

R454B CHARGING INFORMATION – FOR COMPLETE CHARGING DETAILS, REFER TO THE OUTDOOR UNIT INSTALLATION AND SERVICE PROCEDURE

Maintenance checks using the Normal Operating Pressures table

Table 2 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.

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

°F*	LIQ / VAP					LIQ / VAP					
	20	30	40	50	60	65	75	85	95	105	115
-018	268/60	285/75	301/93	318/112	336/132	213/130	248/132	288/135	332/138	382/139	436/140
-024	272/59	285/73	298/89	316/106	335/125	222/129	259/131	300/133	346/136	398/138	455/139
-030	278/54	294/68	313/84	329/102	348/120	221/128	259/130	300/133	345/135	395/137	450/139
-036	257/47	281/67	299/83	315/100	332/120	213/124	249/129	290/131	334/133	383/135	436/137
-042	285/56	302/70	318/86	334/103	351/122	214/123	249/129	289/131	333/133	382/135	435/137
-048	287/56	305/69	322/84	339/101	357/120	221/118	258/125	299/127	346/130	396/132	449/135
-060	284/54	301/67	315/79	333/99	349/116	227/121	265/124	307/126	353/128	403/133	459/132

*Temperature of air entering the outdoor coil.

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

Indoor Matchup	Target Subcool		Total Charge		Additional Charge	
	Heat (±5°F)	Cool (±1°F)	lbs	oz	lbs	oz
ML14KP1-018 / EL16KP1-018						
CBK45UHPT-018/ CBK45UHVT-018	12	7	6	3	1	3
CBK45UHPT-024/ CBK45UHET-024/ CBK45UHVT-024	11	7	6	6	1	6
CBK47UHET-018/ CBK47UHET-024/ CBK48MVT-018/024	6	7	7	0	2	0
CK40[C,U]-24	11	3	5	3	0	3
CK40[C,U]-30	11	7	5	11	0	11
CK40HT-24A	12	4	5	1	0	1
CK40HT-24B	15	7	5	15	0	15
CK40HT-30A	12	3	5	2	0	2
CK40HT-30B	10	8	5	0	0	0
CK40DT-30/36	28	7	6	8	1	8
ML14KP1-024 / EL16KP1-024						
CBK45UHPT-024/ CBK45UHET-024/ CBK45UHVT-024	9	7	6	11	0	15
CBK45UHPT-030/ CBK45UHET-030/ CBK45UHVT-030	4	6	7	5	1	9
CBK47UHET-024/CBK48MVT-018/024	12	9	6	12	1	0
CBK47UHET-030/ CBK48MVT-030	9	9	6	8	0	12
CK40[C,U]-24	11	7	6	2	0	6
CK40[C,U]-30	10	10	6	15	1	3
CK40HT-24A	13	8	6	4	0	8
CK40HT-24B	13	7	5	13	0	1
CK40HT-30A	12	7	6	4	0	8
CK40HT-30B	7	7	5	12	0	0
CK40DT-30/36	14	5	6	14	1	2
ML14KP1-030 / EL16KP1-030						
CBK45UHPT-030/ CBK45UHET-030/ CBK45UHVT-030	9	7	7	10	0	10
CBK45UHPT-036/ CBK45UHET-036/ CBK45UHVT-036	8	7	7	10	0	10
CBK47UHET-030/ CBK48MVT-030	15	8	8	1	1	1
CBK47UHET-036/ CBK48MVT-036	18	9	8	4	1	4
CK40[C,U]-30	15	2	7	3	0	3
CK40[C,U]-36	14	7	7	10	0	10
CK40HT-30A	21	9	7	0	0	0
CK40HT-30B	15	5	8	0	1	0
CK40HT-36A	21	3	7	4	0	4
CK40HT-36B	24	6	7	5	0	5
CK40HT-36C	13	5	7	8	0	8
CK40DT-42	34	7	7	1	0	1
ML14KP1-036 / EL16KP1-036						
CBK45UHPT-036/ CBK45UHET-036/ CBK45UHVT-036	12	4	7	11	0	0
CBK45UHPT-042/ CBK45UHET-042/ CBK45UHVT-042	11	4	9	0	1	5
CBK47UHET-036/ CBK48MVT-036	15	4	8	15	1	4

Matchups/Charge Levels and Line Set Lengths

Table 2 lists all the Lennox recommended indoor unit matchups along with the charge levels for the various sizes of outdoor units. **Charge levels on the unit nameplate are based on installations with 30ft. (9.1m) line sets; on line sets with 3/8”(9.5mm) liquid line, add 3oz. additional refrigerant for every 5ft. longer than 30ft. If line length is less than 30ft., subtract this amount (see Installation Instructions for more details).**

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.

Indoor Matchup	Target Subcool		Total Charge		Additional Charge	
	Heat (±5°F)	Cool (±1°F)	lbs	oz	lbs	oz
CBK47UHET-042/ CBK48MVT-042	8	5	9	2	1	6
CK40[C,U]-36	8	5	8	1	0	6
CK40[C,U]-48	10	5	8	3	0	8
CK40[C,U]-50/60C	16	5	9	9	1	14
CK40HT-42B	8	8	10	8	2	13
CK40HT-42C	8	4	8	9	0	14
CK40HT-48C	10	4	8	10	0	15
CK40DT-48C	29	5	8	10	0	15
ML14KP1-042 / EL16KP1-042						
CBK45UHPT-042/ CBK45UHET-042/ CBK45UHVT-042	13	4	9	2	0	4
CBK45UHET-048/ CBK45UHVT-048	12	4	9	7	0	9
CBK47UHET-042/ CBK48MVT-042	12	6	9	13	0	15
CBK47UHET-048/ CBK48MVT-048	11	6	9	10	0	12
CK40[C,U]-48	14	5	9	5	0	7
CK40[C,U]-49	7	5	9	7	0	9
CK40HT-42B	8	5	10	2	1	4
CK40HT-42C	24	5	9	11	0	13
CK40HT-48B	18	6	8	14	0	0
CK40HT-48C	25	6	9	13	0	15
CK40DT-48C	44	6	9	1	0	3
CK40DT-50/60C	43	6	10	3	1	5
ML14KP1-048 / EL16KP1-048						
CBK45UHET-048/ CBK45UHVT-048	11	5	9	0	0	1
CBK45UHET-060/ CBK45UHVT-060	10	7	8	15	0	0
CBK47UHET-048/ CBK48MVT-048	13	5	9	9	0	10
CBK47UHET-060/ CBK48MVT-060	13	7	10	2	1	3
CK40[C,U]-48	17	5	9	3	0	4
CK40[C,U]-49	8	5	9	0	0	1
CK40[C,U]-50/60C	20	5	10	2	1	3
CK40[C,U]-60C	10	5	10	2	1	3
CK40HT-48B	20	5	9	15	1	0
CK40HT-48C	21	5	10	13	1	14
CK40HT-51/61C	14	6	10	15	2	0
CK40HT-60D	12	5	11	5	2	6
CK40DT-50/60C	49	6	10	14	1	15
CK40DT-60D	--	--	--	--	--	--
ML14KP1-060 / EL16KP1-060						
CBK45UHET-060/ CBK45UHVT-060	12	6	9	15	0	0
CBK47UHET-060/ CBK48MVT-060	12	7	10	7	0	8
CK40[C,U]-49	14	7	10	11	0	12
CK40[C,U]-60C	14	7	10	13	0	14
CK40[C,U]-60D	22	5	11	9	1	14
CK40HT-51/61C	20	7	10	9	0	10
CK40HT-60D	11	6	10	12	0	13
CK40DT-60D	47	7	10	9	0	10

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.