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GROUP	MODEL	
General	All Models	
NUMBER	DATE	
064	April 2013	

TECHNICAL SERVICE BULLETIN

DTC SCANNING TECHNIQUES AND BEST PRACTICES

One of the first steps in diagnosing a DTC related concern on a vehicle is to check for *active*, *pending*, and *history* diagnostic trouble codes (DTCs) using the GDS scan tool. <u>It is crucial to</u> <u>scan for and save DTCs in all systems when starting the diagnostic process.</u>

SCANNING FOR DTCs USING THE "SELECT ALL" BUTTON

Beginning with the latest GDS software update, a new feature exists that facilitates the scanning of DTCs in all systems. This new feature is accessed via the "Select All" button and can be found in the GDS VIN Search screen. Follow the procedure below for detailed instructions.

1. Click on the "Select All" button, and then click on the "Fault Code Searching" button.





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2. When the GDS has finished checking all modules, click on the "Print" button to create a screen capture(s) of the results.

 State: Completed 			
System	Code	Description	State
ENGINE - Engine Control		No Error Code Found.	
AT - Automatic Transaxle		No Error Code Found.	
ESC - Electronic Stabilit		No Error Code Found.	
re AIRBAG - Airbag(Event		No Error Code Found.	1
AIRBAG - Airbag(Event		No Error Code Found.	
AIRBAG - Weight Classif		No Error Code Found.	BAR SALES
AIRCON - Air Conditioner		Communication Fail / Check whether system is install	
EPS - Motor Driven Pow		No Error Code Found	
BCM - Body Control Mo		DTC is not supported for this system	
IMMO - Immobilizer		- DTC is not supported for this system	
C PIC - Power Distribution		Communication Fail / Check whether system is install.	
PIC - Smart Key Unit		Communication Fail / Check whether system is install	
PIC - Smart Key Code S		DTC is not supported for this system	
TPMS - Tire Pressure M	C1314	Sensor 3 Radio Frequency Channel Failure	History
CODE - Transmitter Cod		DTC is not supported for this system	
Colored Contemp			
Selected System :			
kiat			and the second second
60101	HOTPIX	GO TO DTC Amarysis	COLUMN TWO IS
	-	AND ADDRESS OF THE OWNER OWNER OF THE OWNER	
Retry Code Searchi	ng	All Erase Stop	STATISTICS IN CONTRACTOR

	Drin	Close	
-	FIII	Close	

3. Click on the "Send to File" button to save the screenshot.

System	Code Description	State
ENGINE - Engine Control	No Error Code Found	
AI - Automatic Transade	No Error Code Found.	
ESC - Electronic Stabilit	No Error Code Found	
AIDBAC Airb ar/Errort	No Error Code Found	
AIRBAG - Airbag(Event	GDS Capture and Print	
AIRBAG - Airbag(Event		
AIRCON Air Conditioner	Minister and Annual Statement of Concession, S	and the second se
EDS Dever Steering	Select Capture / Print Area	
RCM Cluster Medule	6 E-1 - 000 Law	
BCM - Cluster Module	" Entire GUS Area	
BCM - Smart Junction Box	C Entire area of single-mode	
BCM - Body Control Mo	C Upper area of dual-mode	
IMMO - Immobilizer	C Bottom area of dual mode	
PIC - Smart Key Unit	Columnates of dual-mode	
AHLS - Auto Headlamp	C Select Region	
TPMS - Tire Pressure M	- Einclude Vehicle Info	
CODE - Transmitter Cod.		
	Send to File Send to Print	
	annen annen anne	
	Concept and the second s	
	Cancel	
1		
Selected System :		
Go To	Hot Fix Go To DTC Ana	llysis
Retry Code Search	ng All Erase	Stop

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4. For more information on each DTC, highlight the DTC by clicking on it and then click on the "Go To DTC Analysis" button.

	Fault Code Searching				
GD	State: Completed				arch
Contraction of the local division of the loc	System	Code	Description	State	and the second s
Vehicle	ENGINE - Engine Control		No Error Code Found		
	AT - Automatic Transade		No Error Code Found		
Dr	ESC - Electronic Stabilit		No Error Code Found		
FI	AIRBAG - Airbag(Event		No Error Code Found	New York Company	and the second
	AIRBAG - Airbag(Event		No Error Code Found.		
Vehic	AIRBAG - Weight Classif		No Error Code Found.		A State of the
	AIRCON - Air Conditioner		Communication Fail / Check whether system is install.		and the second se
Hot Fi	EPS - Motor Driven Pow		No Error Code Found		io
	BCM - Body Control Mo		DTC is not supported for this system		
. P. DT	IMMO - Immobilizer		DTC is not supported for this system		
• By DI	PIC - Power Distribution		Communication Fail / Check whether system is install		and the second second
	PIC - Smart Key Unit		Communication Fail / Check whether system is install		10000
By Sy	RIG . Smart Key Code S		- GTC is not supported for this system		
+By Mc	CODE - Transmitter Cod	C1314	Sensor 3 Radio Frequency Channel Failure DTC1s not supported for this system	History	
*By VII					
Go	Selected System :				
The seating of	Golob		Go To DTC Analysis		
and the second sec					
Section of the	Retry Code Searchin	ng	All Erase Stop		a statement of
and the second					A DESCRIPTION OF THE
Setup Manu		Prin	Close		de Internet Update

 Also, it is good practice to always check Freeze Frame Data for all DTCs. Go to the system (e.g. Engine, A/T) where the DTC was recorded, click on Current Data > DTC > Freeze Frame to view the details. Save and print a screen capture(s) of these, if available.

GD	Preparation Diagnosis Ve	hicle S/W Management	Repair	0
Vehicle DOPTIMA(TR	/QF)/2013/G 2.4 GDI System	Engine/Engine Control		1
Diagnosis	🚪 Freeze Frame	The second second	a start of the second	
Basic Inspection	DTC CAUSE TO SYSTEM ERROR : P0079			
OTC Analysis	Sensor Name	Valu	Unit	1.
	Engine Coolant Temperature	11	5 F	
DTC List	Engine Speed	111	5 RPM	
P0079:Exhaust Valve Co	Absolute Throttle Position Sensor-A	12.	1 5	
General Information	Absolute Throttle Position Sensor-B	11.	5	
DTC Information	Vehicle Speed	1	MPH	
Specification	Fuel System Status-Bank1	CLOS		
DTC Inspection	Short Term Fuel Trim-Bank1	-5.	5 %	
Component Inspection	Long Term Fuel Trim-Bank1	5.1	5 %	
Whing Inconstien	Ignition Timing Advance	15.	5	
a winng inspection	Intake Air Temperature Sensor	9	F	
Verification of Repair	Intake Manifold Pressure		l psi	
Component Location	Fuel Level(Option)	2.	5	
III ETM	Relative TPS	3.	1.5	
	Battery Voltage	14.3	v v	
	A/F Ratio	1.0	- Children and State	
	Time Since Engine Start	3.	Sec	
	Command Evaporative Purge	2.3	5	
	Accelerator Pedal Position Sensor-1	14.5	5	
ata Analysis	Commanded Throttle Actuator	3.5	5	
	Barometric Pressure Sensor	15	psi	
ase Analysis	Absolute Load	18.0	5	
No. M. Dansad	Accelerator Pedal Position Sensor-2	14.3	5	
igni Record	Ambient Temperature	43	F	
a cillan como	Air Flow Rate from Mass Air Flow Sensor		g/s	
Oscaroscope Oxygen Sensor Adaptation-Bank1		0.0	5	-
ARB OBD-II	Oxygen Sensor Adaptation-Bank2	4.3	15	
		1000 H1000	DTC Found	-
Manual TSB	Case Analysis DTC Current Data Actuation Flight Re	cord DVOM Oscilloscone	Fault Code FCII Ungrad	intern

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6. All DTCs found during this initial check must be recorded by the technician in the repair order, specifying whether each was listed as *active*, *pending*, or *history*. All DTCs must also be entered in the "DTC" field when submitting a warranty claim. Include the phrase "Scanned all systems for DTCs and found..." in the warranty claim notes.

Getting the "full picture" of all of a vehicle's systems is not only helpful to technicians in diagnosing the problem correctly the first time, it also enables the Kia Technical Assistance Hotline to provide better advice, lays the foundation for quicker product quality improvements, and decreases the chances of a warranty chargeback.