Russian Headlight Assemblies

Part XXX-12: Modern Ural Motorcycles

(Also See Parts XXX-1 thru -12)

Ernie Franke
eafranke@tampabay.rr.com
02 / 2018
The dashboard of a modern Ural motorcycle has four indicator lamps and a speedometer. The ignition switch is on the side of the headlight cavity.

Note: Even though the speed is given in mph and in km/hr, the odometer reads in km’s.
2003-2007 Gear-Up, Patrol, Tourist and Troyka

- Ignition Switch Has Three Positions
  - Off: All Electrical Systems Are Off
  - Run: Voltage Supplied to All Electrical Systems
  - Parking: Voltage Supplied to Running Lights Only

Leaving the key in the Run or Parking position will discharge the battery. Always return the key to the Off position before removing it.
• Later Ural’s Have Modern Dash, Set above the Light, with more Indicator Lights than before
• Ignition Key Re-Located to Left Headlight Support Bracket
• Square Indicator Lights Replaced Round Ones around 1998
Ural Retro with Classic Instrument Array
**Ural 2002-2005 Ignition Switch**

### Wire Colors
- **Blue:** From battery
- **Gray:** To fuse #3
- **Red:** To fuses 1&2
- **Yellow:** To running lights
- **12V:** To fuse #4 (running lights)
- **2x Orange:** To fuse #3&4 (ignition, electric start relays, brakes, horn and turn signals)
- **Orange:** To speedometer lights

### Switch Pin # and Wire Color

<table>
<thead>
<tr>
<th>Switch Pin #</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wire Color</td>
<td>grey</td>
<td>red</td>
<td>blue</td>
<td>none</td>
<td>yellow</td>
<td>orange</td>
</tr>
<tr>
<td><strong>Off</strong></td>
<td>0 V.</td>
<td>0 V.</td>
<td>12 V.</td>
<td>0 V.</td>
<td>0 V.</td>
<td>0 V.</td>
</tr>
<tr>
<td><strong>Run</strong></td>
<td>12 V.</td>
<td>12 V.</td>
<td>12 V.</td>
<td>12 V.</td>
<td>12 V.</td>
<td>12 V.</td>
</tr>
<tr>
<td><strong>Park</strong></td>
<td>0 V.</td>
<td>0 V.</td>
<td>12 V.</td>
<td>12 V.</td>
<td>12 V.</td>
<td>0 V.</td>
</tr>
</tbody>
</table>

**Non-Op = non-Operational, Operate = Operational**

- **Off:** All electrical systems are off.
- **Run:** Voltage is applied to all electrical systems.
- **Parking:** Voltage is applied to running lights only.

---

**Back View of Ignition Switch**

Wire Colors are shown, because switch numbers are very hard to read!
Ignition Switch for Ural 650, IMZ 8.103-10 and 8.103-40
(www.lll.privat.t-online.de)

Ignition Switch

- fuse block
- fuse block
- fuse block
- fuse block
- fuse block
- fuse block
- alternator
- speedo

lights switch right handlebar

from Fuse Block
from Fuse Block
from Alternator
from Fuse Block

€10 (moto-boxer.com)
Ural Speedometer IMZ-8.102-17004

Part #: 000.807
List Price: 55.45€
(www.oldtimergarage.eu)
Ural 2006 Gear-Up

- Hi-Beam Indicator
- Alternator Alarm Indicator
- Turn Signal Indicator
- Odometer "Zeroing" Knob
- Neutral Indicator
- "Zeroing" Knob
<table>
<thead>
<tr>
<th>Position</th>
<th>Description</th>
<th>Part number</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Dashboard</td>
<td>IMZ-8.1040-17151-10</td>
</tr>
<tr>
<td>2</td>
<td>Flexible shaft</td>
<td>IMZ-8.103-17005</td>
</tr>
<tr>
<td>3</td>
<td>Speedometer (mph)</td>
<td>IMZ-8.1040-17004</td>
</tr>
<tr>
<td>4</td>
<td>Speedometer cover</td>
<td>IMZ-8.103-17161</td>
</tr>
<tr>
<td>5</td>
<td>Brace</td>
<td>IMZ-8.103-17154</td>
</tr>
<tr>
<td>6</td>
<td>Nut M5-6H</td>
<td>DIN 985 M5</td>
</tr>
<tr>
<td>7</td>
<td>Dashboard</td>
<td>IMZ-8.1040-17041-20</td>
</tr>
<tr>
<td>Position</td>
<td>Description</td>
<td>Part number</td>
</tr>
<tr>
<td>----------</td>
<td>-------------------------------------------</td>
<td>------------------------------</td>
</tr>
<tr>
<td>1</td>
<td>Dashboard</td>
<td>IMZ-8.1040-17151</td>
</tr>
<tr>
<td>2</td>
<td>Flexible shaft</td>
<td>IMZ-8.103-17005-01</td>
</tr>
<tr>
<td>3</td>
<td>Speedometer (mph)</td>
<td>IMZ-8.1040-17004</td>
</tr>
<tr>
<td>4</td>
<td>Speedometer cover</td>
<td>IMZ-8.103-17161</td>
</tr>
<tr>
<td>5</td>
<td>Brace</td>
<td>IMZ-8.103-17154</td>
</tr>
<tr>
<td>6</td>
<td>Nut M5-6H</td>
<td>DIN 985 M5</td>
</tr>
<tr>
<td>7</td>
<td>Dashboard</td>
<td>IMZ-8.1040-17041</td>
</tr>
<tr>
<td>8</td>
<td>Screw M6-6gx20, black zinc</td>
<td>ISO 7380 M6x20</td>
</tr>
<tr>
<td>9</td>
<td>Terminal</td>
<td>IMZ-8.1037-18308-11</td>
</tr>
<tr>
<td>10</td>
<td>Nut M5-6H</td>
<td>DIN 934 M5</td>
</tr>
</tbody>
</table>
# Ural Patrol, Gear-Up Dashboard (2017)

<table>
<thead>
<tr>
<th>Position</th>
<th>Description</th>
<th>Part number</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Dashboard</td>
<td>IMZ-8.1040-17151-10</td>
</tr>
<tr>
<td>2</td>
<td>Screw M6-6gx20, black zinc</td>
<td>ISO 7380 M6x20</td>
</tr>
<tr>
<td>3</td>
<td>Speedometer (mph)</td>
<td>IMZ-8.1040-17004-10</td>
</tr>
<tr>
<td>4</td>
<td>Brace</td>
<td>IMZ-8.1040-17154</td>
</tr>
<tr>
<td>5</td>
<td>Screw M5-6gx8</td>
<td>DIN 7985 M5x8</td>
</tr>
</tbody>
</table>

The alarm indicators are now buried in the speedometer.
Ural (Урал) 1998 Deco Classic, Italia, Tourist, Sportsman, Solo, Utility (IMZ 8.103-10 or -40 (Deco or Tourist))

- Flasher
- Battery
- Ignition Switch
- Turn Signal
1-select "day-night" with ignition safety switch, 2-side marker light bulb on sidecar A12-8, 3-lamp indicators of A-12-21-3, 4-light front sidecar, 5-Rear sidecar, 6-bulb marker light and a braking signal in a wheelchair A12-212 5, 7-relays, lights, 8-contact (switch controls lamp neutral) 9-switch braking signal handbrake, 10-flashers, 11-driving lamp and low beam headlights A12-45 +40, 12-illumination speedometer A12-1, 13-light control switch neutral A12-1: 14-lamp control indicators A12-1, 15-dashboard; 16-Rear, 17-bulb marker light and license plate illumination A12-5, 18-brake signal A12-21-3, 19-switch braking signal; 20-rechargeable battery; 21-ground switch; 22-generator; 23-ignition coil, 24-horn; 25-fuse box, 26-light beam control A12-1, 27-generator lamp A12-1, 28-headlight; 29-side marker lamp and parking lamp SWERA in A12-4, 30-Index left turn; 31-ignition switch; 32-light switch and indicator lamps; 33-chopper; 34-spark plug; 35-tip of plug; 3-high voltage wire, and A -option to connect two batteries 3MT6.
Ural (Урал) 650сс (1990)

Flasher
Battery
Batteries
Ignition Switch
Turn Signal
1995 Ural (Урал)

1. Motorcycle head lamp
2. High-low beam headlight bulb
3. Side and parking bulb in headlight
4. Turn indicator bulb
5. Neutral gear indicator bulb
6. Speedometer
7. Speedometer illumination bulb
8. Generator
9. Highbeam indicator lamp
10. Left turn indicator
11. Turn signal flasher
12. Sidecar front lamp
13. Sidecar side bulb
14. Traffic indicator bulb
15. Front brake light switch
16. Fuse plate
17. Ignition lock
18. "Day-night" switch with emergency "ignition out" switch
19. Horn
20. Light and turn indicator switch, horn button
21. Distributor
22. Induction coil
23. Spark plug
24. Spark plug cap
25. Neutral gear indicator switch
26. Generator
27. Ignition module
28. Voltage regulator
29. Earth disconnect switch
30. Sidecar rear lamp
31. Sidecar lamp
32. Sidecar side and brake bulb
33. Battery
34. Left rear turn signal
35. Foot brake signal switch
36. Motorcycle rear lamp
37. Brake light
38. Side bulb and number plate illumination bulb

Absolutely no guarantee that wire colors are correct.
G-424 Alternator
33.3702 Regulator
B204 Coil
PM-302 Breaker
6MTS-9 Battery
2002-2005 Ural High/Low Beam

Headlight Cavity

(Not used on US models)

Blue Hi-Beam Indicator

Dashbroad

6 Volt Battery

Pos +

Neg -

Headlight Control Relay #1 (Hi/Lo Beam)

Headlight Control Relay #2 (On/Off Relay)

In-Line Fuse #2 (15 Amp) (Headlight)

Fuse Block

Hi/Lo Switch (for Optional daytime lights. Not used in US)

(Bypass shorts for Day/Night Switch)

Ignition Switch

Run

Park

Hi

Lo

Left Handlebar

Under Gas Tank

(tow Headlight Control Relay)

(tow Speedometer Lights)
2002-2005 Ural: Simplified Hi/Lo Beam Circuit

The relays, controlled by the ignition switch and the Hi/Lo beam switch, are used to make high-current connections. Thus the ignition switch and Hi/Lo handlebar switch last longer because their contacts only handle relay coil current.
Ural (Урал) 2005 Patrol

Fuse Functions
1. Headlight Control Relays
2. Running Lights
3. Brake Lights
4. Horn
5. Ignition
6. Electric Start Relays
7. Inline Fuse #1
8. Turn Signals
9. Alternator Fault Indicator Lamp
10. Neutral Indicator Lamp
11. Inline Fuse #2
12. Headlight Filaments

Fuse Sizes
- #1: 5 Amp
- #2: 5 Amp
- #3: 5 Amp
- #4: 5 Amp
- #1 Inline: 15 Amp
- #2 Inline: 15 Amp

Components:
- Headlight
- Dashboard
- Ignition Switch
- Dash Board
- In-Line Fuse #1
- In-Line Fuse #2
- Flasher
- Front Brake Switch
- Rear Brake Switch
- Starter Motor
- Battery
- Spark Plug
- Headlight Control Relay #1
- Headlight Control Relay #2
- Ignition Module
- Bike Rear Turn Signal
- Bike Front Turn Signal
- Chassis Ground