



INSTRUCTIONS

-J01522

REV. 09-18-03

Kit Number 67224-95C

FXD (Dyna Super Glide) TACHOMETER KIT

General

This kit is designed for installation on 1995 - 2003 FXD Dyna Super Glide motorcycles equipped with an electronic speedometer and no tachometer.

NOTE

USE THE APPROPRIATE SERVICE MANUAL PROCEDURE! Service Manuals are available from your Harley-Davidson dealer. 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 will be removing the following: seat, fuel tank, speedometer bracket, speedometer (some models), and indicator lights. You will also have to disconnect the electronic speedometer harness from the 3-place connector under the seat and disconnect the 12-place or 14-place connector under the headlamp. **Read all the applicable Service Manual instructions carefully before you begin the tachometer installation.** Connector numbers in brackets, for example [65], are the identifying numbers used in Service Manual wiring diagrams.

Find the appropriate model year of your motorcycle and follow the instructions given underneath. All model motorcycles will follow the same Final Adjustments and Checks given on the last page of this instruction sheet.

1995 Models

⚠ WARNING

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

⚠ WARNING

Disconnect negative (-) 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. (00049a)

1. 1995 MODELS, REMOVAL OF ELECTRONIC SPEEDOMETER AND BRACKET

- 1a. Refer to applicable Service Manual procedure and remove seat.
- 1b. Refer to applicable Service Manual procedure and remove fuel tank.

⚠ WARNING

Stop the engine when refueling or servicing the fuel system. Do not smoke or allow open flame or sparks near gasoline. Gasoline is extremely flammable and highly explosive, which could result in death or serious injury. (00002a)

- 1c. Remove speedometer sensor cable from mounting clips under tank.

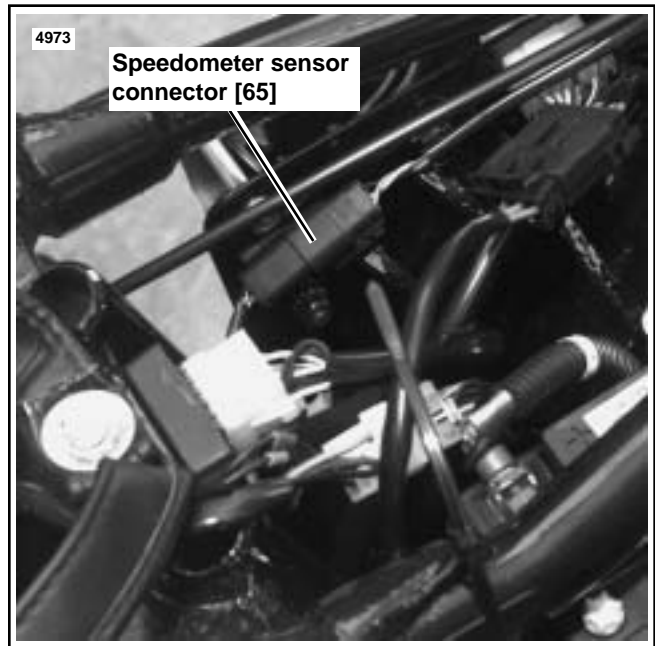


Figure 1. Speedometer Sensor Connection [65]

See Figure 1. The 3-place speedometer sensor connector [65] is located on the frame beneath the seat. Remove connector from t-stud and disconnect. Cut cable tie holding sensor wires to right rear frame tube.

- 1d. Refer to applicable Service Manual procedure and remove headlamp, for work clearance.
 - 1e. Remove handlebar clamp screws securing speedometer bracket. Remove speedometer, bracket, and harness.
2. 1995 MODELS, DISCONNECT MAIN WIRING HARNESS 8-PLACE CONNECTOR [21B, A] (FIGURE 2)
- 2a. Disconnect the battery, negative cable first. Refer to applicable Service Manual procedure and disconnect main wiring harness 8-place connector [21A, B], at the front of the motorcycle.
3. 1995 MODELS, REMOVE SPEEDOMETER LEADS FROM 8-PLACE CONNECTOR [21B, A] (FIGURE 2)
- 3a. See Figure 2 and Service Manual wiring schematic. Pull the following wires and terminals out of connector [21B].

Wire Color	Cavity Number
Orange/white	5
White/green	1
Black	2

- 3b. Remove the large female connector from the fuel gauge black wire.
- 3c. Slide the wires removed in step 2a out of the plastic conduit covering the wires connected to the 8-place connector.

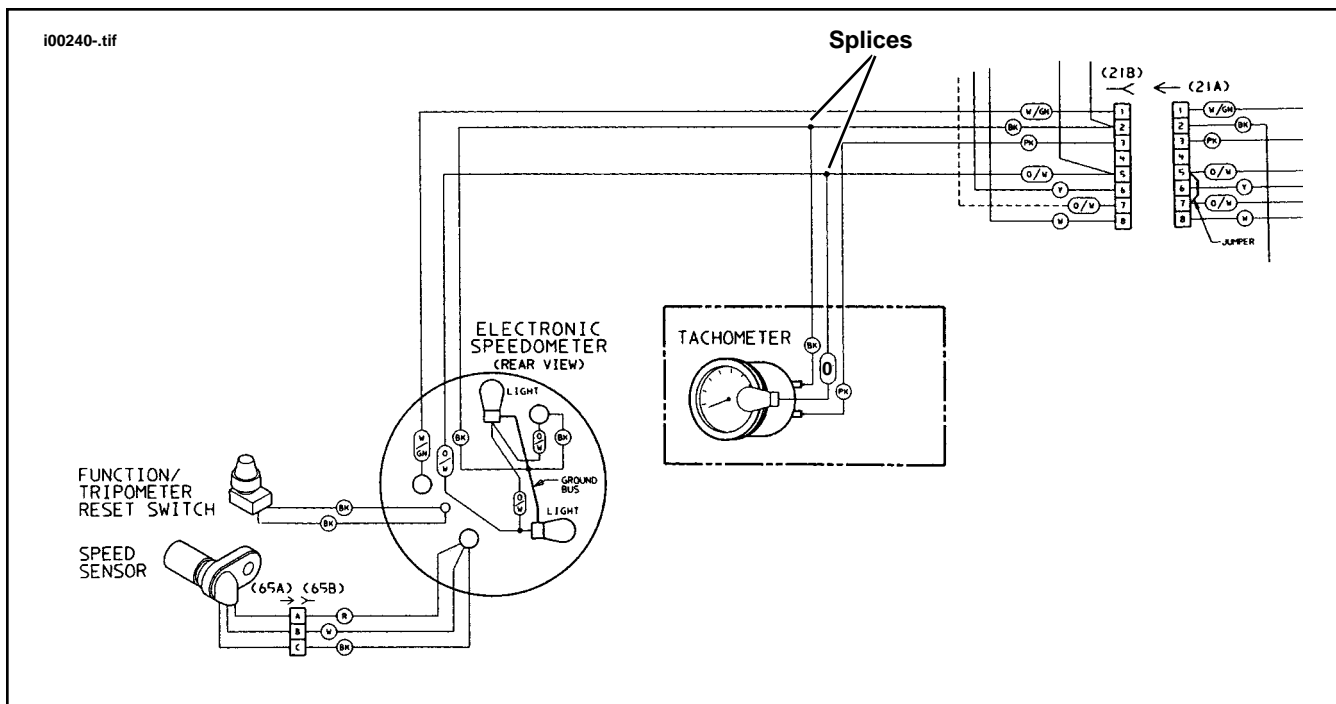


Figure 2. Tachometer/Speedometer Wire Splices and Terminal Connections [21B, A]

4. 1995 MODELS, REMOVE INDICATOR LAMPS FROM BRACKET

- 4a. Remove the screws that secure the indicator lamps assembly to the speedometer bracket. Retain screws and indicator lamps assembly for installation on speedometer/tachometer bracket later.

5. 1995 MODELS, REMOVE SPEEDOMETER FROM BRACKET

- 5a. Unscrew boot from speedometer reset switch. Remove cover screws and rear cover.
- 5b. See Figure 3. Note position of rear speedometer gasket and remove it. Push on rear of speedometer while simultaneously pulling speedometer and front gasket from bracket. *Do not remove front gasket from the speedometer.*

6. 1995 MODELS, INSTALL SPEEDOMETER IN KIT BRACKET

- 6a. See Figure 5. Place wires from speedometer through front of left opening in double bracket. Lubricate the front and rear gaskets with isopropyl alcohol or glass cleaner to ease installation.
- 6b. Insert speedometer into the front of the double bracket. Be sure wire guides are aligned with opening at bottom of bracket.
- 6c. Place rear gasket in position and align gasket tabs. Work gasket into space between speedometer and bracket by pushing speedometer against one side of bracket while pushing gasket into position at the opposite side.
- 6d. Add amber bulb assembly from kit to speedometer in order for tachometer and speedometer backlighting to match.
- 6e. Replace cover and boot from reset switch.

7. 1995 MODELS, ASSEMBLING TACHOMETER HARNESS

- 7a. See Figure 4. Assemble the harness for 1995 models as shown from wires, conduit and connector provided in kit. The connector cavity numbers are shown on socket housing (12) and wires must be inserted as follows:

Wire Color	Cavity Number
Orange	1
Black	2
Pink	3

- 7b. This harness will plug directly into the back of the tachometer. After plugging wire ends into connector as shown, cover wires with conduit from kit.
- 7c. Use wire clamp to secure conduit inside tachometer. Install rear tachometer gasket using the same procedure as for the speedometer. Install cover.

8. 1995 MODELS, CONNECT SPEEDOMETER/TACHOMETER LEADS

- 8a. Cut speedometer black ground lead 7.5 in. from bottom of speedometer case and strip 3/8 in. insulation.
- 8b. Cut speedometer orange/white lead 5.5 in. from bottom of speedometer case and strip 3/8 in. insulation.
- 8c. See Figures 6 and 2. Use one of the butt connectors from the kit and connect the ground leads as shown. Refer to "SEALED BUTT CONNECTORS" in the appropriate Service Manual for complete procedure.
- 8d. Repeat step 8c for the speedometer orange/white and tachometer orange leads.

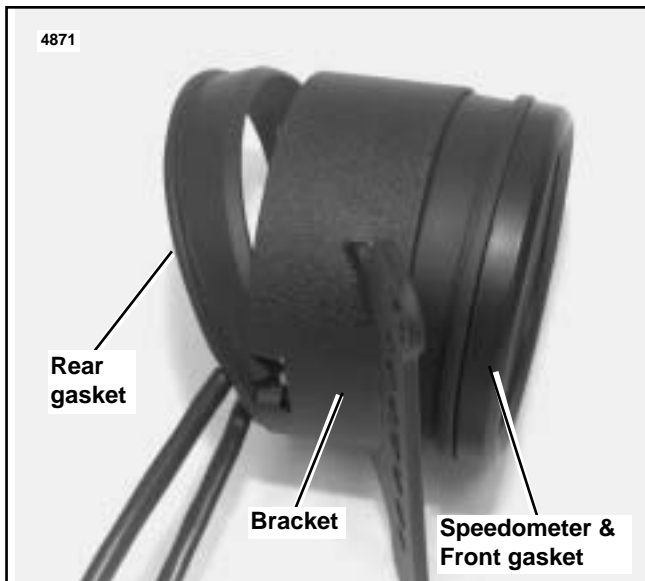


Figure 3. Speedometer and Gaskets in Single Instrument bracket

9. 1995 MODELS, CONNECT SPEEDOMETER/TACHOMETER LEADS TO 8-PLACE CONNECTOR

- 9a. Tape the wires, with socket terminals on their ends, together and slide them through conduit from kit until terminals are positioned at 8-place connector.
- 9b. See Figure 2. Remove tape from wires. Insert terminals into 8-place connector as follows:

<u>Instrument</u>	<u>Wire Color</u>	<u>Cavity Number</u>
Speedometer/Tachometer	Orange/white	5
Speedometer	White/green	1
Speedometer/Tachometer	Black	2
Tachometer	Pink	3

10. 1995 MODELS, INSTALL INDICATOR LIGHTS ON DUAL BRACKET

- 10a. See Figure 8. Place the indicator light bezel and color strip on front of dual bracket. Be sure color strip is positioned on locating pins.
- 10b. Install indicator light socket assembly on rear of dual bracket. Be sure locating pins on bezel enter holes in socket assembly. Install mounting screws.

11. 1995 MODELS, INSTALL SPEEDOMETER/TACHOMETER

- 11a. See Figure 8. Place speedometer/tachometer assembly in position and install screws, but do not tighten.
- 11b. Connect large female connector to fuel gauge black wire.
- 11c. Connect the 8-place wiring harnesses.
- 11d. See Figure 1. Route speedometer sensor cable into position under fuel tank and seat and connect 3-place connector [65]. Place speedometer sensor cable into clips underneath fuel tank. Replace cable ties holding connector [65] to frame.
- 11e. Refer to Service Manual procedures and install main wiring harness.
- 11f. Refer to Service Manual procedures and install fuel tank. Use hose clamp in kit.
- 11g. Install headlamp, if removed. **Continue to the Final Adjustment and Checks given on the last page of this instruction sheet.**

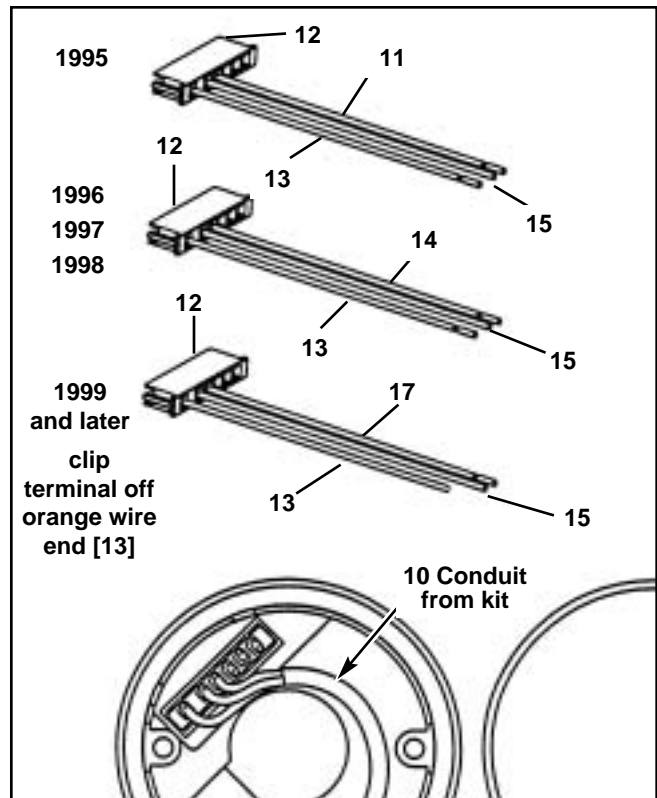


Figure 4. Connecting Harness to Tachometer (Callouts correspond to wires listed in Service Parts)

1996 - 1998 Models

⚠ WARNING

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

1. 1996-1998 MODELS, REMOVAL OF ELECTRONIC SPEEDOMETER AND BRACKET

- 1a. Refer to applicable Service Manual procedure and remove seat.
- 1b. Refer to applicable Service Manual procedure and remove fuel tank.

⚠ WARNING

Stop the engine when refueling or servicing the fuel system. Do not smoke or allow open flame or sparks near gasoline. Gasoline is extremely flammable and highly explosive, which could result in death or serious injury. (00002a)

- 1c. Remove speedometer sensor cable from mounting clips under tank.

See Figure 1. The 3-place speedometer sensor connector [65] is located on the frame beneath the seat. Remove connector from t-stud and disconnect. Cut cable tie holding sensor wires to right rear frame tube.
- 1d. Refer to applicable Service Manual procedure and remove headlamp, for work clearance.
- 1e. Remove handlebar clamp screws securing speedometer bracket. Remove speedometer, bracket, and harness.

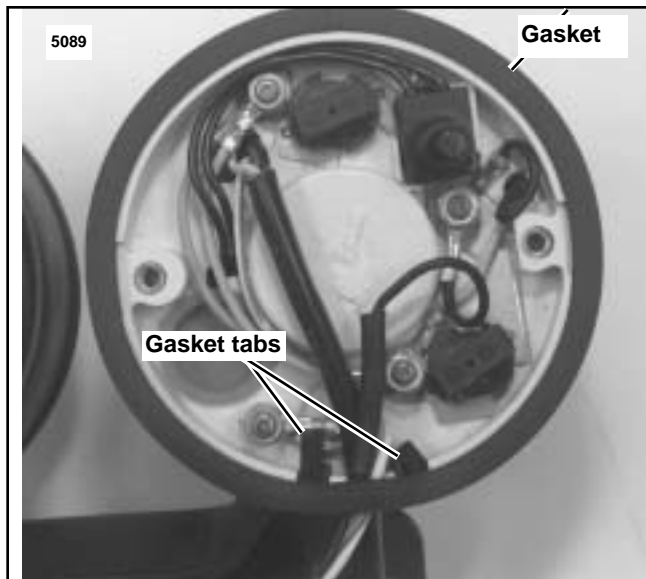


Figure 5. Back of Speedometer

2. 1996 -1998 MODELS - DISCONNECT MAIN WIRING HARNESS 12-PLACE OR 14-PLACE CONNECTOR [20B, A] (NOT SHOWN)

NOTE

The main wiring harness is routed through the frame top tube. It is designed with enough slack to pull the main wiring harness connector out of the top tube so the connector can be disconnected. Refer to applicable Service Manual procedure and disconnect main wiring harness connector [20A, B], at the front of the motorcycle.

3. 1996 - 1998 MODELS -REMOVE SPEEDOMETER LEADS FROM 12-PLACE OR 14-PLACE CONNECTOR [20B] (NOT SHOWN)

3a. See Service Manual wiring schematic. Pull the following wires and terminals out of connector [20B].

Wire Color	Cavity Number
Orange/white	1
White/green	2
Black	12

3b. Slide the wires removed in step 1 out of the plastic conduit covering the wires connected to the 12-place connector.

4. 1996-1998 MODELS, REMOVE INDICATOR LAMPS FROM BRACKET

4a. Remove the screws that secure the indicator lamps assembly to the speedometer bracket. Retain screws and indicator lamps assembly for installation on speedometer/tachometer bracket later.

5. 1996-1998 MODELS, REMOVE SPEEDOMETER FROM BRACKET

5a. Unscrew boot from speedometer reset switch. Remove cover screws and rear cover.

5b. See Figure 3. Note position of rear speedometer gasket and remove it. Push on rear of speedometer while simultaneously pulling speedometer and front gasket from bracket. Do not remove front gasket from the speedometer.

6. 1996-1998 MODELS, INSTALL SPEEDOMETER IN KIT BRACKET

6a. See Figure 5. Place wires from speedometer through front of left opening in double bracket. Lubricate the front and

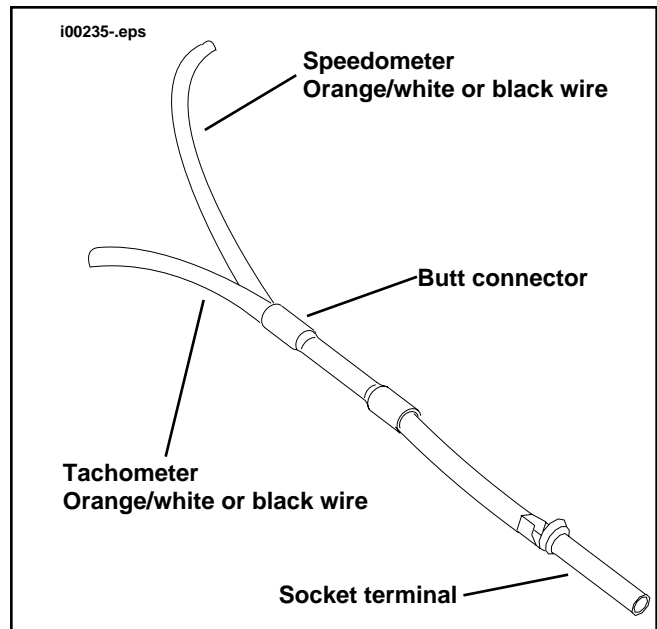


Figure 6. Connect Speedometer and Tachometer Wires

rear gaskets with isopropyl alcohol or glass cleaner to ease installation.

6b. Insert speedometer into the front of the double bracket. Be sure wire guides are aligned with opening at bottom of bracket.

6c. Place rear gasket in position and align gasket tabs. Work gasket into space between speedometer and bracket by pushing speedometer against one side of bracket while pushing gasket into position at the opposite side.

6d. Add amber bulb assembly from kit to speedometer in order for tachometer and speedometer backlighting to match.

6e. Replace cover and boot from reset switch.

7. 1996-1998 MODELS, ASSEMBLING TACHOMETER HARNESS

7a. See Figure 4. As dictated by model year, assemble one of the harnesses shown from wires, conduit and connector provided in kit. The connector cavity numbers are shown on socket housing (12) and wires must be inserted as follows:

Wire Color	Cavity Number
Orange	1
Black	2
Pink	3

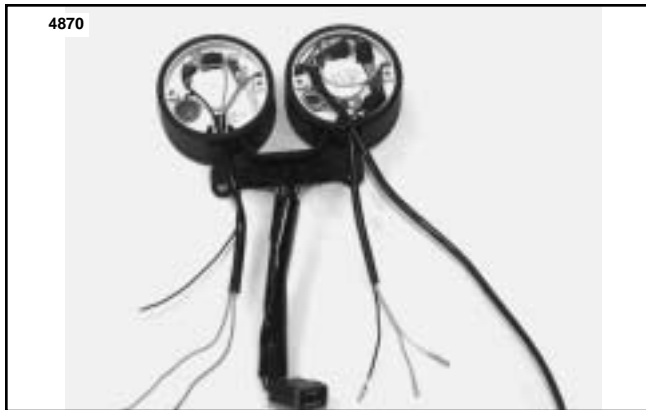
7b. This harness will plug directly into the back of the tachometer. After plugging wire ends into connector as shown, cover wires with conduit from kit.

7c. Use wire clamp to secure conduit inside tachometer. Install rear tachometer gasket using the same procedure as for the speedometer. Install cover.

8. 1996-1998 MODELS, CONNECT SPEEDOMETER/ TACHOMETER LEADS

8a. Cut speedometer black ground lead 7.5 in. from bottom of speedometer case and strip 3/8 in. insulation.

8b. See Figures 6 and 2. Use one of the butt connectors from the kit and connect the ground leads as shown. Refer to "SEALED BUTT CONNECTORS" in the appropriate Service Manual for complete procedure.



**Figure 7. Speedometer (r) and Tachometer (l)
Installed in Double Bracket**
(Rear Covers Removed for Illustration Purposes)

**9. 1996-1998 MODELS, CONNECT SPEEDOMETER/
TACHOMETER LEADS TO 12-PLACE OR 14-PLACE
CONNECTOR**

- 9a. Tape the wires, with socket terminals on their ends, together and slide them through conduit from kit until terminals are positioned at 12-place or 14-place connector.
- 9b. Remove tape from wires. Insert terminals into connector as follows:

<u>Instrument</u>	<u>Wire Color</u>	<u>Cavity Number</u>
Speedometer	Orange/white	1
Speedometer	White/green	2
Speedometer/Tachometer	Black	12
Tachometer	Pink	7
Tachometer	Orange	6

**10. 1996-1998 MODELS, INSTALL INDICATOR LIGHTS ON
DUAL BRACKET**

- 10a. See Figure 8. Place the indicator light bezel and color strip on front of dual bracket. Be sure color strip is positioned on locating pins.
- 10b. Install indicator light socket assembly on rear of dual bracket. Be sure locating pins on bezel enter holes in socket assembly. Install mounting screws.

**11. 1996-1998 MODELS, INSTALL SPEEDOMETER/
TACHOMETER**

- 11a. See Figure 8. Place speedometer/tachometer assembly in position and install screws, but do not tighten.
- 11b. Connect the 12-place or 14-place wiring harnesses.
- 11c. See Figure 1. Route speedometer sensor cable into position under fuel tank and seat and connect 3-place connector [65]. Place speedometer sensor cable into clips underneath fuel tank. Replace cable ties holding connector [65] to frame.
- 11d. Install main wiring harness according to Service Manual procedures.
- 11e. Install fuel tank with hose clamp from kit according to Service Manual procedures.
- 11f. Install headlamp, if removed. **Continue to the Final Adjustment and checks given on the last page of this instruction sheet.**

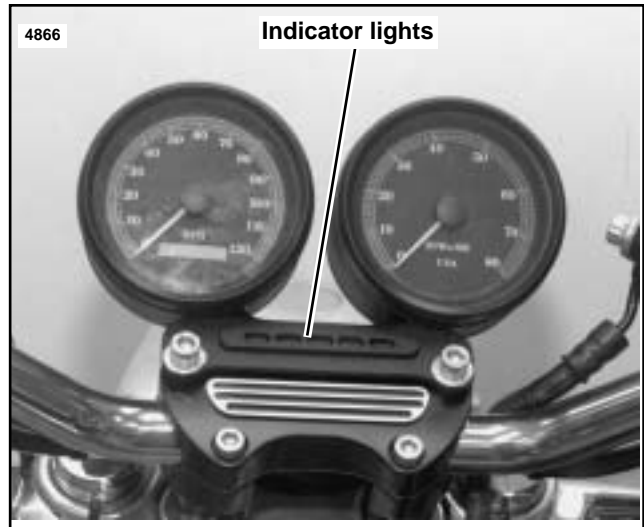


Figure 8. Kit Installed

1999 and Later Models

⚠ WARNING

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

**1. 1999 AND LATER MODELS, REMOVAL OF
ELECTRONIC SPEEDOMETER AND BRACKET**

- 1a. Disconnect battery, negative cable first. Remove seat according to Service Manual instructions.
- 1b. Refer to applicable Service Manual procedure and remove headlamp, for work clearance.
- 1c. Remove handlebar clamp screws securing speedometer bracket. Remove speedometer, bracket, and harness.

**2. 1999 AND LATER MODELS - DISCONNECT MAIN
WIRING HARNESS 12-PLACE OR 14-PLACE
CONNECTOR [20B, A] (NOT SHOWN)**

NOTE

The main wiring harness is routed through the frame top tube. It is designed with enough slack to pull the main wiring harness connector out of the top tube so the connector can be disconnected. Refer to applicable Service Manual procedure and disconnect main wiring harness connector [20A, B], at the front of the motorcycle.

**3. 1999 AND LATER MODELS -REMOVE SPEEDOMETER
LEADS FROM 12-PLACE OR 14-PLACE CONNECTOR
[20B] (NOT SHOWN)**

- 3a. See Service Manual wiring schematic. Pull the following wires and terminals out of connector [20B].

<u>Wire Color</u>	<u>Cavity Number</u>
Orange/white	1
White/green	2
Black/yellow	10
Black	12

- 3b. Slide the wires removed in step 3a out of the plastic conduit covering the wires connected to the 12-place connector.

4. 1999 AND LATER MODELS REMOVE INDICATOR LAMPS FROM BRACKET

4a. Remove the screws that secure the indicator lamps assembly to the speedometer bracket. Retain screws and indicator lamps assembly for installation on speedometer/tachometer bracket later.

5. 1999 AND LATER MODELS REMOVE SPEEDOMETER FROM BRACKET

5a. Remove cover screws and rear cover. Remove connector from back of speedometer.

5b. See Figure 3. Note position of rear speedometer gasket and remove it. Push on rear of speedometer while simultaneously pulling speedometer and front gasket from bracket. Do not remove front gasket from the speedometer.

6. 1999 AND LATER MODELS INSTALL SPEEDOMETER IN KIT BRACKET

6a. See Figure 5. Lubricate the front and rear gaskets with isopropyl alcohol or glass cleaner to ease installation. Insert speedometer into the front of left opening in double bracket.

6b. Reinstall connector removed in step 5a and align wires through wire guides.

6c. Place rear gasket in position and align gasket tabs. Work gasket into space between speedometer and bracket by pushing speedometer against one side of bracket while pushing gasket into position at the opposite side.

6d. Replace cover ensuring reset switch is properly aligned. Tighten screws.

7. 1999 AND LATER MODELS ASSEMBLING TACHOMETER HARNESS

7a. See Figure 4. As dictated by model year, assemble one of the harnesses shown from wires, conduit and connector provided in kit. The connector cavity numbers are shown on socket housing (12) and wires must be inserted as follows:

<u>Wire Color</u>	<u>Cavity Number</u>
Orange	1
Black	2
Pink	3

7b. This harness will plug directly into the back of the tachometer. After plugging wire ends into connector as shown, cover wires with conduit from kit.

7c. Use wire clamp to secure conduit inside tachometer. Install rear tachometer gasket using the same procedure as for the speedometer. Install cover.

8. 1999 AND LATER MODELS, CONNECT SPEEDOMETER/TACHOMETER LEADS

8a. Cut speedometer black ground lead 7.5 in. from bottom of speedometer case and strip 3/8 in. insulation.

8b. Cut speedometer orange/white lead 5.5 inches from bottom of speedometer case and strip 3/8 inch insulation. After clipping the terminal from the orange wire of tachometer harness, strip 3/8 inch insulation.

8c. See Figures 6 and 2. Use one of the butt connectors from the kit and connect the ground leads as shown. Refer to "SEALED BUTT CONNECTORS" in the appropriate Service Manual for complete procedure.

8d. Repeat Step 8c for the speedometer orange/white and tachometer orange leads.

9. 1999 AND LATER MODELS CONNECT SPEEDOMETER/TACHOMETER LEADS TO 12-PLACE OR 14-PLACE CONNECTOR

9a. Tape the wires, with socket terminals on their ends, together and slide them through conduit from kit until terminals are positioned at 12-place or 14-place connector.

9b. Remove tape from wires. Insert terminals into connector as follows:

<u>Instrument</u>	<u>Wire Color</u>	<u>Cavity Number</u>
Speedometer	Orange/white	1
Speedometer	White/green	2
Speedometer/Tachometer	Black	12
Tachometer	Pink	7
Tachometer	Orange	6

9c. Use the tie wraps supplied in the kit to secure the 1/2" conduit containing the tachometer/speedometer wires to the indicator light assembly

10. 1999 AND LATER MODELS INSTALL INDICATOR LIGHTS ON DUAL BRACKET

10a. See Figure 8. Place the indicator light bezel and color strip on front of dual bracket. Be sure color strip is positioned on locating pins.

10b. Install indicator light socket assembly on rear of dual bracket. Be sure locating pins on bezel enter holes in socket assembly. Install mounting screws.

11. 1999 AND LATER MODELS INSTALL SPEEDOMETER/TACHOMETER

11a. See Figure 8. Place speedometer/tachometer assembly in position and install screws, but do not tighten.

11b. Connect the 12-place or 14-place wiring harnesses.

11c. Install main wiring harness according to Service Manual procedures.

11d. Install headlamp, if removed. ***Continue to the Final Adjustment and Checks given on the last page of this instruction sheet.***

FINAL ADJUSTMENTS AND CHECKS - ALL MODELS

1. If necessary, adjust handlebar to rider's normal riding position.

NOTE

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

See Figure 7. Loosen four screws of handlebar upper clamp.

Place and hold handlebar in normal riding position.

Tighten two rear screws until cast-in spacers of upper clamp contact handlebar lower clamps. Tighten front screws to 12-15 ft-lbs (16-20 Nm). Final tighten rear screws to 12-15 ft-lbs (16-20 Nm).

A slight gap, between upper and lower clamp, should be visible from the front.

WARNING

After installing seat, pull upward on front of seat to be sure it is in locked position. While riding, a loose seat can shift causing loss of control, which could result in death or serious injury. (00070a)

4. Turn ignition/light switch to ON. Check that the indicator lights, signal lights, and headlamp all function properly.
5. Start the engine. Check the tachometer operation and check that indicator lights are working correctly.
6. If tachometer does not function, check that all wiring connections were correctly made.
7. Be sure steering turns freely, lock-to-lock.
8. Test ride motorcycle to verify speedometer is functioning properly.

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. (00068a)

2. Connect battery cables, positive cable first.
3. Install seat.



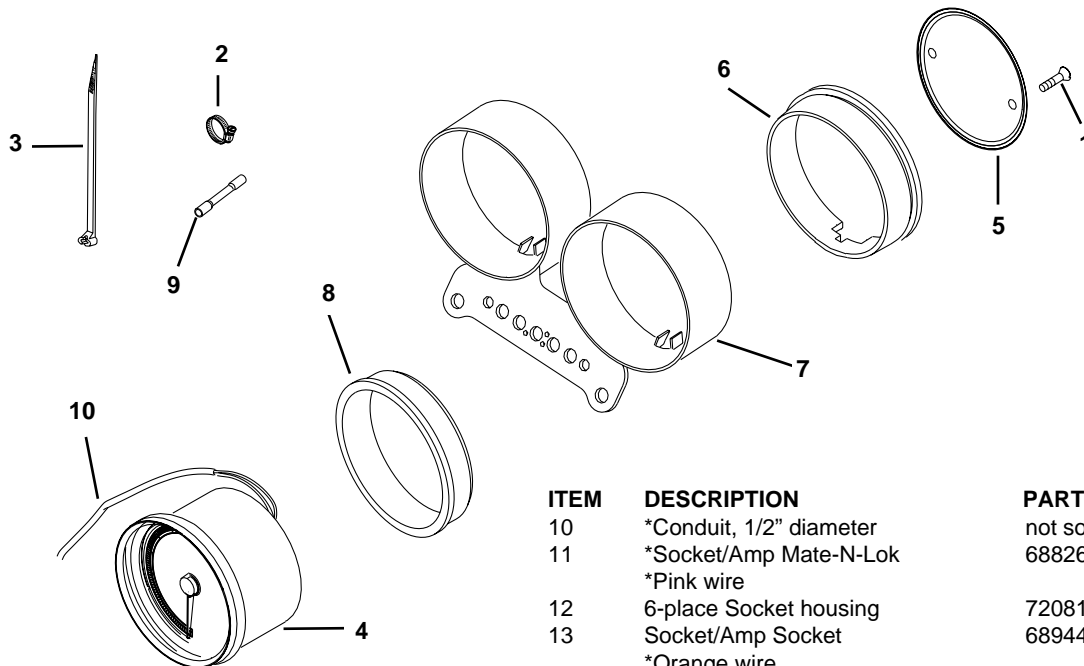
Service Parts

Part No. 67224-95C

Date 9/03

Tachometer Kit

i03086



ITEM	DESCRIPTION	PART NO.
1	Screw, cover #8-32 x 11/64 in (2)	2361
2	Hose clamp (2)	9946
3	Cable strap (6)	10006
4	Tachometer	67042-99
5	Cover, tachometer rear	67103-95
6	Gasket, rear	67344-97
7	Bracket, speedo/tach	67338-97
8	Gasket, front	67345-97
9	Butt splice blue (2)	70586-93

ITEM	DESCRIPTION	PART NO.
10	*Conduit, 1/2" diameter	not sold
11	*Socket/Amp Mate-N-Lok *Pink wire	68826-99
12	6-place Socket housing	72081-99
13	Socket/Amp Socket *Orange wire	68944-98
14	Socket/Amp socket *Pink Wire	68946-98
15	Socket/no terminal *Black wire	68947-98
16	Bulb assembly-amber (not shown)	67385-98
17	Socket/Deutsch socket *Pink Wire	68987-99
18	*Conduit, 5/16" diameter	Not sold

* Not Shown-See Figure 4 for instructions on assembling connector, wires and conduit into a harness.