

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 and any minor variations in the pressures may 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.

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 1 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 1 are based on 65-75°F (18-24°C) indoor return air temperature.

Matched System Components/Charge Levels/Line Set Lengths/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 ounces 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 1, adjust for the matchup difference.

- 1 - Recover the refrigerant from the unit.
- 2 - Conduct leak check; evacuate as previously outlined.
- 3 - Weigh in the unit nameplate charge, adjusting for matchup and line set length differences. If weighing facilities are not available, use the Subcooling method.

Table 1 – Normal Operating Pressures (Liquid +10 and Suction +5 psig)

°F (°C)*	Heating Mode						Cooling Mode									
	20	30	40	50	60	65	70	75	80	85	90	95	100	105	110	115
SIZE	VAP/LIQ	VAP/LIQ	VAP/LIQ	VAP/LIQ	VAP/LIQ	VAP/LIQ	VAP/LIQ	VAP/LIQ	VAP/LIQ	VAP/LIQ	VAP/LIQ	VAP/LIQ	VAP/LIQ	VAP/LIQ	VAP/LIQ	VAP/LIQ
-018	67/ 272	83/ 287	100/305	118/321	137/339	145/242	145/259	146/279	147/302	148/326	149/351	151/376	151/406	153/433	154/462	155/498
-024	58/ 281	72/ 295	88/ 309	105/324	123/340	139/243	140/262	142/281	143/302	144/325	145/348	145/373	146/399	147/426	147/454	148/483
-030	55/ 274	69/ 286	84/ 299	102/313	122/327	135/250	136/268	138/288	140/308	141/330	143/352	144/376	145/400	147/426	148/452	149/480
-036	62/ 287	76/ 304	91/ 322	106/342	124/365	135/230	137/248	139/268	141/288	143/311	145/334	146/359	148/385	150/412	151/441	153/471
-042	58/ 293	73/ 335	89/ 368	108/394	130/411	127/215	129/234	131/254	132/275	134/298	136/321	137/346	139/371	140/398	141/426	142/455
-048	60/ 282	75/ 299	90/ 316	105/334	121/353	136/219	137/237	138/256	139/277	140/298	141/321	142/344	143/369	144/395	146/422	147/450
-060	56/ 266	70/ 285	84/ 309	99/ 337	114/369	132/222	133/241	134/262	135/283	137/306	138/330	139/354	141/380	142/406	143/434	144/463

*Temperature of the air entering the outside coil.

Table 2 – Indoor Unit Matches and Subcooling Charge Levels and Additional Charge

HP Size	Indoor Coil or Air Handler	Subcool		Additional Charge		HP Size	Indoor Coil or Air Handler	Subcool		Additional Charge		HP Size	Indoor Coil or Air Handler	Subcool		Additional Charge	
		Heat (±5°F)	Cool (±1°F)	lbs	oz			Heat (±5°F)	Cool (±1°F)	lbs	oz			Heat (±5°F)	Cool (±1°F)	lbs	oz
-018	CBX25UH-018 CBX25UHV-018	18	5	0	0	-030	CH33-36B	6	3	0	0	-042	CH33-49C	16	6	1	6
	CBX27UH-018	13	14	1	9		CH33-36C	10	11	1	5		CH33-50, -60C	10	9	3	4
	CBX27UH-024	13	14	1	9		CH33-42B	16	18	2	6		CH33-60D	12	8	0	9
	CBX32MV-018/024	12	14	0	0		CH33-43C	4	9	1	12		CH33-62D	19	7	1	7
	CH33-25A	14	14	0	7		CR33-30, -36	22	5	1	0		CR33-50, -60	29	5	0	4
	CH33-25B	14	13	0	5		CX34-31	17	15	2	10		CR33-60D	29	5	0	4
	CR33-30/36	12	5	0	7		CX34-36	25	6	0	10		CX34-49	11	6	1	4
	CX34-25	15	15	1	1		CX34-38	10	19	2	14		CX34-50, -60	25	8	1	15
	CX34-31	14	24	1	12		CX34-42	25	6	0	10		CX34-60	8	8	1	4
	-024	CBX25UH-024 CBX25UHV-024	6	6	0		9	CX34-43	13	17	2		14	CX34-62C	8	11	3
CBX25UH-030 CBX25UHV-030		17	3	0	15	CX34-44, -48	9	21	2	12	CX34-62D	11	7	1	15		
CBX26UH-024		17	3	0	15	CBX25UH-036 CBX25UHV-036	31	3	0	4	CBX25UH-048 CBX25UHV-048	15	6	2	5		
CBX27UH-024		12	12	1	2	CBX26UH-036	31	3	0	4	CBX26UH-048	20	10	3	11		
CBX27UH-030		11	11	2	1	CBX27UH-036	18	3	0	5	CBX27UH-048	16	6	0	0		
CBX32M-018, -024		14	11	0	4	CBX27UH-042	11	4	0	1	CBX27UH-060	12	6	1	4		
CBX32M-030		12	12	1	2	CBX27UH-048	11	4	0	1	CBX32M-048	16	6	0	0		
CBX32MV-018/024		14	11	0	4	CBX32M-036	18	3	0	5	CBX32M-060	20	8	1	0		
CBX32MV-024/030		12	12	1	2	CBX32M-042	18	3	0	5	CBX32MV-048	16	6	0	0		
CBX32MV-036		11	11	2	1	CBX32MV-036	18	3	0	5	CBX32MV-060	20	8	1	0		
-024	CBX40UHV-024	11	11	2	1	CBX32MV-048	11	4	0	1	CBX32MV-068	10	8	4	5		
	CBX40UHV-030	11	11	2	1	CBX40UHV-042	11	4	0	1	CBX40UHV-048	16	6	0	0		
	CH23-41	10	3	0	0	CBX40UHV-048	11	4	0	1	CBX40UHV-060	20	8	1	0		
	CH33-25A	20	10	1	1	CBX40UHV-036	18	3	0	5	CH23-68	24	6	2	8		
	CH33-25B	19	8	1	2	CH33-43B	14	8	2	1	CH33-50, -60C	17	6	1	5		
	CH33-31A	15	11	1	15	CH33-43C	26	9	2	10	CH33-60D	18	6	0	13		
	CH33-36C	10	12	0	0	CH33-44/48B	24	8	2	3	CH33-62D	13	7	3	6		
	CH33-36A	20	10	1	1	CH33-48C	26	9	2	10	CR33-50/60	19	6	1	1		
	CR33-30, -036	17	4	0	14	CH33-49C	15	8	2	12	CR33-60	19	6	1	1		
	CX34-25	15	9	0	15	CH33-50/60C	15	8	2	12	CX34-49C	10	6	1	9		
CX34-31	15	16	0	9	CR33-48	38	5	0	0	CX34-60	28	7	3	14			
-024	CX34-36	26	6	0	9	CR33-50, -60	15	5	1	4	CX34-62C	10	6	3	12		
	CX34-38	10	18	1	14	CX34-38	15	4	0	9	CX34-62D	14	7	3	12		
	CBX25UH-030 CBX25UHV-030	9	3	0	8	CX34-43	23	8	2	8	CBX25UH-060 CBX25UHV-060	15	6	2	0		
	CBX25UH-036	19	11	1	5	CX34-44/48	40	4	0	15	CBX26UH-060	31	6	3	0		
	CBX26UH-030	19	11	1	5	CX34-49	11	7	3	9	CBX27UH-060	13	7	0	8		
	CBX27UH-030	10	16	1	14	CX34-50/60	23	8	2	8	CBX32M-060	17	5	1	4		
	CBX27UH-036	10	16	1	14	CBX25UH-042 CBX25UHV-042	42	5	0	8	CBX32MV-048	20	6	0	0		
	CBX32M-030	7	10	1	3	CBX26UH-042	42	5	0	8	CBX32MV-060	17	5	1	4		
	CBX32M-036	10	16	1	14	CBX27UH-042, -048	13	5	2	2	CBX32MV-068	11	8	2	12		
	CBX32MV-024/030	7	10	1	3	CBX32M-048	13	5	2	2	CBX40UHV-048	20	6	0	0		
-030	CBX32MV-036	10	16	1	14	CBX32MV-048	13	5	2	2	CBX40UHV-060	17	5	1	4		
	CBX40UHV-030	10	16	1	14	CBX32MV-048	13	5	2	2	CH23-68	27	7	0	13		
	CBX40UHV-036	10	16	1	14	CBX40UHV-048	13	5	2	2	CH33-50, -60C	11	4	0	0		
	CH23-41	11	4	0	8	CBX40UHV-042	13	5	2	2	CH33-62D	19	6	2	4		
	CH23-51	11	6	0	14	CBX40UHV-048	13	5	2	2	CR33-50/60	19	6	2	4		
	CH33-31A	16	18	2	8	CH23-68	20	9	1	5	CR33-60	23	6	1	3		
	CH33-31B	16	18	2	6	CH33-43B	7	9	3	2	CX34-62C	10	7	2	14		
	CH33-36A	10	6	0	6	CH33-43C	22	5	1	0	CX34-62D	19	7	3	2		
						CH33-44/48B	18	4	0	0							
						CH33-48C	22	5	1	0							

The values in this table are most popular match-up pressures; indoor match-up, indoor air quantity, and indoor load will cause the pressures to vary. *Amount of charge required in addition to charge shown on unit nameplate.

