



# HYUNDAI Technical Service Bulletin

Group	TRANSAXLE
Number	07-40-016
Date	NOVEMBER, 2007
Model	1999~ SONATA, 2001~ ELANTRA, SANTA FE & XG, 2003~ TIBURON, 2005~TUCSON, 2006~ AZERA, 2007~ ENTOURAGE

Subject

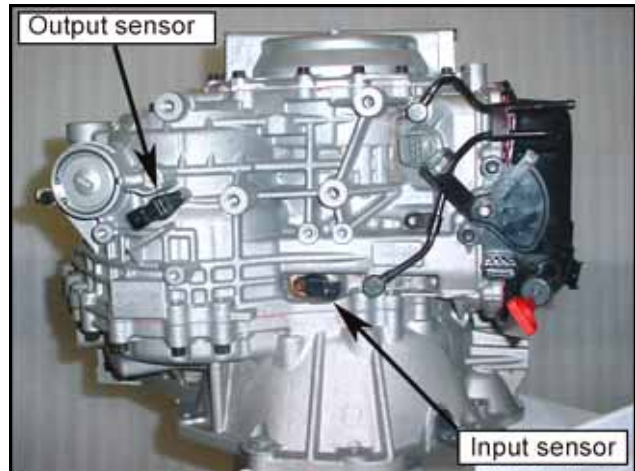
**AUTOMATIC TRANSAXLE DIAGNOSTIC TROUBLE CODES P0715, P0716, P0717, P0720, P0721 & P0722**

## DESCRIPTION:

**NOTE:** *This TSB updates TSB 05-40-011 to add repair information.*

An improperly functioning input speed sensor or output speed sensor may result in the following conditions:

- “Check Engine” light on
- Harsh P-R or P-D engagement shock
- Transaxle in 3rd gear fail-safe
- Diagnostic trouble codes shown on Page 2



## DIAGNOSIS AND REPAIR PROCEDURE:

1. Using a GDS or Hi-Scan, check for DTCs in both the “Engine” and “Automatic Transaxle” menus. **Record the DTC and description.**
2. From the GDS or Hi-Scan Pro, select:
  - Vehicle
  - “Auto Transaxle” menu
  - “Current Data”
  - “Input speed sensor” and “output speed sensor”. If both input and output speed sensors show:
    - Continuous and changing output, the wiring has no open/shorts. Go to Step 6.
    - No output, go to Step 3

3. Check the wiring harness visually for an open circuit or short circuit to ground. Check for a pinched harness at the ECU attachment bolts.
4. Disconnect the connectors at the input and output speed sensor and PCM/TCM and check for bent pins or pins not fully inserted into the connector. Check the pin tension using the J-35616-C Pin Tension Tester.
5. If a harness open/short is found, repair or replace the ECM control harness between the PCM/TCM and transaxle and go to Step 8. If not, go to Step 6.
6. **P0722 ONLY:** For 2006~ Sonata and 2007~ Santa Fe vehicles, check the ground bolt located under the passenger side dash. Confirm the bolt is clean and tight.



**2006~ SONATA 2.4L & 3.3L**



**2007~ SANTA FE 2.7L & 3.3L**

7. Follow the repair procedure below:

DTC	DESCRIPTION	REPAIR PROCEDURE
P0715	Input speed sensor - no signal	Replace input speed sensor
P0716	Input speed sensor - range/performance	
P0717	Input speed sensor - no signal	
P0720	Output speed sensor circuit	Replace output speed sensor
P0721	Output speed sensor - open/short	
P0722	Output speed sensor - no signal	
P0700, P1529	TCM MIL request to ECM	Erase code



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8. Drive the vehicle for at least two key-on to key-off driving cycles. If the codes:

- Do not set again, return the vehicle to the customer.
- Set again, go to step 9.

9. Replace the transaxle control module (TCM) or powertrain control module (PCM).

### PARTS INFORMATION:

MODEL	PART NAME	PART NUMBER
1999~ Sonata 2001~ Elantra 2001~ Santa Fe 2001~05 XG300/350	Input speed sensor	42620-39051
2003~ Tiburon 2005~ Tucson 2006~ Azera 2007~ Entourage	Output speed sensor	42621-39052

### WARRANTY INFORMATION:

MODEL	OP CODE	OPERATION	OP. TIME	OP. QTY	CAUSAL PART NO.	NATURE CODE	CAUSE CODE
1999~ Sonata	42620R00	Input speed sensor	0.3	1	See parts information	N26	C15
2001~ Elantra	42620RP0	Scan tool operation*	0.3				
2001~ Santa Fe	42620RQ0	GDS operation*	0.3				
2001~05 XG300/350							
2003~ Tiburon	42621R00	Output speed sensor	0.3				
2005~ Tucson	42621RP0	Scan tool operation*	0.3				
2006~ Azera	42621RQ0	GDS operation*	0.3				
2007~ Entourage							

**NOTE:** \*Only one (1) Diagnostic labor operation (Hi-Scan or GDS) allowed per R.O.