



# INSTRUCTIONS

-J00609

REV. 2005-04-07

## SIDECAR ATTACHMENT KIT

### GENERAL

#### Kit Numbers

87166-97 and 87142-83A

#### Models

Table 1. Kit and Model Description

Kit	Model Description
87166-97	<b>TLE/U Sidecar Connection Kit.</b> This kit provides the mechanical components required to attach the TLE/U Sidecars to 1997 FLHT/FLHR models and 1998 FLHT/FLHR/FLTR models.
87142-83A	<b>Steering Damper Mounting Kit.</b> This kit contains a mounting bracket and hardware for mounting the steering damper.

#### Kit Contents

See Figure 5 and Table 2.

#### NOTE

This instruction sheet references Service Manual information. A Service Manual for your motorcycle and sidecar are available from your Harley-Davidson Dealer.

### WARNING

The rider's safety depends upon the correct installation of this kit. If the procedure is not within your capabilities or you do not have the correct tools, have a Harley-Davidson dealer perform the installation. Improper installation of this kit could result in death or serious injury. (00308a)

### INSTALLATION FOR TLE/U SIDECAR CONNECTION KIT

#### Intalling Upper Mount

1. See Figure 5. Position rear half of upper clamp (5) on rear of frame downtubes. The mount is self-aligning. Mount is correctly located when the grooves in the mount mate fully with frame tubes.
2. Move wiring harness so it will not be pinched in upper mount or contact exhaust pipe.
3. Place front upper connection (4) in position and secure with bolt (10) and lockwasher (11). Check that wiring harness is not pinched in mount. Tighten bolt to 50-60 ft-lbs (67.8-81.3 Nm).

#### Installing Front Lower Mount

1. Push cable straps, holding ignition module wiring harness to right frame downtube upward, then disconnect connector. Move harness out of way, taking care not to pinch harness when installing front lower mount.
2. See Figure 1 and Figure 5. Position lower front mount (2) on right frame downtube, opposite lower front inner clamp (3). Insert four bolts (13) through mount and thread into tapped hole in clamp. Tighten finger tight.
3. Check clearance between lower front mount (2), and footboard bracket and front exhaust pipe. Engine will move approximately 3/8 in. under normal operating conditions. Position lower front mount so clearance between mount and footboard bracket is 1/4-1/2 in. (6.4-12.7 mm).
4. Tighten four mounting bolts (13) to 35-40 ft-lbs (47.5-54.2 Nm).
5. Check that harness (sensor to ignition module) is not pinched in front mount. Also check that harness is not too close to front exhaust pipe.

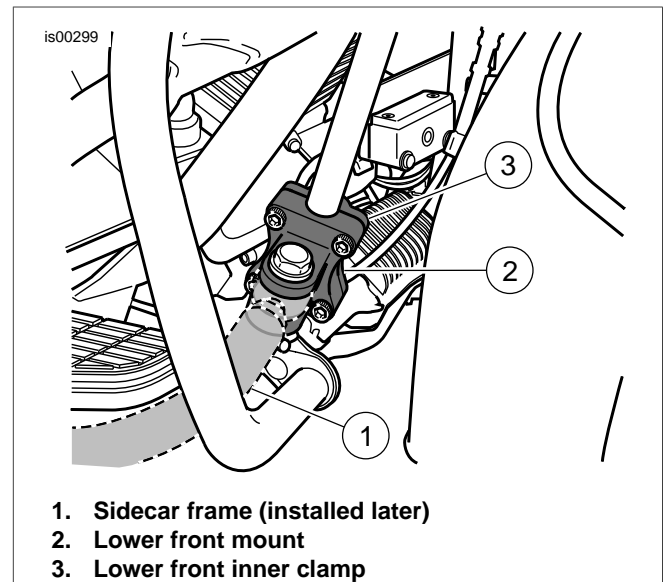


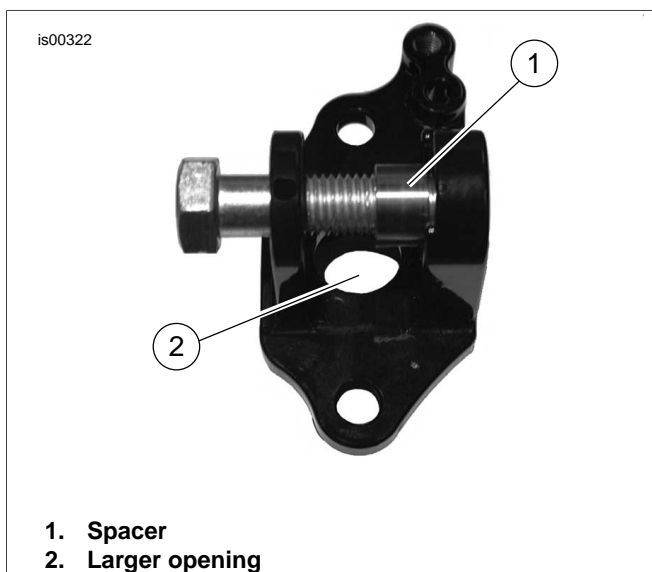
Figure 1. Lower Front Mount

#### Installing Rear Mount

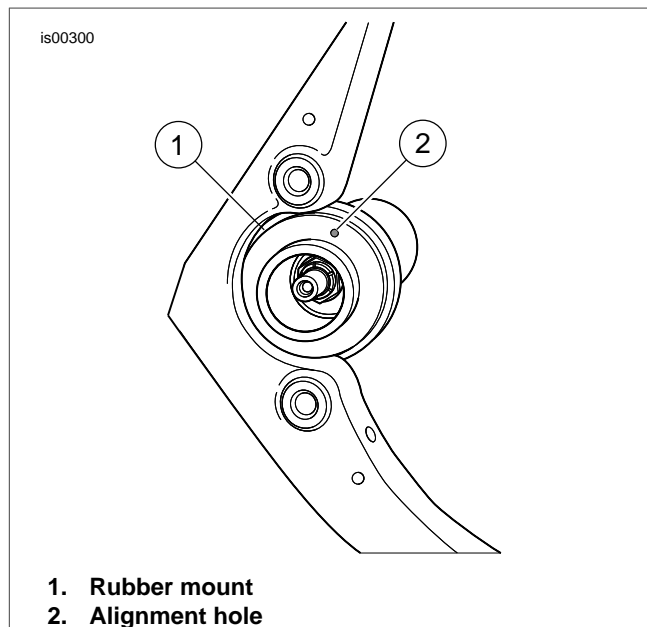
#### NOTE

See Figure 2. The Rear Mount requires only two bolts for installation. The clevis opening for installing the connector rod end (bearing) from sidecar frame has been made wider to allow access to the swingarm pivot shaft nut without removing the mount. Therefore, a spacer (See item 1 in Figure 5) is used with the connector rod end (bearing) when connecting the sidecar frame pivot mount to the rear mount.

1. If not already removed, remove right side cover and both saddlebags.
2. See Figure 5. Loosen and remove screw with P-clamp (18) attaching rear brake line to right passenger footrest bracket. Retain screw and P-clamp to attach brake line to rear mount. Remove bolt and lockwasher securing right passenger footrest bracket and remove bracket with footrest.
3. Remove chrome plug from right rear swing arm bracket.
4. Remove two bolts (w/lockwashers) to free right rear swingarm bracket from frame and remove bracket. Save swingarm bracket for future installation and save bolts and lockwashers for installation of rear mount. See Figure 5 and Figure 3. Position rear mount (1) over the two mounting holes and be certain roll pin enters alignment hole shown in Figure 3.
5. Check left pivot shaft rubber mount to be sure it is in place.
6. Install upper and lower rear mount bolts w/lockwashers previously removed to secure rear mount to frame. Tighten bolts to 34-42 ft-lbs (46-57 Nm).
7. See Figure 5. Obtain screw with P-clamp (18) previously removed. Secure brake line to mount and tighten screw securely.



**Figure 2. Rear Mount**



**Figure 3. Swingarm Mount**

### Attaching Steering Damper Bracket

1. Remove two bolts, washers, and lockwashers securing the air deflector to the lower triple clamp under front forks and remove the air deflector. Retain air deflector to be installed when sidecar is not attached.
2. See Figure 5. Install bracket (20) using the two bolts removed. Tighten bolts to 96-120 **in-lbs** (10.8-13.6 Nm).
3. Attach and adjust the steering damper according to the instructions in the Service Manual.

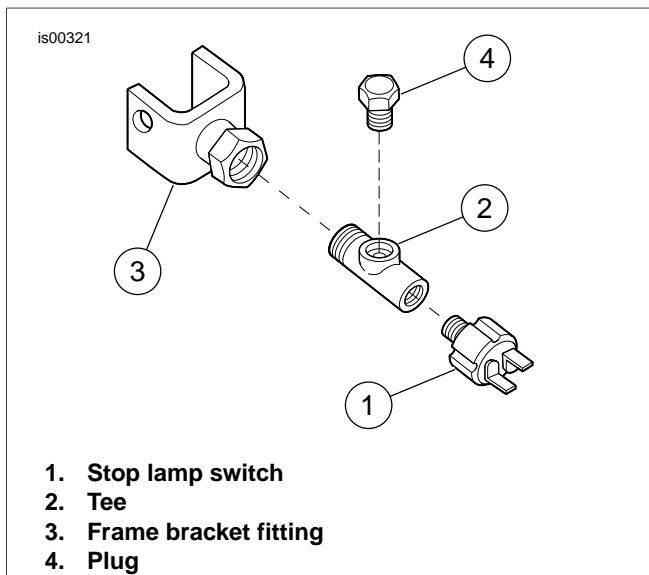
### Installing Tee in Frame Bracket

1. See Figure 4. Remove stop lamp switch (1) from fitting (3) at frame bracket.
2. Coat male threads of tee (2) with Loctite® pipe sealant with teflon. Thread tee (2) into fitting (3) and tighten so that right angle opening is vertical.
3. Coat threads of stoplight switch (1) with Loctite® pipe sealant with teflon. Thread switch into end of tee (2).

#### NOTE

*The sidecar brake line end that connects to tee may be plugged with a union and plug. Remove the union and plug and retain for reinstallation when sidecar is removed.*

4. If sidecar is not being attached, install plug (4) in the right angle opening.



**Figure 4. Brake Line Connection**

### Installing Right Passenger Footboard

See Figure 5. Using stock bolt and washer saved during removal of passenger footboard, install passenger footboard to threaded hole in upper portion of mount. Tighten bolt to approximately 15-18 ft-lbs (20.3-24.4 Nm).

### INSTALLATION FOR STEERING DAMPER MOUNTING KIT

The Steering Damper Mounting Kit includes items 19 through 28 in Figure 5 and Table 2. This kit is Not Serviced Separately.

To install the steering damper bracket, follow the procedure "Attaching Steering Damper Bracket" above. Installation of the remaining parts and adjustment is covered in the Service Manual.

#### NOTE

The steering damper (16) and rod end (19) have M10 x 1.5 metric threads.

### TLE Ultra Sidecar

The TLE-ULTRA SIDECAR utilizes the same attaching kit as the TLE sidecar. There are, however, additional wiring harnesses that need to be installed to connect the sidecar light harness and the radio. See instructions in the Service Manual.

### WIRING HARNESS CONNECTIONS

#### NOTES

The sidecar harness is included with the sidecar and is not part of the connection kit.

See the Service Manual for wiring harness connection procedures.

Test ride motorcycle-sidecar at low speed to check operation and brake function.

### SERVICE PARTS

#### NOTE

Rear Mount Kit (item 1) includes spacer (87181-02). Bolt (item 8) is included in kit 87131-83C. Screw and Washer (items 27 and 28) are not shown. These items are used to mount bracket (20) on later models that are not equipped with air deflector.

**Table 2. Service Parts: Sidecar Attachment Kit**

Item	Description (Quantity)	Part Number	Item	Description (Quantity)	Part Number
1	Rear mount kit	87114-93A	15	Bolt, 3/4-10 x 2-3/4 in.	4045
2	Lower front mount	87122-83A	16	Steering damper	87141-83
3	Lower front inner clamp	87123-97	17	Locknut, 1/2-13	7843
4	Front upper connection	87131-83C	18	Clamp	10036
5	Rear upper clamp	87132-92	19	Rod end	87144-83
6	Brake line tee	87113-83	20	Bracket	87143-83
7	Plug, 3/8-24	42311-58	21	Spacer (2)	59938-72
8	Bolt, 1/2-13 x 2-1/4 in.	3902	22	Bolt, 3/8-16 x 1-3/4 in.	4720W
9	Cotter pin	559	23	Locknut, 3/8-24 (2)	7601
10	Bolt, 1/2-13 x 1-3/4 in.	4052	24	Washer, 3/8 in. ID	6701
11	Lockwasher, 1/2 in. ID	7068	25	Washer, 13/32 x 1-1/32 x 1/8 in.	6519
12	Washer, 17/32 x 1-1/2 x 9/64 in.	6723	26	Bolt, 3/8-16 x 2-3/4 in.	4420
13	Bolt, 3/8-16 x 1-3/4 in. (4)	4357	27	Screw (3)	3892
14	Bolt, 3/4-10 x 2-1/4 in.	4151	28	Washer, 1/4 in. ID (3)	6703

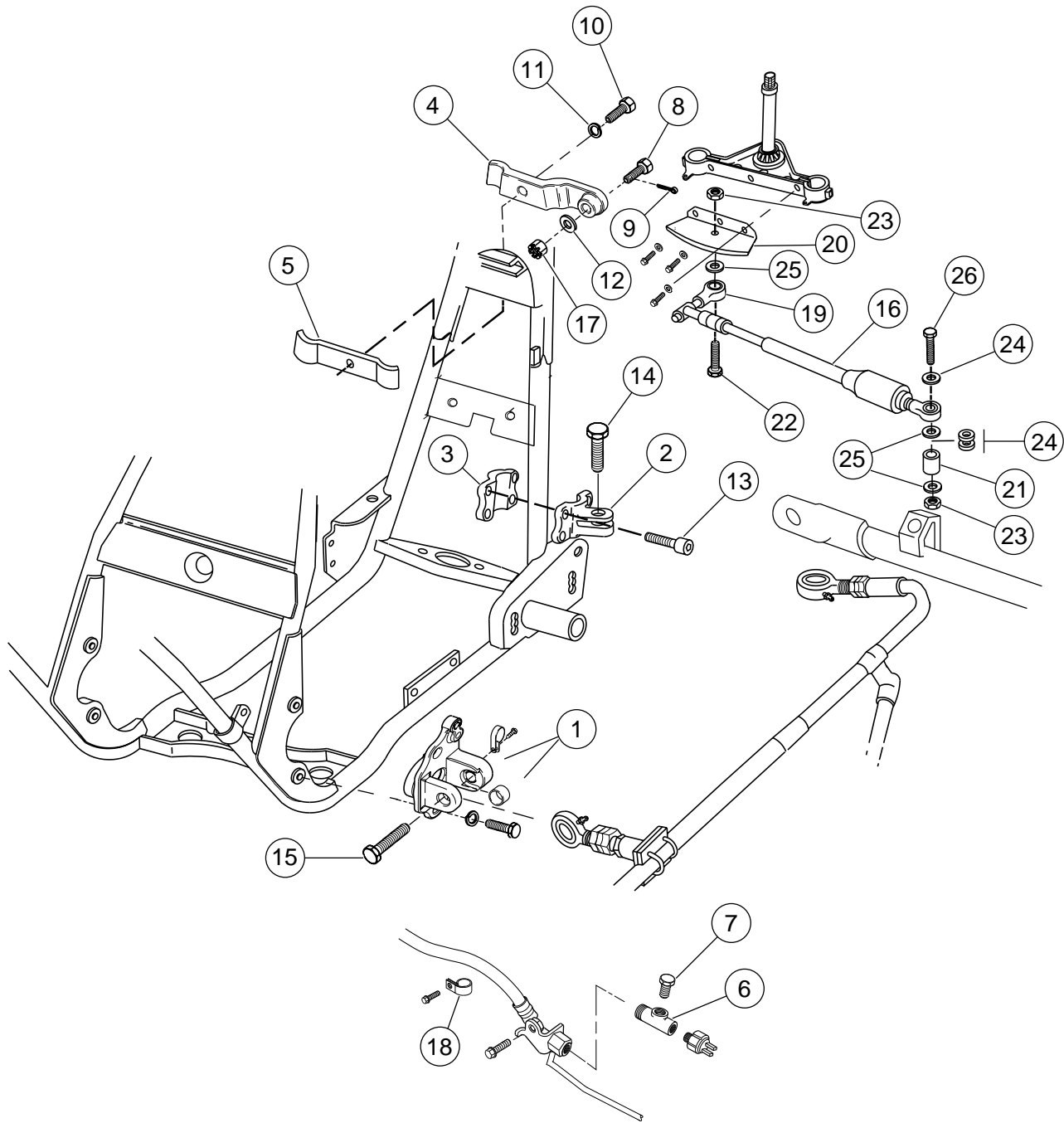


Figure 5. Service Parts: Sidecar Attachment Kit