## Front Fog Lamp Package Installation

### Table 1: Kit Contents

<table>
<thead>
<tr>
<th>Qty</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Instruction Sheet</td>
</tr>
<tr>
<td>1</td>
<td>Headlamp Switch with Front Fog Lamp</td>
</tr>
<tr>
<td>1</td>
<td>Left Side Fog Lamp</td>
</tr>
<tr>
<td>1</td>
<td>Right Side Fog Lamp</td>
</tr>
<tr>
<td>1</td>
<td>Left Side Fog Lamp Grille</td>
</tr>
<tr>
<td>1</td>
<td>Right Side Fog Lamp Grille</td>
</tr>
<tr>
<td>1</td>
<td>Front Fog Lamp Harness</td>
</tr>
<tr>
<td>4</td>
<td>Hex Bolts with Washers P/N 11589015</td>
</tr>
<tr>
<td>4</td>
<td>Spring Nuts P/N 11513599</td>
</tr>
<tr>
<td>1</td>
<td>Push Pin P/N 19172867</td>
</tr>
</tbody>
</table>

### Table 2: Tools Required

- Push Pin P/N 19172867
<table>
<thead>
<tr>
<th>Tool</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flat Blade Screwdriver</td>
</tr>
<tr>
<td>Ratchet</td>
</tr>
<tr>
<td>7mm Socket</td>
</tr>
<tr>
<td>10mm Socket</td>
</tr>
<tr>
<td>13mm Socket</td>
</tr>
<tr>
<td>Diagonal Cutters</td>
</tr>
<tr>
<td>Plastic Trim Removal Tool</td>
</tr>
<tr>
<td>Scan Tool</td>
</tr>
<tr>
<td>MDI</td>
</tr>
<tr>
<td>Service Programming System (SPS – TIS2WEB)</td>
</tr>
<tr>
<td>Splice Sleeve Crimping Tool P/N 12085115</td>
</tr>
<tr>
<td>Heat Gun or GM Ultra Torch P/N 12085116</td>
</tr>
<tr>
<td>Hoist Bay Recommended</td>
</tr>
</tbody>
</table>

**Procedure**

**Note:** Please review the entire procedure before trying to perform it.
Note: Make sure the ignition switch is in the off position, and all lamps and accessories are off.

Remove the battery cover/engine control module (ECM) (1) and set aside. Loosen the negative battery cable bolt (2) and remove the negative battery cable (3) from the terminal (4) and position away from the battery. Remove the battery and battery tray from the vehicle for easier access to the X2 connector and routing of the fog lamp harness.
Using a flat-bladed plastic trim removal tool, release the retainer clips and remove the instrument panel side trim panel(1) from the instrument panel assembly.
Depress the tabs and remove the headlamp switch (1) from the instrument panel (2).
Disconnect the electrical connector (3) from the headlamp switch (1), and discard the headlamp switch (1).

Locate the new headlamp with front fog lamp control switch (1) in the accessories kit.
Connect the electrical connector (3) to the headlamp with front fog lamp control switch (1), and install to the instrument panel (2).
Engage the retainer clips and install the instrument panel side trim panel (1) to the instrument panel assembly.
Remove the nut(8) and disconnect the battery positive cable(7) from the junction block(5).
Release the tabs and remove the cover(1) from the accessory wiring junction block (2).
Loosen the three bolts(6) to disconnect the accessory wiring junction block(2) from the electrical connectors(3),(4).
Unfasten the side clips of the accessory wiring junction block(2), remove and set aside for electrical connector access(4).

For MY 2010 to 2012 vehicles, reposition accessory wiring junction block underhood X2 connector(4), to access the GREEN/WHITE wire going into cavity 17 on the back side of the accessory wiring junction block underhood X2 connector(4).

For MY 2013 vehicles, reposition accessory wiring junction block underhood X2 connector(4), to access the BROWN/WHITE wire going into cavity 17 on the back side of the accessory wiring junction block underhood X2 connector(4).

For MY 2010 to 2012 vehicles, using terminal removal tool J-38125–560, remove the GREEN/WHITE wire from cavity 17. Cut the GREEN/WHITE wire close to the terminal. For MY 2010 and 2011 vehicles, refer to X50A Fuse Block - Underhood X2. For MY 2012 vehicles, refer to X50A Fuse Block - Underhood X2.

For MY 2013 vehicles, using terminal removal tool J-38125–560, remove the BROWN/WHITE wire from cavity 17. Cut the BROWN/WHITE wire close to the terminal. Refer to X50A Fuse Block - Underhood X2.
Strip the insulation:
- Strip approximately 7.5 mm (0.313 in) of insulation from the GREEN/WHITE wire.
- Do not nick or cut any of the strands. Inspect the stripped GREEN/WHITE wire for nicks or cut strands.
- If the GREEN/WHITE wire is damaged, repeat this procedure after removing the damaged section.
- Strip approximately 7.5 mm (0.313 in) of insulation from the BROWN/WHITE wire.
- Do not nick or cut any of the strands. Inspect the stripped BROWN/WHITE wire for nicks or cut strands.
- If the BROWN/WHITE wire is damaged, repeat this procedure after removing the damaged section.

Use the splice sleeve crimp tool (2) P/N 12085115 in order to position the DuraSeal splice sleeve in the proper color nest of the splice sleeve crimp tool.
Use the red nest (1) to crimp the salmon colored splice sleeve provided on the accessory front fog lamp harness.
Place the salmon colored DuraSeal splice sleeve provided in the accessory front fog lamp harness in the red nest of the splice sleeve crimp tool. Ensure that the crimp falls midway between the end of the barrel and the stop. The sleeve has a stop (3) in the middle of the barrel (2) in order to prevent the wire (1) from going further. Close the hand crimper handles slightly in order to firmly hold the DuraSeal splice sleeve in the red nest.
For MY 2010 to 2012 vehicles, insert the body harness side of the GREEN/WHITE wire the cut from the back side of the accessory wiring junction block connector into the salmon splice sleeve barrel until the wire hits the barrel stop.

For MY 2013 vehicles, insert the body harness side of the BROWN/WHITE wire the cut from the back side of the accessory wiring junction block connector into the salmon splice sleeve barrel until the wire hits the barrel stop.

Tightly close the handles of the crimp tool until the crimper handles open when released.

The crimper handles will not open until you apply the proper amount of pressure to the DuraSeal splice sleeve.
Using the heat gun or ultra torch P/N 12085116, apply heat to the crimped area of the barrel.
Start in the middle and gradually move the heat barrel to the open ends of the tubing:
- The tubing will shrink completely as the heat is moved along the insulation.
- A small amount of sealant will come out of the end of the tubing when sufficient shrinkage is achieved.
Remove the terminal position assure device (1) from the body harness to the accessory wiring junction block connector (2). Position and install the terminal pin of the provided accessory fog lamp harness to cavity 31 of the accessory wiring junction block underhood X2 connector (2). For MY 2010 to 2011 vehicles, refer to X50A Fuse Block - Underhood X2. For MY 2012 vehicles, refer to X50A Fuse Block - Underhood X2. For MY 2013 vehicles, refer to X50A Fuse Block - Underhood X2. Install the terminal position assure device (1) to the body harness and the accessory wiring junction block underhood X2 connector (2). Reposition and install the accessory wiring junction block underhood X2 connector (2) to the accessory wiring junction block retainer base (3).
Install the accessory wiring junction block (2) to the accessory wiring junction block connectors (3), (4) by pushing into place to seat the clips.

**Tighten**
Tighten the three accessory wiring junction block bolts (6) to 10 Y (89 lb in)
Install cover (1) to the accessory wiring junction block (2) by pushing down on the cover until the tabs on the ends of the cover lock into place.
Install the battery positive cable (7) and nut (8) to the junction block (5).

**Tighten**
Tighten the battery positive cable nut (8) to 7 Y (62 lb in)
Route the provided accessory fog lamp harness neatly along side the accessory wiring junction block (2).
Locate the hole(1) on the left upper tie bar near the left front headlamp to install the relay provided in the accessory fog lamp harness.
Insert the push pin (1) P/N 19172867 through the hole in the relay clip and through the hole in the left upper tie bar, and secure the push pin (1) to the relay (2).
Locate the ring terminal on the provided accessory fog lamp harness, remove the ground stud (2) near the left headlamp, and install the ring terminal (1) to the ground stud and tighten.

Route the front fog lamp harness along the factory front lamp harness towards the left side of the front fascia. Secure the front fog lamp harness using cable ties, every 200mm between the relay (3) and the accessory wiring junction block (4). Trim the excess cable tie tails.
Lift and suitably support the vehicle.
Remove the radiator air lower deflector fasteners (1),(3).
Remove the radiator air lower deflector (2) from the vehicle.

Remove the left and right fog lamp delete grilles (2), by releasing the retainer clips (1) and pushing from behind, outward to the front of the vehicle.
Reinstall battery tray, battery and battery cables.
Note: The raised portion of the spring nut should face towards the front of the vehicle.

Install the provided spring nuts (1) P/N11513599 to the outside mounts of the left and right fog lamp cavities.

Install the fog lamps (4) to the front fascia fog lamp mount and secure the fog lamps (4) with the provided hex bolts with washers (2) P/N11589015.

Tighten
Tighten the hex bolts with washers (2) to 2.5Y (22 lbin)
Route the front fog lamp harness through the front fascia to the left and right fog lamps (4) and connect the electrical connector (3) to the left and right fog lamps (4).
Secure the fog lamp harness (1) using cable ties, along the entire length every 200mm, to the existing front lamp and fascia harnesses.

Install the radiator lower air deflector (2) to the front fascia.
Install the three rear center 10mm fasteners (3) and the twelve front 7mm fasteners (1) to the radiator lower air deflector (2).

**Tighten**
Tighten the three rear center 10mm fasteners (3) to 6 Y (53 lbin)
Tighten the twelve front 7mm fasteners (1) to 2.5 Y (22 lbin)
Lower the vehicle.

Install the negative battery cable (3) to the terminal (4).

**Tighten**
Tighten the negative battery cable bolt (2) to 5 Y (44 lbin)
Install the battery cover/engine control module (ECM) (1).

**Note:** The installation of this accessory fog lamp kit requires programming and configuring of the vehicle. This is done with a Service Programming System (SPS-TIS2Web). The installer needs to call the Techline Customer Support Center (1-800-828-6860). The Techline Customer Support Center will provide programming instructions and changes to the vehicles calibration settings. You must provide the vehicle identification number (VIN) of the vehicle to be programmed when calling.

Using the Scan Tool with a MDI, and (SPS-TIS2Web), update the body control module (BCM) calibration file and the instrument panel cluster (IPC) to activate the front fog lamps and the front fog lamp telltales.
Test the function of the front fog lamps and the front fog lamp telltale.
Aim fog lamps, to ensure accurate vertical front fog lamp aiming, first perform the following steps to prepare the vehicle.

- Make sure that all the components are in place on the vehicle, the tires are properly inflated, and there is not any mud or snow clinging to the vehicle.
- Stop all other operations of work on the vehicle.
- Make sure the fuel level is 1/2 full or more.
- Jounce the vehicle to settle the suspension.
- Place the vehicle on a level surface 7.6 m (25 ft) from the target screen.
- Measure the distance from the floor to the center of the fog lamp (5).
- Using this measurement, mark the horizontal centerline of the fog lamp (1) on the target screen directly in front of the vehicle.
- Start the vehicle in order to level the suspension.

Turn the front fog lamps ON.
Adjust the fog lamp up or down until the top edge of the high intensity zone on the screen is 102 mm (4 in) below the horizontal centerline.
Turn OFF the front fog lamps.
Install the provided left and right accessory fog lamp grilles (2) to the front fascia, making sure the clips (1) are fully engaged.

© 2014 General Motors. All rights reserved.