We connect and protect

Climaguard Air-to-Air Indoor Heat Exchangers

Instruction Manual

89295412 (Rev. A)



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REVISION HISTORY

Revision	Date	Remarks
A	August, 2026	Removed phased-out models and associated information.

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GENERAL SAFETY INFORMATION

Safety Symbols

This manual contains various safety information and hazard symbols highlighting residual risks that cannot be avoided by constructive means when installing or operating the unit. The safety information is classified according to different levels of severity. An explanation of the various notices is provided below:

⚠ DANGER



HAZARDOUS STATEMENT FOR DANGER

This avoidance statement highlights a situation where the risk of DANGER is being avoided.

Failure to follow these instructions will result in death or serious injury.

⚠ WARNING



HAZARDOUS STATEMENT FOR WARNING

This avoidance statement highlights a situation where the risk of WARNING is being avoided.

Failure to follow these instructions can result in death, serious injury, or equipment damage.

⚠ CAUTION



HAZARDOUS STATEMENT FOR CAUTION

This avoidance statement highlights a situation where the risk of CAUTION is being avoided.

Failure to follow these instructions can result in serious injury, or equipment damage.

NOTICE

HAZARDOUS STATEMENT FOR NOTICE

This avoidance statement highlights a situation where the risk of NOTICE is being avoided.

Failure to follow these instructions can result in equipment damage.



Important Information

Note concerning the protection of the environment

The keyword Note concerning the protection of the environment indicates information concerning the protection of the environment.

Operator Safety

The instruction manual is critical to the safe handling, installation, start-up, operation, and maintenance of the unit. To reduce any residual risk to personnel or equipment, read the safety instructions and observe all warnings and precautions in this manual before unpacking, installing, or maintaining this unit.

The unit should only be worked on or used by fully qualified personnel who have been properly trained and have a working understanding of it. Make sure any pertinent personal protective equipment is worn when working on the unit.

This manual details the proper use and application of the unit. nVent cannot be held liable for any damage resulting from the unit being utilized in a manner contrary to what is defined in this document.

This appliance is for installation only in locations not accessible to the general public.

This appliance is not intended for use by persons, including children, with reduced physical, sensory, or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning the use of the appliance by a person responsible for their safety.

Children should be supervised to ensure that they do not play with the appliance.

This appliance should be installed in accordance with national wiring regulations.

This appliance is intended for altitudes up to 10000 ft (3048 m) from sea level. For every additional 1000 ft of elevation, the capacity of this unit is derated by 1%.

⚠ WARNING



Use eye protection! | Use hand protection! | Use head protection! | Use foot protection! | Use body protection! | Use hearing protection!

RISK OF INJURY DUE TO INSUFFICIENT PERSONAL PROTECTIVE EQUIPMENT

- Wear appropriate personal protective equipment (PPE), including safety glasses, gloves, a helmet, safety shoes, a long-sleeved jacket, trousers, and earplugs as required for the work process.
- Check the protective equipment before each use to ensure it is intact.
- Use only approved protective equipment.

Failure to follow these instructions can result in death, serious injury, or equipment damage.

Additional Codes and Regulations

This manual cannot cover all regions, site-specific codes, or regulations. It is the operator's responsibility to ensure that the unit is installed and operated in accordance with any local or national regulations and codes.

Transport

The unit should only be transported by qualified personnel using suitable lifting devices and transport equipment. When transporting the unit, adhere to the instructions provided in the manual and observe any additional instructional labels on the unit or packaging (if provided).

Accessibility

The unit should only be accessible to authorized personnel, not the general public. It is not intended for use by persons (including children) with reduced physical, sensory, or mental capabilities or lack of experience and knowledge unless they have been given supervision or instruction concerning the use of the unit by a person responsible for their safety.

Maintenance

Maintenance on the unit should only be performed by authorized and properly trained personnel. When performing maintenance activities, ensure proper safety guidelines are followed. If any safety devices are removed or disabled for maintenance or repair, ensure they are restored to full functionality and operate properly immediately after maintenance tasks are completed.

Chemical Use

Before exposing any chemicals to the unit for any reason (i.e., cleaning, corrosion prevention, etc.), ensure compatibility with the wetted materials of the unit to avoid damaging components. When handling chemicals of any kind, ensure appropriate personal protective equipment is used and adhere to the material safety data sheet provided by the chemical manufacturer.

Note concerning the protection of the environment

- The improper disposal of chemicals (e.g., additives) has a negative impact on the environment.
- Chemicals must not be disposed of as household waste and must not be released into the sewage system or soil.
- Wear suitable protective equipment (gloves, eye protection) when performing disposal tasks.
- Chemicals must be disposed of separately (e.g., as special waste if applicable) and supplied separately to the recycling centers.
- Comply with the safety data sheets and the applicable national and local rules and regulations.

ABOUT THE DOCUMENT

Document Scope

This document provides instructions for the installation of the Air-to-Air Exchanger. It also contains the following:

- An overview of the Air-to-Air Exchanger
- Operation procedures for the unit
- Recommendations for the commissioning and maintenance of the Air-to-Air Exchanger

Related Documents

This document contains various references to separate documents containing additional details.

Document Number	Document Name
00620-00	Specification Guide

CHAPTER 1 - RECEIVING, HANDLING AND TESTING THE HEAT EXCHANGER

1.1 Receiving

Visible Damage: In the event of visible damage at time of delivery, you must accept the freight from the carrier, do not refuse damaged material. You must notify nVent Hoffman Product Services within 20 days of receipt. Failure to do so will result in denied claim submission to nVent Hoffman.

Concealed Damage: In the event concealed damage is found after the initial receipt, you must notify nVent Hoffman Product Services within 20 days of receipt. Failure to do so will result in denied claim submission to nVent Hoffman.

Note: This applies only to orders shipped and paid for by via nVent Hoffman preferred carrier. Claims not paid on customer routed shipments. If product is moved from original consignee's location, nVent Hoffman cannot file a claim for any loss or damage.

1.2 Handling and Testing

TEST FOR FUNCTIONALITY BEFORE MOUNTING THE HEAT EXCHANGER TO THE ENCLOSURE.

Refer to nameplate for proper electrical current requirements and then connect power cord or wire the unit to a properly grounded power supply using copper conductors only. Power supply wiring should be restrained after field installation to ensure no contact with internal fan. Minimum circuit ampacity should be at least 125% of the amperage shown on the nameplate for the appropriate model. No other equipment should be connected to this circuit to prevent overloading. The heat exchanger is rated for operation at 50 and 60 Hz. No action is necessary to adjust the appliance operation at the rated frequencies.

Operate the heat exchanger for several minutes. No excessive noise or vibration should be evident during this run period. Ambient air mover may not be energized at temperatures low enough to not require cooling. On DC powered units, air movers may not always be running at full speed.

CHAPTER 2 - INSTALLATION INSTRUCTIONS

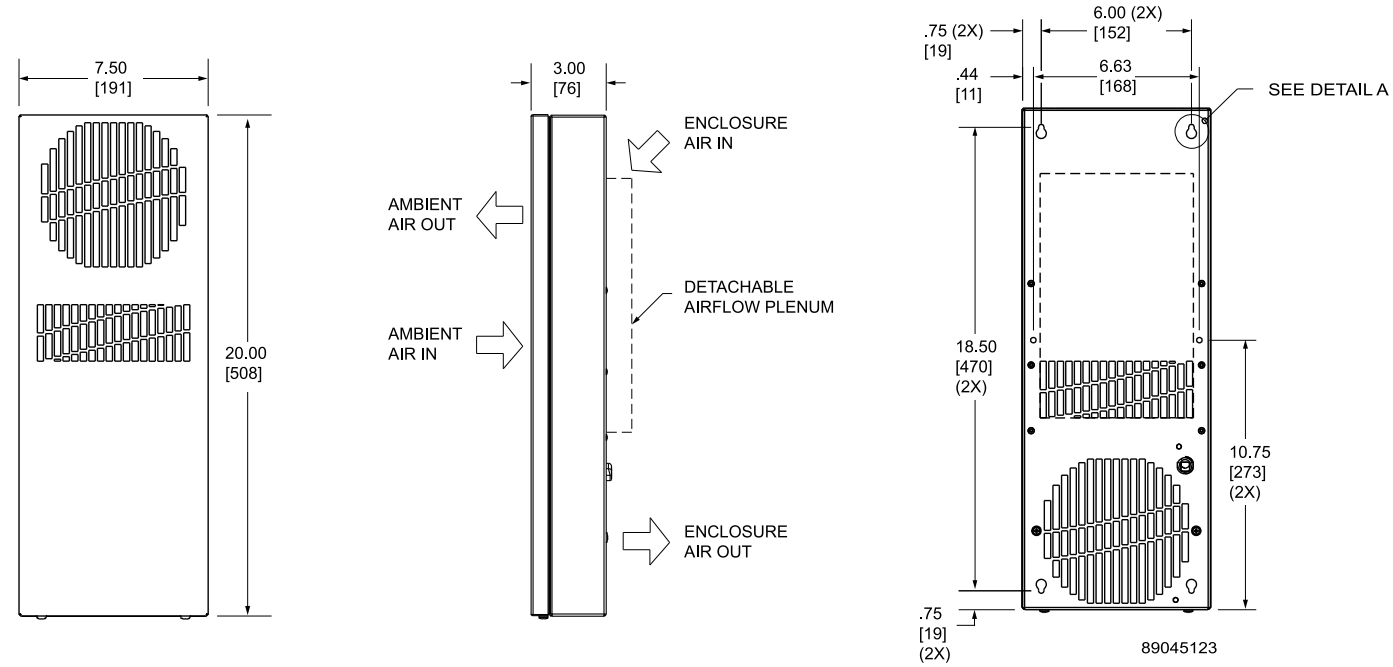
Follow the steps below for the installation instructions for the heat exchanger:

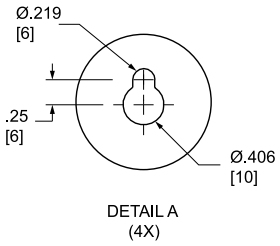
1. Inspect heat exchanger. Verify functionality before mounting the heat exchanger, refer to Handling and Testing.
2. Determine if the unit is to be surface or recess mounted. Select an installation location that will allow for adequate ventilation and clearance for service. Clearance requirements between the air conditioner and adjacent structures (another enclosure, heat exchanger, air conditioner, wall, or combustible surface) are:

	Clearance Requirement (in.)				
	Front	Left	Right	Top	Bottom
XR2004XXXXX	24	2	2	6	12
XR2908XXXXX	24	2	2	6	12

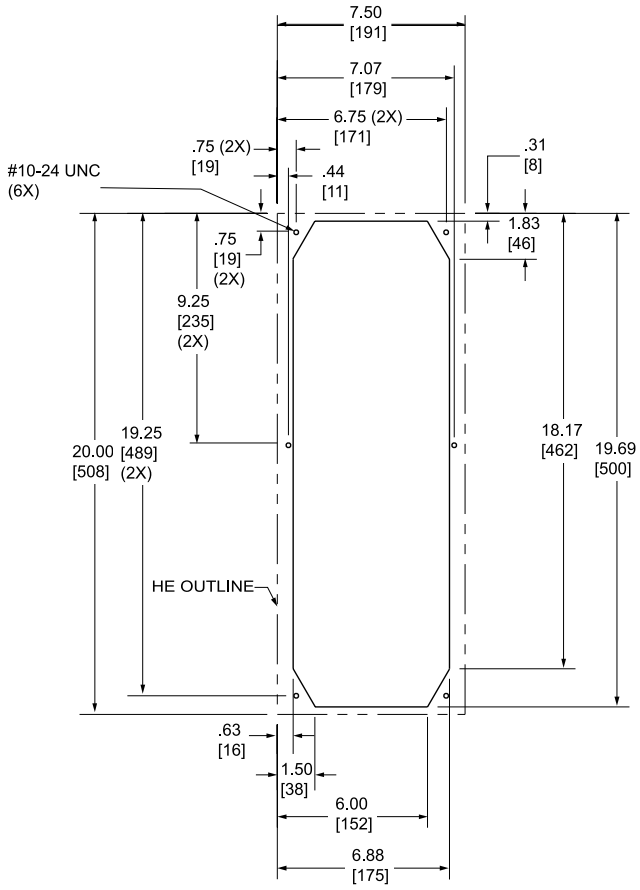
   Local fire codes may have different requirements; please observe applicable regulations for the location of the air conditioner. The distance between the air conditioner and the electronic components and other equipment installed inside the enclosure must be at least 3" to ensure adequate air circulation. At minimum clearance levels, an air baffle between the inlet and outlet may be necessary to prevent recirculation.
3. Using the appropriate cutout dimensions shown in this manual, prepare the enclosure opening for either surface or recess mounting.
4. Using the gasket kit provided, install gaskets to heat exchanger.
5. Mount heat exchanger on enclosure using mounting screws provided. Torque bolts to 25 in-lbs (2.82 Nm). To avoid cross-threading mounting inserts, start screws by hand before tightening with a wrench or ratchet driver.
6. Refer to unit nameplate for electrical requirements. Connect the power cord to a properly grounded power supply. Use of an extension cord is not recommended. Electrical circuit should be fused with slow blow time delay fuse or HACR circuit breaker per the MOPD rating in the TECHNICAL INFORMATION.

3.1 XR20 MODELS 4 W/°F (7 W/°C)





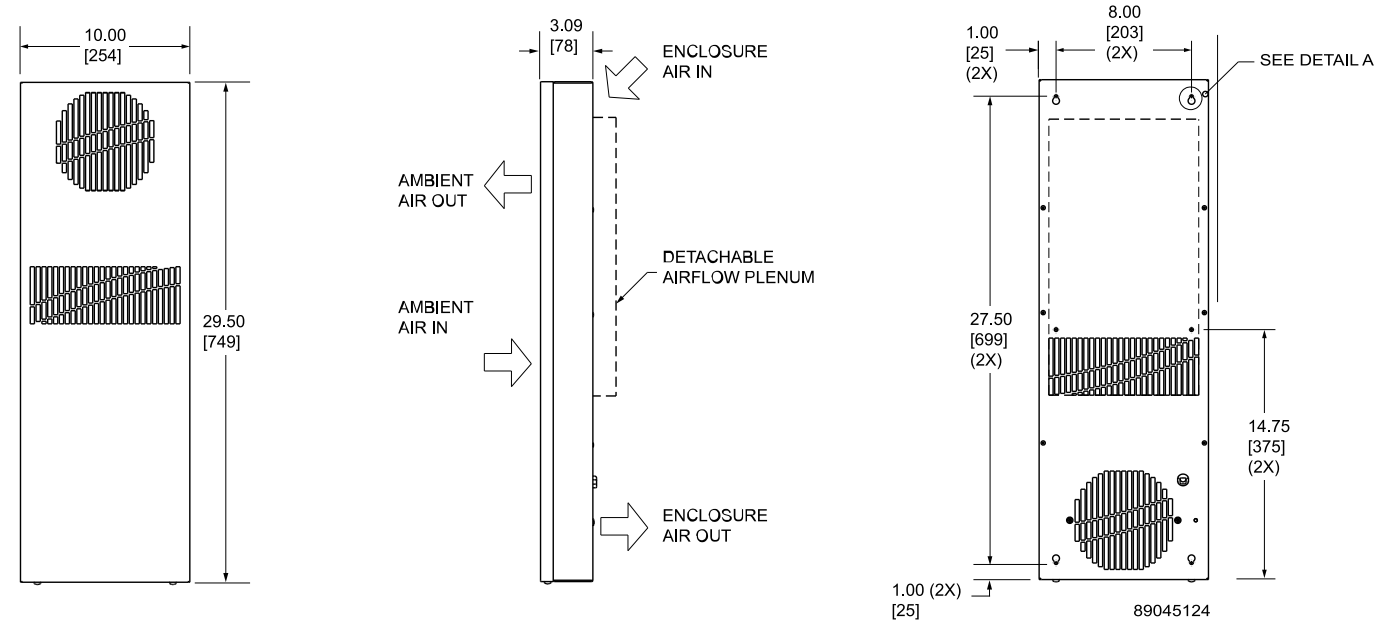
DETAIL A
(4X)

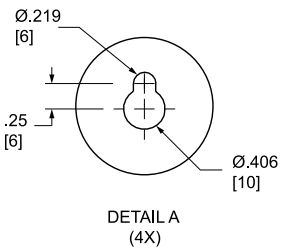


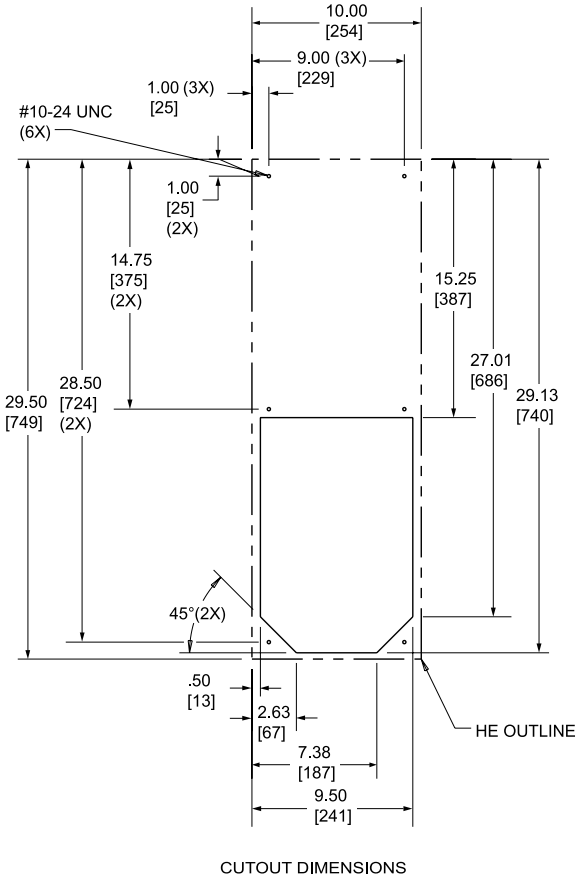
CUTOUT DIMENSIONS

NOTE:
1. MOUNTING GASKET SUPPLIED (NOT SHOWN)
2. UNITS: in [mm]

3.2 XR29 MODELS 8 W/°F (14 W/°C)



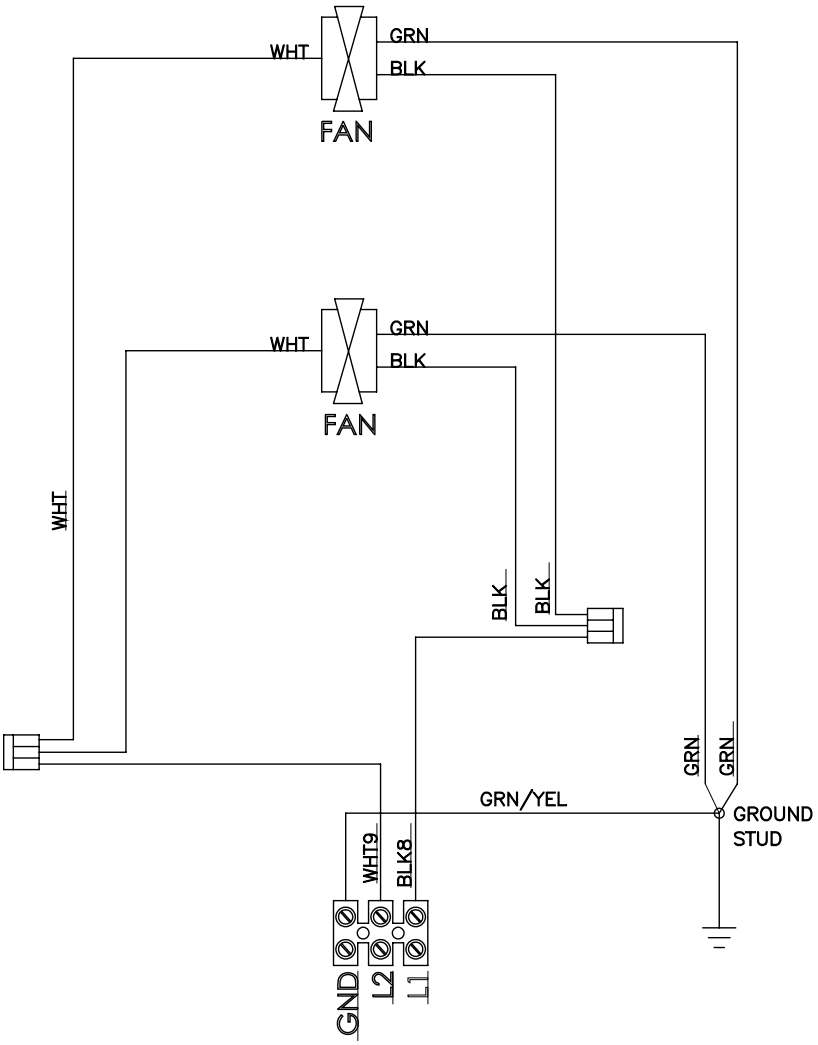




CUTOUT DIMENSIONS

NOTE:
1. MOUNTING GASKET SUPPLIED (NOT SHOWN)
2. UNITS: in [mm]

4.1 XR2004XXXXX and XR2908XXXXX



Drawing Number: 89129463
Revision: B

CHAPTER 5 - COMPONENTS LIST

Part Description	Voltage	Frequency / Capacity	Air movers	Capacitor	Capacitor boot
XR200416XXX	115V 1 Phase	50/60 Hz 4W/°F	12101201SP	N/A	N/A
XR200426XXX	230V 1 Phase	50/60 Hz 4W/°F	12101202SP	N/A	N/A
XR290816XXX	115V 1 Phase	50/60 Hz 8W/°F	12101201SP	N/A	N/A
XR290826XXX	230V 1 Phase	50/60 Hz 8W/°F	12101202SP	N/A	N/A

CHAPTER 6 - TECHNICAL INFORMATION

Model	Voltage (V)	Frequency (Hz)	MOPD Amps	Full Load Amps	W/°F Nominal	Max Ambient Temperature (°F/°C)	Shipping Weight (lb/kg)
XR200416012	115	50/60	15	0.6	4	155/68	12 lb/5.44 kg
XR200426012	230	50/60	15	0.6	4	155/68	12 lb/5.44 kg
XR290816012	115	50/60	15	0.6	8	155/68	27 lb/12.25 kg
XR290826012	230	50/60	15	0.6	8	155/68	27 lb/12.25 kg

CHAPTER 7 - MAINTENANCE

AIR MOVERS

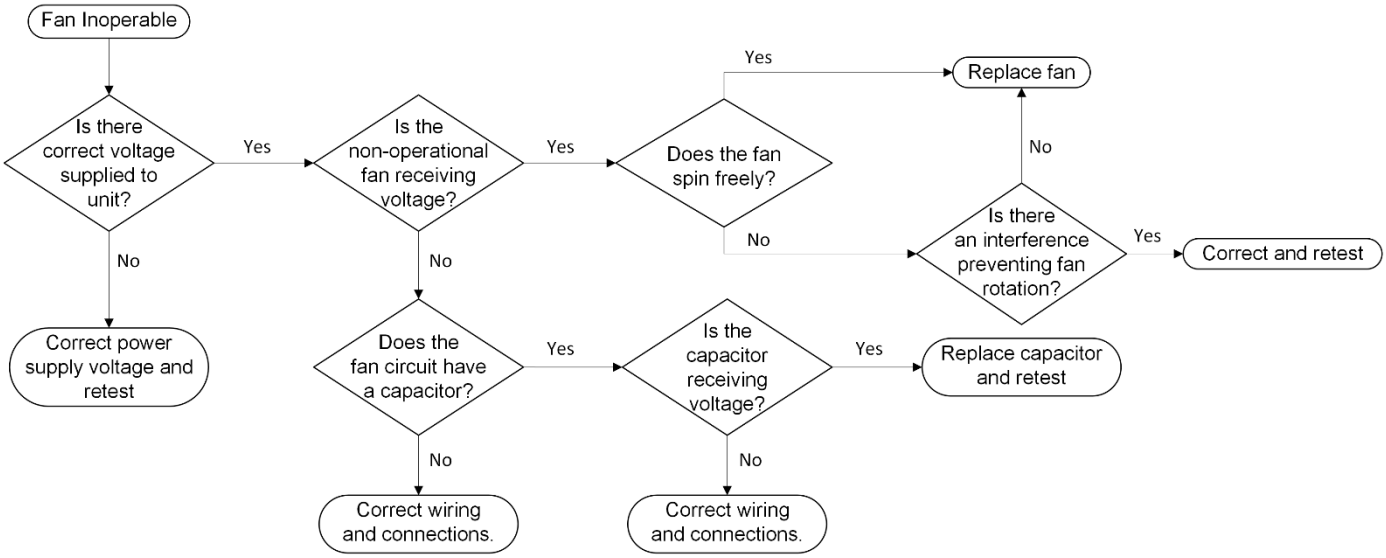
The air mover motors do not require maintenance. All bearings are lubricated during manufacturing for the life of the motor.

If the ambient air mover fails, it is not necessary to remove the heat exchanger from the cabinet or enclosure for replacement. The ambient air mover is mounted on a bulkhead and can be easily accessed by removing the front cover.

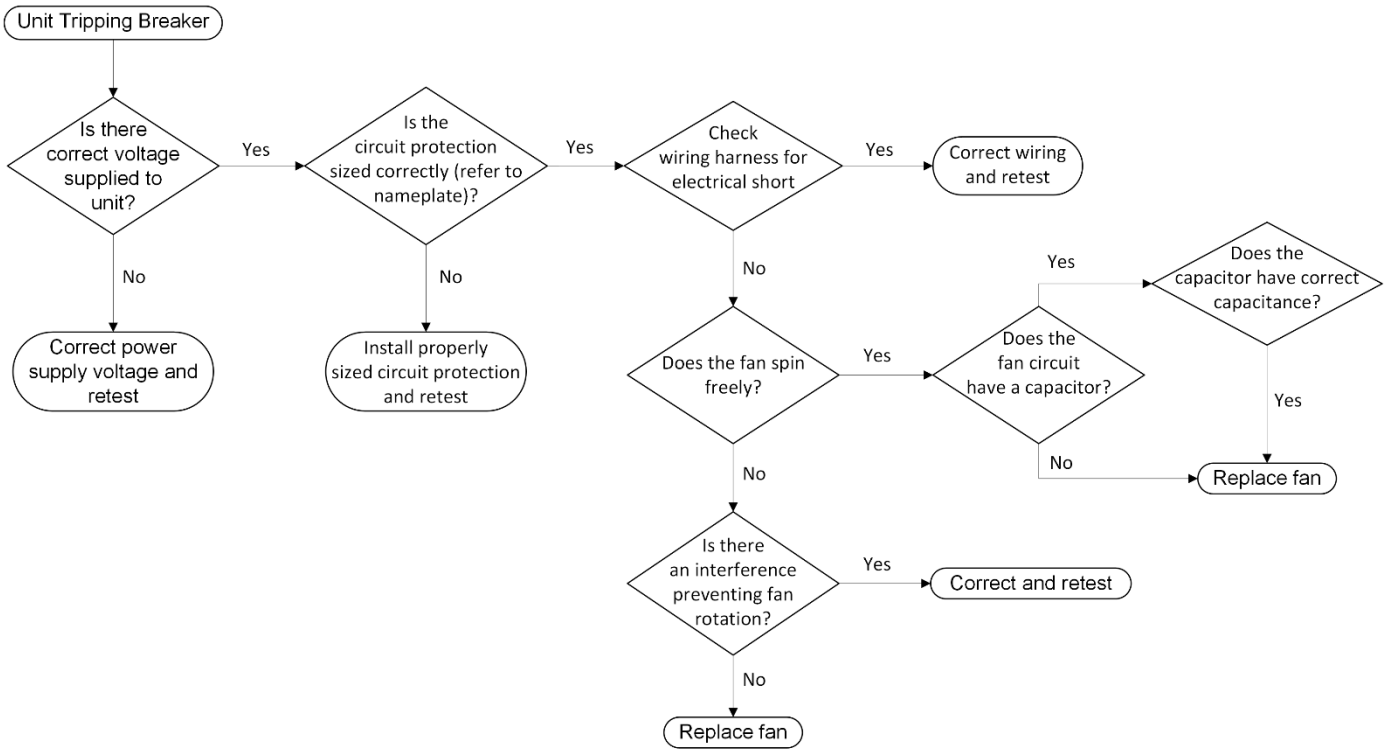
⚠ **Caution:** Operation of the heat exchanger in areas containing airborne caustics or chemicals can rapidly deteriorate aluminum cores and air movers. Contact nVent Equipment Protection for special recommendations.

CHAPTER 8 - TROUBLESHOOTING

8.1 Fans Inoperable



8.2 Tripping Breaker



Technical Support

For additional technical support:

- Call 763-422-2211 or
- Email cooling.service@nVent.com or
- Download Field Service Request (FSR) from:

http://HOFFMAN.nVent.com/en-us/cooling-field-service-request

CHAPTER 9 - F-GAS INFORMATION

Parameter	XR200416XXX XR200426XXX	XR290816XXX XR290826XXX
Refrigerant Kühlmittel Chłodziwo	R513A	R513A
GWP	573	573
Factory Charge Füllmenge durch Hersteller Opłata Fabryczna	113 Grams 113 Gramm 113 Gramów	156 Grams 156 Gramm 156 Gramów
CO2 Equivalent CO2 Equivalent CO2 Ekwilalent	0.065 Tons 0.065 Tonnen 0.065 Tony	0.09 Tons 0,09 Tonnen 0,09 Tony

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