

<p><b>Accessory Electric Heaters</b> for use FCP/FCX Fan Coil Units EF Electric Furnace</p>	<p><b>INSTALLATION INSTRUCTIONS</b></p> <p>Date: 8-7-98</p>	<p><b>To Fit: Unit Models</b> AMFK05AHA1/AMFK05AHB1 AMFK07AHA1/AMFK07AHB1 AMFK10AHA1/AMFK10AHB1 AMFK15AHB1/AMFK20AHB1 AMFK25AHB1/AMFK30AHB1</p>
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## GENERAL

This electric heater series is engineered, designed, and listed to be installed in the Intercity Products FCP/FCX EF series fan coil units and electric furnaces. Before proceeding, verify the heater label for correct voltage and KW requirements.

Installation and servicing of this equipment should only be performed by trained and qualified personnel. Before proceeding with the heater installation, inspect thoroughly for shipping damage. Notify the shipper immediately if any damage is found. Check all porcelain insulators for breakage and inspect heater element wire to see that none have been deformed. Clean all dirt, dust and moisture from equipment. Check for proper clearances of live parts, between phases, and to ground. Make sure that all required barriers are in place. Check conductors run in multiple to insure that they are properly wired. Refer to installation instructions for complete unit installation details.

## **WARNING**

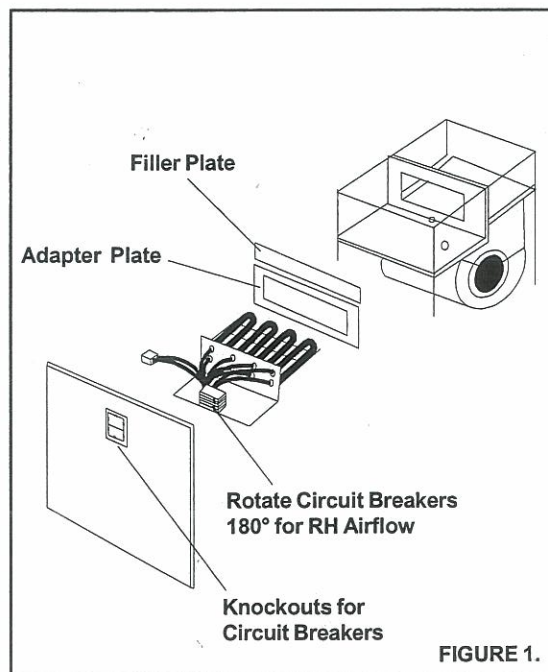
Before performing service or maintenance operations on system, turn off all main power switches. There may be more than one disconnect. Turn off accessory heater power switch if applicable. Electrical shock can cause personal injury. **TAG DISCONNECT SWITCH(ES) WITH A SUITABLE WARNING LABEL.**

## HEATER INSTALLATION

1. Shut **OFF** electric power at unit disconnect switch or service panel.
2. Remove the front panel from unit and locate adapter and filler plates, with screws inside package.
3. Attach adapter plate and filler plate to heater if required to match cabinet. Refer to Figure 1 and table to determine if needed.

Heater Model AMFK	FCP24,30 FCX24 EF08	FCP36,42 FCX36 EF12	FCP48,60 FCX48,60 EF16,20
05,07,10	None	Adapter	Adapter & Filler Plate
15,20	N/A	None	Adapter
25,30	N/A	N/A	None

4. **Right Hand Airflow Application Only/Heaters with circuit breaker.** If indoor section is going to be used for right hand airflow, the circuit breakers will have to be removed and rotated 180°, so the **OFF** position will be **DOWN** when the cabinet is positioned on the right side. This is an NEC requirement. Remove each breaker by loosening the white din rail snap ring, rotate the breaker (s) and their wiring harness 180° and re-attach to din rail, keeping the breakers in the original order.
5. Insert the heater into the cabinet opening as shown in **Figure 1**, so the heater support rod goes into the hole in back of the cabinet. **Exercise caution to prevent tearing of insulation or damage to heater element.**
6. Secure the electric heat accessory with four screws.



**FIGURE 1.**



7. Connect the plug on the heater wiring into the receptacle on the control board on the side of the cabinet.
8. Install front door panel. **Note:** *If the heater has circuit breakers, remove the appropriate-knockout(s) in the door panel to match circuit breaker location.*
9. Mark an "X" in the appropriate box for the heater on the indoor unit rating plate.

### WIRING

All line voltage connections and ground connections **MUST** be made with copper wire.

The power supply wiring **MUST** have overcurrent protection. This can be either fuses or circuit breakers.

Connect supply voltage wires to the Circuit Breakers on the heater or to the pigtails on the heater. Power for the blower motor is supplied through the connector from the heater to the control board.

### GROUNDING

Permanently ground the electric heat accessory in accordance with local codes and ordinances and in the United States with National Electrical Code ANSI/NFPA70-1996 or current edition. Use a copper conductor of the appropriate size from the electric heat accessory ground lug, to a grounding lug on the circuit breaker panel. On models with more than one circuit, a separate copper ground wire **MUST** be connected for each circuit.

### ADJUSTING THERMOSTAT ANTICIPATOR

Set the heater anticipator of the thermostat to the proper value. See instructions provided with the thermostat before making this adjustment.

Heater Model	Anticipator Setting
05	.24
07, 10	.32
15	.40
20	.46
25	.53
30	.57

### TEMPERATURE RISE CHECK

Temperature rise is the difference between the supply and return air temperatures.

**NOTE:** The temperature rise can be adjusted by changing the heating speed tap at the unit's blower terminal block. Refer to the unit's Installation Instructions for airflow information.

A temperature rise greater than 60°F (33.3°C) is not recommended.

1. To check the temperature rise through the unit, place thermometers in the supply and return air ducts as close to the unit as possible.
2. Open **ALL** registers and duct dampers.
3. Set thermostat Heat-Cool selector to **HEAT**.
4. Set the thermostat temperature setting as high as it will go.
5. Turn electric power **ON**.
6. Operate unit **AT LEAST 5** minutes, then check temperature rise.
7. Set thermostat to normal temperature setting.
8. Turn electric power **OFF**.
9. Be sure to seal all holes in ducts if any were created during this process.

**NOTE:** The maximum outlet air temperature for all models is 200°F (93.3°C).