Russian Sidecar
Part XX: Spot-Light and Driving Light Evolution
(Also See Adding Fog Lights to Russian Motorcycles)

Ernie Franke
eafranke@tampabay.rr.com
09 / 2017
Adding Lights on Russian Motorcycle Sidecars

• Looking for Something that Would Increase Conspicuity (visibility or noticeability) to Other Drivers
  – Spot Lights Improve Conspicuity: See and Be Seen

• Driving Lights
  – Semi-Fixed Positioning
  – Typically Continually Energized when Driving

• Spot-Lights
  – Variable Positioning
  – Typically Only Energized for Searching

• Generator/Alternator Limitations on Lighting
  – Limited Output at Rated RPM
  – Limited Output when Idling

• Spot-Light Mounted in Machine Gun Receiver
• Silver Goose Spot-Lights
• Driving and Fog Lights
• Extra Lighting Needs Relay Control and Wiring
  – Handlebar Switches Aren’t Made to Handle Increased Current
  – Wire and Fuses Aren’t Meant to Handle Increased Current

• Many Lighting Products Are Not D.O.T. Approved
  – For "off-road or competition"

Most folks scan their JC Whitney or KC catalog for spot-lights, driving lights and fog lights. For good-looking solutions, it is recommended to check with the Ural people, Raceway Services, etc.
Fusing the Sidecar for Lights

- Sahara (Limited Edition 2009-2010)
- Plus Taïga (Limited Edition 2011+)
Ural’s Gear-Up Sidecar has a fuse panel with 12V power outlet and water proof switch for the spot-light.
Spot-Light on Ural Ranger / Gear-Up

Spot-Light Mounted toward the Inside of Sidecar
Spot-Light on 2009 Ural Sahara (www.totalmotorcycle.com)

- Limited Edition Gear-Up Sahara '09
  - Only 18 Units Available in the U.S. Market
  - Everything Kept in Sand and Black Paint
Spot-Light on 2010 Taiga (www.imz-ural.com)

• Total Production Run: 27 units
A Few Installations of Spot-Lights

Spot-light mounting close and far from driver.
A Few More Installations of Spot-Lights

Military Mount of Spot-Lights
Spot-Light Set IMZ-8.103-00019 for 650cc / 750cc

• Standard Issue on Ural Gear-Up

(www.uralmotor.hu)
List Price: €84

(parts@xtrememachines.us)
List Price: $160.55
Spot-Light Mounted on Sidecar Protection Frame

(2005 Ural Patrol)

Sidecar Protection Frame

(www.imz-ural.com)
Universal Sidecar Auxiliary Driving Light (racewayservices.com)

• Provides Right-Side Road “Clear Spot” Visibility
• Chrome-Plated Auxiliary Driving Lights
  – Two Types: 5” or 6” diameter with H3 55-Watt Halogen Bulb
  – Replaceable Bulb
  – Rubber Cushioned Base
• Requires Drilling Two Holes
  – Route wires inside Sidecar Windshield Bulkhead
  – 15-Amp or Greater Switch or Relay
• For “Off-road or Competition” Use Only
• List Price: $29.95 each (P/N RW955110 L)

Another place to mount driving lights!
Sidecar Spot-Light & Turn Signal Kit with Mounting Brackets (www.floridasidecarproducts.com)

- 4-1/2" Chrome-Plated Steel Spot-Light with 55-Watt H-3 Single-Filament Bulb
- Amber Front Turn-Signal with Dual-Filament Bulb (Running Light & Turn-Signal – ¼" Chrome Spacers between Sidecar Body and Mounting Bracket
- Red Rear Turn-Signal with Single-Filament Bulb
- Gloss Black-Powder Coated Brackets and Backing Plate for Support
- Mounting Bolts and Chrome Acorn Nuts, Washers and Rubber Washers to Protect Paint
- Two Push-In Flexible Rubber Grommets with ¼" Groove to Protect Wires
- Front Light Bracket is ¼", Thick, 1" Wide Steel with 6" Rise from Bottom of Bracket to Top
- Holes Must Be Drilled in Sidecar Body to Mount Spot-Light & Turn Signal Kit
- Without Turn Signals, Spot-Light Kit Is $115
- With Turn Signals, Spot-Light Kit Is $195
The Gear-Up manual fails to show the standard spot-light on the sidecar.
In 2006, Ural added a sidecar fuse block (41) with power outlet (45) for spotlight (39) and switch (38).
• Sidecar Spot-Light Located on Left Side of the Front of the Sidecar
• Operated by Activating the Switch just Behind the Spot-Light
• Aimed by Moving the Lever Arm at the Rear of the Spot-Light
• Only Use Spot-Light when Motorcycle Is Running, to Prevent Battery Discharge

Warning: Never tap into the spot-light circuit to add accessories. Damage to the motorcycle electrical system may result.
The sidecar fuse panel contains two 20-Amp fuses and two 5-Amp fuses, all fused by a 20-Amp fuse (49) in previous schematic.
The sidecar fuse panel contains two large fuses and two smaller fuses, all fused by a 20-Amp fuse (49) in previous schematic.
Ural’s Gear-Up shows the spot-light with fuse and switch.
<table>
<thead>
<tr>
<th>#</th>
<th>Description</th>
<th>Part number</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Spot light mounting kit</td>
<td>IMZ-8.103-00019-01</td>
</tr>
<tr>
<td>2</td>
<td>Spot light 17.3711</td>
<td>IMZ-8.1031P-18061</td>
</tr>
<tr>
<td>3</td>
<td>Head light holder</td>
<td>IMZ-8.1031P-21015 withdrawn from production. IMZ-8.1031P-21162 should be ordered.</td>
</tr>
<tr>
<td>4</td>
<td>Flange</td>
<td>IMZ-8.1031P-21151 withdrawn from production. IMZ-8.1031P-21151-01 should be ordered.</td>
</tr>
<tr>
<td>5</td>
<td>Valve outer spring</td>
<td>62-01419-01 withdrawn from production. 72-03115-16 should be ordered</td>
</tr>
<tr>
<td>6</td>
<td>Washer</td>
<td>IMZ-8.1031P-21096</td>
</tr>
<tr>
<td>7</td>
<td>Screw M6-6gx12 (2010-2014)</td>
<td>DIN 7985 M6x12 (2010-2014)</td>
</tr>
<tr>
<td>8</td>
<td>Nut M6-6H ZN 8.8</td>
<td>DIN 985 M6</td>
</tr>
<tr>
<td>9</td>
<td>Spot light handle</td>
<td>IMZ-8.1037-11410</td>
</tr>
</tbody>
</table>
### Ural Northwest (uralnw.com)
#### Sidecar Spotlight Components

<table>
<thead>
<tr>
<th>#</th>
<th>Component</th>
<th>IMZ #</th>
<th>Price</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>2A</td>
<td>Spot-Light Assy</td>
<td>8.1031-00019</td>
<td>$160</td>
<td>-</td>
</tr>
<tr>
<td>2</td>
<td>Spot-Light</td>
<td>8.1031P-18061</td>
<td>$100</td>
<td>$75</td>
</tr>
<tr>
<td>5</td>
<td>Spot-Light Stand</td>
<td>8.1031P 21094</td>
<td>$63</td>
<td>$46</td>
</tr>
<tr>
<td>7</td>
<td>Wiring Harness</td>
<td>8.1031P-18074</td>
<td>$28</td>
<td>-</td>
</tr>
<tr>
<td>17</td>
<td>Washer</td>
<td>DIN 9021 M6</td>
<td>$2</td>
<td>$1</td>
</tr>
<tr>
<td>18</td>
<td>Spot-Light Flange</td>
<td>8.1031P-21151</td>
<td>$13</td>
<td>$10</td>
</tr>
<tr>
<td>18</td>
<td>Spot-Light Flange (rev 2015)</td>
<td>8.1031P-21151-01</td>
<td>-</td>
<td>$12</td>
</tr>
<tr>
<td>19</td>
<td>Spot-Light Spring</td>
<td>62-01419-01</td>
<td>$5</td>
<td>$5</td>
</tr>
<tr>
<td>20</td>
<td>Spot-Light Washer</td>
<td>8.1031P-21096</td>
<td>$15</td>
<td>$12</td>
</tr>
<tr>
<td></td>
<td>Spot-Light Holder</td>
<td>8.1031P-21015</td>
<td>$32</td>
<td>$24</td>
</tr>
</tbody>
</table>

---

Ural offers the standard spot-light kit.

---

[AF1 Racing](www.af1racing.com)
<table>
<thead>
<tr>
<th>Generator/Alternator</th>
<th>Type</th>
<th>Vintage</th>
<th>Nominal Voltage</th>
<th>Current</th>
<th>Nominal Power</th>
<th>Motorcycles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Г-11 (G-11)</td>
<td>DC Generator</td>
<td>1941-1951</td>
<td>6-Volt (7-Volt)</td>
<td>7-Amp</td>
<td>45-Watts</td>
<td>M-72</td>
</tr>
<tr>
<td>Г-11А (G-11А)</td>
<td>DC Generator</td>
<td>1952-1957</td>
<td>6-Volt (7-Volt)</td>
<td>7-Amp</td>
<td>45-Watts</td>
<td>M-72, M-72M, M-61</td>
</tr>
<tr>
<td>Nippon Denso</td>
<td>Alternator (Built-in Rectifier &amp; Regulator)</td>
<td>2004-present</td>
<td>12-Volt (14-Volt)</td>
<td>55-Amp</td>
<td>770-Watts</td>
<td>IMZ 8.103, 8.103X, 8.123, 8.123X “750” Series</td>
</tr>
</tbody>
</table>

When considering adding a spot-light or driving lights, one look at the generator/alternator. Not until the short-lived Hitachi or the questionable 14.3771 was there truly enough extra current for more lighting.
Silver Goose offered a line of driving lights that blended nicely with the particular bike and sidecar.
"Dresser" (chrome) style light bar makes you "shine" on the road. Includes two 4" diameter DOT-approved auxiliary driving lights. Pre-wired with 15A toggle switch. Mounts to existing studs under headlight.

Black powder-coated mandrel bent light bar for installing auxiliary driving or fog lamps on your Ural motorcycle. Lights not included. Mounts directly underneath headlight to existing studs and hardware.

Ural/Universal Chrome 7" Diameter Auxiliary Driving Light used with above Light Bar or anywhere else stout enough to keep it from vibrating. "Hoodie" lens ring. Halogen bulb.

Ural/Universal Bullet Style Turn Signal or Running Lights. Classic chrome-plated bullet style turn signal or running lights for your Ural or any other vehicle. Red lens also available.

You need a bracket to hold those driving lights. The black bar matches the military décor.
The spot-light, when properly located, does not interfere with hack windshield when pushed forward. The controls can be reached by either driver or hack passenger, even with the windshield in place.
Their heavy-duty light kits are needed to hook extra lights. The two heavy duty relays are actuated by signals from the headlight and power comes from the sidecar fuse box or dedicated line to the battery. You can’t just wire it in parallel with the headlight.
Spot-Light Installation (silver goose)

• Mounting the Light
  – Most Important Part Is Positioning the Light
    • If Windshield Present or Planned, Place Spot-Light Front Enough to Clear it when Windshield Is All the Way Forward
    • About 2 1/2 inches between Back of Spotlight Base and Apron Loop
  – After Marking Where You Want the Light
    • Center-Punch and Cut Center Hole of 5/8” to 1” to Clear the Nut and Allow for Wiring
    • Recommended Hole-Saw because Large Drills Bits Have Tendency to Grab when Going thru Sheet Metal
  – When Center hole Is Cut
    • Position and Square-Up Base
    • Mark Bolt Holes with Scratch-Awl and Set Spotlight Aside
  – Center Punch the Markings
    • Pilot-Drill with a 1/8” Twist-Drill
    • Drill with 5/16” Twist-Drill
    • De-bur Inside and Out
  – Bead of Silicone-Sealant Around Center-Hole Recommended
  – Thread Wiring Thru and Set Spotlight in Position
  – Bolt Up Base to Hack Tub and Tighten Nuts

• Electrical
  – The Push-In terminal can be connected to a spare on the fuse block in the hack tub. MAKE SURE YOU HAVE A 15 OR 20 AMP FUSE INSTALLED.

We have broken down the parts into bite-size chunks.
F2 Motorcycles offers an additional light on the nearside front of the sidecar. This is connected to the original headlight and has both low and high beam and doesn’t need to be operated separately using additional switches. Although the sidecar has a small white light on the mudguard, this additional hi/lo light makes it easier for on coming traffic to judge the width of the bike.
### Comparative Pricing of Sidecar Lights

<table>
<thead>
<tr>
<th>Item</th>
<th>Supplier</th>
<th>Part #</th>
<th>Fits</th>
<th>Approx 2010 Price (USD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Driving Light, Bumper Mounted w/Olive Drab Steel Housing &amp; Base</td>
<td>Silver Goose</td>
<td>#L-1A</td>
<td>Fits Factory 37mm Bumper</td>
<td>$71</td>
</tr>
<tr>
<td>Driving Light, Bumper Mounted w/Chrome Housing with Aluminum Base</td>
<td>Silver Goose</td>
<td>L-1B</td>
<td>Fits Factory 37mm Bumper</td>
<td>$69</td>
</tr>
<tr>
<td>Driving Light, Deck Mounted w/Olive Drab or Black Steel Housing &amp; Base</td>
<td>Silver Goose</td>
<td>L-2A</td>
<td>Mounts on top or side of car body</td>
<td>$79</td>
</tr>
<tr>
<td>Driving Light, w/Chrome Steel Housing and Polished Aluminum Base</td>
<td>Silver Goose</td>
<td>L-2B</td>
<td>Mounts on top or side of car body</td>
<td>$74</td>
</tr>
<tr>
<td>Driving Light, Nose Mounted w/Olive Drab Steel Housing &amp; Base</td>
<td>Silver Goose</td>
<td>L-3A</td>
<td>Surface Mounts on Hack similar to a MG Mount</td>
<td>$80</td>
</tr>
<tr>
<td>Driving Light, Nose Mounted w/Chrome Housing with Black Painted Base</td>
<td>Silver Goose</td>
<td>L-3B</td>
<td>Surface Mounts on Hack similar to a MG Mount</td>
<td>$79</td>
</tr>
<tr>
<td>Ural/Universal Chrome 7” Diameter Auxiliary Driving Light</td>
<td>racewayservices.com</td>
<td>10053</td>
<td>Looks great on a Wolf or Retro</td>
<td>$50</td>
</tr>
<tr>
<td>Ural/Universal Sidecar Auxiliary Driving Light</td>
<td>racewayservices.com</td>
<td>10054</td>
<td>Mounts on Sidecar Step Bar</td>
<td>$30</td>
</tr>
<tr>
<td>Ural/Universal Bullet Style Turn Signal or Running Lights</td>
<td>racewayservices.com</td>
<td>10056</td>
<td>Classic chrome-plated bullet style</td>
<td>$30 pair</td>
</tr>
<tr>
<td>Spot-Light, Military Style Spot-Light w/Painted (Olive Drab) Steel Housing &amp; Steel Base</td>
<td>Silver Goose</td>
<td>SL-1A</td>
<td>Specify Color when ordering</td>
<td>$86</td>
</tr>
<tr>
<td>Spot-Light for Retro/Tourist/Patrol w/Chrome Steel Housing and Polished Aluminum Base</td>
<td>Silver Goose</td>
<td>SL-1C</td>
<td>for Retro/Tourist/Patrol</td>
<td>$81</td>
</tr>
<tr>
<td>Stainless Steel Spot-Light for Retro w/All Stainless-Steel Housing w/Polished Aluminum Base</td>
<td>Silver Goose</td>
<td>SL-1D</td>
<td>Specify Color when ordering</td>
<td>$100</td>
</tr>
<tr>
<td>Spot -Light with wire harness and mounting gear</td>
<td>ural.ca/pricelista.html</td>
<td>8.103-00019</td>
<td></td>
<td>$286</td>
</tr>
<tr>
<td>Hi/Lo spot light on sidecar</td>
<td>f2motorcycles.ltd.uk</td>
<td></td>
<td>Price includes fitting to a new bike</td>
<td>$187 (£125)</td>
</tr>
<tr>
<td>Driving Light Relay Box</td>
<td>Silver Goose</td>
<td>RB-1</td>
<td></td>
<td>$43</td>
</tr>
<tr>
<td>Battery Wiring Harness</td>
<td>Silver Goose</td>
<td>RB-2</td>
<td>Includes wire and inline fuse for direct wiring to battery</td>
<td>$16</td>
</tr>
<tr>
<td>Spot-Light Bar with Spots [Aux Driving Lights]</td>
<td>racewayservices.com</td>
<td>10050</td>
<td>Chrome</td>
<td>$175</td>
</tr>
<tr>
<td>Driving Light Bar</td>
<td>racewayservices.com</td>
<td>10051</td>
<td>Black Powder-Coated</td>
<td>$80</td>
</tr>
</tbody>
</table>

**Note:** Sadly, Silver Goose appears to be out-of-business.
Portable Military Spot-Light with Universal Clamp

Military Spot-Light
– Universal Clamp
– 5m Long Cable
Vendor #: 003.091
List Price: 56.46€
(www.oldtimergarage.eu)
M-67 Milicia (Police) (милиция)

- Military Automobile Inspection (Военная автомобильная инспекция (ВАИ))

*M-63P has a small bracket at the rear of the front fender.*