

VERIFY REFRIGERANT CHARGE

Regulation of the chiller temperature is based on leaving water temperature. Unless otherwise specified, it is factory set to deliver coolant at 50°F (10°C). Adjust to the desired operating temperature. Resetting the temperature will change the operating conditions of the chiller. If lower readjustment of the controller must be done consult your manual to ensure that the coolant has adequate antifreeze protection.

Operate the system for approximately 30 minutes. Check the liquid line sight glass. The refrigerant flow past the sight glass should be clear. Bubbles in the refrigerant indicate either low refrigerant charge or excessive pressure drop in the liquid line. A shortage of refrigerant is indicated if operating pressures are low and subcooling is low. Normal subcooling ranges are from 10°F (5.5°C) to 20°F (11°C). If subcooling is not within this range, check the superheat and adjust if required. The superheat should be approximately 10°F (5.5°C). Since the unit is factory charged, adding or removing refrigerant charge should not be necessary. If the operating pressures, sight glass, superheat, and subcooling readings indicate a refrigerant shortage, gas-charge refrigerant as required.

With the unit running, add refrigerant vapor by connecting the charging line to the suction service valve and charging through the backseat port until operating conditions become normal.

CAUTION: A clear sight glass alone does not mean that the system is properly charged. Also check system superheat, subcooling, and unit operating pressures. If both suction and discharge pressures are low but subcooling is normal, a problem other than refrigerant shortage exists. Do not add refrigerant, as this may result in overcharging the circuit.