



ETON America, LLC



Service Bulletin

Bulletin No:	0048
Date:	12/08/06

UK1 Rover not shifting into gear properly

There is an engineering change affecting the 2007 Viper UK1 Rover 4 cycle utility cart. The Shift fork assembly has been reengineered to reduce friction, allowing the shift cogs to fully engage into reverse. Units with out this upgrade may display some or all of the following symptoms:

1. Incomplete shifting
2. Grinding noise from the gear box
3. Engine stalling during shifting
4. Blinking indicator lights

Part required for engineering change:

Qty	Part No.	Description
1	812741	Shift Fork Assembly



Labor Codes	
350	Replace the shift fork assembly
	Total time 1.0 hours

Step 1



Jack the rear end of the vehicle up, and remove the RH rear tire

Step 2



Remove the exhaust pipe



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Bulletin No:	0048	UK1 Rover not shifting into gear properly
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Step 3



Remove the chain guard and the drive chain

Step 4



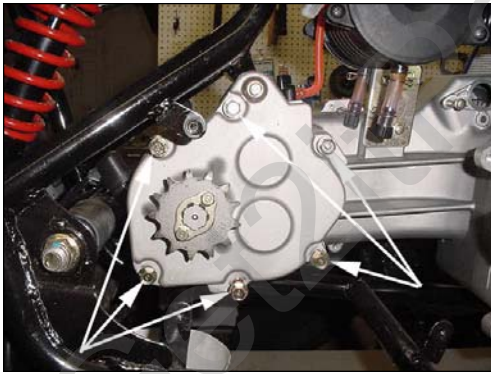
Disconnect the battery and the CDI box. Also remove the rear fender trunk assembly.

Step 5



Drain the gear oil from the transmission using the drain bolt shown in picture.

Step 6



Remove the six bolts from the transmission cover. Remove the engine hanger nut.



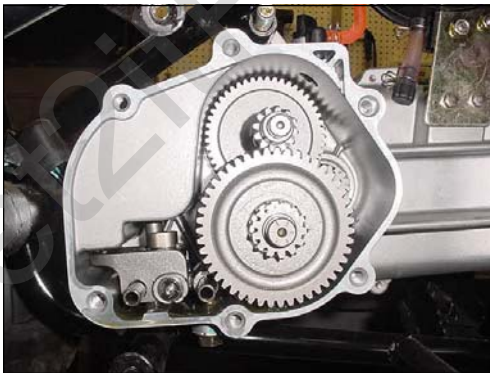
Service Bulletin

Bulletin No:
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12/08/06

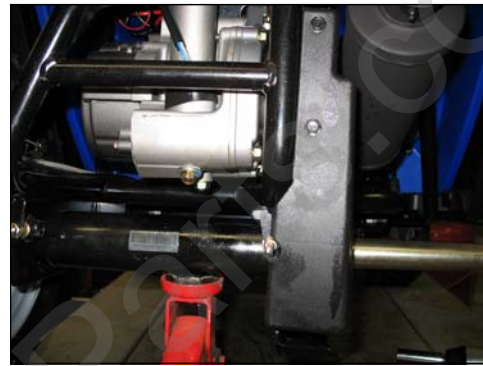
UKI Rover will not shift into gear properly

Step 7



Remove the transmission cover and the gasket.

Step 8



The shift motor is located on the rear of the gear box as shown in picture.

Step 9



Next remove the two Phillips head screws from the shift motor cover. This will expose the shift motor.

Step 10



The shift motor has to be pulled out to remove the knock block and shift fork assembly.



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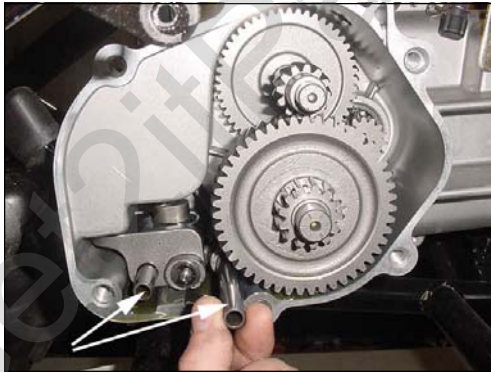
Service Bulletin

Bulletin No:
Date:

0048
12/08/06

UK1 Rover will not shift into gear properly

Step 11



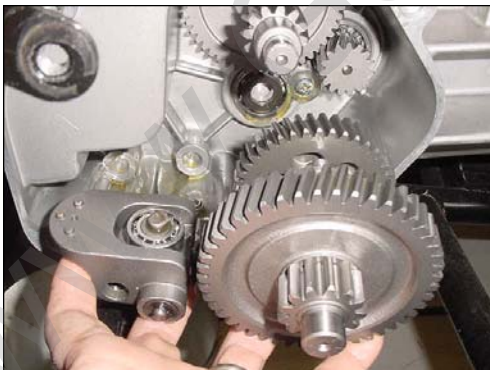
Remove the 2 pins from the shift push and the shift fork.

Step 12



Unscrew the bolt on the bottom of the transmission. This will release the spring and ball bearing. This bolt is located just in front of the drain bolt.

Step 13



Disassemble the transmission. First, remove the knock block, then remove the shift push and shift shaft as one piece as shown in picture.

Step 14



Now, install the new shift fork assembly.



Service Bulletin

Bulletin No:
Date:

0048
12/08/06

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Step 15



Now, reassemble the shift fork with the gear shift shaft, making sure that the washer is on the front side of this shaft as shown in picture.

Step 16



Make sure the cam is in this position as shown in picture when installing. This will make it easier to install the knock block once the assembly is in the transmission.

Step 17



Install the shift push and the gear shift shaft as one assembly as shown. The cam needs to be aligned into the indicator hole in the case. This will lock the shift push in place. Also, reinstall the pins as shown in step 11.

Step 18



Once the gears are installed, the knock block can be installed with a pair of needle nose pliers. Align it as shown in picture.



ETON America, LLC



Service Bulletin

Bulletin No:
Date:

0048
12/08/06

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Step 19



Install the gasket and the shift motor. The motor has a "D" shaped keyway that is keyed to the knock block. Make sure this is aligned.

Step 20



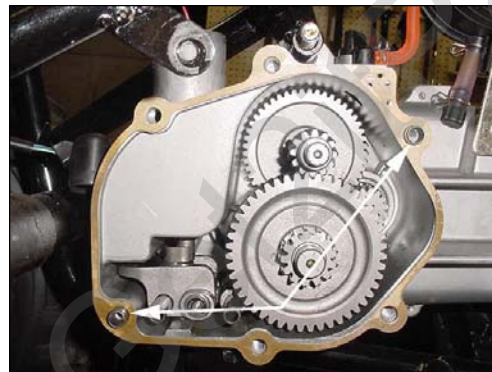
Connect the wires to the shift motor. The red wire connection has a red dot to ensure correct polarity. Now, install the shift motor cap in reverse order as shown in steps 8-10.

Step 21



Reinstall the ball bearing the spring and the bolt in reverse order from step 12. Also, reinstall the drain bolt as shown in step 5.

Step 22



Clean the transmission gasket surface. Install the two indicator pins as shown in picture. Now, reinstall the gasket and the transmission cover.



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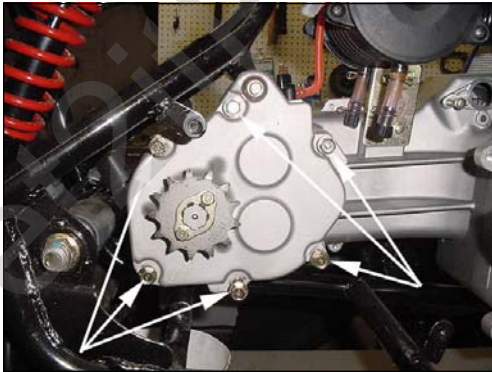


Service Bulletin

Bulletin No: 0048
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Step 23



Tighten the six cover bolts and the engine hanger bolt and nut as shown. Torque to 15-18ft lbs.

Step 24



Remove the filler plug and fill the transmission with 10.2oz, or 300cc of 80-90weight

Step 25



Now reinstall the following parts in reverse order of their removal. Start with the drive chain, the chain guard and the exhaust pipe.

Step 26



Reinstall the rear trunk, battery, and the CDI box. Test the operation of the transmission to make sure it is engaging in each gear.