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LITERATURE SUPPLEMENT	File with: 201.21-N3 (106)	
Subject: Updates to Unit Start-Up/Commissioning Checks: Glycol Coolant Levels & Subcooling/Superheat Values		

GENERAL

Several corrections have been made to the Installation, Operation, & Maintenance Manual. These changes are related to checks made at the time of commissioning the chiller.

CORRECTIONS

YCAV GLYCOL COOLANT LEVEL

Page 189, UNIT CHECK #14 - Start-up Checklist:

The recommended glycol coolant level specified in the pre-start check has been changed. The original recommended level of 2–6 inches (5–15 cm) from the top of the coolant fill tube has been reduced to a new recommended level of 9–15 inches (23–38 cm) from the top of the coolant fill tube. This check is performed when checking a system prior to running it for the first time.

Page 189, PANEL CHECK #2 - Start-up Checklist:

The recommended glycol level specified in the coolant level check while the glycol pump is manually operated in the SERVICE mode has been changed. The original recommended level of 2–6 inches (5–15 cm) from the top of the fill tube has been reduced to a level of 9–15 inches (23–38 cm) from the top of the fill tube. Lowering the level to 9–15 inches (23–38 cm) will help prevent overflow, if the glycol level expands significantly at very high ambient temperatures. The slight reduction in the recommended coolant level will not affect the performance of the glycol cooling loop. As Cautioned, only YORK coolant specified in the Replacement Parts Manual should be used in the cooling loop if there is a need to add coolant. Use of other types of coolants will cause operation problems and damage to the cooling system.

YCAV SUBCOOLING/SUPERHEAT

Page 192 and 193 examples for both subcooling and superheat provided in the Start-up Checklist incorrectly specify refrigerant temperatures and pressures for R22. The temperature and pressure values in the example should be for R134a. Corrected examples are shown on page 2.

SUBCOOLING

Example:

$$\begin{array}{rcl} \text{Liquid line pressure} & = & \\ 110 \text{ PSIG converted to} & & 93^{\circ}\text{F} \text{ (33.9}^{\circ}\text{C)} \\ \text{Minus liquid line temp.} & & \underline{-87^{\circ}\text{F}} \text{ (30.6}^{\circ}\text{C)} \\ \text{SUBCOOLING} & = & 6^{\circ}\text{F} \text{ (3.3}^{\circ}\text{C)} \end{array}$$

The subcooling should be adjusted to 5 – 7 °F (2.77 – 3.78°C)

SUPERHEAT

Example:

$$\begin{array}{rcl} \text{Suction Temp} & = & 41.7^{\circ}\text{F} \text{ (5.4}^{\circ}\text{C)} \\ \text{Minus Suction Press} & & \\ 28 \text{ PSIG converted to temp.} & & \underline{-32.4^{\circ}\text{F}} \text{ (0.2}^{\circ}\text{C)} \\ \text{SUPERHEAT} & = & 9.3^{\circ}\text{F} \text{ (5.2}^{\circ}\text{C)} \end{array}$$

The superheat should be adjusted to 8 – 12 °F (4.45 – 6.67°C)



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