

# 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.

**1982 NISSAN Micra 3 Doors OEM Service and Repair Workshop Manual** 

Go to manual page

#### 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.

## 

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.

RDE-001941168-01-SAIA1600GB

#### WARNING:

Since dust covering the front and rear brakes has an effect on human body, the dust must be removed with a dust collector. Never splatter the dust with an air blow gun.

- Use the proper brake fluid. Refer to Periodic Maintenance Operation.
- Never reuse drained brake fluid.
- Never spill or splash brake fluid on painted surfaces. Brake fluid may seriously damage paint. Wipe it off immediately and wash with water if it gets on a painted surface. For brake component parts, never wash them with water.
- Always confirm the specified tightening torque when installing the brake pipes.
- After pressing the brake pedal more deeply or harder than normal driving, such as air bleeding, check each item of brake pedal. Adjust brake pedal if it is outside the standard value.
- Always clean with new brake fluid when cleaning the brake caliper and other components.
- Never use mineral oils such as gasoline or light oil to clean. They may damage rubber parts and cause improper operation.
- Always loosen the brake tube flare nut with a flare nut wrench.
- Tighten the brake tube flare nut to the specified torque with a crowfoot (A) and torque wrench (B).



• Turn the power switch OFF and disconnect CONSULT from data link connector. Get out of the vehicle, close all doors (including back door), check that the room lamp is OFF, and wait for 3 minutes or more without opening these doors. Disconnect the ABS actuator and electric unit (control unit) harness connector or the 12V battery negative terminal before performing the work. Refer to <u>Precautions</u>.

#### CAUTION: Never operate the vehicle.

- Check that no brake fluid leakage is present after replacing the parts.
- Burnish the brake contact surfaces after refinishing or replacing rotors, after replacing pads, or if a soft pedal occurs at very low mileage.
  - Front brake pad: Refer to Periodic Maintenance Operation.
  - Front disc rotor: Refer to Periodic Maintenance Operation.
  - Rear brake pad: Refer to Periodic Maintenance Operation.
  - Rear disc rotor: Refer to <u>Periodic Maintenance Operation</u>.
- When the brake pedal is operated, an operating sound may be heard from the electrically-driven intelligent brake unit. This occurs when the electrically-driven intelligent brake unit is operating sound and is not a malfunction.
- When the brake pedal is depressed when the EV system is not started, the brake pedal will feel heavy and the stroke will be shorter. When the unfamiliar feeling disappears and the brake warning lamp is OFF after the brake pedal was depressed, then

this is not a malfunction. When the brake warning lamp is ON, use CONSULT and perform the "BRAKE" self diagnosis.

- When there is a malfunction in the power system of the electrically-driven intelligent brake unit (no voltage is generated), voltage is temporarily supplied to the electrically-driven intelligent brake unit from the brake power supply backup unit. At the same time, the brake warning lamp (red) and brake system warning lamp (yellow) turn ON, and the warning buzzer sounds.
- When a malfunction occurs in the electrically-driven intelligent brake unit, the VDC function performs control (boost operation).
- When a malfunction occurs in the PDM (Power Delivery Module) and 12V battery, the braking force is determined by the force pressing on the brake pedal (no boost operation). At the same time, the brake warning lamp (red) and the brake system warning lamp (yellow) turns ON.
- When a malfunction occurs in the electrically-driven intelligent brake and in the VDC function, the braking force is determined by the force pressing on the brake pedal (no boost operation). At the same time, the brake warning lamp (red) and brake system warning lamp (yellow) turn ON.
- When a malfunction occurs in the electrically-driven intelligent brake, VDC function, and power system, then cooperative regenerative brake control is not performed.
- When a malfunction occurs in the brake power supply backup unit, the brake system warning lamp (yellow) turns ON.

DE-001824825

- With the adoption of Auto ACC function, ACC power is automatically supplied by operating the Intelligent Key or remote keyless entry or by opening/closing the driver side door. In addition, ACC power is supplied even after the ignition switch is turned to the OFF position, i.e. ACC power is supplied for a certain fixed time.
- When disconnecting the 12V battery terminal, turn off the ACC power before disconnecting the 12V battery terminal, observing "How to disconnect 12V battery terminal" described below.



#### **NOTE:**

ECU may be active for several minutes after the power switch is turned OFF. If the battery terminal is removed before ECU stops, then a DTC detection error or ECU data corruption may occur.

- Disconnect 12V battery terminal according to the following steps. Even when the power switch is OFF, the 12V battery automatic charge control may automatically start.
- CAUTION:

Do not remove the battery during the update as the software update cannot be completed normally if the battery is removed during the software update.

## WORK PROCEDURE

- 1. Open the hood (LHD models) or the back door (RHD models).
- 2. Check that charge cable (including EVSE) is not connected to the charge port.

### **WNOTE:**

If charge cable (including EVSE) is connected, the air conditioning system may be automatically activated by the timer A/C function.

3. Turn the power switch OFF  $\rightarrow$  ON  $\rightarrow$  press the power switch for at least 2 seconds to turn the high voltage system OFF, and then check that the charging status indicator is not illuminated.



When the high voltage system is turned ON, the charging status indicator blinks green with a frequency of 1 second.

- 4. Get out of the vehicle. Close all doors {except the hood (LHD models) or the back door (RHD models)}.
- 5. Check that the combination meter turns OFF and wait for 5 minutes or more.

While waiting, never operate the vehicle such as locking, opening, and closing doors. Violation of this caution results in the activation of ACC power supply according to the Auto ACC function.

## WNOTE:

If the battery is removed within 5 minutes after the power switch is turned OFF, plural DTCs may be detected.

- 6. Check that the followings are not illuminated.
  - Charging status indicator
  - Electric parking brake warning lamp
- 7. Remove 12V battery terminal within 60 minutes after the power switch is turned OFF at Step 3.

#### **CAUTION:**

- After all doors (including hood and back door) are closed, if a door (including hood and back door) is opened before battery terminals are disconnected, start over from Step 3.
- After turning the power switch OFF, if "Remote A/C" is activated by user operation, stop the air conditioner and start over from Step 3.

**WNOTE:** 

Once the power switch is turned ON  $\rightarrow$  OFF, the 12V battery automatic charge control does not start for approximately 1 hour.

• For vehicles with the 2-batteries, be sure to connect the main battery and the sub battery before turning ON the power switch.

## **WNOTE:**

If the power switch is turned ON with any one of the terminals of main battery and sub battery disconnected, then DTC may be detected.

• After installing the 12V battery, always check "Self Diagnosis Result" of all ECUs and erase DTC.



The removal of 12V battery may cause a DTC detection error.

## PRECAUTIONS FOR PROCEDURE WITHOUT COWL TOP COVER : Precautions

When performing the procedure after removing cowl top cover, cover the lower end of windshield with urethane, etc to prevent damage to windshield.



## PRECAUTIONS FOR TECHNICIANS USING MEDICAL ELECTRIC : Precautions

## **OPERATION PROHIBITION**

#### WARNING:

- Parts with strong magnet is used in this vehicle.
- Technicians using a medical electric device such as pacemaker must never perform operation on the vehicle, as magnetic field can affect the device function by approaching to such parts.

### NORMAL CHARGE PRECAUTION

#### WARNING:

- If a technician uses a medical electric device such as an implantable cardiac pacemaker or an implantable cardioverter defibrillator, the possible effects on the devices must be checked with the device manufacturer before starting the charge operation.
- As radiated electromagnetic wave generated by PDM (Power Delivery Module) at normal charge operation may affect medical electric devices, a technician using a medical electric device such as implantable cardiac pacemaker or an implantable cardioverter defibrillator must not approach motor room [PDM (Power Delivery Module)] at the hood-opened condition during normal charge operation.

## PRECAUTION AT TELEMATICS SYSTEM OPERATION

#### WARNING:

- If a technician uses implantable cardiac pacemaker or implantable cardioverter defibrillator (ICD), avoid the device implanted part from approaching within approximately 220 mm (8.66 in) from interior/exterior antenna.
- The electromagnetic wave of TCU might affect the function of the implantable cardiac pacemaker or the implantable cardioverter defibrillator (ICD), when using the service, etc.
- If a technician uses other medical electric devices than implantable cardiac pacemaker or implantable cardioverter defibrillator (ICD), the electromagnetic wave of TCU might affect the function of the device. The possible effects on the devices must be checked with the device manufacturer before TCU use.

### PRECAUTION AT INTELLIGENT KEY SYSTEM OPERATION

#### WARNING:

- If a technician uses implantable cardiac pacemaker or implantable cardioverter defibrillator (ICD), avoid the device implanted part from approaching within approximately 220 mm (8.66 in) from interior/exterior antenna.
- The electromagnetic wave of Intelligent Key might affect the function of the implantable cardiac pacemaker or the implantable cardioverter defibrillator (ICD), at door operation, at each request switch operation, or at engine starting.
- If a technician uses other medical electric devices than implantable cardiac pacemaker or implantable cardioverter defibrillator (ICD), the electromagnetic wave of Intelligent Key might affect the function of the device. The possible effects on the devices must be checked with the device manufacturer before Intelligent Key use.