

Northern[®] **BUS** RADIATOR **PRODUCTS**

**RADIATORS
SURGE TANKS
CHARGE AIR COOLERS
CONDENSERS
BLOWER MOTORS
AUXILIARY HEATERS
ACCESSORIES**



RADIATOR OEM Crossover

OEM #'s	PART #	OEM #'s	PART #	OEM #'s	PART #	OEM #'s	PART #
BLUE BIRD BUS		BLUE BIRD BUS (CONT)		BLUE BIRD BUS (CONT)		CHEVROLET/GMC (CONT)	
00010507	239083	1050186	239084	1040309AS	239061	2043593	230459
00010507	239172	1050228	239284	1050105BB	239283	2091764	230460
0010507	239083	1050228	239283	1101949K	239278	2091765	230460
0010507	239172	1101949	239278	1101949KS	239278	2095549	230460
00010510	238643	1102030	238643	1102112DS	239090	2096756	230459
00010510	239294	1102030	239294	1102112DS	239280	2096757	230459
0010510	238643	1102112	239090	1102464A	239283	2096761	230459
0010510	239294	1102112	239280	1102464AS	239283	2096762	230460
0011503	238643	1102464	239283	1102554AS	239061	2096769	230459
0011503	239294	1102480	239172	1102554AS	239082	3010553	230540
00021401	239090	1102480	239083	1A18207	238567	3010554	230540
00021401	239280	1102554	239061	3506934C93	238567	3013550	230540
0060348	239284	1102554	239082	CARPENTER BUS		3020007	230540
0060348	239283	1102648	239084	00021401	239280	3021327	230540
0065509	239283	1102648	238831	00021401	239090	3025922	230460
0115577	239283	1675000	239278	01768670	239281	3025923	230461
00115578	239083	1768670	239281	01768688	239279	3025924	230461
00115578	239172	1768688	239279	01769470	239278	3025925	230459
0115578	239083	1769470	239278	732558	239281	3033925	230459
0115578	239172	1843184	238643	734730	239278	3033926	230460
01768670	239281	1843184	239294	734731	239279	3033927	230461
01769470	239278	1948066	239083	734732	239280	3035921	230459
01768688	239279	1948066	239172	1003376	239278	3041016	230460
01843184	238643	1966324	239090	1003401	239281	3041934	230459
01843184	239294	1966324	239280	1003402	239279	3043593	230459
02093001	238643	10005680	238865	1003476	239280	3050546	230460
02093001	239294	10007026	239284	1101949	239278	3050548	230460
05071501	239283	10007026	239283	1102112	239280	3091764	230460
015635622	239083	10007027	239284	1675000	239278	3091765	230460
015635622	239172	10007027	239283	1768670	239281	3095549	230460
732558	239281	10007088	239284	1768688	239279	3096058	231233
734730	239278	10007617	239061	1769470	239278	3096756	230459
734731	239279	10010094	239061	1966324	239280	3096757	230459
734732	239090	10010214	239084	96060301	239278	3096762	230460
734732	239280	10010214	238831	97051201	239278	3096769	230459
818760	238643	10014204	239082	97060901	239281	5241180	232108
818760	239294	10014204	239061	1003376K	239278	5247023	232106
818761	238643	10014205	239083	1003376KS	239278	5247023	232049
818761	239294	10014205	239172	1003402FS	239279	6866964	230459
1003376	239278	10019392	238838	1101949K	239278	6866965	230459
1003401	239281	10021419	239084	1101949KS	239278	52458204	232108
1003402	239279	10021419	238831	1102112DS	239280	52460930	232108
1003427	238643	10053625	239084	CHEVROLET/GMC		52470237	232106
1003427	239294	10053627	239061	20004	230540	52471178	232108
1003471	239083	10053628	239082	20859	232108	52471180	232108
1003471	239172	10053628	239061	20882	232106	52477165	232507
1003476	239090	10053629	239082	685480	230460	52477166	232108
1003476	239280	96060301	239278	686964	230459	52487493	232507
1003584	239284	97051201	239278	686965	230459	89018632	232507
1003676	239283	97060901	239281	686966	230459	1R2975	232108
1003730	239284	1003376K	239278	695480	230460	RA1113	232108
1003730	239283	1003376KS	239278	695481	230461	FREIGHTLINER	
1003755	239061	1003402FS	239279	701175	230459	61778	239085
1040027	238643	1003427HS	238643	798023	230459	61778	239306
1040027	239294	1003427HS	239294	798027	230459	61781	239085
1040309	239061	1003710AS	239061	798029	230459	61781	239306
1040312	239061	1003755AS	239061	798030	230460	62000	239085
1040312	239082	1003755AS	239082	798031	230461	62000	239306

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OEM #'s	PART #	OEM #'s	PART #	OEM #'s	PART #	OEM #'s	PART #
FREIGHTLINER (CONT)		FREIGHTLINER (CONT)		FREIGHTLINER (CONT)		FREIGHTLINER (CONT)	
62003	239085	1AH0010S	239085	A4570	239085	BHT61781	239085
62003	239306	1AH0010S	239306	A4570	239306	BHT61781	239306
62013	239085	1AH00110S	239085	B0175	239085	BHT62000	239085
62013	239306	1AH00110S	239306	B0175	239306	BHT62000	239306
62016	239085	1SA00278	239085	B0183	239085	BHT62003	239085
62016	239306	1SA00278	239306	B0183	239306	BHT62003	239306
74675	239000	1SA00282	239085	B0184	239085	BHT62013	239085
74676	239000	1SA00282	239306	B0184	239306	BHT62013	239306
79079	239085	1SA00283	239085	B6719	238604	BHT62016	239085
79079	239306	1SA00283	239306	B6719	239191	BHT62016	239306
79082	239085	1SA00286	239085	B7593	239085	BHT74671	239000
79082	239306	1SA00286	239306	B7593	239306	BHT74675	239000
79094	239085	1SA00287	239085	B7594	239085	BHT7593	239085
79094	239306	1SA00287	239306	B7594	239306	BHT7593	239306
79097	239085	2AA00109	239085	B8066	239000	BHT79079	239085
79097	239306	2AA00109	239306	B8088	239000	BHT79079	239306
79212	239085	2AH00086	239085	B9316	238604	BHT79082	239085
79212	239306	2AH00086	239306	B9316	239191	BHT79082	239306
79220	239085	2AH00089	239085	B9384	238604	BHT79094	239085
79220	239306	2AH00089	239306	B9384	239191	BHT79094	239306
79223	239085	2AH00109	239085	BHT1AH00110S	239085	BHT79097	239085
79223	239306	2AH00109	239306	BHT1AH00110S	239306	BHT79097	239306
79229	239085	2AH00110	239085	BHT1SA000284	239085	BHT79212	239085
79229	239306	2AH00110	239306	BHT1SA000284	239306	BHT79212	239306
1003557	239377	310031T	239085	BHT1SA000285	239085	BHT79220	239085
1003597	239382	310031T	239306	BHT1SA000285	239306	BHT79220	239306
1003599	239382	3AH00221SP	239085	BHT1SA000286	239085	BHT79223	239085
1003666	239382	3AH00221SP	239088	BHT1SA000286	239306	BHT79223	239306
1003731	238863	3AH00221SP	239342	BHT1SA000287	239085	BHT79226	239085
1003748	238740	3AH00221SP	239330	BHT1SA000287	239306	BHT79226	239306
1050207	238740	3AH00221SP	239306	BHT1SA000278	239085	BHT79229	239085
1050207	238619	3AH00249SP	239085	BHT1SA000278	239306	BHT79229	239306
1102641	238863	3AH00249SP	239306	BHT1SA000279	239085	BHT91653	238604
16909000	239085	3AH00319SP	239085	BHT1SA000279	239306	BHT91653	239191
16909000	239306	3AH00319SP	239306	BHT1SA000282	239085	BHT91657	238617
62102539	238621	8MK376753311	239085	BHT1SA000282	239306	BHT91657	239189
74676100	239000	8MK376753311	239306	BHT1SA000283	239085	BHT91661	238604
70245430048	239085	A0516058004	239085	BHT1SA000283	239306	BHT91661	239191
70245430048	239306	A0516058004	239306	BHT1SA000286	239085	BHT91662	238604
1003682BS	238621	A0516059012	239085	BHT1SA000286	239306	BHT91662	239191
1003747AS	238618	A0516059012	239306	BHT1SA000287	239085	BHT91665	238617
1003748AS	238740	A0516909000	239085	BHT1SA000287	239306	BHT91665	239189
1003749AS	238620	A0516909000	239088	BHT2AA00109	239085	BHTA4568	239085
1003749AS	238644	A0516909000	239330	BHT2AA00109	239306	BHTA4568	239306
1040292AS	238618	A0516909000	239342	BHT2AH00086	239085	BHTA4570	239085
1040293AS	238740	A0516909000	239306	BHT2AH00086	239306	BHTA4570	239306
1040293AS	238619	A0516909001	239085	BHT2AH00089	239085	BHTB0175	239085
1040382AS	238620	A0516909001	239306	BHT2AH00089	239306	BHTB0175	239306
1050190BS	238621	A0516910000	239085	BHT2AH00109	239085	BHTB0183	239085
1050206AS	238618	A0516910000	239306	BHT2AH00109	239306	BHTB0183	239306
1050207AS	238740	A0516910001	239085	BHT2AH00110	239085	BHTB0184	239085
1050207AS	238619	A0516910001	239306	BHT2AH00110	239306	BHTB0184	239306
1102418AS	238621	A0516910003	239085	BHT2HA001100	239085	BHTB6719	238604
1102618AS	238618	A0516910003	239306	BHT2HA001100	239306	BHTB6719	239191
1102619AS	238619	A0516910004	239085	BHT3AH00319SP	239085	BHTB7593	239085
1102619AS	238740	A0516910004	239306	BHT3AH00319SP	239306	BHTB7593	239306
1102621AS	238620	A4568	239085	BHT61778	239085	BHTB7594	239085
		A4568	239306	BHT61778	239306	BHTB7594	239306

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OEM #'s	PART #	OEM #'s	PART #	OEM #'s	PART #	OEM #'s	PART #
FREIGHTLINER (CONT)		FREIGHTLINER (CONT)		INT'L/NAVISTAR (CONT)		INT'L/NAVISTAR (CONT)	
BHTB8066	239000	VAB1040506	238619	4317020	232131	1A16487	238559
BHTB8088	239000	VAB1040507	238618	4317038	232129	1A16489	238520
BHTB9316	238604	VAB1050206	238618	741816489	238520	1A16489G	238520
BHTB9316	239191	VAB1050207	238740	2022892092	238500	1A16905G	238514
BHTB9384	238604	VAB1050208	238620	2022893092	238500	1A16913	238525
BHTB9384	239191	VAB1050208	238644	3503905092	238520	1A17359	238520
BHTC4482	238617	VAB1050618	238740	11C8798	238500	1A17360G	238510
BHTC4482	239189	VAB1050618	238619	11C8803	238520	1A17878	238559
BHTD4725	239000	VAB1050619	238618	11C8804	238570	1A17882	238520
BHTD9438	239000	VAB1102189	239384	11C8827	238510	1A17882D	238520
BHTD9439	239000	VAB1102418	238621	11C9100	238525	1A17883D	238510
BHTD9444	238604	VAB1102618	238618	11C9101	238555	1A17890D	238514
BHTD9444	239191	VAB1102619	238619	11C9265	238530	1A17892	238517
BHTE1688	238604	VAB1102621	238620	11C9284	238565	1A18120D	238514
BHTE1688	239191	VAB1102621	238644	1649774C1	232127	1A18121D	238516
BHTE2341	239085	VAB1102905	238618	1649774C2	232127	1A18262D	238516
BHTE2341	239306	VAB1102906	238619	1653744C1	232127	1A18365	238576
BHTE2341	239306	GILLIG BUS	8217447000 238818	1653744C2	232127	1A18573	238559
BHTE6362	239000			1659054C91	238500	1A18581D	238514
D2342	238617			1659054C92	238500	1A18583D	238516
D4725	239000			1659054C93	238500	1A19007D	238520
D9438	239000			1659055C91	238505	1A19014D	238514
D9439	239000	3E0129517000	238761	1659055C92	238505	1S180035	239177
D9444	238604	3E0129517000	238762	1664656C91	232118	1S180035	238675
D9444	239191	3E01295172	238761	1664656C91	238559	1S180056	239177
E1688	238604	3E01295172	238762	1668900C91	232127	1S180056	238675
E1688	239191	3E0129647100	238814	1668900C92	232127	1S180138	239177
E2341	239085	3552496	238818	1668901C91	232124	1S180138	238675
E2341	239306	INT'L/NAVISTAR		1668901C92	232124	1S1801380000	239177
E6362	239000	316727	238545	166900C92	232127	1S1801380000	238675
EX01AH00110S	239085	1309087	232124	1696919C1	238500	1S180141	238639
EX01AH00110S	239306	1405760	232123	1696919C2	238500	1S180141	238639
EX02AH00086	239085	1458744	232130	1696919C3	238500	1S180142	238639
EX02AH00086	239306	4317020	232131	1696921C1	238505	1S180142	238639
EX02AH00089	239085	4317038	232129	1697166C1	238519	1S180165	238639
EX02AH00089	239306	52080067	239177	1697166C2	238519	1S180165	238639
EX03AH00249SP	239085	52080067	238675	1697176C2	238522	1S180235	238639
EX03AH00249SP	239306	741816489	238520	1697222C1	238510	1S180235	238639
EX03AH00319SP	239085	11756	238520	1697273C1	238520	1S180236	238639
EX03AH00319SP	239306	11944	238570	1697273C2	238520	1S180236	238639
EX03AH00319SP	239085	12272	238550	1697273C3	238520	1S180267	238639
EX03AH00319SP	239306	316727	238545	1697327C1	238510	1S180267	238639
VAB1003557	239377	354887	238575	1697467C1	238514	1S1802880000	238639
VAB1003597	239382	437320	238520	1697467C2	238514	1S1802880000	238639
VAB1003599	239382	493350	232127	1697740C1	238570	2000985C91	238560
VAB1003666	239382	493363	232123	1697741C1	238535	2000985C93	238560
VAB1003682	238621	1002249	238500	1697742C1	238570	2000986C91	238559
VAB1003700	238740	1002846	232118	1697742C2	238570	2000986C92	238559
VAB1003731	238863	1002846	238559	1697743C2	238535	2000986C93	238559
VAB1003747	238618	1003231	232129	1697743C92	238525	2004194C91	238510
VAB1003748	238740	1003233	232131	1697750C91	238546	2004693C91	238516
VAB1003749	238620	1309087	232124	1697750C92	238546	2004693C91	238520
VAB1003749	238644	1327366	232123	1697762C91	238545	2004694C91	238510
VAB1004036	238740	1347255	232127	1697810C91	238545	2007804C92	238581
VAB1004037	238618	1374255	238530	1697810C92	238545	2007814C91	238581
VAB1040292	238618	1458744	232130	1699559C1	238520	2007814C92	238581
VAB1040293	238740	1547306	232131	1699560C1	238510	2007814C93	238581
VAB1040506	238740	3510201	232118	1699560C2	238510	2018487C92	238519

RADIATOR OEM Crossover

OEM #'s	PART #	OEM #'s	PART #	OEM #'s	PART #	OEM #'s	PART #
INT'L/NAVISTAR (CONT)		INT'L/NAVISTAR (CONT)		INT'L/NAVISTAR (CONT)		THOMAS BUS (CONT)	
2022892C92	238500	2593283C91	238639	3S10067	238675	62000	239085
2022893C92	238500	2593283C92	238639	3S11344	239177	62000	239306
2025820C91	238559	2593283C92	238639	3S11344	238675	62003	239085
2025821C91	238560	2593294C91	238639	3S11512	238639	62003	239306
2026621C91	238570	2593294C91	238639	3S11512	238639	62013	239085
2026622C91	238525	2593295C91	238639	3S11519	238639	62013	239306
2026623C91	238570	2593295C91	238639	3S11519	238639	62016	239085
2026624C9	238525	2593295C92	238639	3S13465	238639	62016	239306
2026624C91	238535	2593295C92	238639	3S13465	238639	79079	239085
2029208C91	238568	2593303C91	238639	3S50253	238516	79079	239306
2037786C91	238570	2593303C91	238639	493345C1	232127	79082	239085
2037786C92	238570	2593778C91	238837	493346C1	232127	79082	239306
2037787C91	238535	2602786C9	238639	493347C2	232127	79094	239085
2037787C92	238517	2602786C91	238639	493348C1	232127	79094	239306
2037788C91	238570	2602787C91	238639	493349C3	232127	79097	239085
2037789C91	238535	2602787C91	238639	493350C2	232127	79097	239306
2056624C91	238505	2A45017G	238514	493351C1	230326	79212	239085
2200095C91	238546	3000024C91	238520	493352C2	230326	79212	239306
2200095C92	238546	3503905C91	238520	493353C3	230326	79220	239085
2200096C91	238545	3503905C92	238520	493354C1	230326	79220	239306
2500917C2	238505	3503906C91	238510	493359C3	230326	79223	239085
2500917C92	238505	350906C91	238510	493359C3	230327	79223	239306
2501635C91	238545	35272118C93	238516	493359C4	232123	79229	239085
2501635C92	238545	3527216C91	238575	493360C2	230327	79229	239306
2502718C1	238575	3527216C92	238575	493360C2	232123	1003748	238740
2502718C2	238575	3527217C91	238514	493360C2	238564	1050207	238740
2502720C1	238516	3527217C92	238514	493361C2	230327	1050207	238619
2502721C1	238546	3527217C93	238514	493361C3	230327	16909000	239085
2503571C1	238516	3527217C94	238514	493361C3	232123	16909000	239306
2505146C1	238570	3527218C91	238516	493361C3	238564	62102539	238621
2505157C1	238514	3527218C92	238516	493362C3	232123	62191017	239133
2505159C1	238516	3527218C93	238516	493362C3	238564	62192058	239093
2505159C91	238516	3527219C91	238546	8C408005AA	238639	62570524	238590
2505199C91	238525	3539695C91	238576	8C408005AB	238639	70245430048	239085
2507376C92	232118	3A48118D2	238520	8C408005BA	238639	70245430048	239306
2507376C92	238559	3A48119D2	238500	8C408005BB	238639	1003682BS	238621
2509883C91	232118	3A48120D1	238514	8C4Z8005AA	238639	1003747AS	238618
2509883C91	238559	3A48871D	238510	8C4Z8005AA	238639	1003748AS	238740
2509893C91	239177	3A48873D	238516	8C4Z8005BA	238639	1003749AS	238620
2509893C91	238675	3A49369D	238516	8C4Z8005BA	238639	1003749AS	238644
2509894C91	239177	3A50251D	238514	MCI BUS		1040292AS	238618
2509894C91	238675	3A8119D2	238500	06011427	238763	1040293AS	238740
2509895C1	239177	3E0100670000	239177	1A0207850000	238763	1040293AS	238619
2509895C1	238675	3E0100670000	238675	3E0129830001	238763	1040382AS	238620
2509895C2	239177	3E0115120000	238639	NOVA BUS		1050190BS	238621
2509895C2	238675	3S0115120001	238639	1A20918	238834	1050206AS	238618
2527219C91	238546	3S0115120001	238639	3E12999	238813	1050207AS	238740
2585037C91	232118	3S0115190000	238639	3E0131027000	238834	1050207AS	238619
2585037C91	238559	3S0115190000	238639	N6508201	238834	1102418AS	238621
2592370C92	239177	3S0115190001	238639	N8896866	238760	1102618AS	238618
2592370C92	238675	3S0115190001	238639	N8899732	238813	1102619AS	238619
2593282C91	238639	3S011560000	238837	THOMAS BUS		1102619AS	238740
2593282C91	238639	3S0134650000	238639	052080067	238675	1102621AS	238620
2593282C92	238639	3S0134650000	238639	052080067	239177	1A17474	239133
2593282C92	238639	3S013467	238639	61778	239085	1A17484	239133
2593282C93	238639	3S013467	238639	61778	239306	1A19125	239093
2593282C93	238639	3S0502530000	238516	61781	239085	1AH0010S	239085
2593283C91	238639	3S10067	239177	61781	239306	1AH0010S	239306

RADIATOR OEM Crossover

OEM #'s	PART #	OEM #'s	PART #	OEM #'s	PART #	OEM #'s	PART #
THOMAS BUS (CONT)		THOMAS BUS (CONT)		THOMAS BUS (CONT)		THOMAS BUS (CONT)	
1AH00110S	239085	A0516058005	239342	BHT2AH00089	239306	E2341	239085
1AH00110S	239306	A0516058005	239088	BHT2AH00109	239085	E2341	239306
1S180035	238675	A0516059012	239085	BHT2AH00109	239306	EXO1AH00110S	239085
1S180056	238675	A0516059012	239306	BHT2AH00110	239085	EXO1AH00110S	239306
1S180138	238675	A0516909000	239085	BHT2AH00110	239306	EXO1AH00110S	239085
1S1801380000	238675	A0516909000	239306	BHT2HA001100	239085	EXO1AH00110S	239306
1SA00278	239085	A0516909001	239085	BHT2HA001100	239306	EXO2AH00086	239085
1SA00278	239306	A0516909001	239306	BHT3AH00319SP	239085	EXO2AH00086	239306
1SA00282	239085	A0516910000	239085	BHT3AH00319SP	239306	EXO2AH00089	239085
1SA00282	239306	A0516910000	239306	BHT61778	239085	EXO2AH00089	239306
1SA00283	239085	A0516910001	239085	BHT61778	239306	EXO3AH00249SP	239085
1SA00283	239306	A0516910001	239306	BHT61781	239085	EXO3AH00249SP	239306
1SA00286	239085	A0516910003	239085	BHT61781	239306	EXO3AH00319SP	239085
1SA00286	239306	A0516910003	239306	BHT62000	239085	EXO3AH00319SP	239306
1SA00287	239085	A0516910004	239085	BHT62000	239306	EXO3AH00319SP	239085
1SA00287	239306	A0516910004	239306	BHT62003	239085	EXO3AH00319SP	239306
2509893C91	238675	A4568	239085	BHT62003	239306	MOD3S0515160000	238590
2509893C91	239177	A4568	239306	BHT62013	239085	MOD3S45987	238590
2509894C91	238675	A4570	239085	BHT62013	239306	MOD3S51516	238590
2509894C91	239177	A4570	239306	BHT62016	239085	MOD3S51517	239133
2509895C1	238675	B0175	239085	BHT62016	239306	MOD48791	238590
2509895C1	239177	B0175	239306	BHT7593	239085	MOS3S51516000	238590
2509895C2	238675	B0183	239085	BHT7593	239306	TBB62191052	238590
2509895C2	239177	B0183	239306	BHT79079	239085	TBB62191192	238590
2592370C92	238675	B0184	239085	BHT79079	239306	TBB62191275	238590
2592370C92	239177	B0184	239306	BHT79082	239085	TBB62191295	238590
2AA00109	239085	B7593	239085	BHT79082	239306	TBB62570524	238590
2AA00109	239306	B7593	239306	BHT79094	239085	TBB86190032	238590
2AH00086	239085	B7594	239085	BHT79094	239306	TBB86190053	238590
2AH00086	239306	B7594	239306	BHT79097	239085	TBB86190054	238590
2AH00089	239085	BHT1AH00110S	239085	BHT79097	239306	TBB86190083	238590
2AH00089	239306	BHT1AH00110S	239306	BHT79212	239085	VAB1003682	238621
2AH00109	239085	BHT1SA000284	239085	BHT79212	239306	VAB1003700	238740
2AH00109	239306	BHT1SA000284	239306	BHT79220	239085	VAB1003747	238618
2AH00110	239085	BHT1SA000285	239085	BHT79220	239306	VAB1003748	238740
2AH00110	239306	BHT1SA000285	239306	BHT79223	239085	VAB1003749	238620
310031T	239085	BHT1SA000286	239085	BHT79223	239306	VAB1003749	238644
310031T	239306	BHT1SA000286	239306	BHT79226	239085	VAB1040292	238618
3AH00221SP	239085	BHT1SA000287	239085	BHT79226	239306	VAB1040293	238740
3AH00221SP	239306	BHT1SA000287	239306	BHT79229	239085	VAB1050206	238618
3AH00249SP	239085	BHT1SA00278	239085	BHT79229	239306	VAB1050207	238740
3AH00249SP	239306	BHT1SA00278	239306	BHTA4568	239085	VAB1050208	238620
3AH00319SP	239085	BHT1SA00279	239085	BHTA4568	239306	VAB1050208	238644
3AH00319SP	239306	BHT1SA00279	239306	BHTA4570	239085	VAB1102418	238621
3E0100670000	238675	BHT1SA00282	239085	BHTA4570	239306	VAB1102618	238618
3E0100670000	239177	BHT1SA00282	239306	BHTB0175	239085	VAB1102619	238619
3S10067	238675	BHT1SA00283	239085	BHTB0175	239306	VAB1102621	238620
3S10067	239177	BHT1SA00283	239306	BHTB0183	239085	VAB1102621	238644
3S11344	238675	BHT1SA00286	239085	BHTB0183	239306		
3S11344	239177	BHT1SA00286	239306	BHTB0184	239085		
3S51516	238590	BHT1SA00287	239085	BHTB0184	239306		
3S51517	239133	BHT1SA00287	239306	BHTB7593	239085		
3S51517	239093	BHT2AA00109	239085	BHTB7593	239306		
8MK376753311	239085	BHT2AA00109	239306	BHTB7594	239085		
8MK376753311	239306	BHT2AH00086	239085	BHTB7594	239306		
A0516058004	239085	BHT2AH00086	239306	BHTE2341	239085		
A0516058004	239306	BHT2AH00089	239085	BHTE2341	239306		

RADIATOR Dimensional Look-up (IN ORDER BY CORE SIZE)

PART #	APPLICATION	CORE DIMENSIONS	INLET	OUTLET	CONSTR	NOTES
BLUE BIRD BUS						
239284	'02-'06 CV, Vision	24 ⁷ / ₈ " x 25 ¹ / ₈ " x 2 ¹ / ₁₆ "	2" UL	2" LR	PTR	w/Oil Cooler, w/Frame
238838	'10-'17 Vision w/Ford Propane Eng.	25" x 25" x 2"	2" UL	2" LL	PTR	w/Oil Cooler
239084	'07-'12 w/Cummins Engine	25" x 25 ¹ / ₈ " x 2"	2" UL	2" LR	PTR	w/Oil Cooler, w/Frame
238831	'10 & Newer	25" x 25 ¹ / ₈ " x 2"	2" UL	2" LR	PTR	w/Oil Cooler
239283	'03-'06 Vision	25" x 25 ¹ / ₈ " x 2 ¹ / ₁₆ "	2" UL	2" LR	PTR	w/Oil Cooler
238514	'96-'99 3000, 3600, 3800	27" x 12 ¹ / ₈ " x 2 ¹ / ₁₆ "	2 ¹ / ₂ " UC	2 ¹ / ₄ " LL, Curves to 5 O'Clock	CBR	w/Oil Cooler
238560	'78-'02 4700, 4900, 8000	29 ³ / ₄ " x 26" x 2 ¹ / ₁₆ "	2 ¹ / ₂ " UC	2 ¹ / ₂ " LR, 6" IN	CBR	w/Oil Cooler
238561	4700, 4900	29 ³ / ₄ " x 26" x 2 ¹ / ₁₆ "	2 ¹ / ₂ " UC	2 ¹ / ₂ " LR	CBR	w/o Oil Cooler
238559	'94 4900, 4700	29 ³ / ₄ " x 26" x 2 ¹ / ₄ "	2 ¹ / ₂ " UC	2 ¹ / ₂ " LR, 6" IN Curved	CBR	w/o Oil Cooler
238566	'78-'93 4700, 4900, 8000	29 ³ / ₄ " x 26" x 2 ¹ / ₄ "	2 ¹ / ₂ " UC	2 ¹ / ₂ " LR, 3" IN	CBR	w/Oil Cooler
239090	'96-'99 TC, FE	29 ³ / ₄ " x 26 ¹ / ₈ " x 2 ¹ / ₄ "	2" UR, 6" IN	2" LR, 6" IN	CBR	w/o Oil Cooler, w/Frame
239083	'07 A3FE	29 ³ / ₄ " x 25 ¹ / ₈ " x 2 ¹ / ₄ "	2" UR	2" LR	PTR	w/o Oil Cooler
239082	'10-'13 A3FE	29 ⁵ / ₈ " x 25 ¹ / ₈ " x 2 ¹ / ₄ "	2" UR, 6" IN	2" LR, 6" IN	PTR	w/o Oil Cooler, w/Frame
239172	'03-'07 HDFE 3000 w/A/T	29 ⁵ / ₈ " x 25 ¹ / ₈ " x 2 ¹ / ₈ "	2" UR, 6" IN	2" LR, 6" IN	PTR	w/o Oil Cooler
239278	'94-'99	29 ⁵ / ₈ " x 25 ¹ / ₈ " x 2 ¹ / ₈ "	2" UL	2" LR	PTR	w/o Oil Cooler, Extra 1" Connection Top Tank
239279	'94-'00 TC1000, All American	29 ⁵ / ₈ " x 25 ¹ / ₈ " x 2 ¹ / ₈ "	2" UL	2" LR	PTR	w/o Oil Cooler
239280	'93-'99 TC, FE	29 ⁵ / ₈ " x 25 ¹ / ₈ " x 2 ¹ / ₈ "	2" UR, 6" IN	2" LR, 6" IN	PTR	w/o Oil Cooler, Extra 1" Connection Bottom Tank
239061	D3FE, A3FE	29 ⁷ / ₈ " x 25 ¹ / ₈ " x 2"	2" UR, 6" IN	2" LR, 6" IN	PTR	w/o Oil Cooler
238519	4100-4400, 7300-7700	30 ¹ / ₂ " x 12 ⁵ / ₈ " x 2 ¹ / ₁₆ "	2 ¹ / ₂ " UC	2 ¹ / ₄ " LL	CBR	w/o Oil Cooler
238517	4900	30 ¹ / ₂ " x 12 ¹ / ₈ " x 2 ¹ / ₁₆ "	2 ¹ / ₂ " UC	2 ¹ / ₄ " LR	CBR	w/Oil Cooler
238570	4900	30 ¹ / ₂ " x 12 ¹ / ₈ " x 2 ⁵ / ₈ "	2 ¹ / ₂ " UC	2 ¹ / ₄ " LR	CBR	w/o Oil Cooler
238516	3000, 3600, 3800, 4100-4400, 7300-7700	30 ¹ / ₂ " x 12 ¹ / ₈ " x 2 ¹ / ₁₆ "	2 ¹ / ₂ " UC	2 ¹ / ₄ " LL, Curves to 5 O'Clock	CBR	w/Oil Cooler
239281	'95-'05	30 ⁷ / ₈ " x 26 ¹ / ₈ " x 2 ¹ / ₄ "	2" UL	2" LR	PTR	w/o Oil Cooler
238500	'93-'96 3000, 3600, 3800, 4900	31" x 12 ¹ / ₈ " x 1 ⁷ / ₈ "	2 ¹ / ₂ " UC	2 ¹ / ₂ " LR	CBR	w/o Oil Cooler
238505	'94-'02 3800, 4900	31" x 12 ¹ / ₈ " x 1 ⁷ / ₈ "	2 ¹ / ₂ " UC	2 ¹ / ₂ " LR	CBR	w/Oil Cooler
238510	'96-'02 3000, 3600, 3800, 4700, 4800, 4900, 4954	31" x 12 ¹ / ₄ " x 1 ⁷ / ₈ "	2 ¹ / ₂ " UC	2 ¹ / ₂ " LR Curves 90°	CBR	w/Oil Cooler
238520	'96-'02 3000, 3600, 3800, 4900, 4954	31" x 12 ³ / ₄ " x 1 ⁹ / ₁₆ "	2 ¹ / ₂ " UC	2 ¹ / ₂ " LR	CBR	w/o Oil Cooler
238501	'93-'96 3000, 3600, 3800, 4900	31" x 12 ³ / ₄ " x 2 ¹ / ₁₆ "	2 ¹ / ₂ " UC	2 ¹ / ₂ " LR	CBR	w/o Oil Cooler
238506	'96-'02 3800, 4900	31" x 12 ³ / ₄ " x 2 ¹ / ₁₆ "	2 ¹ / ₂ " UC	2 ¹ / ₂ " LR	CBR	w/Oil Cooler
238511	'96-'02 3000, 3600, 3800, 4700, 4800, 4900, 4954	31" x 12 ³ / ₄ " x 2 ¹ / ₁₆ "	2 ¹ / ₂ " UC	2 ¹ / ₂ " LR Curves 90°	CBR	w/Oil Cooler
238521	'96-'02 3000, 3600, 3800, 4900, 4954	31" x 12 ³ / ₄ " x 2 ¹ / ₁₆ "	2 ¹ / ₂ " UC	2 ¹ / ₂ " LR Curves 90°	CBR	w/o Oil Cooler
238525	'93-'96 3800, 4900	31" x 12 ³ / ₄ " x 2 ¹ / ₁₆ "	2 ¹ / ₂ " UC	2 ¹ / ₂ " LR	CBR	w/Oil Cooler
238535	'93-'96 4900	31" x 12 ¹ / ₈ " x 2 ¹ / ₁₆ "	2 ¹ / ₂ " UC	2 ¹ / ₄ " LR	CBR	w/Oil Cooler
238545		31" x 12 ³ / ₄ " x 2 ¹ / ₁₆ "	2 ¹ / ₂ " UR	2 ¹ / ₂ " LR	CBR	w/Oil Cooler

UL= Upper Left

UR=Upper Right

UC=Upper Center

LL=Lower Left

LR=Lower Right

LC=Lower Center

RADIATOR Dimensional Look-up (IN ORDER BY CORE SIZE)

PART #	APPLICATION	CORE DIMENSIONS	INLET	OUTLET	CONSTR	NOTES
BLUE BIRD BUS (CONT)						
238550	'93-'96 3800, 4700, 4800, 4900	31" x 12 1/8" x 2 1/16"	2 1/2" UC	2 1/4" LL	CBR	w/Oil Cooler
238555	'93-'02 3000, 3600, 3800, 4900, 4954	31" x 12 3/4" x 2 1/16"	2 1/2" UC	2 1/2" LR Curves 90°	CBR	w/Oil Cooler
238565	4100-4400, 7300-7700	31" x 12 3/4" x 2 1/16"	2 1/2" UR	2 1/2" LR	CBR	w/Oil Cooler
238515	4100-4400, 7300-7700	31" x 12 3/4" x 2 1/4"	2 1/2" UC	2 1/4" LL	CBR	w/Oil Cooler
238530	4100-4400, 7300-7700	31" x 12 3/4" x 2 1/4"	2 1/2" UC	2 1/2" LL	CBR	w/o Oil Cooler
238540	'93-'96 4900	31" x 12 3/4" x 2 1/4"	2 1/2" UC	2 1/4" LL	CBR	w/o Oil Cooler
238564		31" x 26" x 2 1/16"	2 1/2" UC	2 1/2" LR	CBR	w/o Oil Cooler
239294	'96-'05 Rear Engine	31" x 26 1/4" x 1 9/16"	2" UL, 7 1/2" IN	2" LR, 7 1/2" IN	CBR	w/o Oil Cooler
238643	'96-'05 Rear Engine	31" x 26 1/4" x 2 1/8"	2" UL, 7 1/2" IN	2" LR, 7 1/2" IN	PTR	w/o Oil Cooler
238575	'00-'02 3000, 3600, 3800	31" x 12 1/8" x 2 1/16"	2 1/2" UC	2 1/2" LL	CBR	w/Oil Cooler
238567		33 1/4" x 26 9/16" x 2 1/2"	2 1/2" UC	2 1/4" LR, 6 5/8" IN	CBR	w/Oil Cooler
238865	12 & Newer RE Bus	35 7/16" x 23" x 5 1/2"	2 1/4" UL	2 1/4" LR	ALM	w/o Oil Cooler
CARPENTER BUS						
239278	'94-'99	29 5/8" x 25 1/8" x 2 1/8"	2" UL	2" LR	PTR	w/o Oil Cooler
239279	'94-'00 TC1000, All American	29 5/8" x 25 1/8" x 2 1/8"	2" UL	2" LR	PTR	w/o Oil Cooler
239280	'93-'99 TC, FE	29 5/8" x 25 1/8" x 2 1/8"	2" UR, 6" IN	2" LR, 6" IN	PTR	w/o Oil Cooler
239090	'93-'99 TC, FE	29 3/4" x 26 1/8" x 2 1/4"	2" UR, 6" IN	2" LR, 6" IN	CBR	w/o Oil Cooler, w/Frame
239281	'95-'05	30 7/8" x 26 1/8" x 2 1/4"	2" UL	2" LR	PTR	w/o Oil Cooler
239294	'96-'05 Rear Engine	31" x 26 1/4" x 1 9/16"	2" UL, 7 1/2" IN	2" LR, 7 1/2" IN	CBR	w/o Oil Cooler
CHEVROLET/GMC						
230459	'73-'85 40, 50, 60 School Bus	28 1/4" x 24" x 1 7/8"	2" UL	2 1/4" LR	CBR	w/o Oil Cooler
230460	'73-'85 40, 50, 60 School Bus	28 1/4" x 24" x 1 7/8"	2" UL	2 1/4" LR	CBR	w/o Oil Cooler
230540	40, 50, 60 School Bus	28 1/4" x 24" x 1 7/8"	1 1/2" UL	1 3/4" LR	CBR	w/o Oil Cooler
230461	'72-'86 40, 50, 60 School Bus	28 1/4" x 24" x 2 1/2"	2" UL	2 1/4" LR	CBR	w/o Oil Cooler
232049	'97-'02 Low Cab Forward, T Diesel	30 1/2" x 23" x 1 1/4"	1 9/16" UL	2" LR	PTR	w/Oil Cooler
232106		30 1/2" x 23 1/2" x 2 1/8"	1 9/16" UL	2" LR	CBR	w/o Oil Cooler
232108	C Series Kodiak, Topkick, School Bus Chassis	31 3/8" x 23 1/4" x 1 1/4"	2" UL, 2 1/8" IN	2" LR, 2" IN	PTR	(2) Oil Coolers
231233	'91-'01 School Bus w/6.0L, 7.0L Engines	31 3/8" x 25 1/2" x 1 3/8"	2" UL	2 1/4" LR	PTR	w/Oil Cooler
232507	'98-'02 Kodiak, Topkick, Medium Duty Bus Chassis	31 7/16" x 23 5/16" x 1 5/16"	2" UL	2" LR	ALM	(2) Oil Coolers
FREIGHTLINER						
238621	TBB-HDX Bus	27 1/2" x 31 13/16" x 2 1/16"	2 1/2" UR	2 1/2" LL	PTR	w/o Oil Cooler
238620	'10 & Newer TBB-EF Bus	27 7/16" x 25 1/16" x 2 1/16"	2" UL	2" LR	PTR	w/Oil Cooler
238644	'07 & Newer TBB-EF Bus	27 7/16" x 25 1/16" x 2 1/16"	2" UL	2" LR	PTR	w/Oil Cooler, w/Frame
239377	'03 MT45, MT55, MB55, FedEx, UPS Step Vans	27 7/16" x 25 1/8" x 2 1/16"	2" UL	2" LR	PTR	w/Oil Cooler, w/Frame
239382	'04 MT45, MT55	27 7/16" x 25 1/8" x 2 1/16"	2" UL	2" LR	PTR	w/Oil Cooler, w/Frame
239387	'04-'12 FedEx, UPS Step Vans, Thomas Bus	27 7/16" x 25 1/8" x 2 1/16"	2" UL, 6" IN	2" LR, 7 5/8" IN	PTR	w/Oil Cooler

RADIATOR Dimensional Look-up (IN ORDER BY CORE SIZE)

PART #	APPLICATION	CORE DIMENSIONS	INLET	OUTLET	CONSTR	NOTES
FREIGHTLINER (CONT)						
239306	'97-'04 FL50, 60, 70, 80, 90	28 3/4" x 24 1/4" x 1 9/16"	2" UL, 5" IN	2" LR, 7 1/4" IN	CBR	w/Oil Cooler
239088	'95-'04 FL50, 60, 70, 80, 90	28 3/4" x 24 3/4" x 2"	2" UL, 5" IN	2 1/4" LR, 7 1/4" IN	PTR	w/o Oil Cooler
239330	'95-'04 FL50, 60, 70, 80, 90	28 3/4" x 24 3/4" x 1 7/8"	2" UL, 5" IN	2 1/4" LR, 7 1/4" IN	CBR	w/o Oil Cooler, w/Frame
239342	'95-'04 FL50, 60, 70, 80, 90	28 3/4" x 24 3/4" x 1 9/16"	2" UL, 5" IN	2 1/4" LR, 7 1/4" IN	CBR	w/o Oil Cooler
239085	'97-'04 FL50, 60, 70, 80, 90	28 5/8" x 25" x 1 7/8"	2" UL, 5" IN	2" LR, 7 1/4" IN	PTR	w/Oil Cooler
238618	FLT B2, C2 Bus w/M/T	29 13/16" x 25 1/8" x 2 1/16"	2" UL	2" LR	PTR	w/o Oil Cooler
238619	'10-'12 B2, C2 Bus w/A/T	29 5/8" x 25 1/8" x 2 1/16"	2" UL	2" LR	PTR	w/Oil Cooler
239189		29 5/8" x 27 1/8" x 2 1/16"	2" UL	2" LR, 2 1/8" IN	PTR	w/Oil Cooler
238740	'07-'12 FLT, B2, C2 Bus w/Automatic Transmission	29 13/16" x 25 1/8" x 2 1/16"	2" UL	2" LR	PTR	w/Oil Cooler, w/Frame
238604	'99-'04 School Bus FS-65 w/Mercedes or Cummins Engine	29 5/8" x 24 1/4" x 1 15/16"	2" UR, 2 1/4" IN	2" LL, 1 1/2" IN	PTR	w/Oil Cooler
239000	'03-'09 M2 Bus w/CAT Engine	29 5/8" x 24 1/4" x 1 7/8"	2" UL, 1 1/8" IN	2" LR, 1 1/8" IN	PTR	w/Oil Cooler
239172		29 5/8" x 25 1/8" x 2 1/8"	2" UR, 6" IN	2" LR, 6" IN	PTR	w/o Oil Cooler
239191	'99-'04 School Bus FS-65 w/Mercedes or Cummins Engine, '04-'07 FL106	29 5/8" x 24 1/4" x 1 9/16"	2" UR, 2 1/4" IN	2" LL, 1 1/2" IN	CBR	w/Oil Cooler
239173	FLT B2 Bus	29 5/8" x 25 1/8" x 2 1/16"	2" UL, 2 1/16" IN	2" LR, 7 13/16" IN	PTR	w/Oil Cooler
238617	'04-'07 M2 Bus w/Mercedes Eng.	29 5/8" x 26 1/8" x 2"	2" UR, 2 1/8" IN	2" LL, 2 1/8" IN	PTR	w/Oil Cooler
238863	'10 & Newer Shuttle Bus	40" x 31 13/16" x 2 1/16"	2 1/2" UL	2 1/2" LR	PTR	w/o Oil Cooler
GILLIG BUS						
238761	'08-'12	28 1/4" x 26 5/8" x 4 9/16"	2 1/4" UR	2 1/2" LR	PTR	w/o Oil Cooler
238814	'08-'12	28 1/4" x 26 5/8" x 4 9/16"	2 1/2" UL, 5 1/2" in	2 1/2" LL, 11 1/2" in	PTR	w/o Oil Cooler
238762	'08-'12	28 3/8" x 26 11/16" x 4 9/16"	2 1/4" UR	2 1/2" LR	PTR	w/o Oil Cooler, w/Frame
238818	'96-'07 Transit Bus	31 3/4" x 21 7/8" x 4 1/16"	3" UL	3" LC	CBR	w/o Oil Cooler
INT'L/NAVISTAR						
238576	3000, 3600, 3800	25 1/2" x 25 13/16" x 2 1/16"	2 1/2" UC	2 1/2" LR, 90°	CBR	w/Oil Cooler
238568	Bread Truck 4700 w/T444E 7.3L, V8 Engine	27" x 12 1/4" x 2 1/16"	2 1/2" UC	2 1/4" LR	CBR	w/Oil Cooler
238514	'96-'99 3000, 3600, 3800	27" x 12 1/8" x 2 1/16"	2 1/2" UC	2 1/4" LL Curves to 5 O'Clock	CBR	w/Oil Cooler, Split Core
238639	'08-'10 3800, 4100, 4200, 4300, 4400, '08-'11 BE, CE Bus	28 1/2" x 25" x 2 1/4"	2 1/4" UR, 3 1/2" IN	2 1/2" LL, 7 3/4" IN w/Extra 1 1/4" Connection	PTR	w/Oil Cooler
232118	4700, 4900, 8000, Bus	29 3/4" x 26" x 2 1/4"	2 1/2" UC	2 1/2" LR, Curved	CBR	w/o Oil Cooler
238559	4700, 4900	29 3/4" x 26" x 2 1/4"	2 1/2" UC	2 1/2" LR, 6" IN, Curved	CBR	w/o Oil Cooler
238560	'78-'02 4700, 4900, 8000	29 3/4" x 26" x 2 1/16"	2 1/2" UC	2 1/2" LR, 6" IN, 90° Curved	CBR	w/Oil Cooler
238566	'78-'93 4700, 4900, 8000	29 3/4" x 26" x 2 1/4"	2 1/2" UC	2 1/2" LR, 3" IN	CBR	w/Oil Cooler
238675	'04-'09 5000, 5500, 5500i, 5600, 5600i, 5900, 5900i	29 3/8" x 32 1/8" x 2 3/16"	2 1/2" UL, 5 13/16" IN	2 1/2" LR	PTR	w/o Oil Cooler
238581		29 3/4" x 26" x 2 5/8"	2 1/2" UC	2 1/2" LR, 90°	CBR	w/o Oil Cooler, Crank Box 6" x 6"

UL= Upper Left

UR=Upper Right

UC=Upper Center

LL=Lower Left

LR=Lower Right

LC=Lower Center

RADIATOR Dimensional Look-up (IN ORDER BY CORE SIZE)

PART #	APPLICATION	CORE DIMENSIONS	INLET	OUTLET	CONSTR	NOTES
INT'L/NAVISTAR (CONT)						
232129		29 7/8" x 25 3/4" x 2 1/16"	2 1/2" UC	2 1/2" LR	CBR	w/o Oil Cooler
232130		29 7/8" x 25 5/8" x 2 1/16"	2 1/2" UC	2 1/2" LR	CBR	w/o Oil Cooler
232131		29 7/8" x 25 5/8" x 2 1/16"	2 1/2" UC	2 1/2" LR	CBR	w/o Oil Cooler
238522	4400, 7300	30 1/2" x 12 1/4" x 2 1/16"	2 1/2" UC	2 1/4" LL	CBR	w/Oil Cooler, Split Core
238570	'93-'96 4900, UPS Trucks	30 1/2" x 12 1/8" x 2 5/8"	2 1/2" UC	2 1/4" LR	CBR	w/o Oil Cooler, Split Core
238517	4900, UPS Trucks	30 1/2" x 12 1/8" x 2 1/16"	2 1/2" UC	2 1/4" LR	CBR	w/Oil Cooler, Split Core
238519	4100-4400, 7300-7700	30 1/2" x 12 5/8" x 2 1/16"	2 1/2" UC	2 1/4" LL	CBR	w/o Oil Cooler, Split Core
238516	3000, 3600, 3800, 4100-4400, 7300-7700	30 1/2" x 12 1/8" x 2 1/16"	2 1/2" UC	2 1/4" LL, Curves 5 O'Clock	CBR	w/Oil Cooler, Split Core
238500	'93-'96 3000, 3600, 3800, 4900, School Bus	31" x 12 1/8" x 1 7/8"	2 1/2" UC	2 1/2" LR	CBR	w/o Oil Cooler, Split Core
238505	'94-'02 3800, 4900, Bus	31" x 12 1/8" x 1 7/8"	2 1/2" UC	2 1/2" LR	CBR	w/Oil Cooler, Split Core
238510	'96-'02 3000, 3600, 3800, 4700, 4800, 4900, 4954	31" x 12 1/4" x 1 7/8"	2 1/2" UC	2 1/2" LR, 90° Curved	CBR	w/Oil Cooler, Split Core
238515	4100-4400, 7300-7700	31" x 12 3/4" x 2 1/4"	2 1/2" UC	2 1/4" LL	CBR	w/Oil Cooler, Split Core
238520	'96-'02 3000, 3600, 3800, 4900, 4954	31" x 12 3/4" x 1 9/16"	2 1/2" UC	2 1/2" LR, 90° Curved	CBR	w/o Oil Cooler, Split Core
238525	'93-'96 3800, 4900	31" x 12 3/4" x 2 1/16"	2 1/2" UC	2 1/2" LR	CBR	w/Oil Cooler, Split Core
238530	4100-4400, 7300-7700	31" x 12 3/4" x 2 1/4"	2 1/2" UC	2 1/2" LL	CBR	w/o Oil Cooler, Split Core
238535	'93-'96 4900	31" x 12 1/8" x 2 1/16"	2 1/2" UC	2 1/4" LR	CBR	w/Oil Cooler, Split Core
238550	'93-'96 3800, 4700, 4800, 4900	31" x 12 1/8" x 2 1/16"	2 1/2" UC	2 1/4" LL	CBR	w/Oil Cooler, Split Core
238555	'93-'02 3000, 3600, 3800, 4900, 4954	31" x 12 3/4" x 2 1/16"	2 1/2" UC	2 1/2" LR, 90° Curved	CBR	w/Oil Cooler, Split Core
238565	4100-4400, 7300-7700	31" x 12 3/4" x 2 1/16"	2 1/2" UR	2 1/2" LR	CBR	w/Oil Cooler, Split Core
238501	'93-'96 3000, 3600, 3800, 4900, School Bus	31" x 12 3/4" x 2 1/16"	2 1/2" UC	2 1/2" LR	CBR	w/o Oil Cooler, Split Core
238506	'96-'02 3800, 4900, School Bus	31" x 12 3/4" x 2 1/16"	2 1/2" UC	2 1/2" LR	CBR	w/Oil Cooler, Split Core
232123	'79-'85 1600, S2100	31" x 25 13/16" x 1 9/16"	2 1/2" UC	2 1/2" LR	CBR	w/o Oil Cooler
232127		31" x 25 3/4" x 2 1/16"	2 1/2" UC	2 1/2" LL	CBR	w/o Oil Cooler
232124	S, 1753, 3000, 3600, 3700, 3800	31" x 26 1/8" x 2 1/16"	2 1/2" UC	2 1/2" LL	CBR	w/Oil Cooler
230326	D9L	31" x 26" x 1 1/2"	2 1/2" UC	2 1/2" LL	CBR	w/Oil Cooler
230327	D35	31" x 26" x 1 1/2"	2 1/2" UC	2 1/2" LR	CBR	w/o Oil Cooler
238564		31" x 26" x 2 1/16"	2 1/2" UC	2 1/2" LR	CBR	w/o Oil Cooler
238545		31" x 12 3/4" x 2 1/16"	2 1/2" UR	2 1/2" LR	CBR	w/Oil Cooler, Split Core
238575	'00-'02 3000, 3600, 3800, Bus	31" x 12 1/8" x 2 1/16"	2 1/2" UC	2 1/2" LL	CBR	w/Oil Cooler, Split Core
238837	'09-'11 FE Bus	33 1/8" x 28 5/8" x 2 1/4"	2 1/4" UR	2 1/2" LL	PTR	w/Oil Cooler
MCI BUS						
238763	D4500	47 1/4" x 33" x 4 9/16"	2 1/2" UL	3" LL	PTR	w/o Oil Cooler

RADIATOR Dimensional Look-up (IN ORDER BY CORE SIZE)

PART #	APPLICATION	CORE DIMENSIONS	INLET	OUTLET	CONSTR	NOTES
NOVA BUS						
239062		30" x 17" x 4 1/16"	2 1/2" UR	2 1/2" LL	CBR	w/o Oil Cooler
238760		47 1/8" x 19 3/8" x 4 9/16"	2 1/4" UC	2 1/4" LC	PTR	w/o Oil Cooler
238813	'13 & Newer L750	47 1/8" x 26 5/8" x 4 9/16"	2 1/2" Offset Right	2 1/2" Offset Left	PTR	w/o Oil Cooler
238834	'12-'13 Bus	63" x 26 5/8" x 4 1/2"	2 1/4", 4 5/8" IN	2 1/2", 11 1/4" IN	PTR	w/o Oil Cooler
THOMAS BUS						
238621	TBB-HDX	27 1/2" x 31 13/16" x 2 1/16"	2 1/2" UR	2 1/2" LL	PTR	w/o Oil Cooler
238620	'10 & Newer TBB-EF	27 7/16" x 25 1/16" x 2 1/16"	2" UL	2" LR	PTR	w/Oil Cooler
238644	'07 & Newer TBB-EF	27 7/16" x 25 1/16" x 2 1/16"	2" UL	2" LR	PTR	w/Oil Cooler, w/Frame
239387	'04-'12	27 7/16" x 25 1/8" x 2 1/16"	2" UL, 6" IN	2" LR, 7 5/8" IN	PTR	w/Oil Cooler
239133	Front Engine	28 1/8" x 27 9/16" x 1 9/16"	2" UL	2" LR	CBR	w/Oil Cooler
239085	w/Freightliner Chassis	28 5/8" x 25" x 1 7/8"	2" UL, 5" IN	2" LR, 7 1/4" IN	PTR	w/Oil Cooler
239306	w/Freightliner Chassis	28 3/4" x 24 1/4" x 1 9/16"	2" UL, 5" IN	2" LR, 7 1/4" IN	CBR	w/Oil Cooler
239342	'95-'04 FL50, 60, 70, 80, 90 w/3126 Engine	28 3/4" x 24 3/4" x 1 9/16"	2" UL, 5" IN	2 1/4" LR, 7 1/4" IN	CBR	w/o Oil Cooler
238590	Rear Engine	28 13/16" x 24 15/16" x 1 9/16"	2" UR	2" LL	CBR	w/Oil Cooler, w/Frame
239177	'04-'09 5000, 5500, 5500i, 5600, 5600i, 5900, 5900i	29 3/8" x 32 1/8" x 2 1/4"	2 1/2" UL, 5 13/16" IN	2 1/2" LR	CBR	w/o Oil Cooler
238675	'04-'09 5000, 5500, 5500i, 5600, 5600i, 5900, 5900i	29 3/8" x 32 1/8" x 2 3/16"	2 1/2" UL, 5 13/16" IN	2 1/2" LR	PTR	w/o Oil Cooler
239173	'07-'11 FLT B2	29 5/8" x 25 1/8" x 2 1/16"	2" UL, 2 1/16" IN	2" LR, 7 13/16" IN	PTR	w/Oil Cooler
238618	B2, C2	29 13/16" x 25 1/8" x 2 1/16"	2" UL	2" LR	PTR	w/o Oil Cooler
238619	'10-'12 B2, C2, LT	29 5/8" x 25 1/8" x 2 1/16"	2" UL	2" LR	PTR	w/Oil Cooler
238740	'07-'12 FLT, B2, C2 w/ Automatic Transmission	29 13/16" x 25 1/8" x 2 1/16"	2" UL	2" LR	PTR	w/Oil Cooler, w/Frame
239093	Front Engine	29 7/8" x 25" x 2"	2" UL	2" LR	CBR	w/Oil Cooler

UL= Upper Left

UR=Upper Right

UC=Upper Center

LL=Lower Left

LR=Lower Right

LC=Lower Center

RADIATOR Illustrations

230326 - Int'l-Navistar

Core Dimensions:

31" x 26" x 1 1/2"

Inlet: 2 1/2" UC

Outlet: 2 1/2" LL, Straight

Rows: 2

Note: w/18" CTRS Oil Cooler

Option: 232124 (3 Row)



230327 - Int'l-Navistar

Core Dimensions:

31" x 26" x 1 1/2"

Inlet: 2 1/2" UC

Outlet: 2 1/2" LR

Rows: 2

Note: w/o Oil Cooler

Option: 232123 (3 Row),
238564 (4 Row)



230459 - Chevrolet/GMC

Core Dimensions:

28 1/4" x 24" x 1 7/8"

Inlet: 2" UL

Outlet: 2 1/4" LR

Rows: 3

Note: w/o Oil Cooler



230460 - Chevrolet/GMC

Core Dimensions:

28 1/4" x 24" x 1 7/8"

Inlet: 2" UL

Outlet: 2 1/4" LR

Rows: 3

Note: w/o Oil Cooler,
includes 2 ports for
surge tank

Options: 230461
(4 Row, 2 1/4" Thick)



230461 - Chevrolet/GMC

Core Dimensions:

28 1/4" x 24" x 2 1/2"

Inlet: 2" UL

Outlet: 2 1/4" LR

Rows: 4

Note: w/o Oil Cooler,
includes 2 ports for
surge tank

Options: 230460
(3 Row, 1 7/8" Thick)



230540 - Chevrolet/GMC

Core Dimensions:

28 1/4" x 24" x 1 7/8"

Inlet: 1 1/2" UL

Outlet: 1 3/4" LR

Rows: 3

Note: w/o Oil Cooler



RADIATOR Illustrations

231233 - Chevrolet/GMC

Core Dimensions:

31 ³/₈" x 25 ¹/₂" x 1 ³/₈"

Inlet: 2" UL

Outlet: 2 ¹/₄" LR

Rows: 1

Note: w/Oil Cooler, ³/₄" Heater bypass connection



232106 - Chevrolet/GMC

Core Dimensions:

30 ¹/₂" x 23 ¹/₂" x 2 ¹/₈"

Inlet: 1 ⁹/₁₆" UL

Outlet: 2" LR

Note: w/o Oil Cooler



232108 - Chevrolet/GMC

Core Dimensions:

31 ³/₈" x 23 ¹/₄" x 1 ¹/₄"

Inlet: 2" UL, 2 ¹/₈" in

Outlet: 2" LR, 2" in

Rows: 1

Note: w/18" CTRS Oil Cooler, 1 ¹/₁₆" fittings, EOC driver side, 7 ¹/₄" CTRS, ³/₄" fittings



232118 - Int'l-Navistar

Core Dimensions:

29 ³/₄" x 26" x 2 ¹/₄"

Inlet: 2 ¹/₂" UC

Outlet: 2 ¹/₂" LR Curved

Note: w/o Oil Cooler

Options: 238559 (90° Curved Outlet)



232123 - Int'l-Navistar

Core Dimensions:

31" x 25 ¹³/₁₆" x 1 ⁹/₁₆"

Inlet: 2 ¹/₂" UL

Outlet: 2 ¹/₂" LR

Rows: 3

Note: w/o Oil Cooler

Options: 238564 (4 Row), 230327 (2 Row)



232124 - Int'l-Navistar

Core Dimensions:

31" x 26 ¹/₈" x 2 ¹/₁₆"

Inlet: 2 ¹/₂" UC

Outlet: 2 ¹/₂" LL

Rows: 4

Note: w/18" CTRS Oil Cooler

Options: 230326 (2 Row)



RADIATOR Illustrations

232127 - Int'l-Navistar

Core Dimensions:

31" x 25 ³/₄" x 2 ¹/₁₆"

Inlet: 2 ¹/₂" UC

Outlet: 2 ¹/₂" LL

Rows: 3

Note: w/o Oil Cooler



232129 - Int'l-Navistar

Core Dimensions:

29 ⁷/₈" x 25 ³/₄" x 2 ¹/₁₆"

Inlet: 2 ¹/₂" UC

Outlet: 2 ¹/₂" LR

Rows: 3

Note: w/o Oil Cooler,
w/o Fill Neck



232130 - Int'l-Navistar

Core Dimensions:

29 ⁷/₈" x 25 ⁵/₈" x 2 ¹/₁₆"

Inlet: 2 ¹/₂" UC

Outlet: 2 ¹/₂" LR

Rows: 3

Note: w/o Oil Cooler,
w/Straight fill neck



232131 - Int'l-Navistar

Core Dimensions:

29 ⁷/₈" x 25 ⁵/₈" x 2 ¹/₁₆"

Inlet: 2 ¹/₂" UC

Outlet: 2 ¹/₂" LR

Rows: 4

Note: w/o Oil Cooler, Fill
neck angles off grill side of
top tank 3", has 2 ports on
grill side of top tank



232507 - Chevrolet/GMC

Core Dimensions:

31 ⁷/₁₆" x 23 ⁵/₁₆" x 1 ⁵/₁₆"

Inlet: 2" UL

Outlet: 2" LR

Note: w/10" CTRS
Oil Cooler, ⁵/₈"
Quick connect
fittings, 18" CTRS
passenger side tank
fittings



238500 - Blue Bird Bus/Int'l-Navistar

Core Dimensions:

31" x 12 ¹/₈" x 1 ⁷/₁₆"

Inlet: 2 ¹/₂" UC

Outlet: 2 ¹/₂" LR

Rows: 3

Note: w/o Oil Cooler

Options: 238501 (4 Row)



RADIATOR Illustrations

238501 - Blue Bird Bus/Int'l-Navistar

Core Dimensions:
31" x 12 ³/₄" x 2 ¹/₁₆"

Inlet: 2 ¹/₂" UC

Outlet: 2 ¹/₂" LR, Straight

Rows: 4

Note: w/o Oil Cooler

Options: 238500 (3 Row)



238505 - Blue Bird Bus/Int'l-Navistar

Core Dimensions:
31" x 12 ¹/₈" x 1 ⁷/₈"

Inlet: 2 ¹/₂" UC

Outlet: 2 ¹/₂" LR

Rows: 3

Note: w/18" CTRS Oil Cooler on engine side

Options: 238506 (4 Row)



238506 - Blue Bird Bus/Int'l-Navistar

Core Dimensions:
31" x 12 ³/₄" x 2 ¹/₁₆"

Inlet: 2 ¹/₂" UC

Outlet: 2 ¹/₂" LR

Rows: 4

Note: w/18" CTRS Oil Cooler on engine side, 7 PLT

Options: 238505 (3 Row)



238510 - Blue Bird Bus/Int'l-Navistar

Core Dimensions:
31" x 12 ¹/₄" x 1 ⁷/₈"

Inlet: 2 ¹/₂" UC

Outlet: 2 ¹/₂" LR, 90°

Rows: 3

Note: w/Oil Cooler on engine side, has (2) ³/₈" NPT vent ports on top tank

Options: 238511 (4 Row)



238511 - Blue Bird Bus/Int'l-Navistar

Core Dimensions:
31" x 12 ³/₄" x 2 ¹/₁₆"

Inlet: 2 ¹/₂" UC

Outlet: 2 ¹/₄" LR, 90°

Rows: 4

Note: w/18" CTRS Oil Cooler on engine side, 7 PLT, Qty 2 - ³/₈" NPT vent ports on top tank

Options: 238510 (3 Row)



238514 - Blue Bird Bus/Int'l-Navistar

Core Dimensions:
27" x 12 ¹/₂" x 2 ¹/₁₆"

Inlet: 2 ¹/₂" UC

Outlet: 2 ¹/₄" LL, 90°
Points to 5 o'clock

Rows: 3

Note: w/Oil Cooler on grill side



RADIATOR Illustrations

238515 - Blue Bird Bus/Int'l-Navistar

Core Dimensions:
31" x 12 ³/₄" x 2 ¹/₄"

Inlet: 2 ¹/₂" UC

Outlet: 2 ¹/₄" LL

Rows: 3

Note: w/Oil Cooler
on grill side

Options: 238535
(Outlet on Right Side)



238516 - Blue Bird Bus/Int'l-Navistar

Core Dimensions:
30 ¹/₂" x 12 ¹/₈" x 2 ¹/₁₆"

Inlet: 2 ¹/₂" UC

Outlet: 2 ¹/₄" LL, 90°
Points to 5 o'clock

Rows: 3

Note: w/Oil Cooler
on grill side



238517 - Blue Bird Bus/Int'l-Navistar

Core Dimensions:
30 ¹/₂" x 12 ¹/₈" x 2 ¹/₁₆"

Inlet: 2 ¹/₂" UC

Outlet: 2 ¹/₄" LR

Rows: 4

Note: w/18" CTRS /Oil
Cooler on grill side

Options: 238570
(w/o Oil Cooler)



238519 - Blue Bird Bus/Int'l-Navistar

Core Dimensions:
30 ¹/₂" x 12 ⁵/₈" x 2 ¹/₁₆"

Inlet: 2 ¹/₂" UC

Outlet: 2 ¹/₄" LL

Rows: 3

Note: w/o Oil Cooler

Options: 238522
(w/Oil Cooler)



238520 - Blue Bird Bus/Int'l-Navistar

Core Dimensions:
31" x 12 ³/₄" x 1 ⁹/₁₆"

Inlet: 2 ¹/₂" UC

Outlet: 2 ¹/₂" LR, 90°

Rows: 3

Note: w/o Oil Cooler

Options: 238521 (4 Row)



238521 - Blue Bird Bus/Int'l-Navistar

Core Dimensions:
31" x 12 ³/₄" x 2 ¹/₁₆"

Inlet: 2 ¹/₂" UC

Outlet: 2 ¹/₂" LR, 90°

Rows: 4

Note: w/o Oil Cooler

Options: 238520 (3 Row)



RADIATOR Illustrations

238522 - Int'l-Navistar

Core Dimensions:
30 1/2" x 12 1/4" x 2 1/16"

Inlet: 2 1/2" UC

Outlet: 2 1/4" LL

Rows: 3

Note: w/Oil Cooler
on grill side

Options:
238519 (w/o Oil Cooler)



238525 - Blue Bird Bus/Int'l-Navistar

Core Dimensions:
31" x 12 3/4" x 2 1/16"

Inlet: 2 1/2" UC

Outlet: 2 1/2" LR

Rows: 3

Note: w/18" CTRS Oil
Cooler on grill side, 7 Plate

Options: 238535
(2 1/4" Outlet)



238530 - Blue Bird Bus/Int'l-Navistar

Core Dimensions:
31" x 12 3/4" x 2 1/4"

Inlet: 2 1/2" UC

Outlet: 2 1/2" LL, 2 1/2"
Straight

Rows: 3

Note: w/o Oil Cooler

Options: 238575
(w/Oil Cooler)



238535 - Blue Bird Bus/Int'l-Navistar

Core Dimensions:
31" x 12 1/8" x 2 1/16"

Inlet: 2 1/2" UC

Outlet: 2 1/4" LR

Rows: 3

Note: w/18" CTRS Oil
Cooler on grill side

Options: 238525
(2 1/2" Outlet), 238515
(2 1/4" Left Outlet)



238545 - Blue Bird Bus/Int'l-Navistar

Core Dimensions:
31" x 12 3/4" x 2 1/16"

Inlet: 2 1/2" UR

Outlet: 2 1/2" LR

Rows: 3

Note: w/18" CTRS
Oil Cooler sight glass on grill
side of top tank



238546 - Int'l-Navistar

Core Dimensions:
31" x 12 1/4" x 2 1/16"

Inlet: 2 1/2" UR

Outlet: 2 1/2" LL,
90° points to 3 o'clock

Rows: 4

Note: w/18" CTRS Oil
Cooler on engine side



RADIATOR Illustrations

238550 - Blue Bird Bus/Int'l-Navistar

Core Dimensions:

31" x 12 1/8" x 2 1/16"

Inlet: 2 1/2" UC

Outlet: 2 1/4" LL, Straight

Rows: 4

Note: w/18" CTRS Oil Cooler

Options: 238575

(2 1/2" Bottom Connection)



238555 - Blue Bird Bus/Int'l-Navistar

Core Dimensions:

31" x 12 3/4" x 2 1/16"

Inlet: 2 1/2" UC

Outlet: 2 1/2" LR, 90°

Rows: 3

Note: w/18" CTRS Oil Cooler

Cooler on grill side



238559 - Blue Bird Bus/Int'l-Navistar

Core Dimensions:

29 3/4" x 26" x 2 1/4"

Inlet: 2 1/2" UC

Outlet: 2 1/2" LR, 90°

Rows: 3

Note: w/o Oil Cooler

Options: 238560 (w/Oil Cooler), 238566 (Outlet 3" from core face)



238560 - Blue Bird Bus/Int'l-Navistar

Core Dimensions:

29 3/4" x 26" x 2 1/16"

Inlet: 2 1/2" UC

Outlet: 2 1/2" LR, 90° & 6" from core

Rows: 4

Note: w/Oil Cooler

Options: 238566 (Outlet 3" from core face), 238559 (w/o Oil Cooler)



238561 - Blue Bird Bus/Int'l-Navistar

Core Dimensions:

29 3/4" x 26" x 2 1/16"

Inlet: 2 1/2" UC

Outlet: 2 1/2" LR

Rows: 4

Note: w/o Oil Cooler



238564 - Blue Bird Bus/Int'l-Navistar

Core Dimensions:

31" x 26" x 2 1/16"

Inlet: 2 1/2" UC

Outlet: 2 1/2" LR

Rows: 4

Note: w/o Oil Cooler

Options: 230327 (2 Row), 232123 (3 Row)



RADIATOR Illustrations

238565 - Blue Bird Bus/Int'l-Navistar

Core Dimensions:
31" x 12 ³/₄" x 2 ¹/₁₆"

Inlet: 2 ¹/₂" UR

Outlet: 2 ¹/₂" LR, 90°

Rows: 3

Note: w/Oil Cooler
on engine side



238566 - Blue Bird Bus/Int'l-Navistar

Core Dimensions:
29 ³/₄" x 26" x 2 ¹/₄"

Inlet: 2 ¹/₂" UC

Outlet: 2 ¹/₂" LR, 90°,
3" from core

Rows: 3

Note: w/Oil Cooler

Options: 238560
(w/Oil Cooler & outlet 6" from
core face)



238567 - Blue Bird Bus

Core Dimensions:
33 ¹/₄" x 26 ⁹/₁₆" x 2 ¹/₂"

Inlet: 2 ¹/₂" UC

Outlet: 2 ¹/₄" LR, 6 ⁵/₈" in

Rows: 3

Note: w/18" CTRS Oil
Cooler, 7 Plate, ³/₄" NPT
fittings



238568 - Int'l-Navistar

Core Dimensions:
27" x 12 ¹/₄" x 2 ¹/₁₆"

Inlet: 2 ¹/₂" UC

Outlet: 2 ¹/₄" LR

Note: w/18" CTRS Oil
Cooler on grill side, With
³/₄" NPT fittings



238570 - Blue Bird Bus/Int'l-Navistar

Core Dimensions:
30 ¹/₂" x 12 ¹/₈" x 2 ⁵/₈"

Inlet: 2 ¹/₂" UC

Outlet: 2 ¹/₄" LR

Rows: 3

Note: w/o Oil Cooler

Option: 238517
(w/Oil Cooler)



238575 - Blue Bird Bus/Int'l-Navistar

Core Dimensions:
31 ¹/₄" x 12 ¹/₈" x 2 ¹/₁₆"

Inlet: 2 ¹/₂" UC

Outlet: 2 ¹/₂" LL

Rows: 3

Note: w/Oil Cooler

Option: 238530 (w/Oil
Cooler), 238550 (2 ¹/₄" Bottom
Connection)



RADIATOR Illustrations

238576 - Blue Bird Bus/Int'l-Navistar

Core Dimensions:

25 1/2" x 25 13/16" x 2 1/16"

Inlet: 2 1/2" UC

Outlet: 2 1/2" LR, 90°

Note: w/Oil Cooler

Option: 238560
(Smaller Core)



238581 - Int'l-Navistar

Core Dimensions:

29 3/4" x 26" x 2 5/8"

Inlet: 2 1/2" UC

Outlet: 2 1/2" LR, 90°

Rows: 4

Note: w/o Oil Cooler,
6" x 6" Crank box

Options: 238559 (w/o
Crank box), 238580 (w/Oil
Cooler)



238590 - Thomas Bus

Core Dimensions:

28 13/16" x 24 15/16" x 1 9/16"

Inlet: 2" UR

Outlet: 2" LL

Rows: 3

Note: w/18" Oil Cooler on
fender side, w/Frame, Sight
glass center of top tank,
Radiator mounts in rear of
bus



238604 - Freightliner

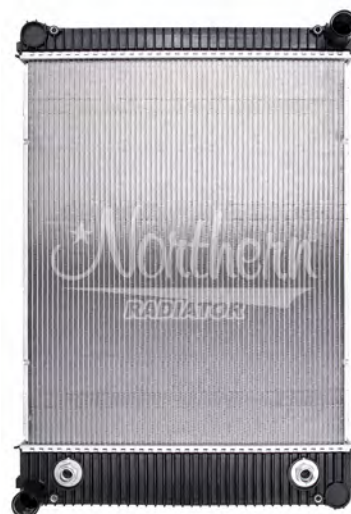
Core Dimensions:

29 5/8" x 24 1/4" x 1 15/16"

Inlet: 2" UR, 2 1/4" in

Outlet: 2" LL, 1 1/2" in

Note: w/18" Oil Cooler



238617 - Freightliner/Thomas Bus

Core Dimensions:

29 5/8" x 26 1/8" x 2"

Inlet: 2" UR, 2 1/8" in

Outlet: 2" LL, 2 1/8" in

Note: w/18" Oil Cooler



238618 - Freightliner/Thomas Bus

Core Dimensions:

29 13/16" x 25 1/8" x 2 1/16"

Inlet: 2" UL

Outlet: 2" LR,

Note: w/o Oil Cooler, for
2010 - Present Models
Re-use OEM frame



RADIATOR Illustrations

238619 - Freightliner/Thomas Bus

Core Dimensions:
29 ⁵/₈" x 25 ¹/₈" x 2 ¹/₁₆"

Inlet: 2" UL

Outlet: 2" LR

Note: w/18" Oil Cooler

Option: 238740
(PT/AL w/Frame)



238620 - Freightliner/Thomas Bus

Core Dimensions:
27 ⁷/₁₆" x 25 ¹/₁₆" x 2 ¹/₁₆"

Inlet: 2" UL

Outlet: 2" LR

Note: w/18" Oil Cooler,
Re-use OEM Frame

Option: 238644
(PT/AL w/Frame)



238621 - Freightliner/Thomas Bus

Core Dimensions:
27 ¹/₂" x 31 ¹³/₁₆" x 2 ¹/₁₆"

Inlet: 2 ¹/₂" UR

Outlet: 2 ¹/₂" LL

Note: w/o Oil Cooler,
Re-use OEM frame for
2010 - Present Models



238639 - Int'l-Navistar

Core Dimensions:
28 ¹/₂" x 25" x 2 ¹/₄"

Inlet: 2 ¹/₄" UR, 3 ¹/₂" in

Outlet: 2 ¹/₂" LL, 7 ³/₄" in

Note: w/Extra outlet
1/4" connection, w/Oil
Cooler on grill side,
8 PLT



238643 - Blue Bird Bus

Core Dimensions:
31" x 26 ¹/₄" x 2 ¹/₈"

Inlet: 2" UL, 7 ¹/₂" in

Outlet: 2" LR, 7 ¹/₂" in

Note: w/o Oil Cooler

Options: 239294 (CBR)



238644 - Freightliner/Thomas Bus

Core Dimensions:
27 ⁷/₁₆" x 25 ¹/₁₆" x 2 ¹/₁₆"

Inlet: 2" UL

Outlet: 2" LR

Note: w/18" CTRS Oil
Cooler

Options: 238620
(PT/AL w/o Frame)



RADIATOR Illustrations

238675 - Int'l-Navistar

Core Dimensions:

29 ³/₈" x 32 ¹/₈" x 2 ³/₁₆"

Inlet: 2 ¹/₂" UL, 5 ¹³/₁₆" in

Outlet: 2 ¹/₂" LR, Points Down

Note: w/o Oil Cooler

Options: 239177 (CBR)



238740 - Freightliner/Thomas Bus

Core Dimensions:

29 ¹³/₁₆" x 25 ¹/₈" x 2 ¹/₁₆"

Inlet: 2" UL

Outlet: 2" LR

Note: w/18" CTRS Oil Cooler, w/Frame

Options: 238619 (PT/AL w/o Frame)



238760 - Nova Bus

Core Dimensions:

47 ¹/₈" x 19 ³/₈" x 4 ⁹/₁₆"

Inlet: 2 ¹/₄" UC

Outlet: 2 ¹/₄" LC

Note: w/o Oil Cooler



238761 - Gillig Bus

Core Dimensions:

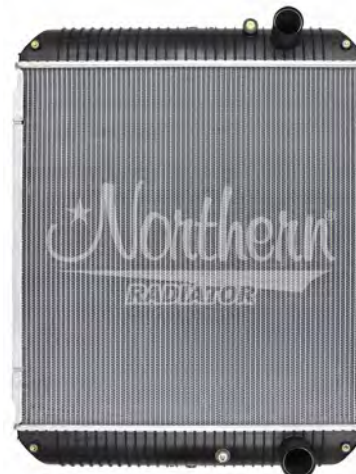
28 ³/₈" x 26 ⁵/₈" x 4 ⁹/₁₆"

Inlet: 2 ¹/₄" UR

Outlet: 2 ¹/₂" LR

Note: w/o Oil Cooler & Frame

Options: 238762 (PT/AL w/Frame)



238762 - Gillig Bus

Core Dimensions:

28 ³/₈" x 26 ¹¹/₁₆" x 4 ⁹/₁₆"

Inlet: 2 ¹/₄" UR

Outlet: 2 ¹/₂" LR

Note: w/o Oil Cooler, w/Frame

Options: 238761 (PT/AL w/Frame)



238763 - MCI Bus

Core Dimensions:

47 ¹/₄" x 33" x 4 ⁹/₁₆"

Inlet: 2 ¹/₂" UL

Outlet: 3" LL

Note: w/o Oil Cooler



RADIATOR Illustrations

238813 - Nova Bus

Core Dimensions:

47 ¹/₈" x 26 ⁵/₈" x 4 ⁹/₁₆"

Inlet: 2 ¹/₂" Offset to R

Outlet: 2 ¹/₂" Offset to L

Note: w/o Oil Cooler



238814 - Gillig Bus

Core Dimensions:

28 ¹/₄" x 26 ⁵/₈" x 4 ⁹/₁₆"

Inlet: 2 ¹/₂" UL, 5 ¹/₂" in

Outlet: 2 ¹/₂" LL, 11 ¹/₂" in

Note: w/o Oil Cooler



238818 - Gillig Bus

Core Dimensions:

31 ³/₄" x 21 ⁷/₈" x 4 ¹/₁₆"

Inlet: 3" UC

Outlet: 3" LC

Note: w/o Oil Cooler, Bolt together construction



238831 - Blue Bird Bus

Core Dimensions:

25" x 25 ¹/₈" x 2"

Inlet: 2" UL

Outlet: 2" LR

Note: w/18" CTRS Oil Cooler, ³/₄" NPT Fittings, Durable heavy ribbing with bolt & nut design to all for expansion

Option: 239084 (w/Frame)



238834 - Nova Bus



Core Dimensions: 63" x 26 ⁵/₈" x 4 ¹/₂"

Inlet: 2 ¹/₄", 4 ⁵/₈" in **Outlet:** 2 ¹/₂", 11 ¹/₂" in

Note: w/o Oil Cooler

238837 - Int'l-Navistar

Core Dimensions:

33 ¹/₈" x 28 ⁵/₈" x 2 ¹/₄"

Inlet: 2 ¹/₄" UR

Outlet: 2 ¹/₂" LL

Note: w/20 ¹/₂" CTRS Oil Cooler on grill side, 1 ¹/₁₆" - 12UN



RADIATOR Illustrations

238838 - Blue Bird Bus

Core Dimensions:
25" x 25" x 2"

Inlet: 2" UL

Outlet: 2" LL

Note: w/18" CTRS Oil Cooler, Quick connect fittings



238863 - Freightliner

Core Dimensions:
40" x 31 ¹³/₁₆" x 2 ¹/₁₆"

Inlet: 2 ¹/₂" UL

Outlet: 2 ¹/₂" LR

Note: w/o Oil Cooler



238865 - Blue Bird



Core Dimensions: 35 ⁷/₁₆" x 23" x 5 ¹/₂"

Inlet: 2 ¹/₄" UL

Outlet: 2 ¹/₄" LR

Note: w/o Oil Cooler

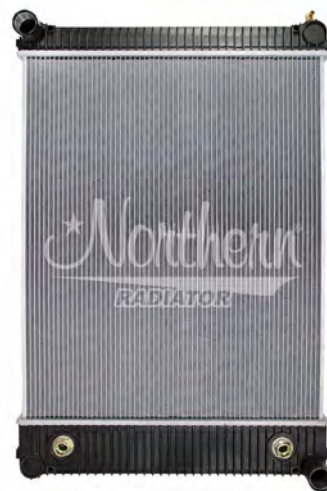
239000 - Freightliner/Thomas Bus

Core Dimensions:
29 ⁵/₈" x 24 ¹/₄" x 1 ⁷/₈"

Inlet: 2" UL, 1 ¹/₈" in

Outlet: 2" LR, 1 ¹/₈" in

Note: w/18" CTRS Oil Cooler



239061 - Blue Bird Bus

Core Dimensions:
29 ⁷/₈" x 25 ¹/₈" x 2"

Inlet: 2" UR, 6" in

Outlet: 2" LR, 6" in

Note: w/o Oil Cooler, w/o Frame

Options: 239082 (PT/AL w/Frame)



239062 - Nova Bus

Core Dimensions:
30" x 17" x 4 ¹/₁₆"

Inlet: 2 ¹/₂" UR

Outlet: 2 ¹/₂" LL

Note: w/o Oil Cooler



RADIATOR Illustrations

239082 - Blue Bird Bus

Core Dimensions:
29 ⁵/₈" x 25 ¹/₈" x 2"

Inlet: 2" UR, 6" in

Outlet: 2" LR, 6" in

Note: w/o Oil Cooler,
w/Frame

Options: 239061
(PT/AL w/o Frame)



239083 - Blue Bird Bus

Core Dimensions:
29 ³/₄" x 25 ¹/₈" x 2"

Inlet: 2" UR

Outlet: 2" LR

Note: w/o Oil Cooler,
w/Frame

Options: 239172
(PT/AL w/o Frame)



239084 - Blue Bird Bus

Core Dimensions:
25" x 25 ¹/₈" x 2"

Inlet: 2" UL

Outlet: 2" LR

Note: w/Oil Cooler,
w/Frame



239085 - Freightliner/Thomas Bus

Core Dimensions:
28 ⁵/₈" x 25 x 1 ⁷/₈"

Inlet: 2" UL, 5" in

Outlet: 2" LR, 7 ¹/₄" in

Note: w/18" CTRS Oil
Cooler, w/#12 SAE fittings

Options: 239306
(CBR w/Frame)



239088 - Freightliner

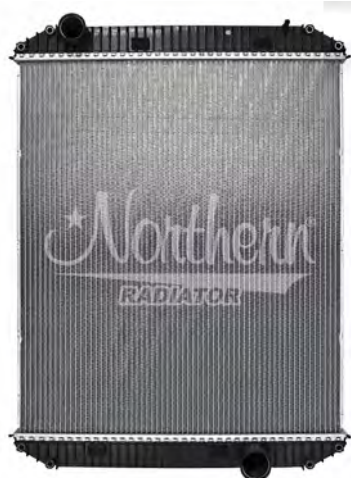
Core Dimensions:
28 ³/₄" x 24 ³/₄" x 12"

Inlet: 2" UL, 5" in

Outlet: 2 ¹/₄" LR, 7 ¹/₄" in

Note: w/o Oil Cooler,
w/o Frame

Options: 239342
(CBR), 239330 (w/Frame)



239090 - Blue Bird Bus

Core Dimensions:
29 ³/₄" x 26 ¹/₈" x 2 ¹/₄"

Inlet: 2" UR, 6" in

Outlet: 2" LR, 6" in

Note: w/o Oil Cooler,
w/Frame, ¹/₄" NPT port on top tank &
1" connection on left side of bottom
tank

Options: 239280
(PT/AL, w/o Frame)



RADIATOR Illustrations

239093 - Thomas Bus

Core Dimensions:

29 ⁷/₈" x 25" x 2"

Inlet: 2" UL

Outlet: 2" LR

Note: w/18" CTRS Oil Cooler, Sight glass & fill neck extension on grill side

Options: 239133
(Solder Together)



239133 - Blue Bird Bus/Thomas Bus

Core Dimensions:

28 ¹/₈" x 27 ⁹/₁₆" x 1 ⁹/₁₆"

Inlet: 2" UL

Outlet: 2" LR

Rows: 3

Note: w/Oil Cooler, Fill neck on top tank opposite of connection. Radiator mounts flat in bus

Options: 239133
(Bolt Together)



239172 - Blue Bird Bus/Freightliner/Oshkosh

Core Dimensions:

29 ⁵/₈" x 25 ¹/₈" x 2 ¹/₈"

Inlet: 2" UR, 6" in

Outlet: 2" LR, 6" in

Note: w/o Oil Cooler, ¹/₄" NPT port on left side of bottom tank 7" in & ¹/₄" NPT port coming straight out of bottom tank

Options: 239083
(PT/AL w/Frame)



239173 - Thomas Bus

Core Dimensions:

29 ⁵/₈" x 25 ¹/₈" x 2 ¹/₁₆"

Inlet: 2" UL, 2 ¹/₁₆" in

Outlet: 2" LR, 7 ¹³/₁₆" in

Note: w/18" CTRS Oil Cooler, Must Re-Use OEM Frame for 2007-2009 Models



239177 - Int'l-Navistar

Core Dimensions:

29 ³/₈" x 32 ¹/₈" x 2 ¹/₄"

Inlet: 2 ¹/₂" UL, 5 ¹³/₁₆" in

Outlet: 2 ¹/₂" LR

Note: w/Oil Cooler, Outlet points out right side of lower tank



239189 - Freightliner

Core Dimensions:

29 ⁵/₈" x 27 ¹/₈" x 2 ¹/₁₆"

Inlet: 2" UL

Outlet: 2" LR, 2 ¹/₈" in

Note: w/18" CTRS Oil Cooler

Option: 238617
(Opposite Connections)



RADIATOR Illustrations

239191 - Freightliner

Core Dimensions:
29 ⁵/₈" x 24 ¹/₄" x 1 ⁹/₁₆"
Inlet: 2" UR, 2 ¹/₄" in
Outlet: 2" LL, 1 ¹/₂" in
Rows: 3
Note: w/18" CTRS Oil Cooler, Does not include quick connect oil cooler adapters
Option: 238604 (Plastic Tank)



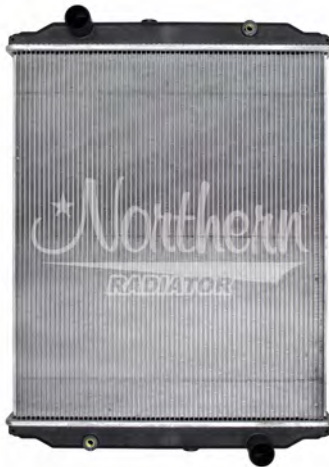
239278 - Blue Bird Bus/Carpenter Bus

Core Dimensions:
29 ⁵/₈" x 25 ¹/₈" x 2 ¹/₈"
Inlet: 2" UL
Outlet: 2" LR
Rows: 3
Note: w/o Oil Cooler, w/o Frame, OEM frame bolts to bracket mounts



239279 - Blue Bird Bus/Carpenter Bus

Core Dimensions:
29 ⁵/₈" x 25 ¹/₈" x 2 ¹/₈"
Inlet: 2" UL
Outlet: 2" LR
Rows: 3
Note: w/o Oil Cooler



239280 - Blue Bird Bus/Carpenter Bus

Core Dimensions:
29 ⁵/₈" x 26 ¹/₈" x 2 ¹/₈"
Inlet: 2" UR, 6" in
Outlet: 2" LR, 6" in
Rows: 3
Note: w/o Oil Cooler, w/o Frame, has 1" connection on left side of lower tank
Options: 239090 (w/Frame)



239281 - Blue Bird Bus/Carpenter Bus

Core Dimensions:
30 ⁷/₈" x 26 ¹/₈" x 2 ¹/₄"
Inlet: 2" UL
Outlet: 2" LR
Rows: 3
Note: w/o Oil Cooler



239283 - Blue Bird Bus

Core Dimensions:
25" x 25 ¹/₈" x 2 ¹/₁₆"
Inlet: 2" UL
Outlet: 2" LR
Rows: 2
Note: w/Oil Cooler, w/o Frame
Options: 239284 (PT/AL w/Frame)



RADIATOR Illustrations

239284 - Blue Bird Bus

Core Dimensions:

24 ⁷/₈" x 25 ¹/₈" x 2 ¹/₁₆"

Inlet: 2" UL

Outlet: 2" LR

Rows: 2

Note: w/Oil Cooler,
w/Frame

Options: 239283
(PT/AL w/o Frame)



239294 - Blue Bird Bus

Core Dimensions:

31" x 26 ¹/₄" x 1 ⁹/₁₆"

Inlet: 2" UL, 7 ¹/₂" in

Outlet: 2" LR, 7 ¹/₂" in

Rows: 3

Note: w/o Oil Cooler

Options: 238643
(PT/AL)



239306 - Freightliner/Thomas Bus

Core Dimensions:

28 ³/₄" x 24 ¹/₄" x 1 ⁹/₁₆"

Inlet: 2" UL, 5" in

Outlet: 2" LR, 7 ¹/₄" in

Rows: 3

Note: w/18" CTRS Oil
Cooler, w/ #12 SAE
adapter installed, Remove
adapter for ³/₄" NPT

Options: 239085
(PT/AL w/o Frame)



239330 - Freightliner

Core Dimensions:

28 ³/₄" x 24 ³/₄" x 1 ⁷/₈"

Inlet: 2" UL, 5" IN

Outlet: 2 ¹/₄" LR, 7 ¹/₄" in

Rows: 3

Note: w/o Oil Cooler,
w/Frame

Options: 239088
(PTR w/o Frame & Oil Cooler),
239342 (CBR w/o Frame & Oil
Cooler)



239342 - Freightliner

Core Dimensions:

28 ³/₄" x 24 ³/₄" x 1 ⁹/₁₆"

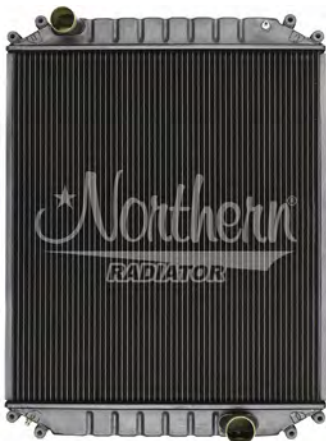
Inlet: 2" UL, 5" IN

Outlet: 2 ¹/₄" LR, 7 ¹/₄" in

Rows: 3

Note: w/o Oil Cooler,
w/o Frame

Options: 239088
(PTR w/o Frame & Oil Cooler),
239330 (CBR w/Frame, w/o
Oil Cooler)



239377 - Freightliner

Core Dimensions:

27 ⁷/₁₆" x 25 ¹/₈" x 2 ¹/₁₆"

Inlet: 2" UL

Outlet: 2" LR

Rows: 2

Note: w/Oil Cooler,
w/Frame, 3 hole mount
bracket

Options: 239387
(PT/AL w/o Frame)



RADIATOR Illustrations

239382 - Freightliner/Thomas Bus

Core Dimensions:

27 ⁷/₁₆" x 25 ¹/₈" x 2 ¹/₁₆"

Inlet: 2" UL

Outlet: 2" LR

Rows: 2

Note: w/Oil Cooler,
w/Frame, 2 hole mount
bracket

Options: 239387
(w/o Frame)



239387 - Thomas Bus

Core Dimensions:

27 ⁷/₁₆" x 25 ¹/₈" x 2 ¹/₁₆"

Inlet: 2" UL

Outlet: 2" LR

Rows: 2

Note: w/Oil Cooler,
w/o Frame

Options: 239377
(^{'03} PT/AL w/Frame),
239382 (^{'04} PT/AL
w/Frame)



SURGE TANK OEM Crossover

OEM #'s	PART #	OEM #'s	PART #	OEM #'s	PART #	OEM #'s	PART #
BLUE BIRD BUS		THOMAS BUS (CONT)					
00103523	237030	0521178000	237043				
0064631	237035	0523045000	237038				
0089476	237031	0523045001	237038				
0089476HD	237031	0523185000	237043				
104848	237029	0523195000	237043				
1010087	237034	0523195001	237043				
1802370	237022	1619114C5	237032				
10017312	237042	6035202	237043				
10017312	237044	A0528531000	237047				
10032779	237045	A0528531001	237047				
10007697	237030	NYX1010103	237040				
10007704	237030	NYX1010105	237040				
10009977	237035	VAB1010105	237040				
A3RE0810	237033	VMLT3360A	237032				
FREIGHTLINER		VMLT3360B	237032				
0517076000	237038	Z0530740000	237043				
0517750000	237038						
0520529000	237038						
0521178000	237043						
0523045000	237038						
0523045001	237038						
0523185000	237043						
0523195000	237043						
0523195001	237043						
6035202	237043						
1619114C5	237032						
A0528531000	237047						
A0528531001	237047						
VMLT3360A	237032						
VMLT3360B	237032						
Z0530740000	237043						
THOMAS BUS							
0517076000	237038						
0517750000	237038						
0520529000	237038						

SURGE TANK Illustrations

237022 - Blue Bird Bus

Fits: AARE, A3RE & TCRE Bus



17 ¹³/₁₆" x 9 ¹/₁₆" x 5 ¹/₁₆"

237023 - Blue Bird Bus

Fits: C4RE Bus



17 ¹³/₁₆" x 9 ¹/₁₆" x 5 ¹/₁₆"

237029 - Blue Bird Bus

Fits: '04-'10 All American, A3FE w/CAT C7 & Cummins ISB Engines



10 ¹/₂" x 10 ¹/₂" x 5 ⁷/₁₆"

237030 - Blue Bird Bus

Fits: '07-'10 BBCV w/Cummins, CAT or GMC (8.1 Propane) Engines



14 ⁷/₁₆" x 7 ³/₈" x 4 ⁵/₈"

237031 - Blue Bird Bus

Fits: TCRE & A3RE right hand fill w/CAT 3116 or Cummins 5.9L Engines



18" x 8" x 5"

237032 - Freightliner/Thomas Bus

Fits: Freightliner Chassis Bus w/FS-65 Body & Mercedes 904 Engine



13 ¹/₂" x 8 ⁵/₈" x 4"

237033 - Blue Bird Bus

Fits: '08-'10A3RE Bus, Diesel Pusher



15 ¹/₂" x 7 ¹/₂" x 7 ¹/₂"

237034 - Blue Bird Bus

Fits: '93-'03 All American Bus



14 ³/₄" x 12 ¹/₈" x 2 ¹/₄"

237035 - Blue Bird Bus

Fits: '11-'14 Vision Bus w/CAT or Cummins Engines



13 ⁷/₈" x 6 ¹/₂" x 6 ⁵/₈"

SURGE TANK Illustrations

237038 - Freightliner/Thomas Bus

Fits: '98-'13 Thomas SAF-T-Liner, West Coast ER Rear Engine Bus



16 1/2" x 7 5/8" x 6 1/4"

237040 - Thomas Bus

Fits: '98-'13 Thomas SAF-T-Liner, West Coast ER Rear Engine Bus



5 3/8" x 16 1/2" x 10 1/4"

237042 - Blue Bird Bus

Fits: '11-'14 All American D-3 Front Engine Bus



16" x 5 1/4" x 9 3/4"

237043 - Freightliner/Thomas Bus

Fits: '06-'11 C2, SAF-T-Liner Bus



24" x 9" x 9"

237044 - Blue Bird Bus

Fits: '11-'12 All American D-3 Rear Engine Bus



16 1/2" x 10" x 5"

237045 - Blue Bird Bus

Fits: '13-'15 Rear Engine T3 Model All American Bus



16 1/2" x 10" x 6"

237047 - Freightliner/Thomas Bus

Fits: '12 & Newer C2 Bus



22 1/2" x 8 3/4" x 9"

CHARGE AIR COOLER OEM Crossover

OEM #'s	PART #	OEM #'s	PART #	OEM #'s	PART #	OEM #'s	PART #
BLUE BIRD BUS		BLUE BIRD BUS (CONT)		BLUE BIRD BUS (CONT)		GILLIG BUS (CONT)	
00010513	222225	15029270	222145	IE3488	222046	3E7964	222216
0010513	222225	15078352	222002	IE3489	222047	IE3884	222216
00110216	222046	15149316	222002	IE3951	222046	IE4031	222207
00115575	222248	15982676	222002	IE4761	222046	IE4055	222228
0115575	222248	52463479	222002	VAB1030232	222046	IE4317	222228
00115576	222046	89112801	222046	VAB1030348	222248	INT'L/NAVISTAR	
0115576	222046	89112881	222046	VAB1030351A	222248	091021	222048
050193	222046	90020201	222047	VAB1030353	222248	103005	222048
01453232	222046	97102001	222002	VAB1030356	222248	103005	222056
01582691	222049	2711405778	222044	CHEVROLET/GMC		103017	222048
01843184	222225	2711453232	222046	1030184	222145	153490	222242
50193	222046	2711536499	222047	1030184	222002	153490	222048
69594	222046	2711582691	222049	15029270	222145	167918	222048
507718	222002	38620150000	222383	15029270	222002	817148	222048
817116	222046	1030010V	222046	98092800	222145	1030035	222056
817164	222049	1030166DS	222225	FLEXLINER COACH		1030039	222048
818965	222046	1030413AS	222046	1E3635	222123	1030059	222048
1001921	222044	1040027HS	222225	1E3985	222123	1030066	222045
1030010	222046	1646077C1	222046	1E3995	222123	1030171	222048
1030018	222047	1651695C1	222047	1E4031	222207	1696956	222056
1030019	222044	1651980C1	222044	1E4055	222228	1696956	222089
1030020	222046	1651980C91	222044	1E4317	222228	1696956	222163
1030055	222044	1652622C94	222044	1E4473	222335	9107001	222056
1030067	222044	165622C94	222044	EPR12419	222123	10030035	222056
1030068	222047	1674003C1	222044	1E3635	222123	2711486943	222048
1030073	222049	1674003C1	222045	1E3985	222123	4854500002	222056
1030109	222002	1674033C1	222044	1E3995	222123	165054C91	222056
1030166	222225	1685578C91	222044	1E4031	222207	165055C91	222056
1030184	222002	1685578C91	222045	1E4055	222228	1659006C1	222242
1030184	222145	1E3486	222046	1E4317	222228	1659054C91	222056
1030187	222002	1E3488	222046	FREIGHTLINER		1659054C91	222089
1030232	222046	1E3489	222047	1030378	222260	1659054C93	222056
1030373	222046	1E3951	222046	1030379	222262	1659054C93	222089
1030413	222046	1E4761	222046	1050208	222260	1659055C91	222056
1040027	222225	1S3474	222044	62102539	222262	1659055C91	222089
1040312	222046	2029812C1	222046	3E0118490001	222235	1659055C92	222056
1102541	222049	2229812C1	222046	3S118491	222235	1659055C92	222089
1236645	222046	2501403C1	222046	8A003186	222235	1660989C	222048
1453232	222046	3000154C1	222046	BBHT9454	222235	1674003C1	222045
1530494	222044	347FF1	222046	D9454	222235	1685577C91	222045
1540645	222044	3515528C91	222046	VAB1030378	222260	1685578C91	222045
1582691	222049	3515528C92	222046	VAB1030379	222262	1696920C1	222056
1646077	222046	3515528C93	222046	VAB1050208	222260	1696920C1	222089
1843184	222225	3515528C94	222046	GILLIG BUS		1696920C2	222056
10002152	222383	3530996C1	222046	290407	222216	1696920C2	222089
10010215	222248	3E7011	222046	1E3884	222216	1696955C1	222056
10012237	222046	429AA3	222044	1E4031	222207	1696955C1	222089
10014204	222046	439AA3	222044	1E4055	222228	1696956C1	222056
10053628	222046	53948041P	222046	1E4317	222228	1696956C1	222089
15029270	222002	IE3486	222046	1E4473	222335	1696957C1	222230

CHARGE AIR COOLER OEM Crossover

OEM #'s	PART #	OEM #'s	PART #	OEM #'s	PART #	OEM #'s	PART #
INT'L/NAVISTAR (CONT)		INT'L/NAVISTAR (CONT)		MCI BUS		SPARTAN (CONT)	
1696957C2	222230	2200298C92	222089	1E0056290000	222298	2190100C4	222116
1697719C1	222057	2527219C91	222056	1E5335	222298	718FF1	222116
1697719C1	222089	2527219C91	222089	1E5627	222298	VAB1030041	222116
1E3474	222045	3000024C91	222056	1E5629	222298	WGM31B	222116
1E3475	222045	3000024C91	222089	1E5629D	222298	THOMAS BUS	
1E3490	222048	3503905C92	222056	6L1308	222298	VAB1030436	222377
1E3509	222089	3503905C92	222089	NEW FLYER BUS		VAN HOOL BUS	
1E3834	222057	3503906C91	222056	087779	222312	11237998	222360
1E3834	222089	3503906C91	222089	606426	222218		
1E3835	222056	3505532C91	222056	6322345	222218		
1E3835	222089	3505532C91	222089	6720049	222312		
1E3885	222045	3506940C92	222056	67200400	222313		
1E3910	222230	3506940C92	222089	1E5958	222311		
1E4040	222057	3506941C91	222056	6720040C	222313		
1E5104	222089	3506941C91	222089	3E0143707100	222368		
1E5106	222230	3506942C91	222056	3E0145037100	222365		
1E7013	222048	3506942C91	222089	IH606627	222080		
2004693C91	222056	3506943C91	222056	IH606627	222218		
2004693C91	222089	3506943C91	222089	W071545	222218		
2004694C91	222056	35272118C93	222089	ORION BUS			
2004694C91	222089	3527216C92	222056	1E4473	222335		
2018487C92	222057	3527216C92	222089	1E5779	222315		
2018487C92	222089	3527218C91	222057	1E6102	222318		
2018488C92	222057	3527218C91	222089	297525	222315		
2018488C92	222089	3527218C93	222089	PREVOST BUS			
2022892C92	222057	3527219C91	222056	1030268	222220		
2022892C92	222089	3527219C91	222089	1030268ES	222220		
2022893C92	222057	3527220C91	222056	550845	222220		
2022893C92	222089	3527220C91	222089	550968	222220		
2024914C1	222045	3534405C91	222057	SETRA BUS			
2026621C91	222057	3534405C91	222089	A6295013401	222375		
2026621C91	222089	3B1008	222045	SPARTAN			
2026623C91	222057	3E7018	222048	817121	222116		
2026623C91	222089	3E7713	222048	818957	222116		
2026624C91	222057	65980C1	222045	1030041	222116		
2026624C91	222089	674003C1	222045	1030050	222116		
2037786C92	222057	1E3474	222045	10030050	222116		
2037786C92	222089	1E3475	222045	12110316	222116		
2037787C91	222057	1E3490	222048	21901213	222116		
2037787C91	222089	1E3509	222089	29013211	222116		
2037788C91	222057	1E3834	222057	29013213	222116		
2037788C91	222056	1E3835	222056	85103382	222116		
2037788C91	222089	1E3885	222045	219010004	222116		
2037789C91	222057	1E3910	222230	219012313	222116		
2037789C91	222089	1E4040	222057	219013210	222116		
2200095C92	222056	1E5104	222089	219013211	222116		
2200095C92	222089	1E5106	222230	219013213	222116		
2200096C92	222056	1E7013	222048	1030041S	222116		
2200096C92	222089	VAB1030171	222048	210F2	222116		
2200298C92	222056			219010002RW	222116		

CHARGE AIR COOLER Dimensional Look-up (IN ORDER BY CORE SIZE)

PART #	APPLICATION	CORE DIMENSIONS	INLET	OUTLET	NOTES
BLUE BIRD BUS					
222230		19 ³ / ₈ " x 12 ⁹ / ₁₆ " x 2 ³ / ₄ "	3"	3"	
222046		23" x 29 ⁷ / ₈ " x 1 ¹ / ₂ "	3 ¹ / ₂ "	3 ¹ / ₂ "	
222048		23 ¹ / ₂ " x 24" x 1 ¹¹ / ₁₆ "	3 ¹ / ₂ "	3 ¹ / ₂ "	
222248	'07 CV	24" x 25 ⁷ / ₁₆ " x 2 ¹ / ₄ "	3 ¹ / ₂ "	3 ¹ / ₂ "	
222047		24 ¹ / ₄ " x 29 ³ / ₄ " x 1 ⁵ / ₈ "	3 ¹ / ₂ "	3 ¹ / ₂ "	
222044	'91-'93 9670, 9700 w/Cummins N14	27" x 19" x 3"	4"	4"	w/Bracket
222045	'91-'93 9670, 9700 w/Cummins N14	27" x 19" x 3"	4"	4"	w/o Bracket
222049		28 ¹ / ₄ " x 29 ⁷ / ₈ " x 1 ¹¹ / ₁₆ "	3 ¹ / ₂ "	3 ¹ / ₂ "	
222225		29" x 22 ¹⁵ / ₁₆ " x 2 ³ / ₄ "	4"	4"	
222002		30 ⁵ / ₈ " x 25 ¹ / ₈ " x 1 ¹¹ / ₁₆ "	3 ³ / ₈ "	3 ³ / ₈ "	Drivers side connection is 8 ¹ / ₂ " from center of connection to top of core
222383	'12 & Newer RE Bus	35 ¹ / ₄ " x 7 ³ / ₄ " x 5 ¹ / ₂ "	3 ¹ / ₂ "	3 ¹ / ₂ "	All Aluminum
CHEVROLET/GMC					
222002		30 ⁵ / ₈ " x 25 ¹ / ₈ " x 1 ¹¹ / ₁₆ "	3 ³ / ₈ "	3 ³ / ₈ "	Drivers side connection is 8 ¹ / ₂ " from center of connection to top of core
222145		30 ⁵ / ₈ " x 25 ¹ / ₈ " x 1 ¹¹ / ₁₆ "	3 ³ / ₈ "	3 ³ / ₈ "	Drivers side connection is 6 ¹ / ₂ " from center of connection to top of core
FLEXLINER COACH					
222215		23 ¹ / ₄ " x 16 ⁷ / ₈ " x 2 ¹ / ₄ "	4"	4"	Passenger side points 90° degrees toward core
222335		23 ¹ / ₄ " x 17 ¹ / ₈ " x 3 ¹ / ₈ "	4"	4"	Heavy duty bar plate construction
222151		25 ¹ / ₄ " x 19 ¹ / ₂ "	4"	4"	Straight connections
222123		25 ¹ / ₂ " x 19 ¹ / ₂ " x 2 ¹ / ₄ "	4"	4"	Driver side connection points down 90° degrees
222228		25 ³ / ₈ " x 17 ³ / ₈ " x 3 ¹ / ₈ "	4"	4"	Straight connections, Bar plate construction
222209		25 ¹ / ₂ " x 16 ⁷ / ₈ " x 2 ¹ / ₄ "	4"	4"	Driver side connection points down 90° degrees
222210		25 ¹ / ₂ " x 16 ⁷ / ₈ " x 2 ¹ / ₄ "	4"	4"	Passenger side points 90° degrees toward core
222207		25 ¹ / ₂ " x 19 ¹ / ₂ " x 2 ¹ / ₄ "	4"	4"	Passenger side points 90° degrees toward core
222214		26" x 16 ⁷ / ₈ " x 2 ¹ / ₄ "	4"	4"	Straight connections
FREIGHTLINER					
222260	'07 & Newer TBB-EF Bus	24" x 27 ¹ / ₈ " x 2 ¹ / ₄ "	3 ¹ / ₂ "	3 ¹ / ₂ "	
222262	'07 & Newer TBB-HDX Bus	27 ¹ / ₄ " x 27 ³ / ₁₆ " x 2 ¹ / ₄ "	4"	4 ¹ / ₂ "	
222035		30" x 22 ¹ / ₁₆ " x 2 ³ / ₄ "	4"	4"	
GILLIG BUS					
222335		23 ¹ / ₄ " x 17 ¹ / ₈ " x 3 ¹ / ₈ "	4"	4"	Heavy duty bar plate construction
222228		25 ³ / ₈ " x 17 ³ / ₈ " x 3 ¹ / ₈ "	4"	4"	Straight connections
222209		25 ¹ / ₂ " x 16 ⁷ / ₈ " x 2 ¹ / ₄ "	4"	4"	Driver side connection points down 90° degrees
222210		25 ¹ / ₂ " x 16 ⁷ / ₈ " x 2 ¹ / ₄ "	4"	4"	Passenger side points 90° degrees toward core
222207		25 ¹ / ₂ " x 19 ¹ / ₂ " x 2 ¹ / ₄ "	4"	4"	Passenger side points 90° degrees toward core
222216		30 ⁷ / ₁₆ " x 24 ⁵ / ₈ " x 2 ¹ / ₄ "	4"	4"	
222217		30 ⁷ / ₁₆ " x 24 ⁵ / ₈ " x 2 ¹ / ₄ "	4"	4"	
INT'L/NAVISTAR					
222230		19 ³ / ₈ " x 12 ⁹ / ₁₆ " x 2 ³ / ₄ "	3"	3"	
222048	Chassis	23 ¹ / ₂ " x 24" x 1 ¹¹ / ₁₆ "	3 ¹ / ₂ "	3 ¹ / ₂ "	Has top bracket

CHARGE AIR COOLER Dimensional Look-up (IN ORDER BY CORE SIZE)

PART #	APPLICATION	CORE DIMENSIONS	INLET	OUTLET	NOTES
INT'L / NAVISTAR (CONT)					
222242		23 1/2" x 24" x 1 11/16"	3 1/2"	3 1/2"	Port on upper left tank, Doesn't have top bracket
222056	3000, 4000, Class 6, S-Line, '94-'99 4900	23 1/4" x 12 1/2" x 2 1/2"	3"	3"	Verify fit through Illustration
222163	NGD w/V8	23 3/8" x 12 3/4" x 3"	3"	3"	45° Curved inlet
222057	NGD w/V8	23 3/8" x 13" x 3"	3"	3"	Verify fit through Illustration
222089	3000, 4000, Class 6, S-Line	23 3/8" x 13" x 3"	3"	3"	Verify fit through Illustration
222047	Chassis	24 1/4" x 29 3/4" x 1 5/8"	3 1/2"	3 1/2"	
222045	'91-'93 9670, 9700 w/Cummins N14, CAT L10, 3406, 3406E, 3176	27" x 19" x 3"	4"	4"	w/o Brackets
222049	Chassis	28 1/4" x 29 7/8" x 1 11/16"	3 1/2"	3 1/2"	
MCI BUS					
222298	'03-'07 D4000, D4005, D4500, D4505	24 5/8" x 30 7/8" x 3"	4"	4"	
NEW FLYER BUS					
222218		33 1/4" x 10 3/8" x 4"	4"	4"	
222365		36 1/2" x 10 1/2" x 5 1/2"	4"	4"	
222311		37 1/2" x 9 5/8" x 4 3/8"	4"	4"	Heavy duty bar plate construction
222312	'01-'07 D40FL	37 1/8" x 10 7/8" x 3"	4"	4"	40' Low floor bus
222313	'01-'07 D40FL	37 3/8" x 11" x 3 1/4"	4"	4"	40' Low floor bus
222368		37" x 9 1/8" x 5 1/2"	4"	4"	
ORION BUS					
222335		23 1/4" x 17 1/8" x 3 1/8"	4"	4"	Bar plate core design
222315		26 3/16" x 14" x 4 3/8"	4"	4"	Heavy duty bar and plate construction
222318		26 1/2" x 17 1/8" x 3 1/8"	4"	4"	Heavy duty bar and plate construction, High volume 80mm tubes, More surface area than traditional tube and fin design
PREVOST BUS					
222220		34 1/4" x 24 1/2" x 2 1/4"	4"	4"	
SETRA BUS					
222375		38 3/8" x 32 1/4" x 2"	4"	4"	
SPARTAN					
222046	3000/4000, S-Line Class 6 & 7 Fire Trucks	23" x 29 7/8" x 1 1/2"	3 1/2"	3 1/2"	
222044		27" x 19" x 3"	4"	4"	w/Bracket
222074		27 7/8" x 25 1/4" x 2 1/4"	4"	4"	Verify fit through Illustration
222116	Bus	34 1/4" x 23 1/4" x 2 3/4"	4"	4"	
THOMAS BUS					
222377	'07 & Newer EF	24" x 27" x 2 1/4"	3 1/2"	3 1/2"	
VAN HOOL BUS					
222360		28 7/8" x 29 7/8" x 2 3/4"	4 3/4"	4 3/4"	Flanged connections, Bar plate connection

CHARGE AIR COOLER Illustrations

222002 - Chevrolet/GMC



Core Size: 30 ⁵/₈" x 25 ¹/₈" x 1 ¹¹/₁₆"
Inlet: 3 ³/₈" **Outlet:** 3 ³/₈"

222044 - Blue Bird Bus/Spartan



Core Size: 27" x 19" x 3" **Inlet:** 4" **Outlet:** 4"
Notes: w/Lower bracket **Options:** 222045 (w/o Lower bracket)

222045 - Blue Bird Bus/Int'l-Navistar



Core Size: 27" x 19" x 3" **Inlet:** 4" **Outlet:** 4"
Notes: w/o Lower bracket **Options:** 222044 (w/Lower bracket)

222046 - Blue Bird Bus/Spartan

Core Size:
 23" x 29 ⁷/₈" x 1 ¹/₂"
Inlet: 3 ¹/₂"
Outlet: 3 ¹/₂"



222047 - Blue Bird Bus/Int'l-Navistar

Core Size:
 24 ¹/₄" x 29 ³/₄" x 1 ⁵/₈"
Inlet: 3 ¹/₂"
Outlet: 3 ¹/₂"



222048 - Int'l-Navistar

Core Size:
 23 ¹/₂" x 24" x 1 ¹¹/₁₆"
Inlet: 3 ¹/₂"
Outlet: 3 ¹/₂"
Notes: No port on upper left tank, has top bracket
Options: 222242
 (w/Port on upper left tank, but no bracket)



CHARGE AIR COOLER Illustrations

222049 - Blue Bird Bus/Int'l-Navistar

Core Size:

28 1/4" x 29 7/8" x 1 11/16"

Inlet: 3 1/2"

Outlet: 3 1/2"



222056 - Int'l-Navistar



Core Size: 23 1/4" x 12 1/2" x 2 1/2"

Inlet: 3" Outlet: 3"

222057- Int'l-Navistar



Core Size: 23 3/8" x 13" x 3"

Inlet: 3" Outlet: 3"

Notes: Drivers side connection turns 90° to core

222074 - Spartan

Core Size:

27 7/8" x 25 1/4" x 2 1/4"

Inlet: 4"

Outlet: 4"



222089 - Int'l-Navistar



Core Size: 23 3/8" x 13" x 3"

Inlet: 3" Outlet: 3"

222116 - Spartan



Core Size: 34 1/4" x 23 1/4" x 2 3/4"

Inlet: 4" Outlet: 4"

CHARGE AIR COOLER Illustrations

222145 - Chevrolet/GMC



Core Size: 30 ⁵/₈" x 25 ¹/₈" x 1 ¹¹/₁₆"
Inlet: 3 ³/₈" **Outlet:** 3 ³/₈"

222163 - Int'l-Navistar



Core Size: 23 ³/₈" x 12 ³/₄" x 3"
Inlet: 3" **Outlet:** 3"
Notes: Driver side connection bent at 45° angle

222220 - Prevost Bus



Core Size: 34 ¹/₄" x 24 ¹/₂" x 2 ¹/₄"
Inlet: 4" **Outlet:** 4"

222225 - Blue Bird Bus



Core Size: 29" x 22 ¹⁵/₁₆" x 2 ³/₄"
Inlet: 4" **Outlet:** 4"

222230 - Blue Bird Bus/Int'l-Navistar



Core Size: 19 ³/₈" x 12 ⁹/₁₆" x 2 ³/₄"
Inlet: 3" **Outlet:** 3"

222235 - Freightliner



Core Size: 34 ¹/₂" x 32 ⁵/₈" x 2 ¹/₄"
Inlet: 4" **Outlet:** 4"

CHARGE AIR COOLER Illustrations

222242 - Int'l-Navistar

Core Size:

23 1/2" x 24" x 1 11/16"

Inlet: 3 1/2"

Outlet: 3 1/2"

Notes: Has port on upper left tank

Option: 222048

(w/o Port but with top bracket)



222248 - Blue Bird Bus

Core Size:

24" x 25 7/16" x 2 1/4"

Inlet: 3 1/2"

Outlet: 3 1/2"



222260 - Freightliner

Core Size:

24" x 27 3/16" x 2 1/4"

Inlet: 3 1/2"

Outlet: 3 1/2"



222262 - Freightliner



Core Size: 27 1/4" x 27 3/16" x 2 1/4"

Inlet: 4" Outlet: 4 1/2"

222298 - MCI Bus

Core Size:

24 5/8" x 30 7/8" x 3"

Inlet: 4"

Outlet: 4"



222311 - New Flyer Bus



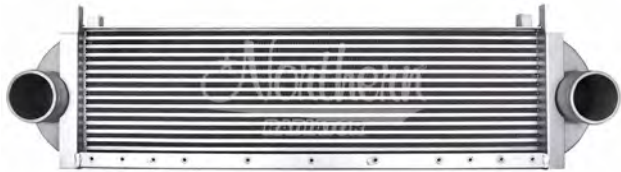
Core Size: 37 1/2" x 9 5/8" x 4 3/8"

Inlet: 4" Outlet: 4"

Notes: Bar & plate construction

CHARGE AIR COOLER Illustrations

222312 - New Flyer Bus



Core Size: $37 \frac{1}{8}'' \times 10 \frac{7}{8}'' \times 3''$
Inlet: 4" **Outlet:** 4"

222313 - New Flyer Bus



Core Size: $37 \frac{3}{8}'' \times 11'' \times 3 \frac{1}{4}''$
Inlet: 4" **Outlet:** 4"

222315 - Orion Bus



Core Size: $26 \frac{3}{16}'' \times 14'' \times 4 \frac{3}{8}''$
Inlet: 4" **Outlet:** 4" **Notes:** Bar & plate construction

222318 - Orion Bus



Core Size: $26 \frac{1}{2}'' \times 17 \frac{1}{8}'' \times 3 \frac{1}{8}''$
Inlet: 4" **Outlet:** 4"
Notes: Bar & plate construction, High volume 800mm tubes, more surface area than traditional tube and fin design

222335 - Gillig Bus/Orion Bus



Core Size: $23 \frac{1}{4}'' \times 17 \frac{1}{8}'' \times 3 \frac{1}{8}''$
Inlet: 4" **Outlet:** 4" **Notes:** Bar & plate construction

222360 - Van Hool Bus

Core Size:
 $28 \frac{7}{8}'' \times 29 \frac{7}{8}'' \times 2 \frac{3}{4}''$
Inlet: $4 \frac{3}{4}''$
Outlet: $4 \frac{3}{4}''$
Notes: Flanged connections



CHARGE AIR COOLER Illustrations

222365 - New Flyer Bus



Core Size: 36 1/2" x 10 1/2" x 5 1/2"

Inlet: 4" **Outlet:** 4" **Notes:** Bar & plate construction

222368 - New Flyer Bus



Core Size: 37" x 9 1/8" x 5 1/2"

Inlet: 4" **Outlet:** 4" **Notes:** Bar & plate construction

222375 - Setra Bus



Core Size: 38 3/8" x 32 1/4" x 2"

Inlet: 4" **Outlet:** 4"

222377 - Thomas Bus

Core Size:

24" x 27" x 2 1/4"

Inlet: 3 1/2"

Outlet: 3 1/2"

Notes: Has an extra 1" port on drivers side tank



222383 - Blue Bird Bus



Core Size: 35 1/4" x 7 3/4" x 5 1/2"

Inlet: 3 1/2" **Outlet:** 3 1/2"

CONDENSER Dimensional Look-up (IN ORDER BY CORE SIZE)

PART #	APPLICATION	CORE DIMENSIONS	OEM #'s
FREIGHTLINER			
9260102	'08-'13 S2, B2 Bus Chassis	22 ⁷ / ₁₆ " x 15 ³ / ₁₆ " x ⁵ / ₈ "	1210416AS, VAB1050619
INT'L/NAVISTAR			
9240829	'01-'06 4200, 4300, 4400, 8500	20 ¹ / ₂ " x 23 ³ / ₈ " x ⁵ / ₈ "	1E4897, 1E5085, 1E5633, 2505650C92, 2586812C91, 2586812C92, 2586812C93, 2586812C94, 3504370C2, 3509453C1, 3548907F93, 4C4Z19712EA, 1E4897, 1E5085, 1E5633
9240807	'84-'93 S Series w/Kysor System	21" x 15" x ³ / ₄ "	
9260111	'10 & Newer IC Corp AC, CE, HC School, Commercial Buses	23 ⁵ / ₈ " x 18 ³ / ₄ " x ³ / ₄ "	1S1431222, 2601796C91
9240827	'93-'02 4600, 4700, 4900 w/7.3L	25 ⁷ / ₈ " x 25 ³ / ₄ " x ³ / ₄ "	2000655C1, 2000655C2
9240815	'89-'99 1000, 4700, 4900, 7100	25 ¹ / ₂ " x 27" x ³ / ₄ "	1667340C4, 1667340C5, 1667640C5
9240820	'83-'02 2500, 2600, 5000, 8000, 8100, 8200, 8300, 9400, S2200, S2500, S2600	27" x 23" x ⁷ / ₈ "	1072720, 1675462C1, 1675462C2

CONDENSER Illustrations

9240807 - Int'l-Navistar



Core Size: 21" x 15" x ³/₄"
Fittings: #8 & #6 Male O-Ring

9240815 - Int'l-Navistar



Core Size: 25 ¹/₂" x 27" x ³/₄"
Fittings: #8 & #6 Male O-Ring

CONDENSER Illustrations

9240820 - Int'l-Navistar



Core Size: 27" x 23" x $\frac{7}{8}$ "
Fittings: #8 & #6 Male O-Ring

9240827 - Int'l-Navistar



Core Size: 25 $\frac{7}{8}$ " x 25 $\frac{3}{4}$ " x $\frac{3}{4}$ "
Fittings: #8 & #6 Male O-Ring

9240829 - Int'l-Navistar



Core Size: 20 $\frac{1}{2}$ " x 23 $\frac{3}{8}$ " x $\frac{5}{8}$ "
Fittings: Block

9260102 - Freightliner



Core Size: 22 $\frac{7}{16}$ " x 15 $\frac{3}{16}$ " x $\frac{5}{8}$ "
Fittings: Block

9260111 - Int'l-Navistar



Core Size: 23 $\frac{5}{8}$ " x 18 $\frac{3}{4}$ " x $\frac{3}{4}$ "
Fittings: Block

BLOWER MOTOR OEM Crossover

OEM #'s	PART #	OEM #'s	PART #	OEM #'s	PART #	OEM #'s	PART #
BLUE BIRD BUS		WARD					
143840	AH451	15380	35524				
228072	35523	15385	35524				
228080	35478	416441001	35557				
2162519	35576	6320F	35523				
2807513100	35524	6324F	35523				
4316238	35560	WAYNE					
EVANS		300549004	35435				
HV34776	35435	7288F	35620				
KYSOR		7289F	35478				
275140	35560						
275140	35557						
LINTEN							
6215	35594						
6325	35524						
RED DOT							
RD550490	35543						
SUPERIOR							
151202	35523						
266996	35560						
328946	35523						
THOMAS BUS							
0228072	35523						
73069008	35576						
8566007	35560						
8566130	35576						
85660007	35510						
85660009	35543						
85660082	35543						
85660102	35510						
85660102	35560						
85660297	35429						
85660378	35223						
85660626	35560						
935494	35223						
11R	35576						
6320F	35523						

BLOWER MOTOR Look-up

APPLICATION	YEAR	NOTES	PART #
BLUE BIRD BUS			
School/Shuttle Buses & Vans		Heater Motor, 3 Wire	35478
		Heater Motor, 3 Wire	35523
		Heater Motor, 3 Wire, Dash Mounted	35524
		Heater Motor, 2 Wire	35560
		Defroster Fan Motor, 2 Wire	35576
		Blower Motor	AH451
CARPENTER BUS			
School/Shuttle Buses & Vans		Heater Motor, 3 Wire	35523
		Blower Motor, 2 Wire	35560
EVANS			
School/Shuttle Buses & Vans		Heater Motor, 2 Wire, w/Brackets	35435
		Heater Motor, 2 Wire	35560
		Closed w/o Wheel	35506
KYSOR			
School/Shuttle Buses & Vans		Heater Motor, 2 Wire	35546
		Heater Motor, 2 Wire	35560
		Closed w/o Wheel	35506
LINTEN			
School/Shuttle Buses & Vans		Heater Motor, 3 Wire, Dash Mounted	35524
		Heater Motor, 2 Wire	35560
RED DOT			
School/Shuttle Buses & Vans		Heater Motor, 2 Wire	35543
SUPERIOR			
School/Shuttle Buses & Vans		Heater Motor, 2 Wire	35511
		Heater Motor, 3 Wire	35523
		Heater Motor, 3 Wire	35524
		Heater Motor, 2 Wire	35560
THOMAS BUS			
School/Shuttle Buses & Vans		Heater Motor	35223
		Heater Motor, 2 Wire	35429
		Heater Motor, Vented	35510
		Heater Motor, 3 Wire	35523
		Heater Motor, 2 Wire	35543
		Heater Motor, 2 Wire	35560
		Defroster Fan Motor, 2 Wire	35576
WARD			
School/Shuttle Buses & Vans		Heater Motor, 3 Wire	35523
		Heater Motor, 3 Wire	35524
		Heater Motor, 2 Wire	35557
WAYNE			
School/Shuttle Buses & Vans		Heater Motor, 2 Wire, w/Brackets	35435
		Heater Motor	35478
		Heater Motor	35620

BLOWER MOTOR Illustrations

Thomas Bus

35223

Thomas Bus

35429



Type: Single Shaft
Rotation: CW
Shaft Length: 1"
Motor Diameter: 3"
Voltage: 12
Shaft Diameter: $\frac{5}{16}$ "
Motor Length: 4 $\frac{1}{4}$ "
Notes: Non-Vented w/o wheel



Type: Double Shaft
Rotation: CCWLE
Shaft Length: 2 $\frac{15}{16}$ "
Motor Diameter: 3"
Voltage: 12
Shaft Diameter: $\frac{5}{16}$ "
Motor Length: 5 $\frac{3}{16}$ "
Notes: Vented w/o wheel

Evans/Wayne

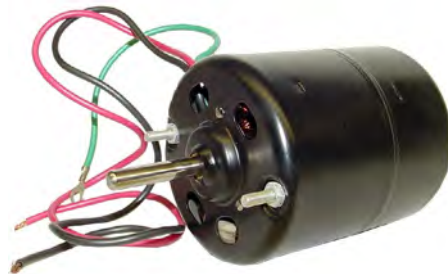
35435

Blue Bird Bus/Wayne

35478



Type: Flanged
Rotation: CCW
Shaft Length: 1 $\frac{5}{16}$ "
Motor Diameter: 3"
Voltage: 12
Shaft Diameter: $\frac{5}{16}$ "
Motor Length: 4 $\frac{5}{8}$ "
Notes: Vented w/o wheel



Type: Single Shaft
Rotation: CCW
Shaft Length: 1 $\frac{1}{2}$ "
Motor Diameter: 3 $\frac{5}{8}$ "
Voltage: 12
Shaft Diameter: $\frac{5}{16}$ "
Motor Length: 5"
Notes: Vented w/o wheel

Evans/Kysor

35506

Thomas Bus

35510



Type: Single Shaft
Rotation: Rev
Shaft Length: 1 $\frac{1}{8}$ "
Motor Diameter: 3"
Voltage: 24
Shaft Diameter: $\frac{1}{4}$ "
Motor Length: 3 $\frac{3}{4}$ "
Notes: Closed w/o wheel



Type: Double Shaft
Rotation: Rev
Shaft Length: 2 $\frac{7}{8}$ "
Motor Diameter: 3"
Voltage: 12
Shaft Diameter: $\frac{5}{16}$ "
Motor Length: 4"
Notes: Vented w/o wheel

BLOWER MOTOR Illustrations

Blue Bird Bus/Carpenter Bus
Superior/Thomas Bus/Ward

35523

Blue Bird Bus/Linten/Superior/Ward **35524**



Type: Single Shaft
Rotation: CW
Shaft Length: 1 $\frac{1}{4}$ "
Motor Diameter: 3"
Voltage: 12
Shaft Diameter: $\frac{5}{16}$ "
Motor Length: 4 $\frac{5}{8}$ "
Notes: Vented w/o wheel



Type: Single Shaft
Rotation: CCW
Shaft Length: 1 $\frac{1}{4}$ "
Motor Diameter: 3"
Voltage: 12
Shaft Diameter: $\frac{5}{16}$ "
Motor Length: 4 $\frac{9}{16}$ "
Notes: Vented w/o wheel

Red Dot/Thomas Bus

35543

Ward

35557



Type: Double Shaft
Rotation: CCWLE
Shaft Length: 3 $\frac{1}{4}$ "
Motor Diameter: 3"
Voltage: 12
Shaft Diameter: $\frac{5}{16}$ "
Motor Length: 4"
Notes: Vented w/o wheel



Type: Single Shaft
Rotation: Rev
Shaft Length: 1 $\frac{5}{16}$ "
Motor Diameter: 3"
Voltage: 12
Shaft Diameter: $\frac{5}{16}$ "
Motor Length: 4 $\frac{5}{8}$ "
Notes: Vented w/o wheel

Blue Bird Bus/Carpenter Bus/Kysor/Linten
Superior/Thomas Bus

35560

Blue Bird Bus/Thomas Bus

35576



Type: Single Shaft
Rotation: Rev
Shaft Length: 1 $\frac{1}{4}$ "
Motor Diameter: 3"
Voltage: 12
Shaft Diameter: $\frac{5}{16}$ "
Motor Length: 4 $\frac{3}{16}$ "
Notes: Vented w/o wheel



Type: Single Shaft
Rotation: Rev
Shaft Diameter: $\frac{1}{4}$ " w/ $\frac{5}{16}$ " shaft adapter
Motor Length: 3 $\frac{3}{4}$ "
Motor Diameter: 3"
Voltage: 12
Shaft Length: 1 $\frac{1}{2}$ "
Notes: Non-Vented w/o wheel

BLOWER MOTOR & HEATER CORES Illustrations

Wayne

35620

Blue Bird Bus

AH451



Type: Single Shaft
Rotation: CW
Shaft Length: 1 1/2"
Motor Diameter: 3 1/2"

Voltage: 12
Shaft Diameter: 5/16"
Motor Length: 4 1/8"
Notes: Non-Vented w/o wheel



Type: Single Shaft
Rotation: CW
Shaft Length: 1 1/8"
Motor Diameter: 3"

Voltage: 12
Shaft Diameter: 1/4"
Motor Length: 2 5/8"
Notes: Non-Vented w/o wheel

Int'l-Navistar

394172

Int'l-Navistar

399412



Core Size: 9 3/8" x 7 5/8" x 2"
Inlet: 3/4" Outlet: 5/8"
*OEM #: 474030C2, 2503899C91

Core Size:
8 1/4" x 7 1/8" x 1"
Inlet: 3/4"
Outlet: 5/8"
OEM #: 581702C1,
2503898C91,
4R702488



Blue Bird Bus

399437

Core Size:
11 7/8" x 13 1/8" x 1 1/8"
Inlet: 1"
Outlet: 1"
OEM #: 10009575



AUXILIARY HEATER Applications

PART #	BTU	CASE SIZE	FAN	MOUNTING	NOTES
STANDARD					
AH464 - 12 Volt AH24464 - 24 Volt	16,000	6 ³ / ₈ " x 6 ³ / ₄ " x 7 ¹ / ₂ "	Single Fan 2-Speed	Through the floor hose connection	• Compact • Great for rear van heat
AH500 - 12 Volt	16,000	10" x 10" x 4"	Single Fan 2-Speed	Ideal for under seat heat	• Compact • Great for vehicles where space is a factor
AH454 - 12 Volt AH24454 - 24 Volt	20,000	9 ¹ / ₂ " x 6 ¹ / ₂ " x 7"	Single Fan 2-Speed	Sidewall exit hose connection for convenient wall mount	• Compact • Adjustable louver to direct heat flow
AH468 - 12 Volt AH24468 - 24 Volt	20,000	9 ¹ / ₂ " x 6 ¹ / ₂ " x 7"	Single Fan 2-Speed	Through the floor bolt down mounting case	• Compact • Adjustable louver • Great for delivery vans
AH474 - 12 Volt AH24474 - 24 Volt	20,000	9 ¹ / ₂ " x 6 ¹ / ₂ " x 7"	Single Fan 2-Speed	Convenient fan switch is mounted right in case	• Compact • Adjustable louver • Fleet vehicles
HIGH-OUTPUT					
AH530 - 12 Volt	16,000	6 ¹ / ₂ " x 6 ³ / ₄ " x 8 ⁷ / ₈ "	Squirrel Cage Fan	Through the floor 3-Speed	• Great for rear passenger van heat • High-Output Heat
AH525 - 12 Volt	20,000	9 ¹ / ₂ " x 6 ¹ / ₂ " x 9"	Squirrel Cage Fan	Wall or Side Mount 3-Speed	• Great for rear passenger van heat • High-Output Heat
AH535 - 12 Volt AH24535 - 24 Volt	30,000	16" x 6 ¹ / ₂ " x 9"	Dual Wheel Blower 3-Speed	Wall or Side Mount	• Dual directional louvers • Installation kit included • High-Output Heat
AH545 - 12 Volt AH24545 - 24 Volt	30,000	16" x 6 ¹ / ₂ " x 9"	Dual Wheel Blower 3-Speed	Wall or Side Mount	• 3 Ducts for heating/defrosting • Requires included hose & louver installation kit • High-Output Heat
*AH545-1 - Hose/Louver Kit (Sold Separately/Recommended)					
AH550 - 12 Volt AH24550 - 24 Volt	30,000	16" x 6 ¹ / ₂ " x 9"	Dual Wheel Blower 3-Speed	Wall or Side Mount	• Full front opening • Ideal for heating large areas • High-Output Heat

STANDARD AUXILIARY HEATER Illustrations

MODEL 454 - 20,000 BTU

This 20,000 BTU heater has sidewall exit hose connections for convenient wall mounting. Great for applications where through the floor exit is impossible or impractical. Adjustable directional louver allows you to direct the heat just where it is needed most. Installation kit included.

9 1/2" x 6 1/2" x 7" • 12 or 24 volt available.

AH454 12 Volt **AH24454** 24 Volt

Features: Compact size, 2 speed fan, rear fan guard

For High-Output Version see AH525



MODEL 464 - 16,000 BTU

A small compact sized heater with high BTU. This heater features through the floor hose connections, so all coolant connections are located outside of the passenger area. Great for rear van heat. Installation kit included.

6 3/8" x 6 3/4" x 7 1/2"

12 or 24 volt available.

AH464 12 Volt
AH24464 24 Volt

Features: Compact size, 2 speed fan, steel case and thru the floor hose connections.

For High-Output Version see AH530



MODEL 468 - 20,000 BTU

Through the floor hose connections and bolt to the floor mountings means heavy duty, safe installation. Great for delivery vans, 4 x 4's and much more. Directional air louver is adjustable to direct air flow for best circulation.

9 1/2" x 6 1/2" x 7" • 12 or 24 volt available.

AH468 12 Volt **AH24468** 24 Volt

Features: Compact size, adjustable louvers, bolt down mounting case.



MODEL 474 - 20,000 BTU

Greatly used in fleet vehicles, this model was developed with a convenient fan switch mounted right in the case for easy driver control. Features through sidewall connections.

9 1/2" x 6 1/2" x 7" • 12 or 24 volt available.

AH474 12 Volt **AH24474** 24 Volt

Features: Compact size, 2 speed, case mounted, fan switch, adjustable louvers.



MODEL 500 - 16,000 BTU

Designed for underseat mounting, this compact heater is only 4" tall. Fits under any seat, stays out of the way, and provides 16,000 BTU of heat. Great for vehicles where space is a factor.

10" x 10" x 4" • 12 volt only.

AH500 12 Volt

Features: Compact size, 12 volt, ideal for underseat mounting.

HIGH-OUTPUT AUXILIARY HEATER Illustrations

MODEL 525

3 Speed High-Output Heater, High Efficiency Aluminum Core, All Steel, Powder Coated Case, 12 Volt

AH525 6 1/2" x 9 1/2" x 9"

Directional Louver



MODEL 530

3 Speed High-Output Heater, High Efficiency Aluminum Core, All Steel, Powder Coated Case, 12 Volt

AH530 6 3/4" x 6 1/2" x 8 7/8"



MODEL 550

A large fan with quiet operation! Has full front opening for blowing heat. If you have a vehicle with a large area to heat, then this is the heater for you. 16" x 6 1/2" x 9".

AH550 12 Volt

AH24550 24 Volt

Features: Large size, dual squirrel cage fans w/full front opening and 3 speed fan.



MODEL 535

A large fan with big heat! Has dual fans and dual air directional louvers for blowing the heat in the direction needed. If you have a vehicle with a large area to heat, then this heater is for you. Installation kit included. 16 x 6 1/2 x 9".

AH535 12 Volt

AH24535 24 Volt

Features: Large size, dual 3 speed fans with directional louvers



MODEL 545

A large fan with big heat! Has dual fans and 3 defroster ducts for conveniently routing air flow to your application. May be used for heating or defrosting. If you have a vehicle with a large area to heat, then this is the heater for you! Installation kit included. 16" x 6 1/2" x 9".

AH545 12 Volt

AH24545 24 Volt

AH545-1 Hose & Louver Kit

Features: Large size, Dual fans with 3 ducts, and 3 speed fan. This model requires hose & louver kit.

TURBO INTERCOOLER HOSES

Turbo Intercooler & Charge Air Cooler Silicone Hoses



2 1/2" Charge Air Cooler Hose, 6" Long, 3 Rings.....	Z71073
3" Charge Air Cooler Hose, 6" Long, 3 Rings.....	Z71047
3" Charge Air Cooler Hose, 6" Long, 2 Rings.....	Z71074
3 1/8" Charge Air Cooler Hose, 6" Long, 3 Rings.....	Z71075
3 1/4" Charge Air Cooler Hose, 6" Long, 3 Rings.....	Z71076
3 1/2" Charge Air Cooler Hose, 6" Long, 3 Rings.....	Z71048
3 1/2" Charge Air Cooler Hose, 6" Long, 2 Rings.....	Z71077
4" Charge Air Cooler Hose, 6" Long, 3 Rings	Z71049
4" Charge Air Cooler Hose, 6" Long, 2 Rings.....	Z71078
4" Charge Air Cooler Hose, 7" Long, 3 Rings.....	Z71079
4" Charge Air Cooler Hose, 8" Long, 3 Rings.....	Z71080
4 1/2" Charge Air Cooler Hose, 6" Long, 3 Rings.....	Z71081

Diesel Engine Silicone Hump Hose Connectors



Coolant Hump Hose

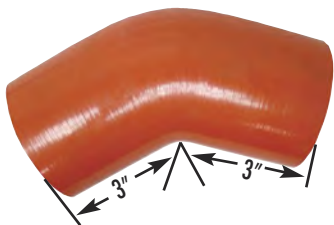
1 1/2" Coolant Hump Hose, 6" Long, (Fluoro-Lined for long life)	Z71040
1 3/4" Coolant Hump Hose, 6" Long, (Fluoro-Lined for long life)	Z71041
2" Coolant Hump Hose, 6" Long, (Fluoro-Lined for long life)	Z71042
2 1/2" Coolant Hump Hose, 6" Long, (Fluoro-Lined for long life)	Z71043

Air Intake Hump Hose

*Use these hoses for cold intake

3" Charge Air Cooler Hump, 6" Long	Z71044
3 1/2" Charge Air Cooler Hump, 6" Long	Z71045
4" Charge Air Cooler Hump, 6" Long	Z71046
3" Charge Air Cooler Hump, 8" Long	Z71052
3 1/2" Charge Air Cooler Hump, 8" Long	Z71053
4" Charge Air Cooler Hump, 8" Long	Z71054

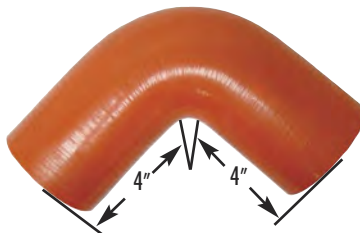
45° Silicone CAC Hose



High temp (500°F compatible), 45° silicone hose used in diesel air intake systems. Use on either hot or cold side charge air cooler connection.

3" Dia.	Z71070
3 1/2" Dia.....	Z71071
4" Dia.	Z71072

90° Silicone CAC Hose



High temp (500°F compatible), 90° silicone hose used in diesel air intake systems. Use on either hot or cold side charge air cooler connection.

3" Dia.	Z71055
3 1/2" Dia.....	Z71056
4" Dia.	Z71057

Silicone Stick Radiator Hose



For automotive and diesel truck engine plumbing. Great for all types of cut-to-fit radiator hose connections.

1 1/2" Dia. x 36" Long.....	Z71086
1 3/4" Dia. x 36" Long.....	Z71087
2" Dia. x 36" Long	Z71088
2 1/2" Dia. x 36" Long.....	Z71089

ACCESSORIES

T-Bolt Constant Tension Clamp

Stainless steel band with plated steel bolt and spring.

Z72010	2 3/4" I.D. Hose	Z72013	3 1/2" I.D. Hose
Z72011	3" I.D. Hose	Z72014	4" I.D. Hose
Z72012	3 1/4" I.D. Hose	Z72015	4 1/2" I.D. Hose



Hose Clamps

Quality 1/2" stainless steel bands with interlocked stainless steel clamp. Heavy zinc plated carbon steel screw resists corrosion, plus it's sized for 5/16" hex socket or flat blade screwdriver. Made in the U.S.A. Sold in boxes of 10 clamps.



RW6202	1/4" to 5/8" Hose Clamp
RW6203	5/16" to 7/8" Hose Clamp
RW5710	1/2" to 1 1/8" Hose Clamp
RW5712	1/2" to 1 1/4" Hose Clamp
RW5716	3/4" to 1 1/2" Hose Clamp
RW5720	3/4" to 1 3/4" Hose Clamp
RW5724	1" to 2" Hose Clamp
RW5728	1 5/16" to 2 1/4" Hose Clamp
RW5732	1 9/16" to 2 1/2" Hose Clamp

Heavy Duty, Constant Torque Clamps

Constant torque clamps adjust with the hose & fitting to maintain constant tension on the connection, eliminating leak paths. Great choice for fluctuating & extreme temperature applications.

5/16" Hex Head & 9/16" Band width, 410 Stainless Steel Screw



PART #	MIN SIZE	MAX SIZE	SAE SIZE
Z72000	5/8"	1 1/4"	12
Z72001	1 3/16"	1 3/4"	20
Z72002	1 5/16"	2 1/4"	28
Z72003	1 13/16"	2 3/4"	36
Z72004	2 5/16"	3 1/4"	44
Z72005	2 9/16"	3 1/2"	48
Z72006	3 1/4"	4 1/8"	-
Z72007	3 3/4"	4 5/8"	-
Z72008	4 1/4"	5 1/8"	-

Sacrificial Anode Caps

These are patented, scientifically tested radiator caps with a magnesium sacrificial anode attached to the bottom of the radiator cap that hangs down into the coolant. The anode is designed to attract and absorb the electrical energy that causes electrolysis and the magnesium is consumed instead of the aluminum components in the cooling system, thereby reducing repair and maintenance costs.

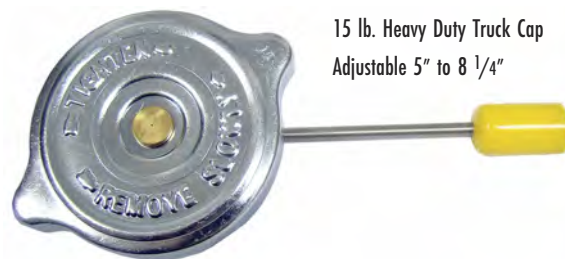
Z17700

16 lb. Automotive Cap
Adjustable 3 1/2" to 6"



Z17703

15 lb. Heavy Duty Truck Cap
Adjustable 5" to 8 1/4"



ACCESSORIES

Charge Air Cooler Test Kit

Plug the inlet and outlet, then pressurize the charge air cooler, close the valve and watch the gauge for leaks. For example, if Caterpillar pressure decay is less than 5 PSI in 15 seconds the CAC is ok. With this slim one size fits all connections 2" - 6" it is not usually necessary to remove CAC from chassis.

RW0090-11 Charge Air Cooler Tester Kit



CHARGE AIR COOLER LEAK TESTING OEM RATE SPECIFICATIONS:

Caterpillar	5 PSI in 15 seconds @ 30 PSI	International	5 PSI in 15 seconds @ 30 PSI
Cummins (ISB, ISC, N14)	7 PSI in 15 seconds @ 30 PSI	GMC/Chevy	5 PSI in 15 seconds @ 30 PSI
Cummins (ISX, M11)	5 PSI in 15 seconds @ 30 PSI	Mack	5 PSI in 15 seconds @ 30 PSI
Detroit Diesel	5 PSI in 30 seconds @ 25 PSI	Mercedes	5 PSI in 15 seconds @ 25 PSI
Dodge	7 PSI in 15 seconds @ 30 PSI	Volvo	7 PSI in 15 seconds @ 30 PSI
Ford	1.5 PSI in 60 seconds @ 28 PSI		

Note: Charge air coolers are not designed to be 100% air tight or leak free.

Gauge

Replacement gauge for RW0090-11 charge air cooler test kit

RW0090-25



Gaskets

Replacement gaskets (Set of 2) for RW0090-11 charge air cooler test kit

RW0090-26



Safety Valve

35 LB PSI replacement pressure relief valve for RW0090-11 charge air cooler tester kit

RW0090-27



HD 18" Stainless Steel 7-Plate Oil Coolers



RW3002415 7-Plate 18" CTRS (for Plastic Tanks or Brass Tanks) - $\frac{3}{4}$ " NPT (pipe) ID Threads, 1 $\frac{1}{4}$ " - 18 UNF OD Threads, (1) 18" Cooler, (2) Rubber Gaskets for Plastic Tank, (2) Brass Flanged Nuts

ACCESSORIES

Plastic, Brass Drain Cocks & Vent Valves

Replacement OEM and after-market radiator drain cocks, made of durable plastic and brass.



RW0008-0



RW0008-01



RW0008-1



RW0008-2



RW0008-4



RW0008-5



RW0008-6



RW0008-7



RW0008-8



RW0008-9



RW0008-10



RW0008-17



RW0008-19



RW0008-23



RW0008-24



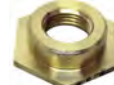
RW0008-25



RW0008-26



RW0009-1



RW0009-2

- RW0008-0** Brass 1/4" GMC Drain Cock w/Short wing, 25 per pkg
- RW0008-01** Pet Cock Int'l Truck - 1/4" NPT x 3/8" Flare, 90° Degree
- RW0008-1** Brass 1/8" size, 25 per pkg
- RW0008-2** Brass 1/4" size, 25 per pkg
- RW0008-4** Ford Escort (Short Stem), 10 per pkg
- RW0008-5** Ford Pickup (Long Stem), 10 per pkg
- RW0008-6** General Motors Various (Short Stem), 10 per pkg
- RW0008-7** Ford/Mazda/Nissan (Screw in), 10 per pkg
- RW0008-8** Brass 90° Degree Petcock 1/4" NPT, 5 per pkg
- RW0008-9** Brass Petcock w/hose fitting 1/4" NPT, 25 per pkg

- RW0008-10** Honda/Toyota/Isuzu/Mitsubishi/Mazda (Screw in), 10 per pkg
- RW0008-17** Nissan/Mazda/Ford/Honda/Isuzu (Screw in), 10 per pkg
- RW0008-19** Jeep/Mopar (UNF Screw in), 10 per pkg
- RW0008-23** GMC Slot-pin Drain Cock, 5 per pkg
- RW0008-24** Chrysler 1/2" - Turn Drain Plug, 10 per pkg
- RW0008-25** Drain Cock M12 x 1.75 Northern Ag Radiators, Each
- RW0008-26** Vent Valve for ADTECH Radiators
- RW0009-1** Brass Drain Cock Flange 1/4" size, 25 per pkg
- RW0009-2** Brass Drain Cock Flange 1/8" size, 25 per pkg

Bypass Caps

Replacement rubber caps for non-utilized radiator heater ports.

* Requires hose clamp, not included.

RW8060 5/8" Cap

RW8065 3/4" Cap



ACCESSORIES

Oil Cooler Adapters

Northern's adapts oil coolers to fit the original equipment oil cooler lines.



⬆️ Z50640 Aluminum Adapters

$\frac{3}{4}$ " NPT to $\frac{5}{16}$ " INV Flare - Adapters (2pk)

⬆️ Z50650 Steel Adapter

$\frac{3}{4}$ " NPT to $\frac{1}{2}$ " NPT Steel Female Adapters (2pk)

⬆️ Z80200 Adapter

$\frac{1}{2}$ " NPT to $\frac{5}{16}$ " INV Flare (2pk)

➡️ Z80190 Brass Adapter

$\frac{1}{8}$ " NPT to $\frac{5}{16}$ " INV Flare

➡️ Z80005 Brass Transmission Fitting Adapter

$\frac{1}{8}$ " - 27 NPT x $\frac{5}{16}$ " SAE Flare (2pk)

⬆️ RW8047 Adapter

$\frac{3}{4}$ " NPT Male x 1-1/16-14 UNF O-Ring

➡️ RW8046 Adapter

$\frac{3}{4}$ " NPT Male x #12 Female O-Ring

➡️ Z80175 Brass Adapter

$\frac{1}{2}$ " NPT x $\frac{3}{8}$ " Barbed

Safety Sight Glass

Check coolant levels without removing pressure cap.



RW0009-4

RW0009-5

RW0009-9

RW0009-10

RW0009-11

RW0009-4

Sight glass & O-Ring $\frac{7}{8}$ " diameter w/14 threads (Fits RW0009-5)

RW0009-5

Sight glass assembly 1" diameter brass flange requires brazing .925" hole

RW0009-9

Sight glass assembly w/brass male $\frac{1}{2}$ -14 NPT thread

RW0009-10

Sight glass assembly 1 $\frac{1}{8}$ " diameter brass flange requires brazing .925" hole

RW0009-11

Flat face glass $\frac{1}{2}$ -14 NPT with brass body for checking fluid levels (oil or coolant) in reservoirs and radiators

ACCESSORIES

Premium Radiator Gasket Material & Tapes

Northerns premium gasket materials are a composite cork and rubber, and are engineered for use in radiators and cooling systems. This materials is also great for custom made gaskets. Use Northerns premium gasket tape when your repair and reputation are on the line.



RW0018

RW0018 1 1/4" x 1/16" x 100' Gasket Tape

RW0018-2 1 1/4" x 1/8" x 50' Gasket Tape

RW0018-7 1 1/4" x 1/16" x 100' Green Premium Gasket Tape

RW0018-8 1 1/4" x 1/8" x 50' Green Premium Gasket Tape

RW0020 Nu-Tech Natural Fiber
Gasket Material 39" wide (sold by the inch)

RW0020-1 39" x 60" Nu-Tech Natural Fiber
Gasket Material (pre-cut length)



RW0020-1



RW0022

RW0022 6" x 1/16" x 10' Extra Wide Gasket Tape

RW0022-1 6" x 1/16" x 100' Extra Wide Gasket Tape

RW9330 1" x 1 3/4" x 36" Foam Mounting Strips (2)
Ideal for supporting heavy duty truck side
frames and for sealing perimeter air.



ACCESSORIES

EGR Flush

An alkaline detergent formulated to remove carbon exhaust buildup and other contaminants from EGR coolers.

Z14016 - 1 Gallon



Zip Leak

Industrial Radiator Stop Leak For Trucks, Tractors & Industrial Engines

A professional use industrial strength product that permanently repairs leaks in truck, tractor, construction and industrial cooling systems.

No need to drain or flush, just pour in and go!

Case of 6 (Qty 6, 5 oz. bottles)**Z14012**



Charge Air Cooler Cleaner

For internal cleaning of charge air coolers. Renews performance and enhances heat transfer.

- This product is a combination of an organic orange terpene degreaser and a mild acid cleaner/brightener that removes oil, soot and oxide from the **INSIDE** of a truck charge air cooler.
- The foaming action blasts away oil and oxidation with cleaning actions **NOT** found in other products.
- This extensively tested cleaner leaves the **INSIDE** of your charge air cooler spotless with the oil, grime and oxidation removed. This product **DOES NOT** harm epoxies, viton rubber, silicone hoses or gaskets.

**Hazardous shipping fees do apply.*

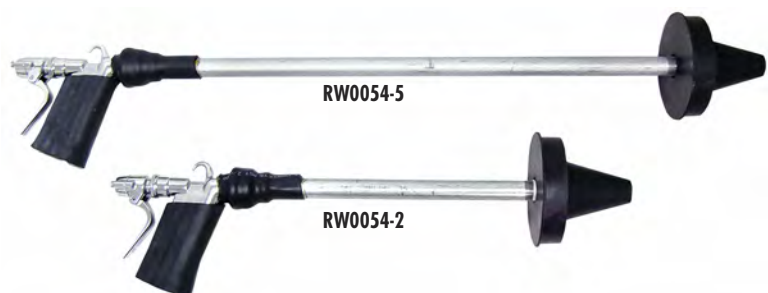
5 Gallon Drum **RW0149-5**

15 Gallon Drum **RW0149-15**

Hydro Gun

Northern's Hydro-Gun is the perfect tool for cleaning radiators, charge air coolers and EGR coolers. Features a Pro-Tec cone nozzle and a heavy duty squeeze trigger air valve with a molded wand. Wand keeps water from spraying user.

- RW0054-2** 12" Hydro Gun
- RW0054-5** 24" Hydro Gun
- RW0054-4** Pro-Tec Cone Only (1/2" NPT)





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