KIA F4E-lll
ERRONEOUS GEAR RATIO DTC's

COMPLAINT: Kia vehicles, equipped with the F4E-lll transaxle, such as the Sephia, Rio or Spectra may produce erroneous gear ratio codes (P0731, 32, 33 and/or 34), transmission range signal malfunction (P0705) and/or converter clutch malfunction code (P0740) without observing incorrect data or experiencing any malfunction.

CAUSE: Prior to 10/18/00, certain driving conditions would prompt the computer to produce these codes. The TCM in vehicles built after 10/18/00 utilizes a revised diagnostic routine which de-sensitized the setting of these codes.

CORRECTION: The TCM did not receive a part number change when this new TCM logic was implemented. Check the production date of the vehicle. If October 18, 2000 or later is the production date of the vehicle, the updated TCM should be in the vehicle. It is possible that the TCM may have been previously exchanged with an earlier version. If there is any doubt, locate and remove the TCM under the dash and to the left of the steering column. On the TCM is a white label with the word Bosch written in the upper left corner (See Figure 1). To the right it says "Made in Korea." Underneath those words is a 6 digit number which provides the build date. The year, then the month and then the day is displayed. The example in Figure 9 is May 30, 2001. October 18, 2000 would appear as 001018. Any TCM built before this date will need to be updated.

The Inhibitor Switch may also need to be replaced. It was updated November 22, 2001 and will have a stamping on the side of the switch with the same dating sequence as on the TCM, i.e.; 011122. If the Inhibitor Switch has an earlier date, replacement with a new switch is recommended Figure 2 provides a continuity check chart for the Inhibitor Switch as well as an electrical wire diagram in the event further testing is required.

SERVICE INFORMATION:

Sephia TCM...*0K2AB 18 9E0B*
Spectra TCM..*0K2AB 18 9E0B*
Rio TCM...*0K32B 18 9E0*
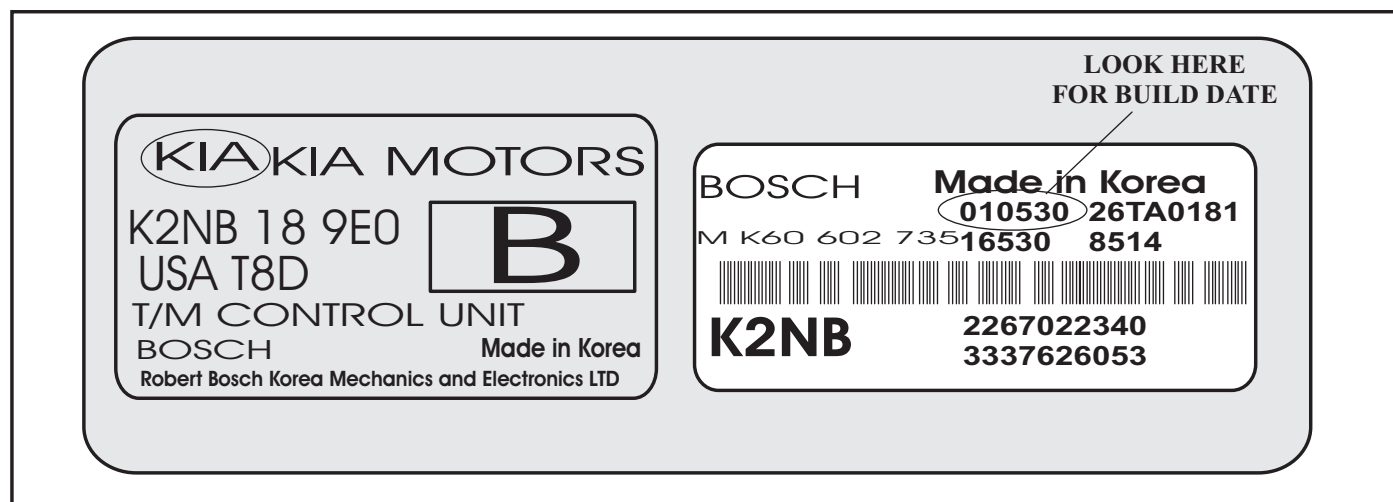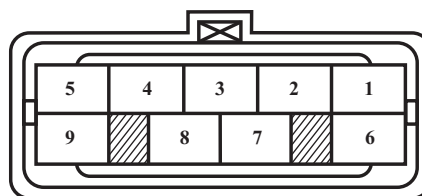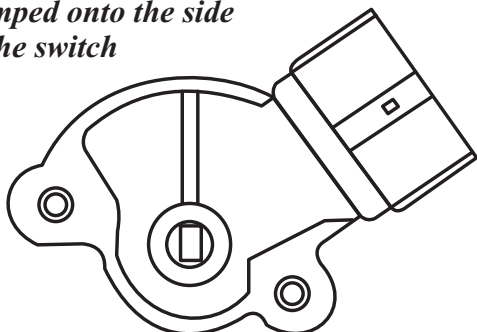

Figure 1

ERRONEOUS DTC's

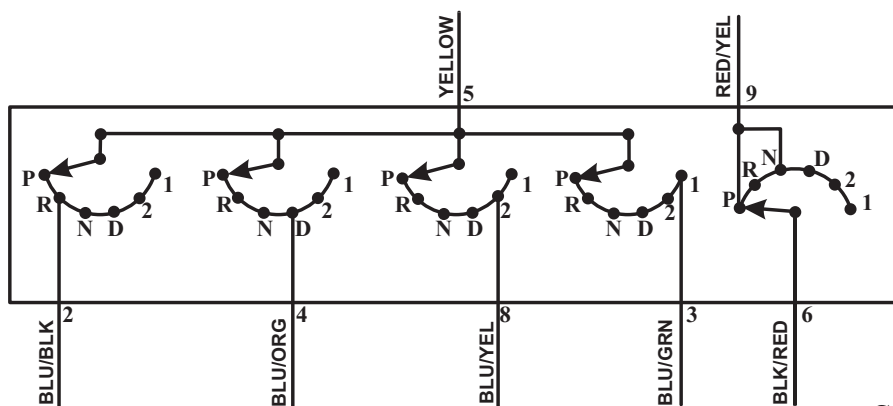*Check for build date stamped onto the side of the switch*

Inhibitor Switch Terminal ID

Position / Range	Connector Terminal								
	5	4	3	2	1	9	8	7	6
PARK	●				○				
						○			○
R	●			○					
N	●							○	
						○			○
D	●	○							
2	●						○		
1	●		○						

Continuity Check Chart

Figure 2