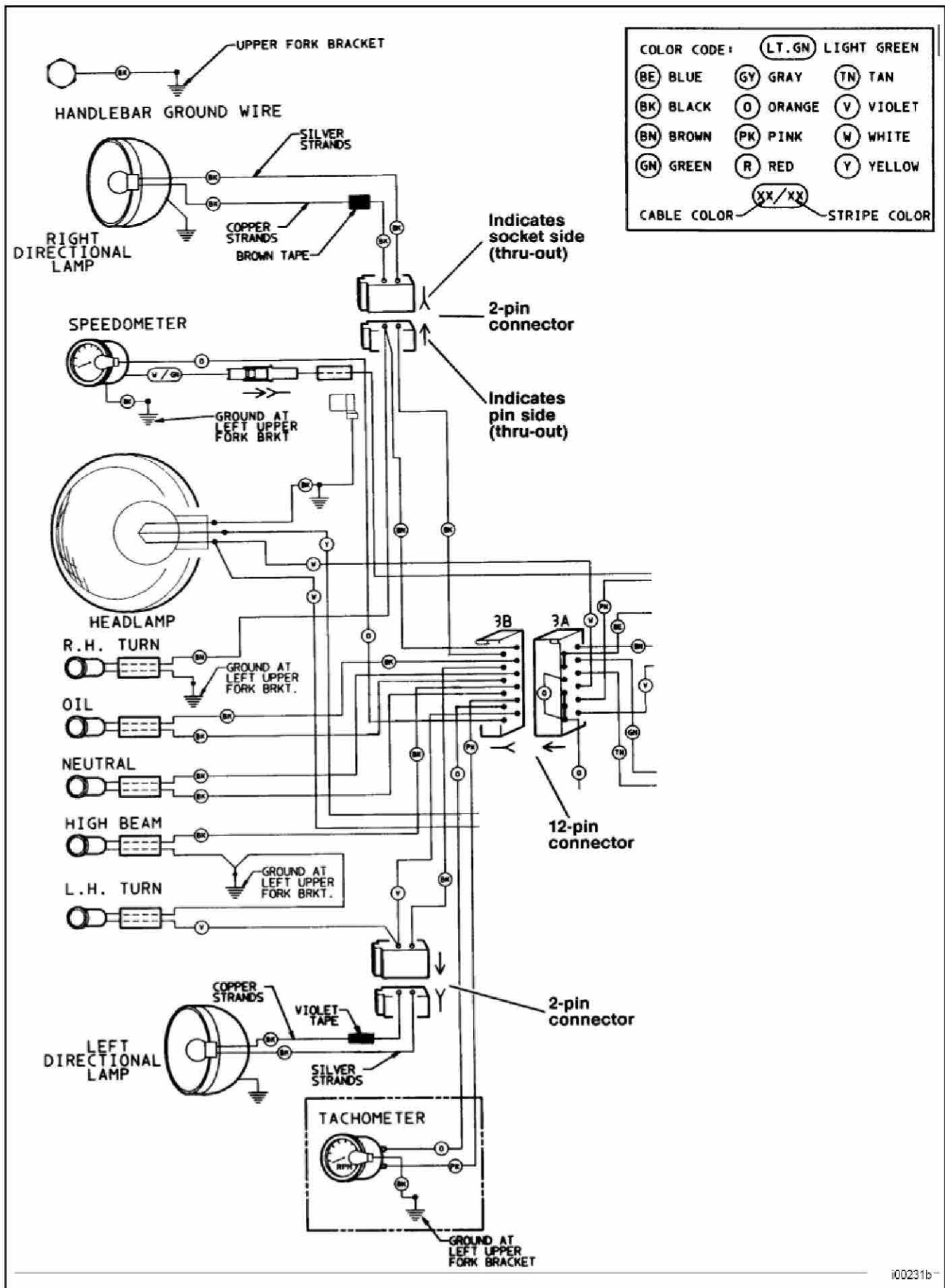


Figure 7. Handlebar Adjustment

- Turn ignition/light switch to ON. Check that the indicator lights, signal lights and headlamp all function properly.
- Start the engine, check the tachometer operation and check that the indicator lights are working correctly.
- Before riding the motorcycle, adjust the headlamp beam. Refer to the applicable Service Manual for instructions.
- See Figure 2. Install the snap plug (6) on top of the headlamp bracket.



100231b

Figure 8. Wiring Schematic Details - 1992 & 1993

COLOR CODE:

|         |             |             |              |      |        |
|---------|-------------|-------------|--------------|------|--------|
| (LT.GN) | LIGHT GREEN |             |              |      |        |
| (BL)    | BLUE        | (GY)        | GRAY         | (TN) | TAN    |
| (BK)    | BLACK       | (O)         | ORANGE       | (V)  | VIOLET |
| (BN)    | BROWN       | (PK)        | PINK         | (W)  | WHITE  |
| (GN)    | GREEN       | (R)         | RED          | (Y)  | YELLOW |
|         |             | (XX/XX)     |              |      |        |
|         |             | CABLE COLOR | STRIPE COLOR |      |        |

### SPEEDOMETER

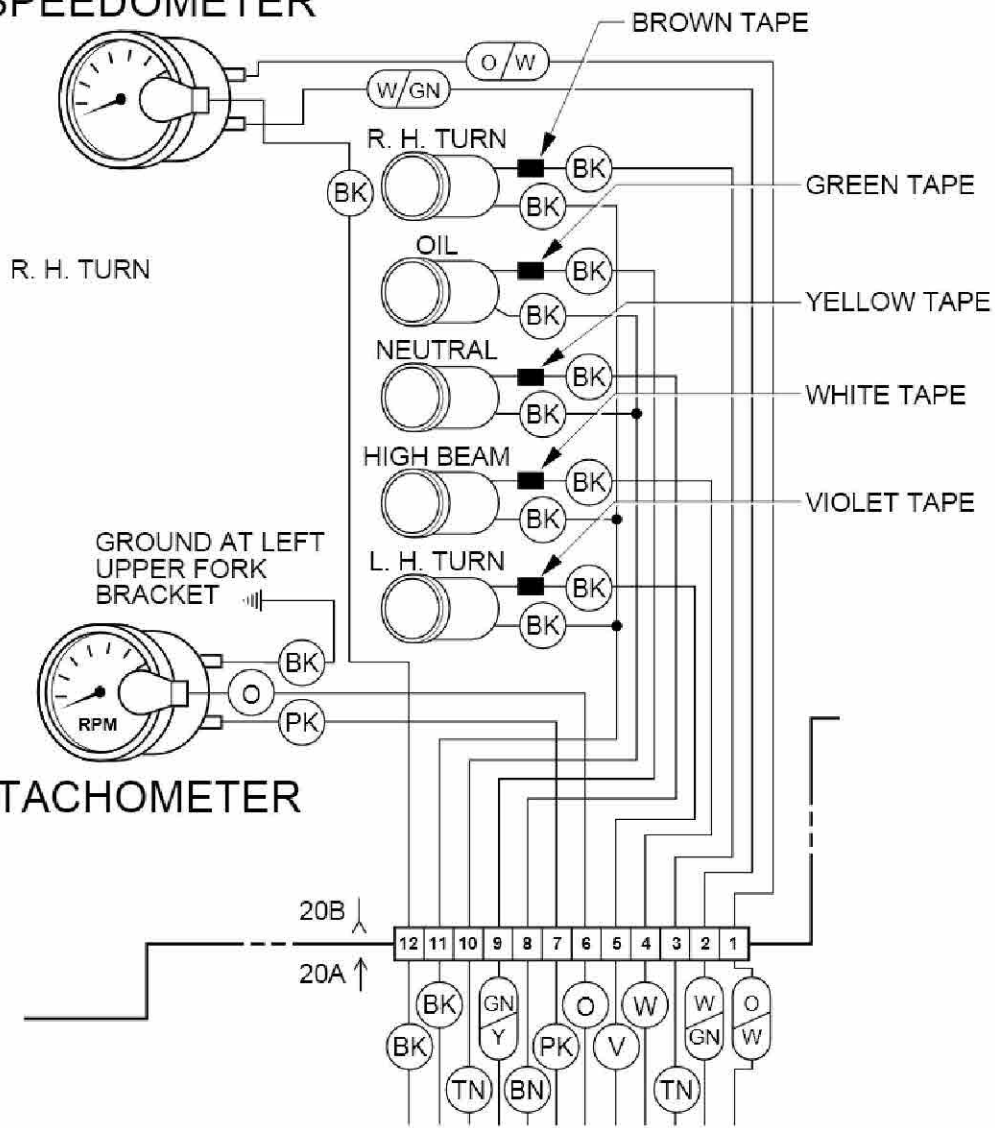


Figure 9. Wiring Schematic Detail - 1994 and Later



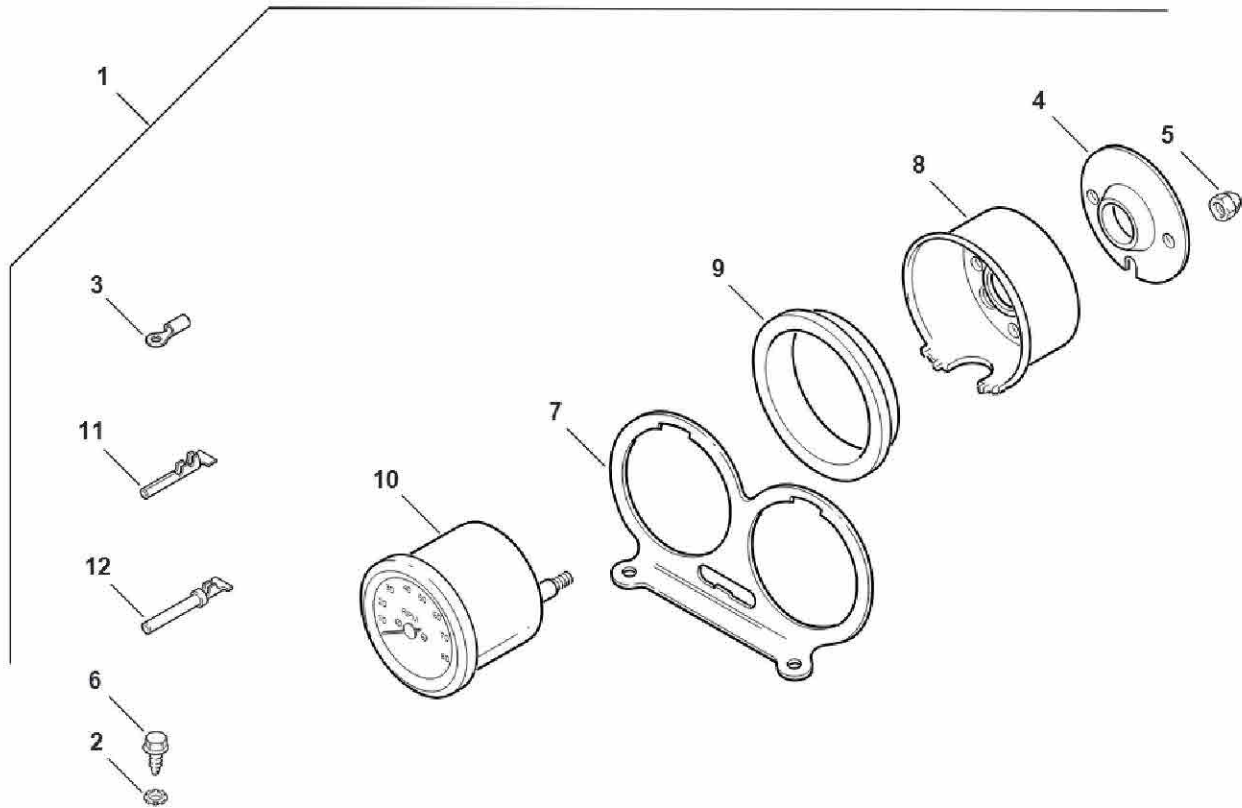
# Service Parts

Part No. 67175-92A

Date 1/95

## Tachometer Kit

sp67175



| Item | Description            | Part No.  | Item | Description            | Part No. |
|------|------------------------|-----------|------|------------------------|----------|
| 1    | Tachometer Kit         | 67175-92A | 7    | Bracket                | 67110-92 |
| 2    | Lockwasher, ext. tooth | 7220      | 8    | Cover                  | 67112-83 |
| 3    | Terminal, ring         | 9857      | 9    | Cushion, rubber        | 67121-92 |
| 4    | Trim, tachometer       | 67085-83  | 10   | Tachometer             | 67259-94 |
| 5    | Nut, acorn             | 67106-83  | 11   | Terminal, socket       | 72038-71 |
| 6    | Screw                  | 4091      | 12   | Socket, stamp and form | 72191-94 |



