



# F SERIES

Magic Aire Fan Coil – Model FFC and FSC – Sizes 02, 03, 04, 06, 08, 10, 12  
200 Thru 1200 Cfm

## Installation, Operation and Maintenance Manual

**Magic Aire® Fan Coil Units** are hydronic floor-mounted air conditioners delivering nominal airflows from 200 to 1200 cfm. Units may be used with chilled water or hot water or both to meet space heating and cooling loads. Options include unit mounted controls, 30% outside air damper and factory valve packages.

### How to Use this Manual:

This manual gives instructions regarding installation, operation and maintenance for the F-Series fan coil units. For more information refer to:

- Catalog brochure** for unit dimensions, options, guide specifications and performance information.
- New Magic 4** software for faster selection of new equipment.
- Website [www.magicaire.com](http://www.magicaire.com)** for replacement parts guide, software downloads, product data and contact info for your local Magic Aire representative.
- Replacement Parts** – Identify parts needed using drawings in this manual, and then obtain part numbers in replacement parts guide available at [www.magicaire.com](http://www.magicaire.com).

Installer should pay particular attention to the following words:  
**NOTE**—intended to clarify or make installation easier.  
**CAUTION**—given to prevent equipment damage.  
**WARNING**—to alert installer that personal injury and/or equipment damage may result if installation procedure is not properly followed.

### GENERAL

Installation and maintenance are to be performed **only** by qualified personnel who are familiar with local codes and regulations and are experienced with HVAC equipment of this type.

**WARNING: Sharp edges, coil surfaces and rotating fans are a potential injury hazard – avoid contact.**

**WARNING: Hazardous voltage – Disconnect and Lock Out all incoming power sources before servicing or installing unit.**

**Immediately inspect each unit for damage upon receipt.** Inspect units for external and concealed damage immediately. File any damage claims in accordance with Magic Aire Freight Damage Policy and Terms and Conditions (available at [www.magicaire.com](http://www.magicaire.com)). Do not repair damaged units without written authorization. Protect stored units from damage.

Use these instructions in conjunction with other appropriate instructions, including but not limited to those instructions supplied with the outdoor unit (if applicable). Installation must comply with all applicable local codes.

### CAUTION: DO NOT PLACE UNIT IN DUCTWORK

Unit is intended for free-discharge applications only. Do not install unit in ductwork or attach ductwork to the discharge or return of the fan coil unit. Outside air duct may be attached to the outside air opening.

### WARNING: SUSPENDING THE UNIT FROM A STRUCTURE

Unit is intended for exposed floor mount application only. **Do not** suspend from structure.

### INSTALLATION CONSIDERATIONS

For proper installation and operation, check the following items before installing the fan coil unit.

1. Confirm that piping and electrical is roughed in to match unit connections. Coil connections may be on left side, right side or both sides. Electrical connection is opposite the cooling coil connection side. If factory valve packages are provided, refer to Valve Package Schematics.
2. Confirm that floor construction is adequate to support unit. Refer to shipping weights in Physical Data table.
3. Confirm that the floor is level.
4. Condensate drain – Insure available fall is adequate: industry practice is 1” drop per ten feet of piping.
5. Refer to drawing for required Service Clearances at unit front, sides and top.

### INSTALLATION-GENERAL

1. Remove all packing and foreign material from unit.
2. Remove front cover panel. Check blower wheel for free rotation by gently rotating blower wheels.
3. Check copper lines, coil etc for internal or hidden damage.
4. Set unit level using casing. Unit casing must be level for proper drainage and operation. **NOTE:** Primary drainpan under the coil is designed with built-in slope. Do not level using drainpan or coils.
5. Secure unit in proper position. Attach unit securely to wall using mounting brackets. Refer to Mounting Details drawing.

### INSTALLATION-PIPING

1. Install factory-provided valve packages, if provided, using mechanical union connections.
2. Install piping to coils or valve packages in accordance with local codes. Front most connection (leaving air side of coil) is the supply connection. **NOTE:** Insure that piping is installed with supply on leaving air side of coil. **CAUTION:** Protect cabinet and internal piping by wrapping each pipe with a wet cloth while brazing. **CAUTION:** Remove polymer secondary drain pan before soldering field connections to prevent damage from excessive heat or solder drips.
3. Vent coils using manual air vent fittings provided.

4. **Installer shall insulate** all water and drain lines to prevent condensation (“sweating”) and heat loss. Install insulation up to the interior casing of the unit. Insure that factory provided valve packages are properly insulated. Piping insulation is the responsibility of the installer and should be of suitable thickness and with adequate vapor barrier. **NOTE: Not all** components of factory supplied valve package are located above secondary drainpan and so must be insulated.
5. Install polymer secondary drainpan under primary drainpan discharge. Secondary drainpan sits in bracket.
6. Install condensate drain piping to secondary drainpan. Field installed condensate drain piping must be sloped downward; 1” drop per ten feet of piping recommended. Install 3” to 4” trap downstream of secondary pan. Insure that secondary drainpan will catch condensate from any field-installed un-insulated piping. Polymer secondary drainpan has 1” connection: use 1” PVC socket x ¾” MPT adapter, factory provided; install using PVC cement. Alternately, use field-provided 1” I.D. hose and hose clamp to make connection.

### INSTALLATION-CHANGEOVER T-STAT

Units with factory provided controls option “BC” (2-pipe heat/cool auto changeover) include auto changeover thermostat (“C/O stat”) wired to fan box, ready to be installed.

1. Install C/O stat on piping with active water flow to provide accurate temperature sensing. **NOTE:** Failure to sense correct fluid temperature at C/O stat will result in unacceptable unit operation (overheating or overcooling).
  - a. If 3-way control valve is used, locate C/O stat upstream of supply side unit shutoff valve.
  - b. If 2-way control valve is used, locate C/O stat on piping with active water flow. C/O stat must sense correct fluid temperature regardless of flow through unit.
2. If additional wire is needed to locate the C/O stat, utilize minimum 22 A.W.G. copper wire for a maximum of 50 feet from unit (100ft total wire length).

### INSTALLATION-DUCTWORK

Attach outside air ductwork to fan coil unit (if applicable). Use flanged duct installed flush with rear of unit and flexible foam gasket material, field provided. **CAUTION:** Do not drive screws into the rear of the unit. Insure that field supplied and installed outside air ductwork is properly insulated.

### INSTALLATION-ELECTRICAL

1. **WARNING: Hazardous voltage.** Only qualified personnel must install the electrical service. Disconnect and Lock Out all incoming power sources before connecting to electrical service. **WARNING:** This appliance must be permanently grounded in accordance with the National Electrical Code and local code requirements. **WARNING:** For use with copper conductors only.
2. Connect electrical service to unit. Refer to unit wiring diagram. **NOTE:** CHECK MOTOR RATING PLATE FOR CORRECT LINE VOLTAGE. For power supply connection, route field power wiring to disconnect switch (if provided) or power leads attached to the control box in the end compartment.
3. Control box and switch may be in either right or left end compartment, depending on unit configuration.
4. Refer to nameplate FLA, maximum fuse size and minimum circuit ampacity. Also refer to wiring diagram affixed to unit to make control and power wiring connections.
5. Installer is responsible for power wiring, branch circuit over current protection, and any external means of disconnect required to meet local electrical code. **NOTE:** Motor is equipped with internal thermal overload protection.

### COIL VENTING

The coil is provided with a Schrader or screw-type manual air vent on the return manifold to release air from the coil. **NOTE:** This vent is not adequate for removing air from the building piping system. Customer must provide for venting of the piping system.

After unit installation, vent the coil(s) as follows:

1. Pressurize building piping system with water. Vent trapped air at system vents.

2. Schrader-type vent: Remove cap. Depress valve at coil vent until air is expelled from unit. Release valve. Reinstall cap.
3. Screw-type vent: Back out manual vent setscrew until air is expelled. Retighten setscrew.

### UNIT-MOUNTED THERMOSTAT

Unit with factory unit-mounted thermostat includes remote sensor mounted in return air space. Verify that jumper JP-1 has been removed at the thermostat – required for proper operation.

#### Thermostat Specifications:

- PECO/Erie/TAC model TA155 (manual c/o) or TB155 (auto c/o).
- UL, UL Canada listed and CE compliant.
- 3-fan speeds with switch (Lo-Med-High).
- 24VAC rated, 24VA pilot duty rated
- Temperature Range: 50°F to 90°F.
- Maximum Ambient: 130°F.
- Dead Band: 4°F dead band between heat on and cool on (auto c/o only).
- Heat-Off-Cool system switch (manual c/o).
- On-Off system switch (auto c/o)

#### Sequence of Operation:

##### 2-Pipe, Heating (or Cooling) Only or Manual C/O

With system switch set to Heat (Cool), thermostat activates HW (CHW) valve with a call for heat (cool) and activates the fan at the speed indicated on the fan switch. Outside air damper actuator (if provided) opens the damper. When call is satisfied, HW (CHW) valve closes, fan stops, damper closes.

##### 2-Pipe, Heating/Cooling Auto C/O

1. With system switch set to On and C/O thermostat indicating HW present: thermostat activates HW valve with a call for heat and activates the fan at the speed indicated on the fan switch. Outside air damper actuator (if provided) opens the damper. When call is satisfied, HW valve closes, fan stops, damper closes. No actions occur with call for cooling.

2. With system switch set to On and C/O thermostat indicating CHW present: thermostat activates CHW valve with a call for cooling and activates the fan at the speed indicated on the fan switch. Outside air damper actuator (if provided) opens the

damper. When call is satisfied, CHW valve closes, fan stops, damper closes. No actions occur with call for heating.

#### 4-Pipe, Heating/Cooling Auto C/O

With system switch set to On: thermostat activates HW (CHW) valve with a call for heat (cool) and activates the fan at the speed indicated on the fan switch. Outside air damper actuator (if provided) opens the damper. When call is satisfied, HW (CHW) valve closes, fan stops, damper closes. Thermostat switches heating/cooling mode automatically.

#### 4-Pipe, Heating/Cooling Manual C/O

1. With system switch set to Heat: thermostat activates HW valve with a call for heat and activates the fan at the speed indicated on the fan switch. Outside air damper actuator (if provided) opens the damper. When call is satisfied, HW valve closes, fan stops, damper closes. No actions occur with call for cooling.
2. With system switch set to Cool: thermostat activates CHW valve with a call for cooling and activates the fan at the speed indicated on the fan switch. Outside air damper actuator (if provided) opens the damper. When call is satisfied, CHW valve closes, fan stops, damper closes. No actions occur with call for heating.

#### Conversion to Continuous Fan Operation:

If desired, continuous fan operation can be achieved by adding a jumper across the control relay contacts (CR1 and/or CR2, terminals 2 and 4). The fan will operate continuously while the disconnect switch is closed. The outside air damper will open whenever the supply fan is engaged.

#### UNIT STARTUP

1. **NOTE:** All building windows and doors should be installed and closed before starting unit. During summer construction, avoid unit sweating by allowing for gradual pull down: use elevated chilled water temperature, reduce chilled water flow rate (gpm), set fan to high speed for maximum airflow.
2. Insure that fan wheels turn freely, if not already done under section INSTALLATION.

3. Maximum entering water temperature is 180°F, unless nameplate indicates 200°F. **CAUTION:** If unit is marked for 200°F maximum entering water temperature, customer must ensure that water vaporization does not occur especially at higher elevations when entering water temperatures are greater than 190°F.
4. Check that unit or wall-mounted thermostat is connected to the unit.
5. Set thermostat or 3-speed switch to “off” position. Turn power on to unit. Switch thermostat to “fan” or 3-speed switch to “low”. Insure that fan operates. Set thermostat to desired set point.
6. Outside Air Damper – **WARNING:** Insure that the unit is protected against freezing conditions (see section FREEZE PROTECTION OF WATER PIPING).
  - a. If “locking quadrant” manual damper operator provided, set to desired position.
  - b. If damper actuator provided, insure that actuator opens the damper when the fan turns on, and closes when fan stops.

#### MAINTENANCE

1. Permanent Split-Capacitor motor is permanently lubricated and needs no lubrication.
2. Filter Change:
  - a. Turn off unit power.
  - b. Remove front panel.
  - c. Remove kick plate (2-screws).
  - d. Remove filter safety bracket (1-screw).
  - e. Turn filter clips away from filter.
  - f. Remove filter.
  - g. Install new filter (make sure rear edge of filter rests in filter tabs).
  - h. Turn filter clips in toward filter.
  - i. Re-install filter safety bracket.
  - j. Re-install front panel.**NOTE:** Do not operate unit with filter removed to prevent overloading fan motor. Change filter monthly or as required by site conditions.
3. Coil inspection/cleaning: Coil can be inspected and cleaned by removing the front panel. Check for excessive dirt or damage. Clean coil and straighten fins. Perform yearly.
4. Drainpan inspection/cleaning: remove front panel, inspect primary drainpan to insure that condensate drains freely and that it does not support microbial growth. Inspect

and clean plastic secondary drainpan in end compartment. Perform monthly.

### BLOWER/MOTOR SERVICE

Blower motor replacement procedure – refer to drawing Blower Service Instructions:

1. **WARNING: Disconnect and lock out all electrical power to unit.** Insure that fan wheels have stopped moving before performing service procedures.
2. Remove front panel.
3. Remove kick plate and filter.
4. Cut motor wires to allow blower deck removal. Allow enough field-side wire to make new splice.
5. Remove blower deck assembly (2-screws in front under foam tape, 2-screws each side in end compartment). Set blower deck assembly upside-down on work surface so motor and fans are accessible.
6. Remove inlet ring screws (4ea) and slide inlet ring toward motor.
7. Remove fan housing screws (2 each side) and slide off over wheel.
8. Loosen wheel hub setscrew (5/32" hex).
9. Slide wheel off motor shaft.
10. Remove inlet ring.
11. Repeat steps #6 through #10 for next fan housing.
12. Remove ground screw and wire from motor base (1-screw).
13. Remove clamps holding motor in the motor base.
14. Remove the motor.
15. Install new motor and follow steps above in reverse. Before re-installing blower deck, splice motor wires to field wiring.  
**NOTE:** Insure that fan wheels turn freely before re-installing blower deck assembly.  
**NOTE:** Center wheel in housing before tightening hub setscrew.  
**NOTE:** Wheels have left and right-hand versions – insure that wheels are oriented correctly (forward curved).  
**WARNING:** Insure that ground wire and screw are securely attached and in place before restoring unit to service.
16. Restore power to unit.

### FREEZE PROTECTION OF WATER PIPING

**WARNING:** If the Fan Coil Unit is located where the coil is subject to freezing during winter months, the coil must be protected from freezing.

1. **Any freeze protection measures are the responsibility of the customer,** including the use of glycol, low limit thermostats or other controls devices.
2. Whenever glycol is added for the heating season, the system may have to be flushed prior to the start of the next cooling season because of capacity loss due to glycol.
3. Insulation of the Customer's fluid piping is the responsibility of the customer.

**WARNING: Draining the system will not protect the coil.** However, the system must be drained when glycol has not been added, for minimal protection.

### INSTALLATION CHECKLIST

- Inspect units for shipping damage.
- Check installation location and prepare level floor surface that will adequately support the unit.
- Level unit.
- Complete all electrical and piping services to unit.
- Complete fan control wiring as required per unit wiring diagram and site requirements.
- Remove miscellaneous construction debris from unit. Replace filter as required.
- Insure that outside air damper (if provided) is not obstructed.
- Insure that outside air damper opens when fan activates and then fully closes when fan stops (if damper and actuator provided).
- Insure that unit has been provided with freeze protection measures (field-provided and field-installed) if it will be exposed to freezing conditions.

### PERIODIC MAINTENANCE CHECKLIST

#### **WARNING: Hazardous voltage -**

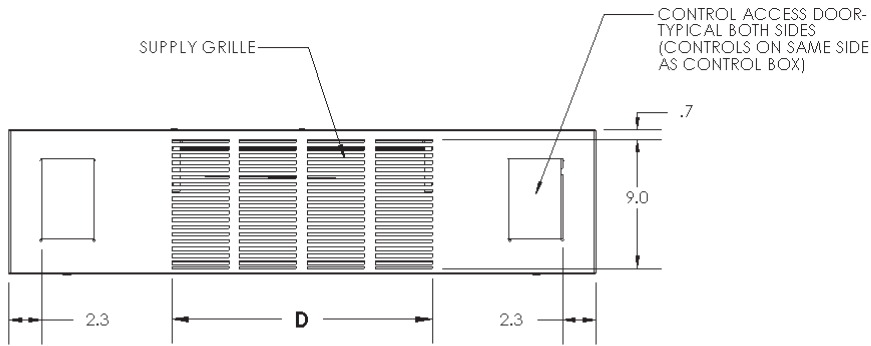
Disconnect and Lock Out all incoming power sources before servicing unit.

Refer to section MAINTENANCE for procedures.

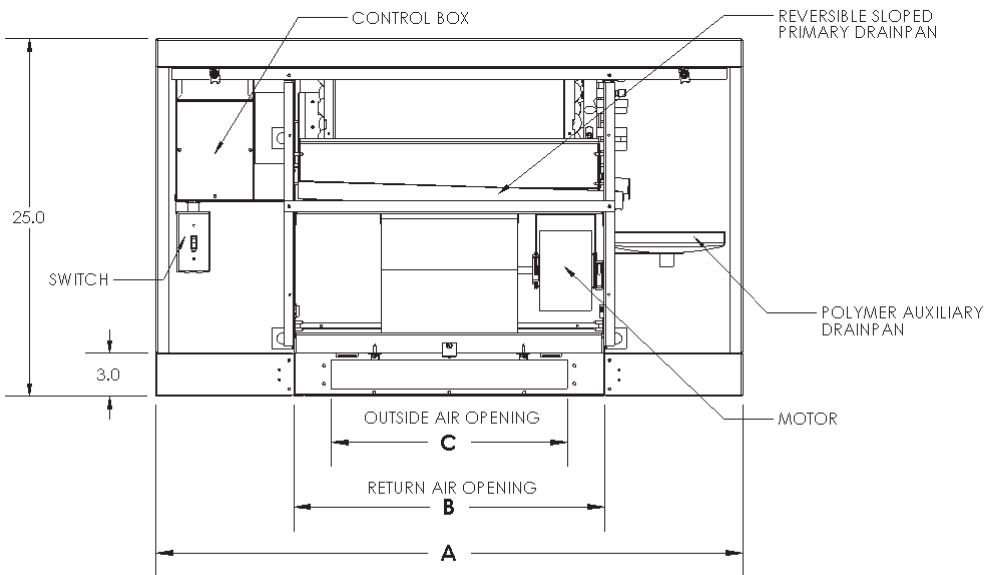
- Monthly – Inspect air filter. Replace dirty filters.
- Monthly – Inspect drainpan and clean if necessary.
- Yearly – Inspect and clean coil.
- Yearly – Inspect fan wheels and housings for damage. Insure that wheels move freely by hand.
- Yearly - Clean and tighten all electrical connections.

# Physical Data

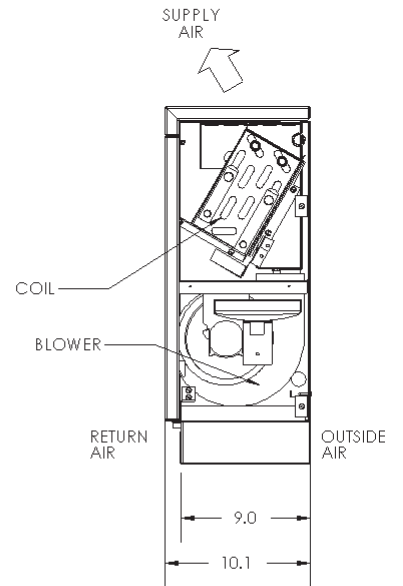
Model FFC/FSC	02	03	04	06	08	10	12
<b>Capacity/CFM</b>							
Nominal Capacity ( tons )	0.50	0.75	1.00	1.50	2.00	2.50	3.00
Nominal Capacity ( BTU/HR )	6000	9000	12000	18000	24000	30000	36000
Nominal CFM	200	300	400	600	800	1000	1200
<b>Fan</b>							
(Quantity) Diameter x Width (in)	(1) 6.25 x 8.0	(1) 6.25 x 8.0	(2) 6.25 x 7.0	(2) 6.25 x 7.0	(2) 6.25 X 9.5	(4) 6.25 X 9.5	(4) 6.25 X 9.5
<b>Motor</b>	See electrical data.						
<b>Filter</b>							
(Quantity) Nominal Size (in)	(1) 8.6 x 21.6	(1) 8.6 x 25.6	(1) 8.6 x 31.6	(1) 8.6 x 41.6	(1) 8.6 x 45.6	(1) 8.6 x 57.6	(1) 8.6 x 65.6
Face Area (sqft)	1.30	1.53	1.89	2.49	2.73	3.45	3.93
<b>Coil Data - Hydronic Coil</b>							
Face Area (sqft)	0.8	1.0	1.4	1.9	2.0	2.7	3.1
Fin Spacing (fins per in)	10	10	10	10	10	10	10
Tube Size (in, OD)	1/2	1/2	1/2	1/2	1/2	1/2	1/2
Tube Material/Fin Material	Cu/Al	Cu/Al	Cu/Al	Cu/Al	Cu/Al	Cu/Al	Cu/Al
<b>Discharge Grille Free Area</b>							
Flat Top (sqft)	0.46	0.57	0.69	0.92	1.03	1.38	1.49
Sloped Top (sqft)	0.49	0.61	0.73	0.97	1.09	1.46	1.58
<b>Coil Connections (in, OD)</b>							
1, 2, 3 and 4-row	0.625	0.625	0.625	0.625	0.625	0.625	0.625
<b>Condensate Drain Connection</b>							
Secondary Drain Pan (in, OD for PVC or hose)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
<b>Unit Weight (lbs)</b>							
Flat Top or Sloped Top	55	59	77	87	98	150	164



**TOP VIEW**



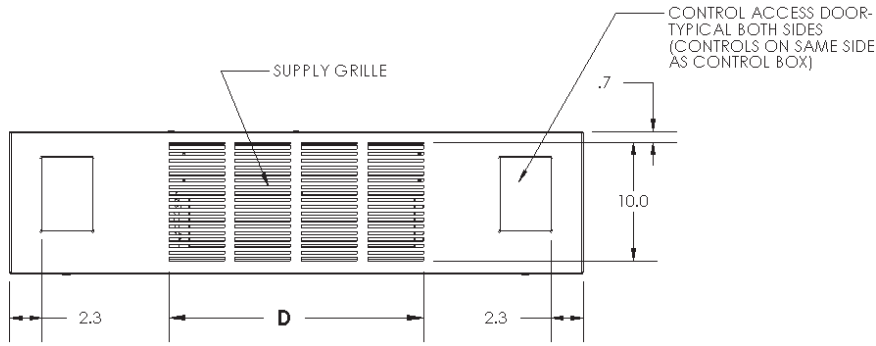
**FRONT VIEW  
W/O FRONT PANEL**



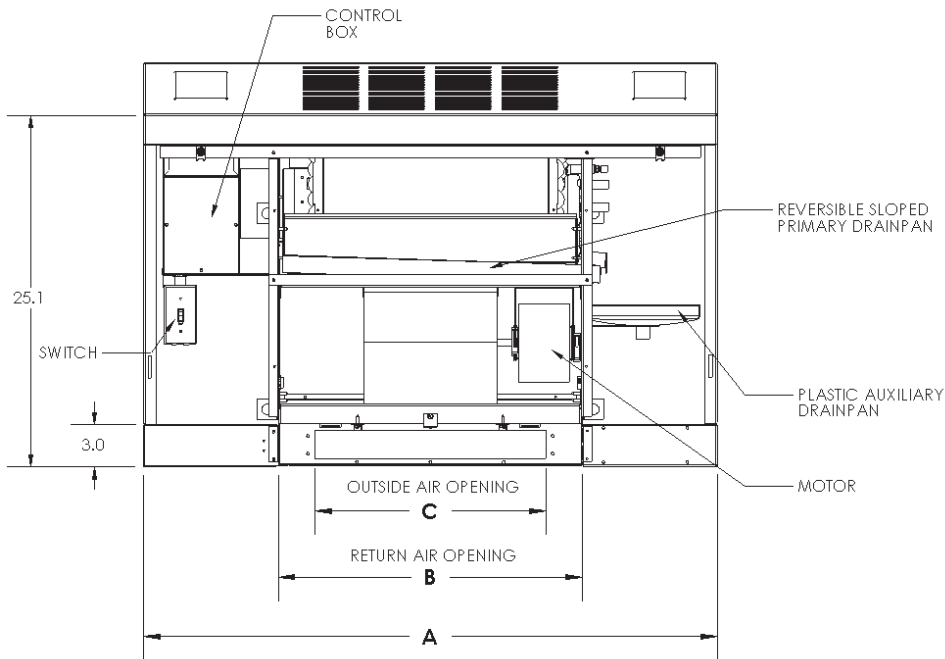
**SIDE VIEW  
W/O SIDE PANEL  
AND WRAPPER**

MODEL	DIMENSIONS - INCHES				UNIT WEIGHT	QTY. OF FANS/MOTORS
	A	B	C	D		
FFC-02	41.0	21.8	16.5	18.3	55	1/1
FFC-03	45.0	25.8	20.5	23.0	59	1/1
FFC-04	51.0	31.8	26.5	27.8	77	2/1
FFC-06	61.0	41.8	36.5	37.3	87	2/1
FFC-08	63.0	43.8	38.5	42.0	98	2/1
FFC-10	77.0	57.8	52.5	56.3	150	4/2
FFC-12	85.0	65.8	60.5	61.0	164	4/2

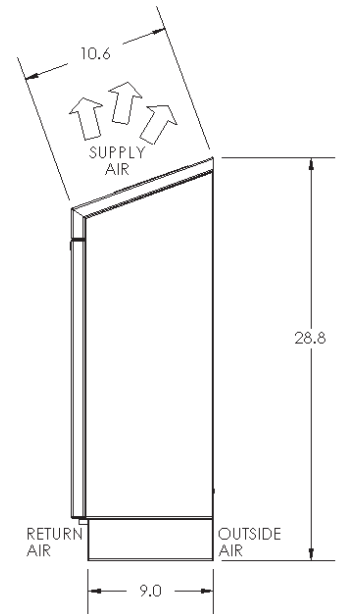




**TOP VIEW**



**FRONT VIEW  
W/O FRONT PANEL**



**SIDE VIEW**

MODEL	DIMENSIONS - INCHES				UNIT WEIGHT	QTY. OF FANS/MOTORS
	A	B	C	D		
FSC-02	41.0	21.8	16.5	18.3	55	1/1
FSC-03	45.0	25.8	20.5	23.0	59	1/1
FSC-04	51.0	31.8	26.5	27.8	77	2/1
FSC-06	61.0	41.8	36.5	37.3	87	2/1
FSC-08	63.0	43.8	38.5	42.0	98	2/1
FSC-10	77.0	57.8	52.5	56.3	150	4/2
FSC-12	85.0	65.8	60.5	61.0	164	4/2

CODE NO.  
CATALOG NO.



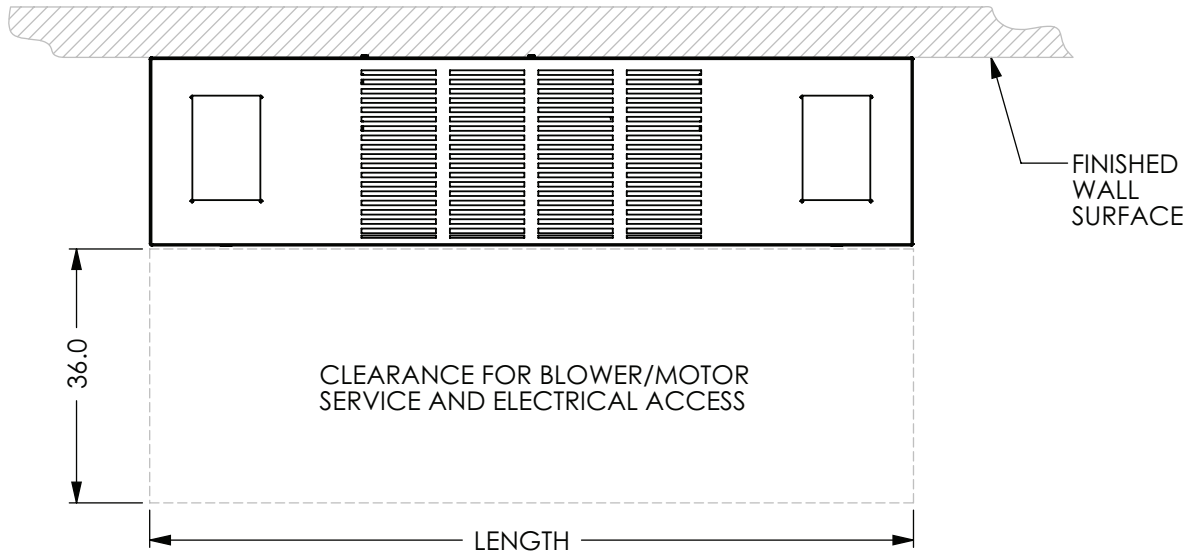
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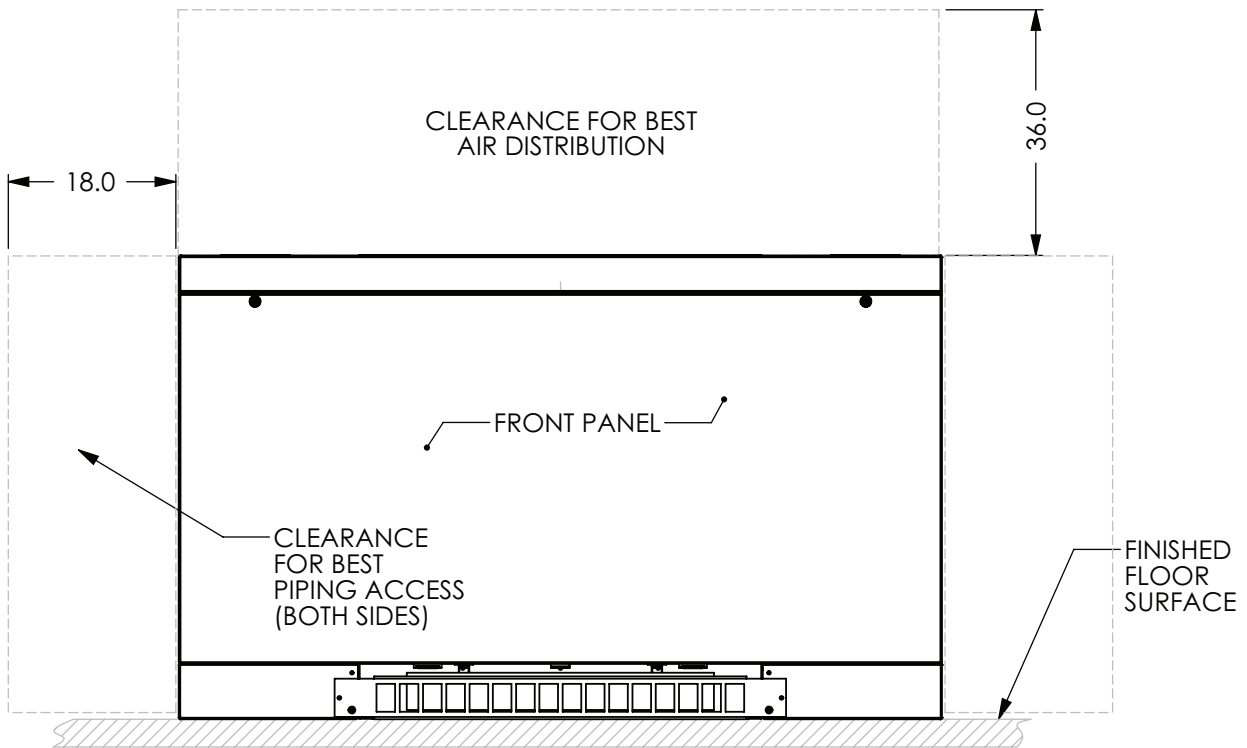
F SERIES SERVICE CLEARANCES

FF/FS

# F SERIES SERVICE CLEARANCES



TOP VIEW

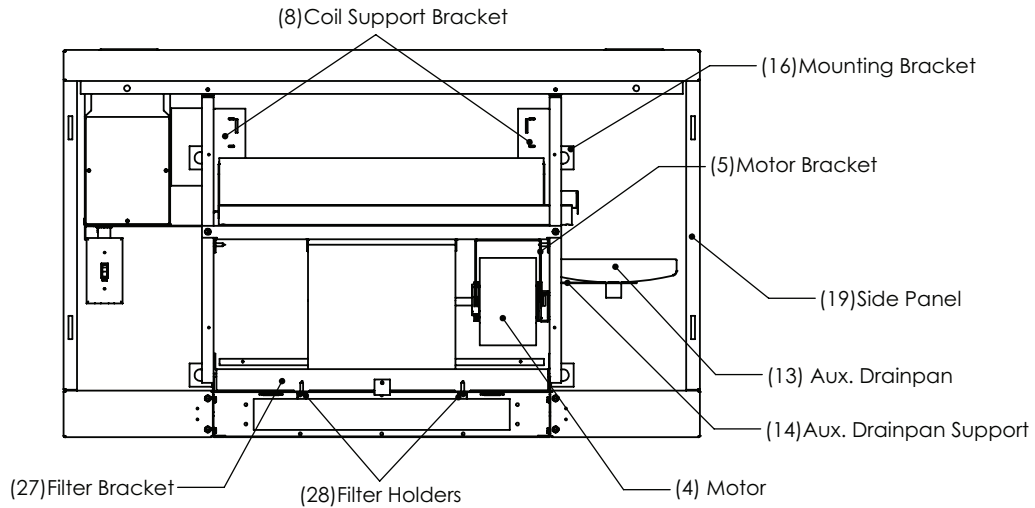


FRONT VIEW

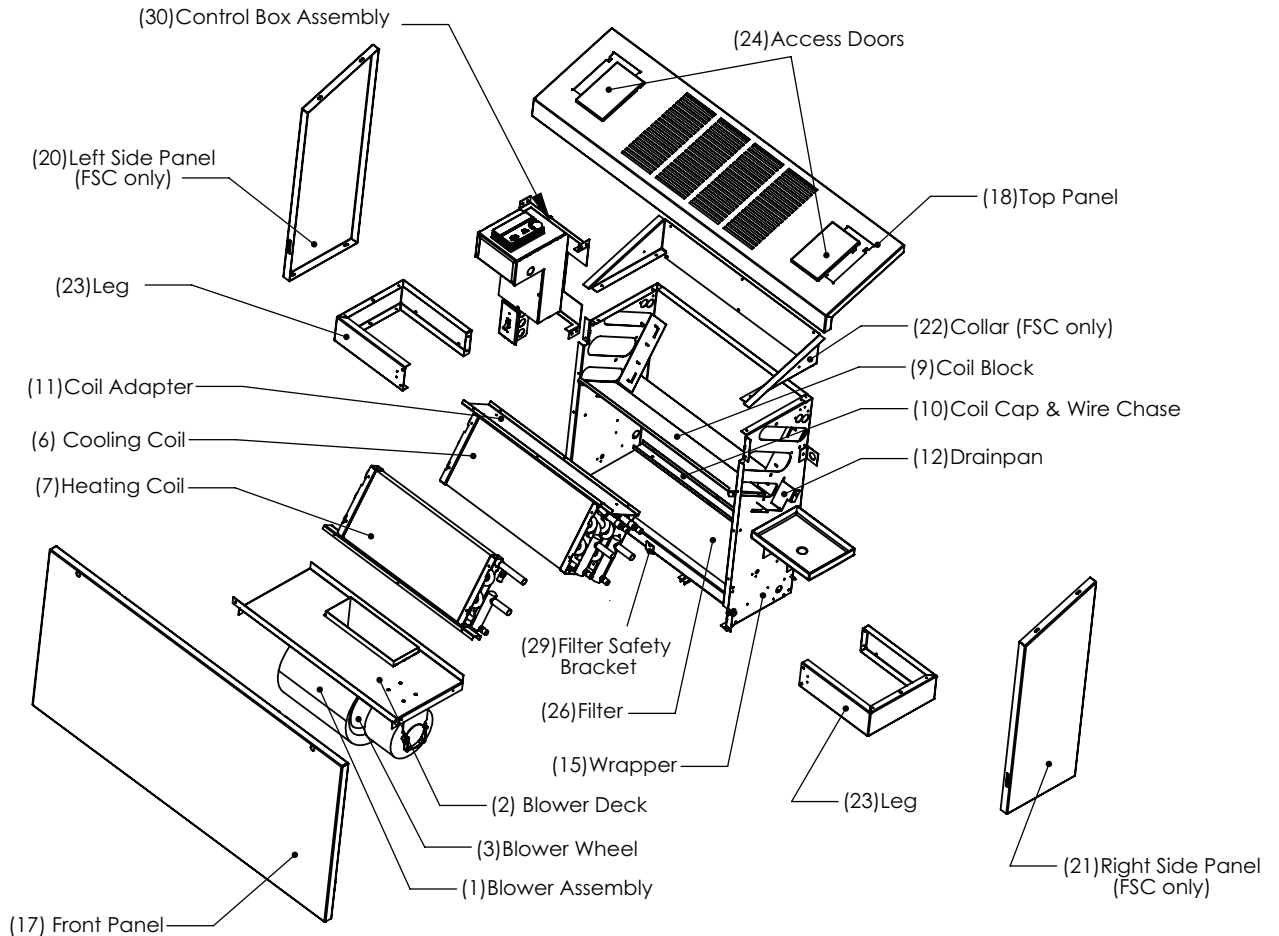
PRODUCT INFORMATION IS SUBJECT TO CHANGE WITHOUT NOTICE

JOB NAME	JOB #	BUYER	BUYER #	LOCATION	DRAWING NO. F-300	REV
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J:\Sales\Product Management\PM Projects\FF-FS\F Series Drawings\F-300.SLDDRW



**FFC - FRONT VIEW W/O FRONT PANEL**

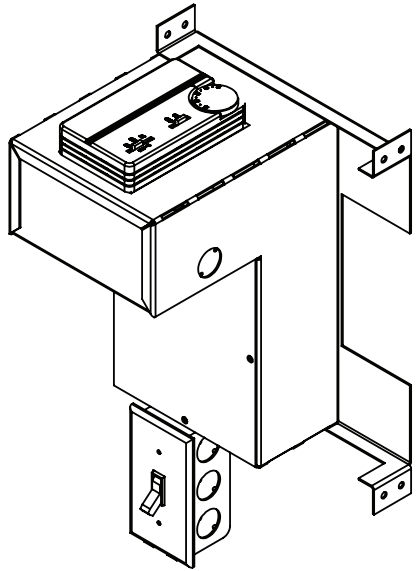


**FSC - EXPLODE VIEW**

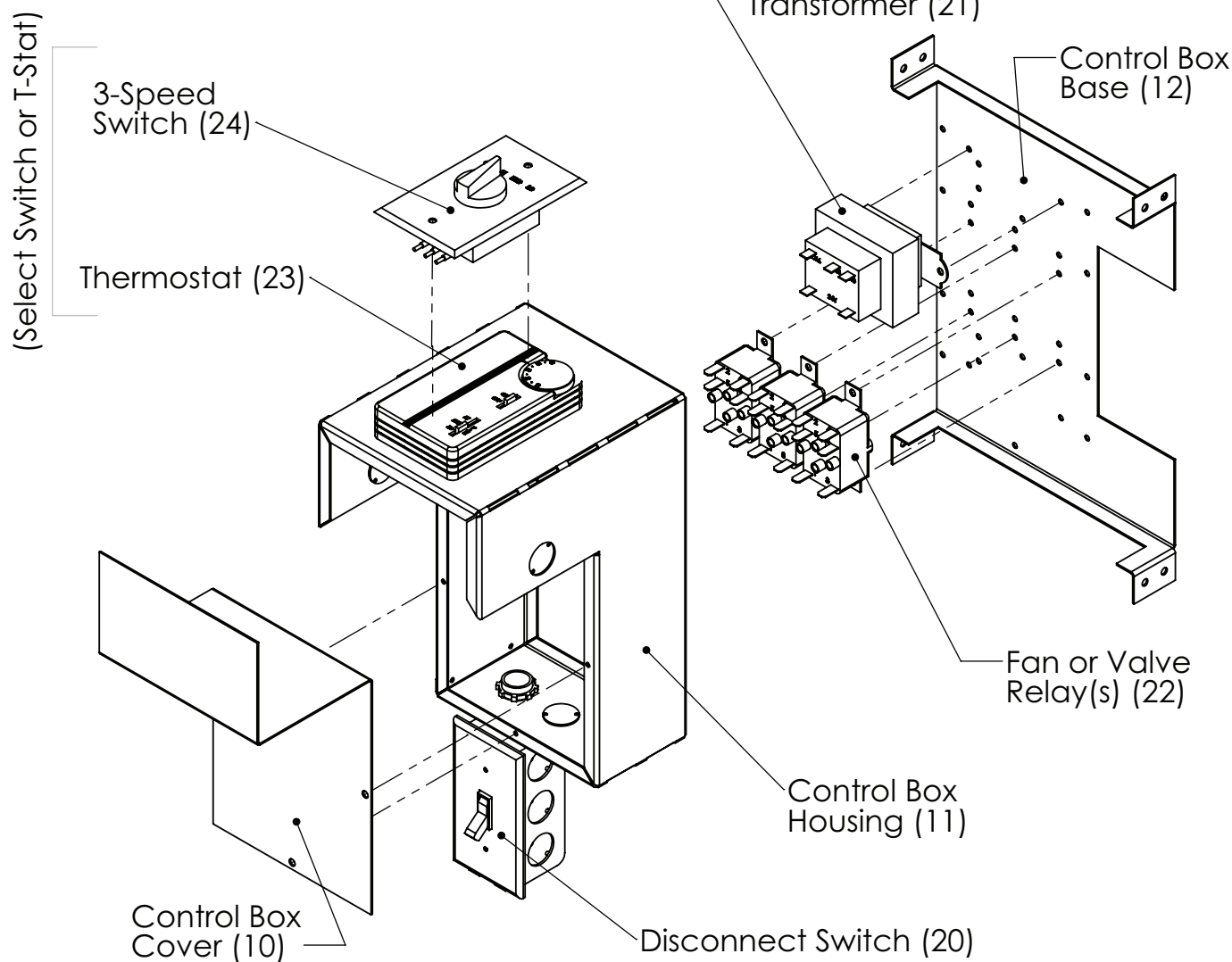
PRODUCT INFORMATION IS SUBJECT TO CHANGE WITHOUT NOTICE

JOB NAME	JOB #	BUYER	BUYER #	LOCATION	DRAWING NO.	REV
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## F-SERIES CONTROL BOX COMPONENTS



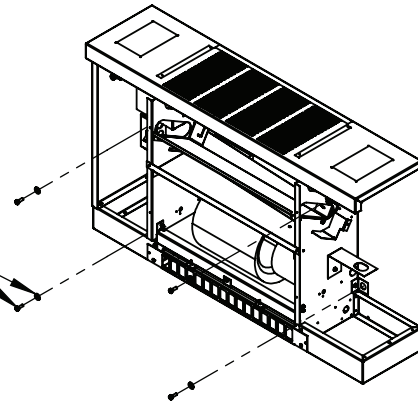
**NOTES:**  
DRAWING FOR IDENTIFICATION OF PARTS ONLY. OPTIONAL PARTS ARE SHOWN. REFER TO UNIT WIRING DIAGRAM FOR ACTUAL COMPONENTS USED.



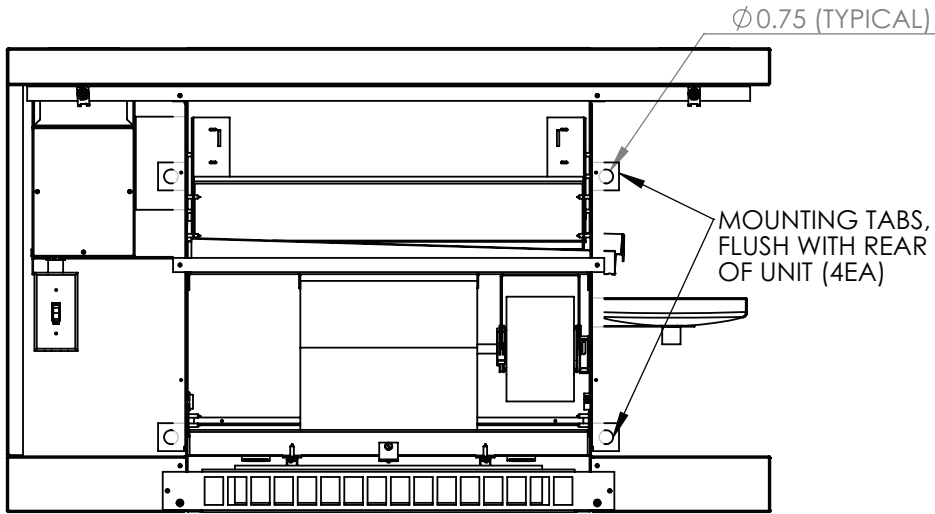
PRODUCT INFORMATION IS SUBJECT TO CHANGE WITHOUT NOTICE					DRAWING NO.	REV
JOB NAME	JOB #	BUYER	BUYER #	LOCATION	F-200	

# F SERIES FLOOR EXPOSED FAN COIL UNIT MOUNTING DETAILS

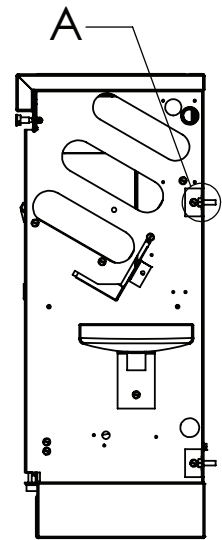
MOUNTING BOLT OR SCREW AND WASHER (4EA SETS, FIELD-SUPPLIED)



**ISOMETRIC VIEW**  
(END PANEL AND DRAINPAN HIDDEN FOR CLARITY)



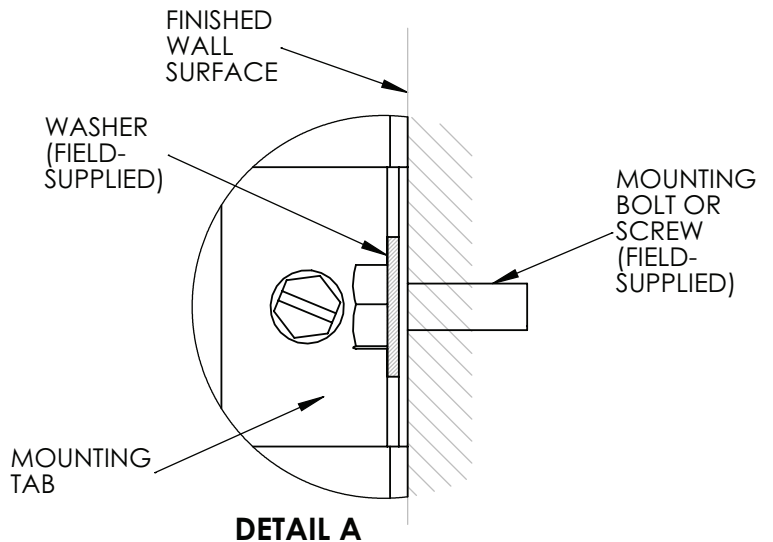
**FRONT VIEW**  
(FRONT PANEL REMOVED)



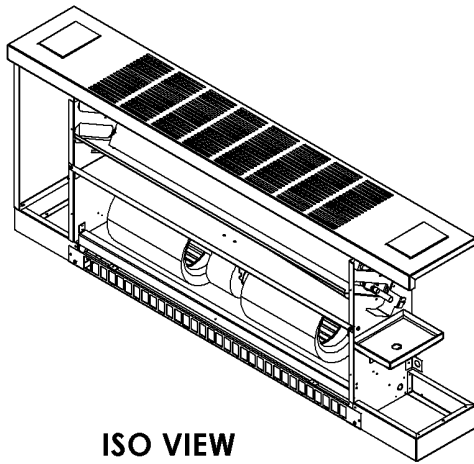
**RIGHT SIDE VIEW**

**NOTES:**

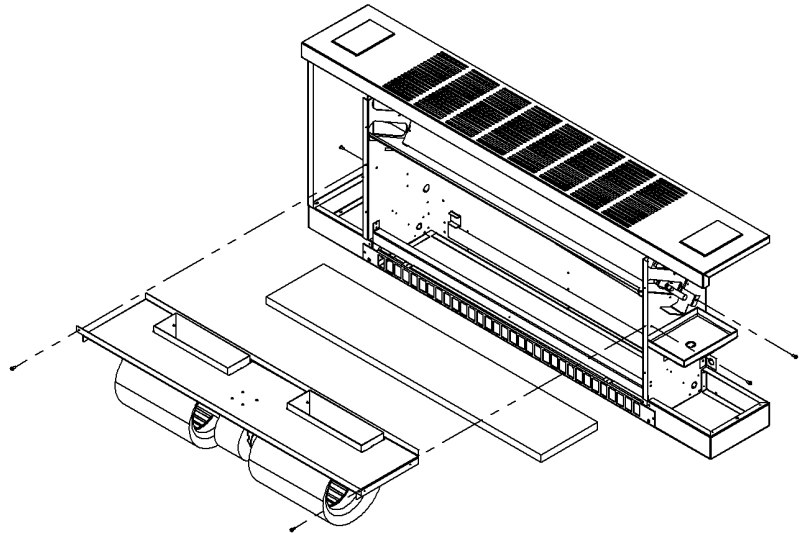
1. USE THIS DRAWING FOR MOUNTING DETAILS ONLY.
2. COILS AND OTHER COMPONENTS NOT SHOWN FOR CLARITY.
3. UNIT DESIGNED FOR MOUNTING ON FLOOR SUITABLE FOR INSTALLED WEIGHT OF UNIT.
4. CHECK UNIT LEVEL AFTER ATTACHING TO WALL. UNIT MUST BE LEVEL FOR PROPER CONDENSATE DRAINAGE.



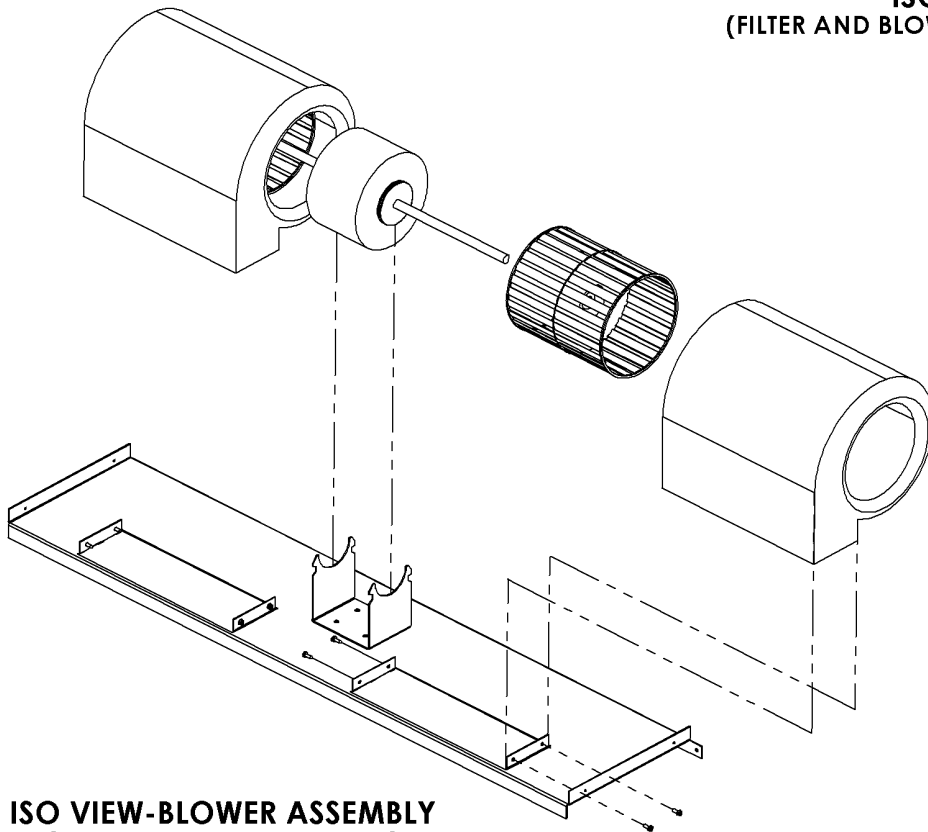
**DETAIL A**



**ISO VIEW  
(FRONT PANEL REMOVED)**



**ISO VIEW  
(FILTER AND BLOWER DECK REMOVED)**

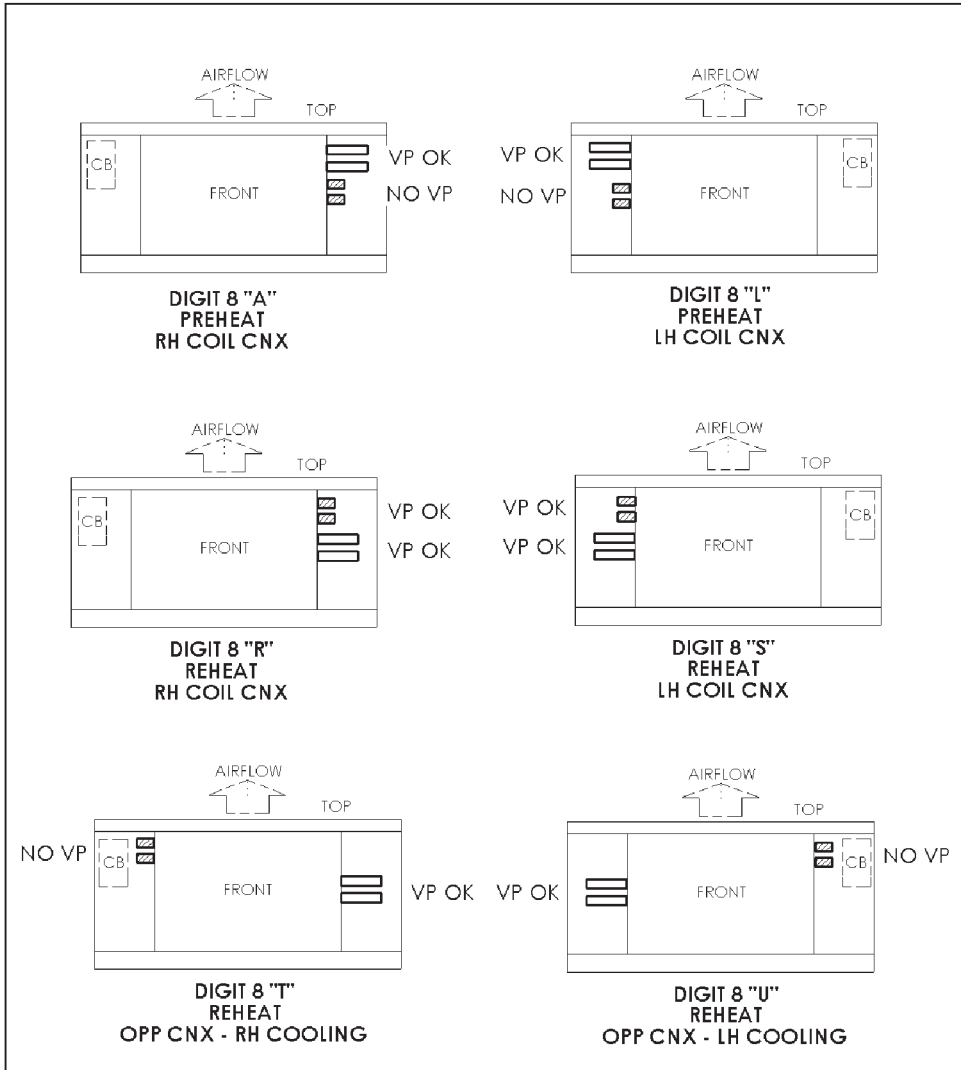


**ISO VIEW-BLOWER ASSEMBLY  
(FLIPPED OVER FOR SERVICE)**

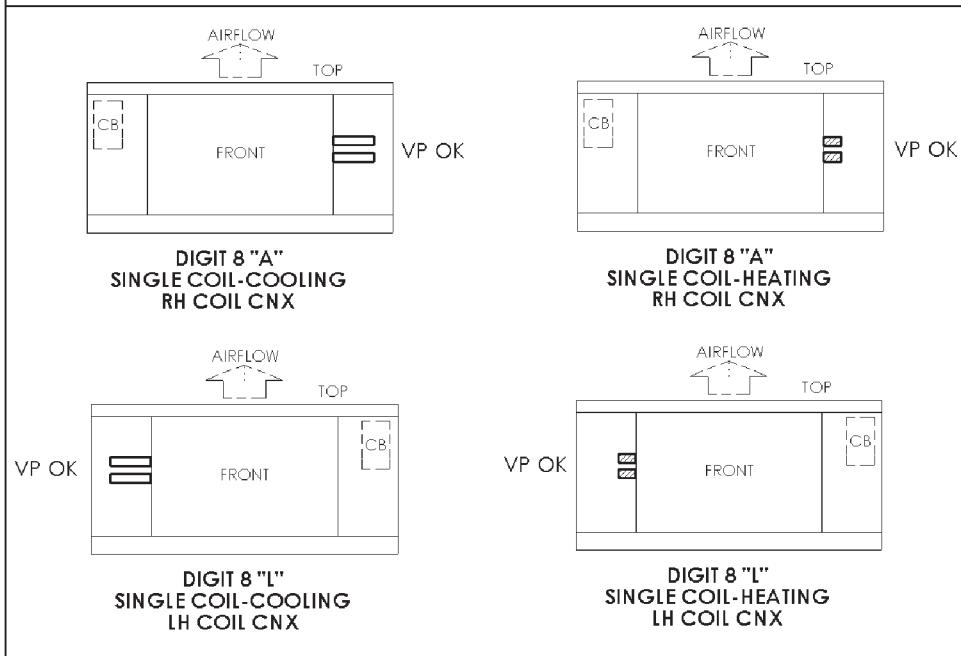
PRODUCT INFORMATION IS SUBJECT TO CHANGE WITHOUT NOTICE

JOB NAME	JOB #	BUYER	BUYER #	LOCATION	DRAWING NO.	REV
					F-500	

G:\Part Sys 01\473\200\F-500.SLDDRW



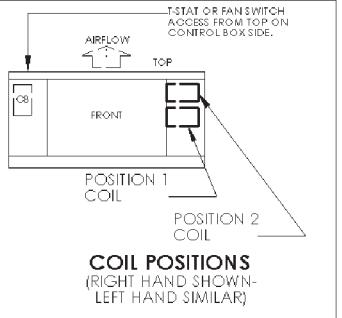
### TWO-COIL CONFIGURATIONS



### SINGLE-COIL CONFIGURATIONS

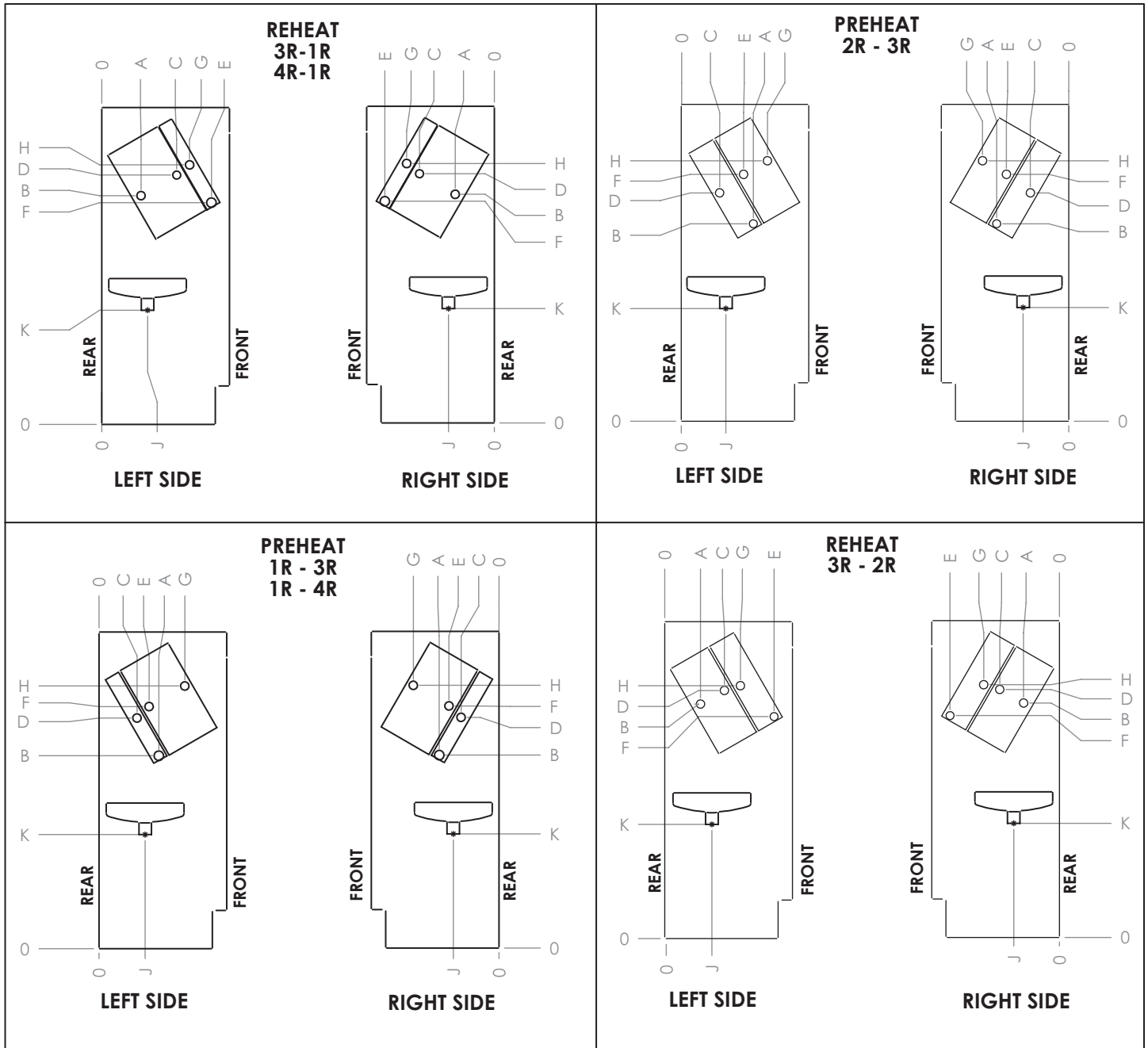
#### LEGEND

- FAN CONTROL BOX
- COOLING COIL STUBOUTS
- HEATING COIL STUBOUTS
- VP OK FACTORY VALVE PACKAGE(S) ARE AVAILABLE, THIS COIL.
- NO VP FACTORY VALVE PACKAGE(S) NOT AVAILABLE, THIS COIL.
- LH LEFT HAND
- RH RIGHT HAND
- CNX CONNECTION(S)
- OPP OPPOSITE



#### NOTES:

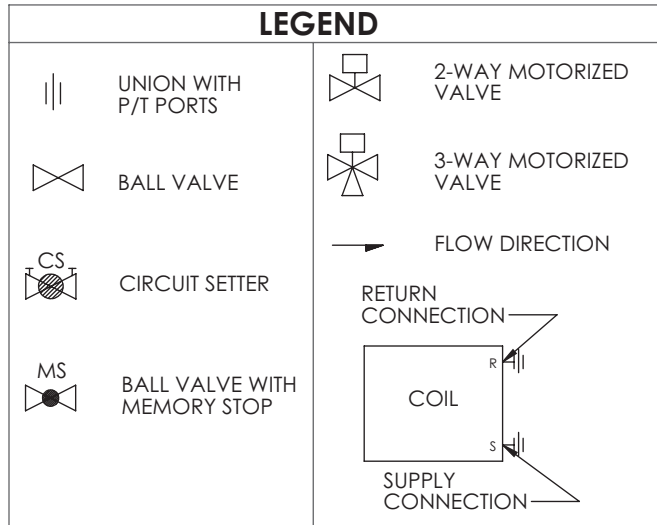
1. DIAGRAMS ARE SCHEMATIC ONLY AND ARE NOT TO SCALE.
2. USE TO DETERMINE COIL CONFIGURATION, VALVE PACKAGE AVAILABILITY, AND CONTROL BOX LOCATION.
3. DETAIL TITLES INDICATE NOMENCLATURE "COIL CONFIGURATION" SELECTION (DIGIT #8). REFER TO MODEL NOMENCLATURE.



COIL CONNECTION DIMENSIONS (inches)											
COIL CONFIGURATION		1ST POSITION COIL				2ND POSITION COIL				DRAINPAN	
		SUPPLY		RETURN		SUPPLY		RETURN			
		A	B	C	D	E	F	G	H	J	K
REHEAT	4R - 1R	3.1	18.0	5.9	19.7	8.6	17.5	6.9	20.5	3.7	9.0
	3R - 1R	2.9	18.5	4.8	19.6	7.7	17.0	6.0	19.9	3.7	9.0
PREHEAT	2R - 3R	4.6	15.2	2.9	18.2	4.9	19.5	6.8	20.5	3.7	9.0
PREHEAT	1R - 4R	4.7	15.2	3.0	18.2	3.9	19.1	6.8	20.7	3.7	9.0
	1R - 3R	4.7	15.2	3.0	18.2	3.9	19.1	5.8	20.2	3.7	9.0
REHEAT	3R - 2R	2.8	18.4	4.7	19.5	8.6	17.5	6.0	19.9	3.7	9.0

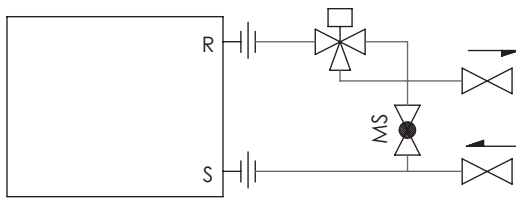
NOTE: ALL COIL STUBOUTS ARE 5/8" O.D. COPPER.



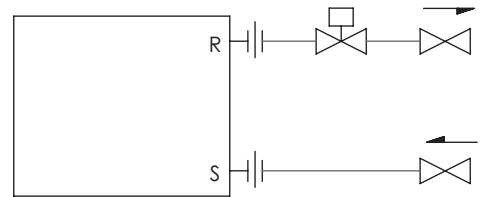


**NOTES:**

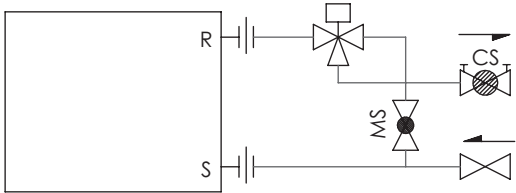
1. SCHEMATICS INDICATE VALVE PACKAGE ARRANGEMENT. NOT TO SCALE.
2. REFER TO NOMENCLATURE FOR AVAILABLE VALVE PACKAGE OPTIONS.
3. REFER TO "COIL AND VALVE PACKAGE CONFIGURATIONS" SHEET FOR ALLOWABLE COIL & VALVE PACKAGE COMBINATIONS.



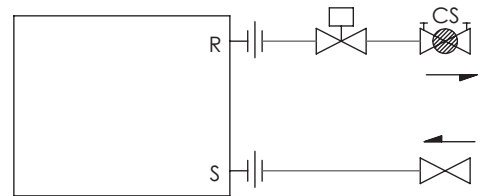
OPTIONS 5,H  
2-BALL VALVES, 1-BALL VALVE W/  
MEMORY STOP, 1-3-WAY  
MOTORIZED VALVE



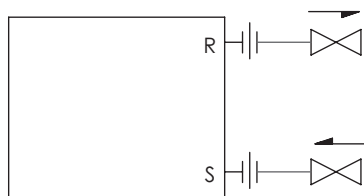
OPTIONS 3,F  
2-BALL VALVES, 1-2-WAY  
MOTORIZED VALVE



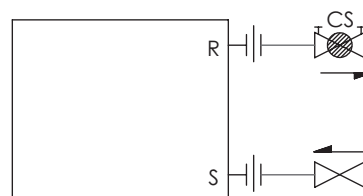
OPTIONS 6,J  
1-BALL VALVE, 1-BALL VALVE W/  
MEMORY STOP, 1-CIRCUIT SETTER,  
1-3-WAY MOTORIZED VALVE



OPTIONS 4,G  
1-BALL VALVE, 1-CIRCUIT SETTER,  
1-2-WAY MOTORIZED VALVE



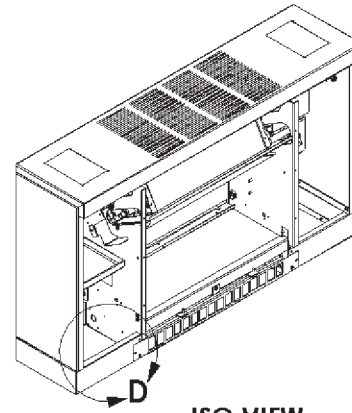
OPTION B  
2-BALL VALVES  
(NO MOTORIZED VALVE)



OPTION C  
1-BALL VALVE, 1-CIRCUIT SETTER,  
(NO MOTORIZED VALVE)

**NOTES:**

1. DIMENSIONS FOR REFERENCE ONLY. DRAWING IS FOR IDENTIFYING AVAILABLE SPACE FOR VALVE PACKAGE INSTALLATION. CUSTOMER TO FIELD VERIFY FIT OF FIELD SUPPLIED AND FIELD INSTALLED VALVE PACKAGES.
2. REFER TO "COIL AND VALVE PACKAGE UNIT CONFIGURATIONS" SHEET FOR ALLOWABLE COIL COMBINATIONS.
3. MIRROR DIMENSIONS FOR OPPOSITE SIDE DRAIN PAN AND CONTROL BOX.
4. REFER TO "COIL CONNECTIONS" DIMENSION SHEET FOR LOCATIONS OF COIL CONNECTIONS.
5. FACTORY VALVE PACKAGES ARE AVAILABLE. REFER TO NOMENCLATURE AND "FACTORY VALVE PACKAGE SCHEMATICS" SHEET.



**ISO VIEW  
(FRONT PANEL  
REMOVED)**

