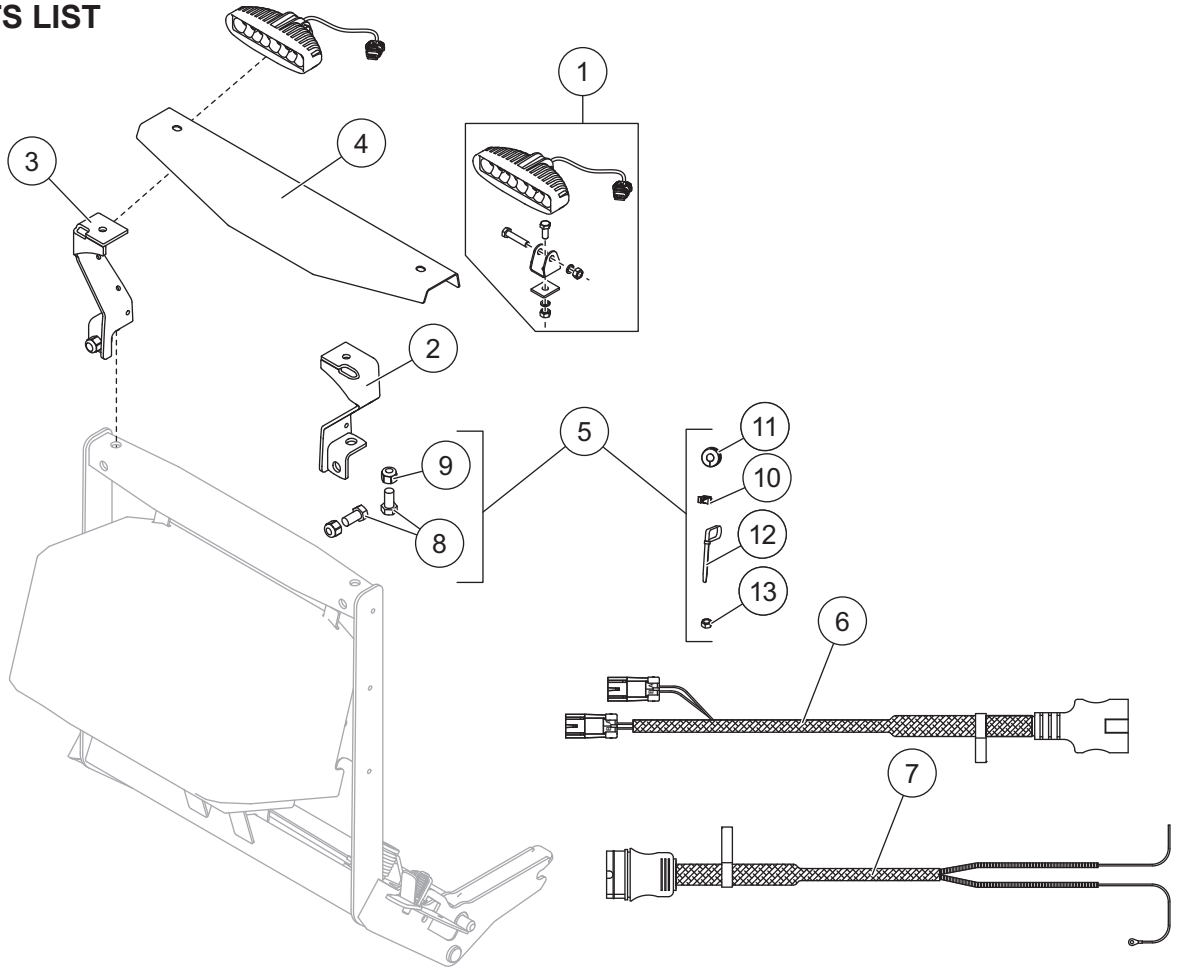
May 1, 2017
Lit. No. 93186, Rev. 00

Accessory Light Kit

UTV Snowplows

PARTS LIST



83980 UTV Accessory Light Kit							
Item	**Part**	**Qty**	**Description**	**Item**	**Part**	**Qty**	**Description**
1	83989	2	Lamp, LED UTV w/hardware	5	83984	1	Bolt Bag
2	83981	1	Upright, DS	6	83985	1	Harness 3-Pin Plow (Service)
3	83982	1	Upright, PS	7	83986	1	Harness 3-Pin Vehicle (Service)
4	83983	1	Light Mounting Plate				
83984 Bolt Bag							
8		4	1/2-13 x 1 Hex Cap Screw G5	13*		4	M8 x 1.25 Locknut
9		4	1/2-13 Hex Locknut GB	ns	61548K	1	Plug Cover Kit
10	56595	6	Cable Tie Anchor	ns		1	Heatshrink Tubing, 3/16 x 6
11	66130	2	Rubber Grommet	ns		1	Splice (pkg of 5)
12		22	Cable Ties				
ns = not shown							G = Grade

* Item 13, if included in bolt bag, replaces hex nuts included in Item 1. See Installation Instructions.

SAFETY DEFINITIONS

⚠ WARNING

Indicates a potentially hazardous situation that, if not avoided, could result in death or serious personal injury.

⚠ CAUTION

Indicates a potentially hazardous situation that, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.

NOTE: Indicates a situation or action that can lead to damage to your snowplow and vehicle or other property. Other useful information can also be described.

FUSES

The snowplow electrical and hydraulic systems contain several blade-style automotive fuses. If a problem should occur and fuse replacement is necessary, the replacement fuse must be of the same type and amperage rating as the original. Installing a fuse with a higher rating can damage the system and could start a fire. Fuse Replacement, including fuse ratings and locations, is located in the Maintenance section of the Owner's Manual.

BATTERY SAFETY

⚠ CAUTION

Batteries normally produce explosive gases, which can cause personal injury. Therefore, do not allow flames, sparks or lit tobacco to come near the battery. When charging or working near a battery, always cover your face and protect your eyes, and also provide ventilation.

- **Batteries contain sulfuric acid, which burns skin, eyes and clothing.**
- **Disconnect the battery before removing or replacing any electrical components.**

TORQUE CHART

⚠ CAUTION

Read instructions before assembling. Fasteners should be finger tight until instructed to tighten according to the torque chart. Use standard methods and practices when attaching snowplow, including proper personal protective safety equipment.

Recommended Fastener Torque Chart (ft-lb)

Size	Torque		
	SAE Grade 2	SAE Grade 5	SAE Grade 8
1/4-20	6	9	13
5/16-18	11	18	28
3/8-16	19	31	46
3/8-24	24	46	68
7/16-14	30	50	75
1/2-13	45	75	115
9/16-12	66	110	165
5/8-11	93	150	225
3/4-10	150	250	370
7/8-9	150	378	591
1-8	220	583	893

Metric Grade 8.8 (ft-lb)

Size	Torque	Size	Torque
M 6	7	M 12	60
M 8	17	M 14	95
M 10	35	M 16	155

These torque values apply to fasteners except those noted in the instruction.

INSTALLATION INSTRUCTIONS

⚠ WARNING

Do not exceed GVWR or GAWR, including blade and ballast. The rating label is found on the driver-side vehicle door cornerpost.

⚠ CAUTION

Install auxiliary lights for compliance and visibility in accordance with local regulations. The lights provided in this kit are for "OFF ROAD USE" only. The lights are NOT DOT or CE approved.

⚠ CAUTION

Read this document before installing the Accessory Light Kit.

⚠ CAUTION

Use standard methods and practices when attaching snowplow and installing accessories, including proper personal protective safety equipment.

⚠ CAUTION

See your sales outlet/Web site for specific vehicle application recommendations before installation. The online selection tool has specific vehicle and snowplow requirements.

⚠ CAUTION

Use recommended splicing procedure (at the end of this document) when attaching snowplow accessory wires to the OEM vehicle wires.

Install Vehicle Lighting Harness

1. Park the vehicle on a smooth, level, hard surface, such as concrete. Lower the blade to the ground, and turn the control OFF. Disconnect the snowplow from the vehicle, or turn the vehicle ignition to the "OFF" position and remove the key.

NOTE: Use dielectric grease on all electrical connections to prevent corrosion. Fill receptacles and lightly coat ring terminals before assembly.

2. Disconnect both the NEGATIVE (−) and the POSITIVE (+) battery cables.

3. Route the red (+12V) wire of the 3-pin vehicle harness (PN 83986) from the grille or bumper to a 10 amp switched accessory circuit. Using the supplied splices, follow the splicing procedure on page 6 to connect the wires.

   No headlamp ON/OFF switch is provided to toggle the lights on and off because many UTVs have upfitter accessory switches available onboard the vehicle. Wiring into these switches is acceptable provided the circuit is fused at 10 amp. Follow the UTV manufacturer's recommendations when connecting to the UTV manufacturer's supplied accessory switches.

   The supplied vehicle harness wires (red and/or black) can be shortened or coiled and cable-tied to length appropriate for the installation.

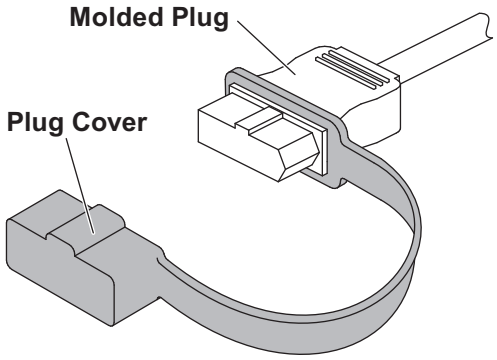
NOTE: The approximate amperage draw of the LED lamps is 2.5 amp. Avoid sharp edges and hot or moving parts while routing the wires.

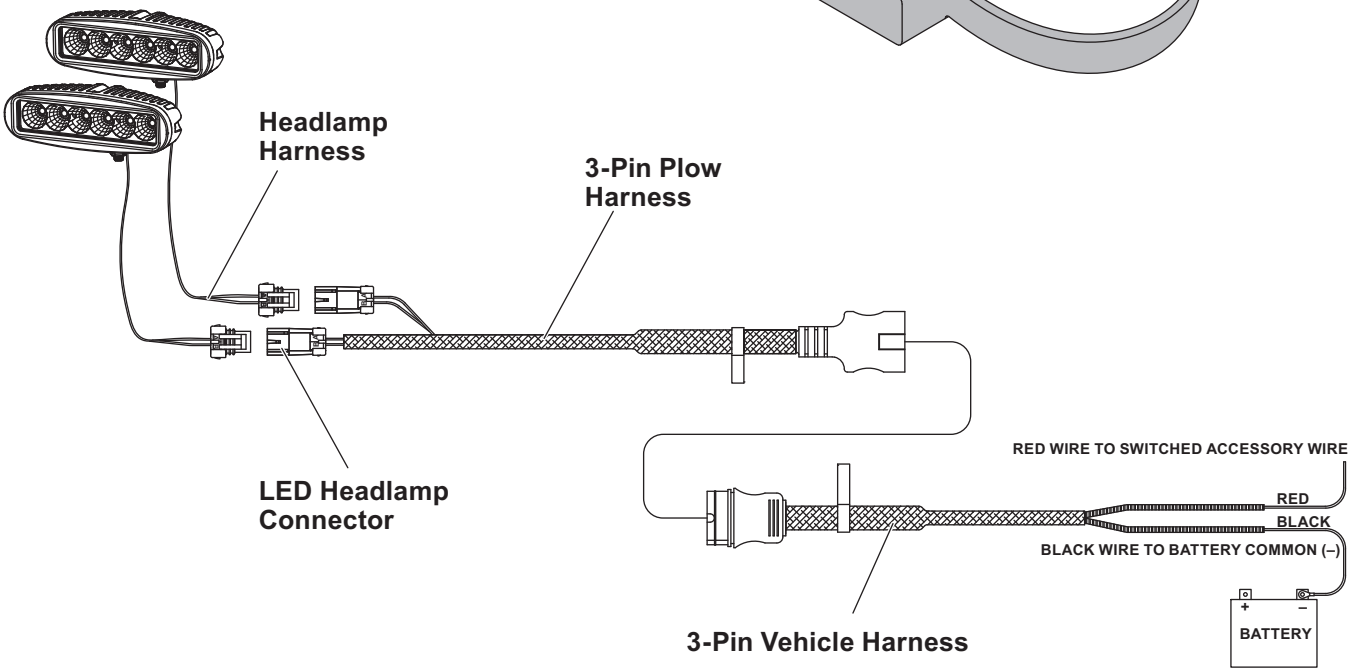
4. Route the black wire from the vehicle harness to the NEGATIVE (−) battery terminal.

5. Reconnect the POSITIVE (+) and NEGATIVE (−) battery cables. Secure wires with supplied cable ties as required.

Plug Cover Installation

1. Stretch the rectangular opening of the plug cover strap over the end of the vehicle battery cable. Place the plug cover over the molded plug when snowplow is not in use.





Install Mounting Brackets and Headlamps

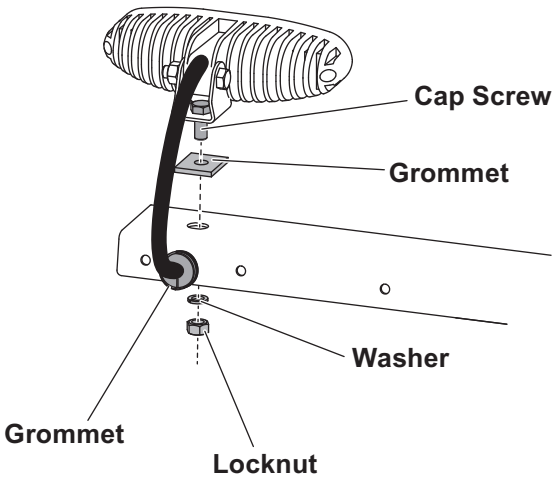
1. Install the driver-side and passenger-side uprights (PN 83981 & 83982) using the specified hardware from the bolt bag (PN 83984). Loosely install hardware.

NOTE: All hardware will be tightened at the end of the installation.

2. Install the headlamp channel (PN 83984) and the LED Lamps (PN 83989) as shown in the image on page 1. If the nuts included with Item 1 are not locking nuts (Nylock type), discard and use the locknuts that are included in the bolt bag (Item 5). Loosely attach hardware.

3. Torque the 1/2" fasteners to 75 ft-lb. Align the headlamps and torque the M8 mounting fasteners to 16 ft-lb.

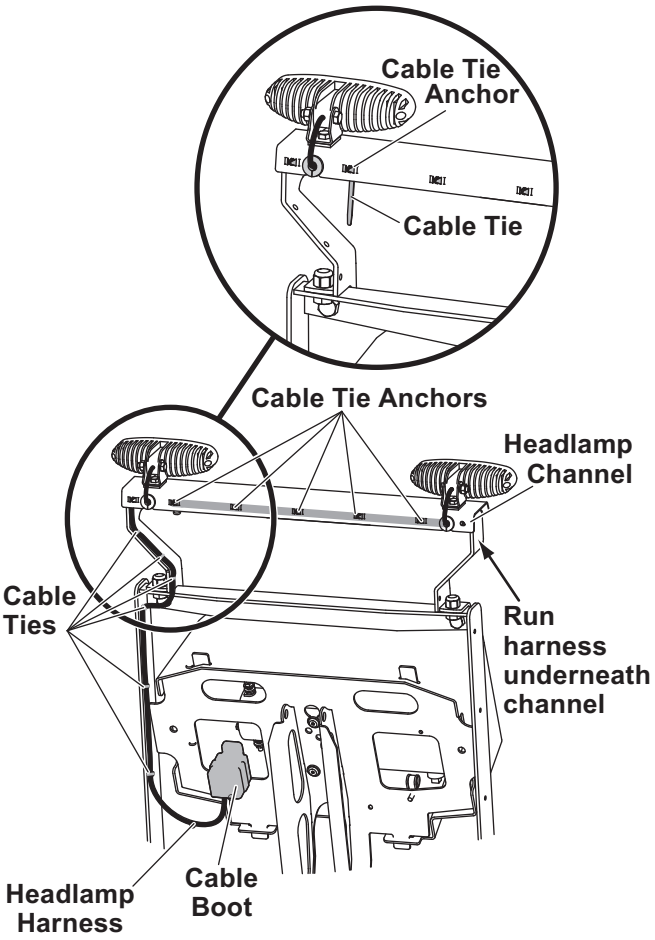
4. Install the grommet around the headlamp jacketing and fit the grommet into the headlamp channel.



5. Install six cable tie anchors into the 1/4" holes on the rear of the headlamp channel from inside the channel, with locking tabs in horizontal position.

6. Connect the LED headlamp connectors to the connectors from the headlamp harness.

7. Secure the harness under the headlamp channel to the cable tie anchors using cable ties. Finish routing the harness as shown, securing with cable ties in available holes or by wrapping cable ties around the headgear upright side plate.



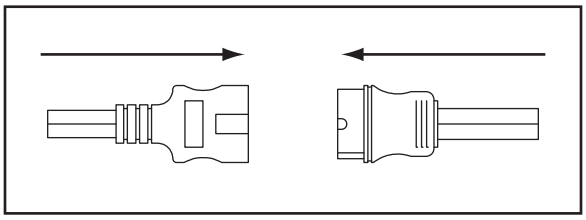
8. Verify that all harnesses are free of sharp edges and moving parts.

9. When snowplow is not in use, store the molded plug of headlamp harness in the cable boot located on the headgear.

Usage/Testing

1. Plug in the electrical light harness and turn ON the 10 amp switched accessory circuit to verify headlamp operation.

2. The accessory headlamps will be active when the bumper connection is made and the 10 amp vehicle switched accessory circuit is activated.



RECOMMENDED SPLICING PROCEDURE

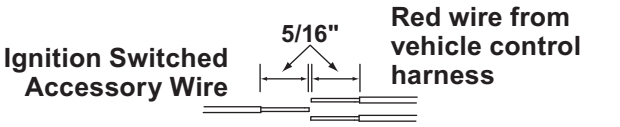
1. Locate the wire to be spliced into.
2. Cut the wire at least 1-1/2" from any other splice, connector, or terminal. If wires are covered by tubing or braid, remove enough of it to achieve the minimum clearance required.
3. Strip away 5/16" of the insulation from the ends of the wires to be spliced.
4. Slide two wires into one end of the supplied parallel splice.
5. Place a piece of heatshrink tubing (3/16" x 1-1/4") over the remaining wire to be spliced. Cut the tubing into 1-1/4" lengths if required.
6. Insert the wire into the open end of the splice and crimp using an appropriate crimp tool. One or two crimps may be necessary to ensure a good connection. No wire strands should be visible outside of the splice.
7. Preheat a soldering tool for at least one minute to help promote even solder flow.
8. Apply heat to the splice. Avoid heating too close to the insulation. Apply solder to the wires, using just enough solder to produce an even flow through the splice. **Use rosin core solder ONLY. Do not use acid core solder.**

NOTE: Avoid using an excessive amount of solder, as it can result in wicking. Wicking occurs when solder travels up the wire core. This may cause the wire to become stiff or brittle, which could lead to a broken or open circuit.

9. Check circuits for continuity.
10. Cover the splice with heatshrink tubing. The tubing should extend beyond the splice on both sides.
11. Using a hot air source, starting in the center and working to either side, apply heat until the tubing recovers and glue can be seen around the edges. Allow the tubing to cool before handling.

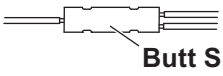
NOTE: The splices supplied will accommodate 18-gauge wires as shown. For larger-gauge wires, cut the wire, strip the ends 3/8" to 1/2" and twist together. Apply solder to the splice and cover with heatshrink tubing.

Splicing Procedure



Insert wires into splice.

Crimp and solder each splice.



Cover the splice with heatshrink tubing. Using a hot air source, apply heat until tubing recovers and glue can be seen around the edges. Allow tubing to cool before handling.

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