



FIRST CO.
P.O. BOX 270969 - DALLAS, TEXAS 75227
PH. (214) 388-5751 | FAX (214) 388-2255
WWW.FIRSTCO.COM

CW(X) Series

CW(X) Series

3-speed, 24V control

120V multi-speed motor

Easily accessible throwaway filter

Sloped thermoplastic drain pan

Primary and secondary drains

Installed manual air purge valve

Electrical service pullout



*The **CW(X)** series is designed as an upflow indoor air handler with a chilled water coil for cooling. This space saving front return unit provides easy access for service and maintenance.*



08-01-23

CW(X) Series

The **CW(*)** is equipped with a control board that allows 24V **3-speed fan operation from a 3-speed wall mounted thermostat**.

Three compatible 3-speed thermostats are available from First Co.: manual changeover (#T420), auto changeover (#T421), and the all new “Autospeed 24V” (#T200 and #T201).

The T200/T201 Autospeed 24V provides maximum comfort and efficiency by **automatically varying the fan speed between High, Medium, and Low speeds**, depending on room temperature and desired thermostat setting.

(1) First Co's customer is ultimately responsible for confirming which fan coil models are compatible with selected outdoor unit(s) and which expansion valves (if any) are required. To determine certified indoor/outdoor matches, go to www.firstco.com or AHRI.org.



CWE(X) Air Handler

STANDARD FEATURES:

- 230V motor, 24V 3-speed fan control
- **230/24V 3-speed control board**
(see description on Page 4)
- **Electrical service pullout** (not on 277V models)

CWX	Thru-Door
120/24V	YES
208/230/24V	YES
277/24V	NO
CWEX	YES
208/230/24V	YES
CW-HWX	YES
- Factory installed electric heat
- Non-corrosive thermoplastic drain pan, sloped for positive drainage
- Separate compartment for drain connections
(allows the use of PVC drain piping)
- Drain pan has female primary and secondary fittings
- Easily accessible 1" filter
- Various optional factory installed valve packages
- Coil connections stub out top of unit

CW Series

Wall / Closet Fan Coils

COOLING CAPACITY																	
UNIT MODEL	NOMINAL CFM	45 DEGREE ENTERING WATER									42 DEGREE ENTERING WATER						
		GPM	P.D. (Ft. Wtr.)	80F D.B. / 67F W.B.			75F D.B. / 63F W.B.			GPM	GPM (Ft. Wtr.)	80F D.B. / 67F W.B.			75F D.B. / 63F W.B.		
				TH	SH	TR	TH	SH	TR			TH	SH	TR	TH	SH	TR
4CW	400	1.5	4.3	9.7	8.8	13.0	7.8	7.8	10.4	1.5	4.3	10.6	9.1	14.1	8.6	8.6	11.4
		2.5	10.5	12.0	9.6	9.6	9.2	8.5	7.4	2.5	10.5	13.1	10.0	10.5	10.0	8.8	8.0
		3.5	19.0	13.1	10.0	7.5	10.0	8.8	5.7	3.5	19.0	14.2	10.5	8.1	10.9	9.2	6.2
6CW	600	3.0	5.0	17.3	13.1	11.5	13.2	11.5	8.8	3.5	6.7	20.0	14.1	11.4	15.3	12.3	8.7
		4.0	8.6	19.2	13.8	9.6	14.7	12.1	7.3	4.5	10.7	21.7	14.8	9.6	16.6	12.8	7.4
		5.0	13.0	20.4	14.3	8.2	15.6	12.5	6.2	5.5	15.5	22.8	15.2	8.3	17.4	13.2	6.3
8CW	800	6.5	11.4	23.2	17.1	7.1	17.7	15.0	5.4	6.0	9.8	24.6	17.6	8.2	18.8	15.4	6.3
		7.5	14.8	24.2	17.4	6.5	18.5	15.3	4.9	7.0	13.1	25.8	18.1	7.4	19.7	15.8	5.6
		8.5	18.7	25.0	17.7	5.9	19.1	15.5	4.5	8.0	16.7	26.8	18.4	6.7	20.5	16.1	5.1
10CW	1000	6.5	5.7	29.0	21.6	8.9	22.2	19.0	6.8	6.0	4.6	30.7	22.2	10.2	23.5	19.4	7.8
		8.0	8.2	31.0	22.3	7.8	23.7	19.5	5.9	8.0	8.2	33.8	23.4	8.5	25.8	20.4	6.5
		9.5	11.0	32.5	22.9	6.8	24.8	20.0	5.2	10.0	12.1	35.8	24.1	7.2	27.3	20.9	5.5
12CW	1200	6.0	6.3	33.0	26.1	11.0	25.2	23.2	8.4	5.5	5.4	34.7	26.7	12.6	26.5	23.5	9.6
		7.5	9.5	36.1	27.3	9.6	27.6	24.0	7.4	7.0	8.4	38.3	28.1	10.9	29.3	24.6	8.4
		9.0	13.2	38.5	28.1	8.5	29.4	24.7	6.5	8.5	11.9	41.1	29.2	9.7	31.4	25.5	7.4

HEATING CAPACITY											
UNIT MODEL	NOMINAL CFM	GPM	P.D. (Ft. Wtr.)	HEATING DATA (70° ENTERING AIR)							
				BTUH @ 180 F	LVG AIR °F	BTUH @ 160 F	LVG AIR °F	BTUH @ 140 F	LVG AIR °F	BTUH @ 120 F	LVG AIR °F
4CW	400	1.0	2.1	26.0	130	21.3	119	16.6	108	11.8	97
		2.0	7.1	30.2	140	24.7	127	19.2	114	13.7	102
		3.0	14.5	31.8	144	26.1	130	20.3	117	14.5	104
6CW	600	1.0	0.7	35.7	125	29.2	115	22.7	105	16.2	95
		2.0	2.4	44.7	139	36.5	126	28.4	114	20.3	101
		3.0	5.0	48.4	145	39.6	131	30.8	118	22.0	104
8CW	800	3.5	3.6	56.8	136	46.5	124	36.1	112	25.8	100
		5.0	7.0	60.2	140	49.3	127	38.3	114	27.4	102
		6.5	11.4	62.6	142	51.2	129	39.8	116	28.5	103
10CW	1000	4.0	2.4	73.0	138	59.7	125	46.4	113	33.2	101
		6.0	4.9	78.2	142	64.0	129	49.8	116	35.6	103
		8.0	8.2	81.5	145	66.7	132	51.9	118	37.1	104
12CW	1200	3.0	1.8	81.5	133	66.7	121	51.9	110	37.0	99
		4.5	3.7	92.8	142	75.9	129	59.1	116	42.2	103
		6.0	6.3	97.1	145	79.4	131	61.8	118	44.1	104

NOTES:

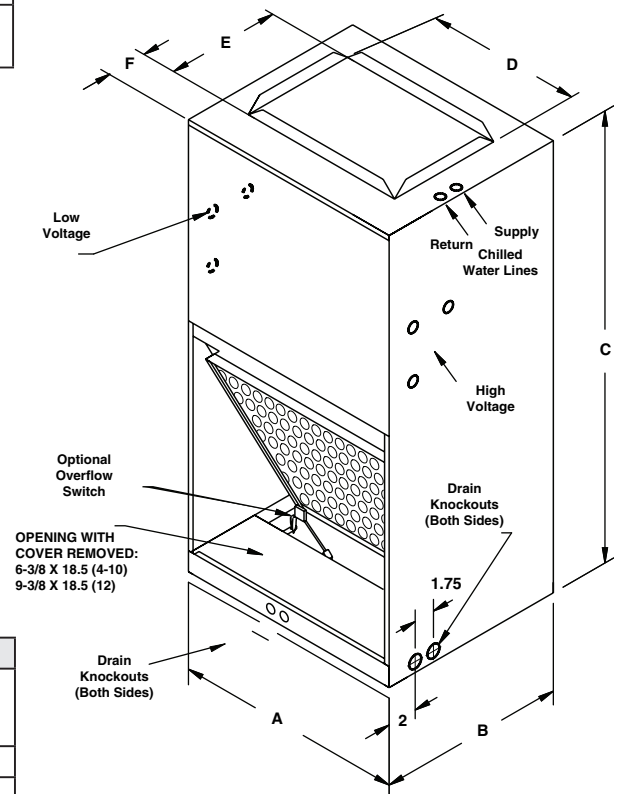
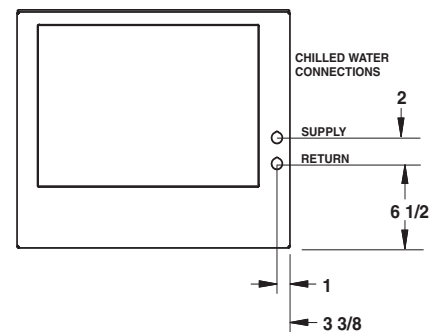
- Above capacities are at nominal CFM conditions. Maximum discharge air temperature must not exceed 145° at actual CFM.

BLOWER DATA - PSC											
UNIT MODEL	MOTOR H.P. (120V)	AMPS	MOTOR SPEED	CFM VS. EXTERNAL STATIC PRESSURE							
				0.05	0.10	0.15	0.20	0.25	0.30	0.35	0.40
4CW	1/6	2.1	MED. HIGH	520	500	485	470	450	430	415	---
			MED. LOW	380	370	360	350	340	330	310	---
			LOW	300	290	280	270	260	250	230	---
6CW	1/6	2.1	HIGH	620	615	610	600	585	570	555	---
			MED. HIGH	410	400	390	380	370	360	350	---
			MED. LOW	300	290	280	270	260	250	230	---
8CW	1/6	3.2	HIGH	855	840	820	800	775	750	730	710
			MEDIUM	710	700	685	670	655	640	625	610
			LOW	580	570	560	550	540	530	515	500
10CW	1/4	4.6	HIGH	1075	1050	1025	1000	980	960	930	900
			MEDIUM	875	860	845	830	815	800	780	760
			LOW	705	700	690	680	670	660	645	630
12CW	1/4	3.8	HIGH	-	1160	1130	1100	1070	1040	1010	980
			MED-HIGH	-	1070	1045	1020	995	970	940	910
			MED-LOW	-	1000	975	950	930	910	885	860

PHYSICAL DIMENSIONS								
UNIT MODEL	A	B	C	D	E	F	FILTER SIZE	CHILLED WATER COIL CONNECTIONS
4 - 10CW	22-1/8	15-1/8	40	14	10-1/2	3-5/8	18 X 18	5/8 O.D.
12CW	22-1/8	18-1/8	43	14	13	3-5/8	18 X 24	5/8 O.D.

NOTES:

- Coil connections are sweat and stub out top of unit



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COOLING CAPACITY																	
UNIT MODEL	NOMINAL CFM	45 DEGREE ENTERING WATER								42 DEGREE ENTERING WATER							
		GPM	P.D. (Ft. Wtr.)	80F D.B. / 67F W.B.			75F D.B. / 63F W.B.			GPM	GPM (Ft. Wtr.)	80F D.B. / 67F W.B.			75F D.B. / 63F W.B.		
				TH	SH	TR	TH	SH	TR			TH	SH	TR	TH	SH	TR
4CWX	400	1.5	4.3	9.7	8.8	13.0	7.8	7.8	10.4	1.5	4.3	10.6	9.1	14.1	8.6	8.6	11.4
		2.5	10.5	12.0	9.6	9.6	9.2	8.5	7.4	2.5	10.5	13.1	10.0	10.5	10.0	8.8	8.0
		3.5	19.0	13.1	10.0	7.5	10.0	8.8	5.7	3.5	19.0	14.2	10.5	8.1	10.9	9.2	6.2
6CWX	600	3.0	5.0	17.3	13.1	11.5	13.2	11.5	8.8	3.5	6.7	20.0	14.1	11.4	15.3	12.3	8.7
		4.0	8.6	19.2	13.8	9.6	14.7	12.1	7.3	4.5	10.7	21.7	14.8	9.6	16.6	12.8	7.4
		5.0	13.0	20.4	14.3	8.2	15.6	12.5	6.2	5.5	15.5	22.8	15.2	8.3	17.4	13.2	6.3
8CWX	800	6.5	11.4	23.2	17.1	7.1	17.7	15.0	5.4	6.0	9.8	24.6	17.6	8.2	18.8	15.4	6.3
		7.5	14.8	24.2	17.4	6.5	18.5	15.3	4.9	7.0	13.1	25.8	18.1	7.4	19.7	15.8	5.6
		8.5	18.7	25.0	17.7	5.9	19.1	15.5	4.5	8.0	16.7	26.8	18.4	6.7	20.5	16.1	5.1
10CWX	1000	6.5	5.7	29.0	21.6	8.9	22.2	19.0	6.8	6.0	4.6	30.7	22.2	10.2	23.5	19.4	7.8
		8.0	8.2	31.0	22.3	7.8	23.7	19.5	5.9	8.0	8.2	33.8	23.4	8.5	25.8	20.4	6.5
		9.5	11.0	32.5	22.9	6.8	24.8	20.0	5.2	10.0	12.1	35.8	24.1	7.2	27.3	20.9	5.5
12CWX	1200	6.0	6.3	33.0	26.1	11.0	25.2	23.2	8.4	5.5	5.4	34.7	26.7	12.6	26.5	23.5	9.6
		7.5	9.5	36.1	27.3	9.6	27.6	24.0	7.4	7.0	8.4	38.3	28.1	10.9	29.3	24.6	8.4
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HEATING CAPACITY											
UNIT MODEL	NOMINAL CFM	GPM	P.D. (Ft. Wtr.)	HEATING DATA (70° ENTERING AIR)							
				BTUH @ 180 F	LVG AIR °F	BTUH @ 160 F	LVG AIR °F	BTUH @ 140 F	LVG AIR °F	BTUH @ 120 F	LVG AIR °F
4CWX	400	1.0	2.1	26.0	130	21.3	119	16.6	108	11.8	97
		2.0	7.1	30.2	140	24.7	127	19.2	114	13.7	102
		3.0	14.5	31.8	144	26.1	130	20.3	117	14.5	104
6CWX	600	1.0	0.7	35.7	125	29.2	115	22.7	105	16.2	95
		2.0	2.4	44.7	139	36.5	126	28.4	114	20.3	101
		3.0	5.0	48.4	145	39.6	131	30.8	118	22.0	104
8CWX	800	3.5	3.6	56.8	136	46.5	124	36.1	112	25.8	100
		5.0	7.0	60.2	140	49.3	127	38.3	114	27.4	102
		6.5	11.4	62.6	142	51.2	129	39.8	116	28.5	103
10CWX	1000	4.0	2.4	73.0	138	59.7	125	46.4	113	33.2	101
		6.0	4.9	78.2	142	64.0	129	49.8	116	35.6	103
		8.0	8.2	81.5	145	66.7	132	51.9	118	37.1	104
12CWX	1200	3.0	1.8	81.5	133	66.7	121	51.9	110	37.0	99
		4.5	3.7	92.8	142	75.9	129	59.1	116	42.2	103
		6.0	6.3	97.1	145	79.4	131	61.8	118	44.1	104

NOTES:

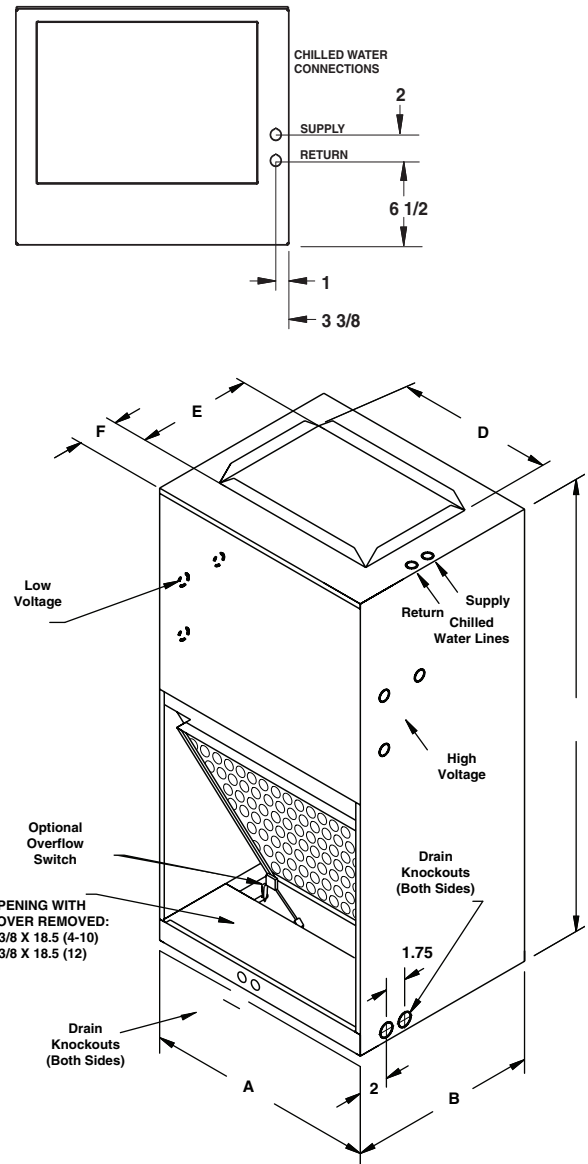
- Above capacities are at nominal CFM conditions. Maximum discharge air temperature must not exceed 145° at actual CFM.

BLOWER DATA - ECM											
UNIT MODEL	MOTOR HP	AMPS	SPEED TAPS	CFM vs EXTERNAL STATIC PRESSURE							
				0.05	0.10	0.15	0.20	0.25	0.30	0.35	0.45
4CWX	1/3	4.8	4	575	560	545	530	515	500	485	470
			3	515	500	485	470	450	430	420	410
			2	425	410	395	380	360	340	320	300
			1	350	330	310	290	265	230	225	210
6CWX	1/3	4.8	4	710	700	690	680	665	650	635	620
			3	665	650	635	620	605	590	575	560
			2	540	520	500	480	465	450	435	420
			1	375	360	345	330	315	300	275	250
8CWX	1/3	4.8	4	980	960	940	920	905	890	865	840
			3	860	850	835	820	810	800	785	770
			2	710	700	690	680	665	650	635	620
			1	580	570	550	530	515	500	485	470
10CWX	1/2	6.8	4	1200	1180	1155	1130	1105	1080	1060	1040
			3	1060	1050	1040	1030	1020	1010	1000	990
			2	920	910	900	890	870	850	840	830
			1	770	760	750	740	720	700	690	680
12CWX	1/2	6.8	4	1345	1330	1315	1300	1275	1250	1225	1200
			3	1275	1260	1245	1230	1215	1200	1185	1170
			2	1125	1110	1090	1070	1060	1050	1035	1020
			1	975	960	945	930	915	900	880	860

PHYSICAL DIMENSIONS								
UNIT MODEL	A	B	C	D	E	F	FILTER SIZE	CHILLED WATER COIL CONNECTIONS
4 - 10CWX	22-1/8	15-1/8	40	13	10-1/2	3-5/8	18 X 18	5/8 O.D.
12CWX	22-1/8	18-1/8	43	14	13	3-5/8	18 X 24	5/8 O.D.

NOTES:

- Coil connections are sweat and stub out top of unit



CW(X) Series

OPTIONAL ACCESSORIES (FIELD INSTALLED)			
DESCRIPTION	PART #	DIMENSIONS	
WALL PANEL (1)	9PWUC01L (4-10)	43-3/8 X 25-5/8 (Outside Frame)	40-3/8 X 22-5/8 (Inside Frame)
	9PWUC02L (12)	46-3/8 X 25-5/8 (Outside Frame)	43-3/8 X 22-5/8 (Inside Frame)
HANGER BRKT. SET	90PK3	1-1/2 X 22-1/8	---
RETURN AIR COVER	90PK4 (4-10)	19-13/16 X 22	---
	90PK5 (12)	21-5/8 X 22	---
CONDENSATE OVERFLOW SWITCH	SS3	---	---
WALL THERMOSTAT 3-SPD., MANUAL CHANGEOVER	T420 (120/230/277)	---	---
WALL THERMOSTAT 3-SPD., AUTO CHANGEOVER	T421 (120/230/277)	---	---
24V WALL THERMOSTAT 3-SPD., MANUAL CHANGEOVER (AUTOSPEED 24V)	T200 (24V)	---	---
24V WALL THERMOSTAT 3-SPD., AUTO CHANGEOVER (AUTOSPEED 24V)	T201 (24V)	---	---

OPTIONAL VALVE CLUSTERS (Factory installed)	
PART #	DESCRIPTION
VALVE CLUSTER:	
9VCWNVM	No valves, stub kit only
9VCW2BVM	2 hand valves
9VCW22BM	2-way, valve body, 2 hand valves
9VCW23BM	3-way, valve body, 2 hand valves
POWER HEAD:	
911-111	24V

NOTES:

All models are available with or without factory installed valve clusters. Above are "standard" 2-way and 3-way valve clusters.. Contact the factory for other options such as circuit setters, strainers, auto-flow valves, etc.



In keeping with its policy of continuous progress and product improvement, First Co. reserves the right to make changes without notice. Maintenance for all First Co. products is available under "Product Maintenance" at www.firstco.com.



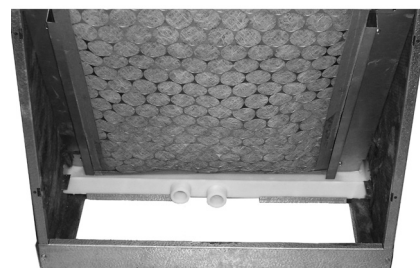
**T200/T201
"AUTOSPEED 24V"
THERMOSTAT**



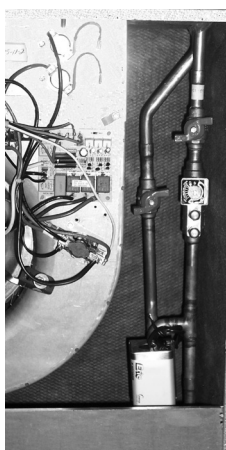
**T420/T421
THERMOSTAT**



Optional wall panel
(Recessed wall application)



Condensate drain connections
(With drain cover removed)
(Thermoplastic pan shown)



Unit shown with
an optional
valve package



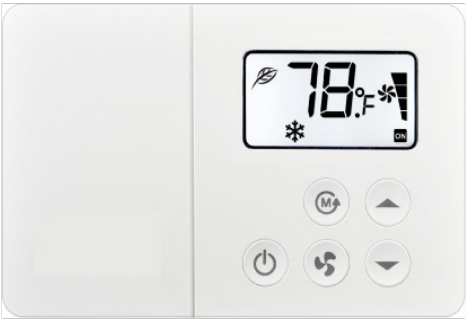
Unit shown with optional bottom return air kit
(#90PK4)

The "Autospeed 24V™" Thermostats

(Part #'s T200/T201)

Accurate, Efficient, and Quiet Fan Coil Operation

The new Autospeed 24V™ thermostat (part's # T200 and T201) provides 24V AC single stage temperature control of 2 pipe and 4 pipe fan coil applications. The T200/T201 thermostat offers maximum comfort and efficiency by **automatically selecting the appropriate High, Medium, or Low fan speed**, depending on room temperature and thermostat temperature setting. This automatic fan speed control not only brings the room temperature to the desired set point quickly, it maintains the room temperature with the most efficient fan speed selection. Once the desired room temperature is achieved the fan coil operates on low speed for extremely quiet operation. The fan coil control board (which is factory installed in all CW units) is a circuit board that provides control of a 3-speed line voltage fan motor. The control board allows the thermostat to control the fan motor even though, by itself, the thermostat does not have the amperage capability nor the voltage rating capability to control the fan motor.



(T200 shown with wall plate)

T200/T201 Thermostat Features

- Compatible with 2 pipe and 4 pipe fan coils: Series HBC/PHBC/RHBC/CHBC, MB/MB-HW, HYB/PHYB, and CW/CH-HW/CWE
- Cycle fan or continuous fan operation
- **T200**-Manual Heat / Cool changeover switch
- **T201**-Automatic Heat / Cool changeover switch
- Large LED digital display
- Allows less expensive 24V control wiring from the fan coil to the thermostat, rather than larger, more expensive line voltage wiring.
- 3-speed fan operation, with speed indicator lights
- Fan speed determination:
 - If room temperature is 4 degrees (F.) off thermostat set point, fan will operate on High speed.
 - If 3 degrees off set point, fan will operate on Medium speed.
 - If within 2 degrees of set point, fan will operate on Low speed.
- One or 3 hour Auto override - Fan speed defaults to "Auto" mode after 1 hour if the user manually changes it to a particular fan speed.
- Temperature set range: 64-88 degrees F.
- Adjustable high and low temperature set points
- Selectable Fahrenheit / Centigrade display
- Power switch turns system off/on
- Requires 7-wire 24V thermostat wire
- No batteries required
- Set points are permanently retained in memory in case of power interruption
- Simple operation
- Mercury Free
- Wall plate included

DISPLAY CODES		
DIS-PLAY	STEADY	FLASHING
P1	Auto fan timer - 1 hour (default)	Auto fan timer - 3 hour
P2	Continuous fan (default)	Cycled fan
P3	°F (default)	°C
P4	Cycled fan standard	Cycled fan overdrive (default)
P5	Low temp limit 64 °F (default)	Low temp limit 67 °F
P6	Hi temp limit 88 °F (default)	Hi temp limit 84 °F



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