## NO.7 CHARGING SYSTEM WARNING LIGHT ILLUMINATES/MESSAGE "Charging System Inspection Required" IS INDICATED IN TFT LCD [SKYACTIV-D 2.2]

id0103g1879100

7	CHARGING SYSTEM WARNING LIGHT ILLUMINATES/MESSAGE "Charging System Inspection Required" IS INDICATED IN TFT LCD		
DESCRIPTION	"Charging System Inspection Required" is displayed in the TFT LCD. (with TFT LCD)		
DESCRIPTION	Charging system warning light illuminates. (without TFT LCD)		
	Erratic signal to PCM		
	Generator or related circuit malfunction		
POSSIBLE CAUSE	Battery malfunction		
	Generator malfunction		
	Instrument cluster malfunction		

## **Diagnostic Procedure**

STEP	INSPECTION	RESULTS	ACTION	
1	VERIFY PCM DTC	Yes	Go to the applicable DTC inspection.	
	Retrieve PCM DTCs using the M-MDS.		(See DTC TABLE [SKYACTIV-D 2.2].)	
	(See ON-BOARD DIAGNOSTIC TEST	No	Go to the next step.	
	[SKYACTIV-D 2.2].)			
	Are any DTCs present?			
2	VERIFY CURRENT INPUT SIGNAL STATUS	Yes	Inspect the related sensor and circuit.	
	Caution  • While performing this step, always operate the vehicle in a safe and lawful manner.		If there is any malfunction:     Repair or replace the malfunctioning part according to the inspection results, then go to Step 6.  If there is no malfunction:	
	When the M-MDS is used to observe		Go to the next step.	
	monitor system status while driving, be sure to have another technician with you, or record the data in the M-MDS using the PID/DATA MONITOR AND RECORD capturing function and inspect later.	No	Go to the next step.	
	Access the following PIDs using the M-MDS:     (See ON-BOARD DIAGNOSTIC TEST     [SKYACTIV-D 2.2].)     — ALTT V     Do the PIDs indicate the correct values under the malfunction condition?			
	(See PCM INSPECTION [SKYACTIV-D 2.2].)			
3	INSPECT BATTERY	Yes	Go to the next step.	
	Inspect the battery. (See BATTERY INSPECTION [SKYACTIV-D 2.2].)  Is the battery normal?	No	Recharge or replace the battery, then go to Step 6. (See BATTERY RECHARGING [SKYACTIV-D 2.2].) (See BATTERY REMOVAL/INSTALLATION [SKYACTIV-D 2.2].)	
4	INSPECT GENERATOR	Yes	Go to the next step.	
	Inspect the generator.     (See GENERATOR INSPECTION [SKYACTIV-D 2.2].)     Is the generator normal?	No	Repair or replace the malfunctioning part according to the inspection results, then go to Step 6. (See GENERATOR REMOVAL/INSTALLATION [SKYACTIV-D 2.2].)	
5	INSPECT INSTRUMENT CLUSTER	Yes	Go to the next step.	
	Inspect the instrument cluster.     (See INSTRUMENT CLUSTER INSPECTION.)     Is the instrument cluster normal?	No	Replace the instrument cluster, then go to the next step. (See INSTRUMENT CLUSTER REMOVAL/INSTALLATION.)	
6	Verify the test results.			
	<ul> <li>If normal, return to the diagnostic index to service any additional symptoms. (See SYMPTOM DIAGNOSTIC INDEX [SKYACTIV-D 2.2].)</li> <li>If a malfunction remains, inspect the related Service Information and perform the repair or diagnosis.  — If the vehicle is repaired, troubleshooting is completed.  — If the vehicle is not repaired or additional diagnostic information is not available, replace the PCM. (See PCM REMOVAL/INSTALLATION [SKYACTIV-D 2.2].)</li> </ul>			