

# Installation and Maintenance Manual

# IM 737

Group: **Fan Coil**

Part Number: **106332800**

Date: **October 2013**

## THC Series Fan Coil Units

### Electric Valve Package Kits

#### **WARNING**

Installation and maintenance are to be performed only by qualified personnel who are familiar with and in compliance with state, local and national codes and regulations, and experienced with this type of equipment.

#### **CAUTION**

Sharp edges and coil surfaces are injury hazards. Avoid contact with them.

#### **CAUTION**

The electric valve is to be in the open position, and ball valves in the closed position while soldering. Do not move the valve handles until the tubing has cooled for three (3) minutes.

#### **DANGER**

To prevent electrical shock, disconnect electric power to system at main fuse or circuit breaker box until installation is complete.

## Installation

The electric valve package kits are furnished completely soldered and leak tested at the factory. Four (4) solder connections are required to complete the installation of the valve package into the system (two at the coil supply and return connections and two at the supply and return runouts).

1. Clean all connections before assembly with fine sandpaper. A good grade solder flux will help ensure a proper bond. **A general purpose 50/50 solder is recommended. Do not silver solder or braze the valves or copper fittings in this kit.** A chill block, or equivalent, must be used to prevent leaks in the factory connection or overheating the valve.
2. Position the valve package on the unit by moving the kit piping slightly. **Do not try to move the coil connections.**
3. A hydrostatic test on all piping is recommended after all connections are complete.
4. Field wiring must be in accordance with local codes and/ or the National Electrical Code. Wiring should be routed to prevent the possibility of condensate dripping from the valve package piping onto the electrical conduit.

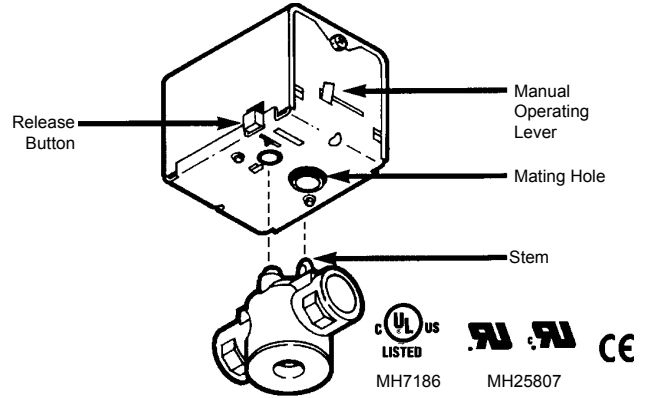
## Valve Actuator Installation

Latch the manual operating lever in the engaged position (N.C. only). Depress the release button (See Fig. 1). Align the body with the actuator to ensure the stem is inserted into the large mating hole on the bottom side of the actuator. Engage the actuator on the body and release the button. Actuator AG2 is used for normally open operation. Actuator AG1 is used for normally closed operation.

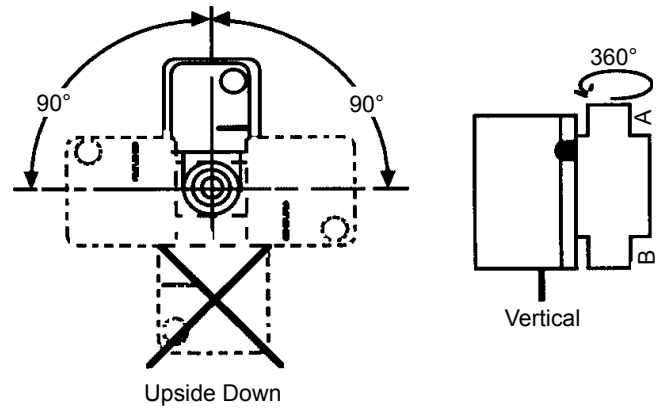
## Mounting

The PopTop™ valve can be mounted vertically or horizontally. If mounted horizontally, the valve should be mounted within 90° of upright position (See Fig. 2). If mounted vertically, care should be taken to ensure moisture does not drip onto motor. The valve actuator should not be mounted upside down.

**Figure 1: Components**

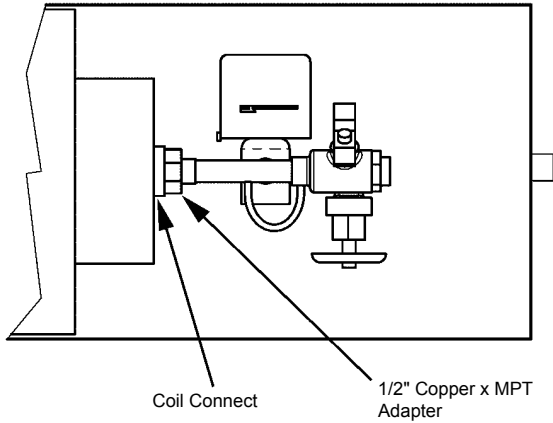


**Figure 2: Orientation**

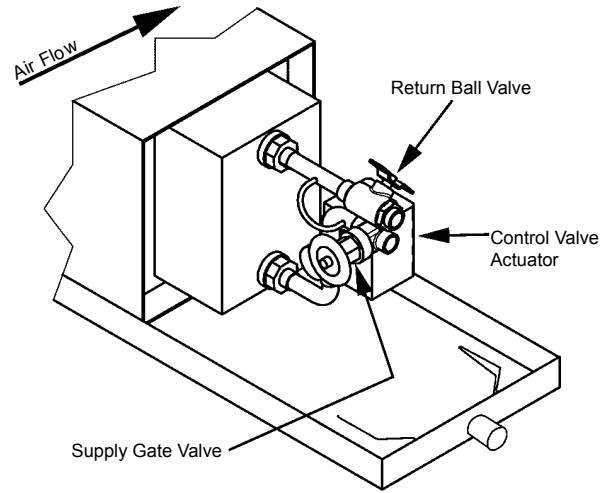


**Figure 3: THC Series 2-Way, 2-Pipe Valve Assembly (left-hand orientation shown)**

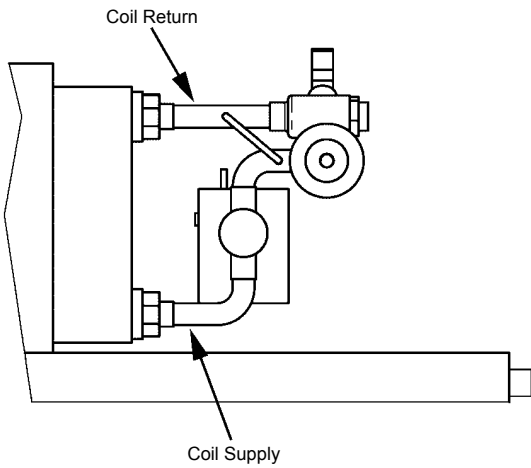
**Top View**



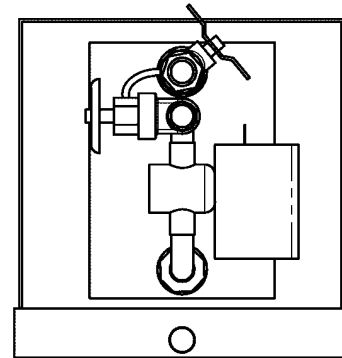
**Isometric View**



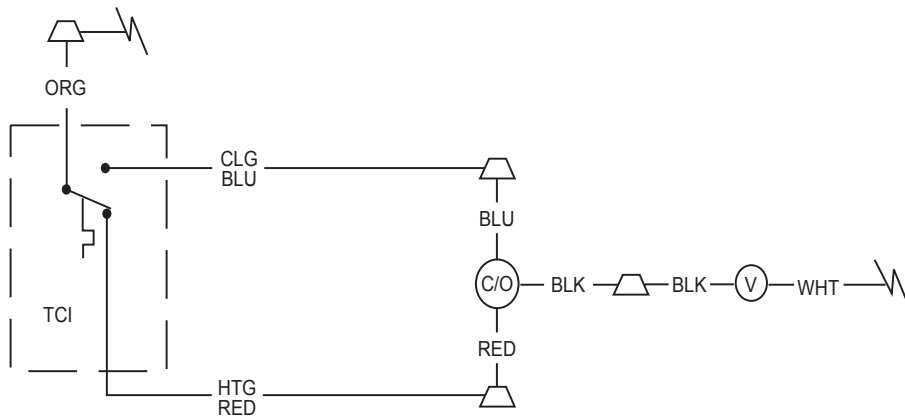
**Front View**



**End View**



**Figure 4: THC Series 2-Pipe Heating/Cooling with Automatic Changeover Wiring**

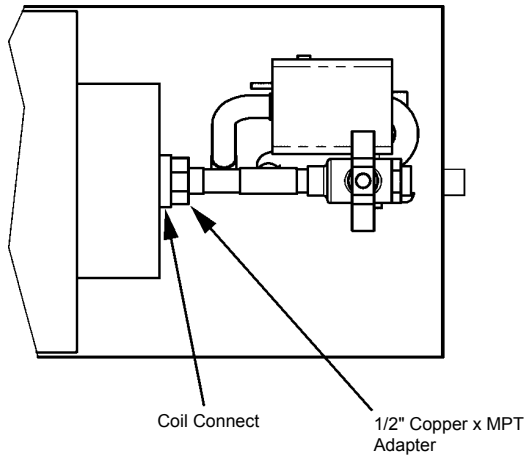


**Legend**

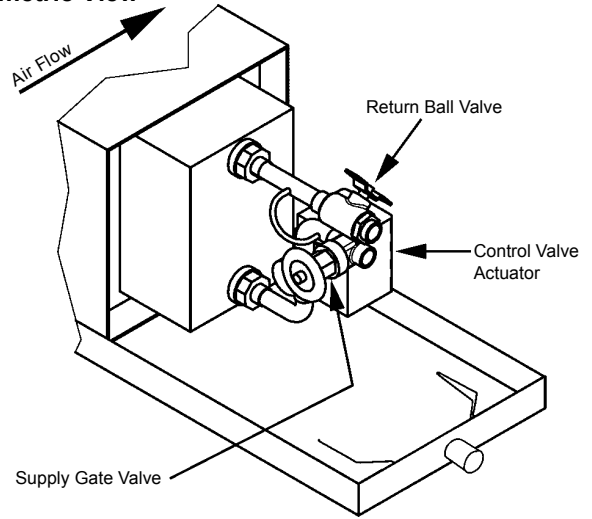
- 16 — Wire No.
- WHT — Wire Color
- [Symbol] — Wire Connector
- [Symbol] — Wire Connector
- [Symbol] — Field Connector
- CLG Cooling
- HTG Heating
- TCI Thermostat
- V Valve
- C/O Change over Switch (Manual or Auto)

**Figure 5: THC Series 3-Way, 2-Pipe Valve Assembly (left-hand orientation shown)**

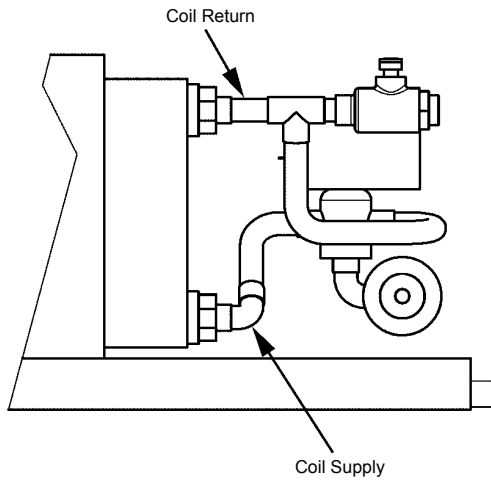
**Top View**



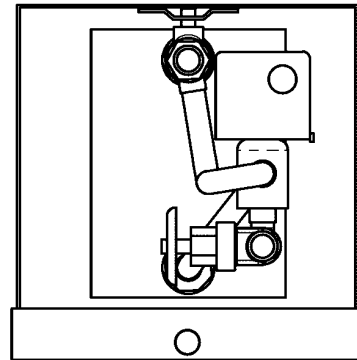
**Isometric View**



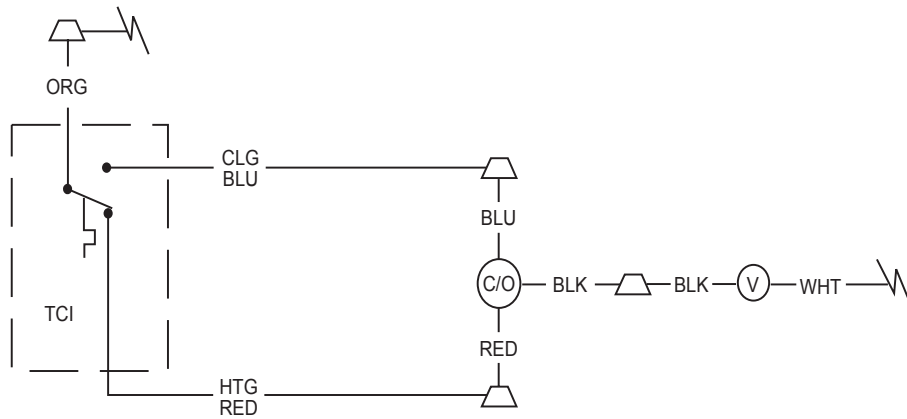
**Front View**



**End View**



**Figure 6: THC Series 2-Pipe Heating/Cooling with Automatic Changeover Wiring**



**Legend**

- 16 — Wire No.
- WHT — Wire Color
- [Symbol] — Wire Connector
- [Symbol] — Wire Connector
- [Symbol] — Field Connector
- CLG Cooling
- HTG Heating
- TCI Thermostat
- V Valve
- C/O Change over Switch (Manual or Auto)

Figure 7: THC Series 2-Way, 4-Pipe Valve Assembly (left-hand orientation shown)

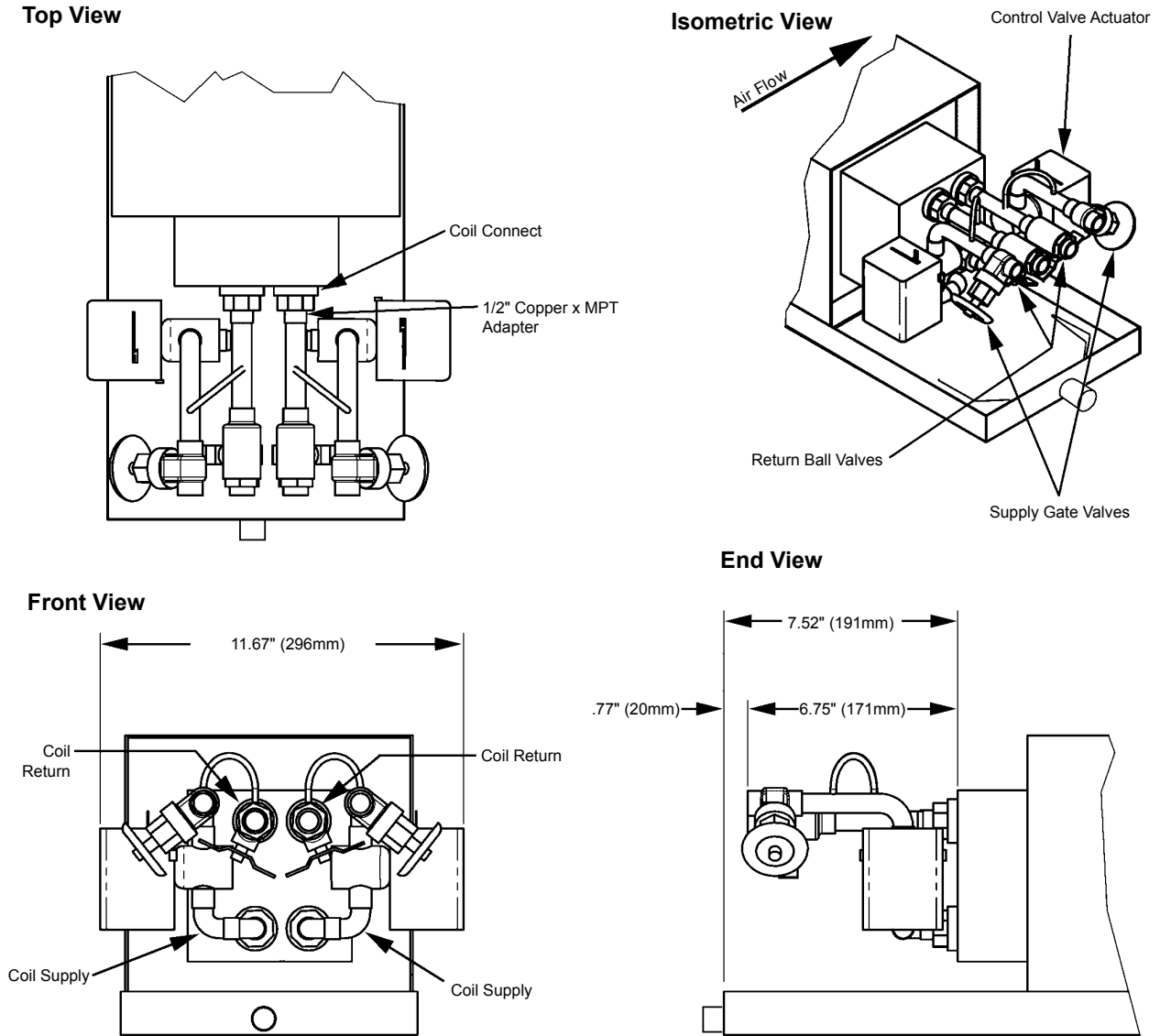
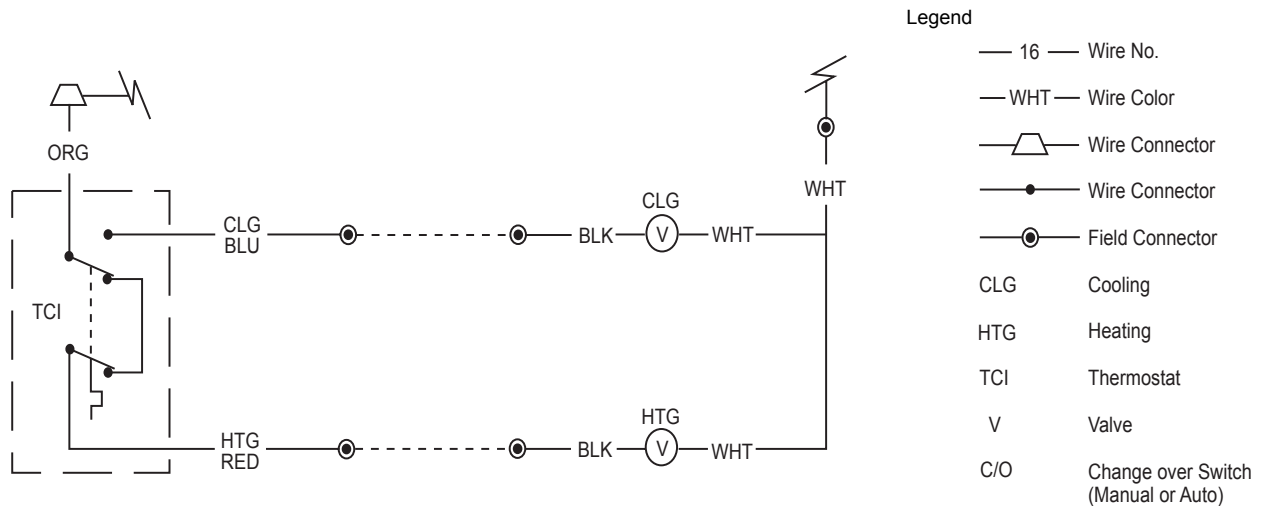
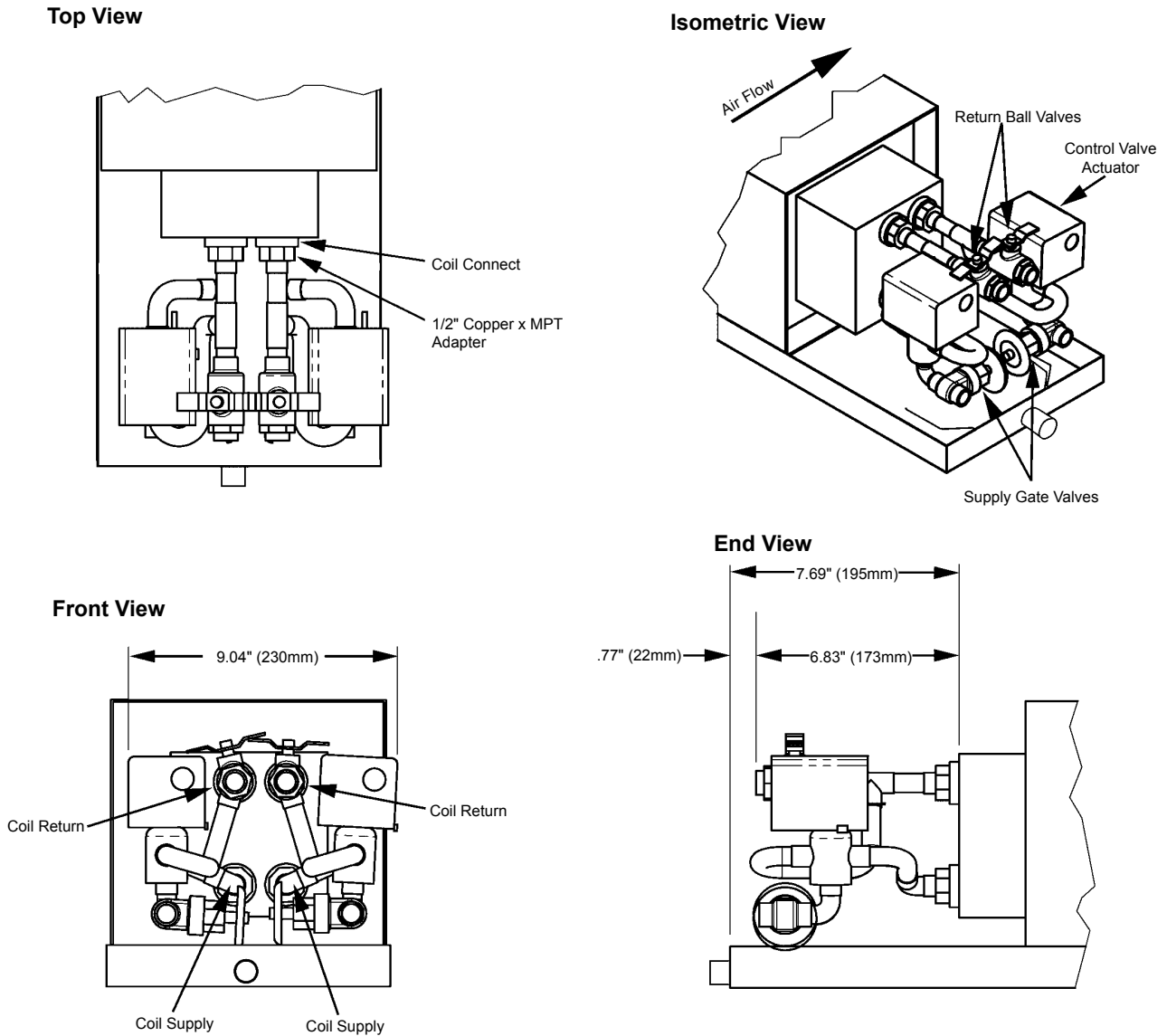


Figure 8: THC Series 4-Pipe Heating/Cooling with Automatic Changeover Wiring



**Figure 9: THC Series 3-Way, 4-Pipe Valve Assembly (left-hand orientation shown)**



**Figure 10: THC Series 4-Pipe Heating/Cooling with Automatic Changeover Wiring**

