

REFERENCE:	Nova Bus Manuals
SECTION:	16: Batteries
RS N°:	MQR 7621-2476
EFFECTIVE IN PROD.:	N/A

APPLICATION DEADLINE: 2023OC30  
CLAIM REFERENCE NUMBER: WB-5291

SUBJECT:	Batteries temperature sensors
JUSTIFICATION:	Some batteries temperature sensor may have an too high internal resistance and give an erroneous battery temperature reading causing F202 light battery to turn On, on dashboard

LEVEL	DESCRIPTION	DIRECT CHARGES		TIME
		LABOUR	MATERIAL	
1	Inspect connection and torque value of the batteries temperature sensors. Disconnect the temperature sensor and take resistance measurement.	Nova Bus	–	15 min
2	Replace the batterie temperature sensor if the reading is higher than 200 Ohms replace the temperature sensor	Nova Bus	Nova Bus	15 min

#### MATERIAL REQUIRED PER VEHICLE

QTY	PART N°	REV.	DESCRIPTION
<b>LEVEL 1</b>			
–	–	–	–
<b>LEVEL 2</b>			
1	N92896	–	Batteries temperature sensor

Materials will be available within 32 days once your order has been placed.

To order, please contact [novabus.parts@volvo.com](mailto:novabus.parts@volvo.com)

Or by phone for CANADA 1-800-771-6682, for USA 1-877-999-8808

Specify document number, quantity of parts required and shipping address.

#### DISPOSAL OF PARTS

REMOVED PARTS ARE:	DISCARDED	RETAINED *	* To be reimbursed, the parts must be retained and returned in accordance with the usual warranty procedure. Yes
	–	Yes	

#### REVISION HISTORY

REV.	DATE	CHANGE DESCRIPTION	WRITTEN BY
NR	2022JL28	Initial release	Luc Carignan
R1	2022SE28	Time in Level 2 increase to 15 min. and procedure as been updated.	Luc Carignan

APPROVED BY:

PAGE 1 OF 6

CLIENT	ORDER	ROAD NUMBER		VIN (2NVY/4RKY...)		QTY
		FROM	TO	FROM	TO	
New York City Transit New York - NYCT	LC79	9624	9637	L82L3M9777783	L82L1M9777796	14
New York City Transit New York - NYCT	LC79	9639	9703	L82L5M9777798	L82LXM9777862	65
New York City Transit New York - NYCT	LC79	9704	9784	L82L1M9777863	L82L4M9777954	81
New York City Transit New York - NYCT	LD64	9785	9787	L82L0M9777871	L82L8M9777956	3
New York City Transit New York - NYCT	LD64	9789	9789	L82L1M9777958	L82L1M9777958	1
New York City Transit New York - NYCT	LD64	9791	9798	L82L0M9777966	L82L8M9777973	8
New York City Transit New York - NYCT	LD64	9800	9805	L82L1M9777975	L82L5M9777980	6
New York City Transit New York - NYCT	LD64	9806	9806	L82L7M9777981	L82L7M9777981	1
New York City Transit New York - NYCT	LD64	9807	9808	L82LXM9777988	L82L1M9777989	2
New York City Transit New York - NYCT	LD64	9810	9811	L82LXM9777991	L82L1M9777992	2
New York City Transit New York - NYCT	LD64	9812	9812	L82L3M9777993	L82L3M9777993	1
New York City Transit New York - NYCT	LD64	9813	9823	L82L5M9777994	L82L8M9778010	11
New York City Transit New York - NYCT	LD64	9825	9826	L82L1M9778012	L82L3M9778013	2
New York City Transit New York - NYCT	LD64	9828	9828	L82L7M9778015	L82L7M9778015	1
New York City Transit New York - NYCT	LD64	9829	9832	L82L4M9778022	L82LXM9778025	4
New York City Transit New York - NYCT	LD64	9833	9834	L82L1M9778026	L82L3M9778027	2
New York City Transit New York - NYCT	LD64	9836	9842	L82L7M9778029	L82L8M9778041	7
New York City Transit New York - NYCT	LD64	9844	9844	L82L1M9778043	L82L1M9778043	1
New York City Transit New York - NYCT	LD64	9845	9848	L82L3M9778044	L82L4M9778053	4
New York City Transit New York - NYCT	LD64	9850	9851	L82L8M9778055	L82LXM9778056	2
New York City Transit New York - NYCT	LD64	9854	9867	L82L5M9778059	L82L1M9778088	14
New York City Transit New York - NYCT	LD64	9872	9872	L82L5M9778093	L82L5M9778093	1
New York City Transit New York - NYCT	LD64	9875	9876	L82L8M9778105	L82LXM9778106	2
New York City Transit New York - NYCT	LD64	9878	9878	L82L3M9778108	L82L3M9778108	1
New York City Transit New York - NYCT	LD64	9880	9883	L82L1M9778110	L82L7M9778113	4
New York City Transit New York - NYCT	LD64	9888	9889	L82L6M9778118	L82L8M9778119	2
New York City Transit New York - NYCT	LD64	9897	9897	L82L6M9778135	L82L6M9778135	1
New York City Transit New York - NYCT	LD64	9909	9910	L82LXM9778154	L82L1M9778155	2

**WARNING**

---

FOLLOW YOUR INTERNAL SAFETY PROCEDURES.

## PROCEDURE

**CAUTION**

---

Before removing, dismantling or maintaining any electrical component, the qualified personnel should take the necessary precautions to avoid any risk of personal injury or damage to the equipment. If necessary, mark all wiring prior to disconnecting, to facilitate reconnection. Refer to maintenance manual section 16: BATTERIE - ODYSSEY \_ AGM before working in battery compartment.

### LEVEL 1: INSPECT CONNECTION, TORQUE VALUE AND RESISTANCE VALUE OF THE TEMPERATURE SENSOR

- 1.1. Park the vehicle on an even surface with the transmission on neutral.
- 1.2. Apply the parking brake and set the master control switch to the **stop** position.
- 1.3. Set the battery disconnect switch in the battery compartment to the **off** position.
- 1.4. Wait 10 minutes after the battery disconnect switch has been placed in the **OFF** position.

- 1.5. Verify the connection and torque of the temperature sensor N92896 anchor point on the battery. See Figure 1 for torque value.
- 1.6. Disconnect the temperature sensor connector. See Figure 1.

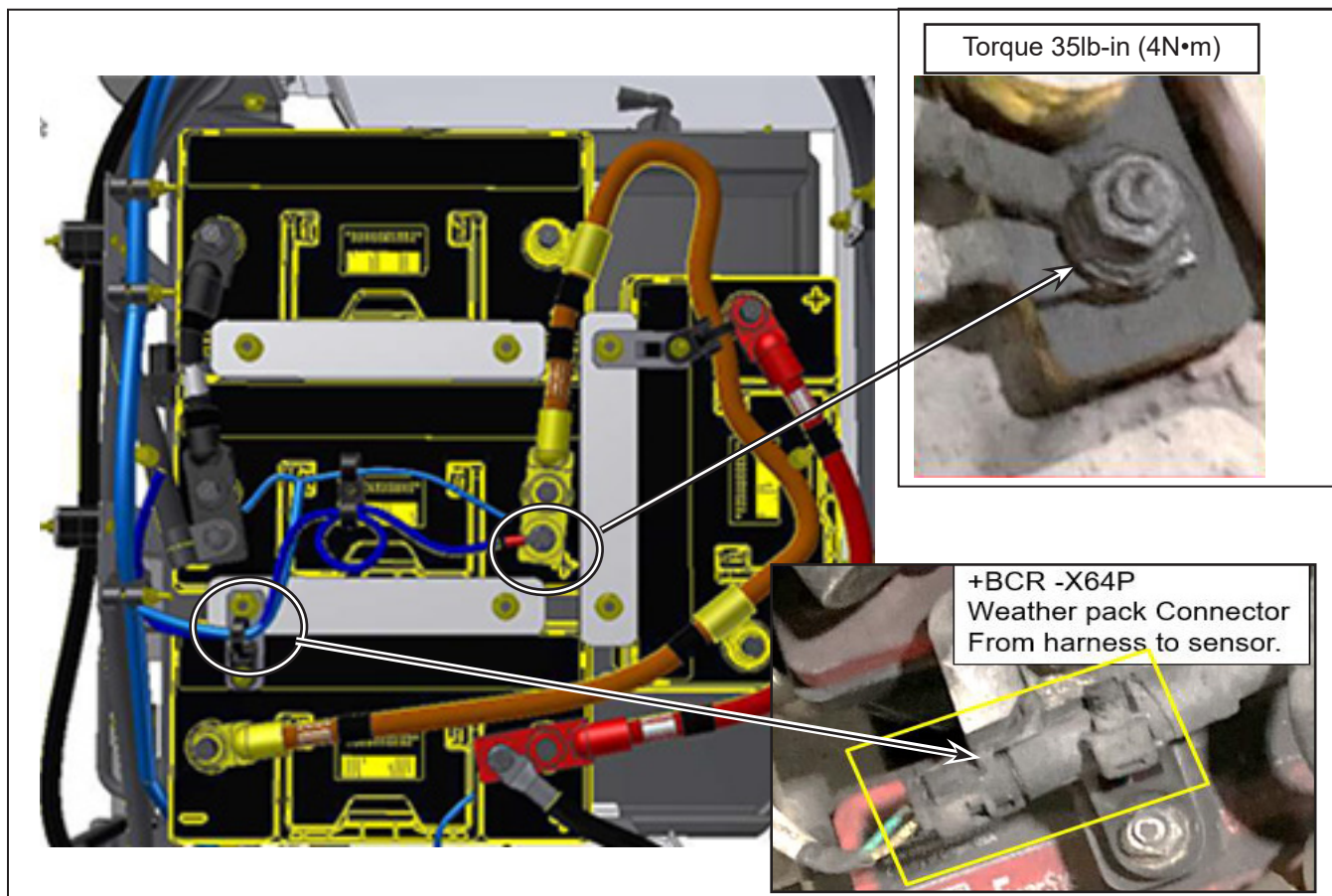


Figure 1 - Connection Points and Torque Value of the Temperature Sensor

- 1.7. Put the selector of your multimeter to Ohms (100 Ohms range if applicable).
- 1.8. Put the leads of the multimeter on the temperature sensor connector pins and take resistance reading of the sensor. See Figure 2.

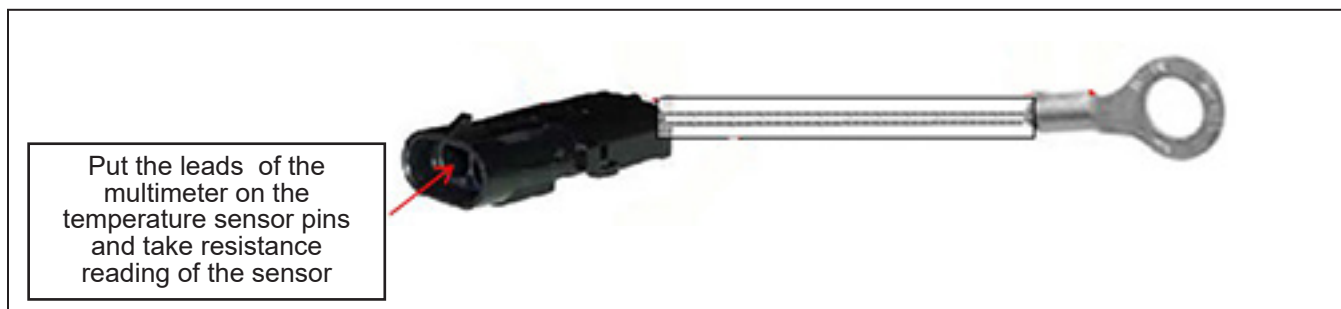
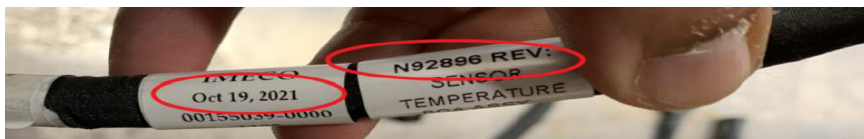


Figure 2 - Conector of N92896 Temperature Sensor

- 1.9. If the resistance value of the temperature sensor is above 200 Ohms go to level 2 procedure. Otherwise re-connect the temperature sensor and put the vehicle back in service.

**LEVEL 2: REPLACE TEMPERATURE SENSOR IF RESISTANCE VALUE IS HIGHER THAN 200 OHMS**

- 2.1. Fill the table with the required information for each vehicles. See Figure 3.



Road number	Torque (35,4 in/lb)	Resistance measured	PN of the Temperature sensor	Manufacturing date of the Temperature sensor

Figure 3 - Table to Fill for each Vehicles

- 2.2. Disconnect the cable from the battery negative terminal. See Figure 4.
- 2.3. Disconnect the cable from the battery positive terminal. See Figure 4.

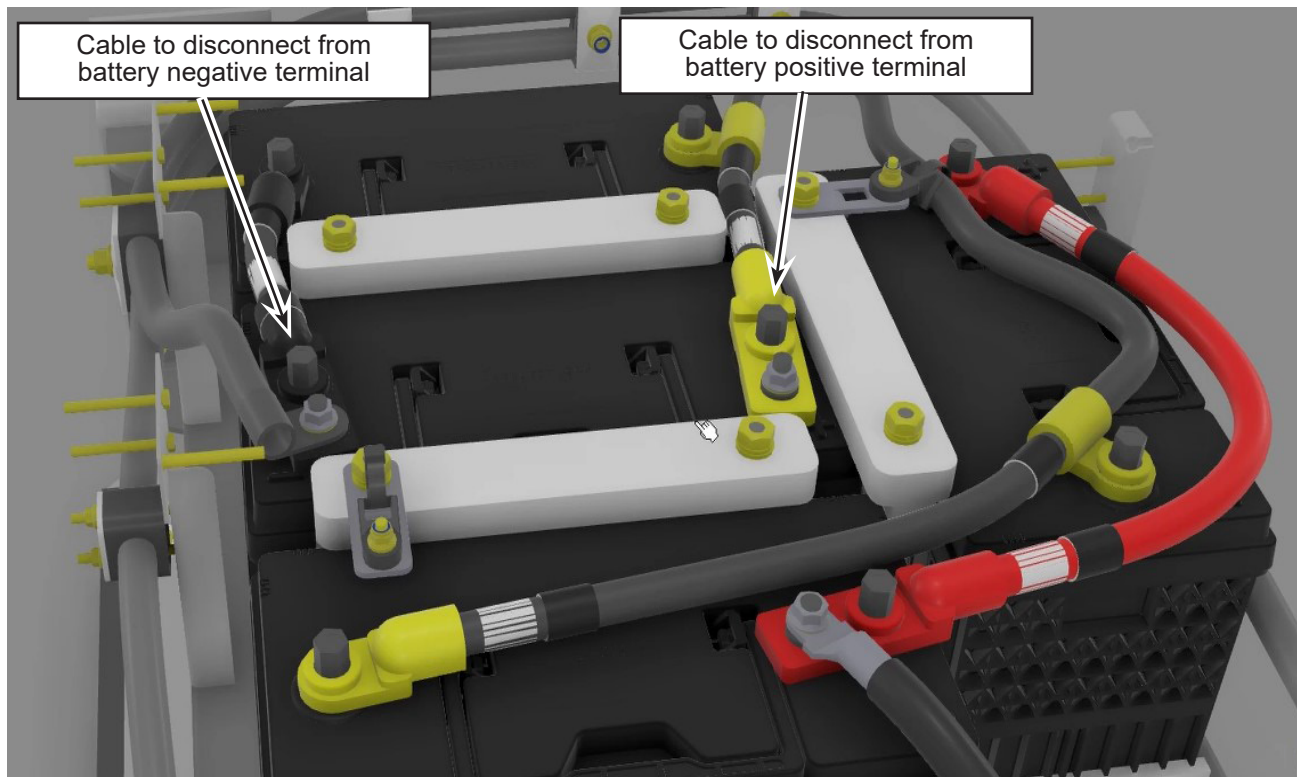


Figure 4 - Cable to Disconnect on the Battery

- 2.4. Remove the defective sensor and **SEND IT FOR INVESTIGATION**.
- 2.5. Repeat step 1.7 and 1.8 to take a resistance reading of the new sensor N92896. If the resistance value is above 200 Ohms don't install this sensor and **SEND IT FOR INVESTIGATION**.
- 2.6. Install the new N92896 temperature sensor. See Figure 1 for torque value and positioning of the temperature sensor.
- 2.7. Make sure the battery disconnect switch is set on **OFF** position.
- 2.8. Use a multimeter (in manual mode, in  $\Omega$ ) to make sure that there is no continuity (O.L) between the positive cable and the chassis.
- 2.9. Connect positive cable to the battery. See Figure 5 for torque value.
- 2.10. Connect negative cable to the battery. See Figure 5 for torque value.

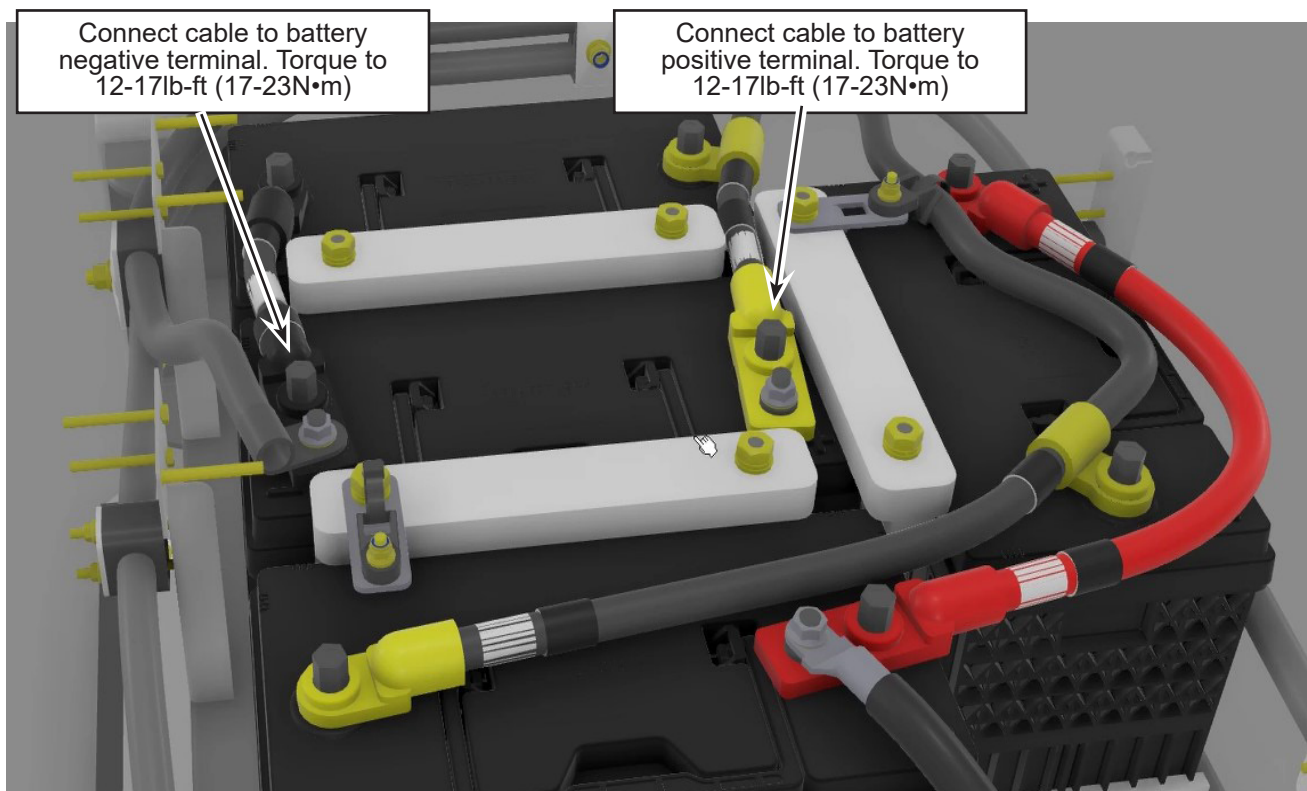


Figure 5 - Battery Terminal Torque Value

- 2.11. Perform a visual check of the vehicle to make sure that all power cable have been connected and secured.
- 2.12. Apply NCP2 anticorrosive on re-connected cables if required.

