

REFERENCE:	Nova Bus Manuals
SECTION:	16: Electric System
RS N°:	MQR 7621-1950
EFFECTIVE IN PROD.:	LC70 (2020MA)

APPLICATION DEADLINE: 2022JL02
CLAIM REFERENCE NUMBER: WB-4946

SUBJECT:	Engine Emergency Stop
JUSTIFICATION:	Emergency Engine Stop Override switch on the Operator's Control Panel is missing.

LEVEL	DESCRIPTION	DIRECT CHARGES		TIME
		LABOUR	MATERIAL	
1	Add the Emergency Engine Stop Override switch in the Operator's Control Panel and route new wire harness kit.	Nova Bus	Nova Bus	8 h
2	—	—	—	—

MATERIAL

QTY	PART N°	REV.	DESCRIPTION	REPLACES PART N°
LEVEL 1				
1	N632000818		KIT WIRE - ENG SHUTDOWN SWITCH	—
1	N57796211		NAMEPLATE LATERAL CONSOLE	—
1	N46069043		PLATE LATERAL CONSOLE	—
1	N11613	C	RELAY 24V WITH DIODE	—
1	N14762		SW TOGGLE L192 1NT1-8	—
1	2008706	A	SWITCH GUARD	—
2	9416090		SCREW PAN M/S CR #6-32 X 1/4 Z	—
2	0138526		WASHER INT TOOTH #6 ZC OR CADM	—
1	N11092	X	WASHER FLAT M4 YZ TRIV 96H	—
1	N17902	X	WASHER LCK CURV M4 YZ TRIV 96H	—
1	N11091	X	SCREW M4X12 TH/R R/CHES CR ZC	—
25	0657558		CABLE TIE (G5007996)	—
LEVEL 2				
—	—	—	—	—

Materials will be available within 56 days once your order has been placed. 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.commandes@volvo.com. Specify document number, quantity of parts required and shipping address.

DISPOSAL OF PARTS

REMOVED PARTS ARE:	DISCARDED *	RETAINED	* Dispose of the unused parts and the defective parts in accordance with local environmental standards in effect.
	Yes	—	

REVISION HISTORY

REV.	DATE	CHANGE DESCRIPTION	WRITTEN BY
NR	2021AL06	Initial release	Annie St-Jacques

APPROVED BY: **Jean-Nicolas Fournier**

Digitally signed by Jean-Nicolas Fournier
DN: cn=Jean-Nicolas Fournier, o=Nova Bus, email=jean-nicolas.fournier@volvo.com, c=CA
Date: 2021.04.06 11:18:33 -04'00'

PAGE 1 OF 10

* Please contact your customer support manager to obtain the version of the software

CLIENT	ORDER	ROAD NUMBER		VIN (2NVY/4RKY...)		QTY	PROGRAM
		FROM	TO	FROM	TO		
San Antonio Texas	LA10	422	446	L82K9G9775628	L82K8G9775653	25	FB_SAA4GE__00 (L)
San Antonio Texas	LA22	447	466	L82K8H9775654	L82K0H9775673	20	FB_SAA4GE__00 (L)
San Antonio Texas	LA22	468	555	L82K8H9775675	L82K0H9775762	88	FB_SAA4GE__00 (L)
San Antonio Texas	LA34	556	580	L82K0H9775857	L82K8H9775881	25	FB_SAA4GE__00 (L)
San Antonio Texas	LA35	581	666	L82KXH9775882	L82K8H9775968	86	FB_SAA4GE__00 (L)
San Antonio Texas	LA35	668	691	L82KXH9775970	L82K8H9775993	24	FB_SAA4GE__00 (L)
San Antonio Texas	LB26	692	735	L82KXJ9776536	L82K6J9776579	44	FB_SAA4GE__01 (C)
San Antonio Texas	LB43	970	987	L82K4J9776791	L82K1J9776828	18	FB_SAA4GE_M_02 (C)

**WARNING**

FOLLOW YOUR INTERNAL SAFETY PROCEDURES.

PROCEDURE

- 1.1. Park the vehicle on a leveled surface and set the transmission shift selector to **NEUTRAL (N)**.
- 1.2. Apply the parking brake.
- 1.3. Set the master control switch to the **ENG STOP** position (**O**).
- 1.4. In the battery compartment, set the battery disconnect switch to the **DISABLE** position (**OFF**).

EMERGENCY ENGINE STOP OVERRIDE SWITCH INSTALLATION

**NOTE**

Retain the hardware removed during the procedure for later reinstallation.

- 1.5. Locate the operator control panel on top of the operator lateral console. Remove the access panels by removing the two screws on the two panels to release them (Figure 1).

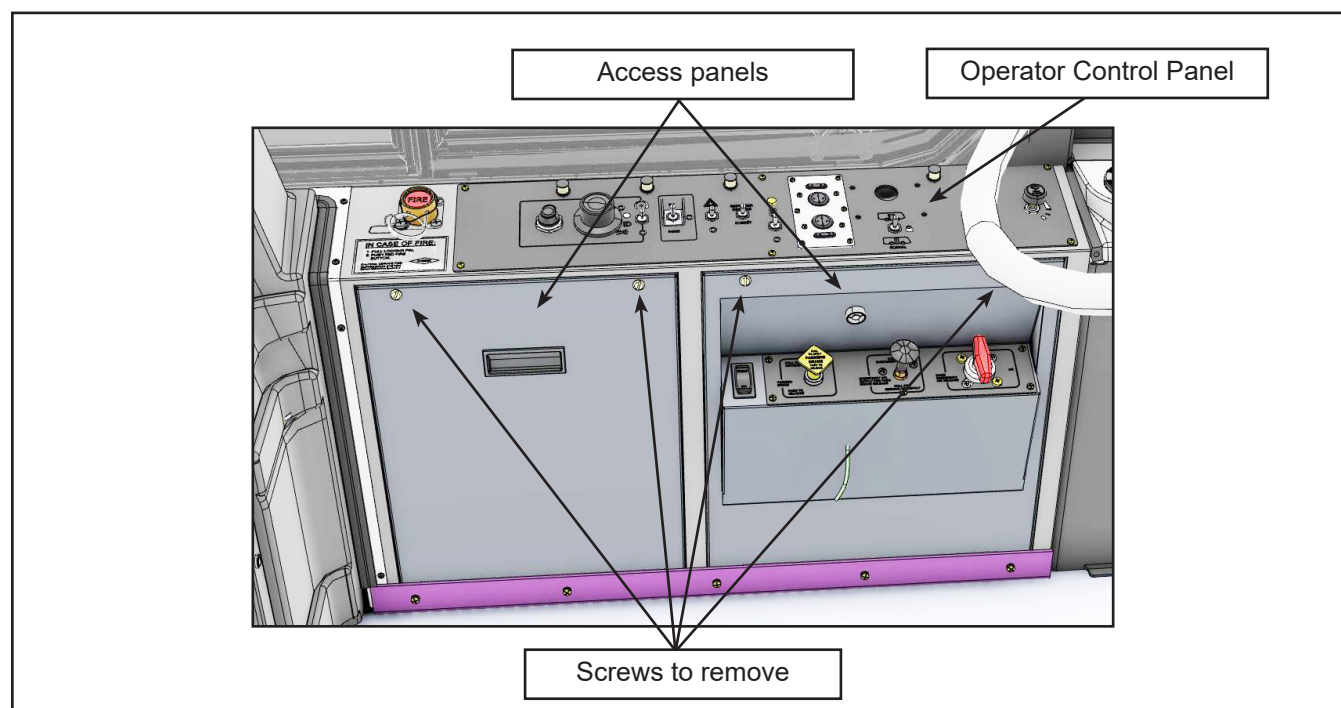


Figure 1 - Operator Lateral Console

- 1.6. On the operator control panel, remove the nameplate and the backplate by removing all switches, dials and handles. If needed, label and bag with respective hardware. If needed, also label electrical connection for reinstallation (Figure 2).
- 1.7. Then, remove the 6 screws fixing the nameplate and the backplate (Figure 2).



Figure 2 - Operator Control Panel

- 1.8. Install the new backplate (N46069043) and nameplate (N57796211) with the 6 removed screws. **Do not overtighten, damage can occur to the nameplate.**
- 1.9. Reinstall all removed switches, dials and handles with their respective hardware and wires if disconnected. **Do not overtighten, damage can occur to the nameplate.**
- 1.10. In the new hole, install the new toggle switch +CS-SW89A1 (N14762) and the new switch guard (2008706) (Figure 3).

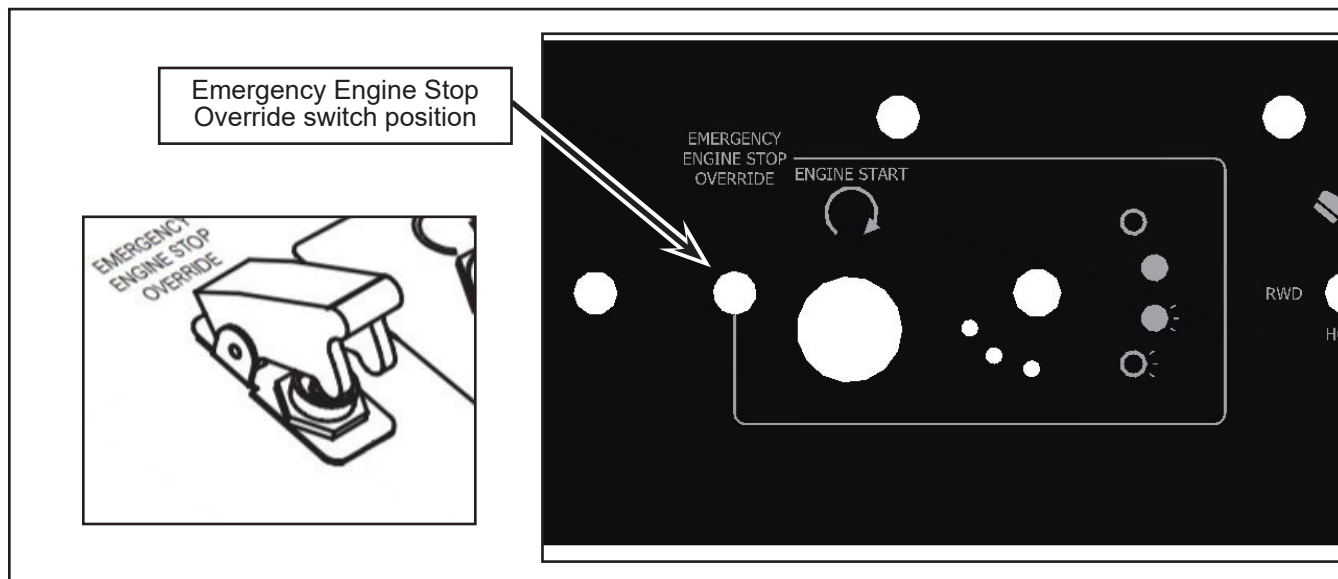


Figure 3 - Emergency Engine Stop Override Switch Location

INSTALLATION WIRE KIT (OPERATOR LATERAL CONSOLE TO RF0 PANEL)

- 1.11. In the operator lateral console, connect and route wires 89-1494 and 89-1495 (part of Wire Harness Kit N632000818) (see Table 1 for connection).
- 1.12. Behind the operator seat, remove the right panel of the operator partition (13 Push Pins) (Figure 5). Connect and route wire 01-4728 over the main harness bundle (01), from the operator lateral console to the RF0 panel (see Table 1).
- 1.13. In the RF0 panel, connect and route wire 78-1582 (see Table 1).
- 1.14. Secure routing with cable ties 0657558.

Wire Ident	From	Hardware	To	Hardware	Refer to Figure
89-1494	Switch +CS-SW89A1-01	1x Screw 9416090 1x Washer 0138526	Interconnector +CSP-X0189A-N6		4
89-1495	Switch +CS-SW89A1-02	1x Screw 9416090 1x Washer 0138526	Splice connector +CS-SC89F-D		4
01-4728	Interconnector +CSP-X0189A-N6		+RF0-X0178A-K2		5
78-1582	Interconnector +RF0-X0178A-K2		Module 45 +RF0-X78G1-03		6

Table 1 - List of Connections from the Operator Lateral console to the RF0 Panel

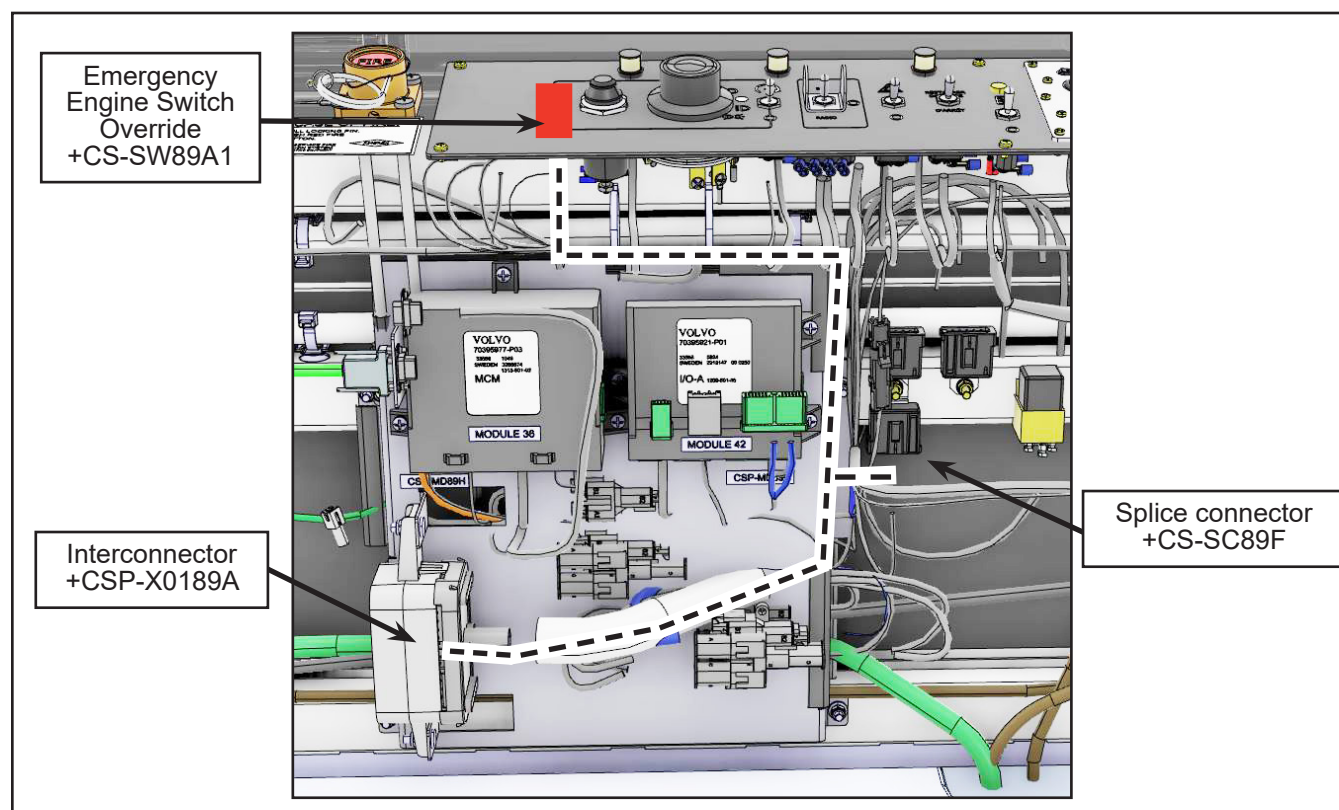


Figure 4 - Routing in the Operator Lateral Console (Components Removed for Clarity)

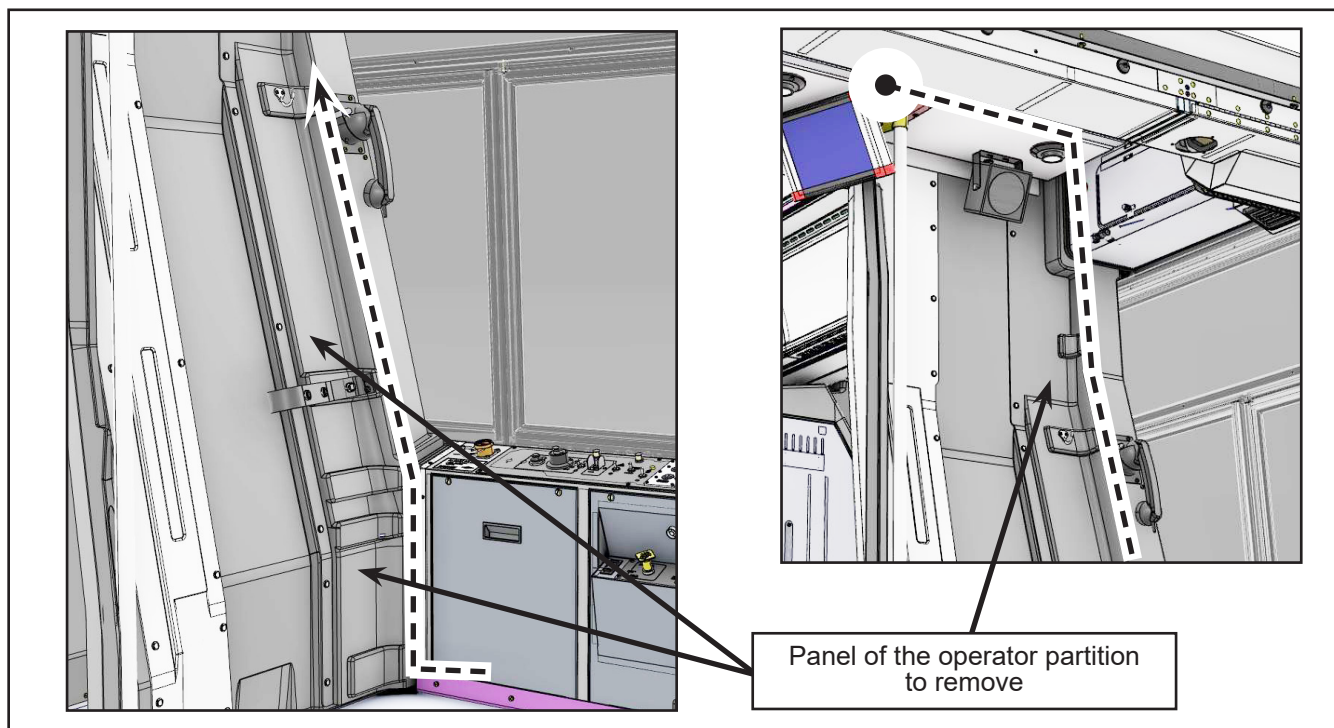


Figure 5 - Routing from the Operator Lateral Console to the RF0 Panel (Components Removed for Clarity)

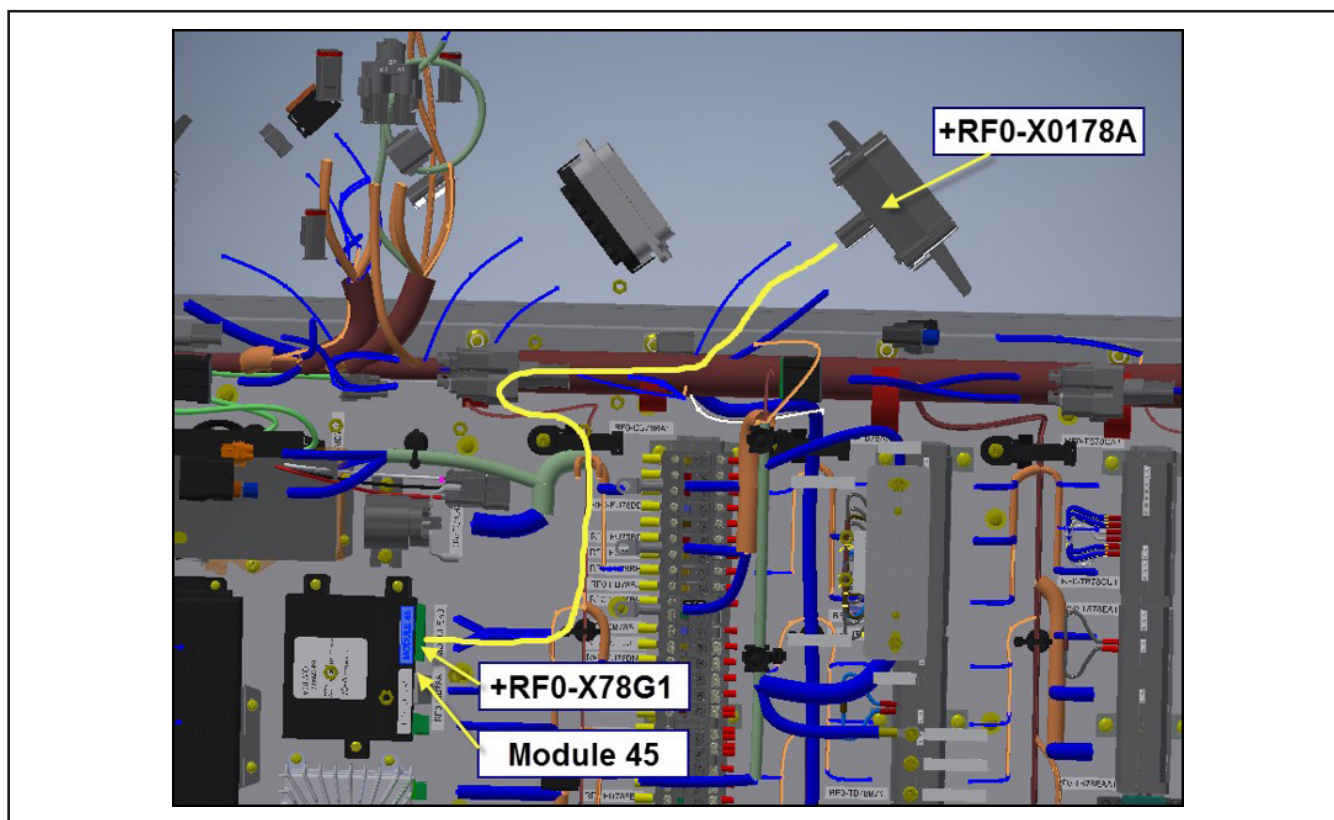


Figure 6 - Routing in the RF0 Panel

INSTALLATION WIRE KIT (ENGINE COMPARTMENT)

- 1.15. Inside the vehicle, under the middle section of the 5-seater, remove the engine access panel.
- 1.16. Locate the motor Electronic Computer Module (ECM) connector +MT-X64P2 (Figure 7) and disconnect it.
- 1.17. Connect wire 64-1673 at position 24 of +MT-X64P2 and reconnect to motor.
- 1.18. Route the wire 64-1673 over the main harness bundle up to the interconnector +IB-X6499A and connect (see Table 2 for connection).
- 1.19. Connect and route wire 64-1693 (see Table 2).
- 1.20. Secure all routing with cable ties 0657558.

Wire ident	From	Hardware	To	Hardware	Refer to Figure
64-1673	ECM +MT-X64P2-24		Interconnector +IB-X6499A-6		7, 8
64-1693	Interconnector +IB-X6499A-7		Splice connector +EN-SC64CH-5		8

Table 2 - List of Connections in the Engine Compartment

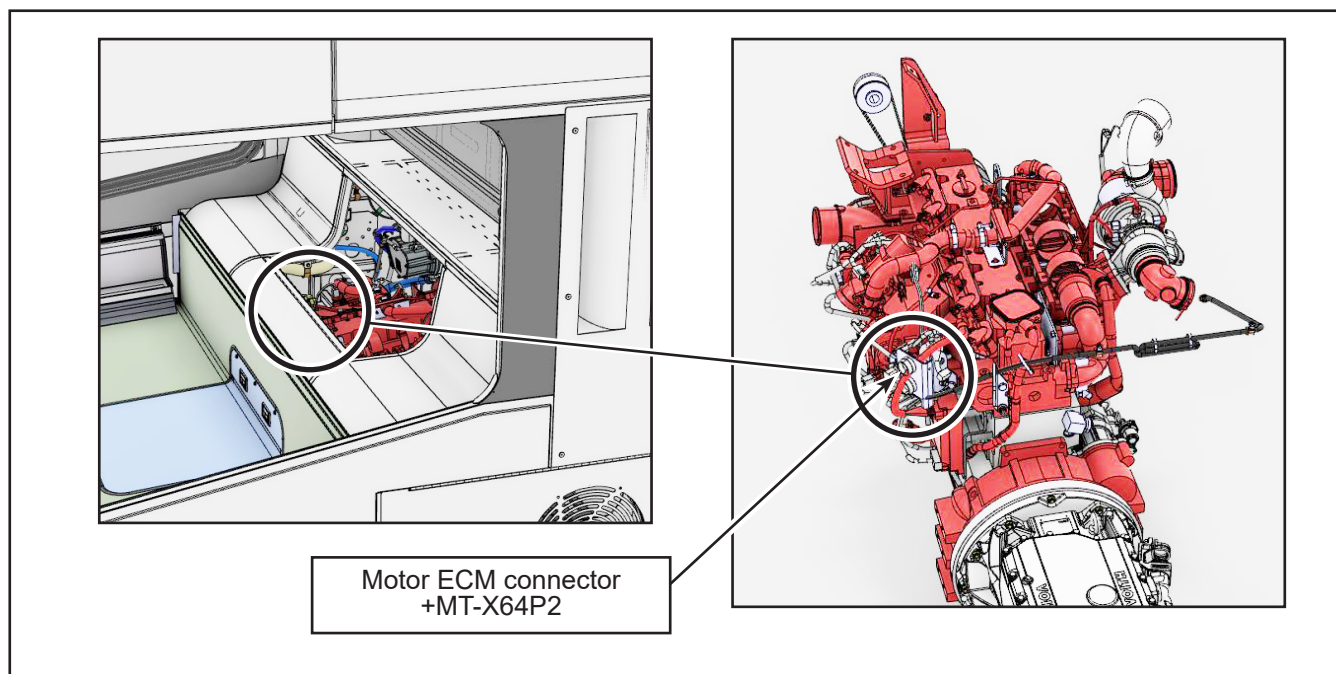


Figure 7 - Motor ECM Connector Location (Components Removed for Clarity)

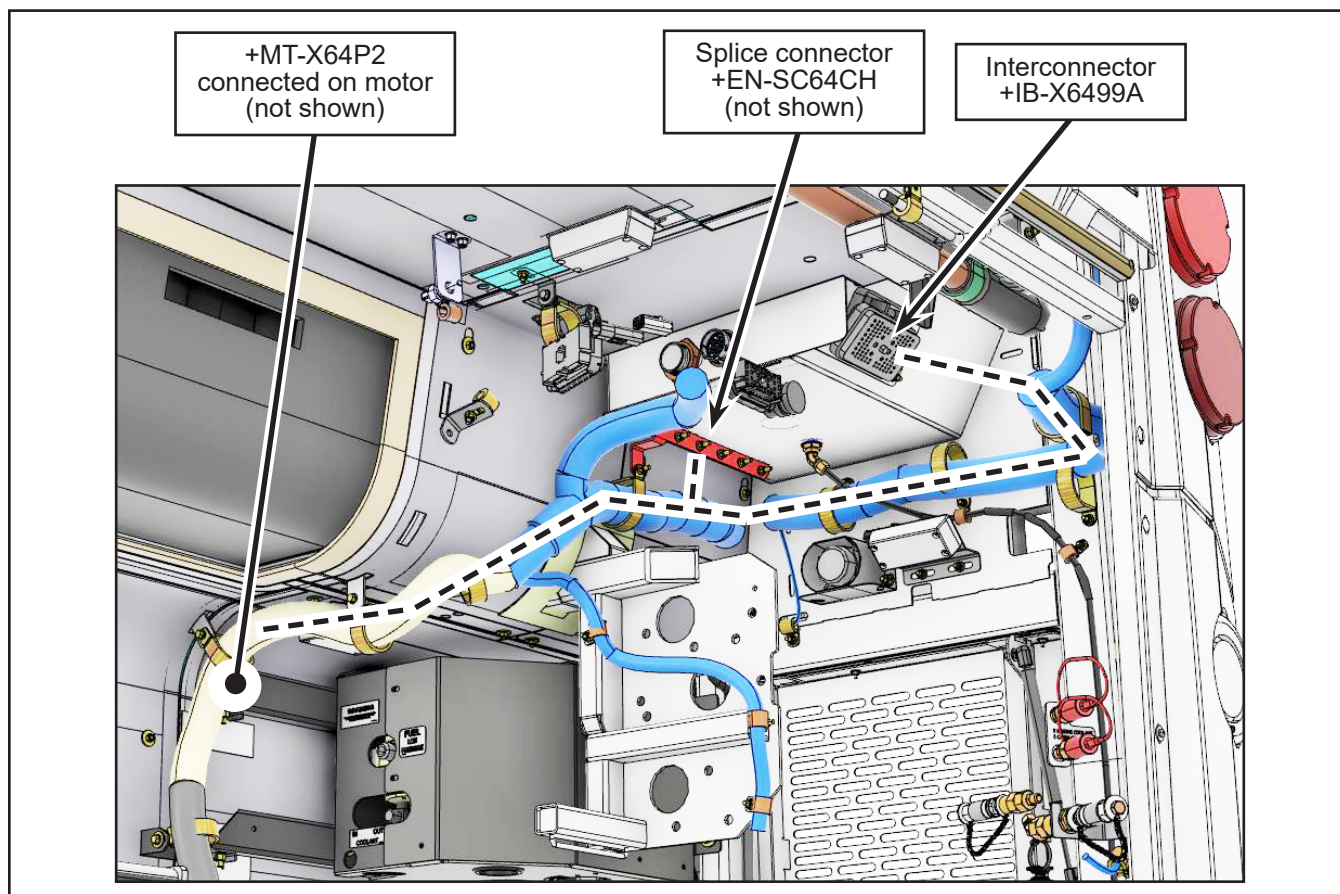


Figure 8 - Routing in the Engine Compartment (Components Removed for Clarity)

INSTALLATION WIRE KIT (IB PANEL)

1.21. Inside the vehicle, open the Interior Back panel (IB panel) (Figure 9).

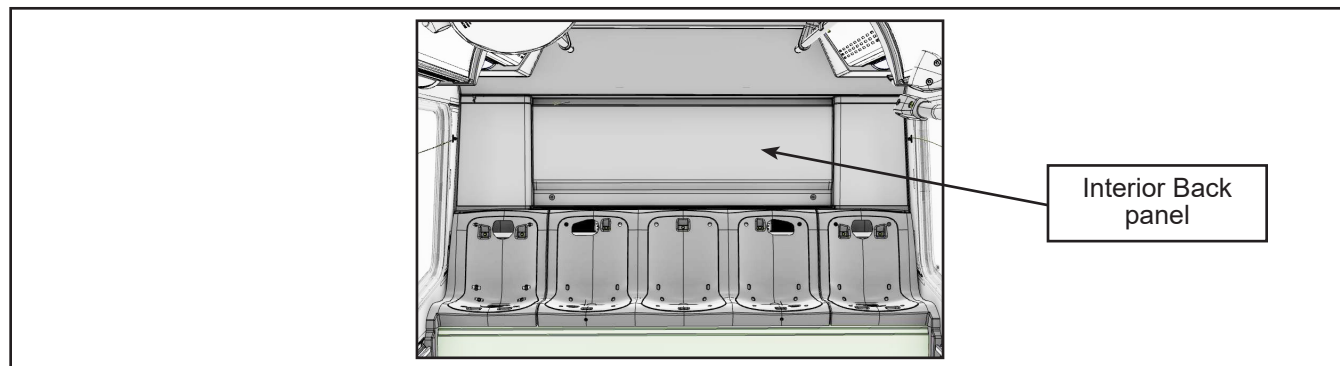


Figure 9 - Interior Back Panel

- 1.22. Install the relay socket connector (supplied with wires 99-2789 and 99-2790) at position +IB-RL99AE1 (Figure 10) with screw N11091, lock washer N17902 and flat washer N11092.
- 1.23. Install the new relay 24V N11613 on the relay socket.
- 1.24. Route wires 99-2789 and 99-2790 over the main harness bundle up to the +IB-X6499A interconnector (see Table 3 for connection) and connect.
- 1.25. Connect and route wire 99-2791 and 99-2792 (see Table 3).
- 1.26. Secure all routing with cable ties 0657558.

Wire ident	From	Hardware	To	Hardware	Refer to Figure
99-2789	+IB-RL99AE1		Interconnector +IB-X6499A-6		10
99-2790	+IB-RL99AE1		interconnector +IB-X6499A-7		10
99-2791	Module 53 +IB-X99A1-11		+IB-RL99AE1-86		11
99-2792	Splice connector +IB-SC99A-J		+IB-RL99AE1-85		11

Table 3 - List of Connection in the Interior Back Panel (IB Panel)

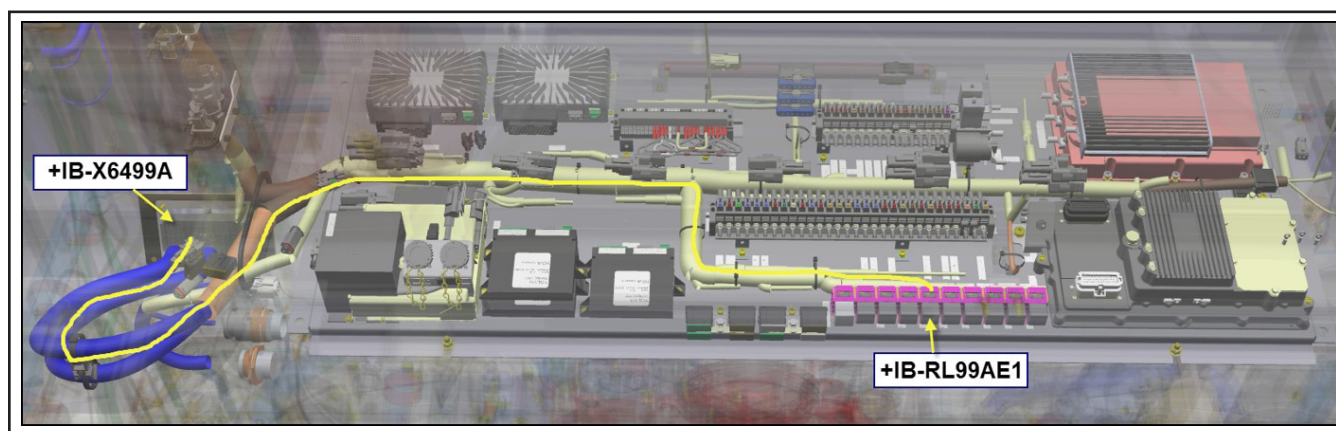


Figure 10 - Routing in the IB Panel (Components Removed for Clarity)

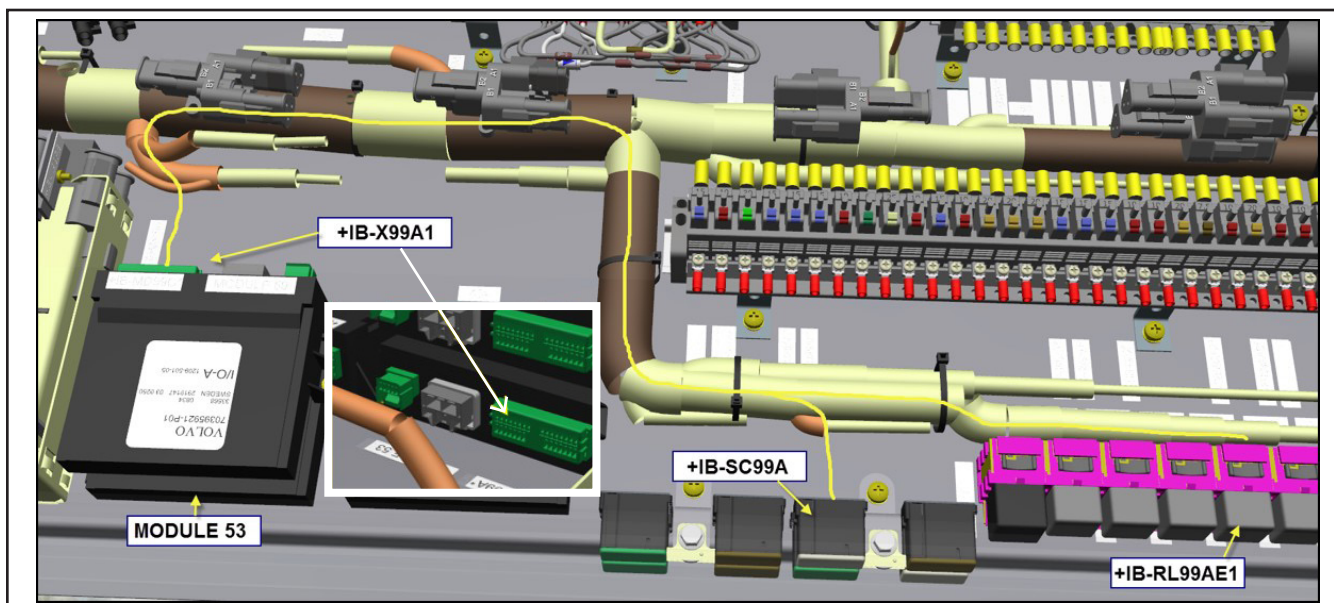


Figure 11 - Routing in IB Panel (Components Removed for Clarity)

ACTIVATION OF THE EMERGENCY ENGINE STOP OVERRIDE SWITCH

- 1.27. Reprogram the vehicle to the latest software revision (see Client List).
- 1.28. Using Cummings INSITE software, modify parameter 22911 to active the Engine Override Switch logic from Cummins.
- 1.29. On the left of the screen, select **DATA MONITOR/LOGGER**. Select **SWITCHES**. Validate that the Emergency Override discrete go to **active** when the Emergency Engine Stop Override switch is held on the lateral console.
- 1.30. Reinstall all removed access panels or partition panels.
- 1.31. The vehicle can return in service. ❖