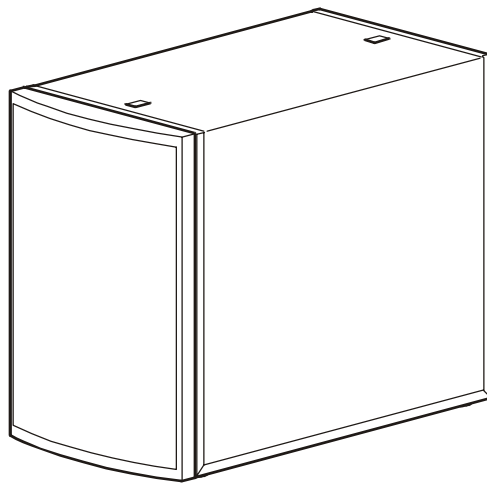


# Remote Heat Exchanger for NetworkAIR<sup>®</sup> FM Systems

## Overview

Add the Remote Heat Exchanger to existing NetworkAIR FM air-cooled systems. The Remote Heat Exchanger is available for downflow or upflow FM units, and for water or glycol cooling systems.

## Inventory



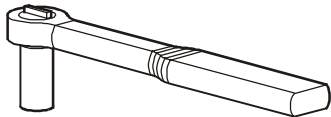
Remote Heat Exchanger



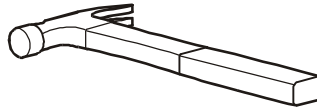
Cable: 20 ft (6.1 m)

## Tools required

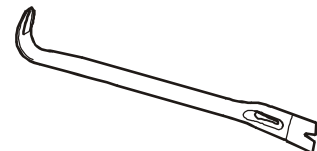
Use the following tools (not provided) to unpack the Remote Heat Exchanger.



Socket wrench with 13-mm socket



Claw hammer



Pry bar

## Before installation



Use at least two people to unpack and move the Remote Heat Exchanger from the shipping crate.  
Only qualified technicians can install the Remote Heat Exchanger.

## Safety information



Do not attempt to move the Remote Heat Exchanger without mechanical assistance. Use one of the following to move the Remote Heat Exchanger:



Pallet Jack



Furniture Dolly



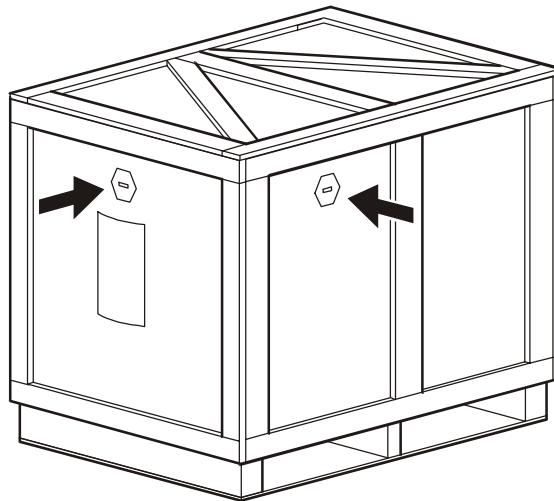
Forklift

## Inspect the shipment

Immediately upon receipt and before you begin unpacking the shipment, verify that the labeled box matches the bill of lading, and carefully inspect the exterior and the interior of the shipment. After unpacking, inspect the Remote Heat Exchanger and cable for damage.

### Inspect the exterior of the packaging

Locate the shock indicators on the exterior of the packaging. The shock indicators change from white to pink when activated. Note on the bill of lading any indications that the shock indicators have been activated.



## Inspect the components

Once you have removed the exterior crating, carefully inspect the components for damage.

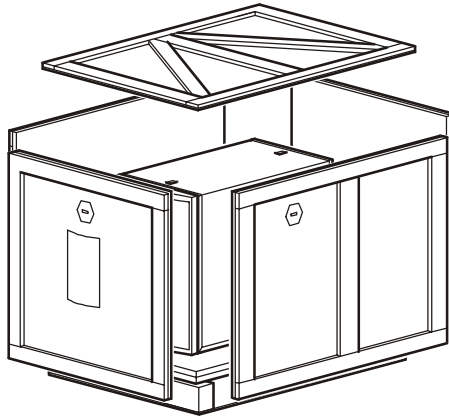


Note

If you detect shipping damage, such as scratches or dents, contact APC's NetworkAIR Technical Services department at (888) 695-6500.

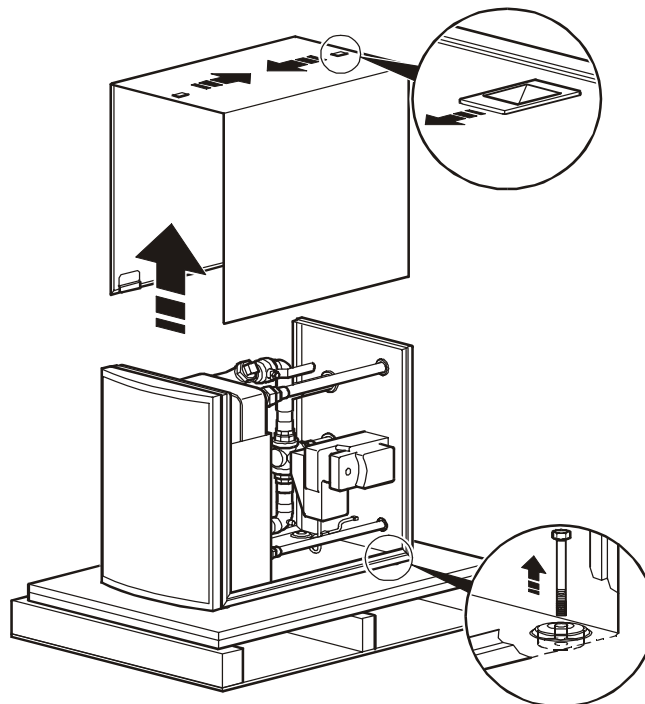
## How to unpack the Remote Heat Exchanger

Using a claw hammer and pry bar, carefully remove the top of the shipping crate, and then remove the remaining four sides.



## How to remove the Remote Heat Exchanger from the pallet

Remove the Remote Heat Exchanger cover by pushing the release tabs toward the center of the top of the cover, then lift the cover straight up and off of the base.



Using a socket wrench with a 13-mm socket, remove the four bolts that secure the Heat Exchanger to the pallet.



**Note**

To prevent possible damage to the Remote Heat Exchanger, leave the Remote Heat Exchanger on the pallet until you are ready to place it on the floor at the location where it will be used.

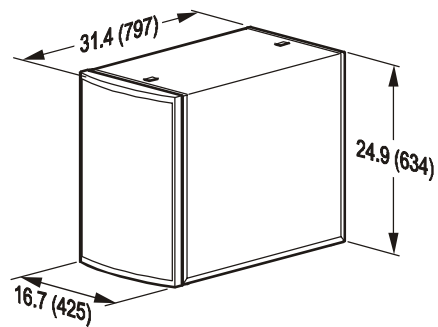
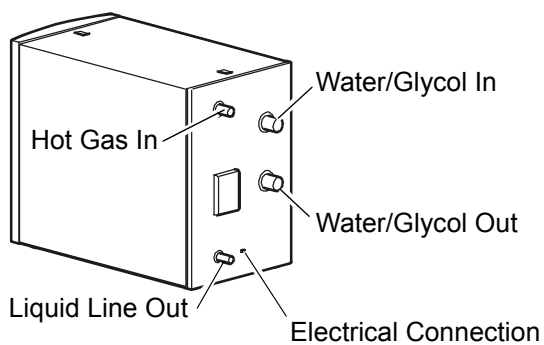
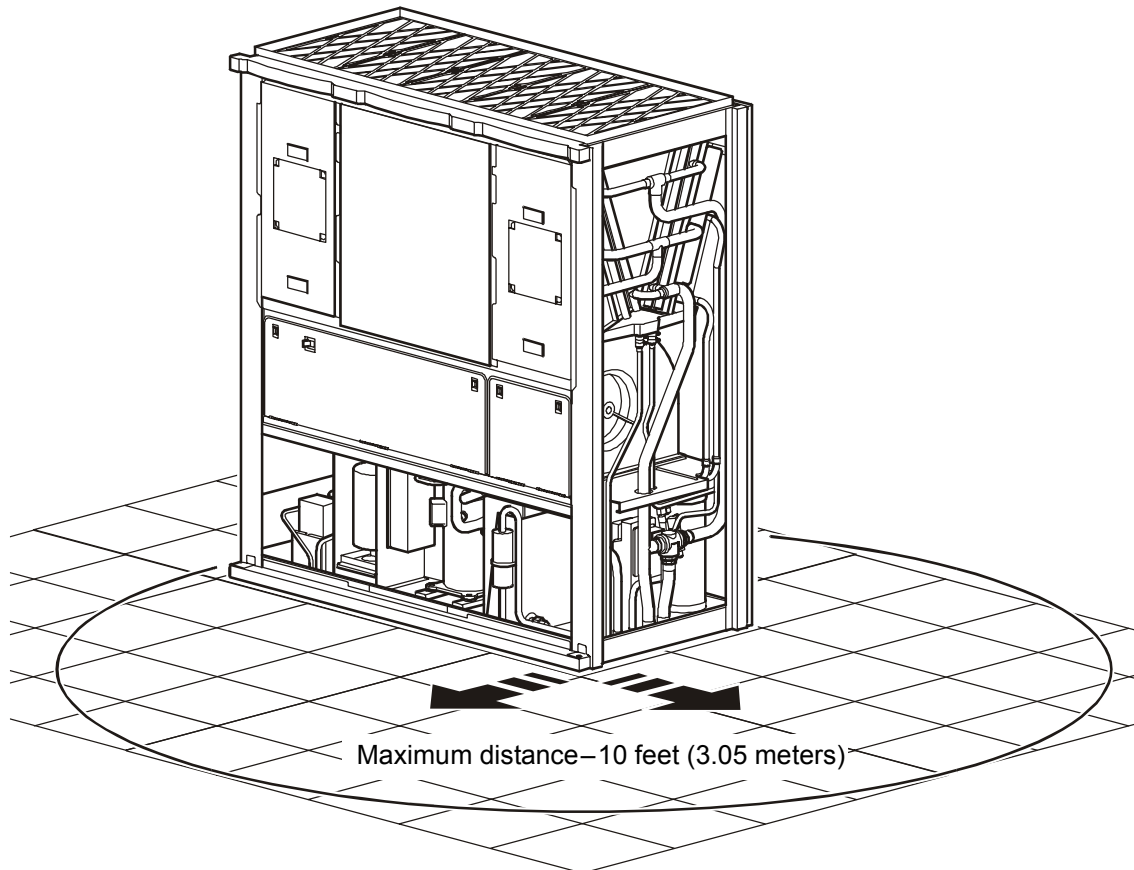
## Placement

The Remote Heat Exchanger must be located within 10 feet (3.05 meters) of the right front corner of the existing air-cooled FM system to which it is being added.



See the NetworkAIR FM Precision Air Conditioner Installation manual for instructions on how to remove doors and panels.

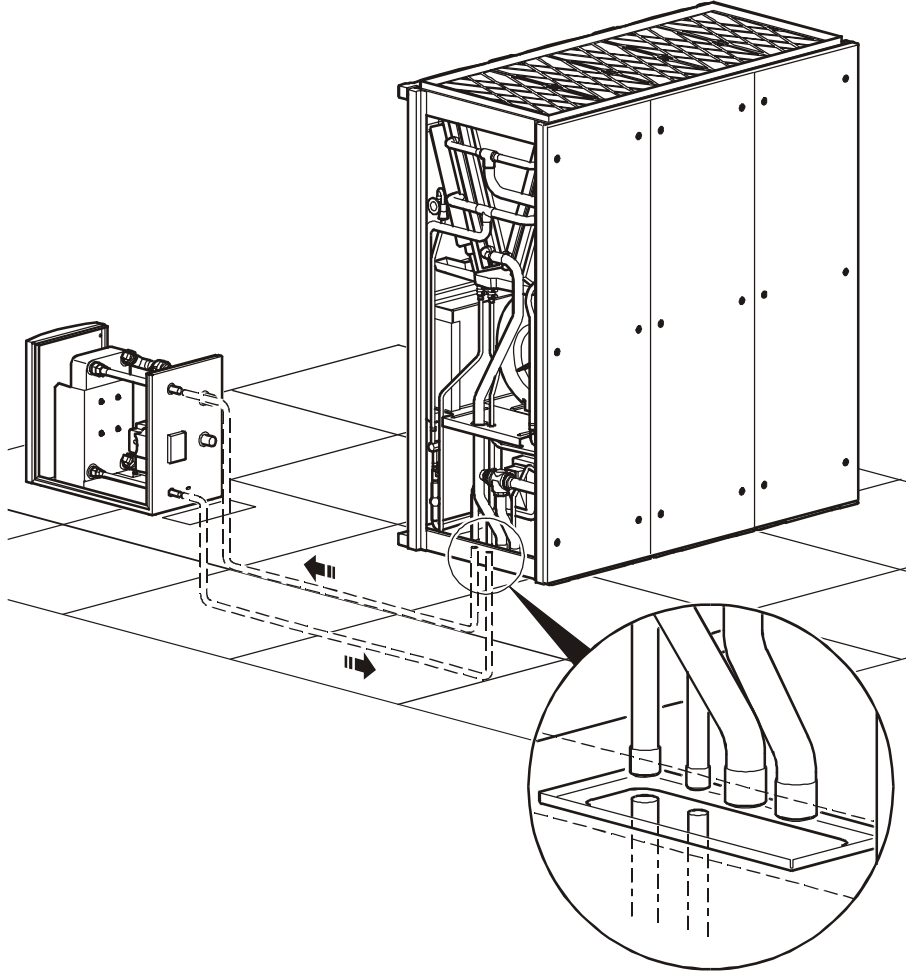
See also



Dimensions are in inches (millimeters).

## Installing refrigerant lines

Connect the Remote Heat Exchanger refrigerant lines to the existing air-cooled FM system. Use 1 1/8-inch (28.57 mm) piping for the gas side (inlet) and 7/8-inch (22.23 mm) piping for the liquid side (outlet).

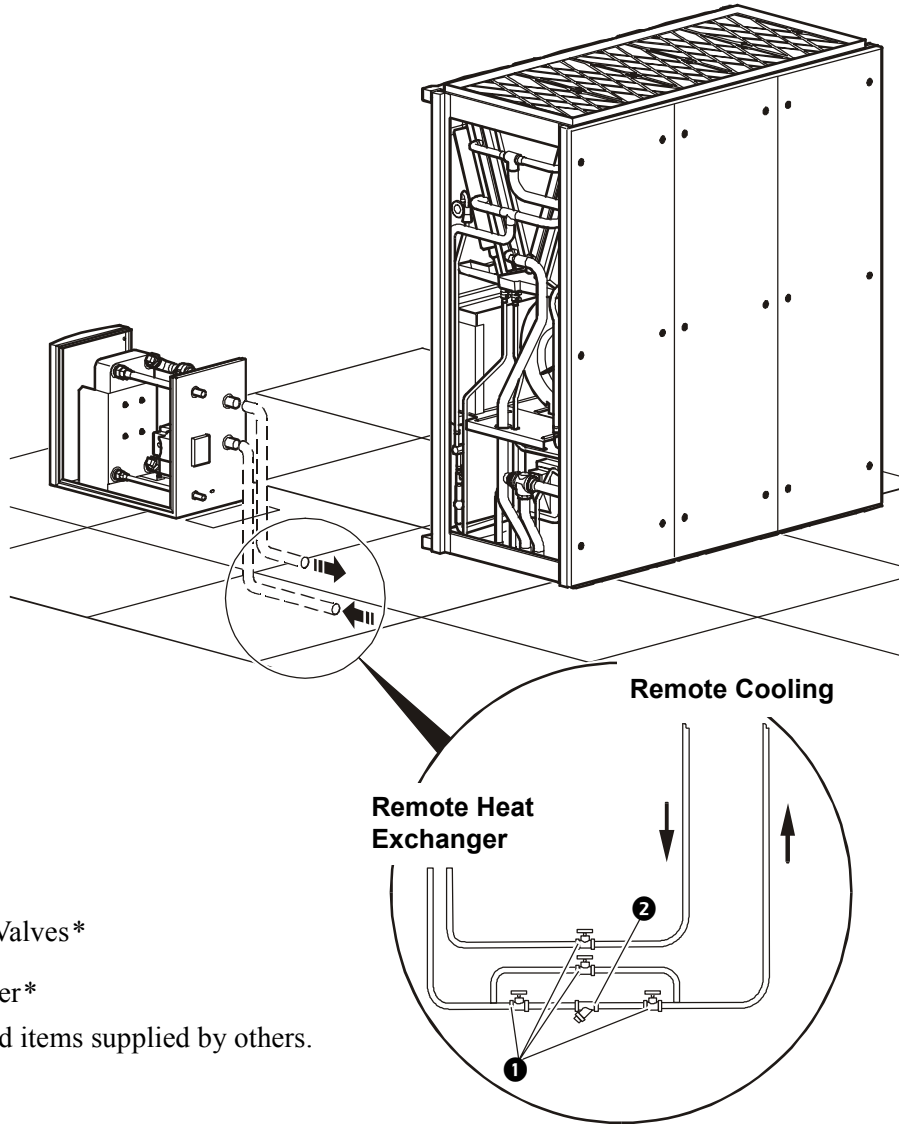


## Installing water or glycol lines

Connect the Remote Heat Exchanger coolant lines to the remote cooling source.

Install isolation valves (gate valves) between the module and the cooling source.

Use 1-5/8-inch (41.625 mm) pipe to connect to the Remote Heat Exchanger to the cooling source.



❶ Gate Valves\*

❷ Strainer\*

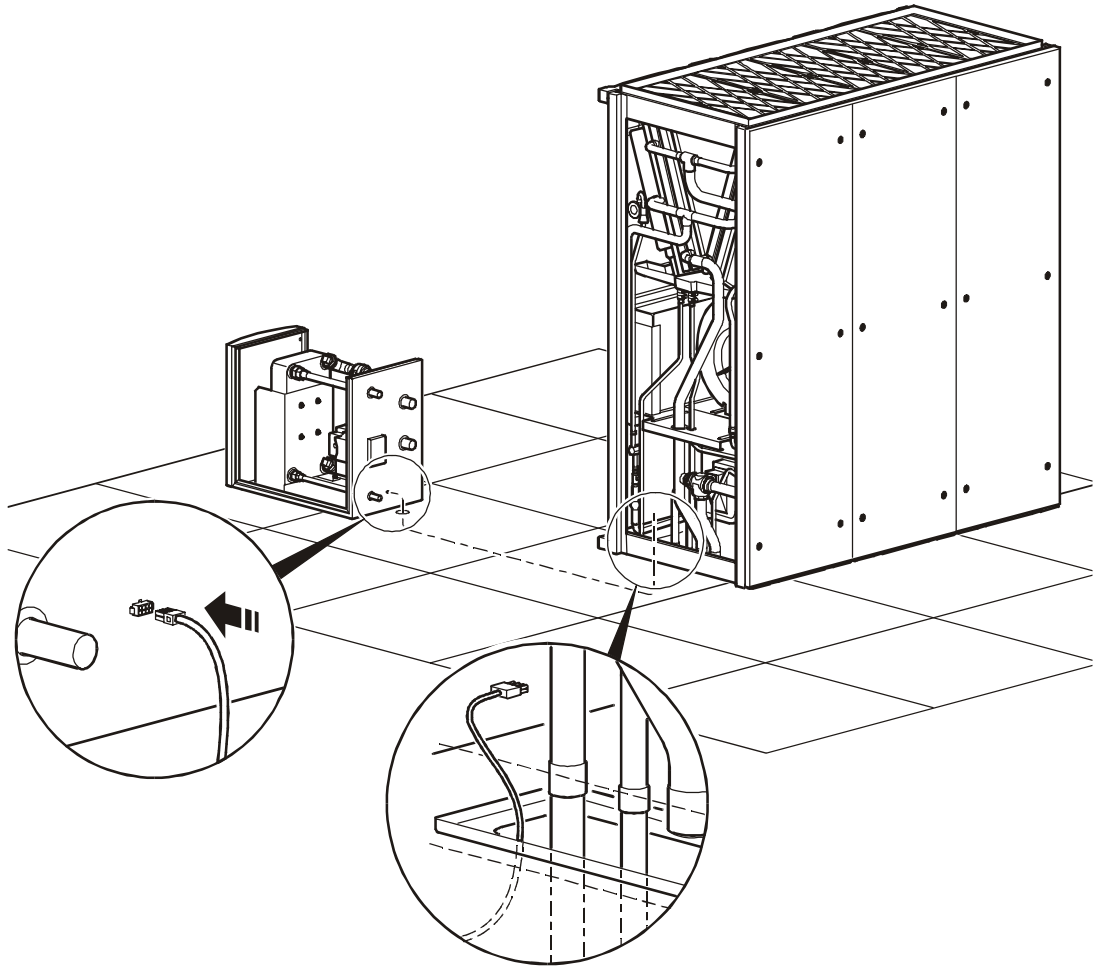
\* Piping and items supplied by others.

For proper pump sizing, refer to the chart below:

| Operating Conditions FM40 50 Hz | Heat of Rejection<br>kW | Glycol L/s<br>40.6°C | Water L/s<br>29.4°C | Pressure<br>kPa |
|---------------------------------|-------------------------|----------------------|---------------------|-----------------|
| 24.0C @ 50%RH (Glycol 30%)      | 64.1                    | 2.98                 | N/A                 | 32.4            |
| 24.0C @ 45%RH (Glycol 30%)      | 64.7                    | 3.01                 | N/A                 | 32.4            |
| 22.0C @ 50%RH (Glycol 30%)      | 61.8                    | 2.87                 | N/A                 | 29.6            |
| 22.0C @ 45%RH (Glycol 30%)      | 62.3                    | 2.90                 | N/A                 | 30.3            |
| 24.0C @ 50%RH (Water)           | 65.9                    | N/A                  | 2.85                | 56.5            |
| 24.0C @ 45%RH (Water)           | 65.3                    | N/A                  | 2.83                | 55.2            |
| 22.0C @ 50%RH (Water)           | 63.2                    | N/A                  | 2.74                | 52.4            |
| 22.0C @ 45%RH (Water)           | 62.4                    | N/A                  | 2.70                | 51.0            |

## Electrical connection

To activate the internal isolation valve permitting coolant flow, the Remote Heat Exchanger must be electrically connected to the existing air-cooled FM unit. Connect the cable (provided) to the rear of the Remote Heat Exchanger and to a wiring harness (labeled P38), located within the existing air-cooled FM system.



# Specifications

---

| <b>Physical</b>                               |  |
|---|--|
| Physical dimensions of fan assembly—h × w × d | 1637×425×797 mm<br>24.9×16.7×31.4 in   |
| Net weight—unit only                          | 80.7 kg (178 lb)                       |
| Shipping weight                               | 110.2 kg (243 lb)                      |
| Shipping dimensions                           | 848×576×1065 mm<br>(33.4×22.7×41.9 in) |



## APC Worldwide Customer Support

Customer support for this or any other APC product is available at no charge in any of the following ways:

- Visit the APC Web site to access documents in the APC Knowledge Base and to submit customer support requests.
  - **www.apc.com** (Corporate Headquarters)  
Connect to localized APC Web sites for specific countries, each of which provides customer support information.
  - **www.apc.com/support/**  
Global support searching APC Knowledge Base and using e-support.
- Contact an APC Customer Support center by telephone or e-mail.
  - Regional centers:

|  |                                |
|--|--------------------------------|
| Direct InfraStruXure Customer Support Line | (1)(877)537-0607 (toll free)   |
| APC headquarters U.S., Canada              | (1)(800)800-4272 (toll free)   |
| Latin America                              | (1)(401)789-5735 (USA)         |
| Europe, Middle East, Africa                | (353)(91)702000 (Ireland)      |
| Japan                                      | (0) 3 5434-2021                |
| Australia, New Zealand, South Pacific area | (61) (2) 9955 9366 (Australia) |

- Local, country-specific centers: go to **www.apc.com/support/contact** for contact information.

Contact the APC representative or other distributor from whom you purchased your APC product for information on how to obtain local customer support.

To obtain a repair authorization number for a NetworkAIR product, call APC NetworkAIR technical services between 8:00 A.M. and 5:00 P.M. Eastern time, Monday through Friday:

- Phone: (1)(888)695-6500 (USA and Canada, toll free)
- Fax: (1)(401)788-2691

Entire contents copyright © 2004 American Power Conversion. All rights reserved. Reproduction in whole or in part without permission is prohibited. APC, the APC logo, InfraStruXure, and NetworkAIR are trademarks of American Power Conversion Corporation and may be registered in some jurisdictions. All other trademarks, product names, and corporate names are the property of their respective owners and are used for informational purposes only.

