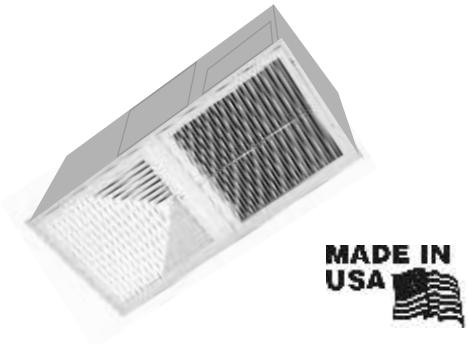
COLD POINT CORPORATION

Cold Point Corporation, Rome, New York 13440 Phone (315)339-2331 Fax (315)339-2358 Web: www.COLDPOINTCORP.com

FT2 SERIES

Concealed Heating/Cooling Unit

Installation Operation and Maintenance



Thank You for choosing our Cold Point products. Our goal is to make sure you remain pleased with your decision to purchase a Cold Point product. If you are in need of assistance that is not available or provided by your local installer/contractor feel free to give us a call, write us, Fax, or e-mail us at:

Cold-Point Corp.
7500Cold Point Dr.
Rome, NY 13440
Phone: 315.339.2331
Fax: 315.339.2358
e-mail: info@coldpointcorp.com

UNPACKING AND INSPECTION

The FT2 is shipped completely assembled and in it's own package. All goods are inspected at the factory and released to the Freight Company in good condition. When received at the site, a visual inspection of all packages should be made immediately. Any evidence of rough handling or apparent damage should be noted on the delivery receipt and the material inspected in the presence of the carrier's representative. If damage is found a claim should be filed with the freight company immediately.

PRODUCT DESCRIPTION:

MODEL FT2 CHILLED WATER FAN COIL UNIT

FT2- 'T'-Bar ceiling mounted- 2- pipe chilled water fan coil unit

CONTROLS/ COMPONENTS

Controls and components installed at the factory or supplied included:

- Relays and connections for thermostat.
- Power supply terminal block.
- Optional open wire type electric heaters are available (3KW/6KW). Heaters are equipped with automatic reset high temperature cut-out.
- Optional condensate pump.
- Optional wall mounted fan speed switch

OPTIONAL EQUIPMENT

This manual pertains to a model with standard features; 2 pipe chilled water fan coil unit with or without electric heat. Check to be certain the included equipment is as ordered and that the voltage is correct for the power supply before proceeding with installation.

INSTALLER SUPPLIED ITEMS

- Power wiring
- Low voltage wiring
- Mounting screws, fasteners, 3/8" threaded rods
- Chilled water piping
- Water line valve (s) and fittings
- Condensate piping
- Thermostat, suitable for HVAC applications (may be purchased from Cold Point)
- Electrical connectors

ITEMS FOR CONSIDERATION

- Determine the best location for mounting the unit and best room air circulation.
- Determine routing of power supply wiring, water piping, condensate drain and low voltage control interconnect wiring.
- Serviceability should be considered when locating the unit. All service can be performed through the removable panels.
- A minimum of 19+" above ceiling tile for mounting space. Unit height measures 18 15/16".

MOUNTING

Hanging the unit:

- Remove ceiling tile where unit is to be located and any adjacent tiles that would be helpful in handling and working on the unit while positioning above the ceiling.
- Secure suitable type materials (such as slotted angle) in place. The material should be capable of supporting the weight of the unit (approximately 160 lbs.). Attach all threaded rods (3/8"-field supplied) to angle. The rods should be securely double nutted. Check spacing of rods to make sure they will line up with hangers when unit is raised above ceiling.
- Place foam seal material around the outer edge of the grill assembly by first peeling back the paper adhesive protectant. Seal will be made with the perimeter edge of the chassis.
- Raise the unit into the ceiling. The use of a high jack is recommended. Once the unit is above the ceiling, attach all threaded rods to hangers. Once all threaded rods are attached to hangers, raise unit several inches above the ceiling to allow placement of grille into ceiling grid. After grill is in place, lower unit to touch the foam backing attached to grill. The unit should be lowered just far enough for the frame to form an airtight seal with the foam seal.
- To insure proper condensate removal, pitch the unit slightly towards chosen drain.
- Proceed to run power wiring and water lines to unit in accordance with codes.

CONDENSATE DRAIN

- Units with condensate pumps are supplied with 5' drain hose. A suitable trap should be installed on the condensate line close to the unit. Pitch the line 1"/50' of run.
- An optional condensate pump may be ordered factory installed or separately for field installation. The field installed condensate pump should be mounted opposite the control box. Connect to trap (field supplied).
- The dual connection drain pan is factory supplied with a secondary drain for prevention of condensate overflow. **Connection of the secondary drain is recommended.**

ELECTRICAL WIRING

All electrical wiring must be run according to NEC and local codes. Check the unit rating plate for circuit ampacity and breaker or fuse size. Use only HACR type breakers. Select the proper wire for the ampacity rating.
- All wiring entrances are located adjacent to the control box next to the water piping connections.
- High voltage wires are to be routed and connected to the factory supplied (L1-L2 leads). Connect the ground wire to ground lead supplied at the same location.

- Low voltage wiring must be run to the thermostat. Refer to the unit wiring diagram for details. The unit wiring diagram is located on the inside of the electrical control box cover. Refer to this diagram for the connection of the thermostat. Control wiring is NEC class-2, 24VAC.

START UP

After checking the proper power and 24V connections run the system from the thermostat. Refer to the operating instructions supplied by the thermostat manufacturer.

Run the unit in both heating and cooling modes before leaving the installation. If a wall mounted fan speed switch is used check operation on all speeds.

OPERATION AND MAINTENANCE

Unit operation is a function of the wall mounted thermostat operating sequence. Thermostat operation will vary depending on manufacturer and desired options. Review operating instructions supplied with the thermostat.

Typical operation is as follows:
- Heat- OFF- cool switch
- Room temperature indicator
- Temperature selector
- Fan switch
  ON- constant operation
  AUTO- automatic on/off with unit

COOLING MODE

Set system switch to "COOL". Set temperature selector to desired level of comfort. If room is warmer than desired temperature, unit will cycle on.

HEATING MODE (if equipped)

Set system switch to "HEAT". Set temperature selector to desired level of comfort. If room temperature is colder than desired temperature, unit will cycle on.

MAINTENANCE

Panels should remain on the unit at all times. Service should be performed by a QUALIFIED service agency. Units are designed and constructed for reliability and long life with minimal maintenance. To assure peak operating efficiency:
- Regular cleaning of air filters is required. The fiberglass filter may be cleaned with a vacuum cleaner. Allowing dust to collect on the filter will cause the unit to loose efficiency and eventually malfunction. Check filter at least once a month. Replace as needed. **Do not operate unit without air filter.**
- Vacuum dust from the return air grille when cleaning the filter
- Clean the exterior of the supply/ discharge grill as desired. Use a mild household cleaner.
- This unit is equipped with a permanently lubricated motor(s). Although oiling is not necessary, adding a few drops of oil through oiling ports twice yearly will extend the life of the motor. Do not over oil.

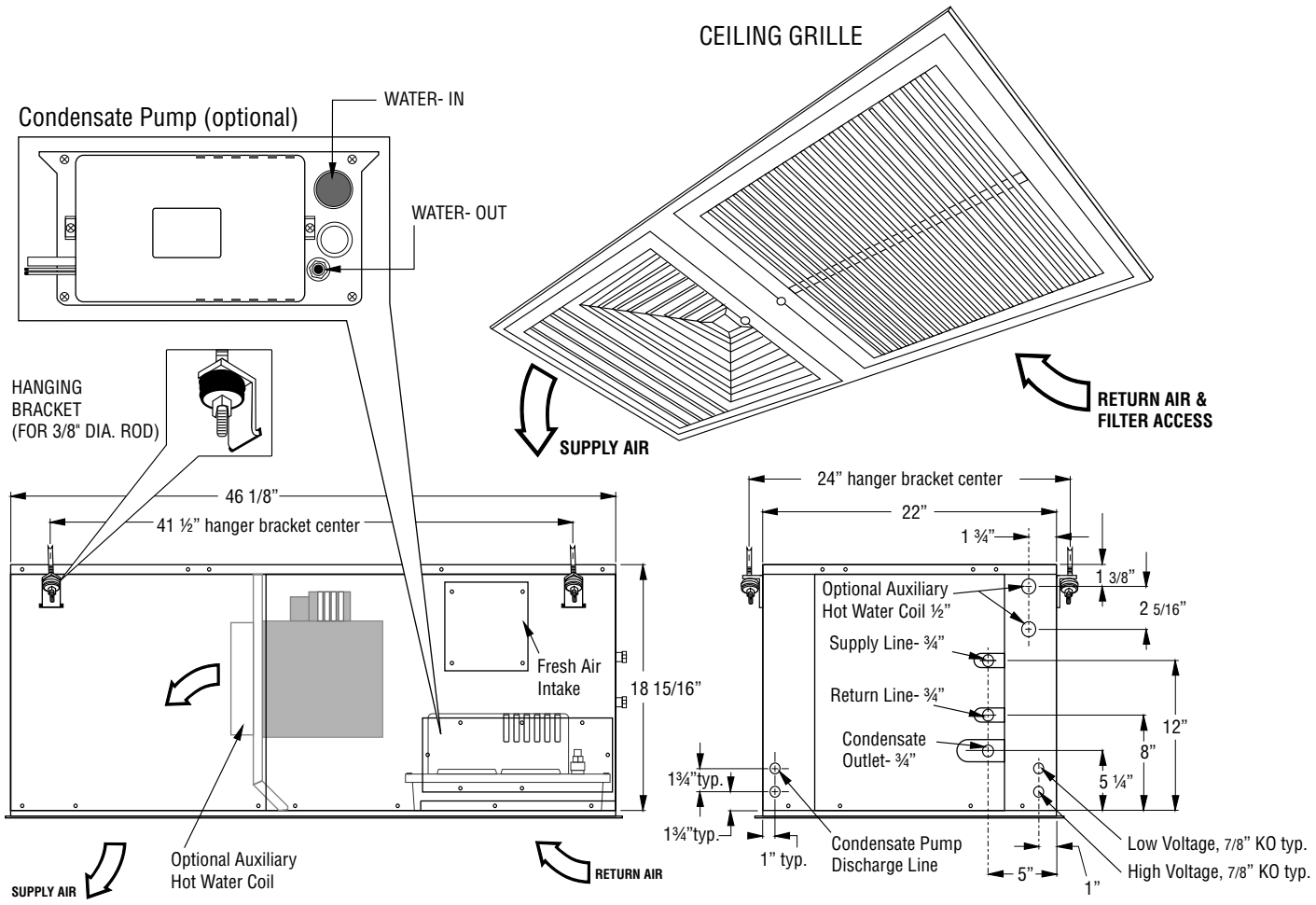
SPECIFICATION CHANGES

All COLD POINT products are subject to ongoing development programs and design and specifications may change without notice.

PARTS LIST:

Filter
Fan relay(s)
Capacitor(s)
Heat exchanger
Heater element 3KW (2)
Limit switch (2)
Blower motor package (2)
Ceiling grill

DIMENSIONAL DETAIL 'FT2'



FT2- Aux. Hot Water Heat Specifications- 180° EWT

BTUH- total	GPM	Fan Speed	LWT	△ P- FT
5,575	0.5	Hi	159	0
6,575	1.0	Hi	168	0.1
8,250	1.5	Hi	169.5	0.3

FT2 Chilled Water Performance

80° DB/67° WB Air Temp., 45° Entering Water Temp.

BTUH- total	BTUH- Sens.	GPM	△ P- Ft	Lvg water temp
16,730	14,446	2.0	2.0	62
20,481	16,107	3.0	4.3	59
23,257	17,258	4.0	7.2	57
25,348	18,129	5.0	10.7	55

FT2 Electrical Specifications

Model No.	Voltage/ Hertz/ Phase	Fan HP	Fan FLA	Min. (2) Circuit Amps.	Max.(2) HACR Brkr.	Ship Weight
FT2	208-230/60/1	2 X .08	.80	12	15	165
FT2	115/60/1	2 X .07	3.4	12	15	165

(2) If electric heaters are installed, use ampacity rating & max fuse from electric heat capacity & specifications chart

Supply Air & Fresh Air CFM

Model No.	H.S. CFM	Fresh Air	
		CFM / Duct *	Approx. Duct Velocity
FT2	600	45	500 FPM

(*) 4" Diameter Duct

FT2 Electric Heat Specifications

Model	Voltage	KW	BTU/h[1]	Htr. Amps	Total Amps.	Min. Cir Amps.	Max. Fuse
FT2	208/230	4.9/6.0	17120/20880	23.6/26.0	24.4/26.8	31.3/34.3	35

(1) Heating BTU/h includes fan motor heat

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