



# INSTRUCTIONS

-J01277

REV. 7-17-98

Kit Number 67224-95B

## FXD (Dyna Super Glide) TACHOMETER KIT

### General

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

#### ⚠CAUTION

**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.

#### NOTE

A Service Manual for your vehicle is available from your Harley-Davidson dealer

### General

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.

### Removal / Disconnection / Installation

#### NOTE

Unless stated specifically in an instruction headline or step, these instructions are applicable to all 1995 and later FXD models.

#### ⚠WARNING

To avoid accidental start-up of motorcycle, and possible personal injury, disconnect the battery cables (negative cable first) before performing any of the following procedures. If the battery should contact ground with the negative cable installed, the resulting sparks may cause a battery explosion resulting in personal injury.

### Removal

#### ELECTRONIC SPEEDOMETER AND BRACKET

1. Refer to applicable Service Manual procedure and remove seat.
2. Refer to applicable Service Manual procedure and remove fuel tank.

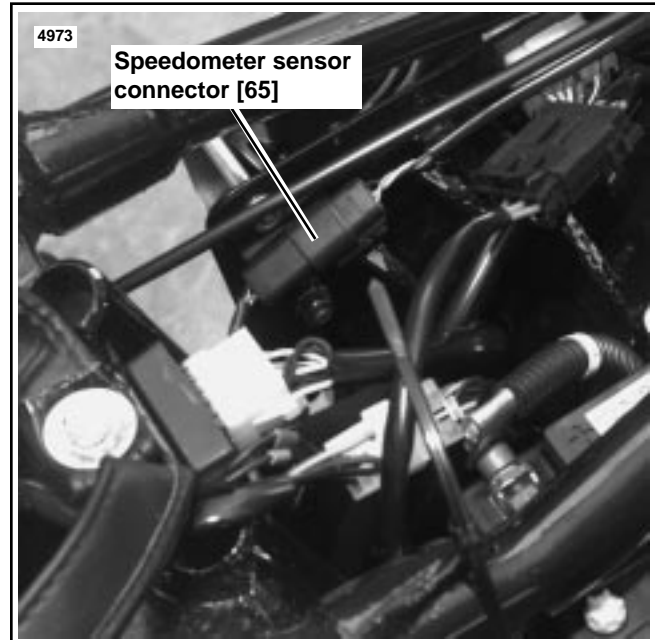


Figure 1. Speedometer Sensor Connection [65]

#### ⚠WARNING

Gasoline is extremely flammable and highly explosive. When servicing the fuel system, do not smoke or allow open flame or sparks in the vicinity. Inadequate safety precautions may result in personal injury and/or property damage

3. 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.

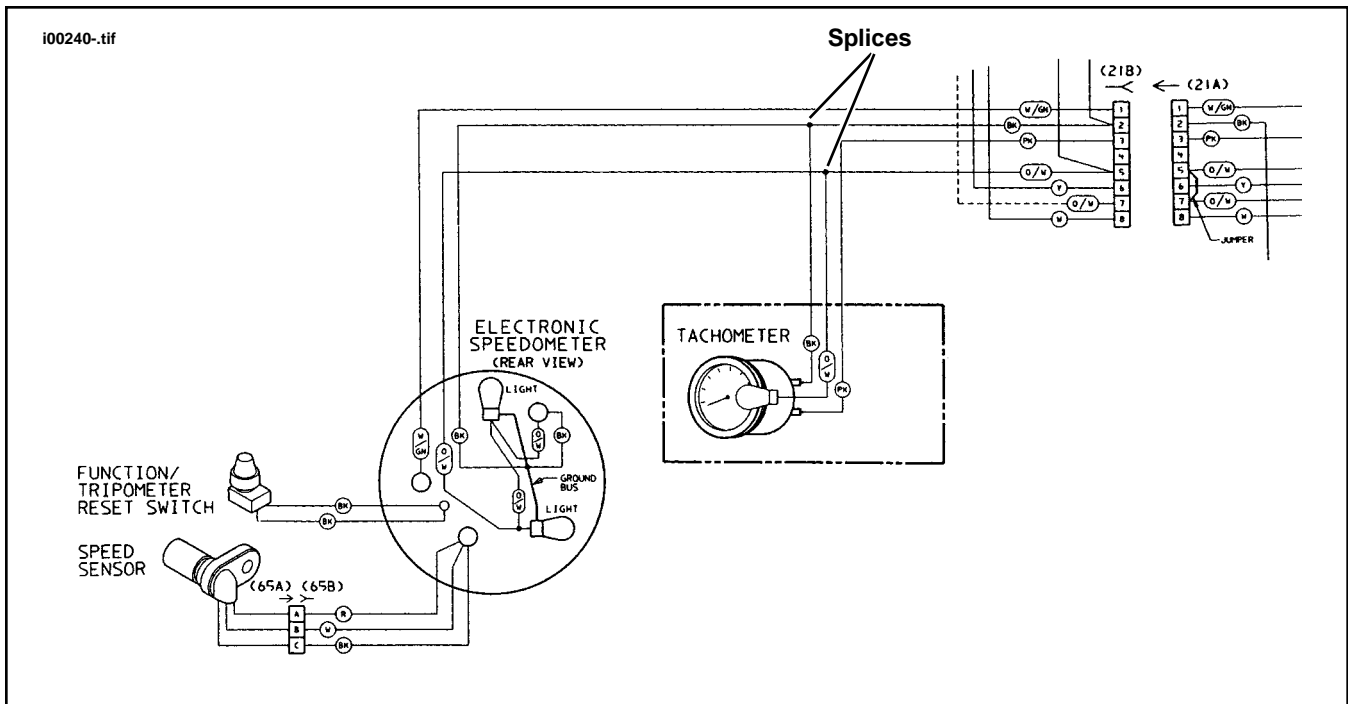
4. Refer to applicable Service Manual procedure and remove headlamp, for work clearance.
5. Remove handlebar clamp screws securing speedometer bracket. Remove speedometer, bracket, and harness.

#### 1995 MODELS - DISCONNECT MAIN WIRING HARNESS 8-PLACE CONNECTOR [21B, A] (FIGURE 2)

#### 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



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

main wiring harness 8-place connector [21A, B], at the front of the motorcycle.

**1996 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.

**1995 MODELS - REMOVE SPEEDOMETER LEADS FROM 8-PLACE CONNECTOR [21B, A] (FIGURE 2)**

1. 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

2. Remove the large female connector from the fuel gauge black wire.
3. Slide the wires removed in step 1 out of the plastic conduit covering the wires connected to the 8-place connector.

**1996 AND LATER MODELS -REMOVE SPEEDOMETER LEADS FROM 12-PLACE OR 14-**

**PLACE CONNECTOR [20B, A] (NOT SHOWN)**

1. 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

2. Remove the large female connector from the fuel gauge black wire.
3. Slide the wires removed in step 1 out of the plastic conduit covering the wires connected to the 12-place connector.

**REMOVE INDICATOR LAMPS FROM BRACKET**

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.

**REMOVE SPEEDOMETER FROM BRACKET**

1. Unscrew boot from speedometer reset switch, if necessary (not required on all models). Remove cover screws and rear cover.
2. 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.
3. Do not remove front gasket from the speedometer.

**INSTALL SPEEDOMETER IN KIT BRACKET**

1. See Figure 5. Place wires from speedometer through front

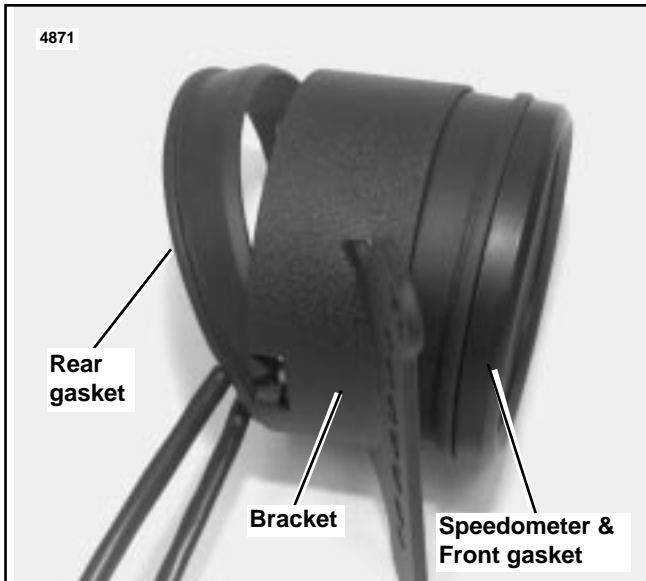


Figure 3. Speedometer and Gaskets in Single Instrument bracket

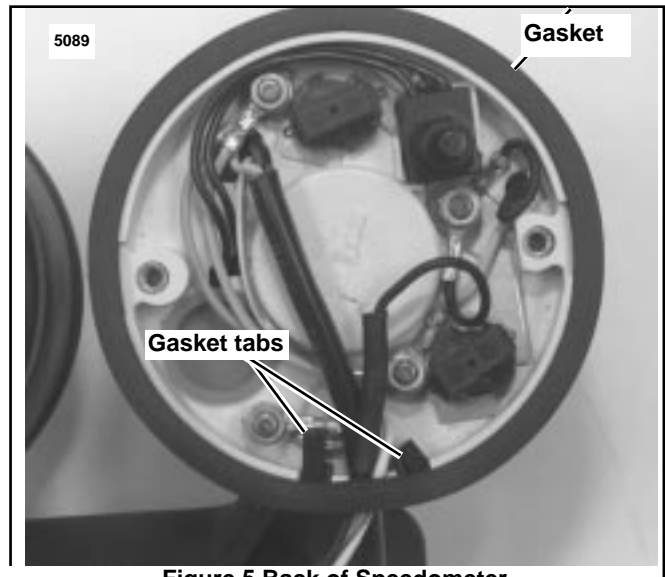


Figure 5. Back of Speedometer  
**ASSEMBLING TACHOMETER HARNESS**

1. See Figure 4. It is necessary to assemble a harness from wires, conduit, and connector provided in kit. This harness will plug directly into the back of the tachometer (more here on how to insert terminals into Amp connector). Depending on the model year, different wires are used to make up this harness. After plugging wire ends into connector as shown, cover wires with conduit from kit

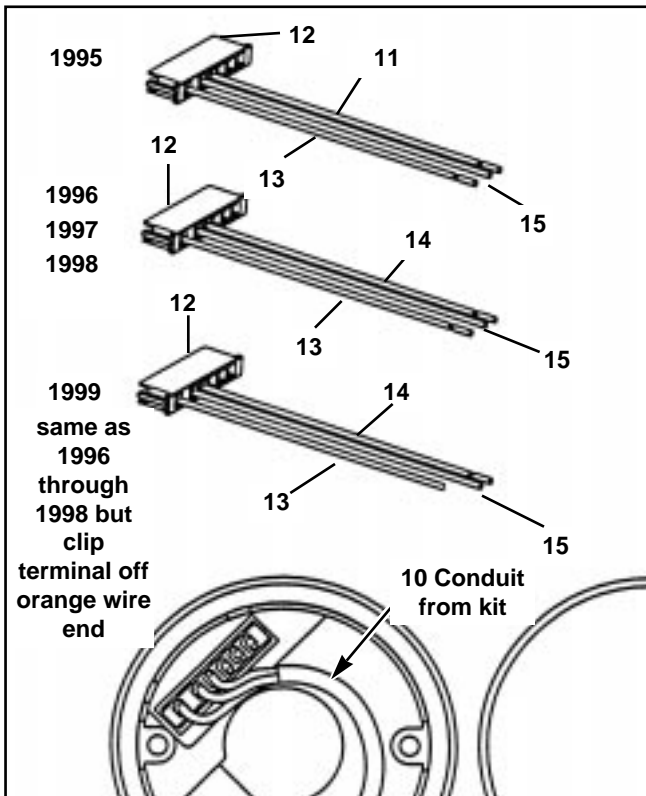


Figure 4. Connecting Harness to Tachometer  
 (Callouts correspond to wires listed in Service Parts)  
 of left opening in double bracket. Lubricate the front and rear gaskets with isopropyl alcohol or glass cleaner to ease installation.

2. Insert speedometer into the front of the double bracket. Be sure wire guides are aligned with opening at bottom of bracket.
3. 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.

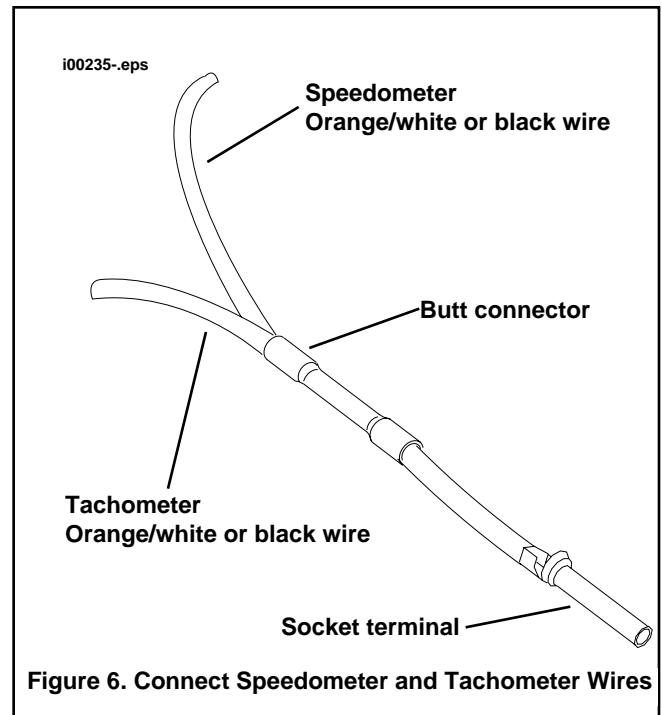


Figure 6. Connect Speedometer and Tachometer Wires

**NOTE**

Here is how to distinguish between the different terminals on the ends of the kit wires: All kit wires are terminated on one end with an Amp terminal that plugs into the connector supplied in kit. Keep these ends together. On the other ends of the wires there will either be an Amp Multi-lock connector (with square edges), an Amp Mate-N-Lok connector (round), or no connector (black ground wire only).

## CONNECT SPEEDOMETER/TACHOMETER LEADS

1. Cut speedometer black ground lead 7.5 in. from bottom of speedometer case and strip 3/8 in. insulation.
2. **1995 and 1999 models only.** Cut speedometer orange/white lead 5.5 in. from bottom of speedometer case and strip 3/8 in. insulation.
3. 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 1994 (or later) XLH, FXD or FLT/FXR Service Manuals for complete procedure.
4. **1995 and 1999 models only.** Repeat steps 1 thru 3 for the speedometer orange/white and tachometer orange leads.
5. **1995 models,** cut the terminal off of the pink wire and butt splice the pink wire assembly to end.



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

### 1995 MODELS -

#### CONNECT SPEEDOMETER/TACHOMETER LEADS TO 8-PLACE CONNECTOR

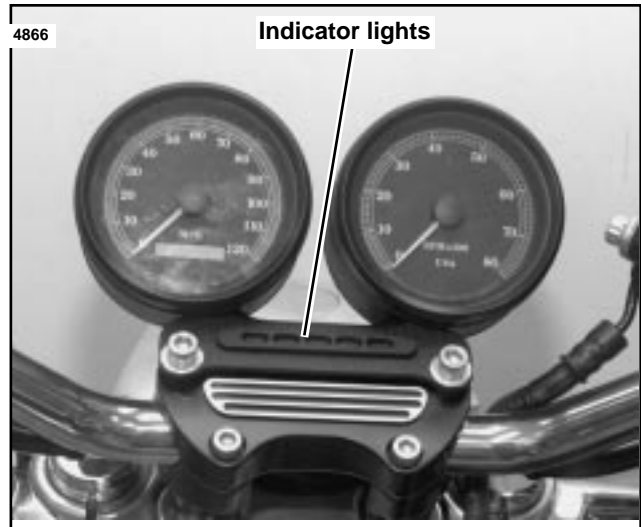
1. Tape the wires, with socket terminals on their ends, together and slide them through conduit from kit until terminals are positioned at 8-place connector.
2. See Figure 2. Remove tape from wires. Insert terminals into 8-place connector as follows:

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

### 1996 AND LATER MODELS -

#### CONNECT SPEEDOMETER/TACHOMETER LEADS TO 12-PLACE OR 14-PLACE CONNECTOR

1. 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.
2. Remove tape from wires. Insert terminals into connector as follows:



**Figure 8. Kit Installed**

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

#### INSTALL INDICATOR LIGHTS ON DUAL BRACKET

1. 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.
2. Install indicator light socket assembly on rear of dual bracket. Be sure locating pins on bezel enter holes in socket assembly. Install mounting screws.

#### INSTALL SPEEDOMETER/TACHOMETER

1. See Figure 8. Place speedometer/tachometer assembly in position and install screws. Tighten screws to 12-15 ft-lbs.
2. Connect large female connector to fuel gauge black wire.
3. **1995 Models,** connect the 8-place wiring harnesses.
4. **1996 and later Models,** connect the 12-place or 14-place wiring harnesses.
5. 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.
6. Refer to Service Manual procedures and install main wiring harness.
7. Refer to Service Manual procedures and install fuel tank. Use hose clamp in kit.
8. Install seat.

#### **⚠WARNING**

**After installing seat, pull upward on front of seat to be sure it is locked in position. If seat is loose, it could shift position during vehicle operation and startle the rider, causing loss of control and personal injury.**

9. Install headlamp, if removed.

## FINAL ADJUSTMENTS AND CHECKS

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

### ⚠ CAUTION

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

Always connect the positive battery cable first. If the positive cable should contact ground with the negative cable installed, the resulting sparks may cause a battery explosion producing serious personal injury and/or property damage.

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



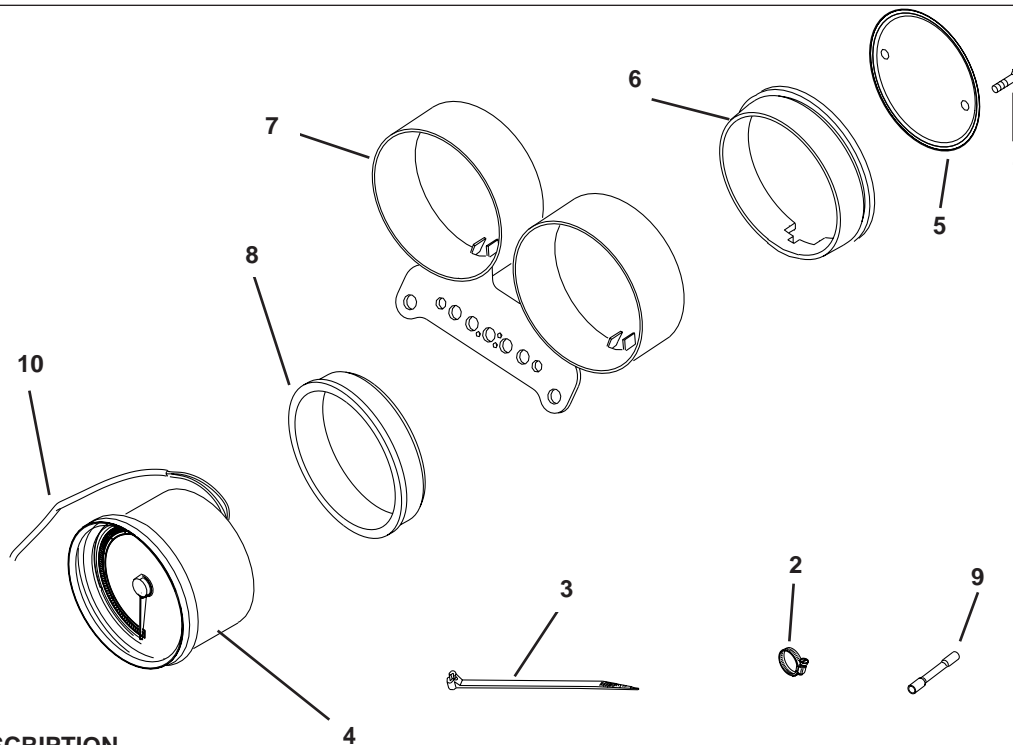
# Service Parts

Part No. 67224-95B

Date 7/98

## Tachometer Kit

sp67224A



ITEM	DESCRIPTION	PART NO.	ITEM	DESCRIPTION	PART NO.
1	Screw, cover #8-32 x 11/64 in (2)	2361	10	*Conduit	not sold
2	Hose clamp	9946	11	*Socket/Amp Mate-N-Lok	68826-99
3	Cable strap (6)	10006	12	6-place Socket housing	72081-99
4	Tachometer	67042-99	13	Socket/Amp Socket	68944-98
5	Cover, tachometer rear	67103-95		*Orange wire	
6	Gasket, rear	67344-97	14	Socket/Amp socket	68946-98
7	Bracket, speedo/tach	67338-97		*Pink Wire	
8	Gasket, front	67345-97	15	Socket/no terminal	68947-98
9	Butt splice blue (2)	70586-93		*Black wire	
*not shown. See Figure 4 for instructions on assembling connector, wires and conduit into a harness			16	Bulb assy-amber (not shown)	67385-99