

LGH/LCH150 Refrigerant Charge and Check (Fin/Tube Coil With RFC)

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 101°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		108	258	111	298	113	340	114	385	116	436	119	491
		116	259	119	302	122	347	125	393	127	443	129	499
		123	264	132	308	138	354	142	404	145	457	148	513
		128	266	139	311	146	357	154	409	160	463	166	522
Circuit 2		109	269	112	308	115	351	118	396	120	442	123	495
		115	273	119	314	122	357	125	403	128	452	131	505
		125	280	132	322	137	367	141	415	145	466	148	514
		131	282	140	327	148	377	153	418	159	470	164	525

Charging Curves

