

REFERENCE:	Nova Bus Manuals
SECTION:	09: Engine and Cooling
RS N°:	MQR 7621-1114
EFFECTIVE IN PROD.:	N/A

APPLICATION DEADLINE: N/A

SUBJECT:	Front Engine Mount Bolts
JUSTIFICATION:	Introduction of nord-lock washers to front engine mount bolts with new torque specification for improved clamping.

LEVEL	DESCRIPTION	DIRECT CHARGES		TIME
		LABOUR	MATERIAL	
1	Replacement of front engine mount bolts and addition of nordlock washers. Also change in torque on front engine mount bolts from 109 Nm to 165 Nm.	Client	Client	30 min
2	–	–	–	–

MATERIAL

QTY	PART N°	REV.	DESCRIPTION	REPLACES PART N°
LEVEL 1				
4	N21745	–	BOLT M12 X 90 CUMMINS PARTS	–
4	N79659	–	WASHER NORD-LOCK M12 O/S OD SS	–
LEVEL 2				
–	–	–	–	–

To order, please contact Prevost Parts by phone at 1-800-771-6682, by fax at 1-888-668-2555 or by email at prevostparts.commands@volvo.com. Specify document number, quantity of parts required and shipping address.

DISPOSAL OF PARTS

REMOVED PARTS ARE:	DISCARDED	RETAINED	–
	–	–	

REVISION HISTORY

REV.	DATE	CHANGE DESCRIPTION	WRITTEN BY
NR	2016SE22	Initial release	Kumaraswamy K S
R1	2016OC06	Revised the wording at the top of this page in the justification box	Kumaraswamy K S

APPROVED BY: Daniel Theriault

Digitally signed by Daniel Theriault
DN: cn=Daniel Theriault, o=Nova Bus, ou, email=daniel.theriault@volvo.com, c=CA
Date: 2016.10.07 13:54:15 -0400

CLIENT	ORDER	ROAD NUMBER		VIN (2NVY/4RKY...)		QTY
		FROM	TO	FROM	TO	
New York City Transit - New York	L608	8000	8014	L82U6B4000047	L82U0B4000061	15
New York City Transit - New York	L841	8094	8269	L82J2F4500959	L82J2F4501075	82
New York City Transit - New York	L842	8090	8213	L82J4F4501076	L82J7F4501170	86
New York City Transit - New York	L843	8214	8380	L82J9F4501171	L82J9G9775023	82
New York City Transit - New York	L844	8381	8170	L82J0G9775024	L82J0G9775105	82

**WARNING**

Follow your internal safety procedures.

PROCEDURE

**NOTE****REQUIRED TOOL: Torque Wrench.**

- 1.1. Park the vehicle on an even surface with transmission in neutral (N).
- 1.2. Turn the ignition switch to OFF position and engage the parking brake.
- 1.3. Block the wheels.
- 1.4. Set the Master control switch in the STOP position (see Figure 1).

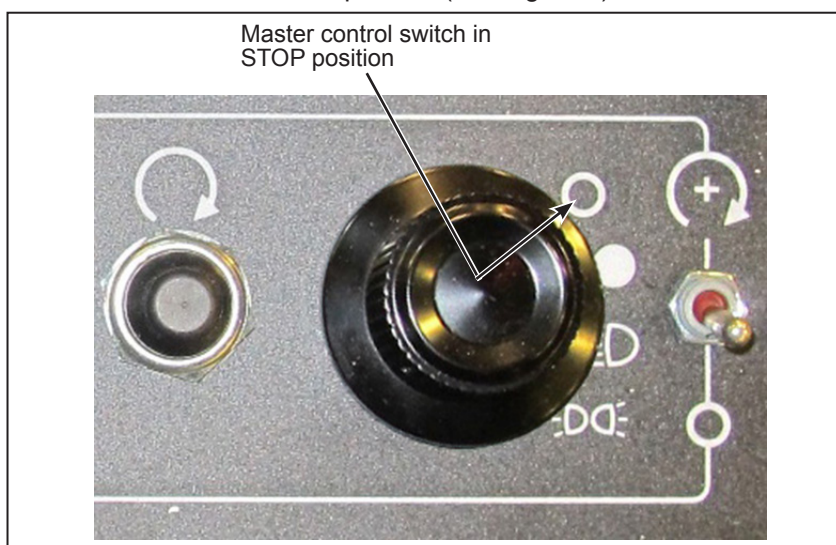


Figure 1 - Typical View of Master Control Switch in STOP Position

- 1.5. Set the battery disconnect switch in the battery compartment to OFF position (see Figure 2).

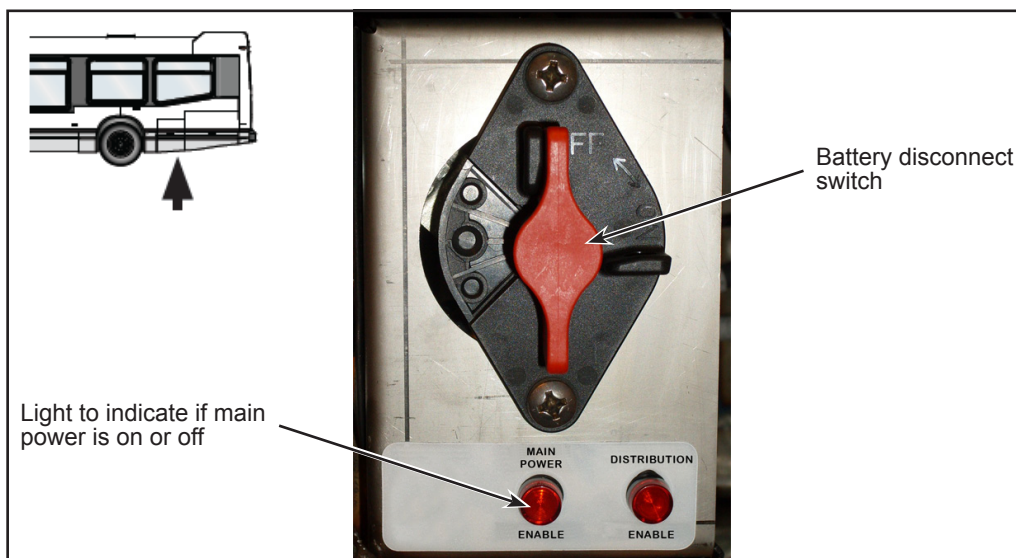


Figure 2 - Typical Battery Disconnect Switch

**WARNING**

Before starting any work on the vehicle, make sure the vehicle is completely and securely stationary. Disconnect the starting circuit on the control box at the rear of the vehicle and place the battery disconnect switches in the OFF position.

**CAUTION**

Make sure that the starting system is properly isolated in order to avoid inadvertent engine starting. See section 09-104: **STARTING SYSTEM** of the Nova Bus maintenance manual for further information.

- 1.6. Open the rear engine access door (see Figure 3).



Figure 3 - Typical View of Rear Engine Access Door

**NOTE**

Remove the existing engine mounting bolts and install the new engine mounting bolts with nord-lock washers one at a time for better clamping.

- 1.7. Remove the front engine mounting bolts (N21745 x4) and discard.

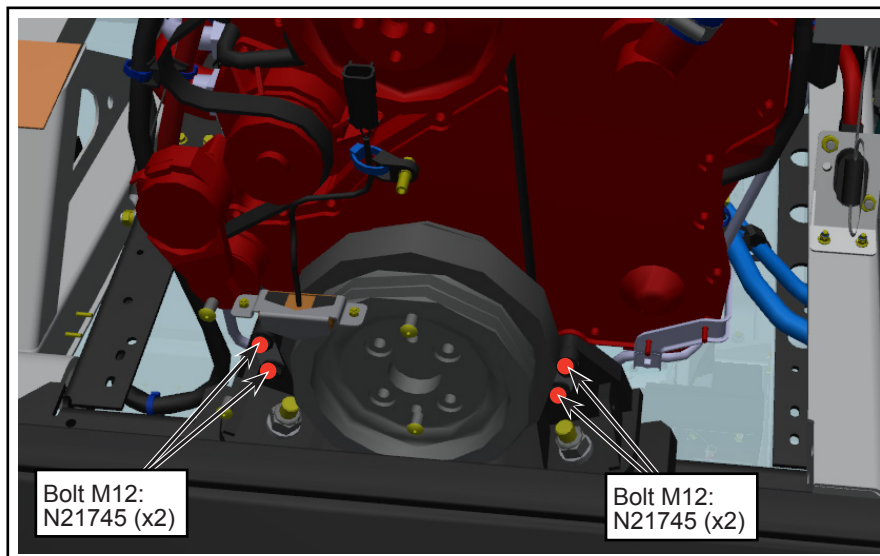


Figure 4 - Removal of Engine Mounting Bolts (N21745 x4)

**NOTE**

Do not loosen the rubber isolator bolts.

Clean the holes where the engine mounting bolts to be installed using a small brush or a dry white rag. This step is required to remove moisture content, which is more likely to affect the hardware in future.

- 1.8. Install and tighten the new engine mounting bolts (N21745 x4) with nord-lock washers (N79659 x4) and torque to 121.7 ft-lbs (165 N•m) (see Figure 5).

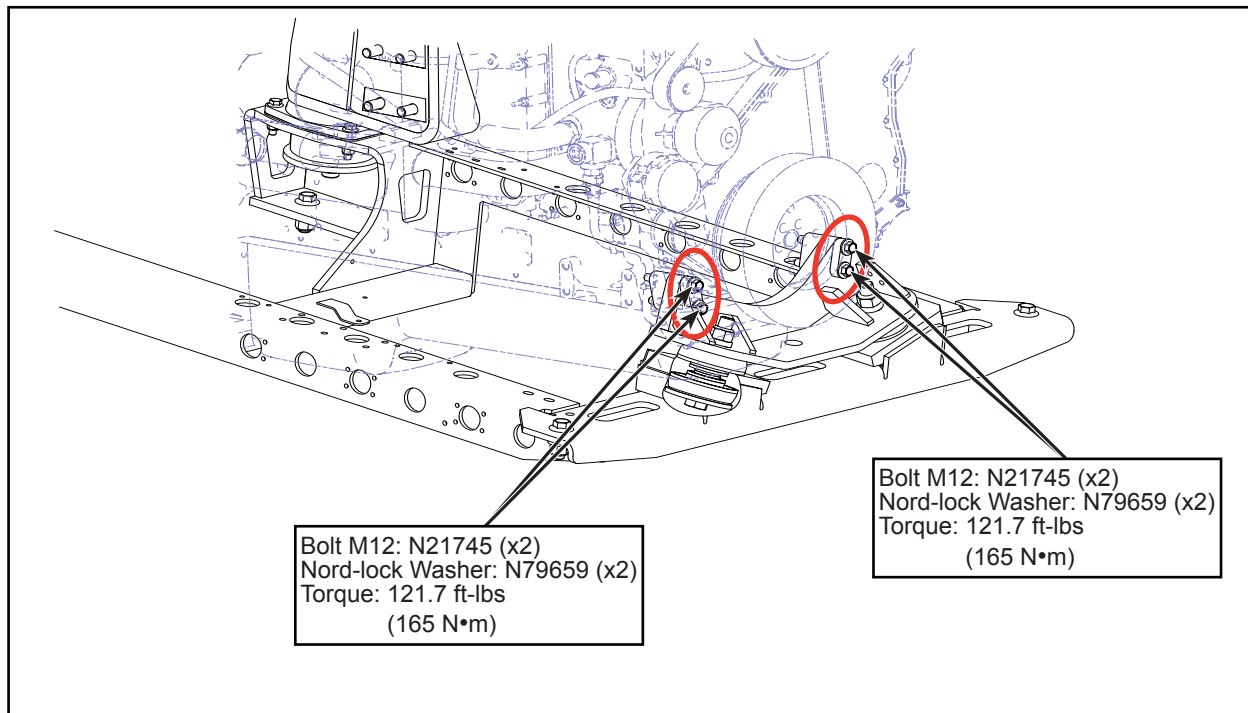


Figure 5 - Installation of Engine Mounting Bolts and Nord-lock Washers

**NOTE**

When bolts are loosened or replaced, the used bolts should be discarded and replaced with new bolts. Replacement bolts threads must be clean and free of lubricants, grease and oil. Nord-lock self-locking washers must be used. The orientation of Nord-lock washers and the torque application method used on hardware installed with these washers are crucial. See section 99: GENERAL PRACTICES for more information.

**CAUTION**

A specific tightening method must be applied to hardware installed with Nord-lock washers. For more information, see heading NORD-LOCK SELF-LOCKING WASHER in section 99: GENERAL PRACTICES.

**NOTE**

Do not use thread locking compound where self-locking washers are installed.

For more information on the torque application method used on hardware installed with these washers, see section 99: GENERAL PRACTICES in the Nova LFS maintenance manual.

- 1.9. Verify for proper fitment of bolts after installation process.
- 1.10. Close the rear engine access door.
- 1.11. Set the battery disconnect switch in the battery compartment to ON position.
- 1.12. Set the Master control switch to ON position.
- 1.13. Unblock the wheels.
- 1.14. The vehicle may be returned to service. ❖