

# 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.

## 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 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 to 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 Vapor±5 psig)

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.

Temp	-024	-030	-036
°F (°C)*	Liquid Line Pressure/Vapor Line Pressure		
<b>Heating Operation</b>			
<b>20 (-7)</b>	285 / 65	315 / 65	285 / 60
<b>30 (-1)</b>	305 / 80	335 / 80	305 / 75
<b>40 (4.5)</b>	325 / 95	340 / 92	320 / 90
<b>50 (10)</b>	345 / 115	365 / 110	335 / 105
<b>Cooling Operation</b>			
<b>65 (18)</b>	225 / 145	235 / 140	230 / 140
<b>75 (24)</b>	260 / 145	275 / 145	265 / 142
<b>85 (29)</b>	305 / 148	315 / 145	310 / 145
<b>95 (35)</b>	350 / 150	365 / 145	360 / 147
<b>105 (41)</b>	400 / 152	410 / 150	410 / 150
<b>115 (45)</b>	460 / 155	475 / 152	465 / 150

\*Temperature of the air entering the outdoor coil.

**Table 2 - XP17N Indoor Units Matchups and Subcooling Charge Levels**

INDOOR MATCHUPS	Target Subcooling		*Add charge		INDOOR MATCHUPS	Target Subcooling		*Add charge	
	Heat (±5°F)	Cool (±1°F)	lb	oz		Heat (±5°F)	Cool (±1°F)	lb	oz
<b>-024</b>					<b>-030 (continued)</b>				
CBX27UH-024	16	3	1	6	CBX32MV-024/030	19	5	1	7
CBX27UH-030	16	5	1	9	CBX32MV-036	15	5	1	3
CBX32M-030	16	3	1	6	CBX40UHV-024, -030, -036	15	5	1	3
CBX32M-036	16	5	1	9	CR33-48	30	4	0	0
CBX32MV-024/030	16	3	1	6	CX34-38	15	5	1	3
CBX32MV-036	16	5	1	9	CX34-43	6	4	0	11
CBX40UHV-024, -030, -036	16	5	1	9	<b>-036</b>				
CH33-31	16	3	0	11	CBX27UH-036	19	7	1	1
CH33-42	16	3	0	11	CBX27UH-042	12	5	2	4
CR33-48	28	3	0	0	CBX32M-036, -042	19	7	1	1
CX34-31	24	3	1	0	CBX32M-048	12	5	2	4
CX34-38	16	5	1	9	CBX32MV-036	19	7	1	1
<b>-030</b>					CBX32MV-048	12	5	2	4
CBX27UH-030, -036	15	5	1	3	CBX40UHV-036	19	7	1	1
CBX32M-030	19	5	1	7	CBX40UHV-042, -048	12	5	2	4
CBX32M-036	15	5	1	3	CX34-49	9	9	2	8

\*Amount of charge required in addition to charge shown on unit nameplate. (Remember to consider lineset length difference.)

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