

# HRG18 HFC-410A CHARGING INFORMATION - FOR COMPLETE CHARGING PROCEDURES, REFER TO THE APPLICABLE INSTALLATION AND 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. 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 Length/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 matchup difference.

- 1 - Recover the refrigerant from the unit.
- 2 - Conduct leak check; 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 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)

HRG18 °F	2 TON MODE	3 TON MODE	4 TON MODE	5 TON MODE
LIQUID LINE PRESSURE / VAPOR LINE PRESSURE				
HEATING OPERATION - MAX SPEED				
20	287/65	275/51	342/59	326/53
30	329/78	318/69	345/67	347/62
40	367/92	340/76	376/82	364/75
50	379/110	358/96	407/99	374/92
60	397/129	375/113	422/118	392/110
COOLING OPERATION - MAX SPEED				
65	230/143	247/128	236/134	237/121
70	245/144	270/132	255/136	258/124
75	266/144	291/136	276/135	278/126
80	287/145	318/141	297/136	299/127
85	309/147	338/142	319/138	322/128
90	332/149	362/144	344/138	345/129
95	356/149	393/145	368/140	370/129
100	383/151	415/147	392/143	396/130
105	410/152	432/148	418/146	423/132
110	433/154	471/150	422/147	452/133
115	468/155	506/150	473/148	479/135

TABLE -2 INDOOR UNIT MATCHUPS AND SUBCOOLING CHARGE LEVELS

INDOOR MATCHUP	SUBCOOL		ADDNL CHARGE LBS/OZ	INDOOR MATCHUP	SUBCOOL		ADDNL CHARGE LBS/OZ
	HEATING (±5°F)	COOLING (±1°F)			HEATING (±5°F)	COOLING (±1°F)	
2 TON MODE				4 TON MODE			
HMG24*IP / HCG24VIP	36	9	1 LBS 1 OZ	HMG48*IP / HCG48VIP	23.5	6	8 OZ
HMG30*IP / HCG30VIP	29	10	1 LBS 4 OZ	5 TON MODE			
3 TON MODE				HMG60*IP / HCG60VIP	13	6	7 OZ
HMG36*IP / HCG36VIP	15	11	1 LBS 8 OZ				
HMG42*IP / HCG42VIP	16	8	1 LBS				



INDOOR MATCHUP	SUBCOOL		ADDNL CHARGE	INDOOR MATCHUP	SUBCOOL		ADDNL CHARGE LBS/OZ
	HEATING (+/- 5°F)	COOLING (+/- 1°F)			HEATING (+/- 5°F)	COOLING (+/- 1°F)	
2 TON MODE				4 TON MODE			
(C,M)CG24P(A,B,C)4P (C,M)CG24T(A,B,C)4P (C,M)CG3036P(A,B,C)4P (C,M)CG3036T(A,B,C)4P	28	7	4 OZ	(C,M)CG48P(C,D)CP	18	9	1 LB / 15 OZ
				(C,M)CG60P(C,D)AP (C,M)CG60T(C,D)AP	15.5	6.5	10 OZ
(C,M)CG30P(A,B,C)5P (C,M)CG30T(A,B,C)5P	16	4	1 LB 2 OZ	5 TON MODE			
3 TON MODE				(C,M)CG60P(C,D)BP (C,M)CG60T(C,D)BP	16	7.5	1 LB / 4 OZ
(C,M)CG36P(A,B,C)7P (C,M)CG36T(A,B,C)7P	26	18.5	2 LB 6 OZ				

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