

# 14 SEER HEAT PUMP CHARGING PROCEDURE

1. CHARGE THE SYSTEM BY WEIGHT, IF OUTDOOR TEMPERATURE IS BELOW 65°F:

OUTDOOR UNITS ARE FACTORY CHARGED WITH R410A FOR 15 FT. OF LINE SET. ADD OR REMOVE 0.6 OZ. FOR EVERY FOOT OF LINE SET DIFFERENT THAN 15 FT. FINAL CHARGE ADJUSTMENT MUST BE MADE PER ITEM (2) BELOW, ONCE THE OUTDOOR TEMPERATURE RISE ABOVE 65 °F.

2. IF OUTDOOR TEMPERATURE IS ABOVE 65°F, ADJUST CHARGE AS FOLLOWS:

- A. CHECK FOR PROPER AIR FLOW AND RUN THE SYSTEM FOR 20 MINUTES FOR STABILIZATION
- B. USE SUPERHEAT FOR ORIFICE COILS (SEE TABLE BELOW)
- C. USE SUBCOOLING FOR TXV COILS (SEE TABLE BELOW), PROVIDED THAT SUPERHEAT IS WITHIN 8-16 °F AT OUTDOOR UNIT AND THE REFERENCED PRESSURES BELOW ARE WITHIN ± 3 PSI FOR LOW SIDE AND ± 10 PSI FOR HIGH SIDE
- D. CONTACT TECHNICAL SERVICE, IF MEASURED VALUES ARE OUTSIDE THE RANGE OF THE LISTED DATA

MODELS	18	24	30	36	42	48	60
<b>TABLE 1 - SUBCOOLING METHOD (TXV SYSTEM) ± 1 °F</b>							
<b>OUTDOOR TEMP. °F</b>	<i>LIQUID LINE SATURATION TEMPERATURE MINUS LIQUID LINE TEMPERATURE</i>						
65	6	9	11	4	6	8	6
75	6	8	10	4	6	8	6
85	5	7	9	4	5	8	5
95	5	7	8	4	5	9	5
105	5	8	8	3	4	6	5
115	5	8	7	3	4	5	4
<b>TABLE 2 - APPROACH METHOD (TXV SYSTEM) ± 1 °F - FOR REFERENCE ONLY</b>							
<i>LIQUID LINE TEMPERATURE MINUS OUTDOOR AMBIENT TEMPERATURE</i>							
<b>TEMP. °F</b>	5	11	6	12	6	7	9
<b>TABLE 3 - OPERATING PRESSURES (FOR REFERENCE)</b>							
<b>OUTDOOR TEMP. °F</b>	<b>HIGH / LOW PRESSURE (PSI) - COOLING</b>						
65	205/130	212/135	217/137	219/136	209/131	218/131	222/134
75	240/135	257/137	283/139	266/139	254/134	254/134	268/136
85	285/138	301/140	309/140	313/142	298/137	310/137	314/139
95	340/140	365/142	372/142	360/145	343/140	356/140	360/141
105	342/145	391/144	401/144	407/148	388/143	402/143	406/143
115	445/150	435/147	447/145	454/151	432/146	448/146	445/146
<b>HEATING</b>							
50	350/115	314/110	317/103	390/100	393/112	362/110	315/115
47	340/105	321/100	303/89	370/105	372/98	340/96	300/99
35	300/90	285/80	288/76	350/85	351/83	318/81	285/83
17	280/60	270/60	273/62	297/60	330/68	297/66	270/68
<b>TABLE 4 - SUPERHEAT METHOD (ORIFICE SYSTEM) ± 1 °F</b>							

<i>SUCTION LINE SATURATION TEMPERATURE MINUS SUCTION LINE TEMPERATURE</i>										
<b>OUTDOOR TEMP (°F)</b>	60	65	70	75	80	85	90	95	100	105
<b>SUPERHEAT (°F)</b>	38	35	30	26	22	18	12	8	5	0

EXPANSION DEVICE	H4TXV01	H4TXV02	H4TXV03

ALL MEASUREMENTS ARE AT THE SERVICE VALVES AND ARE BASED ON 80db/67wb INDOOR TEMPERATURE.

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