Instruction Sheet

IS-99901A

TESTING FOR GLYCOL CONTAMINATION IN TRANSMISSION OIL

Revision A :

-This test is required for Allison automatic transmission **with or without** the "Retarder" option. -Note added.

MATERIAL

Kit #683904 includes the following parts :

Description	Qty
Test bottle and acid solution	1
White capsule	1
Purple capsule	1
Instruction sheet IS-99901	1
Feuille d'instructions FI-99901	1

PROCEDURE

Warning : Park vehicle safely, apply parking brake, stop engine and set battery master switch(es) to the OFF position prior to working on the vehicle.

- 1. Proceed with this test when engine is stopped and cold.
- 2. Locate the drain plug under the automatic transmission (figure 1).
- 3. Empty the content of the white capsule into the test bottle acid solution.
- 4. Unscrew the drain plug slightly and add approximately ¹/₄ inch of <u>well mixed oil sample</u> to the mixture.
- 5. Cap bottle tightly and shake vigorously for 1 minute then let the mixture settle for 5 minutes.
- 6. Add the content of the purple capsule. Replace the bottle cap and shake again for about 15 seconds.
- 7. Now let the bottle rest for approximately 30 minutes. You will notice the oil separating from the test liquid and rise to the top of the bottle. The test liquid will also change colour, indicating the amount of glycol in the oil sample.



Figure 1: automatic transmission

NOTE: The intent of this kit is to provide a reasonably priced test for glycol contaminants. However, testing for glycol in transmission oil is a less accurate method than oil analysis. If the test is positive, further and more testing should be done.

Generally speaking, if the test indicates a trace amount of glycol present, the unit shall be tagged for retesting in a short while to see if the glycol level increases. If the test is overwhelmingly positive, the next step should be a pressure test of the cooling system.

COLOUR INTERPRETATION

YELLOW OR PALE GREEN (*NEGATIVE*)

Test results are negative. No glycol was detected in the oil sample. No maintenance or other actions required. Recheck at the next inspection.

RUSTY RED (SLIGHT TRACE)

Indicates glycol at 50 parts per million (PPM) is present in the oil sample. Indicates there may be a very minor leak. Change oil and filter and recheck in 25 hours or 1000 km to monitor.

LIGHT PURPLE (TRACE)

Indicates glycol at 200 parts per million (PPM) is present in the oil sample. Indicates a definite coolant leak exists. Schedule required maintenance to locate and repair. Consult the maintenance manual of your vehicle.

PURPLE (*MODERATE*)

Indicates glycol at 500 parts per million (PPM) is present in the oil sample. Component requires immediate maintenance to locate and repair. Indicates a serious coolant leak. Further operation may result in rapid metal wear and permanent component parts damage. The transmission must be completely disassembled, inspected and cleaned. Friction clutch plates (manual transmission) contaminated with glycol must be replaced. Contact your nearest authorised Allison service centre.

DARK PURPLE (SEVERE)

Indicates glycol at 1000 parts per million (PPM) is present in the oil sample. Indicates a severe cooling system leak and probable permanent parts damage has already occurred. Continued operation can result in component seizure. Repair immediately. The transmission must be completely disassembled, inspected and cleaned. Friction clutch plates (manual transmission) contaminated with glycol must be replaced. Contact your nearest authorised Allison service centre.