PHOENIX
MANUFACTURING
EVAPORATIVE AIR COOLERS

AEROCOOL PRO STAT II

The cooler's "brain" saves money by giving just the right amount of cool all the time. The "Softspeed Transition" feature creates smoother operation when the motor automatically changes speed.

AEROCOOL

❄️

AUTO 🌀

FRI

75.0 °F

9:53 A

MODE

🌀

▲

▼

SET

⏻

PRO STAT II

INSTALLATION

Thermostat (cavity wall without outlet box)

1. Determine a suitable place to install the thermostat
   a. Locate it about 5 ft above the floor on an interior wall, avoid locating it on an outside wall or on a wall where there is a stove or refrigerator on the opposite side of the wall. Make sure there are no pipes or duct work in that part of the wall chosen as the thermostat location.
   b. Never expose it to direct light from lamps, sun, fireplaces, or any temperature radiating equipment (stoves, refrigerators, etc).
   c. Avoid locations close to doors that lead outside, windows or air registers, or in the direct path of air from them.
   d. Never locate it in an area that is warmer or cooler than the rest of the building. Avoid locations with a lack of air circulation, such as behind doors or in alcoves (closets).
2. Mark and drill the location of the 2 mounting points using anchor hardware suitable for wall construction. Make a hole in the wall large enough to accommodate the thermostat wire. Use the thermostat Drilling Template provided in this package.
3. Route an insulated six-conductor thermostat cable (or similar wiring) from the Evap Cooler Control Box through the hole, leave about 6" of cable/ wire protruding.
4. Separate back plate from the thermostat by loosening the cover screw. Secure back plate to the wall.
5. Connect the wires to the terminals per the wiring connection diagram, push any excess wiring back into the wall and plug hole with noncombusible material to prevent drafts from affecting thermostat operation. Secure Thermostat to wall.
6. Lock front cover on the back plate by tightnening the cover screw with Phillips-head screwdriver.

### Wall Thermostat (using existing wall-mounted outlet)

⚠ CAUTION:

ONLY USE A SINGLE OUTLET BOX AND DO NOT SHARE WIRING WITH ANY OTHER EQUIPMENT.

1. Seperate the back plate from the thermostat by loosening the cover screw. Secure the back plate to the wall.
2. Route an insulated six-conductor thermostat cable (or similar wiring) from the Appliance Control Box to the outlet box, leave about six inches protruding.
3. Connect the wires to the terminals per the wiring connection diagram. Secure the Wall Control to the outlet box.
4. Lock front cover on the back plate by tightening the cover screw with Phillips-head screwdriver.
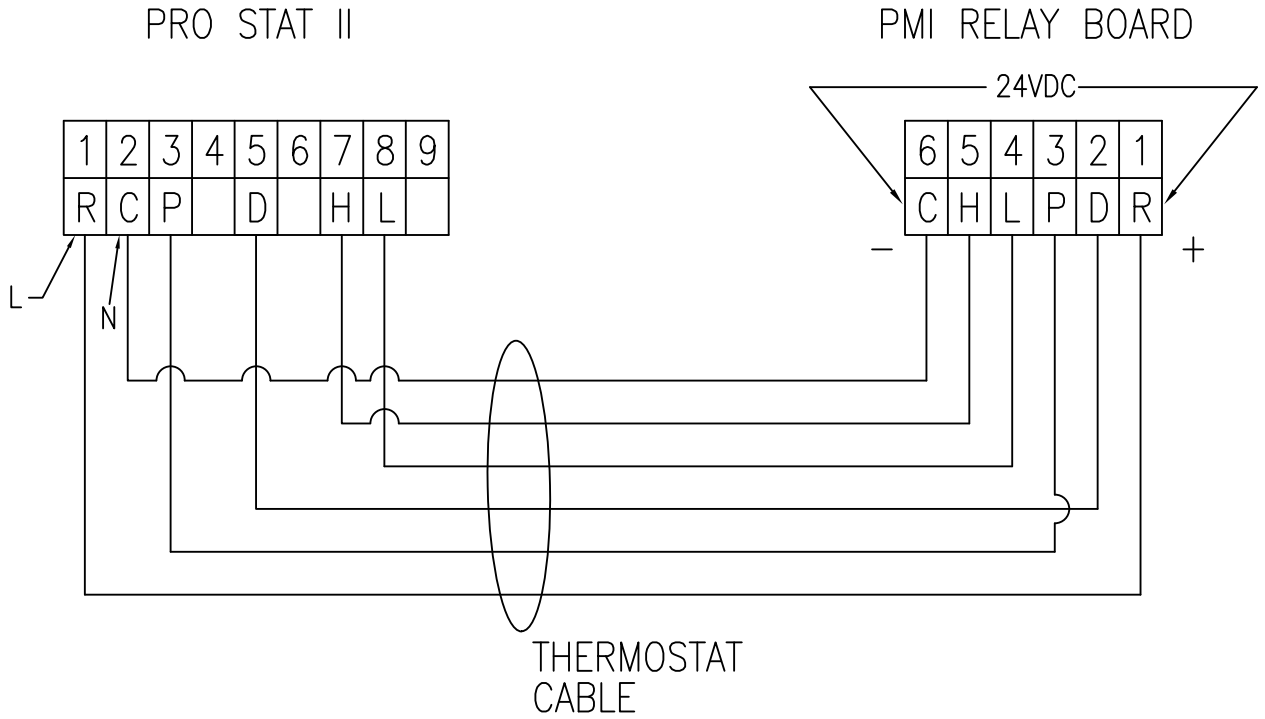
POWER OUTAGE

If the cooler is operating in 'COOL' or 'FAN' mode when power is interrupted, the cooler will resume in the same mode of operation when the power is restored.

FRONT*   **BACK**

*Screen and terminal layout may vary
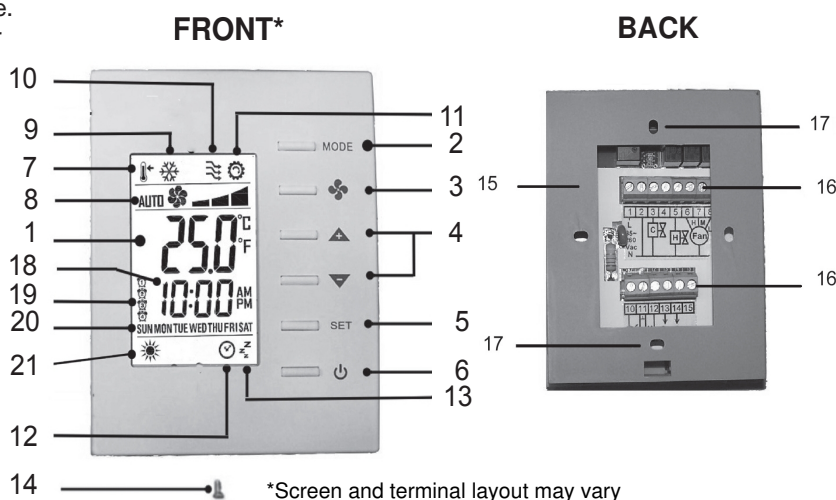
#	ITEM	DESCRIPTION
1	LCD	Display temperature and working status
2	MODE button	Access to menu, setting confirmation, change temperature unit (F/C) if pressed for over 3 sec
3	FAN button	Toggle to change Fan mode: Auto or continuous LOW/HI
4	UP & DOWN button	Increase & decrease setting or previous/next item
5	SET button	Setting for schedules and time
6	ON/OFF button	Turn ON or OFF thermostat
7	Set-point icons	Displaying set-point temperature while it is flashing
8	FAN icon	Indicates Fan status
9	Snowfake icon	Indicates working on Cooling mode; Flash means Pre-wet cycle is running
10	Flow icon	Indicates working on ventilating only mode
11	Gear icon	Indicates cooler is ON
12	Clock	(NA)
13	Sleep	(NA)
14	Cover screw	Screw to tighten back cover with front cover
15	Back plate	Plate for mounting thermostat to the wall
16	Wiring terminal blocks	Terminals for wiring
17	Mounting holes	Holes for mounting thermostat to the wall
18	Clock	Displays time 12 hour (AM/PM) format or 24 hour format
19	Schedule number	Current Schedule running or setting
20	Day	Current day of Sunday ~ Saturday or setting
21	Sun	Indicates Drain pump is "ON"

WIRING DIAGRAM: Thermostat connecting to relay board

All wires coming from the electric box must be inserted above the retainers of respective terminal block before tightening the captive screws.

PRO STAT II

PMI RELAY BOARD

24VDC

1	2	3	4	5	6	7	8	9
R	C	P		D		H	L	

6	5	4	3	2	1
C	H	L	P	D	R

L

N

−

+

THERMOSTAT
CABLE

NOTES: _____

_____

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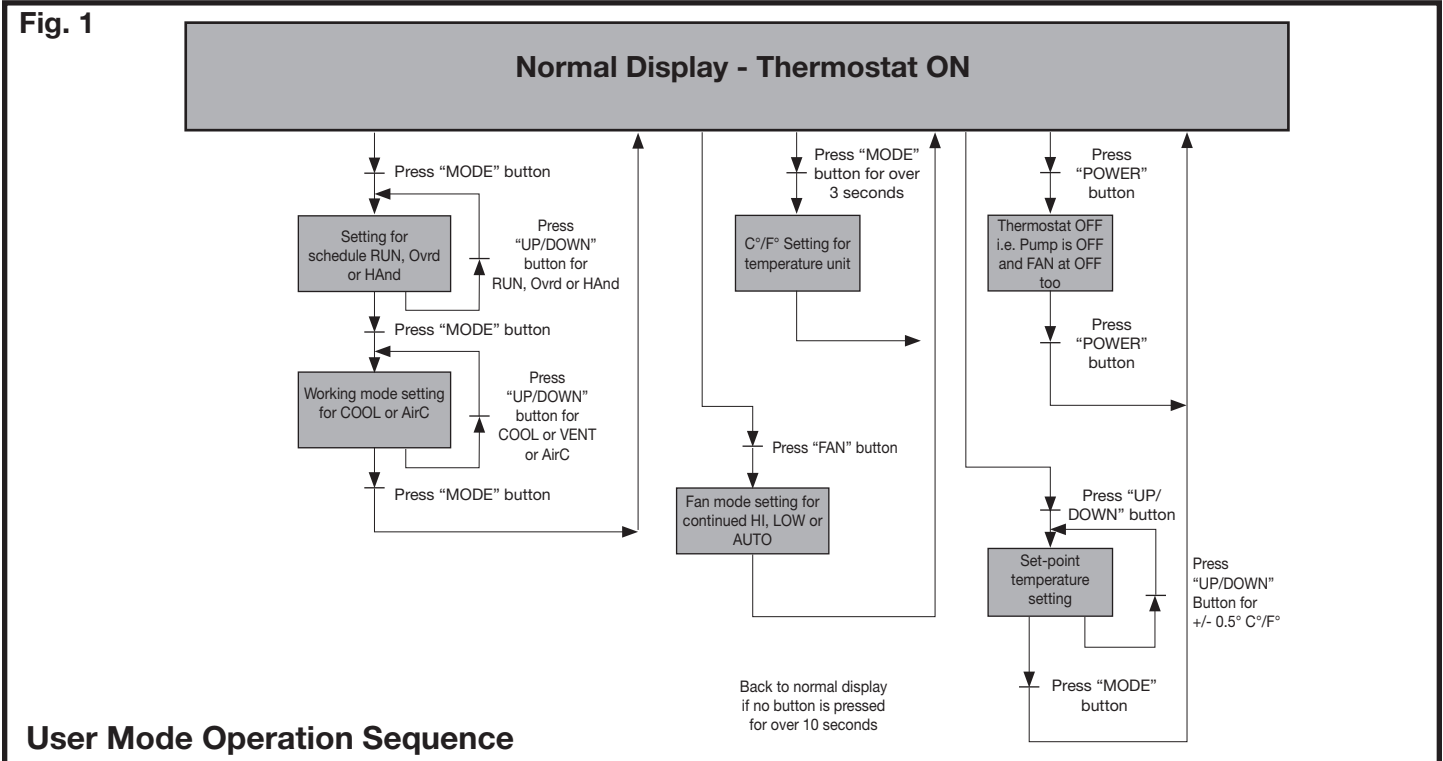
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OPERATION
User Mode

First tier of operation includes the following settings (Fig 1) to operate:
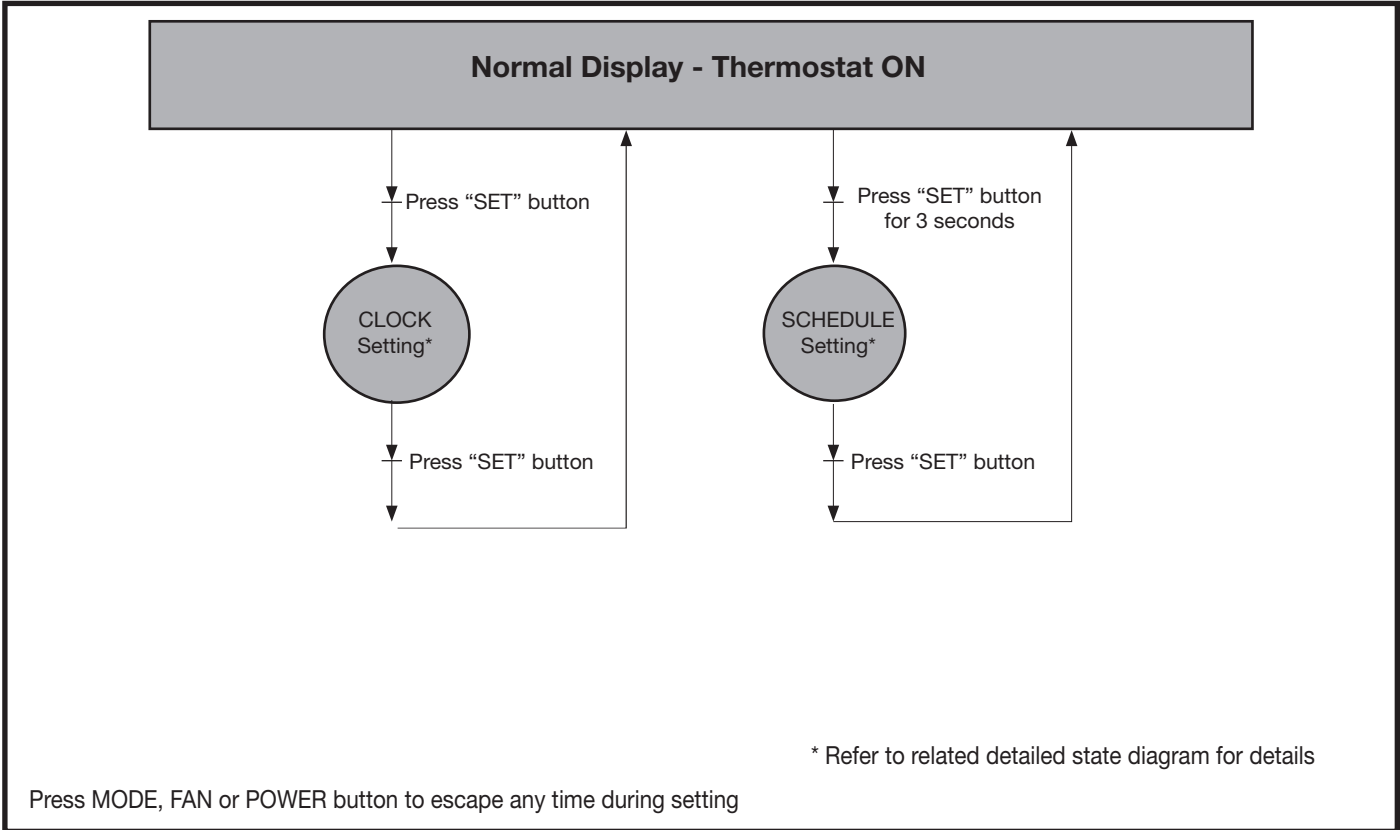
1. Power switch ⏻ "ON" or "OFF" to start/ stop the System.
2. After switching "ON", press any button to start the User Mode operation.

   a. Press "MODE" button to switch over different working modes. When MODE is pressed for more than 3 seconds, the unit of temperature will toggle to change to F° or C°.
   b. Press UP/ DOWN button to increase/ decrease or rotate the values of setting.
   c. Press "FAN" button to toggle over different fan modes. When FAN is pressed for more than 3 seconds, it will activate "DRAIN" command to start drain pump for 1 1/2 minutes
   d. Press "SET" button to set current time-date and timer. When SET is pressed for more than 3 seconds, users can set the set points schedules.

3. It will return to normal display with the latest setting if there's no button pressed for 10 seconds.

#	ITEM	DESCRIPTION	REMARKS
1	Normal Display	Display current room temperature and current time/day.	
2	Temperature Setting ▲ ▼	Set desired temperature	
3	Mode Select MODE	1. Select the working mode: (1) run / Ovrd / HAnd for schedule use UP/DOWN arrows to switch between modes (2) COOL / AIrC for Cooling or Ventilation use UP/DOWN arrows to switch between modes 2. When MODE is pressed for more than 3 seconds, the unit of temperature will toggle to change to F° or C°	RUN means Running Schedules Ovrd means temporarily using manual S.P and skip "current" Schedule HAnd means using manual S.P instead of "all" Schedules COOL means cooling mode AirC means ventilation mode
4	Fan Auto/ Continuous ❅	1. Change Fan mode for Auto speed or manual LOW/ HI speed. 2. When FAN is pressed for more than 3 seconds, it will activate "DRAIN" command to start drain pump for 1.5 minutes.	Fan speed changes from High to Low will needs to delay 1.5 seconds
5	Time/ Date/ Schedule Setting SET	1. Set current time in 12- or 24- hour format 2. Set calendar and day of week 3. When SET is pressed for more than 3 seconds, users can set temperature set points schedules	Press SET to continue settings Press MODE, FAN, or POWER button to escape any time during setting

Fig. 1

User Mode Operation Sequence

Setting Clock and Schedule Modes

Normal Display - Thermostat ON

↓ Press "SET" button

↓ Press "SET" button
for 3 seconds

CLOCK
Setting*

SCHEDULE
Setting*

↓ Press "SET" button

↓ Press "SET" button

* Refer to related detailed state diagram for details
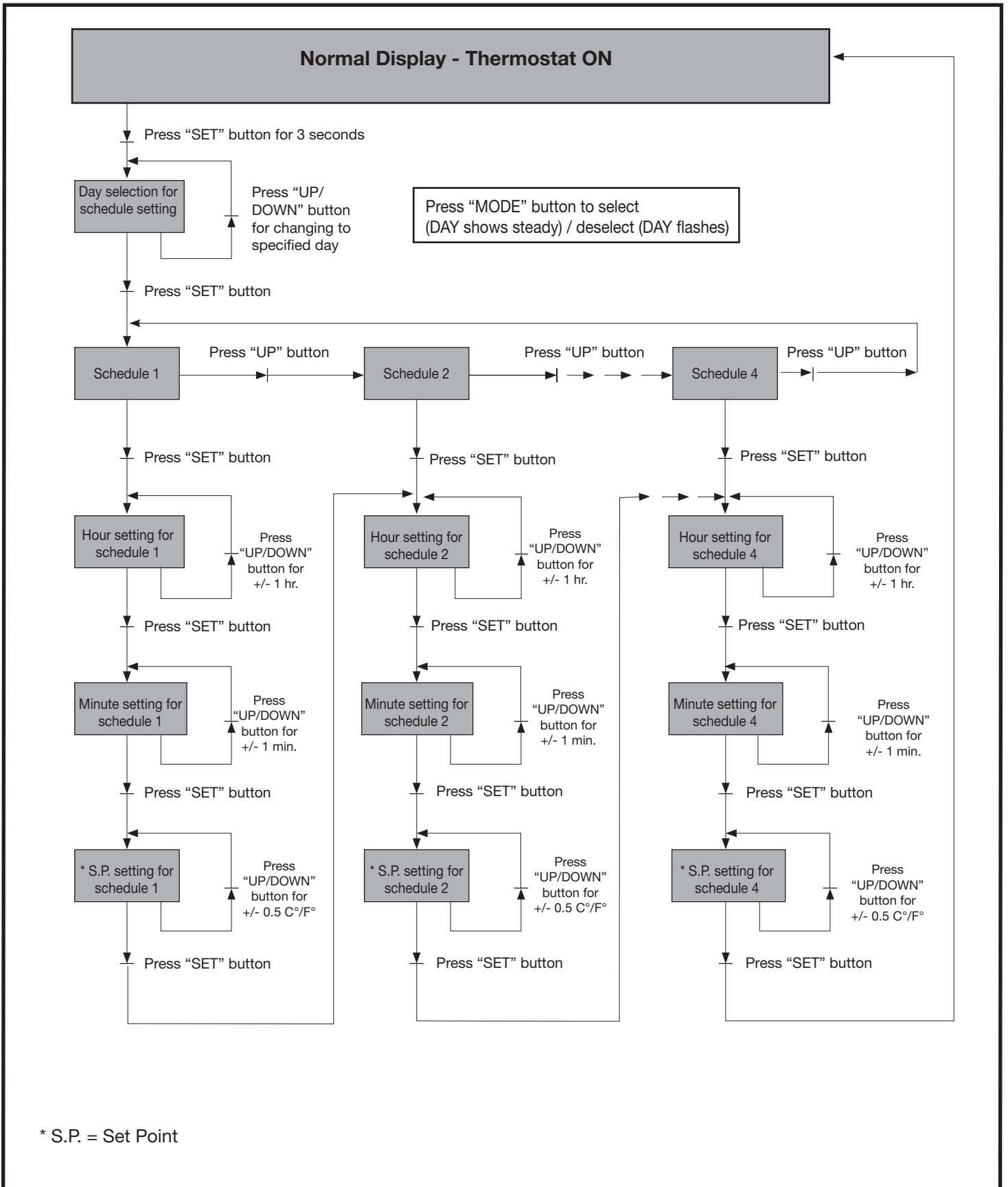
Press MODE, FAN or POWER button to escape any time during setting

Detailed State Diagram for Clock Setting Mode

Normal Display - Thermostat ON

Press "SET" button

12-hr. or 24-hr. selection for CLOCK

Press "UP/DOWN" button for changing to 12-hr. or 24-hr. clock

Press "SET" button

Press "SET" button

Hour setting for CLOCK

Press "UP/DOWN" button for +/- 1 hr.

Year setting for CLOCK

Press "UP/DOWN" button for changing to specified year

Press "SET" button

Press "SET" button

Minute setting for CLOCK

Press "UP/DOWN" button for +/- 1 min.

Month setting for CLOCK

Press "UP/DOWN" button for changing to specified month

Press "SET" button

Press "SET" button

Today setting for CLOCK

Press "UP/DOWN" button for changing to Sun. - Sat.

Day setting for CLOCK

Press "UP/DOWN" button for changing to specified day

Press "SET" button

Press "SET" button

Detail State Diagram for Schedule Setting Mode

Normal Display - Thermostat ON

Press "SET" button for 3 seconds

Day selection for schedule setting

Press "UP/ DOWN" button for changing to specified day

Press "MODE" button to select (DAY shows steady) / deselect (DAY flashes)

Press "SET" button

Schedule 1	Press "UP" button →	Schedule 2	Press "UP" button →	Schedule 4	Press "UP" button →

Press "SET" button

Hour setting for schedule 1	Press "UP/DOWN" button for +/- 1 hr.	Hour setting for schedule 2	Press "UP/DOWN" button for +/- 1 hr.	Hour setting for schedule 4	Press "UP/DOWN" button for +/- 1 hr.

Press "SET" button

Minute setting for schedule 1	Press "UP/DOWN" button for +/- 1 min.	Minute setting for schedule 2	Press "UP/DOWN" button for +/- 1 min.	Minute setting for schedule 4	Press "UP/DOWN" button for +/- 1 min.

Press "SET" button

* S.P. setting for schedule 1	Press "UP/DOWN" button for +/- 0.5 C°/F°	* S.P. setting for schedule 2	Press "UP/DOWN" button for +/- 0.5 C°/F°	* S.P. setting for schedule 4	Press "UP/DOWN" button for +/- 0.5 C°/F°

Press "SET" button

* S.P. = Set Point

EXAMPLE: Setting Table for SCHEDULES

Table of set-point temperature for each Schedule will be like this (Ex.: 6:00 @ 79 F., 8:00 @ 85 F., 18:00 @ 79 F., 22:00 @ 79 F. every day)

|	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun
Sch. 1 ①	6:00 Cool:79° F	6:00 Cool:79° F	6:00 Cool:79° F	6:00 Cool:79° F	6:00 Cool:79° F	6:00 Cool:79° F	6:00 Cool:79° F	6:00 Cool:79° F
Sch. 2 ②	8:00 Cool:85° F	8:00 Cool:85° F	8:00 Cool:85° F	8:00 Cool:85° F	8:00 Cool:85° F	8:00 Cool:85° F	8:00 Cool:85° F	8:00 Cool:85° F
Sch. 3 ③	18:00 Cool:79° F	18:00 Cool:79° F	18:00 Cool:79° F	18:00 Cool:79° F	18:00 Cool:79° F	18:00 Cool:79° F	18:00 Cool:79° F	18:00 Cool:79° F
Sch. 4 ④	22:00 Cool:79° F	22:00 Cool:79° F	22:00 Cool:79° F	22:00 Cool:79° F	22:00 Cool:79° F	22:00 Cool:79° F	22:00 Cool:79° F	22:00 Cool:79° F

Note: If a scheduled time shows "-.-" instead of a specified time, it means that this schedule is disabled (OFF)

The icon ① ② ③ or ④ will be shown on LCD steadily while the schedule 1,2,3 or 4 is running.

CONTROL ACTION

1. Cooler and Fan Controls:

When cooler is on, a "Running Gear ⚙ icon will be shown on the LCD

Fan Control for Cooling Mode
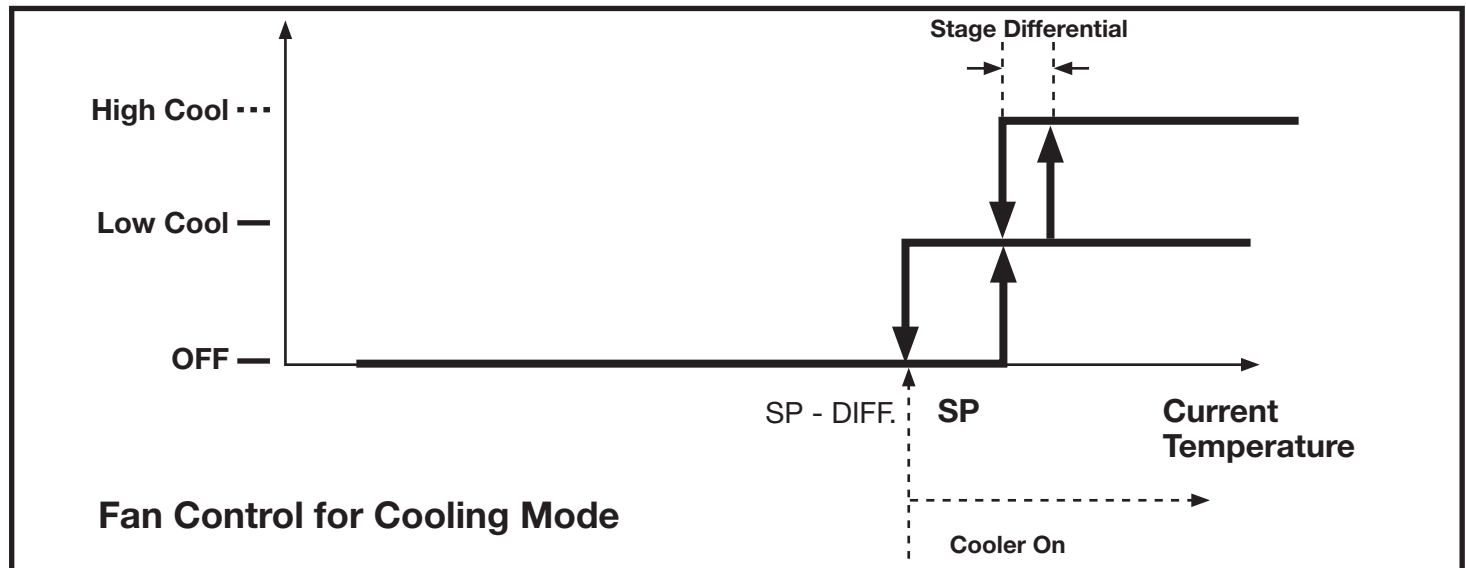
2. Pre-wet Action:

Pre-Wet will happen when the circulating pump is off for 10 minutes or more and call for cooling as the above control diagram. The pump will be on for 1 minute first (i.e. no FAN). After Pre-wet finish, the fan will start and at appropriate speed.
- During Pre-wet period, the icon of ice flake (❄) will flash to indicate pre-wetting is in action.
- Pre-wet might be postponed until drain action finished.

3. Drain Action:

(1) **Automatic Drain:** Every 4 hours of circulating pump operation the drain pump will run for 5 minutes

(2) **Manual Drain:** Press & hold FAN button for more than 3 seconds to command drain pump to activate for 1 1/2 minutes. It will reset the timed circulating pump operation counter. This can be done even at system OFF but not executed during wet-out period. During dwell time, the icon of SUN (☀) will be shown to indicate drain is in action.

4. Fan Controls:

(1) **Vent Mode:** Press FAN push button to set AUTO/ LOW/ HIGH fan speed

(2) **Cool Mode:** Press FAN push button to set AUTO/ LOW/ HIGH fan speed

(3) **Fan HIGH** to fan LOW will have 1.5 seconds delay.