HFC-410A CHARGING INFORMATION — FOR COMPLETE CHARGING PROCEDURES, REFER TO THE APPLICABLE INSTALLATION OR SERVICE MANUAL

Maintenance checks using the Normal Operating Pressures tables

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 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 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 differences.

1 - Recover the refrigerant from the unit.
2 - Conduct leak check and then evacuate the system.
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.

Charge Using the Subcooling Method

Cooling Mode—When the outdoor ambient temperature is 60°F (15°C) and above, use the subcooling method to adjust the charge. 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 subcooling method to adjust the charge using the subcooling charge levels in table 2. 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)

Size	Heating Mode					Cooling Mode										
Vapor Line Operating Pressures																
°F (°C)*	**20 (-7)**	**30 (-1)**	**40 (4.5)**	**50 (10)**	**60 (16)**	**65 (18)**	**70 (21)**	**75 (24)**	**80 (27)**	**85 (29)**	**90 (32)**	**95 (35)**	**100 (38)**	**105 (41)**	**110 (43)**	**115 (45)**
-018	66	80	96	116	136	136	138	138	138	139	140	141	142	144	145	147
-024	65	79	93	112	134	138	139	139	140	141	143	144	145	144	145	146
-030	58	73	88	103	119	139	140	141	141	142	143	144	145	146	147	147
-036	78	87	98	110	128	133	134	134	136	136	137	138	138	139	139	140
-042	60	75	89	108	125	135	136	137	138	139	140	141	142	143	145	146
-048	59	71	84	92	95	135	136	137	138	139	140	142	142	143	144	147
-060	63	76	88	101	113	131	132	133	134	135	136	137	138	139	140	142
Liquid Line Operating Pressures																
-018	275	289	305	323	340	236	252	272	294	316	339	363	389	415	443	472
-024	267	283	299	316	334	251	271	293	315	337	361	386	413	441	471	502
-030	267	279	292	305	317	259	283	307	331	355	379	403	427	451	475	499
-036	289	309	301	335	353	264	284	305	327	350	372	399	425	452	480	510
-042	275	288	299	313	324	238	258	280	303	325	350	375	402	430	459	490
-048	274	286	299	309	316	245	265	285	307	330	354	381	409	438	469	505
-060	275	287	293	326	339	259	272	294	315	343	366	388	416	443	474	494

**Temperature of the air entering the outside coil.*

Table 2 - Indoor Matchups and Subcooling Charge Levels (Indoor Air Handlers and Coils)

HP SIZE	Indoor Coil or Air Handler	Subcooling		*Additional Charge		HP SIZE	Indoor Coil or Air Handler	Subcooling		*Additional Charge		HP SIZE	Indoor Coil or Air Handler	Subcooling		*Additional Charge	
		Heat (±5ºF)	Cool (±1ºF)	Lbs	Oz.			Heat (±5ºF)	Cool (±1ºF)	Lbs	Oz.			Heat (±5ºF)	Cool (±1ºF)	Lbs	Oz.
-018	CBX25UH-018	11	5	0	4	-030	CBX32MV-036	9	22	1	0	-042	CH33-48C	7	14	1	2
	CBX25UH-024	11	12	0	3		CBX40UHV-024	9	22	1	0		CR33-50/60C	8	21	2	4
	CBX26UH-018	11	8	0	0		CBX40UHV-030	9	22	1	0		CX34-43B	8	14	1	13
	CBX27UH-024	11	14	1	1		CBX40UHV-036	9	22	1	0		CX34-50/60C	8	14	1	13
	CBX32M-018/024	10	12	0	5		CH33-42B	10	7	0	0	-048	CBX25UH-048	6	7	0	0
	CBX32MV-024/030	11	14	1	1		CH33-31B	10	7	0	0		CBX26UH-048	7	7	1	2
	CBX32MV-018/024	10	12	0	5		CR33-30/36AB/C	9	7	0	9		CBX27UH-048	10	8	1	5
	CBX40UHV-024	10	18	1	8		CX34-31A/B	9	19	0	14		CBX27UH-060	8	10	1	9
	CH33-25A	13	7	0	4	-036	CBX25UH-036	19	15	0	0		CBX32M-048	10	8	1	5
	CH33-36A	13	7	0	4		CBX26UH-036	19	15	0	0		CBX32M-060	9	6	0	9
	CR33-30/36A/B/C	11	4	0	4		CBX27UH-036	8	13	1	2		CBX32MV-048	10	8	1	5
	CX34-25A/B	11	12	0	3		CBX32M-036	8	13	1	2		CBX32MV-060	9	6	0	9
-024	CBX25UH-024	12	16	1	9		CBX32MV-036	8	13	1	2	-048	CBX40UHV-042	10	8	1	5
	CBX26UH-024	12	12	1	9		CBX40UHV-030	8	13	1	2		CBX40UHV-048	10	8	1	5
	CBX27UH-024	12	18	1	15		CBX40UHV-036	8	13	1	2		CBX40UHV-060	9	8	1	3
	CBX27UH-030	11	22	1	6		CH33-36C	8	12	0	5		CH33-50/60C	9	7	1	6
	CBX32M-030	12	18	1	15		CH33-42B	8	7	0	0		CH33-60D	7	6	0	11
	CBX32MV-018/024	8	15	2	2		CH33-31B	8	7	0	0		CR33-50/60C	7	6	0	12
	CBX32MV-024/030	12	18	1	15		CR33-48B/C	9	6	0	8		CR33-60D	7	6	0	12
	CBX32MV-036	11	22	1	6		CX34-38A/B	8	16	1	2		CX34-49C	6	7	0	0
	CBX40UHV-024	11	22	1	6		CX34-44/48B/C	8	19	1	6		CX34-60D	9	5	0	0
	CH33-25B	11	13	0	15	-042	CBX25UH-042	11	7	1	1	-060	CBX25UH-060	6	8	2	5
	CH33-36B	11	13	0	15		CBX26UH-042	11	7	1	1		CBX26UH-060	6	8	1	11
	CR33-30/36A/B/C	11	6	0	0		CBX27UH-042	8	23	2	11		CBX27UH-060	6	8	2	1
	CX34-25A/B	12	16	1	9		CBX27UH-048	8	23	2	11		CBX32MV-060	6	7	0	15
	CBX25UH-030	13	12	1	9		CBX32M-048	8	23	2	11		CBX32MV-068	8	11	2	2
-030	CBX25UH-030	9	7	0	9		CBX32MV-036	7	8	0	0		CBX40UHV-060	6	7	0	15
	CBX26UH-030	9	16	0	14		CBX32MV-048	8	23	2	11		CH33-62D	7	11	2	1
	CBX26UH-036	10	12	0	4		CBX40UHV-042	8	23	2	11		CR33-60D	10	6	1	6
	CBX27UH-030	9	22	1	0		CBX40UHV-048	8	23	2	11		CX34-62C	7	8	1	6
	CBX32M-036	9	22	1	0		CBX40UHV-036	7	8	0	0		CX34-62D	7	7	0	0
	CBX32MV-024/030	9	18	1	6		CH33-43C	7	14	1	2	*Amount of charge required in addition to charge shown on unit nameplate.					