

# Your Ultimate Source for OEM Repair Manuals

FactoryManuals.net is a great resource for anyone who wants to save money on repairs by doing their own work. The manuals provide detailed instructions and diagrams that make it easy to understand how to fix a vehicle.

2015 Nissan Armada Service and Repair Manual

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# **1. CHECK FUSIBLE LINK**

Check that the fusible link below is not blown.

Fusible link number	Capacity		
А	450 A		

Is the fusible link blown?

YES>>

Replace the fusible link after repairing the applicable circuit.

NO>>

#### <u>GO TO 2</u>.

# 2. CHECK 12V BATTERY POWER SUPPLY

- 1. Power switch OFF.
- 2. Disconnect DC/DC converter connector.
- 3. Check voltage between DC/DC converter vehicle side harness connector and ground.

+ DC/DC converter		_	Voltage	
Connector	Terminal			
H4	7	Ground	12V battery voltage	

Is the inspection result normal?

YES>>

INSPECTION END

NO>>

<u>GO TO 3</u>.

# **3. CHECK DC/DC CONVERTER GROUND CIRCUIT**

Check for continuation between the metal parts of the DC/DC converter (A) and ground.



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Is there continuation?

YES>>

#### <u>GO TO 4</u>.

NO>>

Repair or replace error-detected parts.

# 4. CHECK 12V BATTERY POWER SUPPLY CIRCUIT

- 1. Disconnect fuse block (J/B) connector.
- 2. Check for continuation between DC/DC converter vehicle side harness connector and battery terminal integrated fusible link vehicle side harness connector.

DC/DC co	onverter	Battery terminal w	Continuity	
Connector	Terminal	Connector	Terminal	Continuity
H4	7	НЗ	9	Existing

Is the inspection result normal?

YES>>

Check 12V battery power supply circuit.

NO>>

Repair or replace error-detected parts.

# **1. CHECK FUSE**

Check that the fuse below is not blown.

Fuse number	Capacity		
90	10 A		

Is the fuse blown?

YES>>

Replace the fuse after repairing the applicable circuit.

NO>>

#### <u>GO TO 2</u>.

# 2. CHECK 12V BATTERY POWER SUPPLY

- 1. Disconnect On-board charger connector.
- 2. Check voltage between On-board charger vehicle side harness connector and ground.

+			
On-board charger			Voltage
Connector	Terminal		
E30	1	Ground	12V battery voltage

Is the inspection result normal?

YES>>

INSPECTION END

NO>>

<u>GO TO 3</u>.

# 3. CHECK ON-BOARD CHARGER GROUND CIRCUIT

1. Power switch OFF.

2. Disconnect On-board charger harness connector.

3. Check for continuation between the On-board charger harness connector and ground.

+				
On-board o	charger	-	Continuity	
Connector	Terminal			
E30	6	Cround	Existing	
ESU	12	Ground	EXISTING	

#### Is the inspection result normal?

Check 12V battery power supply circuit.

NO>>

Repair or replace error-detected parts.

#### WARNING:

Hybrid vehicles and electric vehicles equipped with high voltage batteries may cause an electric shock or a short circuit if handled in an inappropriate way. When you inspect and service a vehicle, follow the work procedure and perform the correct tasks.

#### WARNING:

- When you inspect and service the high voltage wiring harnesses and components, make sure to remove the service plug in order to shut off the high voltage circuit.
- When you have removed the service plug, be sure to carry it in your pocket, or store it in the tool box in order to keep someone from accidentally connecting it during work.
- When performing high voltage system operation, be sure to wear insulating protective equipment.
- During tasks involving high voltage systems, clarify a person in charge of the tasks and do not let others touch the vehicle. When the vehicle is not being serviced, use protective items such as an electric-proof cover sheet for covering the high voltage components so as to keep someone from accidentally touching the vehicle.
- Refer to <u>HIGH VOLTAGE PRECAUTIONS : Precautions</u>.

#### **CAUTION:**

Setting the vehicle to the READY state with the service plug removed may cause malfunctioning. Avoid setting the vehicle to the READY state unless otherwise specified in the service manual.

### **1. CHECK HIGH VOLTAGE JUNCTION BOX INSULATION RESISTANCE**

- 1. Remove the On-board charger from the vehicle. Refer to HIGH VOLTAGE JUNCTION BOX : Disassembly & Assembly.
- 2. Check the insulation resistance between the high voltage junction box and the On-board charger body using an insulation resistance tester.

#### WARNING:

Unlike the ordinary tester, the insulation resistance tester applies 500V when measuring. If used incorrectly, there is the danger of electric shock. If used in the 12V system, there is the danger of damage to electronic devices. Read the insulation tester instruction manual carefully and be sure to work safely.

#### **CAUTION:**

- Set the insulation resistance tester to 500V.
- Since the tester is polarized, check the polarity of the tester that is used and connect it in the forward direction of the circuit.
- Wait for about 30 seconds until the value stabilizes.
- If the inspection result has no continuation, check that the parts are correctly installed.

+				
High voltage junction box		-	Resistance	
Connector		Terminal		
DTC bester terring	111	13	High voltage junction box body	More than $50M\Omega$
PIC neater terminal	ні	14		
Inverter (front) terminal	H10	Р		

+		
High voltage junction box		
Connector		Terminal
		Ν
Electric communes terminal III11	1111	18
Electric compressor terminar	пп	19
DC/DC converter terminal	U12	36
DC/DC converter terminar	піз	37
On board charges terminal	II1E	33
On-board charger terminal	піз	34



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A	DC/DC converter terminal	B	On-board charger terminal	©	Inverter (front) terminal
D	Electric compressor terminal	E	PTC heater terminal		

Is the inspection result normal?

YES>>

INSPECTION END

NO>>

Replace high voltage junction box. Refer to HIGH VOLTAGE JUNCTION BOX : Disassembly & Assembly.

#### DANGER:

Since hybrid vehicles and electric vehicles contain a high voltage battery, there is the risk of electric shock, electric leakage, or similar accidents resulting in death or severe injury, if high voltage components and vehicle are mishandled. When performing an inspection or maintenance, be sure to comply with the instructions below to perform correct work procedures.

#### WARNING:

- Be sure to remove the service plug in order to disconnect the high voltage circuits before performing inspection or maintenance of high voltage system harnesses and parts.
- The removed service plug must always be carried in a pocket of the responsible worker or placed in the tool box during the procedure to prevent the plug from being connected by mistake.
- Be sure to wear insulated protective equipment before beginning work on the high voltage system.
- Never allow workers other than the responsible person to touch the vehicle containing high voltage parts. To keep others from touching the high voltage parts, these parts must be covered with an insulating sheet except when using them.

#### **CAUTION:**

- Be sure to install the high voltage harness clips to the original positions to prevent damage to high voltage harness. If the clips are damaged, replace them with new ones before installing the high voltage harness.
- To prevent damage to parts, never allow coolant to splash on the high voltage harness connector. If coolant splashes on the high voltage harness connector, immediately remove moisture from the high voltage harness connector by using an air blow gun.
- Never bring the vehicle into the READY status with the service plug removed unless otherwise instructed in the Service Manual. A malfunction may occur if this is not observed.

# POINT TO BE CHECKED BEFORE STARTING MAINTENANCE WORK

The high voltage system may starts automatically. It is required to check that the charge cable (including EVSE) is not connected to charge port before starting maintenance work.

# WNOTE:

If the timer air conditioner or timer charge is set when the EVSE is connected, the high voltage system starts automatically even when the power switch is in OFF state.

# HIGH VOLTAGE HARNESS AND EQUIPMENT IDENTIFICATION

All the high voltage harnesses and connectors are orange. The Li-ion battery and other high voltage devices include an orange high voltage label. Never touch these harnesses and high voltage parts.

# HANDLING OF HIGH VOLTAGE HARNESS AND TERMINALS

Immediately insulate disconnected high voltage connectors and terminals with insulating tape.

# **GUIDELINES ON WORKERS WITH MEDICAL ELECTRONICS**

WARNING:

The vehicle contains parts that contain powerful magnets. If a person who is wearing a heart pacemaker or other medical device is close to these parts, the medical device may be affected by the magnets. Such persons must not perform work on

# PROHIBITED ITEMS TO CARRY DURING THE WORK

Hybrid vehicles and electric vehicles contain parts with high voltage and intense magnetic force. Never carry metal products and magnetic recording media (e.g. credit card, debit card) to repair/inspect high voltage parts. If this is not observed, the metal products may create a risk of short circuit and the magnetic recording media may lose their magnetic recording.

# POST A SIGN OF "DANGER! HIGH VOLTAGE AREA. KEEP OUT"

Call the attention of other workers and indicate "High voltage work in progress." Do not touch vehicles where work is being performed on high voltage systems.

# DANGER: Person in charge: Person in charge: Person in charge:

# DANGER: HIGH VOLTAGE REPAIR IN PROGRESS. DO NOT TOUCH!

Person in charge:

Copy this page and put it after folding on the roof of the vehicle in service.

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