

## Heating Check Chart

REQUIRED SUBCOOLING @ LIQUID SERVICE VALVE				
MODEL SIZE	COOLING MODE		HEATING MODE	
	OUTDOOR TEMP °F	REQ'D S.C. °F	OUTDOOR TEMP °F	REQ'D S.C. °F
024	70	7	20	23
	80	6	40	24
	95	6	60	25
030	70	4	20	29
	80	3	40	33
	95	3	60	35
036	70	6	20	13
	80	6	40	16
	95	5	60	18
042	70	8	20	15
	80	7	40	18
	95	7	60	18
048	70	8	20	20
	80	7	40	24
	95	7	60	24

  

REQUIRED LIQUID LINE TEMPERATURE							
Liquid pressure at Service Valve (PSIG)	Required Subcooling Temperature (°F)						
	0	5	10	15	20	25	30
134	76	71	66	61	56	51	46
141	79	74	69	64	59	54	49
148	82	77	72	67	62	57	52
156	85	80	75	70	65	60	55
163	88	83	78	73	68	63	58
171	91	86	81	76	71	66	61
179	94	89	84	79	74	69	64
187	97	92	87	82	77	72	67
196	100	95	90	85	80	75	70
205	103	98	93	88	83	78	73
214	106	101	96	91	86	81	76
223	109	104	99	94	89	84	79
233	112	107	102	97	92	87	82
243	115	110	105	100	95	90	85
253	118	113	108	103	98	93	88
264	121	116	111	106	101	96	91
274	124	119	114	109	104	99	94
285	127	122	117	112	107	102	97
297	130	125	120	115	110	105	100
309	133	128	123	118	113	108	103

  

WARNING	
Service valve gauge port may not be equipped with Schrader valve (valve core). To prevent personal injury, make sure valve stem is back-seated (counterclockwise) before removing cap. Wear safety glasses and gloves when handling refrigerant.	

  

CAUTION	
Compressor damage may occur if system is over charged.	

  

OPERATION	
This unit is factory charged with R-22. The amount is shown on the rating plate. The charge is adequate for most systems using a matched indoor coil and a line set not exceeding 15 feet in length. See installation instructions for the use of a line set length exceeding 15 feet.	
The subcooling chart on the left may be used in the field for checking refrigerant charge at off ARI conditions. For an accurate charge, use the "weigh-in" method.	

  

FIELD CHARGING PROCEDURE (In cooling mode for indoor units equipped with a TXV)	
<ol style="list-style-type: none"> <li>Operate unit a minimum of (10) minutes before checking charge.</li> <li>Refer to "Required Subcooling" table to find the required subcooling temperature.</li> <li>Measure pressure at the liquid line service valve gauge port by using an accurate gauge.</li> <li>Measure temperature of liquid line near outdoor coil, using an accurate thermometer, either electronic or thermister type.</li> <li>Using "Required Liquid Line Temperature" table find point where required subcooling temperature intersects the measured liquid service valve pressure to obtain the proper liquid line temperature.</li> <li>To obtain the required liquid line temperature at the measured liquid line pressure, add refrigerant if the liquid line temperature is higher than indicated or remove if lower. Allow a tolerance of <math>\pm 3^{\circ}\text{F}</math>.</li> </ol>	

  

FOR HEATING ONLY	
<ol style="list-style-type: none"> <li>Defrost unit before checking charge. Outdoor coil must be free of frost and/or ice.</li> <li>Accumulator may momentarily hold refrigerant after defrost cycle, therefore, allow 15 min. of normal operation following defrost cycle before checking charge.</li> <li>This outdoor unit is equipped with a thermal expansion device, therefore, the subcooling chart on the left may be used for checking purposes only.</li> </ol>	

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Fig. 1—38YSA024-048

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**Manufacturer reserves the right to discontinue, or change at any time, specifications or designs without notice and without incurring obligations.**