SERVICE BULLETIN

M-1096 November 16, 1999

MODIFY FLHT FAIRING LOWER FOR INCREASED RIDER COMFORT

General

Effective in November, 1999, a running change to the cut of the right side fairing lower on Ultra models increases the flow of air across the engine. The result is cooler operation and increased rider comfort with the fairing lowers still installed (of particular benefit in ambient temperatures of 70˚ F. or above).

To duplicate the cooling effect provided by the new fairing lower, modify the old style fairing lower following the instructions below.

MODIFYING FAIRING LOWER

NOTE

Kneeling at the front of the vehicle, look between the fork legs to the top inboard side of each fairing lower. Observe that the left side fairing lower has a gap for routing of the clutch cable. This gap also allows the airstream to pass by the left side of the engine to dissipate heat that can otherwise become too uncomfortable for the rider. Now note that the right side fairing lower has no gap, that the inboard side almost contacts the frame downtube. To achieve results comparable to that of the new fairing lower, increase the air flow on the right side of the engine by creating a gap similar to that which exists on the left. To modify the fairing lower, proceed as follows:

Removing

1. Move to right side of vehicle. From inside fairing lower, hold T40 TORX screw (Phillips screw on earlier model vehicles) and turn locknut at bottom to free assembly from engine guard clamp. Save rubber washer. See Figure 1.
2. Remove two Phillips screws to release fairing cap.
3. Remove two locknuts to free retainer from upper rail of engine guard. From within glove box, remove U-bolt.
4. Remove fairing lower and glove box from vehicle.

Modifying

1. Loosely install glove box in fairing lower, if removed. Using a black magic marker, trace the edge of the glove box on the inboard side of the fairing lower. Draw the line the entire width of the fairing, from edge to edge. See A of Figure 2.
2. Remove the glove box and turn the fairing lower over to the outboard side. Place a strip of masking tape where the black line would be if it were possible to see through the fairing. Place a second and third piece of tape on each side overlapping the first piece. The tape can prevent cracking or chipping of the fairing when drilled and cut. See B of Figure 2.
3. Flip the fairing lower back to the inboard side. Note that the black line crosses an upraised section that is rectangular in shape. When the fairing is turned over to the outboard side, this section is actually a depression that mates with the engine guard when installed.
4. Obtain a 5/16 inch drill bit, and drill a hole on the inboard side of the fairing lower where the black line just contacts the edge of the upraised area. Drill another hole where the black line contacts the edge of the upraised area on the other side of the rectangle. See C of Figure 2.
5. Using a hacksaw with a fine blade, cut along the black line until reaching the drilled hole. See D of Figure 2. Repeat step on opposite side of fairing lower cutting along black line to second drilled hole.
6. Now make a short cut from the edge of the fairing lower to the drilled hole following the line defined by the edge

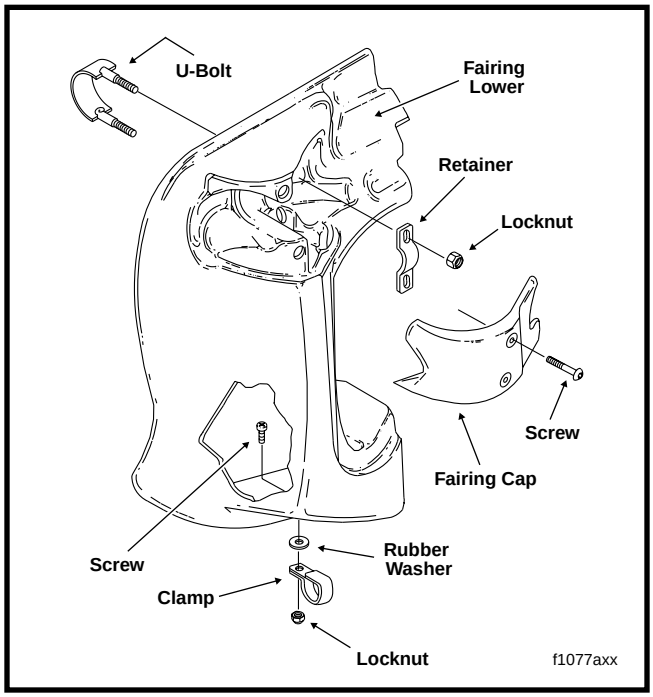
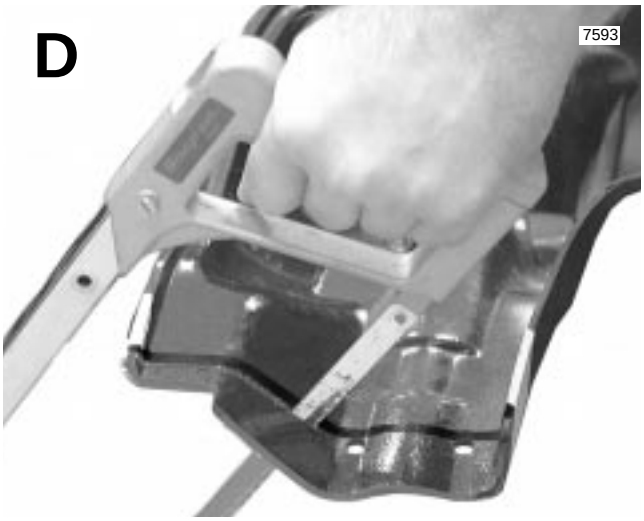
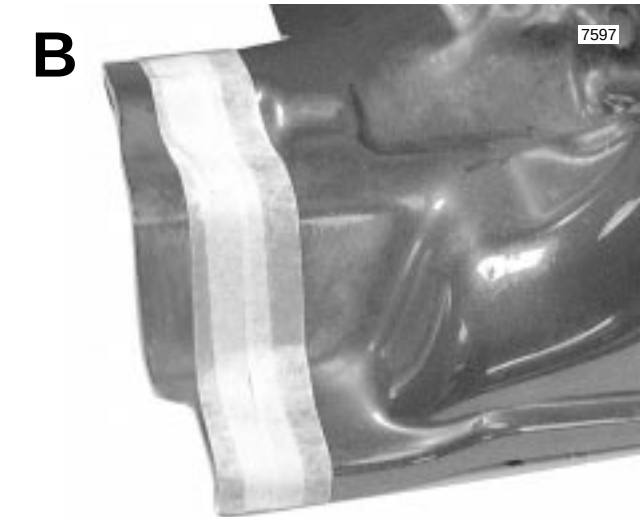


Figure 1. Right Side Fairing Lower (Exploded View)

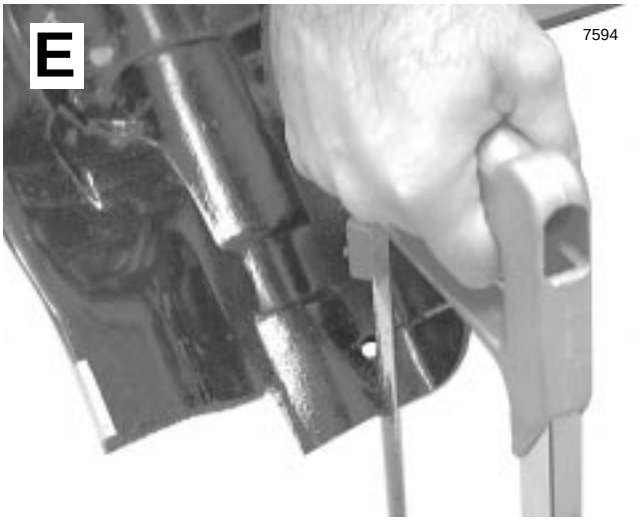
Trace edge of glove box on fairing lower.



Saw to drilled holes following black line.



Tape outboard side to prevent cracking or chipping.



Saw to drilled holes following edge of upraised area.

Drill hole on black line each side of upraised area.

Smooth edges of fairing lower with medium flat file.

Figure 2. Modify Fairing Lower

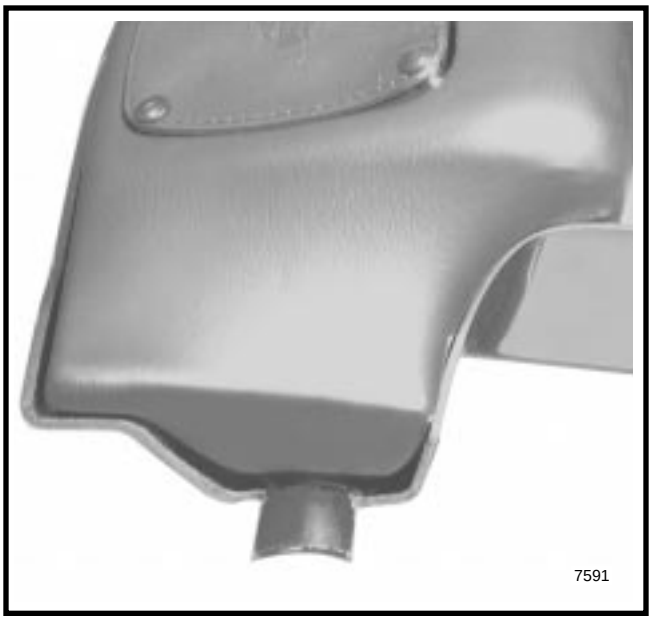


Figure 3. Install Glove Box In Fairing Lower

of the upraised area. Repeat step on opposite side of upraised area. See E of Figure 2.

NOTE

When finished, the fairing lower will have a tab or ear. While the material cut away allows the passage of air to enhance cooling, the tab is necessary for location of the fairing lower relative to the frame.

7. Remove the masking tape from the outboard side of the fairing lower.
8. Using a medium flat file, carefully smooth the rough edges where the fairing was cut. See F of Figure 2.

Installing

1. Place glove box into fairing lower. Fitment should appear as shown in Figure 3.
2. Place fairing lower into position on right side of vehicle. From within glove box, install U-bolt so that it encircles the upper rail of the engine guard. Loosely install retainer and locknuts. See Figure 1.
3. From inside fairing lower, insert T40 TORX screw (Phillips screw on earlier model vehicles) through hole at bottom. Install rubber washer, clamp and locknut on screw to attach fairing bottom to lower rail of engine guard. Do not tighten locknut.
4. Position the fairing lower so that inboard edge of the tab is even with or up to 1/4 inch (6.350 mm) from the frame downtube. Tighten two U-bolt locknuts to 6 ft-lbs (8 Nm).
5. Holding screw inside fairing lower, turn locknut at bottom to fasten assembly to engine guard clamp. Tighten locknut to 12 ft-lbs (16 Nm).
6. Install two Phillips screws to secure fairing cap to fairing lower. Tighten screws to 10-20 **in-lbs** (1.1-2.3 Nm).

NOTE

After modifying the fairing lower, the rider will experience a light gust of air on the inside of his/her lower right leg and a reduction in the amount of heat felt inside the upper leg. If additional cooling is desired, remove the air dam following the instructions below. The movement of air between the fairing lower and downtube allows for dam removal with minimal updraft.

NOTE

Although the modification to the fairing lower is not applicable to FLTR models, as the fairing trim and fixed location already allow for maximum cooling, the air dam can be removed for even cooler operation.

AIR DAM

NOTE

Kneeling at the front of the vehicle, look between the fork legs to the area under the fuel tank. Note that the tunnel of the fuel tank is hidden by the air dam. Removing the dam reveals the tunnel and allows the flow of air to pass under the tank and over the cylinder heads, evacuating heated air and providing some additional relief to the rider in warmer temperatures. To remove (and install) the air dam, proceed as follows:

Removing

1. Moving to the back of the lower fork bracket, remove two screws (with flat washers) to release the air dam. See Figure 4.
2. To keep out dirt and debris, reinstall two screws (with flat washers) into holes of lower fork bracket. Tighten screws to 10-12 ft-lbs (13.6-16.3 Nm).

Installing

NOTE

Reinstall air dam to reduce the cooling effect in colder weather.

1. With the concave side down, align holes in air dam with holes at back of the lower fork bracket.
2. Install two screws (with flat washers) to fasten dam to bracket. Tighten screws to 10-12 ft-lbs (13.6-16.3 Nm).

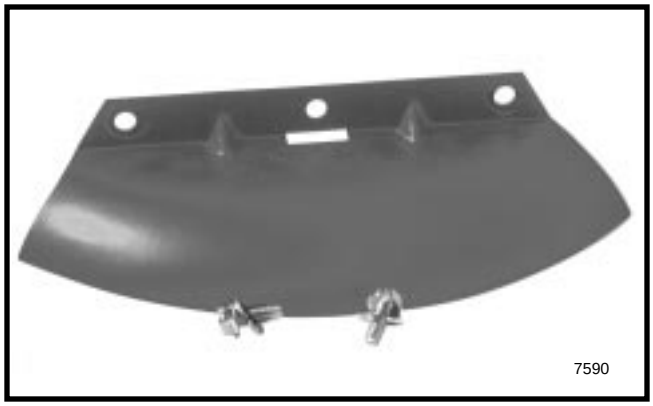


Figure 4. Air Dam

ROUTING	SERVICE MANAGER	SALES MANAGER	PARTS MANAGER	LEAD TECHNICIAN	TECHNICIAN NO. 1	TECHNICIAN NO. 2	TECHNICIAN NO. 3	TECHNICIAN NO. 4	RETURN THIS TO:
INITIAL HERE									