ZGB/ZCB036 All-Aluminum Coil Refrigerant Charge and Check

WARNING-Do not exceed nameplate charge under any condition. Normal Operating Pressures This unit is factory charged and should require no further adjustment. If the Outdoor Coil Entering Air Temperature system requires additional refrigerant, reclaim the charge, evacuate the 65 °F 75 °F 85 °F 95 °F 105 °F 115 system, and add required nameplate charge. Suct Disc Suct Disc Suct Disc Suct Disc Suct Disc Suct Disc NOTE - System charging is not recommended below 60°F (15°C). In psia psia psia psia psia psig psia psia psig psia psia psig temperatures below 60°F (15°C), the charge must be weighed into 116 231 119 269 122 311 126 356 129 405 132 458 the system. If weighing facilities are not available, or to check the charge, use the 123 234 127 271 130 313 133 359 137 408 140 462 following procedure: 245 280 368 417 159 171 140 144 147 321 151 155 1- Make sure outdoor coil is clean. Attach gauge manifolds and operate 156 261 160 167 338 170 383 433 178 489 297 173 unit at full CFM in cooling mode with economizer disabled until system Outdoor Temperature (°F) stabilizes (approximately five minutes). Make sure all outdoor air damp-130 ers are closed. 115 2- Compare the normal operating pressures to the pressures obtained 120 from the gauges. Check unit components if there are significant differences 110 105 3-Measure the outdoor ambient temperature and the suction pressure. ίĽ Refer to the charging curve to determine a target liquid temperature. ഇ 100 95 Note - Pressures are listed for sea level applications. ati empe 4- Use the same thermometer to accurately measure the liquid tempera-90 85 ture (in the outdoor section). 80 If measured liquid temperature is higher than the target liquid jid 75 temperature, add refrigerant to the system. B If measured liquid temperature is lower than the target liquid tem-70 perature, recover some refrigerant from the system. 65 60 5-Add or remove charge in increments. Allow the system to stabilize

140 150 Suction Pressure (psig) 160

170

180

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.

110

7- Example: 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.

ZGB/ZCB036 All-Aluminum Coil Refrigerant Charge and Check

120

130

WARNING-Do not exceed nameplate charge under any condition.

each time refrigerant is added or removed.

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 svstem.

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

- 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-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 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 tempera-Del ture (in the outdoor section).
 - If measured liquid temperature is higher than the target liquid g 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.

(Ξ°)





7- Example: 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.