

Microchannel Evaporator Coil

ADDENDUM

Installation Bulletin

SAFETY INFORMATION

Please read all instructions before servicing this equipment. Pay attention to all safety information and any other special notes highlighted in these instructions.

WARNING:

Refrigeration equipment contains liquid and gaseous refrigerant under high pressure. Installation, service, and repair of air conditioning units must be performed by trained service technicians only. Death, personal injury, or property damage may occur due to improper installation, system alteration, or system maintenance. It is important that qualified installers use factory approved accessories and kits when modifying any systems.

- These instructions are intended primarily to assist qualified individuals experienced in the proper installation of this appliance. Some local codes require licensed installation/service personnel for this type of equipment. Read all instructions carefully before starting the installation.
- It is the responsibility of the installer to ensure that the installation is made in accordance with all applicable local and national codes.
- Be sure to read this document thoroughly and understand all procedures before attempting installation or modification of the system.
- Installed equipment must be in compliance with all national and local codes. Disconnect power to the unit before any electric service is attempted and follow all warning labels on the unit.

GENERAL INFORMATION

Because of the significantly different physical characteristics of this replacement coil, the amount of charge is likely to be different than what the system initially required. Thus, you can no longer use the condenser rating label as the rule for the amount of charge for the unit.

The method used for properly charging the system is dependent on the type of metering device used. If the system uses a fixed orifice, then the system should be charged by the SUPERHEAT method of the suction line

leaving the evaporator. If the system uses a TXV, then the system should be charged by the SUB-COOLING method.

Slide calculators can simplify this process:

- Nordyne PN 760C for R-22
- Nordyne PN 761C for R-410a

SUPERHEAT (FIXED ORIFICE)

1. If available, refer to condenser unit's documentation to determine the required amount of superheat. Typically is between 5° F & 20° F. A good rule of thumb is that for 80° F ambient outdoor temp, there should be 20° F superheat and for 95° F ambient outdoor temp, there should be 5° F superheat.
2. Use a slide calculator to determine if charge is necessary. If a slide calculator is not available, use the following methods in steps 3 - 7.
3. Measure the outdoor dry bulb temperature (° F).
4. Measure the indoor wet bulb temperature (° F).
5. Measure the system suction pressure - convert pressure to temperature.
6. Add the required superheat (from step 1) to the converted temperature (from step 5). This is the required suction line temperature.
7. Measure the suction line temperature. If the measured temperature does not equal the required suction line temperature (from step 6) within 5° F, then the charge will require adjusting. Add refrigerant to lower the line temperature, remove refrigerant to raise the line temperature.

SUB-COOLING (TXV)

1. If available, determine system sub-cooling required. This can be found in the unit documentation. Typically between 8 - 12° F.
2. Use a slide calculator to determine if charge is necessary. If a slide calculator is not available, use the following methods in steps 3 - 5
3. Measure liquid pressure, convert to temperature.
4. Subtract required sub-cooling (from step 1) from the converted temperature (from step 3). This is the required liquid line temperature.
5. Measure the liquid line temperature. If the liquid line temperature does not meet the required temperature within 3° F, then the charge will require adjusting. Add refrigerant to lower the temperature, remove refrigerant to raise the temperature.

