

HFC-410A CHARGING INFORMATION – FOR COMPLETE CHARGING PROCEDURES, REFER TO THE APPLICABLE INSTALLATION OR SERVICE MANUAL**Maintenance checks using the Normal Operating Pressures table**

Table 1 may be used to help perform maintenance checks. This table is not a procedure for charging the system. Minor variations in the pressures can be expected due to differences in installations. However, significant deviations could mean that the system is not properly charged or that a problem exists with some component in the system.

Matched System Components/Charge Levels/Line Set Length/Liquid Line Sizing

Table 2 lists all the Lennox recommended indoor unit matches along with the charge levels for the various sizes of outdoor units. Charge levels on the unit nameplate are based on installations with 15' (4.6m) line sets; consider line set length and liquid line sizing differences when calculating charge adjustments. For each additional foot of 3/8" liquid line set, add 0.6 ounces or for 1/2" liquid lines, add 1.0 ounce of additional charge.

Charge Using the Weigh-in Method

If the system is void of refrigerant, locate and repair any leaks and then weigh in the refrigerant charge into the unit. For charge adjustments, be sure to consider line set length differences and, referring to table 2, adjust for the match up difference.

1 - Recover the refrigerant from the unit.

2 - Conduct leak check; evacuate the system.

3 - Weigh in the unit nameplate charge, adjusting for match up and line set length differences. If weighing facilities are not available use the Subcooling method.

Charge Using the Subcooling Method

Cooling Mode—When the outdoor ambient temperature is 60°F (15°C) and above, use the cooling mode to adjust the charge using the subcooling method. Target subcooling values in table 2 are based on 70 to 80°F (21-27°C) indoor return air temperature.

Heating Mode—When the outdoor ambient temperature is below 60°F (15°C), use the heating mode to adjust the charge using the subcooling charge levels (table). Target subcooling values in table 2 are based on 65-75°F (18-24°C) indoor return air temperature.

Table 1 - Normal Operating Pressures (Liquid ±10 and Suction ±5 psig)

SL18XP1	-024	-030	-036	-042	-048	-060
F (°C)	Liquid Line Pressure / Vapor Line Pressure					
Heating Operation						
20 (-7)	284 / 64	282 / 78	290 / 65	287 / 61	300 / 61	292 / 60
30 (-1)	295 / 78	307 / 77	302 / 77	300 / 76	318 / 76	316 / 76
40 (4)	310 / 95	322 / 91	320 / 91	315 / 91	335 / 91	332 / 90
50 (10)	325 / 110	337 / 109	334 / 108	328 / 109	354 / 108	348 / 106
Cooling Operation						
65 (18)	225 / 142	233 / 138	230 / 135	232 / 139	240 / 130	240 / 129
70 (21)	240 / 145	250 / 140	250 / 135	249 / 141	259 / 132	260 / 132
75 (24)	260 / 145	270 / 140	270 / 138	267 / 142	278 / 135	272 / 134
80 (27)	280 / 147	290 / 142	290 / 140	288 / 144	300 / 136	296 / 137
85 (29)	300 / 148	312 / 143	312 / 142	310 / 145	322 / 138	318 / 138
90 (32)	325 / 148	335 / 145	334 / 143	333 / 147	346 / 139	341 / 140
95 (35)	347 / 150	360 / 146	358 / 145	360 / 147	372 / 140	367 / 141
100 (38)	370 / 150	384 / 147	381 / 147	382 / 148	395 / 142	392 / 142
105 (41)	400 / 152	410 / 148	410 / 147	411 / 148	422 / 144	420 / 144
110 (43)	425 / 152	438 / 150	440 / 146	439 / 149	450 / 145	448 / 145
115 (46)	452 / 153	468 / 151	472 / 146	469 / 150	490 / 145	480 / 146

Table 2 - Indoor Unit Matchups and Subcooling Charge Levels

INDOOR MATCHUP	HEAT PUMP	Target Subcool Heat (±5°F)	Target Subcool Cool (±1°F)	*Add charge	INDOOR MATCHUP	HEAT PUMP	Target Subcool Heat (±5°F)	Target Subcool Cool (±1°F)	*Add charge	INDOOR MATCHUP	HEAT PUMP	Target Subcool Heat (±5°F)	Target Subcool Cool (±1°F)	*Add charge
SL18XP1-024					SL18XP1-048					SL18XP1-060				
lb oz					lb oz					lb oz				
CBX27UH-024		14	4	2 2	CBX32M-048		10	9	2 12	CBX27UH-048		12	6	0 3
CBX27UH-030		15	8	1 15	CBX32MV-036		13	6	2 0	CBX27UH-060		12	10	2 14
CBX32M-030		14	4	2 2	CBX32MV-048		10	9	2 12	CBX32M-048		12	6	0 3
CBX32MV-024/030		14	4	2 2	CBX40UHV-036		13	6	2 0	CBX32M-060		11	9	1 8
CBX32M-036		15	8	1 15	CBX40UHV-042		10	9	2 12	CBX32MV-048		12	6	0 3
CBX32MV-036		15	8	1 15	CBX40UHV-048		10	9	2 12	CBX32MV-060		11	9	1 8
CBX40UHV-024		15	8	1 15	CBA27UHE-036		17	7	0 14	CBX40UHV-060		11	9	1 8
CBX40UHV-030		15	8	1 15	CBA38MV-036		17	6	1 0	CBX40UHV-048		12	6	0 3
CBX40UHV-036		15	8	1 15	CBA27UHE-042		10	12	2 7	CBX40UHV-060		11	9	1 8
CBA27UHE-030		14	6	1 15	CBA38MV-042		12	13	4 9	CBA27UHE-048		20	7	0 5
CBA38MV-030, 036		14	6	1 15	CBA38MV-048		12	12	3 7	CBA38MV-048		12	8	0 11
CH33-44/48B		14	11	2 8	CH33-43B		12	13	4 9	CBA27UHE-060		10	8	1 2
CR33-48		21	4	1 10	CH33-49C		12	12	3 7	CBA38MV-060		10	8	1 2
C37 / C33-38		11	7	3 6	CH33-50/60C		12	12	3 7	CH33-49C		13	8	2 2
CX38 / CX34-38		11	7	3 6	CR33-50/60		8	5	1 4	CH33-50/60C		13	7	1 2
CH35-42B		13	10	1 10	C37 / CX38 / C33 / CX34-43		10	6	1 9	CH33-62D		10	12	2 9
CH35-30B		19	6	1 0	C37 / CX38 / C33 / CX34-49		10	9	3 4	CR33-50/60C		10	10	2 15
CX35-36B		12	3	0 0	C37 / CX38 / C33 / CX34-50/60		10	6	0 5	CR33-60D		16	5	0 1
CX35-30B		19	5	1 6	CX35-50/60C		14	7	1 1	C37 / CX38 / C33 / CX34-62C		10	10	2 15
SL18XP1-030					CX35-48B/C		11	9	1 12	CX35-50/60C		7	5	0 0
lb oz					CH35-42B		17	7	1 0	CX35-49C		9	9	1 5
CBX27UH-030		11	5	0 11	CH35-42C		14	7	1 3	CX35-60C		10	7	0 4
CBX27UH-036		11	5	0 11	CH35-48B		15	7	1 1	CX35-60D		17	7	0 1
CBX32M-030		12	7	2 4	CH35-48C		12	5	0 0	CH35-51C		12	8	0 10
CBX32M-036		11	5	0 11	CX35-36B		9	7	2 7	CH35-60D		16	5	0 1
CBX32MV-024/030		12	7	2 4	SL18XP1-042					SL18XP1-060				
CBX32MV-036		11	5	1 15	lb oz					lb oz				
CBX40UHV-024		11	5	0 11	CBX27UH-042		9	7	2 7	CBX27UH-060		10	6	2 11
CBX40UHV-030		11	5	0 11	CBX27UH-048		9	7	2 7	CBX32M-060		9	6	1 2
CBX40UHV-036		11	5	0 11	CBX32M-048		9	7	2 7	CBX32MV-060		9	6	1 2
CBA27UHE-030		11	5	0 0	CBX32MV-048		9	7	2 7	CBX32MV-068		10	7	2 5
CBA38MV-030		11	5	0 0	CBX40UHV-042		9	7	2 7	CBX40UHV-060		9	6	1 2
CBA27UHE-036		11	5	0 0	CBX40UHV-048		9	7	2 7	CH33-49C		11	8	2 5
CBA38MV-036		11	5	0 0	CH33-43B		8	7	0 0	CH33-50/60C		11	8	2 5
CH33-44/48B		11	9	1 5	CH33-49C		9	9	2 5	CH33-62D		13	9	2 8
CR33-48		22	4	0 15	CH33-50/60C		9	9	2 5	CR33-50/60C		13	8	0 0
C37 / CX38 / C33 / CX34-38		10	7	0 15	CR33-50/60		10	7	1 7	CR33-60D		13	8	0 0
C37 / CX38 / C33 / CX34-43		11	11	2 11	CR33-60D		10	7	1 7	CR33-60D		13	8	0 0
C37 / CX38 / C33 / CX34-50/60		11	11	2 11	C37 / CX38 / C33 / CX34-43		14	7	1 3	C37 / CX38 / C33 / CX34-62C		8	6	3 6
CX35-30B		17	8	0 1	C37 / CX38 / C33 / CX34-49		11	11	3 8	C37 / CX38 / C33 / CX34-62D		9	8	2 14
CH35-30B		10	5	0 0	C37 / CX38 / C33 / CX34-50/60		14	7	1 3	CBA27UHE-060		9	9	1 14
CH35-42B		11	12	2 14	CBA27UHE-042		22	10	1 4	CBA38MV-060		14	8	1 4
CH35-42C		11	7	0 15	CBA38MV-042		11	9	1 0	CH35-51C		9	8	1 10
CX35-36B		9	5	0 4	CBA27UHE-048		15	7	1 0	CH35-60D		9	8	1 7
SL18XP1-036					CBA38MV-048		19	7	0 5	CX35-49C		15	11	1 7
lb oz					CH35-48C		12	7	1 4	CX35-60C		9	8	1 7
CBX27UH-036		13	6	2 0	CH35-51C		18	7	0 3	CX35-60DC		9	8	1 7
CBX27UH-042		10	9	2 12	CH35-60C		13	6	1 4	*Amount of charge required in additional to charge shown on unit nameplate. (Remember to consider line set length difference.)				
CBX32M-036		13	6	2 0	CX35-60C		18	7	0 3					
CBX32M-042		13	6	2 0	CX35-48B/C		18	7	0 3					

