CHARGING INFORMATION

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.

Match-ups/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 15' (4.6m) line sets; be sure to consider any difference in line set length (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 2, 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.

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)

*Temperature of the air entering the outdoor coil.		-036		-048	
	°F (°C)*	Liq	Vap	Liq	Vap
Low Stage Heating Operation	40 (4)	315	100	350	100
	50 (10)	330	115	375	115
Low Stage Cooling Operation	65 (18)	225	145	230	140
	75 (24)	265	145	270	145
	85 (29)	305	148	310	145
	95 (35)	335	150	360	150
	105 (41)	400	150	405	150
	115 (46)	460	162	460	155
High Stage Heating Operation	20 (-7)	290	65	330	65
	30 (-1)	305	75	360	75
	40 (4)	315	90	385	90
	50 (10)	335	110	390	110
High Stage Cooling Operation	65 (18)	230	140	240	137
	75 (24)	270	140	280	140
	85 (29)	315	143	325	140
	95 (35)	360	145	375	145
	105 (41)	415	145	425	145
	115 (46)	470	150	485	150

Table 2 - XP21N Indoor Units Matchups and Subcooling Charge Levels

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.

INDOOR MATCHUP	Target Subcooling Heat (±5ºF)	Cool (±1ºF)	*Add charge lb	oz	INDOOR MATCHUP	Target Subcooling Heat (±5ºF)	Cool (±1ºF)	*Add charge lb	oz
XP21N-036					**XP21N-048**				
CB(X)27UH-036	17	5	0	0	CB(X)27UH-048	24	4	1	0
CB(X)27UH-042	12	5	1	10	CB(X)27UH-060	14	4	1	6
CBX32MV-036 and CBX32M-036	17	5	0	0	CBX32MV-048 and CBX32M-048	24	4	1	0
CBX32MV-048 and CBX32M-048	12	5	1	10	CBX32MV-060 and CBX32M-060	21	4	1	14
CBX40UHV-036	17	5	0	0	CBX32MV-068	14	4	1	0
CBX40UHV-042	12	5	1	10	CBX40UHV-048	24	4	1	0
CBX40UHV-048	12	5	1	10	CBX40UHV-060	21	4	1	14
CH23-51	19	7	0	0	CH23-68	14	4	1	6
CH33-43	11	5	0	7	CH33-49C	21	4	1	14
CH33-44/48B	11	5	0	7	CH33-50/60C	21	4	1	14
CH33-48C	11	5	0	7	CH33-62D	20	4	1	7
CH33-49C and CH33-50/60C	12	7	1	6	CR33-50/60	32	4	0	0
CR33-48	32	4	0	0	CR33-60D	32	4	0	0
CR33-50/60C	11	4	1	8	CX34-49	21	5	0	10
CX34-38	15	5	0	7	CX34-62C	11	4	1	5
CX34-44/48B	19	4	0	10	CX34-62D	11	4	1	5
CX34-49	10	10	1	10	***Amount of charge required in additional to charge shown on unit nameplate. (Remember to consider line set length difference.)**				
CX34-43 and CX34-50/60C	11	5	0	7					