

SG/SC 120 Refrigerant Charge and Check

WARNING-Do not exceed nameplate charge under any condition.

This unit is factory charged and should require no further adjustment. If the system requires additional refrigerant, reclaim the charge, evacuate the system, and add required nameplate charge.

*NOTE - System charging is not recommended below 60°F (15°C). In temperatures below 60°F (15°C), the charge **must** be weighed into the system.*

If weighing facilities are not available, or to check the charge, use the following procedure:

IMPORTANT - Charge unit in standard cooling mode.

- 1- Make sure outdoor coil is clean. Attach gauge manifolds and operate unit at full CFM in cooling mode with economizer disabled until system stabilizes (approximately five minutes). Make sure all outdoor air dampers are closed.
 - 2- Check each system separately with all stages operating. Compare the normal operating pressures to the pressures obtained from the gauges. Check unit components if there are significant differences.
 - 3- Measure the outdoor ambient temperature and the suction pressure. Refer to the appropriate circuit charging curve to determine a target liquid temperature.
- Note - Pressures are listed for sea level applications.*
- 4- Use the same thermometer to accurately measure the liquid temperature (in the outdoor section).
 - If measured liquid temperature is higher than the target liquid temperature, add refrigerant to the system.
 - If measured liquid temperature is lower than the target liquid temperature, recover some refrigerant from the system.
 - 5- Add or remove charge in increments. Allow the system to stabilize each time refrigerant is added or removed.
 - 6- Continue the process until measured liquid temperature agrees with the target liquid temperature. Do not go below the target liquid temperature when adjusting charge. Note that suction pressure can change as charge is adjusted.
 - 7- Example Circuit 1: At 95°F outdoor ambient and a measured suction pressure of 130psig, the target liquid temperature is 96°F. For a measured liquid temperature of 106°F, add charge in increments until measured liquid temperature agrees with the target liquid temperature.

Normal Operating Pressures													
		Outdoor Coil Entering Air Temperature											
		65 °F		75 °F		85 °F		95 °F		105 °F		115 °F	
		Suct (psig)	Disc (psig)	Suct (psig)	Disc (psig)	Suct (psig)	Disc (psig)	Suct (psig)	Disc (psig)	Suct (psig)	Disc (psig)	Suct (psig)	Disc (psig)
Circuit 1		107	226	108	262	111	309	113	373	116	434	117	560
		116	227	120	256	119	305	122	359	124	436	126	516
		135	231	137	265	140	307	142	354	145	410	147	476
		151	239	157	271	162	313	166	357	169	406	172	462
Circuit 2		110	250	112	287	115	330	117	376	119	436	120	498
		119	254	126	285	123	334	125	381	127	439	130	503
		138	264	140	301	142	344	144	390	147	443	149	500
		155	273	160	310	163	355	165	402	167	451	171	513

