

REFERENCE:	Nova Bus Manuals
SECTION:	09: Engine cooling package MKIII
RS N°:	MQR 7621-810
EFFECTIVE IN PROD.:	L937 (2016FE)

APPLICATION DEADLINE: 2017NO30  
CLAIM REFERENCE NUMBER: WB-3749

SUBJECT:	Radiator coolant level sensor
JUSTIFICATION:	Cummins coolant sensors equipped with the EPC connectors fail in service due to water infiltration.

LEVEL	DESCRIPTION	DIRECT CHARGES		TIME
		LABOUR	MATERIAL	
1	Contact your Cummins dealer to schedule the amended Campaign C1744 repair procedure to be performed on your affected vehicles.	Cummins	Cummins	–
2	Install a new wire kit, support bracket, VBEA programming and Actia programming on affected vehicles.	Nova Bus	Nova Bus	1.5h

\* The cost of the material will be reimbursed when claiming for this service document.

#### MATERIAL

QTY	PART N°	REV.	DESCRIPTION	REPLACES PART N°
<b>LEVEL 1</b>				
–	–	–	–	–
<b>LEVEL 2</b>				
1	N632000466	–	Wire harness	–
1	N84881	–	Support bracket	–
10	G50077996	–	Tie wrap	–
1	N75417	–	Heavy duty tie mount	–
1	N44886-02	C	M10 bolt	–
2	N38593	–	M6 Nylon lock flanged nut	–
1	N40492	A	M6 X 20 bolt	–
2	N57040	A	Stud-mounted high heat tie mount	–
1	N44881-03	A	M6 X 30 bolt	–
2	N84511-01	–	Deutsch connector holder clip	–

Materials will be available within 30 days. 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.

\* The material identified in Level 2 is to be ordered only for vehicles that meet the criteria defined in Level 1.

#### 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	2016SE29	Initial release	Luc Carignan

CLIENT	ORDER	ROAD NUMBER		VIN (2NVY/4RKY...)		QTY
		FROM	TO	FROM	TO	
Austin - CMTA - Texas	L704	5051	5068	L82J7E4	L82J2E4	18
Barrie - Ontario	L878	1501	1504	L82JXF3	L82J6F3	4
BC Transit - BCT - British Columbia	L858	9447	9481	L82JXE3	L82J5F3	35
BC Transit - BCT - British Columbia	L891	—	—	L82J5F3	L82J2F3	5
Brampton - Ontario	L789	—	—	L82J4E3	L82J1E3	8
Brampton - Ontario	L816	—	—	L82J3E3	L82J9E3	7
Brampton - Ontario	L864	1501	1510	L82JXF3	L82J6F3	10
Brampton - Ontario	L865	1511	1519	L82JXF3	L82J9F3	9
Brampton - Ontario	L942	1601	1613	L82J6G3	L82J4G3	13
Brantford - Ontario	L775	10131	10132	L82U1D3	L82U2D3	2
Brantford - Ontario	L928	10151	10153	L82J7F3	L82J0F3	3
Burlington - Ontario	L887	7017-15	7025-15	L82J7F3	L82J8F3	9
Clemson Area Transit - South Carolina	L769	—	—	S92U1D4	S92U1D4	1
Cornwall Ontario	L935	—	—	L82J3F3	L82J5F3	2
CT Transit - Connecticut	L814	1462	1473	S92LXE4	S92L4E4	12
CT Transit - Connecticut	L815	1426	1426	S92L0E4	S92L0E4	4
Durham Region Transit - Ontario	L872	8551	8553	L82J0F3	L82J4F3	3
Durham Region Transit - Ontario	L888	8554	8559	L82J2F3	L82J1F3	6
Fredericton - New Brunswick	L774	8131	8131	L82U7D3	L82U7D3	1
Fredericton - New Brunswick	L812	—	—	L82J4E3	L82J4E3	1
Fredericton - New Brunswick	L836	8143	8143	L82J9E3	L82J9E3	1
Fredericton - New Brunswick	L901	8151	8151	L82J7F3	L82J7F3	1
Grande Prairie Alberta	L834	—	—	L82J7E3	L82J2E3	4
Guelph - Ontario	L767	237	239	L82UXD3	L82U3D3	3
Guelph - Ontario	L835	240	243	L82J0E3	L82J6E3	4
Guelph - Ontario	L927	244	247	L82J1F3	L82J9F3	4
Houston - Texas	L951	1915	1915	L82J0G9	L82J0G9	1
Kingston Ontario	L880	1502	1502	L82JXF3	L82JXF3	1
Kingston Ontario	L925	1504	1510	L82J5F3	L82J5F3	4
Lethbridge - Alberta	L868	—	—	L82J2F3	L82J2F3	1
LYNX - Florida	L785	—	—	S92L6E4	S92L8E4	2
MTD - Santa Barbara, California	L730	—	—	S92J8E4	S92J1E4	3
Niagara Falls - Ontario	L771	1396	1397	L82U9D3	L82U0D3	2
North Bay - Ontario	L895	784	785	L82J7F3	L82J9F3	2
Oakville - Ontario	L874	—	—	L82J6F3	L82JXF3	6
Oakville - Ontario	L881	—	—	L82J2F3	L82J8F3	5
Peterborough - Ontario	L770	55	60	L82U0D3	L82UXD3	6
Peterborough - Ontario	L870	61	63	L82JXF3	L82J3F3	3
Peterborough - Ontario	L919	64	66	L82J6F3	L82JXF3	3
Red Deer - Alberta	L766	1104	1105	L82U7D3	L82U9D3	2
Red Deer - Alberta	L772	1106	1108	L82J2E3	L82J6E3	3
Red Deer - Alberta	L813	10008	10009	L82J2E3	L82J4E3	2
Red Deer - Alberta	L869	—	—	L82J9F3	L82J0F3	2

CLIENT	ORDER	ROAD NUMBER		VIN (2NVY/4RKY...)		QTY
		FROM	TO	FROM	TO	
Red Deer - Alberta	L926			L82J2F3	L82J4F3	2
Regina - Saskatchewan	L776	663	669	L82U4D3	L82U5D3	7
Regina - Saskatchewan	L807	671	685	L82J8E3	L82J2E3	15
Regina - Saskatchewan	L892	686	691	L82J5F3	L82J4F3	6
Sarnia Ontario	L873	151	152	L82J0F3	L82J0F3	2
Sarnia Ontario	L883	153	153	L82J4G3	L82J4G3	1
Saskatoon - Saskatchewan	L831	1401	1405	L82J7E3	L82J9E3	5
Saskatoon - Saskatchewan	L894	1501	1510	L82J0F3	L82J7F3	10
Sault Ste. Marie Ontario	L934	—	—	L82JXG3	L82JXG3	1
St. Catharines Ontario	L879	1501	1504	L82J4F3	L82J4F3	4
St. Catharines Ontario	L898	1560	1560	S92J4F3	S92J4F3	1
St. John - New Brunswick	L871	40585	40586	L82J8F3	L82JXF3	2
St. John - New Brunswick	L939	40687	40687	L82J0G3	L82J0G3	1
St. John's - Newfoundland	L808	1415	1419	L82J4E3	L82J1E3	5
St. John's - Newfoundland	L875	1520	1525	L82JXF3	L82J3F3	6
St. John's - Newfoundland	L930	1626	1630	L82J7F3	L82J9F3	5
Stratford - Ontario	L893	—	—	L82J9F3	L82J0F3	2
Sudbury - Ontario	L890	851	855	L82JXF3	L82J6F3	5
Thunder Bay - Ontario	L806	—	—	L82J6E3	L82J8E3	2
Thunder Bay - Ontario	L863	—	—	L82J8F3	L82J6F3	3
Thunder Bay - Ontario	L944	—	—	L82J6G3	L82JXG3	3
Timmins - Ontario	L783	—	—	L82U8D3	L82UXD3	2
Timmins - Ontario	L839	—	—	L82J8E3	L82J8E3	1
University of Alabama - Alabama	L787	—	—	L82J2E4	L82J4E4	2
University of Alabama - Alabama	L902	7030	7030	L82J2F4	L82J4F4	4
Vancouver Airport Authority - YVR British Columbia	L912	173	178	L82L5F3	L82L4F3	6
Walt Disney World - Florida	L763	—	—	S92U0D3	S92U4D3	6
Welland Ontario	L866			L82J9F3	L82J9F3	1
Welland Ontario	L933	—	—	L82J1G3	L82J1G3	1
Whitehorse - Yukon	L784	43	43	L82U9D3	L82U9D3	1
Windsor - Ontario	L886	570	577	L82J8F3	L82J5F3	8
Woodstock - Ontario	L778	—	—	L82U2D3	L82U2D3	1
Woodstock - Ontario	L832	—	—	L82J9E3	L82J9E3	1
Woodstock - Ontario	L923	15-16	15-16	L82J9F3	L82J9F3	1
York Regional Transit - Ontario	L896	1501	1517	L82J2F3	L82JXF3	17
York Regional Transit - Ontario	L936	1518	1518	L82J3G3	L82J3G3	1

**WARNING**

Follow your internal safety procedures.

## PROCEDURE

### LEVEL 1: CUMMINS CAMPAIGN C1744

- 1.1. Cummins is to perform amended campaign C1744, which includes
  - 1.1.1. Replacement of the mid and lower coolant sensors by new N84555 sensor. See Figure 1.
  - 1.1.2. Modification of the radiator electric harness, by installing a wire splice kit to replace the two PKC-type connectors. See Figure 1.

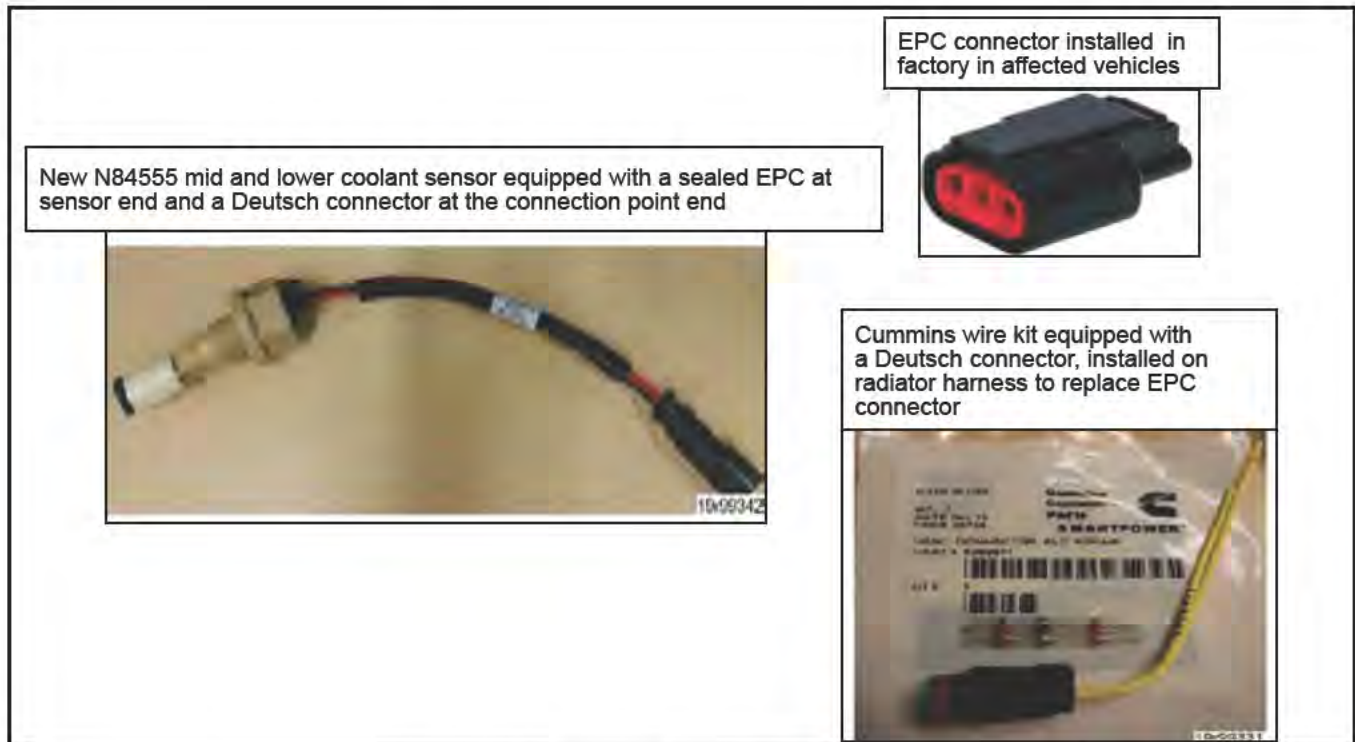


Figure 1 - Cummins Campaign C1744 Details

**LEVEL 2: INSTALL**

- 2.1. Build the N84881 support bracket sub-assembly. See Figure 2 for parts and details.
- 2.2. Open the radiator access door.
- 2.3. Install the N84881 support bracket and the heavy-duty tie mount on the radiator using the N44886-02 M10 bolt. See Figure 2.

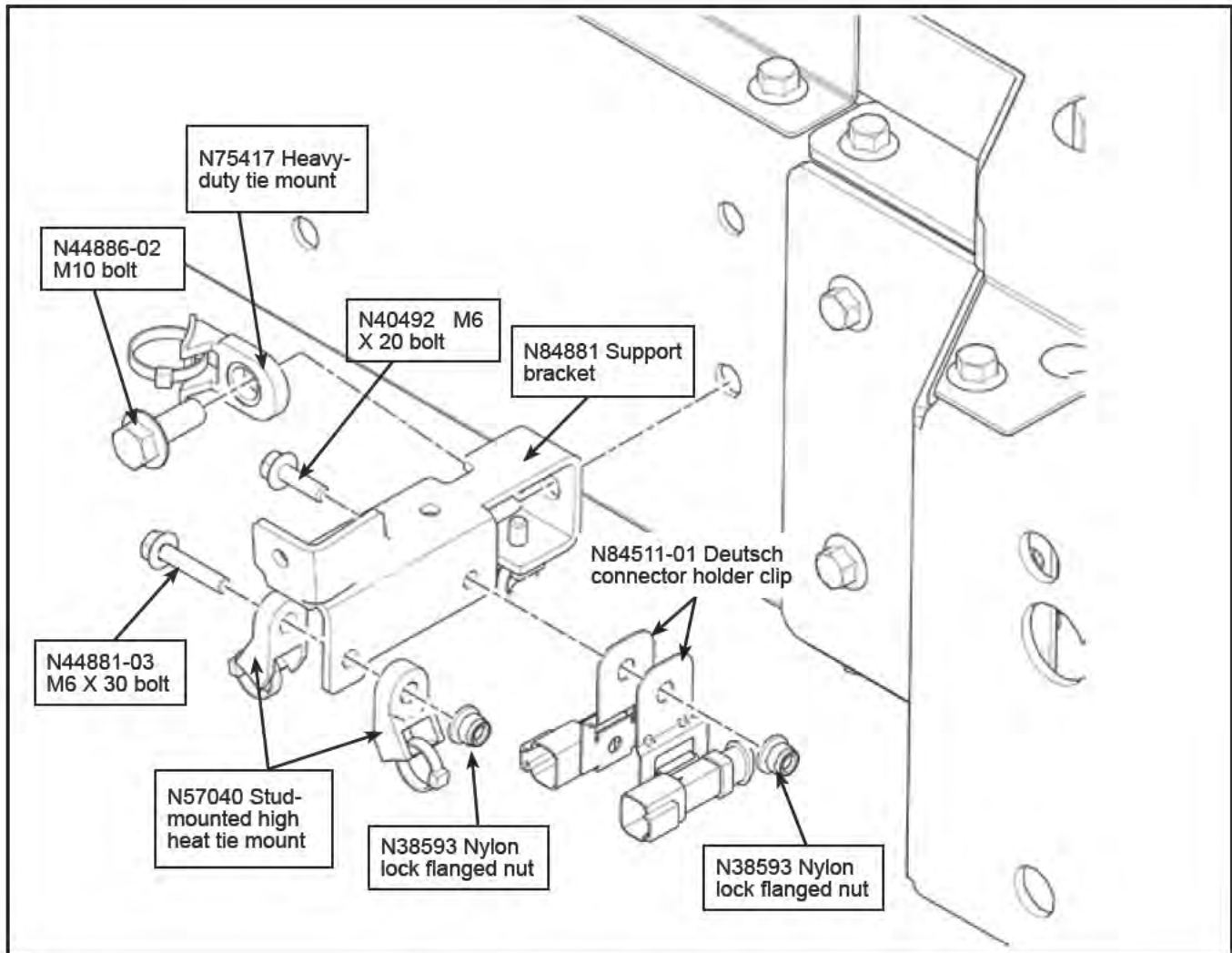


Figure 2 - Support Bracket Assembly

- 2.4. Disconnect radiator harness connectors ER-X6475B, ER-X6475C, ER-X75SA and ER-X75WA. Cut and tape back the wires of connectors ER-X6475C, ER-X75SA and ER-X75WA at their harness breakout point.
- 2.5. Remove, cut, and tape back the wires located in positions 1 and 3 on connector ER-X6475B of the radiator harness.
- 2.6. From the received N632000466 harness, connect the free white wire to position 1 on the radiator harness connector ER-X6475B. See Figure 3.
- 2.7. From the received N632000466 harness, connect the free black wire to position 3 on the radiator harness connector ER-X6475B. See Figure 3.

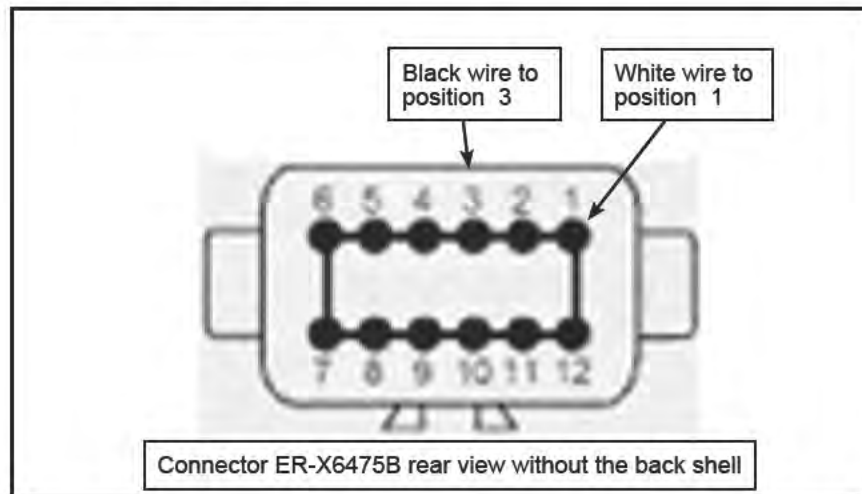


Figure 3 - ER-X6475B Back View Pin Out

- 2.8. Affix wire harness N632000466 to the original radiator harness using a G50077996 tie wrap.
- 2.9. Affix on N84555 2 wire pigtails to the heavy-duty tie mount using a G50077996 tie wrap. See Figure 5.
- 2.10. Connect ER-X75SA to the mid coolant sensor connector affix the Deutsch connector to the holder clip, and affix the harness to the tie mount using tie wraps. See Figure 5.
- 2.11. Connect ER-X75WA to the low coolant sensor connector and affix the Deutsch connector to the holder clips and affix the harness to the tie mount using tie wraps. See Figure 5.



Figure 4 - Installation of Harnesses to the Support Bracket

- 2.12. Connect N632000466 wire harness connectors **ER-x6475B** and **ER-x6475C** to the vehicle harness.
- 2.13. Close the radiator access door.
- 2.14. Program the V-BEA system using the program and revision indicated in Annex A. See section 16: **V-BEA** (VOLVO BUS ELECTRONIC ARCHITECTURE) of the Nova LFS maintenance manual for the programming procedure.
- 2.15. Program the ACTIA system using the program and revision indicated in Annex B. See section 16: **V-BEA** (VOLVO BUS ELECTRONIC ARCHITECTURE) of the Nova LFS maintenance manual for the programming procedure. ❖

## ANNEX A

## LIST OF REQUIRED V-BEA PROGRAMS PER ORDER

INDICATED REVISIONS ARE THE MINIMUM REVISION REQUIREMENTS

CLIENT	ORDER	ROAD NUMBER		VIN (2NVY/4RKY...)		QTY	PROGRAM	REV.
		FROM	TO	FROM	TO			
Austin - CMTA - Texas	L704	5051	5068	L82J7E4500471	L82J2E4500488	18	AUS4DE__00	E
Barrie - Ontario	L878	1501	1504	L82JXF3001691	L82J6F3001719	4	BAR4DE__00	D
BC Transit - BCT - British Columbia	L858	9447	9481	L82JXE3001401	L82J5F3001436	35	BCT4DE__03	F
BC Transit - BCT - British Columbia	L891	—	—	L82J5F3001565	L82J2F3001569	5	BCT4DE__03	F
Brampton - Ontario	L789	—	—	L82J4E3001216	L82J1E3001223	8	BRM4DE__00	J
Brampton - Ontario	L816	—	—	L82J3E3001224	L82J9E3001230	7	BRM4DE__00	J
Brampton - Ontario	L864	1501	1510	L82JXF3001500	L82J6F3001509	10	BRM4DE__01	D
Brampton - Ontario	L865	1511	1519	L82JXF3001514	L82J9F3001522	9	BRM4DE__01	D
Brampton - Ontario	L942	1601	1613	L82J6G3750070	L82J4G3750083	13	BRM4DE__02	0
Brantford - Ontario	L775	10131	10132	L82U1D3000999	L82U2D3001000	2	BRT4DE__02	E
Brantford - Ontario	L928	10151	10153	L82J7F3001793	L82J0F3001795	3	BRT4DE__03	A
Burlington - Ontario	L887	7017-15	7025-15	L82J7F3001681	L82J8F3001723	9	BUR4DE__00	G
Clemson Area Transit - South Carolina	L769	—	—	S92U1D4500418	S92U1D4500418	1	#N/A	#N/A
Cornwall Ontario	L935	—	—	L82J3F3001838	L82J5F3001839	2	CWT4DE__00	A
CT Transit - Connecticut	L814	1462	1473	S92LXE4500717	S92L4E4500728	12	CON6HE__00	H
CT Transit - Connecticut	L815	1426	1426	S92L0E4500709	S92L0E4500712	4	CON6HE__00	H
Durham Region Transit - Ontario	L872	8551	8553	L82J0F3001523	L82J4F3001525	3	DRT4DE__00	L
Durham Region Transit - Ontario	L888	8554	8559	L82J2F3001703	L82J1F3001708	6	DRT4DE__00	L
Fredericton - New Brunswick	L774	8131	8131	L82U7D3000960	L82U7D3000960	1	FRE4DE__01	E
Fredericton - New Brunswick	L812	—	—	L82J4E3001202	L82J4E3001202	1	FRE4DE__02	G
Fredericton - New Brunswick	L836	8143	8143	L82J9E3001390	L82J9E3001390	1	FRE4DE__02	G
Fredericton - New Brunswick	L901	8151	8151	L82J7F3001602	L82J7F3001602	1	FRE4DE__02	G
Grande Prairie Alberta	L834	—	—	L82J7E3001386	L82J2E3001389	4	GPT4DE__00	C
Guelph - Ontario	L767	237	239	L82UXD3000967	L82U3D3000969	3	GUE4DE__02	D
Guelph - Ontario	L835	240	243	L82J0E3001391	L82J6E3001394	4	GUE4DE__03	D
Guelph - Ontario	L927	244	247	L82J1F3001756	L82J9F3001763	4	GUE4DE__04	B
Houston - Texas	L951	1915	1915	L82J0G9775203	L82J0G9775203	1	HOU4DE__00	E
Kingston Ontario	L880	1502	1502	L82JXF3001786	L82JXF3001786	1	KNG4DE__00	C
Kingston Ontario	L925	1504	1510	L82J5F3001808	L82J5F3001811	4	KNG4DE__00	C
Lethbridge - Alberta	L868	—	—	L82J2F3001510	L82J2F3001510	1	LET4DE__00	F

## ANNEX A

## LIST OF REQUIRED V-BEA PROGRAMS PER ORDER

INDICATED REVISIONS ARE THE MINIMUM REVISION REQUIREMENTS

CLIENT	ORDER	ROAD NUMBER		VIN (2NVY/4RKY...)		QTY	PROGRAM	REV.
		FROM	TO	FROM	TO			
LYNX - Florida	L785	—	—	S92L6E4500505	S92L8E4500506	2	LNx6HE__01	G
MTD - Santa Barbara, California	L730	—	—	S92J8E4500567	S92J1E4500569	3	SBA6DE__00	D
Niagara Falls - Ontario	L771	1396	1397	L82U9D3000958	L82U0D3000959	2	NIA4DE__01	G
North Bay - Ontario	L895	784	785	L82J7F3001678	L82J9F3001679	2	NBT4DE__00	E
Oakville - Ontario	L874	—	—	L82J6F3001526	L82JXF3001531	6	OAK4DE__00	P
Oakville - Ontario	L881	—	—	L82J2F3001717	L82J8F3001740	5	OAK4DE__00	P
Peterborough - Ontario	L770	55	60	L82U0D3000993	L82UXD3000998	6	PET4DE__00	L
Peterborough - Ontario	L870	61	63	L82JXF3001612	L82J3F3001614	3	PET4DE__01	D
Peterborough - Ontario	L919	64	66	L82J6F3001767	L82JXF3001769	3	PET4DE__01	D
Red Deer - A berta	L766	1104	1105	L82U7D3001025	L82U9D3001026	2	RDD4DE__01	H
Red Deer - A berta	L772	1106	1108	L82J2E3001120	L82J6E3001122	3	RDD4DE__02	G
Red Deer - A berta	L813	10008	10009	L82J2E3001361	L82J4E3001362	2	RDD4DE__03	E
Red Deer - A berta	L869	—	—	L82J9F3001570	L82J0F3001571	2	RDD4DE__03	E
Red Deer - A berta	L926	—	—	L82J2F3001796	L82J4F3001797	2	RDD4DE__03	E
Regina - Saskatchewan	L776	663	669	L82U4D3001001	L82U5D3001007	7	REG4DE__02	H
Regina - Saskatchewan	L807	671	685	L82J8E3001137	L82J2E3001151	15	REG4DE__03	H
Regina - Saskatchewan	L892	686	691	L82J5F3001484	L82J4F3001489	6	REG4DE__04	B
Sarnia Ontario	L873	151	152	L82J0F3001599	L82J0F3001600	2	SAR4DE__00	M
Sarnia Ontario	L883	153	153	L82J4G3750021	L82J4G3750021	1	SAR4DE__00	M
Saskatoon - Saskatchewan	L831	1401	1405	L82J7E3001307	L82J9E3001311	5	SAS4DE__01	C
Saskatoon - Saskatchewan	L894	1501	1510	L82J0F3001490	L82J7F3001499	10	SAS4DE__01	C
Sault Ste. Marie Ontario	L934	—	—	L82JXG3750038	L82JXG3750038	1	SSM4DE__01	B
St. Catharines Ontario	L879	1501	1504	L82J4F3001587	L82J4F3001590	4	SCT4DE__00	K
St. Catharines Ontario	L898	1560	1560	S92J4F3001663	S92J4F3001663	1	SCT6DE__00	D
St. John - New Brunswick	L871	40585	40586	L82J8F3001592	L82JXF3001593	2	SJT4DE__00	C
St. John - New Brunswick	L939	40687	40687	L82J0G3750078	L82J0G3750078	1	SJT4DE__00	C
St. John's - Newfoundland	L808	1415	1419	L82J4E3001152	L82J1E3001156	5	SJO4DE__02	H
St. John's - Newfoundland	L875	1520	1525	L82JXF3001478	L82J3F3001483	6	SJO4DE__03	B
St. John's - Newfoundland	L930	1626	1630	L82J7F3001826	L82J9F3001830	5	SJO4DE__04	C
Stratford - Ontario	L893	—	—	L82J9F3001584	L82J0F3001585	2	STD4DE__02	A
Sudbury - Ontario	L890	851	855	L82JXF3001609	L82J6F3001641	5	SUD4DE__02	A
Thunder Bay - Ontario	L806	—	—	L82J6E3001170	L82J8E3001171	2	THN4DE__02	F
Thunder Bay - Ontario	L863	—	—	L82J8F3001558	L82J6F3001560	3	THN4DE__02	F
Thunder Bay - Ontario	L944	—	—	L82J6G3750084	L82JXG3750086	3	THN4DE__03	E
Timmins - Ontario	L783	—	—	L82U8D3001017	L82UXD3001018	2	TIM4DE__02	F

## ANNEX A

## LIST OF REQUIRED V-BEA PROGRAMS PER ORDER

INDICATED REVISIONS ARE THE MINIMUM REVISION REQUIREMENTS

CLIENT	ORDER	ROAD NUMBER		VIN (2NVY/4RKY...)		QTY	PROGRAM	REV.
		FROM	TO	FROM	TO			
Timmins - Ontario	L839	—	—	L82J8E3001395	L82J8E3001395	1	TIM4DE__03	B
University of Alabama - Alabama	L787	—	—	L82J2E4500507	L82J4E4500508	2	UAL4DE__03	D
University of Alabama - Alabama	L902	7030	7030	L82J2F4500993	L82J4F4500994	2	UAL4DE__03	D
Vancouver Airport Authority - YVR British Columbia	L912	173	178	L82L5F3001812	L82L4F3001817	6	VIA4DE__00	F
Walt Disney World - Florida	L763	—	—	S92U0D3001019	S92U4D3001024	6	WDW6DE__00	F
Welland Ontario	L866			L82J9F3001648	L82J9F3001648	1	WEL4DE__00	G
Welland Ontario	L933	—	—	L82J1G3750011	L82J1G3750011	1	WEL4DE__00	G
Whitehorse - Yukon	L784	43	43	L82U9D3001057	L82U9D3001057	1	WHH4DE__0	J
Windsor - Ontario	L886	570	577	L82J8F3001818	L82J5F3001825	8	WDT4DE__00	D
Woodstock - Ontario	L778	—	—	L82U2D3001014	L82U2D3001014	1	WOO4DE__00	E
Woodstock - Ontario	L832	—	—	L82J9E3001342	L82J9E3001342	1	WOO4DE__01	C
Woodstock - Ontario	L923	15-16	15-16	L82J9F3001746	L82J9F3001746	1	WOO4DE__02	C
York Regional Transit - Ontario	L896	1501	1517	L82J2F3001619	L82JXF3001741	17	YRK4DE__00	J
York Regional Transit - Ontario	L936	1518	1518	L82J3G3750012	L82J3G3750012	1	YRK4DE__00	J

\* To obtain the software revision, contact your after sales representative.

**ANNEX B**  
**LIST OF REQUIRED ACTIA PROGRAMS PER ORDER**

CLIENT	ORDER	ROAD NUMBER		VIN (2NVY/4RKY...)		FRONT ACTIA GAUGE PROGRAM	REAR ACTIA GAUGE PROGRAM
		FROM	TO	FROM	TO		
Austin - CMTA - Texas	L704	5051	5068	L82J7E4500471	L82J2E4500488	116724v01__40	117130v01__09
Barrie - Ontario	L878	1501	1504	L82JXF3001691	L82J6F3001719	116724v01__40	117130v01__09
BC Transit - BCT - British Columbia	L858	9447	9481	L82JXE3001401	L82J5F3001436	116724v01__40	117130v01__09
BC Transit - BCT - British Columbia	L891	—	—	L82J5F3001565	L82J2F3001569	116724v01__40	117130v01__09
Brampton - Ontario	L789	—	—	L82J4E3001216	L82J1E3001223	116724v01__40	117130v01__09
Brampton - Ontario	L816	—	—	L82J3E3001224	L82J9E3001230	116724v01__40	117130v01__09
Brampton - Ontario	L864	1501	1510	L82JXF3001500	L82J6F3001509	116724v01__40	117130v01__09
Brampton - Ontario	L865	1511	1519	L82JXF3001514	L82J9F3001522	116724v01__40	117130v01__09
Brampton - Ontario	L942	1601	1613	L82J6G3750070	L82J4G3750083	116724v01__40	117130v01__09
Brantford - Ontario	L775	10131	10132	L82U1D3000999	L82U2D3001000	116724v01__40	117130v01__09
Brantford - Ontario	L928	10151	10153	L82J7F3001793	L82J0F3001795	116724v01__40	117130v01__09
Burlington - Ontario	L887	7017-15	7025-15	L82J7F3001681	L82J8F3001723	116724v01__40	117130v01__09
Clemson Area Transit - South Carolina	L769	—	—	S92U1D4500418	S92U1D4500418	116724v01__40	117130v01__09
Cornwall Ontario	L935	—	—	L82J3F3001838	L82J5F3001839	116724v01__40	117130v01__09
CT Transit - Connecticut	L814	1462	1473	S92LXE4500717	S92L4E4500728	116724v01__40	117130v01__09
CT Transit - Connecticut	L815	1426	1426	S92L0E4500709	S92L0E4500712	116724v01__40	117130v01__09
Durham Region Transit - Ontario	L872	8551	8553	L82J0F3001523	L82J4F3001525	116724v01__40	117130v01__09
Durham Region Transit - Ontario	L888	8554	8559	L82J2F3001703	L82J1F3001708	116724v01__40	117130v01__09
Fredericton - New Brunswick	L774	8131	8131	L82U7D3000960	L82U7D3000960	116724v01__40	117130v01__09
Fredericton - New Brunswick	L812	—	—	L82J4E3001202	L82J4E3001202	116724v01__40	117130v01__09
Fredericton - New Brunswick	L836	8143	8143	L82J9E3001390	L82J9E3001390	116724v01__40	117130v01__09
Fredericton - New Brunswick	L901	8151	8151	L82J7F3001602	L82J7F3001602	116724v01__40	117130v01__09
Grande Prairie Alberta	L834	—	—	L82J7E3001386	L82J2E3001389	116724v01__40	117130v01__09
Guelph - Ontario	L767	237	239	L82UXD3000967	L82U3D3000969	116724v01__40	117130v01__09
Guelph - Ontario	L835	240	243	L82J0E3001391	L82J6E3001394	116724v01__40	117130v01__09
Guelph - Ontario	L927	244	247	L82J1F3001756	L82J9F3001763	116724v01__40	117130v01__09
Houston - Texas	L951	1915	1915	L82J0G9775203	L82J0G9775203	116724v01__40	117130v01__09
Kingston Ontario	L880	1502	1502	L82JXF3001786	L82JXF3001786	116724v01__40	117130v01__09
Kingston Ontario	L925	1504	1510	L82J5F3001808	L82J5F3001811	116724v01__40	117130v01__09

## ANNEX B

## LIST OF REQUIRED ACTIA PROGRAMS PER ORDER

CLIENT	ORDER	ROAD NUMBER		VIN (2NVY/4RKY...)		FRONT ACTIA GAUGE PROGRAM	REAR ACTIA GAUGE PROGRAM
		FROM	TO	FROM	TO		
Lethbridge - Alberta	L868	—	—	L82J2F3001510	L82J2F3001510	116724v01__40	117130v01__09
LYNX - Florida	L785	—	—	S92L6E4500505	S92L8E4500506	116724v01__40	117130v01__09
MTD - Santa Barbara, California	L730	—	—	S92J8E4500567	S92J1E4500569	116724v01__40	117130v01__09
Niagara Falls - Ontario	L771	1396	1397	L82U9D3000958	L82U0D3000959	116724v01__40	117130v01__09
North Bay - Ontario	L895	784	785	L82J7F3001678	L82J9F3001679	116724v01__40	117130v01__09
Oakville - Ontario	L874	—	—	L82J6F3001526	L82JXF3001531	116724v01__40	117130v01__09
Oakville - Ontario	L881	—	—	L82J2F3001717	L82J8F3001740	116724v01__40	117130v01__09
Peterborough - Ontario	L770	55	60	L82U0D3000993	L82UXD3000998	116724v01__40	117130v01__09
Peterborough - Ontario	L870	61	63	L82JXF3001612	L82J3F3001614	116724v01__40	117130v01__09
Peterborough - Ontario	L919	64	66	L82J6F3001767	L82JXF3001769	116724v01__40	117130v01__09
Red Deer - Alberta	L766	1104	1105	L82U7D3001025	L82U9D3001026	116724v01__40	117130v01__09
Red Deer - Alberta	L772	1106	1108	L82J2E3001120	L82J6E3001122	116724v01__40	117130v01__09
Red Deer - Alberta	L813	10008	10009	L82J2E3001361	L82J4E3001362	116724v01__40	117130v01__09
Red Deer - Alberta	L869	—	—	L82J9F3001570	L82J0F3001571	116724v01__40	117130v01__09
Red Deer - Alberta	L926	—	—	L82J2F3001796	L82J4F3001797	116724v01__40	117130v01__09
Regina - Saskatchewan	L776	663	669	L82U4D3001001	L82U5D3001007	116724v01__40	117130v01__09
Regina - Saskatchewan	L807	671	685	L82J8E3001137	L82J2E3001151	116724v01__40	117130v01__09
Regina - Saskatchewan	L892	686	691	L82J5F3001484	L82J4F3001489	116724v01__40	117130v01__09
Sarnia Ontario	L873	151	152	L82J0F3001599	L82J0F3001600	116724v01__40	117130v01__09
Sarnia Ontario	L883	153	153	L82J4G3750021	L82J4G3750021	116724v01__40	117130v01__09
Saskatoon - Saskatchewan	L831	1401	1405	L82J7E3001307	L82J9E3001311	116724v01__40	117130v01__09
Saskatoon - Saskatchewan	L894	1501	1510	L82J0F3001490	L82J7F3001499	116724v01__40	117130v01__09
Sault Ste. Marie Ontario	L934	—	—	L82JXG3750038	L82JXG3750038	116724v01__40	117130v01__09
St. Catharines Ontario	L879	1501	1504	L82J4F3001587	L82J4F3001590	116724v01__40	117130v01__09
St. Catharines Ontario	L898	1560	1560	S92J4F3001663	S92J4F3001663	116724v01__40	117130v01__09
St. John - New Brunswick	L871	40585	40586	L82J8F3001592	L82JXF3001593	116724v01__40	117130v01__09
St. John - New Brunswick	L939	40687	40687	L82J0G3750078	L82J0G3750078	116724v01__40	117130v01__09
St. John's - Newfoundland	L808	1415	1419	L82J4E3001152	L82J1E3001156	116724v01__40	117130v01__09
St. John's - Newfoundland	L875	1520	1525	L82JXF3001478	L82J3F3001483	116724v01__40	117130v01__09
St. John's - Newfoundland	L930	1626	1630	L82J7F3001826	L82J9F3001830	116724v01__40	117130v01__09
Stratford - Ontario	L893	—	—	L82J9F3001584	L82J0F3001585	116724v01__40	117130v01__09
Sudbury - Ontario	L890	851	855	L82JXF3001609	L82J6F3001641	116724v01__40	117130v01__09

**ANNEX B**  
**LIST OF REQUIRED ACTIA PROGRAMS PER ORDER**

CLIENT	ORDER	ROAD NUMBER		VIN (2NVY/4RKY...)		FRONT ACTIA GAUGE PROGRAM	REAR ACTIA GAUGE PROGRAM
		FROM	TO	FROM	TO		
Thunder Bay - Ontario	L806	—	—	L82J6E3001170	L82J8E3001171	116724v01__40	117130v01__09
Thunder Bay - Ontario	L863	—	—	L82J8F3001558	L82J6F3001560	116724v01__40	117130v01__09
Thunder Bay - Ontario	L944	—	—	L82J6G3750084	L82JXG3750086	116724v01__40	117130v01__09
Timmins - Ontario	L783	—	—	L82U8D3001017	L82UXD3001018	116724v01__40	117130v01__09
Timmins - Ontario	L839	—	—	L82J8E3001395	L82J8E3001395	116724v01__40	117130v01__09
University of Alabama - Alabama	L787	—	—	L82J2E4500507	L82J4E4500508	116724v01__40	117130v01__09
University of Alabama - Alabama	L902	7030	7030	L82J2F4500993	L82J4F4500994	116724v01__40	117130v01__09
Vancouver Airport Authority - YVR British Columbia	L912	173	178	L82L5F3001812	L82L4F3001817	116724v01__40	117130v01__09
Walt Disney World - Florida	L763	—	—	S92U0D3001019	S92U4D3001024	116724v01__40	117130v01__09
Welland Ontario	L866			L82J9F3001648	L82J9F3001648	116724v01__40	117130v01__09
Welland Ontario	L933	—	—	L82J1G3750011	L82J1G3750011	116724v01__40	117130v01__09
Whitehorse - Yukon	L784	43	43	L82U9D3001057	L82U9D3001057	116724v01__40	117130v01__09
Windsor - Ontario	L886	570	577	L82J8F3001818	L82J5F3001825	116724v01__40	117130v01__09
Woodstock - Ontario	L778	—	—	L82U2D3001014	L82U2D3001014	116724v01__40	117130v01__09
Woodstock - Ontario	L832	—	—	L82J9E3001342	L82J9E3001342	116724v01__40	117130v01__09
Woodstock - Ontario	L923	15-16	15-16	L82J9F3001746	L82J9F3001746	116724v01__40	117130v01__09
York Regional Transit - Ontario	L896	1501	1517	L82J2F3001619	L82JXF3001741	116724v01__40	117130v01__09
York Regional Transit - Ontario	L936	1518	1518	L82J3G3750012	L82J3G3750012	116724v01__40	117130v01__09

\* To obtain the software revision, contact your after sales representative.