

Control Applications



**For Models
HL, VF and VH
Fan Coil Units**

 **ENVIRO-TEC**[®]
ENGINEERING FOR EXCELLENCE

SELECTION GUIDE
Instructions

Single Point Power	4
Electric Heat	4
Basic Control Options	4
Low Voltage Options	5
Thermostat Options	5

SEQUENCE OF OPERATIONS
Thermostat Codes

T01	6
T02	6
T03	6
T04	7
T05	7
T06	8
T07	8
T08	9
T09	9
T10	9
T11	10
T12	10

GLOSSARY
Basic Control Options

Fan Speed Controller	11
Toggle Disconnect Switch	11
Selectable Speed Motor Terminal Package	11
Door Interlock Disconnect Switch	11
Door Interlock Disconnect Switch with Main Fusing	11
Motor Fusing	11
Control Transformer	11

LOW VOLTAGE OPTIONS

24 VAC Fan Speed Relay Package	11
24 VAC Unit Start/Stop Relay	11
24 VAC Drain Pan Float Switch Package (HL Series Only)	11
24 VAC Wall Mounted Thermostat Package	11
24 VAC DX Fan Control Relay Package	11
Wall Mounted 3-Speed Fan Switch	11
Unit Mounted 3-Speed Fan Switch	11
Motorized Outside Air Damper Option	11
Motorized Outside Air Damper w/Low-Limit Option	11

Aquastat.	11
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PREFACE

This document is to be used in conjunction with wiring diagrams found at www.enviro-tec.com and with the Fan Coil Valve Piping Package catalog (stock ID CAT-FCU-PIPING).

INSTRUCTIONS: Select the option desired from each category by checking the appropriate square. Transfer the selected option to the bid or order documents. Use this document in conjunction with wiring diagrams found at www.enviro-tec.com.

SINGLE POINT POWER VOLTAGES

Electric Heat Voltage	Motor Voltage	Electric Heat Voltage	Motor Voltage
<input type="checkbox"/> 120/1/60	120/1/60	<input type="checkbox"/> 208/1/60*	120/1/60*
<input type="checkbox"/> 208/1/60	208/1/60	<input type="checkbox"/> 230/1/60	230/1/60
<input type="checkbox"/> 277/1/60	277/1/60	<input type="checkbox"/> 220/1/50	220/1/50

*Requires 3-wire electrical service.

ELECTRIC HEAT

Is Electric Heat Required?	
<input type="checkbox"/> Yes	<input type="checkbox"/> No

Electric Heat Notes:

- Select kW size from the appropriate price list.
- HL Series: includes bottom hinged electrical enclosure, single stage contactor, automatic reset primary limit, backup secondary limit, and single point power connection.
- VF Series: includes finned tubular sheath heater elements, single stage contactor, automatic reset primary limit, backup secondary limit, and single point power connection.
- Motor fusing is included on all electric heat units.
- Maximum recommended leaving air temperature is 120°F. Check CFM, static pressure and entering air temperature to determine maximum allowable kW.

BASIC CONTROL OPTIONS (see Glossary for more information)

- Fan Speed Controller¹:** Series HL, VF and VH. Provides incremental fan speed control. Manual adjustment.
- Toggle Disconnect Switch²:** Series HL, VF and VH. Main power manual disconnect for non electric heat fan coil units.
- Door Interlock Disconnect Switch:** Series HL and VH. Manual disconnect switch for main power. Interlocked with the enclosure door. No main fusing provided. Not applicable for Series VF Fan Coil Units. Separate non-interlocked disconnect switch without fusing available for Series VF Fan Coil Units.
- Door Interlock Disconnect Switch with Main Fusing:** Series HL and VH. Manual disconnect switch for main power. Interlocked with the enclosure door. Main fusing is provided. Separate non-interlocked disconnect switch with fusing available for Series VF Fan Coil Units.
- Motor Fusing:** Series HL, VF and VH. Provides protection for the motor from over current conditions.
- Wall Mounted 3-Speed Fan Switch:** Series HL, VF and VH. Shipped separate and is field installed on the wall.
- Unit Mounted 3-Speed Fan Switch:** Series HL, VF and VH. Unit mounted on the fan coil.
- Motorized Outside Air Damper:** Series VF and VH. Adds an O.A. damper to the fan coil unit. When fan starts, damper will open.
- Motorized Outside Air Damper with Low Limit Control Option:** Series VF and VH. Includes the O.A. damper and a low limit thermostat mounted on the leaving side of the water coil on VH, and on outside air stream on VF due to space restrictions.

LOW VOLTAGE OPTIONS

- 24 VAC Fan Speed and Temperature Control⁴:** Series HL, VF and VH. Includes 24 VAC transformer, 3 fan speed relays and wiring modifications.
- 24 VAC Unit Start/Stop Relay:** Series HL, VF and VH. Allows for remote start or stop of the fan coil (such as through a time clock or building automation system).
- 24 VAC Drain Pan Float Switch⁴:** Series HL only. Includes 24 VAC transformer, drain pan float switch, terminal wiring package, control relay and wiring modifications. Float switch detects water build up in the condensate pan and shuts down the fan coil via the 24 VAC control relay.
- 24 VAC Wall Mounted Thermostat⁴:** Series HL, VF and VH. Includes 24 VAC transformer, low voltage thermostat, terminal wiring package and wiring modifications.
- 24 VAC DX Control Relay³:** Series HL and VF. 24 VAC relay to start the fan at a fixed high speed to provide proper airflow across the DX coil when in refrigeration mode.

Notes:

1. Fan Speed Controller is wired to high motor tap.
2. Toggle Switches for use with non electric heat units.
3. DX coils are available on HL and VF Series units using thermostat codes T01, T02 and T10 only.
4. See other applicable notes in the appropriate list price sheets.

THERMOSTAT OPTIONS

UNIT SURFACE / WALL MOUNTED THERMOSTAT OPTIONS									
SYSTEM TYPE	T-STAT CODE	CONTROL TYPE		CHANGEOVER TYPE	SYSTEM SWITCH	FAN SWITCH	AQUASTAT	MOUNT	
								Unit	Wall
2 Pipe	<input type="checkbox"/> T01	<input type="checkbox"/> Cool Only	<input type="checkbox"/> Heat Only	None	None	None	No	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/> T02	<input type="checkbox"/> Cool Only	<input type="checkbox"/> Heat Only	Auto	None	None	Yes	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/> T03	<input type="checkbox"/> Cool Only	<input type="checkbox"/> Heat Only	None	On/Off	H - M - L	No	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/> T04	Heat/Cool		Manual	Heat/Off/Cool	H - M - L	Yes	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/> T05	Heat/Cool		Auto	On/Off	H - M - L	Yes	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/> T06	Heat/Cool with Aux. Elec. Heat		Manual	Heat/Off/Cool	H - M - L	Yes	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/> T07	Heat/Cool with Aux. Elec. Heat		Auto	On/Off	H - M - L	Yes	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/> T08	Cool with Electric Heat		Auto	On/Off	H - M - L	No	<input type="checkbox"/>	<input type="checkbox"/>
4 Pipe	<input type="checkbox"/> T09	Cool with Electric Heat		Manual	Heat/Off/Cool	H - M - L	No	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/> T10	Heat/Cool		Auto	None	None	No	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/> T11	Heat/Cool		Auto	On/Off	H - M - L	No	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/> T12	Heat/Cool		Manual	Heat/Off/Cool	H - M - L	No	<input type="checkbox"/>	<input type="checkbox"/>
Aquastat	<input type="checkbox"/> Do not select if included with thermostat code above.								

Notes:

- All thermostat control sequences are continuous fan/valve cycle only.
- Line voltage applications are standard. Low voltage applications are available. Contact your local ENVIRO-TEC® representative for low voltage package information.
- **Sample control diagrams are available at www.enviro-tec.com.**
- VF and VH Series fan coils allow for unit or wall mounting of thermostats. HL Series have wall mounted thermostats only.
- DX coils are available only on HL and VF Series fan coil units with thermostat codes T01, T02 or T10.
- Outside air damper options are available on VF and VH Series fan coils only.
- We reserve the right to substitute manufacturers of components to improve quality and availability without notice. Options and/or voltages may change without notice.

T01 THERMOSTAT CODE

For a 2-pipe system. The "Heat or Cool Only" control type utilizes a wall or unit mounted Heating or Cooling thermostat which cycles the water control valve to maintain space temperature. This control option does not include any Fan control or Heat/Cool Changeover.

SYSTEM FAN: The fan shall run continuously at the speed set by the factory installed jumper. See applicable wiring diagram at www.enviro-tec.com.

COOLING ONLY OPERATION: The Cooling thermostat shall cycle the water control valve, via a cooling signal, to maintain the desired space temperature in reference to the thermostat's setpoint.

HEATING ONLY OPERATION: The Heating thermostat shall cycle the water control valve, via a heating signal, to maintain the desired space temperature in reference to the thermostat's setpoint.

T02 THERMOSTAT CODE

For a 2-pipe system. The "Heat/Cool" control type utilizes either a wall or unit mounted Heating/Cooling thermostat which cycles the water control valve to maintain space temperature. This control option includes Auto-Heat/Cool changeover with an Aquastat.

AUTO SEASONAL CHANGEOVER: An Aquastat, mounted on the inlet piping to the fan coil, shall sense the temperature of the water to determine whether the mechanical system is in the Winter or Summer mode. If the inlet water temperature is above 83°F, indicating heating, the Aquastat shall divert the cooling signal and connect the heating signal from the thermostat to the control valve to condition the space utilizing hot water. When the temperature of the inlet water drops below 65°F, which indicates cooling is available, the Aquastat shall allow the cooling signal to be connected to the control valve to condition the space utilizing chilled water.

SYSTEM FAN: The fan shall run continuously at the speed set by the factory installed jumper. See applicable wiring diagram at www.enviro-tec.com.

COOLING MODE: With the Aquastat in the Summer (Cooling) position, the Heat/Cool thermostat shall cycle the water control valve, via the thermostat's cooling signal, to maintain the desired space temperature in reference to the thermostat's setpoint.

HEATING MODE: With the Aquastat in the Winter (Heating) position, the Heat/Cool thermostat shall cycle the water control valve, via the thermostat's heating signal, to maintain the desired space temperature in reference to the thermostat's setpoint.

T03 THERMOSTAT CODE

For a 2-pipe system. The "Heat or Cool Only" control type utilizes either a wall or unit mounted Heating or Cooling thermostat which cycles the water control valve to maintain space temperature. This control option includes an On/Off System Switch and a 3-Speed Fan Switch as part of the thermostat.

SYSTEM ON/OFF SWITCH: A System ON/OFF Switch, located on the thermostat's cover, shall enable or disable the fan and control valve as directed by the switch's position. The fan shall run continuously with the system switch in the "On" position and shall stop when the system switch is placed in the "Off" position.

COOLING ONLY MODE: The Cooling thermostat shall cycle the water control valve, via the cooling signal, to maintain the desired space temperature in reference to the thermostat's setpoint. Heating Only thermostat option is also available.

3-SPEED FAN SWITCH: When the fan coil unit is in the normal operating mode, a Fan Speed Switch, located on the thermostat cover, shall control the speed of the fan from Low , Medium to High , as directed by the switch's position.

T04 THERMOSTAT CODE

For a 2-pipe system. The "Heat/Cool" control type utilizes either a wall or unit mounted Heating/Cooling thermostat which cycles the water control valve to maintain space temperature. This control option includes Manual changeover, Heat/Off/Cool System Switch, 3-Speed Fan Switch and an Aquastat.

MANUAL HEAT/OFF/COOL SYSTEM SWITCH: A System Heat/Off/Cool Switch, located on the thermostat's cover, shall allow the operator to manually select the Heating or Cooling mode of operation or to disable the fan and control valve in the "Off" position. The fan shall run continuously with the system switch in the Heat or Cool mode (On) and shall stop when the system switch is placed in the "Off" position.

COOLING MODE: With the Aquastat in the Summer (Cooling) position, the Heat/Cool thermostat, in the cooling position, shall cycle the water control valve, via the cooling signal, to maintain the desired space temperature in reference to the thermostat's setpoint.

HEATING MODE: With the Aquastat in the Winter (Heating) position, the Heat/Cool thermostat, in the heating position, shall cycle the water control valve, via the heating signal, to maintain the desired space temperature in reference to the thermostat's setpoint.

SUPERVISORY CHANGEOVER: An Aquastat, mounted on the inlet piping to the fan coil, shall sense the temperature of the water to determine whether the mechanical system is in the Winter or Summer mode. If the inlet water temperature is above 83°F, indicating heating, the Aquastat shall block the cooling signal and connect the heating signal from the thermostat to the control valve to condition the space utilizing hot water. When the temperature of the inlet water drops below 65°F, which indicates cooling is available, the Aquastat shall block the heating signal and allow the cooling signal to be connected to the control valve to condition the space utilizing chilled water. If the water temperature does not match the manually selected Heating or Cooling Mode, the control valve will not open.

3-SPEED FAN SWITCH: When the Fan Coil Unit is in the normal operating mode, a Fan Speed Switch, located on the thermostat cover, shall control the speed of the fan from Low , Medium to High , as directed by the switch's position.

T05 THERMOSTAT CODE

For a 2-pipe system. The "Heat/Cool" control type utilizes either a wall or unit mounted Heating/Cooling thermostat which cycles the water control valve to maintain space temperature. This control option includes Auto-Heat/Cool changeover, On/Off System Switch, 3-Speed Fan Switch and an Aquastat.

SYSTEM ON/OFF SWITCH: A System On/Off Switch, located on the thermostat's cover, shall enable or disable the fan and control valve as directed by the switch's position.

AUTO HEAT/COOL CHANGEOVER: An Aquastat, mounted on the inlet piping to the fan coil, shall sense the temperature of the water to determine whether the mechanical system is in the Winter or Summer mode. If the inlet water temperature is above 83°F, indicating heating, the Aquastat shall block the cooling signal and connect the heating signal from the thermostat to the control valve to condition the space utilizing hot water. When the temperature of the inlet water drops below 65°F, which indicates cooling is available, the Aquastat shall block the heating signal and allow the cooling signal to be connected to the control valve to condition the space utilizing chilled water.

COOLING MODE: With the Aquastat in the Summer (Cooling) position, the Heat/Cool thermostat shall cycle the water control water valve in the Cooling Mode to maintain the desired space temperature in reference to the thermostat's setpoint.

HEATING MODE: With the Aquastat in the Winter (Heating) position, the Heat/Cool thermostat shall cycle the water control water valve in the Heating Mode to maintain the desired space temperature in reference to the thermostat's setpoint.

3-SPEED FAN SWITCH: When the Fan Coil Unit is in the normal operating mode, a Fan Speed Switch, located on the thermostat cover, shall control the speed of the fan from Low , Medium to High , as directed by the switch's position.

T06 THERMOSTAT CODE

For a 2-pipe system. The "Heat/Cool" control type utilizes either a wall or unit mounted Heating/Cooling thermostat which cycles the water control valve to maintain space temperature. This control option includes Manual changeover, Heat/Off/Cool System Switch, 3 Speed Fan Switch and an Aquastat.

HEAT/OFF/COOL SYSTEM SWITCH: A System Heat/Off/Cool Switch, located on the thermostat's cover, shall allow the operator to manually select Heating, Cooling or to disable the fan and control valve in the "Off" position. The fan shall run continuously with the system switch in the Heat or Cool mode (On) and shall stop when the system switch is placed in the Off position.

COOLING MODE: With the manual Heat/Off/Cool Switch in the "COOL" position, and with the Aquastat in the Summer (Cooling) position, a wall or unit mounted Heat/Cool thermostat shall cycle the water control valve, via the cooling signal, to maintain the desired space temperature in reference to the thermostat's setpoint.

HEATING MODE: With the manual Heat/Off/Cool Switch in the "HEAT" position, and with the Aquastat in the Winter (Heating) position, a wall or unit mounted Heat/Cool thermostat shall cycle the water control valve, via the heating signal, to maintain the desired space temperature in reference to the thermostat's setpoint. If hot water is not available to the fan coil unit, the heating signal shall be switched to the electric heat element(s) through relay CR-1's contacts.

SUPERVISORY CHANGEOVER: An Aquastat, mounted on the inlet piping to the fan coil, shall sense the temperature of the water to determine whether the mechanical system is in the Winter or Summer mode. If the inlet water temperature is above 83°F, indicating heating, the Aquastat shall block the cooling signal and connect the heating signal from the thermostat to the control valve to condition the space utilizing hot water. When the temperature of the inlet water drops below 65°F, which indicates cooling is available, the Aquastat shall block the heating signal and allow the cooling signal to be connected to the control valve to condition the space utilizing chilled water. If the water temperature does not match the manually selected Heating or Cooling Mode, the control valve will not open.

3-SPEED FAN SWITCH: When the Fan Coil Unit is in the normal operating mode, a Fan Speed Switch, located on the thermostat cover, shall control the speed of the fan from Low, Medium to High, as directed by the switch's position.

T07 THERMOSTAT CODE

For a 2-pipe system. The "Heat/Cool with Auxiliary Electric Heat" control type utilizes either a wall or unit mounted Heating/Cooling thermostat which cycles the water control valve to maintain space temperature. This control option includes Auto-Heat/Cool changeover, On/Off System Switch, 3-Speed Fan Switch and an Aquastat.

SYSTEM ON/OFF SWITCH: A System On/Off Switch, located on the thermostat's cover, shall enable or disable the fan and control valve as directed by the switch's position.

AUTO HEAT/COOL CHANGEOVER: An Aquastat, mounted on the inlet piping to the fan coil, shall sense the temperature of the water to determine whether the mechanical system is in the Winter or Summer mode. If the inlet water temperature is above 83°F, indicating heating, the Aquastat shall block the cooling signal and connect the heating signal from the thermostat to the control valve to condition the space utilizing hot water. When the temperature of the inlet water drops below 65°F, which indicates cooling is available, the Aquastat shall block the heating signal and allow the cooling signal to be connected to the control valve to condition the space utilizing chilled water.

COOLING MODE: With the Aquastat in the Summer (Cooling) position, the Heat/Cool thermostat shall cycle the water control water valve in the Cooling Mode to maintain the desired space temperature in reference to the thermostat's setpoint.

HEATING MODE: With the Aquastat in the Winter (Heating) position, the Heat/Cool thermostat shall cycle the water control water valve in the Heating Mode to maintain the desired space temperature in reference to the thermostat's setpoint.

3-SPEED FAN SWITCH: When the Fan Coil Unit is in the normal operating mode, a Fan Speed Switch, located on the thermostat cover, shall control the speed of the fan from Low , Medium to High , as directed by the switch's position.

T08 THERMOSTAT CODE

For a 2-pipe system. The "Cool with Total Electric Heat" control type utilizes either a wall or unit mounted Heating/Cooling thermostat which cycles the chilled water control valve or electric heating elements to maintain space temperature. This control option includes Auto-Heat/Cool changeover, On/Off System Switch and a 3-Speed Fan Switch.

SYSTEM ON/OFF SWITCH: A System On/Off Switch, located on the thermostat's cover, shall enable or disable the fan, control valve and electric heat as directed by the switch's position.

AUTO HEAT/COOL CHANGEOVER: The Auto-changeover function is a feature of the Heat/Cool thermostat.

COOLING MODE: The Heat/Cool thermostat, while in the "COOL" mode, shall cycle the chilled water control water valve to maintain the desired space temperature in reference to the thermostat's setpoint.

HEATING MODE: The Heat/Cool thermostat, while in the "HEAT" mode, shall cycle the electrical heating element(s) to maintain the desired space temperature in reference to the thermostat's setpoint.

3-SPEED FAN SWITCH: When the Fan Coil Unit is in the normal operating mode, a Fan Speed Switch, located on the thermostat cover, shall control the speed of the fan from Low, Medium to High, as directed by the switch's position.

T09 THERMOSTAT CODE

For a 2-pipe system. The "Cool with Total Electric Heat" control type utilizes either a wall or unit mounted Heating/Cooling thermostat which cycles the chilled water control valve or electric heating elements to maintain space temperature. This control option includes Manual Changeover, Heat/Off/Cool System Switch and a 3-Speed Fan Switch.

MANUAL HEAT/COOL CHANGEOVER: A "Heat/Off/Cool" switch, mounted on the thermostat, shall allow the operator to manually select Heating, Cooling or to disable the fan and control valves in the "Off" position.

COOLING MODE: The Heat/Cool thermostat, while in the "COOL" position, shall cycle the water control water valve to maintain the desired space temperature in reference to the thermostat's setpoint.

HEATING MODE: The Heat/Cool thermostat, while in the "HEAT" position, shall cycle the electrical heating element(s) to maintain the desired space temperature in reference to the thermostat's setpoint.

3-SPEED FAN SWITCH: When the Fan Coil Unit is in the normal operating mode, a Fan Speed Switch, located on the thermostat's cover, shall control the speed of the fan from Low, Medium to High, as directed by the switch's position.

T10 THERMOSTAT CODE

For a 4-pipe system. The "Heat/Cool" control type utilizes either a wall or unit mounted Heating/Cooling thermostat which cycles either the heating or cooling control valve to maintain space temperature. This control option includes Auto-Heat/Cool changeover Thermostat and no other options. Fan shall run continuously at the high speed as set by the factory installed jumper. The speed may be changed by moving the jumper to a low speed position or by adjusting the motor speed controller (if applicable).

AUTO HEAT/COOL CHANGEOVER: The Auto-changeover function is a feature of the wall or unit mounted Heat/Cool thermostat.

COOLING MODE: The Heat/Cool thermostat, in the cooling mode, shall cycle the chilled water control water valve to maintain the desired space temperature in reference to the thermostat's setpoint.

HEATING MODE: The Heat/Cool thermostat, in the heating mode, shall cycle the hot water control water valve to maintain the desired space temperature in reference to the thermostat's setpoint.

T11 THERMOSTAT CODE

For a 4-pipe system. The "Heat/Cool" control type utilizes a wall or unit mounted Heating/Cooling thermostat which cycles either the heating or cooling control valve to maintain space temperature. This control option includes Automatic Heating/Cooling changeover, System Switch and Fan Speed Switch.

SYSTEM ON/OFF SWITCH: A System ON/OFF Switch, located on the thermostat cover, shall enable or disable the fan and control valves as directed by the switch's position.

AUTO HEAT/COOL CHANGEOVER: The Auto-changeover function is a feature of the Heat/Cool thermostat.

COOLING MODE: The Heat/Cool thermostat, in the cooling mode, shall cycle the chilled water control water valve to maintain the desired space temperature in reference to the thermostat's setpoint.

HEATING MODE: The Heat/Cool thermostat, in the heating mode, shall cycle the hot water control water valve to maintain the desired space temperature in reference to the thermostat's setpoint.

3 SPEED FAN SWITCH: When the Fan Coil Unit is in the normal operating mode, a Fan Speed Switch, located on the thermostat cover, shall control the speed of the fan from Low, Medium to High, as directed by the switch's position.

T12 THERMOSTAT CODE

For a 4-pipe system. The "Heat/Cool" control type utilizes either a wall or unit mounted Heating/Cooling thermostat which cycles either the heating or cooling control valve to maintain space temperature. The Fan shall run continuously during the normal Heat/Cool operation. The fan shall be off when the Heat/Off/Cool Switch is Off. This control option includes Manual Heating/Cooling changeover and a 3-Speed Fan Switch.

MANUAL HEAT/COOL CHANGEOVER: A "Heat/Off/Cool" switch, mounted on the thermostat, shall allow the operator to manually select Heating, Cooling or to disable the fan and control valves in the "Off" position.

COOLING MODE: The Heat/Cool thermostat, while in the "COOL" position, shall cycle the chilled water control water valve to maintain the desired space temperature in reference to the thermostat's setpoint.

HEATING MODE: The Heat/Cool thermostat, while in the "HEAT" position, shall cycle the hot water control water valve to maintain the desired space temperature in reference to the thermostat's setpoint.

3-SPEED FAN SWITCH: When the Fan Coil Unit is in the normal operating mode, a Fan Speed Switch, located on the thermostat's cover, shall control the speed of the fan from Low, Medium to High, as directed by the switch's position.

Fan Speed Controller. Motor speed controller is normally wired to the High speed tap of the motor terminal block. Allows the motor to be set at speeds incrementally below the high speed setting. Used in airflow balance and to efficiently use heating or cooling modes of operation.

Toggle Switch. Used to disconnect power on non-electric heat fan coil units only. See Door Interlock Disconnect Switch option for units with electric heat.

Selectable Speed Motor Terminal Package. A terminal block used with a fan that will run continuously. The factory jumper is installed on the High speed motor tap so the fan runs on high speed. Lower speeds can be selected by manually moving the jumper to Medium or Low speed terminal positions.

Door Interlock Disconnect Switch. An electrical switch used to disconnect power to the unit before the door can be physically opened (for fan coil units with electric heat only). Not applicable to VF Series fan coil units. Separate non-interlocked disconnect switch without fusing available for VF Series.

Door Interlock Disconnect Switch with Main Fusing. Same as Door Interlock Disconnect Switch with main fusing to protect the fan motor and electric strip heat. Door Interlock Disconnect Switch not applicable to VF Series fan coil units. Separate non-interlocked disconnect switch with fusing available for VF Series.

Motor Fusing. Control fuses used to protect the motor and control circuits from over current conditions. Standard on fan coils with electric heat.

Control Transformer. A 50 VA, 24 VAC transformer, rated at a maximum of 2 AMPs. Consult factory for larger VA transformers.

Wall Mounted 3-Speed Fan Switch. Fan speed switch suitable for wall mounting.

Unit Mounted 3-Speed Fan Switch. Fan speed switch suitable for unit mounting. Normally used with a wall mounted thermostat. (Fan Speed Switches/Thermostat combinations are also available).

Motorized Outside Air Damper. Option includes the outside air damper, the actuator (two-position) and necessary wiring. **Warning:** Under outdoor freezing conditions, damage to the water coil may occur if the outdoor air introduced to the building is not pre-conditioned.

Motorized Outside Air Damper With Low Limit Thermostat. This option includes the outside air damper, the actuator (two-position), low limit thermostat and necessary wiring. **Warning:** Under outdoor freezing conditions, damage to the water coil may occur if the outdoor air introduced to the building is not pre-conditioned. This may occur even if the Low-Limit Thermostat is activated and the outside damper is closed.

24 VAC Fan Speed Relay Package. Package contains (3) 24 VAC relays (one per speed), 24 VAC step-down control transformer and required wiring modifications for proper operation.

24 VAC Unit Start/Stop Relay. A relay used to start/stop the fan coil unit from a remote control signal such as BAS. Available line voltage or 24 VAC.

24 VAC Drain Pan Float Switch Package. Used on HL Series fan coil unit only and is designed to stop the fan and disable the controls when the drain pan is full of water. Package consists of a Drain Pan Float Switch, 24 VAC Step-down Control Transformer, Control Relay, Terminal Wiring Package and necessary wiring modifications for proper operation.

24 VAC Wall Mounted Thermostat Package. A 24 VAC thermostat used when engineer specified or owner requested because of safety or lower installation cost.

24 VAC DX Fan Control Relay Package. Used to provide automatic fast fan speed in the cooling mode and manual selection of fan speeds in heating modes. Package includes 24 VAC fan control relay, 24 VAC step-down control transformer and necessary wiring modifications for proper operation.

Aquastat. A strap-on thermostat mounted on the inlet piping to the fan coil and senses the temperature of the water to determine whether the mechanical system is in heating or cooling mode. If the inlet water temperature is above 83°F, the aquastat will connect the heating signal from the thermostat to heat the space. When the temperature of the inlet water drops below 65°F, the aquastat shall allow the cooling signal to be connected to the control valve to cool the space.



ENVIRO-TEC[®]
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Stock ID: CAT-FCU-CONTROLS

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