



Owner's Manual

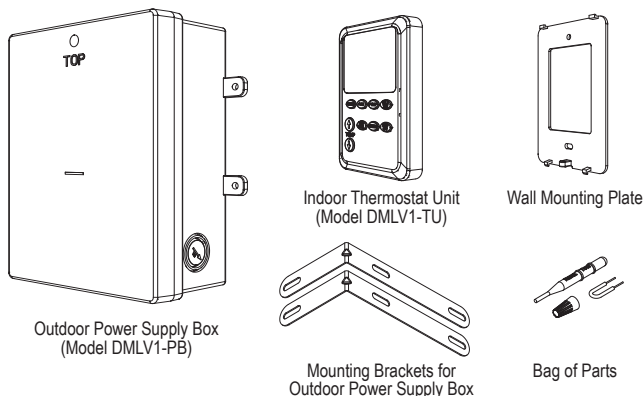
Programmable Low Volt DigiStat Evaporative Cooler Thermostat

⚠WARNING: High voltage is very dangerous. Turn OFF electric power before installing. Installation MUST comply with all Local and National Building, Safety, and Electric codes. Installer must be technically qualified for this type of installation. A qualified Electrician should check all wiring and circuit breakers (or main fuses) and be sure that Evaporative Cooler is properly grounded. Use copper conductors only. For supply voltage (AC IN), and for FAN and PUMP load connections, use properly sized wire - follow NEC guidelines for wire AWG size per wire length and load (amperage) ratings. All wires must be rated for at least 90°C.

⚠CAUTION: Read complete Owner's Manual before attempting any installation. Failure to follow all of these instructions could lead to personal injury and/or property damage.

⚠DANGER: To Reduce the Risk of Electric Shock, DO NOT connect to a circuit operating at more than 150 volts to ground.

⚠WARNING: DO NOT attempt to service or to repair. No user serviceable components.



A. Introduction

1. Functions:

- This Programmable thermostat can be operated in the following ways:
 - As a standard (basic) thermostat with an adjustable Set Point Temperature.
 - As a 7-day repeating, programmable thermostat with one programmable period of time per day. Adjustable parameters during this period include Disable/Enable, Leave and Return times, Set Point Temperature, Fan Speed (Hi, Lo, Auto) and Pump function (On/Off).
 - Using an Over-Ride function where the Set Point Temperature as well as the Fan and Pump operation can be set for a selected Hold-Time period.
- Includes an Automatic Drain Cycle.
- A standard low volume pump (such as Dial's pump Model UL5000) can be used to drain pan.
- Diagnostic test buttons in the Outdoor Power Box allow for quick troubleshooting at the evaporative cooler. Fan speeds and pump operation can be verified at cooler.
- Unit can be operated in Vent mode (pump off) or Cool mode (pump on).

2. Electrical:

- Input (single phase only): 120vac, 60Hz, or 240vac, 60Hz
- Output:
 - FAN (Blower Motor): up to 1HP (120v, 16A; or 240v, 8A)
 - Pad Pump: 120v, 1.8A, or 240v, 0.9A
 - Drain Pump: 120v, 1.0A, or 240v, 0.5A

Note: Fan and pumps must have same rated voltage.

3. Contents:

- Outdoor Power Supply Box (Model DMLV1-PB).
 - The Outdoor Power Supply Box, mounted near the evaporative cooler, will be supplied with either 120V or 240V power. The Power Supply Box will supply power to the fan and pumps.
- Indoor Thermostat Unit (Model DMLV1-TU).
 - The thermostat control will be mounted inside the building. A 3-wire, low voltage thermostat cable (not included) will be run between this indoor unit and the outdoor unit. This indoor control provides communication to the outdoor unit to control the fan and pumps.
- Mounting Brackets for the Outdoor Power Supply Box.
- Bag of Parts:
 - Wall Mounting Plate, for the Indoor Remote Thermostat Unit; Jumper Wire; Wire Nut; Reset Tool

Note: This Outdoor Power Supply Box and its Indoor Remote Thermostat Unit are NOT compatible with other low volt thermostats. They cannot be operated separately. Both units are needed.

A. Introduction (cont.)

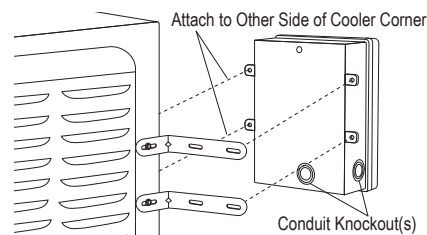
4. Parts Needed - Not Included:

- All necessary wiring, and related outdoor rated water tight electrical conduit and fittings.
- Fasteners for Indoor Wall Mounting Plate, and for Outdoor Power Box.

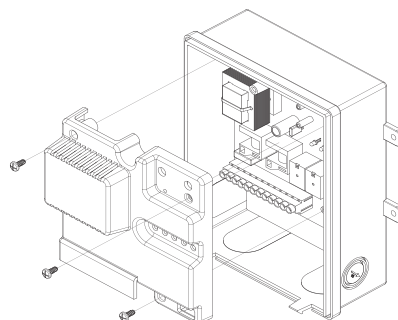
B. Installation & Initial Set-up

⚠WARNING: Turn off electricity at circuit breaker or at main fuse before working on thermostat or evaporative cooler.

- Pick a location to mount Outdoor Power Supply Box.** Consider which knock-out(s) to use when choosing the location. Typically the Outdoor Power Box will be mounted onto the outside of the cooler. DO NOT mount the Outdoor Power Box in an attic (or equivalent) where temperatures can become too extreme in the summertime. Mount the Outdoor Power Box away from cooler pads where it can be damaged by the cooler water. The Outdoor Power Box must be mounted vertically with the word "TOP" on the cover front facing up. Many mounting options exist - where possible, mount the Outdoor Power Box to a flat surface. If needed, two mounting brackets are included to help locate the Outdoor Power Box onto the corner of cooler. The Outdoor Power Box must be securely mounted, and its mounting must meet all Local and National Building, Safety, and Electric codes.

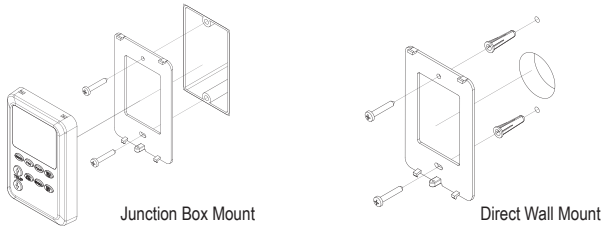


- Remove Cover from the Outdoor Power Supply Box.** Remove screw near the top of the cover.
- Remove appropriate knockouts.** Wear safety glasses for eye protection. Place the Outdoor Power Box on a firm and sturdy surface. Remove knockouts using suitable cutting tools, or hammer and flat-headed screwdriver. Use a separate knockout for the low voltage wires and the line voltage wires. To prevent signal interference, these should not be run together. **Note:** 3/4 inch to 1/2 inch Reducing Washers are available at local hardware stores if larger knockout holes open when a smaller knockout hole was desired.
- Mount Outdoor Power Supply Box.** Review Step 1, above. Installer is responsible to ensure the Outdoor Power Box is securely mounted and that proper mounting hardware is used. Outdoor Power Box mounting must meet all Local Building, Safety, and Electric codes. Fasteners not included.
- Install electrical conduit and fittings (not included).** Properly install water-tight electrical fittings and conduit which are outdoor rated and correctly sized. For the line voltage side, the conduit will run from the Outdoor Power Box to the junction box of the evaporative cooler.
- Remove Inner-barrier.** Remove the 3 screws located inside the Outdoor Power Box which secures the inner barrier. This barrier needs to be removed to access the terminals.

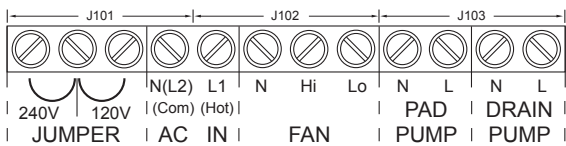


- Pick a location for the Indoor Thermostat Unit.** Locate the thermostat indoors so that it senses average house temperatures and is not subject to unusual temperature variations. Avoid positioning it nearby a cooling vent or within the immediate area of a heat-generating appliance. Normally a hallway location is best.
- Mount Wall Mounting Plate.** This mounting plate can be mounted directly to the wall or to a junction box. If mounting directly to the wall, make a hole in the wall for the low voltage wires to come through and for clearance for the terminal on the back of the thermostat. Wall anchors and screws not included.

B. Installation & Initial Set-up (cont.)



- Install and Connect Low Voltage wiring.** Run 3 conductor thermostat wire (not included) from the Outdoor Power Box to the Indoor Thermostat Unit. Use 18 AWG conductor copper wire designated for Outdoor Use. The maximum length is 100 feet. This thermostat wire is commonly available at local hardware stores. At the Outdoor Power Box, connect the wires to the low voltage terminals labeled "Red", "Green" and "White". At the Indoor Remote Thermostat Unit, connect the same color wire connected to the outdoor "Red" terminal to the terminal marked "Red" on the indoor terminal. Connect the other wires to the "Green" and "White" indoor unit terminals in similar manner. **IMPORTANT:** To avoid possible signal interference, do not install low volt wires immediately next to any other line voltage wires (supply voltage, Fan (Blower Motor), Pumps).
- Install Indoor Thermostat Unit onto Wall Mounting Plate.** Place the top holes of the thermostat over the top mounting plate tabs. Rotate the thermostat down against the wall until the bottom tabs of the mounting plate snap into the bottom holes of the thermostat. Note, to remove the thermostat from the Wall Mounting Plate, use a 1/8 inch or 9/64 inch wide flat headed screwdriver to dislodge the bottom mounting plate snaps from the thermostat holes.
- Install and connect wiring from Fan (Blower Motor) and Pump(s) to the Outdoor Power Box.** Run wire from the Outdoor Power Box to the Cooler Junction box for the motor and pumps. Use wire with copper conductors rated at least 90°C, minimum 12 AWG wire for the motor and minimum 16 AWG for the pumps. Run wire through conduit to the cooler junction box, or use proper outdoor rated cable wire. Follow the wiring connection diagram below to connect the wiring (the same diagram is on the inside label of the Outdoor Power Box cover). **Note:** Ensure Pad Pump wires are correctly connected. If a Drain Pump is desired, use a "Low Level" evaporative cooler Pad Pump for this feature (for example, Dial Mfg Pump Model UL5000, PN 1050 or PN 1055). **Do Not** install a typical timed Purge Pump (timer pump) for the Drain Pump feature.



- Connect the included Jumper Wire. IMPORTANT: Jumper Wire MUST be correctly installed. If not, the transformer may be damaged, which would void the warranty.** For 120V supply voltage, use middle and right terminals of JUMPER section. For 240V supply voltage, use middle and left terminals of JUMPER section. Follow wiring connection diagram and markings on the printed circuit board.
- Connect the Supply Voltage. WARNING: Confirm that electricity is disconnected before proceeding.** With circuit breaker "OFF" or main fuse disconnected, connect the 120 VAC or 240 VAC electric power wires to the "AC IN" terminals in the Outdoor Power Box. Follow wiring connection diagram and markings on printed circuit board.
- Re-install the Inner-barrier.** Use the 3 screws previously removed to secure the inner barrier onto printed circuit board of the Outdoor Power Box.
- Re-install the Outdoor Power Box Cover.**
- Turn circuit breaker "ON" or re-connect main fuse.** LCD of the Indoor Remote Thermostat unit should be active. If not, see the Troubleshooting Guide.

C. System Operation

Once properly installed, the thermostat LCD will constantly display the chosen Set Point Temperature (SPT) in the top left hand corner. The center of the LCD will alternate between measured Room Temperature and Time of day.

- To Adjust Day of Week, and Time of Day:** After first install or after a power loss, the day of week and time of day will need to be updated. If there has been a power loss, the time on the LCD will blink until it has been reset. Press and release the "DAY/CLOCK" button. With the day of the week highlighted, use the "UP" or "DOWN" arrow buttons to adjust the day of week. Press and release the "DAY/CLOCK" button to confirm (store) the day of week. With the time of day highlighted, use the "UP" or "DOWN" arrow buttons to adjust the time of day. **Note:** To increase or decrease the time rapidly, press and hold down the button. When finished, press and release "DAY/CLOCK" button to confirm time of day and return to normal operation. After about 10 seconds of no input this value will be stored automatically.
- Turn On Thermostat:** Press the "POWER" button to turn on the thermostat. This needs to be on in order for the thermostat to function. Press the "POWER" button again to turn off thermostat. None of the thermostat modes will function when "OFF". Note: The thermostat will need to be turned off when setting some of the parameters in section D.

C. System Operation (cont.)

- Standard (basic) Thermostat mode:** When initially turning on the thermostat, the Program Mode and the Hold Time will be off by default. The thermostat will run as a standard basic thermostat. The cooler fan will change state depending on the relationship between the Set Point Temperature (SPT) and the Room Temperature (see "Thermostat Operation" later in this section for more detail). The SPT, which is located on the upper left hand corner of the LCD, can be changed by pressing either the "Up" or "Down" arrow buttons. Note: When initially starting the thermostat, if the unit is calling for cooling, the pump will turn on and go into a "Pre-Wet" cycle where the pump runs without the fan. Once the pre-wet cycle is complete, the fan will operate. The fan speed can be set to either "AUTO", "LO" or "HI" by pressing the "FAN" button. The pump can be turned on or off by pressing the "PUMP" button for Cool or Vent modes.
- Program mode:** Pressing the "RUN/OFF" button will turn on the program mode. The text "PRGM: ON" will be displayed to the right of the LCD when the program mode is active. With the program mode active, the thermostat will operate using a 7-day repeating program. For each day of the week, a "LEAVE" and "RETURN" time can be programmed. During this "Set-Back" period between "LEAVE TIME" and "RETURN TIME", the thermostat will operate using settings programmed for that day, overriding the standard thermostat settings. At any time other than during the "Set-Back" period, the thermostat will operate using the SPT, fan and pump values set during the standard thermostat mode. The parameters that can be programmed for each day's Set-Back period include: SPT, Leave and Return times, Fan speed (Auto, Hi or Lo) and pump function (On or Off). The set-back feature can also be disabled for a particular day. For information on how to set the programming schedule see section E.
- Hold Time mode:** The Hold Time mode will override the Standard and Programming modes for a defined amount of time. This allows the option to change parameters such as SPT or fan and pump function for a specific amount of time without changing the default run parameters. After the Hold Time expires, the system will return to the previous mode settings. To turn Hold Time mode on, press the "HOLD TIME" button. The default Hold Time will be displayed on the LCD screen for 10 seconds. During this time, the Hold Time can be adjusted by pressing either the "Up" or "Down" arrow buttons. The Hold Time can be adjusted hourly from 1 to 12 hours. After 10 seconds of inactivity the Hold Time will be set. Along with the Room Temperature and Time of day, the LCD will also alternately show the time remaining in the Hold Time mode.
- Thermostat operation:** During each of the operating modes, the thermostat will function in the following manner:
 - If the pump is set to the "ON" condition and the unit is calling for cooling, the unit will initially enter a pre-wet cycle before turning on the fan. This pre-wet cycle will last 4 minutes by default. If desired, this pre-wet time can be changed (see section D). The text "PRE-WET" will blink on the LCD screen. This pre-wets the pads prior to starting the fan so that once the fan starts, there will be cool, not hot air. If the pump has run within the previous 30 minutes, the unit will bypass this pre-wet cycle and both the fan and pump will start.
 - If the pump is set to the "OFF" condition, the cooling unit will operate as a fan only. The fan will still change between high, low and off based off SPT and Room Temperature.
 - If the fan condition is set to "AUTO", then the fan will change between High, Low and Off in order to keep the room temperature close to the Set Point temperature. This thermostat allows for some adjustment as to when the fan will change speeds. This adjustment can be changed using the Adjustable Sensitivity Parameter (ASP). There are three different settings of ASP: 2, 3 or 4. The lower the value, the more quickly the fan will change states. The higher the value, the longer it will take to change states. The higher ASP values can help keep the fan from changing frequently which can prolong the life of the components. Depending on the ASP setting, the fan speed will change as follows:
 - With ASP set to 2, the fan will operate at low speed when the room temperature reaches 1°F above SPT. If the temperature reaches 3°F above SPT, then the fan will operate at high speed. If the temperature falls to 1°F above SPT, the fan will operate on low speed. If the temperature falls to 2°F below SPT, both the fan and pump will turn off.
 - With ASP set to 3, the fan will operate at low speed when the room temperature reaches 1°F above SPT. If the temperature reaches 4°F above SPT, then the fan will operate at high speed. If the temperature falls to 1°F above SPT, the fan will operate on low speed. If the temperature falls to 3°F below SPT, both the fan and pump will turn off.
 - With ASP set to 4, the fan will operate at low speed when the room temperature reaches 1°F above SPT. If the temperature reaches 4°F above SPT, then the fan will operate at high speed. If the temperature falls to 1°F above SPT, the fan will operate on low speed. If the temperature falls to 4°F below SPT, both the fan and pump will turn off.
 - If the fan condition is set to "HI", then the fan will operate on high speed only. The fan and pump will turn off if the room temperature falls below the SPT per the ASP settings indicated above. At 1°F above SPT the fan will turn back on at high speed.
 - If the fan condition is set to "LO", then the fan will operate on low speed only. The fan and pump will turn off if the room temperature falls below the SPT per the ASP settings indicated above. At 1°F above SPT the fan will turn back on at low speed.

C. System Operation (cont.)

- Drain Cycle:** This thermostat includes the option for using a standard low volume pump (such as Dial's pump Model UL5000) to drain the reservoir every few hours. After a preset number of hours in which the pump has been running (default 8 hours), the system will enter a drain cycle where the drain pump will run for 5 minutes. After the drain cycle is complete, the timer will reset. See section D for changing the time parameters for this drain cycle. During the drain cycle, the text "DRAIN CYCLE" will blink on the LCD.
- Room Temperature Adjustment:** The room temperature can be adjusted (calibrated) to match other nearby thermostats. See section D for more details.
- Resetting Thermostat:** To reset thermostat to original default settings, press the reset button on the back of the Indoor Thermostat or inside the Outdoor Power Box.

D. System Parameters

- Day and Time:** Default: Saturday, 8am.
 - See step 1 of section C for setting Day and Time.
- Set Point Temperature (SPT):** Default: 77°F
 - With the power "On", press the "Up" or "Down" arrow button to adjust temperature.
- Fan Motor Speed:** Default: AUTO
 - Press the "FAN" button to select between automatic (AUTO), low speed (Lo) and high speed (Hi).
- Pad Pump:** Default: ON
 - Press the "PUMP" button to select "ON" (cool mode) or "OFF" (vent mode).
- Program Mode:** Default: OFF
 - Press the "RUN/OFF" button to turn the program mode ON ("PRGM: ON" will be displayed while in this state) or OFF ("PRGM: OFF" will be displayed and blinking for the first few seconds after turning off).
- Hold Time:** Default mode: OFF, Default time: 2 hours
 - Press the "HOLD TIME" button to turn on the Hold Time function. The Hold Time can be adjusted for the first few seconds after pressing the button. The icon above the button will show "ON" and remaining time will be shown on the LCD. Pressing the "HOLD TIME" button again will turn off the Hold Time function. The default Hold Time can be adjusted as follows: With the Power "OFF", press and release the "HOLD TIME" button. The current default Hold Time will be shown. Press either the "Up" or "Down" arrow button to increase or decrease the Hold Time. This can be adjusted in 1 hour increments from 1 to 12 hours.
- Pad Pump Pre-Wet Time:** Default: 4 minutes
 - To change the default time, press the "POWER" button to turn off the thermostat. Press and hold down both the "PUMP" and "UP" arrow buttons for about 4 seconds. The display will show the default time. Press either the "Up" or "Down" arrow button to select between 0, 2 or 4 minutes. At 0 minutes, the unit will bypass the Pre-Wet function.
- Drain Pump Cycle Time:** Default: 8 hours
 - To change the default time, press the "Power" button to turn off the thermostat. Press and hold down both the "PUMP" and "DOWN" arrow buttons for about 4 seconds. Press either the "Up" or "Down" arrow button to select between 0, 6, 8 or 12 hours. Note: If 0 is selected, this will start a 5 minute drain cycle immediately after the power is turned back on, after which the previous Drain Cycle Time will be re-stored.
- Adjustable Sensitivity Parameter (ASP):** Default: 3°F
 - To change the default ASP parameter, press the "POWER" button to turn off the thermostat. Press and hold down both the "FAN" and "UP" arrow buttons for about 4 seconds. Press either the Up or Down arrow buttons to select between 2, 3 or 4°F.
- Room Temperature Calibration:** Default: 0°F
 - To adjust or calibrate the room temperature, press the "POWER" button to turn off the thermostat. Press and hold down both the "UP" and "DOWN" arrow buttons for about 4 seconds. The current room temperature will be displayed with the text "CAL" blinking to the side. Press either the "UP" or "DOWN" arrow buttons to increase or decrease the displayed room temperature to the desired value. Temperature may be adjusted +/- 10°F.
- Program Schedule:** Defaults: Set-Back period "OFF" for Saturday and Sunday. Set-Back period for Monday through Friday is 8am (Leave), 4pm (Return), 80°F SPT, Fan on "Auto", Pump "On".
 - For information on setting the program schedule see section E.

Note: Press and release the "RESET" button (on backside of Indoor Thermostat Unit, or inside Outdoor Power Box) to restore all original factory default settings. If an electric power outage occurs, all system parameters will be saved. After power returns however, the day of the week and time of day will need to be updated since the time does not increase without power. It will show the last saved value when power returns and the time and day will blink until updated.

E. Program Schedule

Your Programmable Low Volt DigiStat thermostat can be programmed for up to one Set-Back Period for each day of the week. When Program mode is active (PRGM: ON), then this 7-day program cycle will repeat.

For each day, the Set-back "LEAVE" time, "RETURN" time, SPT, FAN (AUTO, or LO, or HI), and PUMP (ON or OFF) can be adjusted. The Set-back Period for any Day of the Week can also be turned "OFF" or "ON".

E. Program Schedule (cont.)

Note: While changing a Program Schedule, after about 10 seconds of no input, the latest updated values will be stored automatically, and System will return LCD to its previous state.

1. Setting Program Parameters for Specific Day of Week:

- Press the "SCHEDULE" button (Power icon can be "ON" or "OFF"). The Set-Back Day "MO" (Monday) will be blinking.
- Press the "UP" or "DOWN" arrow button until desired Day of Week is shown on LCD. Press the "SCHEDULE" button to select this Day.
- The display will show either "On" or "OFF". Press either the "UP" or "DOWN" arrow button to change this setting. If "OFF" is selected, then the set-back time will be disabled and the thermostat will function using the standard thermostat settings for that day. Press the "SCHEDULE" button to save settings. If "OFF" was selected, the LCD will return to its previous run state.
- If "On" was selected, the display will show "LEAVE" time. Press either the "UP" or "DOWN" arrow buttons to increase or decrease the time. Note: To increase or decrease the time rapidly, press and hold down the button. Press the "SCHEDULE" button to save setting.
- The display will show "RETURN" time. Press either the "UP" or "DOWN" arrow button to increase or decrease the time. Note: To increase or decrease the time rapidly, press and hold down the button. Press the "SCHEDULE" button to save setting.
- The Set Point Temperature will be blinking in the upper left corner of the display. Press the "UP" or "DOWN" arrow button to increase or decrease desired SPT value. Tip: If the desire is to not run the evaporative cooler during this set-back period, increase the SPT to a high value (e.g. 99°F). Press the "SCHEDULE" button to store SPT value.
- The currently saved fan setting will be blinking. Press "FAN" button to change FAN operation between AUTO, LO (low speed), and HI (high speed). Press "SCHEDULE" button to store FAN setting.
- The currently saved pump setting will be blinking. Press "PUMP" button to change operation (ON or OFF). Tip: If during the set-back period, all the windows and doors will be closed and there is no "Up-Dux" or similar to exhaust the air, turn the pump off. If the cooler is running without a way to exhaust the air, humidity will build up in the house. Press and release the "SCHEDULE" button when finished to store PUMP setting and exit program settings. LCD will return to its previous run state.
- Repeat steps a through h to program other days of week.

2. To Make Monday through Friday Program Settings All the Same:

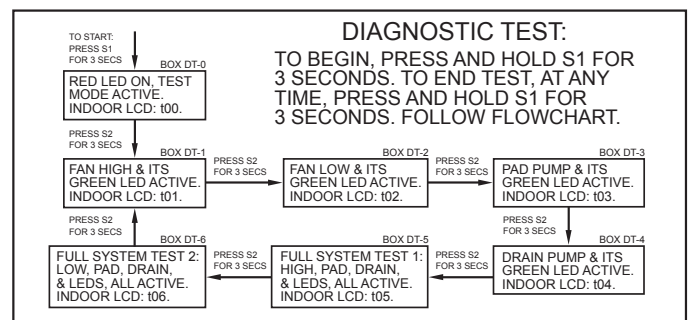
- Set program parameters for Monday following steps 1a to 1g above.
- After selecting the pump operation setting for Monday, press and hold the "SCHEDULE" button for about 5 seconds, until LCD screen changes to its previous run state. This action will store the PUMP setting and also copy Monday's schedule to Tuesday, Wednesday, Thursday, and Friday.

3. Copying Program settings from one Day to another Day of Week:

- Press and release "SCHEDULE" button.
- With "MO" (Monday) blinking on LCD, press and hold both "FAN" and "PUMP" buttons for about 5 seconds. The text "COPY" will be displayed on LCD.
- Press the "UP" or "DOWN" arrow button until desired Day to copy is blinking.
- Press and hold both "FAN" and "PUMP" buttons for about 5 seconds. The text "COPY TO" will now be displayed on LCD.
- Press the "UP" or "DOWN" arrow button until desired Day to copy-to is blinking.
- Press and release "SCHEDULE" button to finish copying settings.

F. Troubleshooting

- System Diagnostic Test:** There are two test buttons (S1 and S2) in the Outdoor Power Supply Box which can be used to test fan and pump operation. This can be helpful to diagnose problems quickly. See flowchart below.



F. Troubleshooting (cont.)

To begin a diagnostic test, press and hold test button S1 for about 3 seconds. The Red LED will turn On and remain On for the duration of the tests. The fan motor, pad pump, drain pump, as well as the corresponding LEDs, will all be off. The Indoor LCD will blink "t00". Press and hold test button S2 for about 3 seconds. This should start the fan motor on High speed (the pumps will remain off). The "FAN HIGH" Green LED will be lit and the Indoor LCD will blink "t01". Press and hold the test button S2 to test other components as desired, following the above flowchart. To stop the diagnostic test, at any point press and hold the test button S1 for about 3 seconds. The Red LED will turn off and the system will return to its previous state prior to entering the diagnostic test.

- 2. System Reset:** The system can be reset to its original factory default conditions. Press and release the "RESET" button found inside Outdoor Power Box or on backside of Indoor Remote Unit. To remove the Indoor unit from the Wall Mounting Plate, use a 1/8 inch or 9/64 inch wide flat headed screwdriver to dislodge the bottom mounting plate snaps from the thermostat holes.
- 3. Additional Troubleshooting Tips:** See below for troubleshooting table.

G. Limited Warranty

1. Programmable Low Volt DigiStat is warranted under normal use for one (1) year from date of sale to user by an authorized dealer or retailer.
2. Systems that fail as a result of a defect in material or workmanship must be replaced through your authorized dealer or retailer.
3. Reason for return, purchase date, failure date, and sales receipt must accompany all returned systems.
4. This Warranty does not cover damage or malfunction not caused by defect in material or workmanship, including but not limited to internal water damage, abuse, alteration, improper installation and/or transportation damage.
5. Dial will not pay the cost of a service call at the site of installation to diagnose cause of trouble or the cost of labor or transportation to replace defective control systems.
6. Dial is not responsible for any incidental or consequential damage resulting from any malfunction unless required to do so by State Law.

Troubleshooting Guide

CONDITION	POSSIBLE CAUSE	CORRECTIVE ACTION	
Indoor LCD is Blank (No Display)	No Supply Voltage	Measure voltage across 'AC IN' terminals. If no voltage, circuit breaker tripped (main fuse blown), or a bad connection. Disconnect electricity and fix issue.	
	If Supply Voltage is Okay Across 'AC IN' Terminals.	Jumper Wire Not Installed	Disconnect electricity and install jumper wire per Section B, step 12.
		'RED' Low Volt Wire Connection is Bad	Disconnect electricity and double check all connections, or replace wire.
		'GREEN' Low Volt Wire Connection is Bad	Disconnect electricity and double check all connections, or replace wire.
Error Code 'E01' Shows on Indoor LCD	'WHITE' Low Volt Wire Connection is Bad	Disconnect electricity and double check all connections, or replace wire. Reset system or replace system.	
Error Code 'E02' Shows on Indoor LCD	Issue with Outdoor Power Box Assembly	Reset system (press and release Reset button). Otherwise, replace system.	
Error Code 'E03' Shows on Indoor LCD	'AC IN' is 120V but Jumper Wire in 240V Position	Disconnect electricity and re-position jumper wire to terminals 2 and 3 (120V position). See text on PCB of Outdoor Power Supply Box.	
Error Code 'E04' Shows on Indoor LCD	'AC IN' is 240V but Jumper Wire in 120V Position	Fix quickly to avoid transformer damage! Disconnect electricity and re-position jumper wire to terminals 1 and 2 (240V position). See text on PCB of Outdoor Power Supply Box.	
Day of Week and Time of Day, Blinking	Recent Electric Power Outage Occurred	See Section C, Step 1 to set Day of Week and Time of Day.	
Fan (Blower Motor) Does Not Work	Active Pad Pump Pre-Wet Cycle	Wait for 'Pre-Wet' segment on LCD to stop blinking. See Section D, step 7 to adjust pad pump pre-wet time.	
	Power Icon is "OFF"	Press and release POWER button to turn thermostat on.	
	Set Point Temperature (SPT) less than Room Temperature	Lower the Set Point Temperature (SPT).	
	Faulty Wiring of Fan (Blower Motor)	Verify all fan (blower motor) wires are correctly connected. Review wiring connection diagram.	
	Relay on Control PCB is Bad	Follow diagnostic test flowchart to Box DT-1 or DT-2. Check voltage at fan terminal. If LED light is on for Fan High and there is no voltage between Fan Hi and N terminals, or if the LED light is on for Fan Low and there is no voltage between Fan Lo and N terminals, the control relay is bad. Replace controller.	
	Blower Motor is Bad	Follow diagnostic test flowchart to Box DT-1 or DT-2. If fan does not operate, and there is voltage at fan terminals, replace fan blower motor.	
Pad Pump Does Not Work	Faulty Wiring of Pad Pump	Verify all pad pump wires are correctly connected. Review wiring connection diagram.	
	Pad Pump Failed	Follow diagnostic test flowchart to Box DT-3. If pad pump does not operate, and there is voltage at pad pump terminals, replace pad pump.	
Drain Pump Does Not Work	No Drain Pump Installed	Install drain pump. Use a standard evaporative cooler pad pump.	
	A 'Timed' Drain Pump is Installed	Do not use a 'Timed' drain pump. Install a standard evaporative cooler pad pump.	
	Faulty Wiring of Drain Pump	Verify all drain pump wires are correctly connected. Review wiring connection diagram.	
	Drain Pump Cycle Time Not Completed	Wait for drain cycle to activate. See Section D, Step 8 to conduct an immediate drain pump cycle.	
	Drain Pump Failed	Follow diagnostic test flowchart to Box DT-4. If drain pump does not operate, and there is voltage at drain pump terminals, replace drain pump.	
Room Temperature Different Than Other Nearby Thermostat	Not Unusual for Multiple Thermostats	'Calibrate' DigiStat. See Section D, Step 10, to adjust displayed room temperature.	
Cover Screw of Outdoor Power Supply Box is Lost		Replacement Screw is: #8-18 x 3/8" Long, TSA (sheet metal screw), Phillips Pan Head, Zinc Plated Steel	