KG/KC 092S 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 103°F. For a measured liquid temperature of 112°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	103	243	107	282	110	325	113	371	116	423	119	473
	110	249	113	286	117	327	120	369	123	422	126	472
	122	259	127	297	131	339	135	386	139	436	142	493
	135	272	140	310	145	351	150	396	155	447	159	501
Circuit 2	106	243	111	282	113	323	117	368	119	417	123	466
	113	249	117	285	120	325	123	365	126	415	130	468
	127	268	131	304	135	342	139	385	143	434	147	493
	141	287	146	324	150	363	154	405	159	451	163	502