

## Fan Coil Thermostat T6069

The T6069 thermostats control line voltage valves and/or blower motors on Fan Coil units in manual or automatic changeover cooling/heating systems. These thermostats feature separate fan and system manual switches.

- Combines thermostat, system switch and fan control in one deluxe-styled unit.
- Three speed manual FAN control.
- Fan can be wired for continuous ("ON") or cycled ("AUTO") operation.
- Temperature scale 7 - 28°C (44 - 86°F).
- SYSTEM switch OFF position breaks heating/cooling and fan circuits.
- Colour-coded leadwire connections.
- Mounts on << 2" x 4" >> single or double-gang vertical outlet box.



T6069D Shown

### Specifications

#### MODELS

O.S. FAMILY		T6069A	T6069B	T6069C	T6069D	T6069E
SYSTEM SWITCH	HEAT.OFF.COOL	X	X	X		
	ON•AUTO•OFF				X	X
FAN SWITCH	HIGH•MED•LOW	X	X	X	X	X
FAN MODE	"AUTO" (cycled)	Fig.1b Fig.6b		Fig.3 Fig.8a,b	Fig.4 Fig.9	Fig.5 Fig.10
	" ON "(constant)	Fig.1a Fig.6a	Fig.2 Fig.7a,b		Fig.4 Fig.9	Fig.5 Fig.10
V4043/V4044 VALVES	2-PIPE, FAN only	Fig.1b				
	2-PIPE, 1 VALVE	Fig.1a		Fig.3	Fig.4	Fig.5
	4-PIPE, 2 VALVES		Fig.2	Fig.3		
"VC"SERIES VALVES	2-PIPE, 1 VALVE	Fig.6a,b	Fig.7b	Fig.8b	Fig.9	Fig.10
	4-PIPE, 2 VALVES		Fig.7a	Fig.8a		
HEAT/COOL CHANGEOVER	MANUAL	X	X	X		Cooling
	REMOTE				X	
RESISTIVE HEATING			Fig.2 Fig.7b	Fig.3 Fig.8b		

**ELECTRICAL RATINGS:** Thermostat and manual Switch.

Fan Mode	T6069					Circuit Load (FLA)	Voltage (50-60Hz)			
	A	B	C	D	E		120V	208V	240V	277V
Auto	x	x	x	x		Fan+Cool	8.0	4.4	4.0	3.3
	x	x	x			Fan+Heat	8.0	4.4	4.0	3.3
			x			Fan+Res. Heat (N.I.)	8.0 + 13	4.4 + 7.5	4.0 + 6.5	3.3 + 5.5
On	x	x		x	x	Fan+Cool	8.0+8.0	4.4+4.4	4.0+4.0	3.3+3.3
	x	x		x		Fan+Heat	8.0+8.0	4.4+4.4	4.0+4.0	3.3+3.3
		x				Fan+Res. Heat (N.I.)	8.0+13	4.4 + 7.5	4.0 + 6.5	3.3 + 5.6

- Notes :** 1. " x " denotes the only approved loads for each model.  
 2. Locked Rotor Amperage = 6 x FLA  
 3. For a particular pilot duty load, current draw x 1.5 = total circuit load.

**DIMENSIONS:** H x Wx Dx -d (projection into box.)

117 mm high, 114 mm wide, 47 mm deep , -15 mm (4-5/8" x 4-1/2" x 1-7/8" x -5/8").

**APPROVALS:**

Canadian Standards Association Certified.  
Underwriters Labs. Listed

**ACCESSORIES:**

272804A Range stop and locking cover screws  
 TG511 Thermostat guard  
 272735T Mud ring (beige color)

### Installation and Checkout

#### ⚠ CAUTION

1. Disconnect power supply before beginning installation to prevent electrical shock and equipment damage.
2. Installer must be a trained, experienced service technician.
3. All wiring must comply with local electrical codes, ordinances, and regulations.

#### MOUNTING

Mount thermostat on inside wall about 1.5 m [ 5' ] above the floor. Do not mount where thermostat can be affected by drafts, radiant heat from the sun or other sources of heat.

T6069s' mount on NEMA standard 2"x 4" vertical single or double gang outlet box. 4" square electrical box requires "mud ring" adaptor (not provided).

#### WIRING

Internal schematic and external connections are shown in Fig. 1 through Fig. 10. Fig. 1 through 5 are wiring schematics for V4043/V4044 series hydronic valves. Fig. 6 through 10 are wiring schematics for Honeywell "VC" series, "2 wire + common" type hydronic valves. Use solderless connectors or other approved methods to wire thermostat into the system. 150 mm colour-coded leadwires are provided.

#### OPERATION

As the temperature changes, thermostat contacts make to open a valve and/or power a blower to provide heating or cooling. Depending on model, heating or cooling is manually or automatically selectable. The speed at which the air is circulated is controlled by the FAN switch.

Constant or intermittent fan is chosen during installation.

# T6069

## Installation and Checkout

### CHECKOUT

Turn on power. Check out operation according to SYSTEM switch present.

SYSTEM OFF de-energizes valve and fan circuits.

■ **SYSTEM : HEAT - OFF - COOL**

Set SYSTEM to HEAT. Rotate thermostat knob clockwise to energise heating valve and/or fan (fan auto/cycled mode).

Set SYSTEM to COOL. Rotate thermostat knob counter-clockwise to energise cooling valve and/or fan (fan auto/cycled mode).

■ **SYSTEM : ON - AUTO - OFF**

Set SYSTEM to ON. Valve will operate on heating or cooling cycle depending on whether hot or chilled water is being supplied.

Set SYSTEM to AUTO. Fan will operate with heating and cooling cycles.

### SETTING

The T6069 temperature scale is 7 - 28°C (44 - 86°F). Set the dial marker line to the desired temperature.

### ALTITUDE COMPENSATION

The thermostats are accurately calibrated at the factory for accuracy at 500 feet above sea level. The vapor-filled diaphragm sensor is affected by barometric pressure and altitude. Deviation up to ± 1°F (1/2°C) are within normal operation. Control point drops 2°F every 1000 feet (1°C/300m) above sea level. See table 1 for recommended action.

Elevation (in feet)	Typical City	Recommended Action
0 to 2000	Toronto, Ontario Phoenix, Arizona	Leave as is
2000 to 4000	Las Vegas, Nevada Calgary, Alberta	Move clockwise 2 to 3 marks
4000 to 6000	Denver, Colorado Salt Lake City, Utah	Move clockwise 4 to 5 marks

Table 1 - Altitude Correction

### To Recalibrate

1. Remove cover. Set the tab on setpoint knob to the leftmost radial mark visible on top of the triangular arm that holds the diaphragm sensor.
2. **Without rotating the knob**, remove it from the thermostat by pulling straight out, while holding the base against the wall.
3. Now, rotate the removed setpoint knob clockwise by the amount of temperature error. Each mark on the triangular arm represents 2°F(1°C) of adjustment. Snap the knob back onto the white cam.
4. Install the cover. Wait five minutes to let the thermostat thermally stabilize and re-check calibration. Do not assume a thermostat is out of calibration until it has been installed and allowed to operate for several hours.

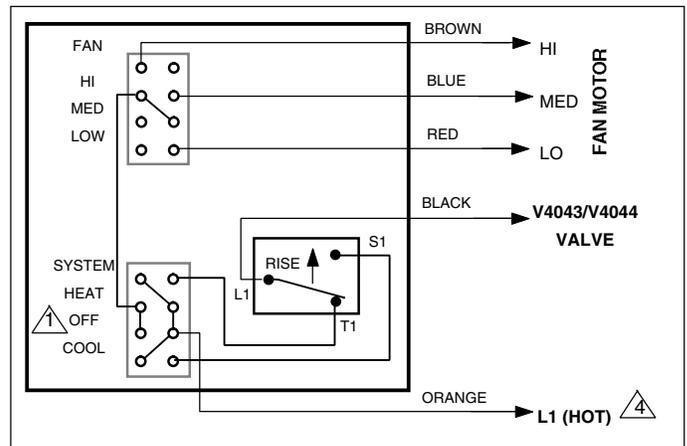


Fig. 1a - T6069A, 5-wire for single V4043/V4044 series valve, constant fan, manual heat / cool changeover.

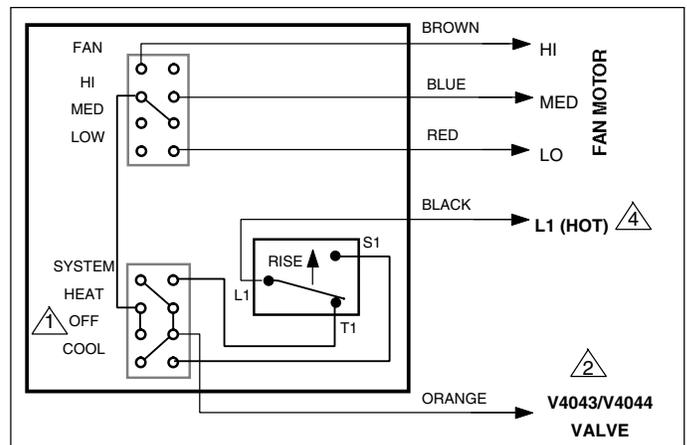


Fig. 1b - T6069A, 5-wire for single V4043/V4044 series valve, cycled fan, manual heat / cool changeover.

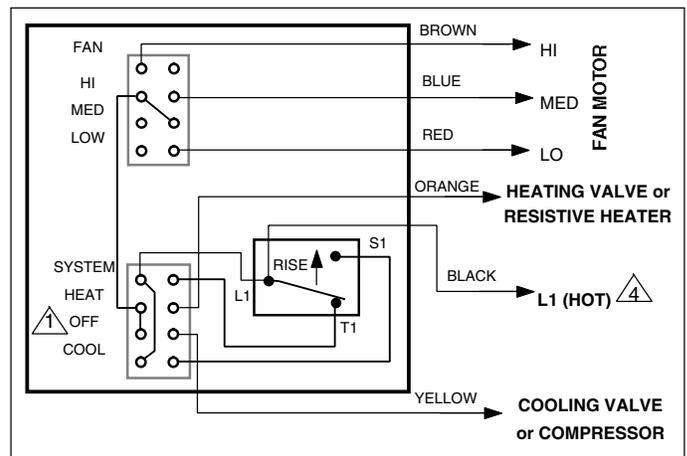
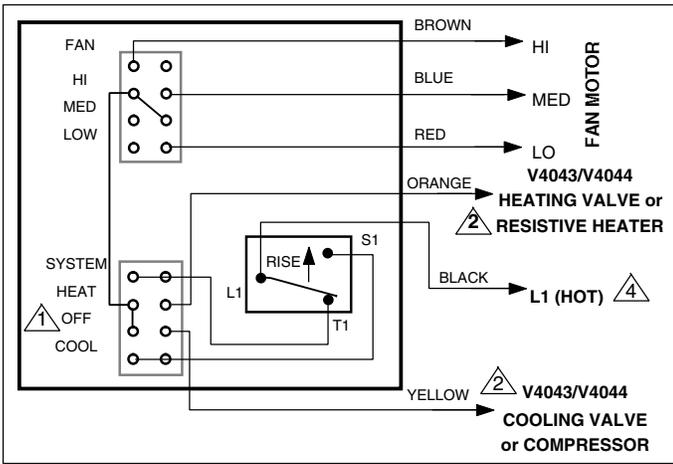
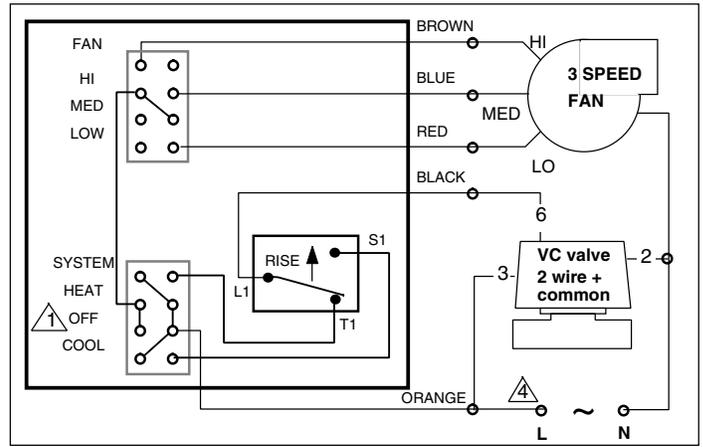


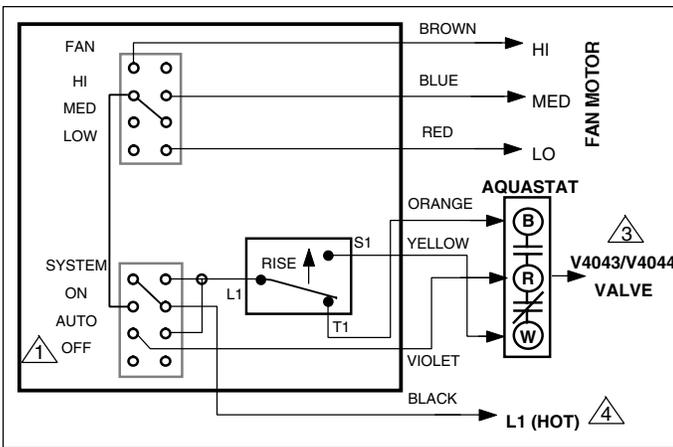
Fig. 2 - T6069B, 6-wire for dual V4043/V4044 series valve, constant fan, manual heat / cool changeover.



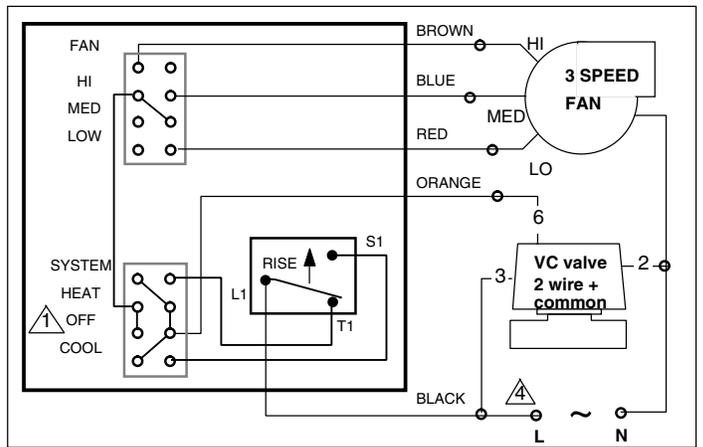
**Fig. 3 - T6069C, 6-wire for single or dual V4043/V4044 series valve, cycled fan, manual heat / cool changeover.**



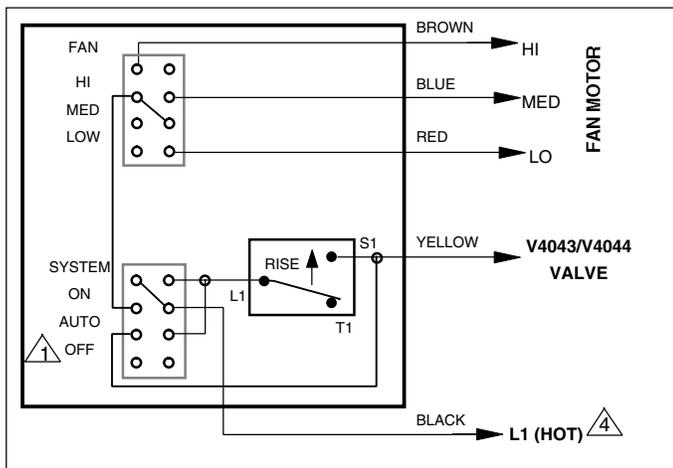
**Fig. 6a - T6069A, 5-wire for single "VC" series ( 2 wire + common version ) valve, constant fan, manual heat / cool changeover.**



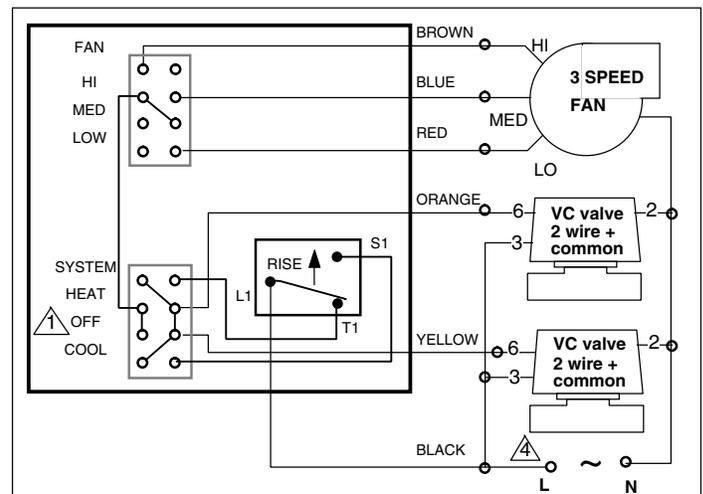
**Fig. 4 - T6069D, 7-wire for single V4043/V4044 series valve, constant or cycled fan, auto heat / cool changeover.**



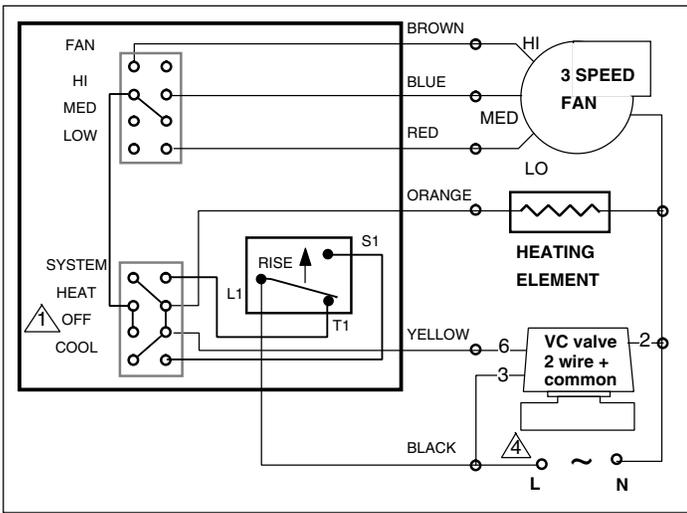
**Fig. 6b - T6069A, 5-wire for single "VC" series ( 2 wire + common ) valve, cycled fan, manual heat / cool changeover.**



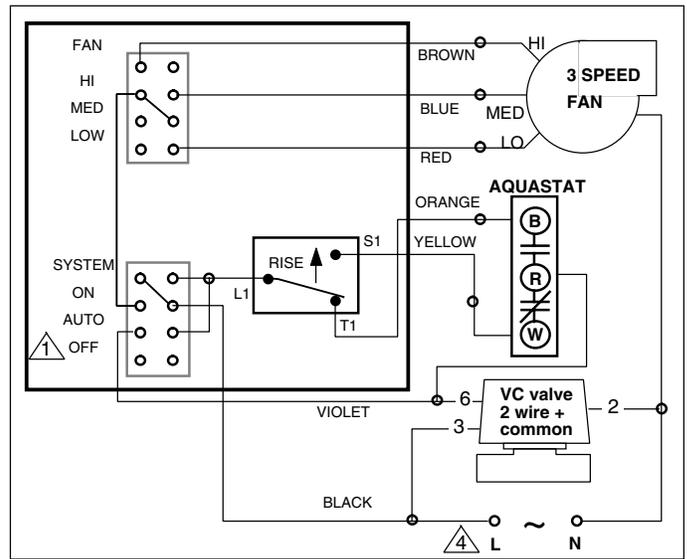
**Fig. 5 - T6069E, 5-wire for single V4043/V4044 series valve, constant or cycled fan, cooling only.**



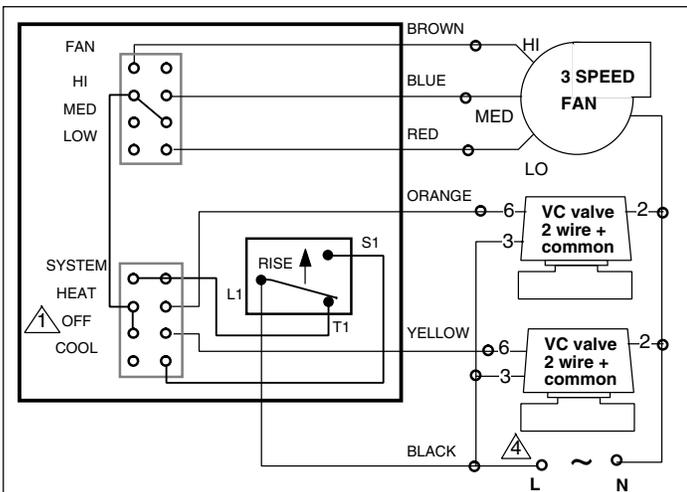
**Fig. 7a - T6069B, 6-wire for dual "VC" serie valve (2 wire + common version), constant fan, manual heat / cool changeover.**



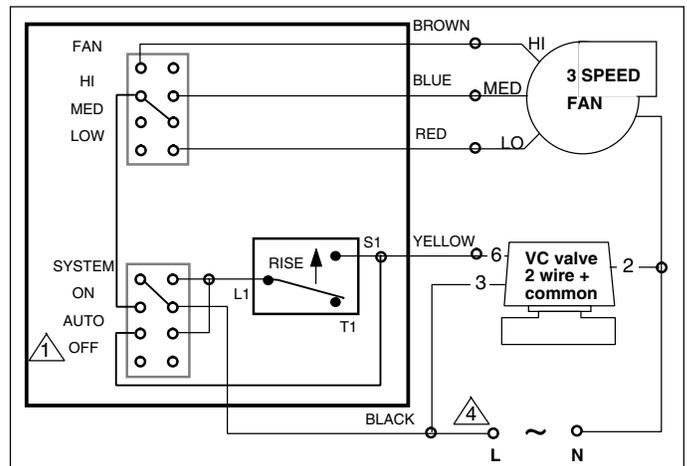
**Fig. 7b - T6069B, 6-wire for resistive heating, single "VC" series cooling valve (2 wire + common version), constant fan, manual heat / cool changeover.**



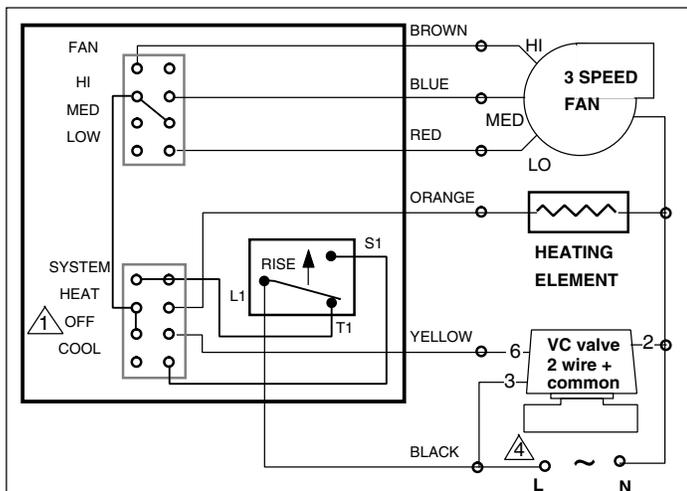
**Fig. 9 - T6069D, 7-wire for single "VC" series valve (2 wire+common version), constant or cycled fan, auto heat / cool changeover.**



**Fig. 8a - T6069C, 6-wire for dual "VC" serie valve ( 2 wire + common version ), cycled fan, manual heat / cool changeover.**



**Fig. 10 - T6069E, 5-wire for single "VC" series valve (2 wire + common version), constant or cycled fan, cooling only.**



**Fig. 8b - T6069C, 6-wire for resistive heating, single "VC" serie cooling valve (2 wire + common version), cycled fan, manual heat / cool changeover.**

**Notes to Figures 1 through 10**

- 1 OFF BREAKS VALVE AND FAN CIRCUITS.
- 2 INSULATE LEAD IF LEAD NOT USED.
- 3 VALVE CYCLES ON TEMPERATURE FALL(RISE) WHEN AQUASTAT SENSES HOT (COLD) SUPPLY WATER.
- 4 PROVIDE DISCONNECT MEANS AND OVERLOAD PROTECTION REQUIRED

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