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2009 NISSAN GT-R (R35) OEM Service and Repair Workshop Manual

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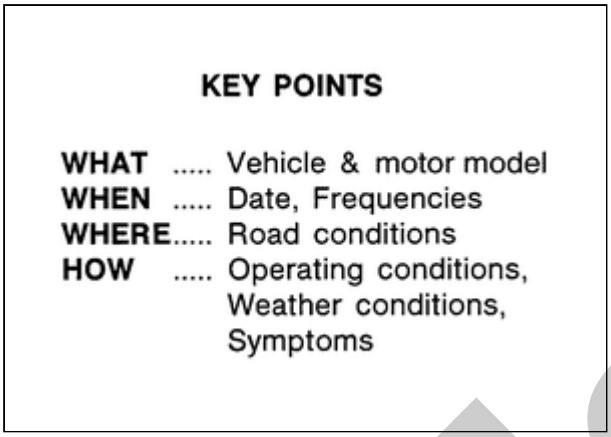
DESCRIPTION

There are many operating conditions that lead to the malfunction of EV battery system. A good grasp of such conditions can make troubleshooting faster and more accurate.



SIEMD-16389300720980-01-SCIA0412GB

In general, each customer feels differently about symptoms. It is important to fully understand the symptoms or conditions of customer complaint.

Utilize the diagnostic worksheet in order to organize all the information for troubleshooting.

NOTE:
Duplication of some conditions may cause DTC to be detected.

WORKSHEET SAMPLE

Question Sheet						
Customer name MR/MS		Incident Date			VIN	
		Model & Year			In Service Date	
		Trans.			Mileage	km/mile
Symptoms		☐ Does not switch to READY		☐ EV system warning lamp is on		☐ Power limitation indicator lamp is on
		☐ Water leak*	☐ Noise*	☐ Vibration*	☐ Shock*	☐ Gear noise*
		☐ Unable to drive*	☐ Poor acceleration*		☐ Poor torque*	☐ Radio noise*
		☐ Does not charge		☐ Other*		*: If applied, enter in detail
		Detailed symptom				
		Onomatopoeia				
Frequency		☐ All the time	☐ Once	☐ Sometimes (times a day)		☐ Others
Charging condition		☐ Full	☐ Medium	☐ Low		
Weather conditions		☐ Not affected				
	Weather	☐ Fine	☐ Cloudy	☐ Raining	☐ Snowing	☐ Others ( )
	Temp.	☐ Hot	☐ Warm	☐ Cool	☐ Cold	☐ Temp. [Approx. °C (°F)]

Question Sheet						
	Humidity	☐ High	☐ Middle	☐ Low	☐ Humidity (Approx. %)	
Road conditions		☐ Not affected	☐ In town	☐ Freeway	☐ Off road (Up / Down)	☐ Rough road
		☐ Flat road	☐ While turning (Right / Left)		☐ Bump	
		☐ Others				
Shift position		☐ Not affected				
		☐ P position	☐ R position	☐ N position	☐ D position	☐ ECO mode
Driving conditions		☐ Not affected				
		☐ Power switch ON → OFF		☐ Power switch OFF → ON		☐ READY (stopping vehicle)
		☐ While cruising	☐ While decelerating	☐ Just before stopping	☐ Just after stopping	☐ D position (stopping vehicle)
		☐ While recharging		☐ Other		
		☐ Vehicle speed [km/h (MPH)]			☐ Accelerator pedal (/ 8)	
		☐ Battery level (Low / Middle / High)				
Moments when symptom disappears		☐ Disappears while driving		☐ Disappears when stopped		☐ Disappears with shift operation
		☐ Disappears when power switch is pushed OFF		☐ Disappears when battery charge is stopped		☐ Does not disappear
		☐ Others				
Others						

Description

SIEMD-7377562

This function enables the writing of Li-ion battery (LBC) data saved in CONSULT into a new LBC.

For details, refer to Work Procedure.

1. PERFORM WRITE BATTERY INFORMATION DATA

With CONSULT

1. Select “Work Support” mode of “HIGH VOLTAGE BATTERY”.
2. Select “WRITE BATTERY INFORMATION DATA”.
3. Write LBC data saved in CONSULT into a new LBC.

>>

WORK END

Description

When replacing some of modules, the following procedure must be performed. For replacing all of modules, this procedure is not required. (For details, refer to Work Procedure.)

1. CHECK MAXIMUM CELL VOLTAGE

With CONSULT

1. Power switch ON.
2. Select “Data Monitor” of “HIGH VOLTAGE BATTERY”.
3. Record “Maximum cell voltage”.

NOTE:
When adjusting module voltage, “Maximum cell voltage” is required.

>>

GO TO 2.

2. REMOVAL OF MODULE

Remove module.

- Refer to Disassembly & Assembly.
- Refer to Disassembly & Assembly.

>>

GO TO 3.

3. ADJUSTMENT OF MODULE VOLTAGE

Adjust the voltage of module requiring replacement. Refer to Work Procedure.

>>

GO TO 4.

4. INSTALLATION OF MODULE

Install new module.

- Refer to Disassembly & Assembly.
- Refer to Disassembly & Assembly.

>>

WORK END

Work Item List

SIEMD-7377028

When replacing Li-ion battery assembly or parts in Li-ion battery, refer to the following table. The numbers included in the table represent the work sequence.

Supplementary work			Replacing parts				Reference
			Li-ion battery assembly (With LBC)	LBC	Some of modules	Battery junction box	
LBC	Before replacing parts	Save battery information		1			Refer to Work Procedure.
	After replacing parts	LBC programming		1			Refer to Work Procedure.
		Write battery information		2			Refer to Work Procedure.
Module	Before replacing parts	Adjust module voltage			1		Refer to Work Procedure.

Description

When replacing Li-ion battery controller (LBC), the following procedures must be performed.

SIEMD-7377000

Work before replacement

The following procedure is performed before removing battery pack from vehicle.

1. SAVE THE LBC INTERNAL INFORMATION

With CONSULT

1. Select “HIGH VOLTAGE BATTERY” in “Work Support” mode.
2. Select "SAVE BATTERY INFORMATION DATA".
3. Save the LBC internal information.

>>

Replace Li-ion battery controller. Refer to Removal & Installation.

Work after replacement

1. PERFORM LBC PROGRAMMING

With CONSULT

Perform LBC programming according to procedure of "Replace ECU" in "CONSULT Instruction Manual". Refer to "CONSULT Instruction Manual".

CAUTION:
Keep the following conditions during the programming procedure.

- **Power switch ON**
- **All electrical loads are OFF**
- **Do not depress brake pedal**
- **Battery voltage is 12 V - 13.5 V (Check 12V battery voltage value with "12V battery voltage" displayed on CONSULT.)**

>>

GO TO 2.

2. WRITE THE LBC INTERNAL INFORMATION

With CONSULT

1. Select “HIGH VOLTAGE BATTERY” in “Work Support” mode.
2. Select “WRITE BATTERY INFORMATION DATA”.
3. Write the information that was read before LBC replacement.

>>

GO TO 3.

3. CHECK DTC