Technical Bulletin



SERVICE BULLETIN

 Classification:
 Reference:
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 EL14-018b
 NTB14-032b
 February 3, 2020

WIRING HARNESS REPAIR INFORMATION

This bulletin has been amended. See AMENDMENT HISTORY on the last page.

Please discard previous versions of this bulletin.

APPLIED VEHICLES: All Nissan

SERVICE INFORMATION

This bulletin provides information for wiring harness and connector repair, which is the preferred alternative to wiring harness replacement, and has been developed to improve customer satisfaction by simplifying the repair of electrical wiring harnesses.

This will improve the dealer's service capabilities by making a repair more efficient than the replacement of an entire wiring harness assembly.

The following service information includes:

- The technician's responsibilities in assisting the dealer's claims administrator to properly code a harness repair.
- Warranty claims coding for repairing and diagnosing wiring harnesses for ALL Nissan vehicles.
- Wiring Harness Repair vs. Replace Guidelines.
- Nissan Harness Repair Kit (HRK) Tools and Parts.

Nissan Bulletins are intended for use by qualified technicians, not 'do-it-yourselfers'. Qualified technicians are properly trained individuals who have the equipment, tools, safety instruction, and know-how to do a job properly and safely. **NOTE:** If you believe that a described condition may apply to a particular vehicle, DO NOT assume that it does. See your Nissan dealer to determine if this applies to your vehicle.

Harness Repair Guidelines:

- For general harness diagnostic procedures refer to ASIST.
 - ➤ ASIST → ESM → General Information → Service Information for Electrical Incident.
- If the repair is connector or terminal related follow these guidelines.
 - ➤ To determine if terminal replacement or connector replacement is best, inspect the connector as listed below:

Inspection Result	Recommended Repair
Found damaged or spread terminal and connector housing undamaged	Replace the Terminal
Found damaged or bent pin and connector housing undamaged	Replace the Pin
Found damaged connector housing	Replace the connector with supplied pigtail

- If the repair is wire related follow these general guidelines:
 - ➤ If wire is found to be broken, follow NTB03-078 to repair the wire with a solder sleeve and heat gun.
- For additional information on wiring harness repair tools and procedures, refer to the Harness Repair Kit User Guide in ASIST.
 - ➤ ASIST → Tech Support Info → Harness Repair → Harness Repair Kit User Guide.

NOTE: If a Warranty Part Return Request is received, please ship all replaced parts (e.g. terminals, pins, sections of wire, and connectors).

Harness Replacement Guidelines:

Replace the wiring harness **ONLY** when the vehicle concern involves any one of the following conditions:

- The wiring harness circuits are related to a seatbelt or SRS.
- The wiring harness circuits are related to HEV / EV High Voltage.
- The estimated cost of the repair exceeds the cost of replacing the entire wiring harness.
- The vehicle is damaged by flood or thermal incident.
- The wiring harness was severely damaged due to a car accident.
- The appropriate components are not available in the Harness Repair Kit (HRK).
- The wiring harness replacement is required from another TSB.
- The wiring harness repair is in the shielded area of a circuit.
- The wiring harness needing repair is USB, Coaxial, or Antenna Feeder wiring.

Wire Harness Repair Tools and Procedures:

For repair tools and procedures, refer to the Harness Repair Kit user guide in ASIST:

Tech-Mate → Tech-Mate Tools & Equipment → Harness Repair Kit User Guide.

HRK Parts and Tools Information:

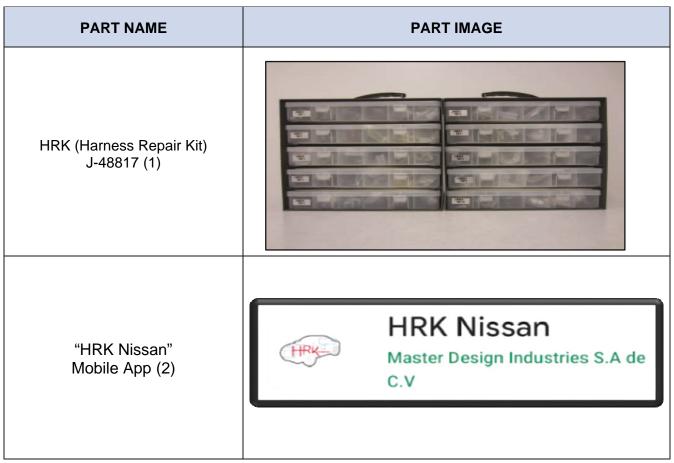


Figure 1

- (1) Replacement HRK Tools and Parts can be ordered at <u>Nissantechmate.com</u> or call (800) 662-2001.
- (2) Download the mobile app titled "HRK Nissan", from either the Google Play Store or the Apple App Store, to help obtain harness parts information quickly.
 - Be sure to register when first downloading the app.
 - If you cannot find a particular wiring harness repair tool or part in the HRK, please utilize the "Did not find it?" button to tell Nissan what you were looking for so we can evaluate it for possible inclusion in future updates to the HRK.

Required Technician Information for Warranty Harness Repair:

The technician is to record and attach the necessary information on the repair order for the claims administrator to complete claims coding.

- 1. A **Harness Repair Form** is **NOW REQUIRED** for every harness repair or replacement warranty claim. This is a new requirement to justify the new Flat Rate Time (FRT).
- 2. Print a general vehicle harness layout from the Electronic Wiring Diagram (eWD). Circle or highlight the wiring harness being replaced or repaired.
 - If the repair is **CONNECTOR** related, also print the connector's information from the eWD of the connector, and then highlight the specific circuit/terminal repaired.
- 3. Operation (Op) Code: Op Codes are related to the time taken for the repair.
 - If replacement/repair is related to a sub-harness, use the name of the harness it is attached to. For example, if the sub-harness is attached to the EGI harness, write down "EGI Harness".
- 4. Primary Failed Part (PFP): This is the part number (P/N) of the repaired/replaced wiring harness. Write down the P/N on the repair order.
 - Please return ALL replaced parts for repair (e.g. terminals, pins, connectors, and wiring).
 - If a Warranty Part Return Request is received, please ship all replaced parts (e.g. terminals, pins, sections of wire, and connectors).
- 5. Diagnosis Code: This describes the type of problem that was found. Give an accurate description for the warranty clerk to determine the diagnosis code.
- 6. Include pictures for each diagnosis related description per attachment.
- 7. Enter the critical repair information in the "Tech Comment Verbatim" line. For example:
 - An accurate description of the incident, cause and repair
 - The reason for the repair or replacement
 - The location of the concern, if wire related
 - The type of wire concern (open/shorted/pinched/chafed/bent or spread pin/etc.)
 - The connector number
 - The wire connector cavity number and its wire color
 - The terminal pin number

8. Attach the clock "punch in" and "punch out" time on the back of the repair order. Diagnostic time can be included.

Refer to the Assurance Products Resource Manual (APRM) for further detail.

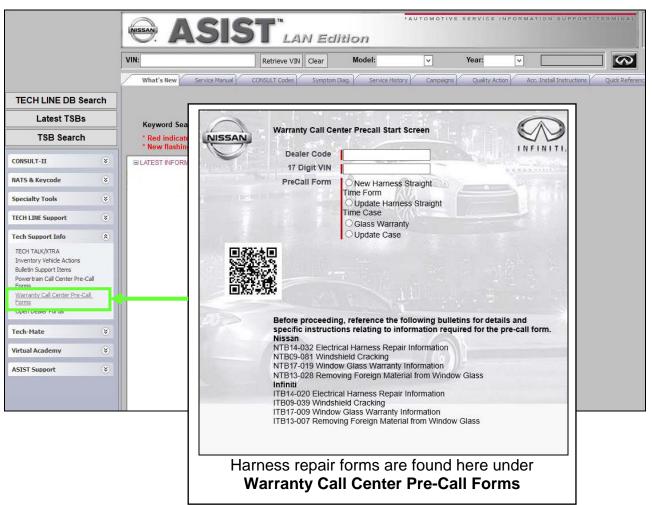


Figure 2

The images and details on the following pages are examples of information needed to complete a proper warranty claim for a wiring harness repair or replacement.



Figure 3

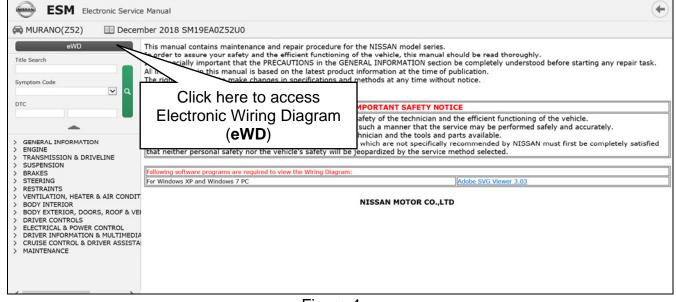


Figure 4

Pre-Call Form Required Image Examples:

• The area of concern on the vehicle



Figure 5

 The related circuit/layout diagram in the eWD

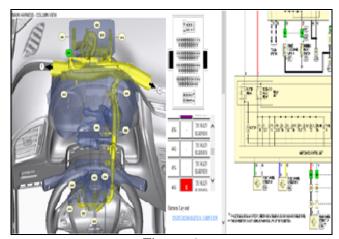


Figure 6

Consult-III Topology (If CAN related)

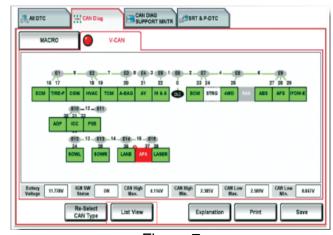


Figure 7

The harness tag, if available and accessible



Figure 8

Warranty Claim Information For Pilot Program

Requirements for Repair Over 3 Hours or Replacement:

If the wiring harness must be replaced/repaired and the time to complete the job exceeds the DCAL limit:

- A Harness Repair Form must be submitted.
- Use only ST Op codes.
- Pre-authorization must be given by the Warranty Call Center (WCC).
- Do not combine FRT Op codes with ST Op codes.

Requirements for Repair:

If the wiring harness is deemed repairable and the time required to repair it is under 3 hours:

- A Harness Repair Form must be submitted.
- Use only FRT Op codes which are now available in Flat Rate Manual.
- Pre-authorization is not required.
- <u>Do not</u> combine ST Op codes with FRT Op codes.

Harness Diagnose & Repair Flat Rate Op Code Selection Guidelines:

1.0 Hour (Simple) Repair

- 1) Access one control unit/area/panel
- 2) Visually inspect a harness and connector
- 3) Repair a single accessible circuit
- 4) 15-59 minute repair

2.0 Hour (Intermediate) Repair

- 1) Access 2-4 control units/areas/panels
- 2) Visually inspect the harnesses and connectors
- 3) Repair multiple circuits
- 4) 60-119 minute repair

3.0 Hour (Difficult) Repair

- 1) Access 4 or more control units/areas/panels
- 2) Visually inspect the harnesses and connectors
- 3) Repair multiple circuits
- 4) 120-180 minute repair

Operation Codes for Harness Diagnosis and Repair*

OP CODE	DESCRIPTION	FRT
RA50AA	Diagnose & Repair Main Harness	
RA51AA	Diagnose & Repair Engine Room Harness 1.	
RA52AA	Diagnose & Repair Body Harness 1.0	
RA53AA	Diagnose & Repair Body No. 2 Harness 1.0	
RA54AA	Diagnose & Repair Console Harness 1.0	
RA55AA	Diagnose & Repair Front Door Harness 1.0	
RA56AA	Diagnose & Repair Rear Door Harness 1.	
RA57AA	Diagnose & Repair Room Lamp Harness 1.0	
RA58AA	Diagnose & Repair Chassis/Trunk/Tail Harness 1.0	
RA59AA	Diagnose & Repair EGI Harness 1.0	
RA61AA	Diagnose & Repair Seat Harness 1.0	
COMBINATION OPERATION CODES FOR REPAIR		
RA777A	2 nd hour Harness Diagnosis & Repair 1.0	
RA888A	3 rd hour Harness Diagnosis & Repair 2.0	

^{*} These Op Codes are for repair only, not replacement. The supplemental combination operation codes can ONLY be used when additional time is required.

PART CATEGORY CODE**

PART CATEGORY CODE	DESCRIPTION	AMOUNT
720	Engine Electrical	Actual Part Amount
790	Body Electrical	Actual Part Amount

^{**} To be claimed for connectors that do not have Nissan part numbers.

Operation Codes for Harness Diagnosis and Replacement

OP CODE	DESCRIPTION	ST
RA40AA	Diagnose & Replace Main Harness	Claim Actual Time
RA41AA	Diagnose & Replace Engine Room Harness Claim Actu	
RA42AA	Diagnose & Replace Body Harness	Claim Actual Time
RA43AA	Diagnose & Replace Body No. 2 Harness	Claim Actual Time
RA44AA	Diagnose & Replace Console Harness	Claim Actual Time
RA45AA	Diagnose & Replace Front Door Harness	Claim Actual Time
RA46AA	Diagnose & Replace Rear Door Harness	Claim Actual Time
RA47AA	Diagnose & Replace Room Lamp Harness	Claim Actual Time
RA48AA	Diagnose & Replace Chassis/Trunk/Tail Harness	Claim Actual Time
RA49AA	Diagnose & Replace EGI Harness	Claim Actual Time
RA60AA	Diagnose & Replace Seat Harness	Claim Actual Time

Examples of diagnosis codes and their descriptions

DIAGNOSIS CODE	DIAGNOSIS CODE NAME	
6A	Harness – Short Circuit/Damaged/Chafed	
6B	Harness – Open Circuit/Cut/Broken	
6C	Harness Connector – No Connection	
6D	Harness Connector – Partial Connection	
6E	Harness Connector – Terminal Pushed Out	
6F	Harness Connector – Bent Terminal	
6G	Harness Connector – Spread Terminal	
6H	Harness Ground Lug - Loose/Cross Thread	
6J	Harness Connector – Corrosion	
67	Wrong Part	
68	Missing Part	

AMENDMENT HISTORY

PUBLISHED DATE	REFERENCE	DESCRIPTION
April 29, 2014	NTB14-032	Original bulletin published
October 27, 2016	NTB14-032a	Amended Applied Vehicles, Service Information
February 3, 2020	NTB14-032b	The entire body of the bulletin has been changed