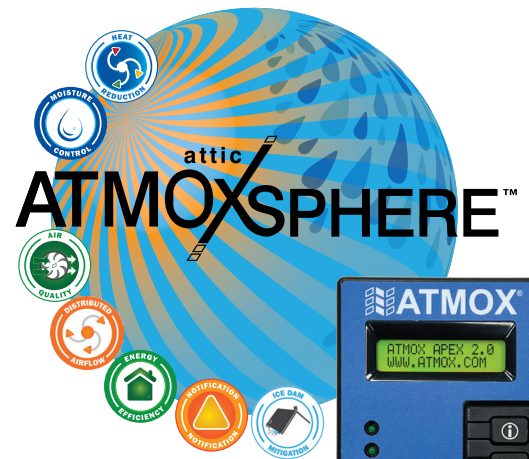
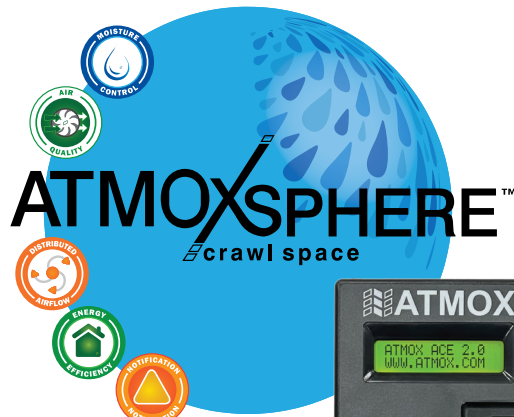


INSTALLATION GUIDE



Moisture Control & Heat Reduction



ACE^{2.0}
by ATMOX®

APEX^{2.0}
by ATMOX®

Thank you for purchasing an ATMOX Controller. This installation guide covers the steps to install and set up the ATMOX ACE and APEX Controllers and attached components. All information applies to both controllers unless expressly noted by (ACE) or (APEX).

Please leave with homeowner for future reference. For instructions on fans, lights, dehumidifiers, and other accessories, please refer to specification sheets by product.

For assistance or questions, contact ATMOX:

PHONE: 704-248-2858
EMAIL: INFO@ATMOX.COM

INSTALLER INFORMATION

ITEM: ACE 2.0 Control Set
APEX 2.0 Control Set

SERIAL NUMBER: _____

INSTALL DATE: _____

INSTALLER CONTACT INFORMATION

NAME: _____

PHONE: _____

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OPERATING PRINCIPLE



Unfinished spaces of your house need proper ventilation and/or dehumidification. The goal of ATMOX is simple – reduce the moisture level in your crawl space and reduce both heat and moisture levels in your attic.


The basic principle of how it works is also simple. Ventilate with “good” air from the outside only when it will improve conditions in the space. The ATMOX controllers use sensors to measure temperature and humidity and then calculate dew point both inside and outside. Based on the data, the software will determine the best course of action to reduce moisture and/or heat. In a crawl space environment, ATMOX can incorporate ventilation fans, circulation fans, and a dehumidifier.

ATMOX systems are designed with a focus on energy efficiency and air quality of the home. Once installed, the ATMOX system will operate automatically.

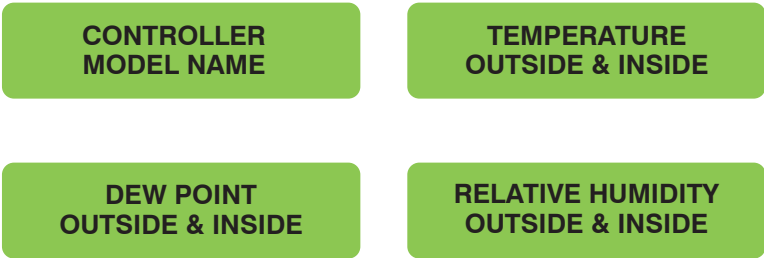


Do not adjust settings on your system without talking to your installer. Improper settings can negatively affect the operation of the ATMOX system.

INFORMATIONAL SCREENS

The ATMOX display will automatically rotate through its standard informational screens about every five seconds. To scroll more quickly, press the Information button. 

WHAT EACH SCREEN DISPLAYS WHILE SCROLLING:



The ATMOX system uses a series of calculations based on the data to determine the best action.

Temperature determines:

- If attic fans should operate for high heat. (APEX)
- If the outside temperature is within parameters to allow ventilation and to avoid air that is too cold or too hot.

Dew point comparison determines:

- If outside ventilation will reduce moisture. Lower dew point means there is less moisture in the air.

Relative humidity determines:

- If internal fans or a dehumidifier should operate. (ACE)
- If outside ventilation should cease to optimize energy efficiency.

WOOD MOISTURE

If installed, wood moisture measurement is a great tool to evaluate actual moisture in the space. The readings will vary throughout the year. In general, 10-16% wood moisture content is considered a healthy range for an unfinished space.

SNOW MODE

(APEX) If activated, snow mode is a feature that can be turned on to mitigate the potential for ice damming in climates where snow and ice buildup create challenges for the attic. Snow mode is a tool used to fight ice damming but needs to be viewed as part of an overall strategy as it may not eliminate all issues in all attics on its own. Snow mode must be activated during setup or in the settings menu. See **SETTINGS MENU** section for instructions on how to turn on.

NOTIFICATIONS

When illuminated, the lights on the controller indicate which components on the system are currently active. Flashing lights indicate that the system is in a time delay and may be switching operations.

ACE DISPLAY LIGHTS

EXHAUST/INTAKE: Fans installed in exterior vent locations are in operation.

INTERNAL FANS: Fans installed inside a crawl space are in operation.

DEHUMIDIFIER: Dehumidifier is in operation.

IDLE: System has no current operation and no current alerts.

LIGHTS: Lights are in operation. Lights are turned on and off manually by pressing the light bulb buttons. After two hours of operation, lights will automatically turn off.

ALERT: The system is bringing an alert to your attention. Read message on screen for more information.



APEX DISPLAY LIGHTS

ATTIC FANS: Fans are in operation.

IDLE: System has no current operation and no current alerts.

LIGHTS: Lights are in operation. Lights are turned on and off manually by pressing the light bulb buttons. After two hours of operation, lights will automatically turn off.

ALERT: The system is bringing an alert to your attention. Read message on screen for more information.



SCREEN ALERTS

When the Alert light is on, the following alerts are notifications of a possible issue within the space that should be watched or evaluated.

WOOD MOISTURE
ALERT

HIGH WATER
ALERT

ELEVATED RH
ALERT





LOW TEMPERATURE
ALERT

The Alert light is also a notification of a hardware issue with the ATMOX system. These errors will limit or cease operation and should be addressed immediately.



For any system alerts, contact your installer for assistance or view more detailed information in TROUBLESHOOTING section.

NAVIGATION & SETTINGS

BUTTON		FUNCTION
	Information Shown as: (i)	Used for scrolling through screens. When changing settings, this button saves and updates any changes made.
	Up Arrow Shown as: (Y)	Used to turn lights on. Within a settings menu, this button indicates an answer of Yes or increases numeric value.
	Down Arrow Shown as: (N)	Used to turn lights off. Within a settings menu, this button indicates an answer of No or decreases numeric value.
	Home Shown as: Home Button	Used to return to the main informational screens. To get to the menu for settings and testing, press and hold this button for five seconds. For more information on changing settings, see SETTINGS MENU section.

MAINTENANCE

ATMOX suggests a periodic maintenance inspection of your ATMOX system and unfinished space by your installer. Conditions in and around your home are always changing. Please be aware of the following during other times of the year:

Power Connection

If the display screen is not showing any readings, it most likely has no electrical power and is not operating. In this case, see if something is unplugged or make sure that the outlet being used by the controller in the unfinished space has power. It is possible for controller to operate independently of display for several days. If display and/or controller have no power, then contact your installer for more information.

System Alerts

If the ATMOX system is showing an alert, then the system may not be operating or may be notifying you of another potential issue. Please check periodically to make sure that the display has no alerts needing attention.

Fan Operation

ATMOX fans (particularly in a crawl space environment) should periodically be brushed off lightly to keep debris from blocking ventilation. The display may not give a notification if any single fan or group of fans are not operating. Fans should periodically be checked for operation.

Dehumidifier Operation (ACE)

If a dehumidifier is installed, follow the guidelines from the dehumidifier manufacturer with regard to filter replacement or cleaning.

Water Management (ACE)

It is important to note that the ATMOX system is a moisture management system and not a water management system. Dry air or a dehumidifier cannot get rid of standing water in a crawl space. Every effort should be made to drain water away from the foundation. Gutters should be cleaned out, and downspouts should drain away from the house. If you have water intrusion in your crawl space, this needs to be addressed separately from or in addition to your moisture problem.

FREQUENTLY ASKED QUESTIONS

What happens if there is a blackout or power outage?

The ATMOX controller and components will not run without electrical power. When power is restored, the ATMOX controller will automatically restart and continue normal operation. If controller has no power, then check outlet for power interruption (i.e. a tripped GFCI). All settings are retained so there is no need to do anything on display.

Will the fans running cause too much cold air to be brought in during the winter?

In the crawl space, the controller adjusts for seasonal ventilation modes. The fans will not bring outside air into the crawl space below a set temperature. In the attic, the fans will not bring outside air into the attic below a set temperature which can be adjusted.

The relative humidity inside my space is higher than outside, why aren't my fans on?

Fans ventilating with air from the outside will compare conditions between the outside air and the inside air. The fans will run based on a dew point comparison as this gives the best measurement of actual moisture in the air. There are times of the year when the outside temperature is high, and the dew point will not be lower outside even though the humidity appears lower. Humidity measurements are greatly affected by temperature and can be misleading with regard to moisture in the air.

It is raining outside, and the fans are running. What is wrong?

The answer is probably nothing. You have to trust the system even when it doesn't seem intuitive. The fans will be activated by dew point and not humidity levels. If a cold front comes through (even with rain), it is possible that the colder air will have a lower dew point than the dew point in the space. The air with lower dew point will be beneficial to the space.

I have a system alert or a question, who should I contact?

Contact your local installer first as they will have more information about the specifics of your home and system. For any additional information or questions, contact ATMOX by phone at 704-248-2858 or email info@atmox.com.

SAFETY INSTRUCTIONS



WARNING

- To reduce the risk of electric shock, the controller has a three-prong grounding plug on the power cord. Do not cut, remove or bypass the grounding plug.
- Do not use with an extension cord.
- Do not operate with a damaged power cord. A damaged cord should be replaced by a licensed electrician or an ATMOX representative.
- In the event of a malfunction, immediately stop operation and disconnect power cord.
- Do not install in standing water or location that could be directly splashed by water.



CAUTION

- Do not wire or attach components while controller is plugged in.
- Do not disassemble, repair or modify the product.
- Do not insert fingers or other items into any openings or ports other than designated jacks.

NOTICE

NOTICE

- Only use approved ATMOX fans, lights and accessories with the ATMOX controller.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy, and if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment OFF and ON, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This device complies with Industry Canada license- exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

The ATMOX Controller 2.0 conforms to unified standard UL 60730-1 and UL 60730-2-9 and CSA standard E60730-1 and CSA standard E60730-2-9.

WARNING: Cancer and Reproductive Harm – For more information, go to www.P65Warnings.ca.gov

SPECIFICATIONS

Input: 120VAC 60Hz 1.25A

Output: 12VDC 150WATTS MAX

Environmental Conditions: Pollution Degree 2

Data Input: 2 Temperature/Relative Humidity, 1 Wood Moisture, 1 Water Alert

Power Output (ACE): 4 Switched, 1 Constant

Power Output (APEX): 2 Switched, 1 Constant

BOX CONTENTS (ACE/APEX)

1. Display
2. Controller
3. Outside Temperature and Humidity Sensor
4. Inside Temperature and Humidity Sensor
5. Mounting Plate for Display with Screws and Anchors
6. Extension Cables
7. Cable Couplers
8. Quick Splice Connectors
9. Installation Guide

General tools and supplies needed for installation are not included. Screws for mounting controller, sensors or other ATMOX components should be selected based on the surface to which you are mounting.

PLACEMENT & CONFIGURATION - ACE

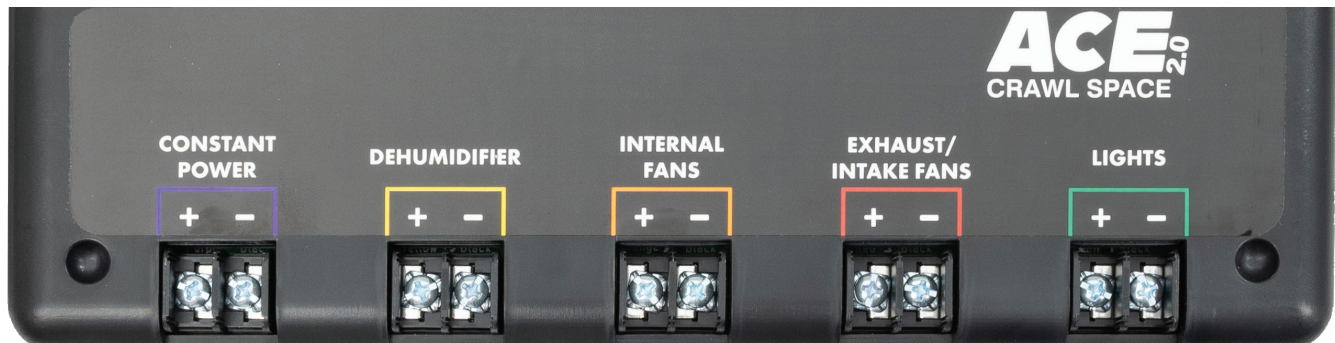


Before beginning installation, take a moment to review components that you will be installing. As you review steps, think about where components will be placed. A little pre-planning will make things go very smoothly when installing.

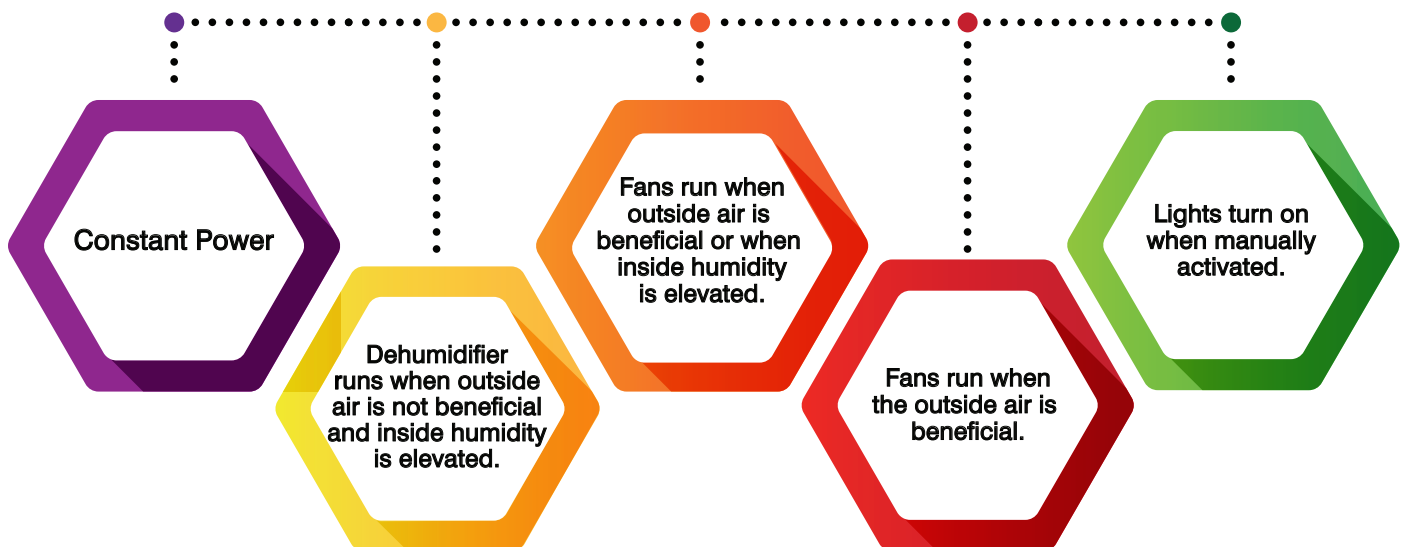


Controller and Sensor Placement

- 1 Display
- 2 Controller
- 3 Inside Sensor
- 4 Outside Sensor

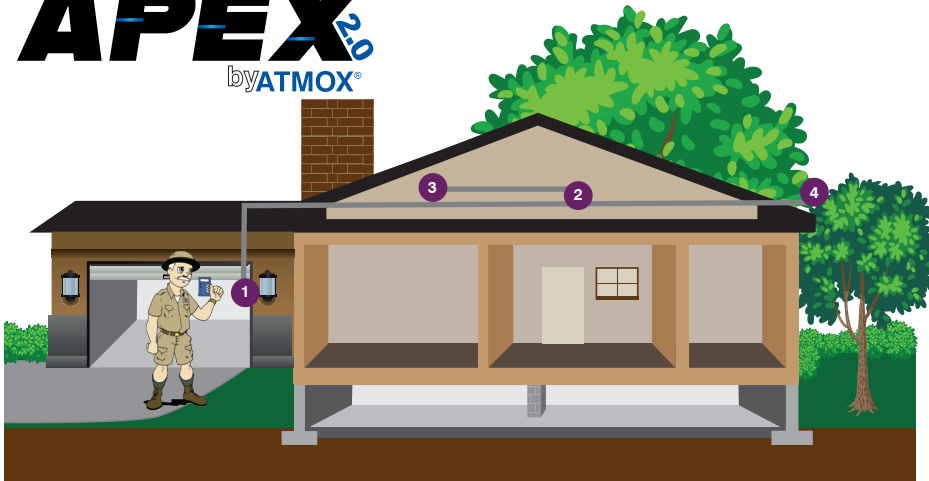


CRAWL SPACE FUNCTION BY OUTPUT



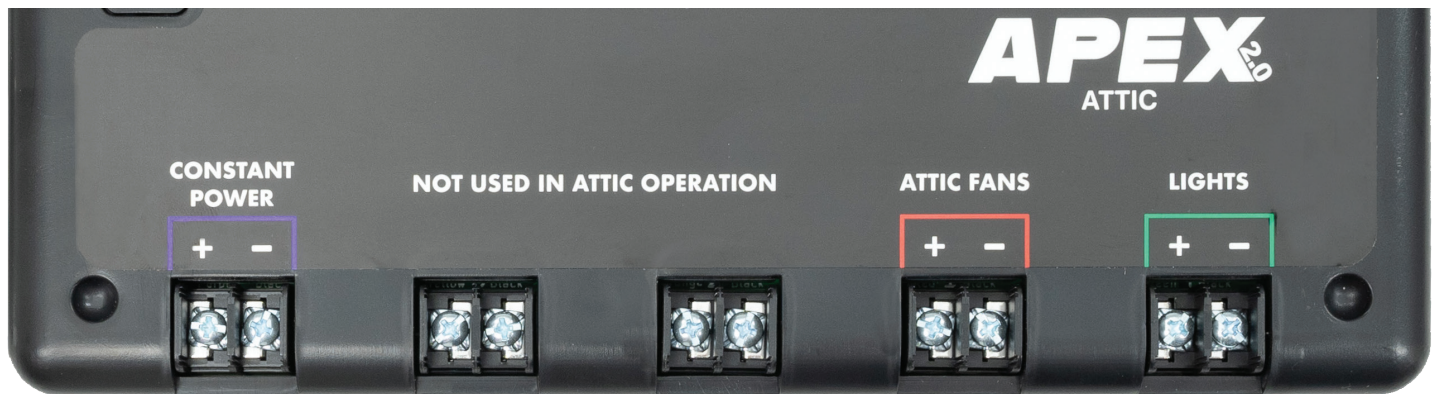
PLACEMENT & CONFIGURATION - APEX

APEX^{2.0}
by **ATMOX**

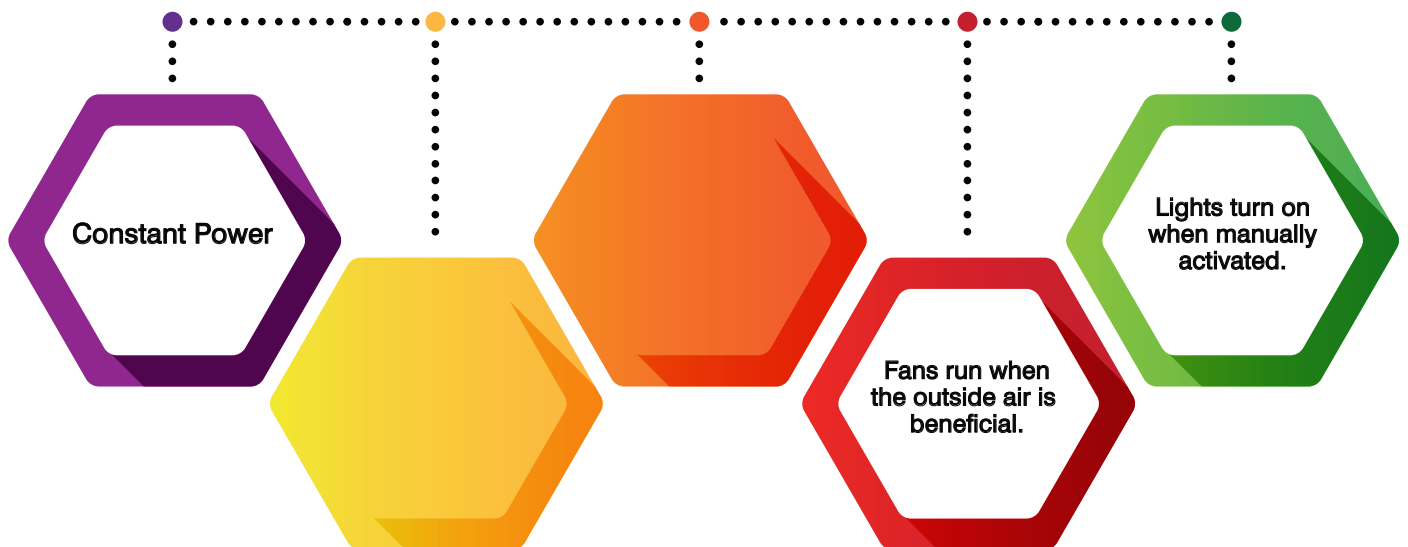


Controller and Sensor Placement

- 1 Display
- 2 Controller
- 3 Inside Sensor
- 4 Outside Sensor

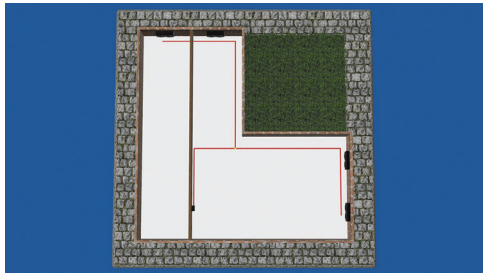


ATTIC FUNCTION BY OUTPUT



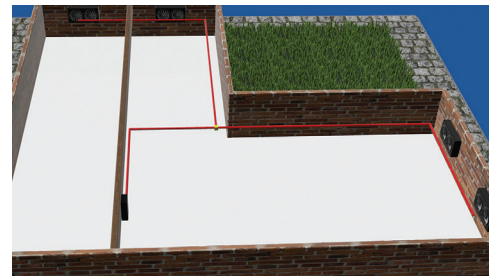
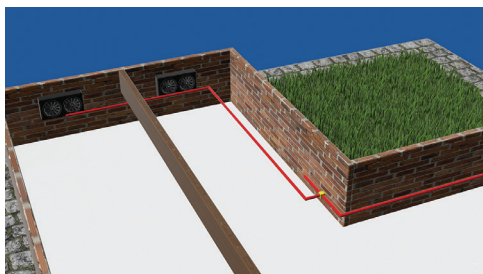
LOW VOLTAGE WIRING PLANNING

Determine where components will be placed. The controller location will dictate the origin of your wiring. It is important to understand the function of each component in the space. The function (not necessarily the type of component) determines which output line the component will be wired to. These functions should be determined prior to running low voltage wire to components. Each output line uses its own separate wire running from the controller to the component locations.



- 1 Think about how to bring the low voltage wire to all of the components on the same output line starting from the controller.

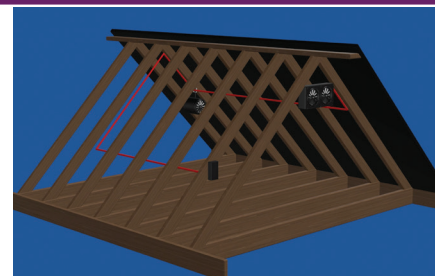
- 2 Begin at the controller and start taking the primary wire to the components. At the end of a run, cut off any wire.



- 3 If extra length is needed on the primary wire, attach a supplemental wire to the primary wire to keep going in the same direction.

- 4 If your fans split off into different directions, you can add a supplemental wire to the primary wire in any location and make a Y-type split.

For details on how to connect the wiring, see LOW VOLTAGE WIRING section.



Wiring in an attic is the same as in a crawl space.



Do not use a separate wire for each fan. The setup is a daisy chain. Keep total length of low voltage wire on one run to a maximum of 150 feet.

The ATMOX controller will power and/or control components. Once installed, components will operate automatically or on command.



The power supply in the controller is limited to 150 WATTS. Refer to the specification sheet of each component used to determine total power usage. If you exceed 150 watts of power with fans or lights, you will need an additional controller.

The use of fans or lights not manufactured by ATMOX may not be compatible with the ATMOX controller and may cause an electrical surge or damage the controller. Damage caused by noncompatible components or incorrect wiring is not covered under the ATMOX product warranty.

Using components on the wrong output line may lead to improper operation of the ATMOX controller and have a detrimental effect. As the installer, you should have a plan on effective placement of components. Follow specific guidelines on wiring configuration by controller as described in PLANNING section.



FANS

Follow instructions supplied with each fan for proper mounting. The controller will determine when fan operation is beneficial to the space.



In a crawl space, intake fans should not be placed under a deck or porch. Intake fans should not be placed within ten feet of a gas meter or gas furnace exhaust.



LIGHTS

Follow instructions supplied with each light for proper mounting. Lights can be turned on and off manually from the display box by pressing the buttons with the light bulbs.



DEHUMIDIFIER (ACE)

Follow instructions supplied by dehumidifier manufacturer for proper setup and water drainage. Follow instructions with ATMOX Relay Kit to connect dehumidifier to ATMOX controller for proper operation and setup.



Dehumidifier must have its own electrical outlet within distance of dehumidifier electrical cord.

CONTROLLER INSTALLATION

DO NOT PLUG CONTROLLER INTO ELECTRICAL OUTLET AT THIS TIME.

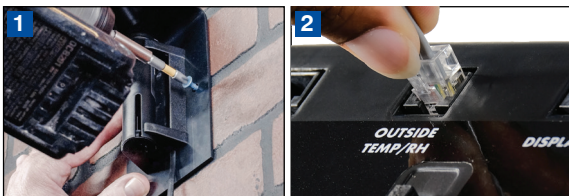


- 1 Mount using four screw holes by an electrical outlet in or near the attic/crawl space.



Don't place controller in an outside location. In attic, don't place within two feet of the roof rafters.

OUTSIDE SENSOR

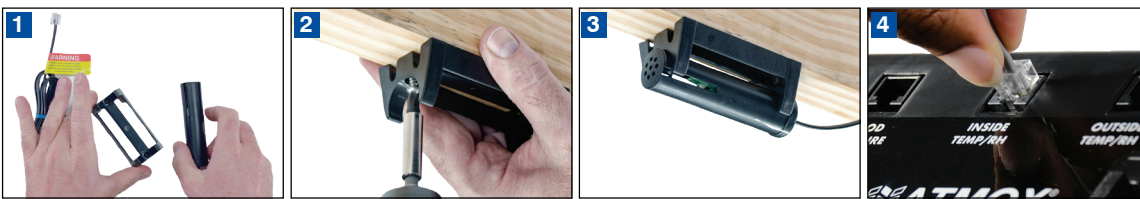


- 1 Use two screws to mount in outside location within a few feet of wire feed into attic/crawl space.
- 2 Plug jack into OUTSIDE TEMP/RH port.



Avoid locations adjacent to HVAC equipment or an exhaust fan. Avoid direct or constant sun when possible as this may cause higher temperature readings.

INSIDE SENSOR



- 1 Pull sensor from mounting bracket.
- 2 Use two screws to mount on a joist or beam inside attic/crawl space.
- 3 Push sensor back into bracket.
- 4 Plug jack into INSIDE TEMP/RH port.



Placing inside sensor in the middle of the attic/crawl space is preferable. If you have a dehumidifier, do not place the inside sensor within ten feet of the dehumidifier.

WOOD MOISTURE SENSOR

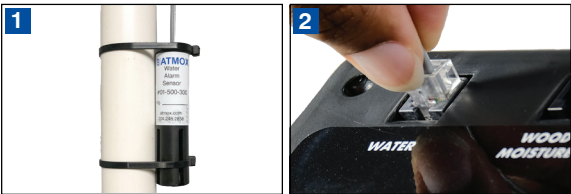


- 1 Use two screws to mount on a joist or beam inside attic/crawl space.
- 2 Plug jack into WOOD MOISTURE port.



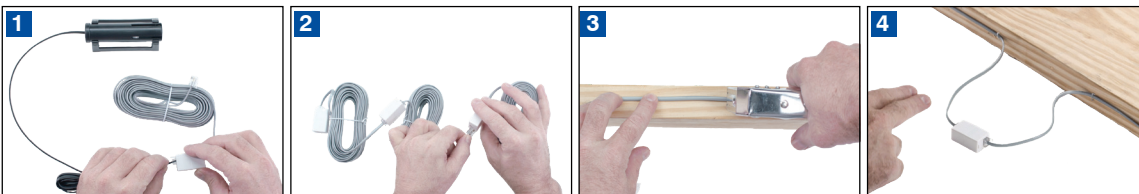
It may take a few days for the wood sensor to acclimate and provide accurate readings.

WATER ALERT SENSOR



- 1 Place sensor in location that may have water issue.
- 2 Plug jack into WATER port.

EXTENSION CABLES



Twenty-five foot extension cables and couplers are provided to extend sensor cables to the controller. They can be used in any combination.

- 1 Insert end of sensor cable into coupler.
- 2 Connect additional extension cables as needed.
- 3 Fasten cable to joists. Be careful not to staple through cable.
- 4 Create a drop loop at each coupler connection before securing to joist. Tension on jacks may cause internal damage to cable.



All coupler connections must be installed inside the attic/crawl space. If the jacks and couplers are outside, they will get wet and corrode causing a sensor error.



It is not recommended to exceed two couplers in one cable run.

OVERVIEW

ATMOX components such as fans and lights are designed for connection to controllers via low voltage wiring.



Use 14/2 low voltage wire. This wire can have different grooves or writing. Pick one side as positive and the other as negative. Be consistent throughout installation. **ATMOX suggests grooved side as NEGATIVE and smooth side as POSITIVE.**



Low voltage wiring connects to controller in terminal blocks. For each output, the left block (+) is POSITIVE and the right block (-) is NEGATIVE. Each pair is used for a different function.



Quick Splice Connectors connect connector wire to the low voltage wire.



Connector Wire connects the ATMOX component to low voltage wire with quick splice connectors. **Black wire is POSITIVE. White wire is NEGATIVE.**

Before you begin any wiring, please follow these important steps:

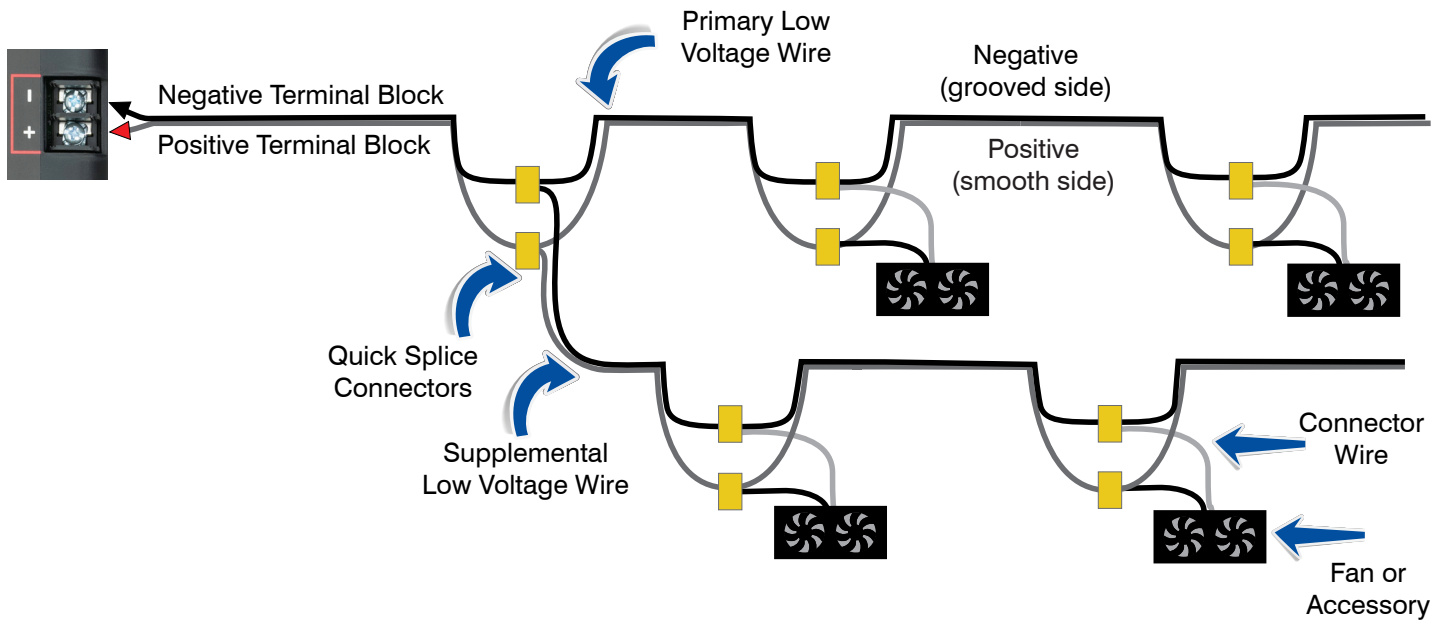
- Determine function of each component being installed and determine which output line the component needs to be wired to. Review page 11 and 12 in the PLANNING section.
- Refer to specification sheet of each component to determine watts used. The controller has the ability to power 150 watts.
- If your total usage exceeds 150 watts, then you need to split the components up between two or more controllers.



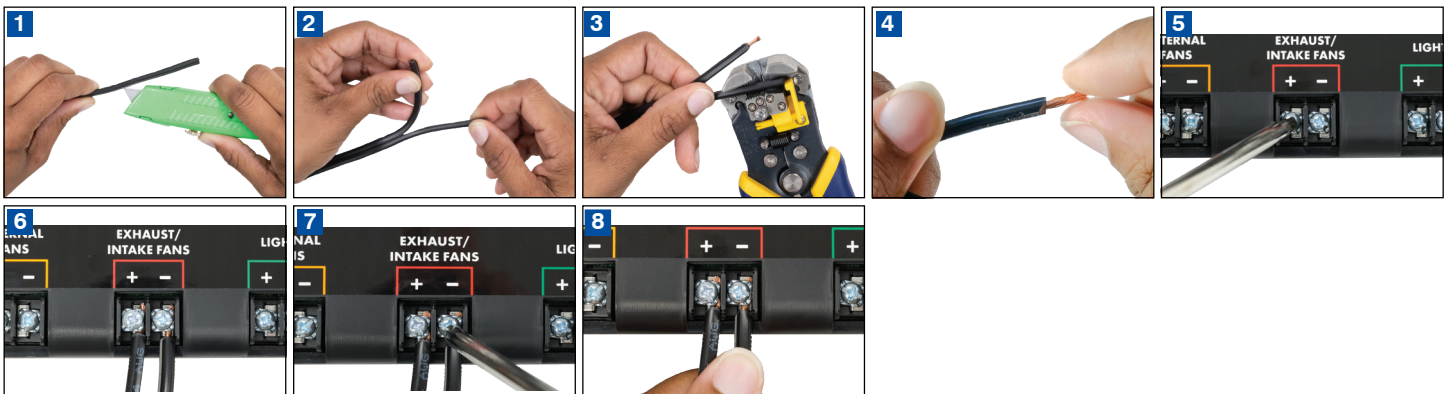
Do not plug in the controller until all wiring is complete.

Once you have finished wiring, proceed through the display setup.

WIRING EXPLANATION FOR EACH OUTPUT



PRIMARY LOW VOLTAGE WIRE

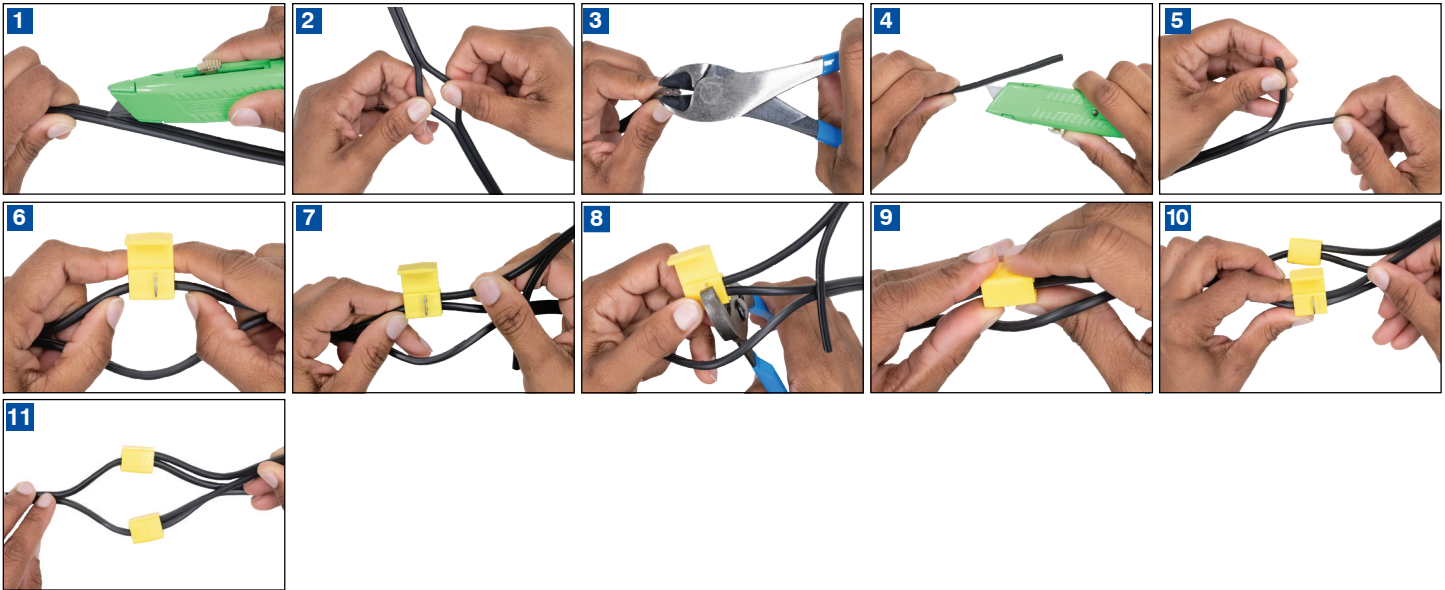


- 1 Split wire about two inches from end.
- 2 Pull the ends apart.
- 3 Remove outer coating to expose internal copper on each end of wire.
- 4 Twist exposed copper strands together.
- 5 Loosen screws in terminal blocks. Do not remove screws completely.
- 6 Push exposed copper up and under one side of each screw in terminal block. Be sure to put your POSITIVE side of wire in block under (+) and NEGATIVE side of wire under (-).
- 7 Tighten each screw over exposed wire.
- 8 Tug slightly on wire to make sure that it is secure.
- 9 Repeat for each output line wired.



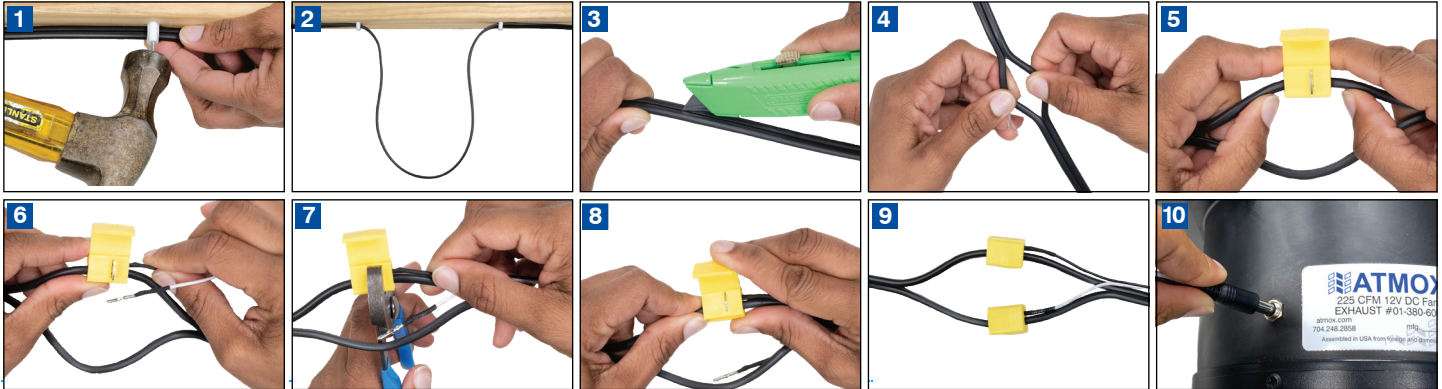
Screw connections must be tight. Do NOT put positive and negative wires under any one screw.

SUPPLEMENTAL LOW VOLTAGE WIRE



- 1** On primary wire, select location where supplemental wire will be attached. Split wire.
- 2** Pull apart the two sides to make a loop of about three inches.
- 3** Cut end on supplemental wire to make sure it is smooth and even.
- 4** Split wire about two inches from end.
- 5** Pull the ends apart.
- 6** Find the POSITIVE side of the primary wire in the loop. Push the wire into the quick splice connector.
- 7** Take the end of the POSITIVE side of the supplemental wire. Insert the end of the wire into the connector until it hits the plastic stop.
- 8** Use pliers on metal splice to make a connection with both wires.
- 9** Push the cover of the quick splice connector down to close.
- 10** Repeat Steps 6-9 with the NEGATIVE side of the primary and supplemental wire.
- 11** When finished, both sides of wire will be connected to each other.

FASTENING WIRE & ATTACHING CONNECTOR WIRES

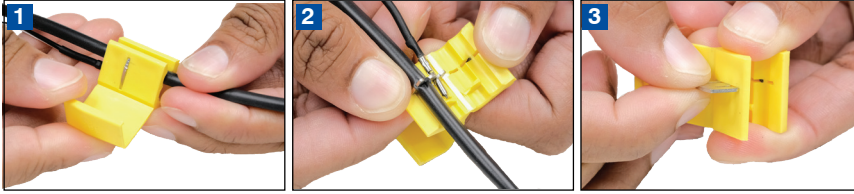


- 1** Secure wire to joists.
- 2** Create a drop loop location where you want to attach the component.
- 3** In the drop loop, split wire.
- 4** Pull apart the two sides to make a loop of about three inches.
- 5** Take the POSITIVE side of the low voltage wire in the loop. Push the wire into the quick splice connector.
- 6** Take the end of the POSITIVE side of the connector wire (black wire). Insert the end of the connector wire into the connector until it hits the plastic stop.
- 7** Use pliers on the metal splice to make a connection with both wires.
- 8** Push the cover of the connector down to close.
- 9** Repeat steps 5-8 with the NEGATIVE side of the low voltage wire and the NEGATIVE side of the connector wire (white wire).
- 10** Plug the jack of the connector wire into the component.



Avoid damage to wire tips. Do not use excessive force when pulling wires.

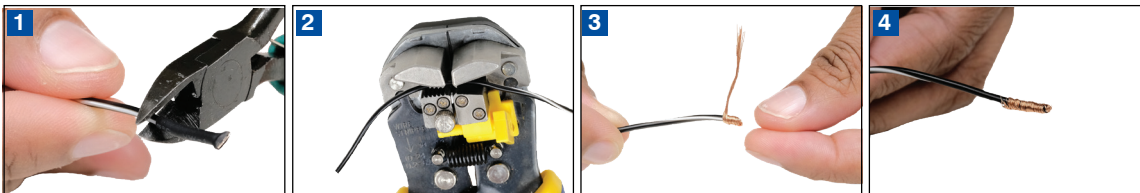
RESETTING QUICK SPLICE CONNECTORS



Follow these steps only if a connector needs to be redone.

- 1 Open cover and wedge connector open.
- 2 Pull apart and remove wires.
- 3 3A – If needed, reinsert the metal piece.
3B – If needed, push the metal piece up.

REUSING CONNECTOR WIRES



Follow these steps only if a metal tip is missing or damaged.

- 1 Cut end of wire.
- 2 Strip approximately two inches of outer sheathing.
- 3 Twist copper back over sheathing.
- 4 Use exposed copper to make splice connection.

DISPLAY CONNECTION

To setup the controller, you will use the display. It is easiest to make a temporary connection near the controller and then move to permanent viewable location within the house once setup is complete. (See page 24.)



- 1** Plug jack from extension cable into the bottom of the display.
- 2** Plug jack from other end of extension cable into DISPLAY port.
- 3** Plug the controller into the electrical outlet.

DISPLAY SETUP



When the display is plugged in for the first time, all lights will be flashing, and a setup menu will begin.

Do not press (i) to begin the setup menu until all installed components are in place.

Answer the question on each screen to set up the system with a (Y) for Yes or (N) for No. Press the information button (i) to save and scroll forward.

The menu will then proceed to testing screens which will begin automatically. When finished with each test, press (N) to stop testing and then press (i).

Information on the screens on the next page and how to conduct testing of components are detailed in the SETTINGS section.



Once the setup begins, if power is disconnected the setup will stop and you will receive an error. After 30 minutes of inactivity during setup questions or testing, the setup will also time out and you will need to start over.

ACE CONTROLLER SETUP SCREENS



**SETUP MENU
BEGIN PRESS i**

**STANDARD
SETUP Y**

Note: For non-standard setup, see detailed information on setup selection in the SETTINGS section.

**WOOD SENSOR
ATTACHED Y**

**INTERNAL FANS
OPERATE Y**

**DEHUMIDIFIER
OPERATE Y**

**LIGHTS
OPERATE Y**

**RED OUTPUT
TEST 15 MIN Y**

**ORANGE OUTPUT
TEST 15 MIN Y**

**YELLOW OUTPUT
TEST 15 MIN Y**

**GREEN OUTPUT
TEST 15 MIN Y**

**SETUP COMPLETE
EXIT PRESS i**

APEX CONTROLLER SETUP SCREENS



**SETUP MENU
BEGIN PRESS i**

**WOOD SENSOR
ATTACHED Y**

**SNOW MODE
ENABLE N**

**LIGHTS
OPERATE Y**

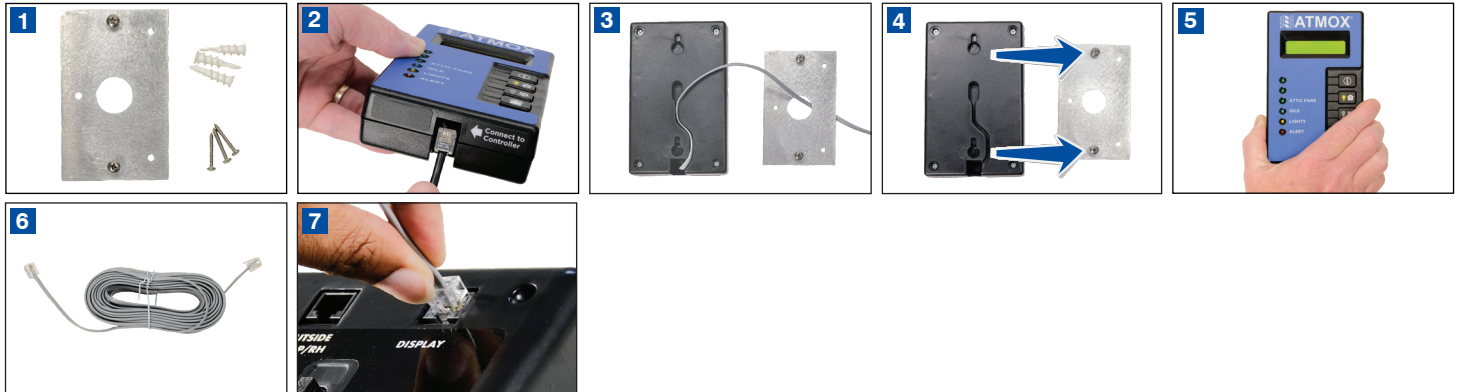
**RED OUTPUT
TEST 15 MIN Y**

**GREEN OUTPUT
TEST 15 MIN Y**

**SETUP COMPLETE
EXIT PRESS i**

RED OUTPUT	=	Exhaust/Intake Fans
ORANGE OUTPUT (ACE only)	=	Internal Fans
YELLOW OUTPUT (ACE only)	=	Dehumidifier
GREEN OUTPUT	=	Lights

DISPLAY INSTALLATION




Once all of the set up and testing is complete, place display in a location that is easily viewable such as a garage or closet. You do not need a power source here, but you will need to connect to controller with an extension cable.

- 1** Mount plate using three screws and optional anchors.
- 2** Plug jack from extension cable into bottom of the display.
- 3** **Option A** – Loop cable through back of display before mounting on plate if going through wall with wire.
Option B – Leave cable below display outside of plate.
- 4** Align back of display with screws.
- 5** Once inserted, slide display down to secure.
- 6** Bring extension cable to controller location.
- 7** Plug jack on other end of cable into DISPLAY port.



It is not recommended to exceed two couplers in one cable run. For use of extension cables, see CONTROLLER & SENSORS section.

SETTINGS MENU

 **Press and hold the home button for five seconds to access the menu** to make changes to settings, for testing, for manual operation, and for resetting controller.













Once in the menu, press **(i)** to scroll forward and to save changes to settings or to execute a change. Settings can be changed by using the **(Y)** and **(N)** buttons to indicate Yes or No answers or as Up and Down arrows to change values. At the end of the menu, you will return to the main informational screens. To exit out of the menu, press the home button but be sure to save changes by pressing **(i)** prior to exiting.



Visible screens vary depending on setup selections.

ACE SETTINGS

<p>SETTINGS/TESTING SCROLL: PRESS i</p>	<p>Press (i) to begin and keep scrolling through to next setting.</p>
<p>ACE 03.XX.XX ACE 01.XX.XX</p>	<p>Software version of display and controller.</p>
<p>STANDARD SETUP Y</p>	<p>Leave this setting as (Y) for the standard setup that applies to most crawl spaces. To allow for custom settings, set to (N) to access the menu of choices below.</p> <p>Note: Changing from (N) to (Y) will require a confirmation to reset all settings. Menu will exit. Reopen the Settings menu to adjust any settings.</p>
<p>→ OPERATION MODE CLOSED N</p>	<p>Set to (Y) to change operation to a closed crawl space mode with no standard operation of RED output. (Exhaust/Intake Fans)</p>
<p>→ OUTSIDE SENSOR BYPASS N</p>	<p>Set to (Y) if the outside sensor is not being installed.</p>
<p>→ RED CONTINUOUS VENTILATION N</p>	<p>Set to (Y) if a fan(s) connected to RED output should run continuously.</p>
<p>→ CV MINIMUM TEMP INSIDE 40°F</p>	<p>The set point determines the minimum temperature inside the crawl space to allow the continuous fan operation.</p>
<p>→ RED-ORANGE FORCED VENT N</p>	<p>Set to (Y) to turn a timed forced ventilation mode to operate RED and ORANGE outputs. Timing determined by last operation.</p> <p>Note: This mode is not normally used with continuous ventilation.</p>
<p>→ FV FREQUENCY HOURS 48H</p>	<p>This set point determines when forced ventilation will occur. The time count will begin from the last operation of the RED output.</p>

 <p>FV DURATION MINUTES 30M</p>	The set point determines how long the forced ventilation will occur.
 <p>FV MINIMUM TEMP INSIDE 40°F</p>	The set point determines the minimum temperature inside the crawl space to allow the forced ventilation.
 <p>INSIDE RH ALERT N</p>	Set to (Y) to turn the relative humidity alert on.
 <p>INSIDE RH ALERT SET PT 75%</p>	This set point indicates when the average relative humidity will trigger an alert based on rH %.
 <p>RH ALERT AVERAGE DAYS 5</p>	This set point determines number of days humidity must average above the alert set point to trigger a relative humidity alert.
 <p>WALL INSULATED SPACE N</p>	Set to (Y) to limit temperature range of standard operation of RED output.
 <p>HIGH/LOW RANGE 10</p>	This set point determines the range of temperature differential allowed for operation of RED output.
<p>WOOD SENSOR ATTACHED Y</p>	Set to (Y) or (N) depending on whether wood moisture sensor is being installed. Note: If you change to (Y) and press (i) and the wood sensor is not installed properly or did not read correctly, you will see a warning flash (SENSOR ERROR . . . CHECK CONNECTION). This setting will remain at (N) and continue to the next setting automatically. In order to retry, you must begin at the beginning of the settings menu again.
 <p>WOOD MOISTURE ALERT Y</p>	Set to (Y) to allow an alert for high wood moisture.
 <p>WOOD MOISTURE ALERT SET PT 20%</p>	This set point determines when the alert for high wood moisture will be triggered. Alert will not turn off until wood moisture is 1% less than set point.
<p>INTERNAL FANS OPERATE Y</p>	Set to (Y) or (N) depending on whether internal fans on ORANGE output are being installed.
 <p>INTERNAL FANS ACTIVATION 55%</p>	This set point determines when the internal fans will be activated to operate based on rH %.
<p>DEHUMIDIFIER OPERATE Y</p>	Set to (Y) or (N) depending on whether or not dehumidifier on YELLOW output is being installed.
 <p>DEHUMIDIFIER ACTIVATION 63%</p>	This set point determines when the dehumidifier will be activated to operate based on rH%. Dehumidifier will operate until 5% below set point or outside air is beneficial for exhaust/intake operation.
 <p>DEHUMIDIFIER MIN TEMP 50°F</p>	The inside temperature needs to be above this set point for dehumidifier to operate.

<p>LIGHTS OPERATE Y</p>	<p>Set to (Y) or (N) depending on whether lights on GREEN output are being installed.</p>
<p>OUTPUT DETECTION ALERTS Y</p>	<p>Change to (N) to remove any alert from Missing Output Detection.</p>
<p>OUTPUT ERROR RESET N</p>	<p>If the controller detects any type of issue with wiring on an output, it will shut that output off as a safety feature. Once the issue has been physically corrected, the error must be cleared in the software by resetting the output. To reset, change to (Y) and press (i) to execute.</p> <p>CAUTION: Once the output error is reset in the software, then all alerts related to outputs are cleared. This does not mean that the problem has definitively been solved. The system will not know if there is still an issue until there is a command to operate. Go back through the settings menu and test every output. If the error reoccurs, then the whole process needs to be completed again.</p>
<p>RED OUTPUT TEST 15 MIN N</p>	<p>During setup, testing begins automatically. In this settings menu, you must change to (Y) and press (i) to begin testing. Go physically check that all exhaust and intake fans on this output are running properly. Testing will time out automatically after 15 minutes. To stop testing sooner, change to (N) and press (i) to go to the next screen.</p>
<p>ORANGE OUTPUT TEST 15 MIN N</p>	<p>During setup, testing begins automatically and will check for errors even if output not selected. In this settings menu, you must change to (Y) and press (i) to begin testing. Go physically check that all internal fans on this output are running properly. Testing will time out automatically after 15 minutes. To stop testing sooner, change to (N) and press (i) to go to the next screen.</p> <p>CAUTION: No intake or exhaust fans venting to the outside should be running during this test. It is important that they were not wired on this output.</p>
<p>YELLOW OUTPUT TEST 15 MIN N</p>	<p>During setup, testing begins automatically and will check for errors even if output not selected. In this settings menu, you must change to (Y) and press (i) to begin testing. Go physically check that all dehumidifiers on this output are running properly. Some dehumidifiers may have a delay in starting. Testing will time out automatically after 15 minutes. To stop testing sooner, change to (N) and press (i) to go to the next screen.</p>

<p>GREEN OUTPUT TEST 15 MIN N</p>	<p>During setup, testing begins automatically and will check for errors even if output not selected. In this settings menu, you must change to (Y) and press (i) to begin testing. Go physically check that all lights on this output are running properly. Testing will time out automatically after 15 minutes. To stop testing sooner, change to (N) and press (i) to go to the next screen.</p>
<p>OVERRIDE AUTO FANS ON 12H N</p>	<p>Change this setting to (Y) to force operation of RED and ORANGE output (if installed) for twelve hours. This will override any automatic operation. At the end of the time period, the system will go back to automatic operation.</p> <p>While in this operation mode, you will see an hourly countdown in the main informational screens and see lights for fans running. To change this operation during the twelve-hour countdown, you must come back to this setting.</p>
<p>OVERRIDE AUTO OFF 12H N</p>	<p>Change this setting to (Y) to block any operation of RED, ORANGE and YELLOW output for twelve hours. This will override any automatic operation. At the end of the time period, the system will go back, to automatic operation.</p> <p>While in this operation mode, you will see this screen with hourly countdown in the main informational screens, and the idle light will be turned off. To change this operation during the twelve-hour countdown, you must come back to this setting.</p>
<p>FACTORY RESET RESET N</p>	<p>To restart the full setup menu and to unpair the display and controller, you will need to do a factory reset. Change to (Y) and press (i) to execute. Confirm reset on following screen. After reset, unplug the controller from power and then plug it back in. Begin setup as described in SETUP section.</p>

APEX SETTINGS

<p>SETTINGS/TESTING SCROLL: PRESS i</p>	<p>Press (i) to begin and keep scrolling through to next setting.</p>
<p>APEX 03.XX.XX APEX 01.XX.XX</p>	<p>Software version of display and controller.</p>
<p>WOOD SENSOR ATTACHED Y</p>	<p>Set to (Y) or (N) depending on whether wood moisture sensor is being installed.</p>
<p>WOOD MOISTURE ALERT Y</p>	<p>Note: If you change to (Y) and press (i) and the wood sensor is not installed properly or did not read correctly, you will see a warning flash (SENSOR ERROR . . . CHECK CONNECTION). This setting will remain at (N) and continue to the next setting automatically. In order to retry, you must begin at the beginning of the settings menu again.</p>
<p>WOOD MOISTURE ALERT SET PT 20%</p>	<p>Set to (Y) to allow an alert for high wood moisture.</p>
<p>WOOD MOISTURE ALERT SET PT 20%</p>	<p>This set point determines when the alert for high wood moisture will be triggered. Alert will not turn off until wood moisture is 1% less than set point.</p>
<p>SNOW MODE ENABLE N</p>	<p>Set to (Y) or (N) depending on whether this mode is needed for your geographic area and your specific house. See more information on this setting in OPERATOR'S GUIDE section.</p>
<p>LIGHTS OPERATE Y</p>	<p>Set to (Y) or (N) depending on whether lights on GREEN output are being installed.</p>
<p>OUTPUT DETECTION ALERTS Y</p>	<p>Change to (N) to remove any alert from Missing Output Detection.</p>
<p>OUTPUT ERROR RESET N</p>	<p>If the controller detects any type of issue with wiring on an output, it will shut that output off as a safety feature. Once the issue has been physically corrected, the error must be cleared in the software by resetting the output. To reset, change to (Y) and press (i) to execute.</p>
	<p>CAUTION: Once the output error is reset in the software, then all alerts related to outputs are cleared. This does not mean that the problem has definitively been solved. The system will not know if there is still an issue until there is a command to operate. Go back through the settings menu and test every output. If the error reoccurs, then the whole process needs to be completed again.</p>










<p>RED OUTPUT TEST 15 MIN N</p>	<p>During setup, testing begins automatically. In this settings menu, you must change to (Y) and press (i) to begin testing. Go physically check that all attic fans on this output are running properly. Testing will time out automatically after 15 minutes. To stop testing sooner, change to (N) and press (i) to go to the next screen.</p>
<p>GREEN OUTPUT TEST 15 MIN N</p>	<p>During setup, testing begins automatically and will check for errors even if output not selected. In this settings menu, you must change to (Y) and press (i) to begin testing. Go physically check that all lights on this output are running properly. Testing will time out automatically after 15 minutes. To stop testing sooner, change to (N) and press (i) to go to the next screen.</p>
<p>OVERRIDE AUTO FANS ON 12H N</p>	<p>Change this setting to (Y) to force operation of RED output for twelve hours. This will override any automatic operation. At the end of the time period, the system will go back to automatic operation.</p> <p>While in this operation mode, you will see an hourly countdown in the main informational screens and see lights for fans running. To change this operation during the twelve-hour countdown, you must come back to this setting.</p>
<p>OVERRIDE AUTO OFF 12H N</p>	<p>Change this setting to (Y) to block any operation of RED output for twelve hours. This will override any automatic operation. At the end of the time period, the system will go back to automatic operation.</p> <p>While in this operation mode, you will see this screen with hourly countdown in the main informational screens, and the idle light will be turned off. To change this operation during the twelve-hour countdown, you must come back to this setting.</p>
<p>FACTORY RESET RESET N</p>	<p>To restart the full setup menu and to unpair the display and controller, you will need to do a factory reset. Change to (Y) and press (i) to execute. Confirm reset on following screen. After reset, unplug the controller from power and then plug it back in. Begin setup as described in SETUP section.</p>

INSTALLATION CHECKLIST

This checklist is a summary of the main items that should be checked off as part of the installation completion or when conducting an inspection. This list is not inclusive of related work that may be performed in conjunction with an ATMOX system installation.

Add a check mark to the first column if task completed.

CHECK MARK	SECTION	INSTALLATION STEP	PAGE
CONTROLLER AND DISPLAY			
	◆	Controller and connected display installed and powered. Neither of these is outside nor exposed to weather elements.	15, 24
	◆	Setup or settings menu completed.	22-23
	◆	Components being used properly selected in menu.	25-30
SENSORS			
	◆	Sensors installed in correct locations. No coupler connections outside. Cables fastened to be out of the way.	15-16
	◆	Readings of temperature and relative humidity from both inside and outside are on the display. Readings seem reasonable and aren't reversed.	4
	◆	If installed, wood moisture reading on the display.	5

CHECK MARK	SECTION	INSTALLATION STEP	PAGE
COMPONENTS			
		Components such as fans, dehumidifiers and lights installed.	14
		All wired to correct output according to function.	11-12
		Wiring fastened to be out of the way.	20
		Any accessory components such as vent covers installed, and space properly secured.	
TESTING			
		RED output testing started. Each fan physically checked for operation.	27, 30
		ACE Only If selected, ORANGE output testing started. Each fan physically checked for operation.	27
		ACE Only If selected, YELLOW output testing started. Dehumidifier physically checked for operation.	27
		ACE Only If dehumidifier installed, manufacturer's instructions followed, and condensate drainage addressed.	
		If selected, GREEN output testing started. Each light physically checked for operation.	28, 30
NOTIFICATIONS			
		No alert light illuminated on the display.	6
		Any alert light has been reviewed.	6

ERROR MESSAGES DURING SETUP

During setup, the system is checking for components installed on each output line regardless of whether or not selected. If components are not properly installed prior to setup, any of the following error messages may appear. If any error message is active (not cleared or skipped) for more than 30 minutes, the setup will timeout and start over.

ERROR MESSAGES			
CAUSE	SOLUTION		
VOLTAGE ISSUE RESET RED N	VOLTAGE ISSUE RESET ORANGE N	VOLTAGE ISSUE RESET YELLOW N	VOLTAGE ISSUE RESET GREEN N
<p>There is a wiring issue on the indicated output line. It is caused by an electrical short on the line or too many components installed.</p> <p>As a safety feature, the controller will discontinue operation on that output line until fixed and reset.</p>	<p>Physically find and fix the actual issue. Once complete, change to (Y) and press (i). Screen will display OUTPUT TESTING AGAIN.</p> <ul style="list-style-type: none"> If error is cleared, testing will begin for this output. If error not cleared, you will be back at the reset screen to try again. <p>If you cannot fix issue and want to skip for the moment to finish setup, you can leave value at (N) and press (i). If not fixed, that output is not operational, and system will start with an alert. This issue must be addressed for system to function properly. (See page 39.)</p>		
RED MISSING TO SKIP PRESS i	ORANGE MISSING TO SKIP PRESS i	GREEN MISSING TO SKIP PRESS i	
<p>This is an indication that you selected an output line as active, but the system does not detect any components on that output line. Wiring should be checked or setup of components selected may need to be adjusted.</p>	<p>Physically go look at the missing output and determine why no components detected.</p> <ul style="list-style-type: none"> When controller detects components, the error message will clear and resume testing. (This may take a few seconds.) If you need to adjust later, press (i) to skip and continue setup. Testing will go to the next output. The alert on system will remain active after setup. 		
RED DETECTED OUTPUT INACTIVE	ORANGE DETECTED OUTPUT INACTIVE	YELLOW DETECTED OUTPUT INACTIVE	GREEN DETECTED OUTPUT INACTIVE

ALERTS

ALERT	EXPLANATION
WOOD MOISTURE ALERT	Wood moisture sensor is reading an elevated moisture level. If this alert remains active for a period of time, the space should be checked.
HIGH WATER ALERT	Water alert sensor has detected water at the location of the sensor. If this alert is triggered, the space should be checked immediately for a possible leak or hardware failure of a pump or condenser.
LOW TEMPERATURE ALERT	(ACE) In its default setting, the alert temperature is below 34°F in the space. If there is a concern of freezing pipes, the space should be watched and evaluated.
ELEVATED RH ALERT	(ACE) In its default setting, this alert is turned off. The alert will trigger if sensor reads over the average RH set point for a period of time. Once triggered, the alert will remain on until the average is below RH set point so it may take a few days to clear. Humidity can fluctuate so there is no reason for immediate concern if this alert is triggered. If the alert remains active for an extended period of time, then the space should be checked.

SOFTWARE & HARDWARE COMPATIBILITY ERRORS

ALERT/ISSUE	
POSSIBLE CAUSE	SOLUTION
<div style="background-color: #92d050; padding: 5px; border: 1px solid black; display: inline-block;"> ID ERROR RESET UNIT N </div>	
The setup of components was interrupted, or the display or controller has been exchanged and was previously paired to another piece of equipment.	Each display and controller must be paired together. If display and controller are now connected, select (Y) to reset the units and pair. Confirm and complete the setup menu.
<div style="background-color: #92d050; padding: 5px; border: 1px solid black; display: inline-block;"> UNIT NOT COMPATIBLE </div>	
The display and controller are different models that cannot be used together. For example, you cannot mix ACE and APEX components.	Check the hardware of both display and controller to make sure that product is a match. Generally, the display and controller will have matching serial numbers. If it does not match, you will need to exchange incorrect hardware.
<div style="background-color: #92d050; padding: 5px; border: 1px solid black; display: inline-block;"> SOFTWARE NOT COMPATIBLE </div>	
The display and controller are running incompatible software versions. This could happen if using equipment from different manufacturing periods.	Contact ATMOX for more information on component and software compatibility to determine next step.
Controller and display not communicating properly.	
Controller and display have gotten out of sync.	<p>This will require a factory reset.</p> <p>Note: Any factory reset will require going through the full setup menu from the beginning.</p>

CONTROLLER ERRORS

ALERT/ISSUE	
POSSIBLE CAUSE	SOLUTION
The display has no power.	
Display may not be connected properly to controller.	The cable between display and controller may not be connected. Check all coupler connection points and jacks. If no obvious damage, cable between display and controller may need to be replaced.
Controller may not have any power. Display receives power from controller, so if controller has no power then the display will not work.	Check power source of controller for issues such as a tripped GFCI outlet. If controller appears damaged or cannot power up, it may need to be replaced or repaired.
COMMUNICATION ERROR! RETRYING	IDENTIFYING UNIT ID, PLEASE WAIT
Issue with data sync between the display and controller.	Unplug the controller from power for 30 seconds. Plug controller back in to see if error clears.
Cable issue between the display and controller.	Cable is not completely disconnected but may have internal damage. Check all coupler connection points and jacks. If no obvious damage, cable between display and controller may need to be replaced.

SENSOR ERRORS

ALERT/ISSUE	
POSSIBLE CAUSE	SOLUTION
INSIDE SENSOR ERROR	OUTSIDE SENSOR ERROR
A cable or connection problem is keeping the controller from getting a sensor reading.	<p>Check cable running from sensor to the controller. Check all coupler and connection points. Look for any disconnected or cut cable lines or damaged jacks.</p> <p>If no obvious cable issue, take the sensor jack directly to the controller bypassing any extension cables.</p> <ul style="list-style-type: none"> • If sensor now reads properly, you have identified an issue in your extension cable or coupler. These components need to be further checked for issues or replaced. • If the sensor does not read properly in controller directly, check the jacks for any possible corrosion or damage. Jacks can be re-crimped or check for other possible causes.
A defective sensor is keeping the controller from getting a sensor reading.	If the indicated sensor is plugged directly into the controller and not reading, temporarily try the other port to get a reading. If the sensor will not give a reading in either port, then the sensor may be defective and need to be replaced.
A damaged controller port is keeping the controller from getting a sensor reading.	If the sensor gives a proper reading in one port but not the other (i.e. inside versus outside), then the port on the controller may be damaged. This will require an exchange or repair of the controller.
An exchange from a different version of sensor is keeping the controller from getting a sensor reading.	The ACE and APEX 2.0 controllers can only read a v2 sensor.

ALERT/ISSUE	
POSSIBLE CAUSE	SOLUTION
Wood moisture sensor installed but screen not showing.	
Settings are not aligned with components installed.	If wood sensor is being installed, setting needs to indicate this by selecting (Y) under screen for WOOD SENSOR – ATTACHED Y . Press (i) to confirm.
<div style="background-color: #92d050; padding: 10px; border-radius: 5px; display: inline-block;"> WOOD SENSOR ERROR </div>	
Settings are not aligned with components installed.	If wood sensor is not being installed, setting needs to indicate this by pressing (N) under screen for WOOD SENSOR - ATTACHED Y . Press (i) to confirm.
A cable or connection problem is keeping the controller from getting a wood sensor reading.	<p>Check cable running from sensor to the controller. Check all coupler and connection points. Look for any disconnected or cut cable lines or damaged jacks.</p> <p>If no obvious cable issue, take the sensor and plug jack directly to the controller bypassing any extension cables.</p> <ul style="list-style-type: none"> • If sensor now reads properly, you have identified an issue in your extension cable or coupler. These components need to be further checked for issues or replaced. • If the sensor does not read properly in controller directly, check the jacks for any possible corrosion or damage. Jacks can be re-crimped or check for other possible causes.
A defective sensor is keeping the controller from getting a wood sensor reading.	If the wood sensor is plugged directly into the controller and all jacks have been checked for obvious damage, sensor may be defective and need to be replaced.
A damaged controller port is keeping the controller from getting a wood sensor reading.	It is difficult to test this with a wood moisture sensor. You can look to see if any gold pins in the sensor port look damaged, corroded or bent. If port is damaged, this will require a replacement or repair of the controller.

COMPONENT WIRING ERRORS

For all errors listed below, first determine the cause and follow steps for solution in the table. Then to clear error and return to operation you must:

1. Once components corrected, reset the output line. This is done in the settings menu on screen **OUTPUT ERROR – RESET N**. Select **(Y)** and press **(i)** to confirm.
2. Once reset, go back to beginning of settings menu and test the output that had the error to make sure that the error has been fixed and does not occur again.



Output line may not begin operation without these final steps.

ALERT/ISSUE	
POSSIBLE CAUSE	SOLUTION
<div style="background-color: #90EE90; padding: 5px; border: 1px solid black; display: inline-block;"> OVERLOAD ERROR SYSTEM OFF </div>	
Combination of components exceeds maximum watts.	Check the components installed on the controller to determine if the usage exceeds 150 watts. If components exceed this maximum, then a second control set will be required.
Controller detected a potential power issue.	If components do not exceed 150 watts and no short has been detected, complete a Factory Reset from the Settings Menu. This will require completing the Setup Menu steps.

ALERT/ISSUE	
POSSIBLE CAUSE	SOLUTION
<div style="display: flex; justify-content: space-around; align-items: center;"> <div style="border: 1px solid black; padding: 5px; background-color: #90EE90; text-align: center;"> RED ERROR VOLTAGE ISSUE </div> <div style="border: 1px solid black; padding: 5px; background-color: #90EE90; text-align: center;"> ORANGE ERROR VOLTAGE ISSUE </div> <div style="border: 1px solid black; padding: 5px; background-color: #90EE90; text-align: center;"> YELLOW ERROR VOLTAGE ISSUE </div> <div style="border: 1px solid black; padding: 5px; background-color: #90EE90; text-align: center;"> GREEN ERROR VOLTAGE ISSUE </div> </div>	
Components on one output line exceed maximum watts.	Check the installed components on output line with issue to see if usage exceeds maximum watts. The spec sheet of each component will list watts used. If an output line exceeds maximum, setup may require a second control set.
Wiring on output line has an electrical short.	Check the components and wiring installed on the indicated output line. Somewhere in the wiring, an electrical short is occurring which generally happens when the positive and negative sides of low voltage wire are making contact with each other. This sometimes happens if a staple goes through a wire. The physical wiring issue must be fixed. Once short is fixed, then Output Errors must be reset from the Settings Menu and each output should be tested to confirm the wiring has been fixed.
Controller detected a potential power issue.	Complete a Factory Reset from the Settings Menu. This will require completing the Setup Menu steps.
<div style="display: flex; justify-content: space-around; align-items: center;"> <div style="border: 1px solid black; padding: 5px; background-color: #90EE90; text-align: center;"> RED ERROR NOT DETECTED </div> <div style="border: 1px solid black; padding: 5px; background-color: #90EE90; text-align: center;"> ORANGE ERROR NOT DETECTED </div> <div style="border: 1px solid black; padding: 5px; background-color: #90EE90; text-align: center;"> GREEN ERROR NOT DETECTED </div> </div>	
Components are not wired correctly.	Check wiring and connection points for all fans and lights on the output indicated.
Settings are not aligned with components installed.	If the output indicated is not being used, setting needs to indicate this by selecting (N) on the screen. ORANGE = Internal Fans (ACE) GREEN = Lights Go to the settings menu and check selection for each output line to align setting to actual components being installed.
Controller detected a potential power issue.	Complete a Factory Reset from the Settings Menu. This will require competing the Setup Menu steps.

FACTORY RESET

Resetting the display and controller may be necessary in the case of communication issue between the display and controller or a power related issue. If setup questions were answered incorrectly, it may also be faster to start over with a reset then trying to change individual settings.

Before a reset, note components that have been installed on the controller and if any custom settings were selected as the Setup will have to be completed again.

Access the Settings Menu by pressing and holding the home button for five seconds. Use (i) to scroll forward to Factory Reset Screen.

**FACTORY RESET
RESET N**

To begin reset, change to (Y) and press (i) to execute.

**CONFIRM
RESET N**

Confirm reset, change to (Y) and press (i) to execute.

**RECYCLE POWER TO
RE-PAIR DEVICES**

Unplug the controller from power, wait about 20 seconds, and the plug it back in. This will begin the Setup Menu for the display and controller as if powered for the first time.

HARD RESET

If the Settings Menu is not accessible from the display, the controller may need a hard reset. Keep the display and all components connected and plugged into power to perform the hard reset. You will need a small paper clip.

Locate the small pin hole in the upper left side of the front of the controller. Insert the paper clip in the hole and hold for a few seconds until the indicator light on the controller is a solid green. Remove the paper clip. Unplug controller for 30 seconds. Plug controller back into power.

This will begin the Setup Menu for the display and controller as if powered for the first time.

Contact ATMOX with any questions on resetting controllers.

TESTING ISSUES

The following issues are related to component operation during testing.
If there is any type of alert, address that issue first to clear errors.

POSSIBLE CAUSE	SOLUTION
All components on the output line are not running.	
The polarity of the primary low voltage wire is reversed.	Test in Constant Power. Put positive side of wire in (+) and negative in (-). <ul style="list-style-type: none"> • If the components now work, they were reversed. • If the components don't work in reverse position, put wire back and continue to troubleshoot.
Wiring is damaged.	Start at the terminal blocks and follow the primary wire to the first component. Look for any break or damage to wiring.
Controller has relay issue or port damage.	Test in Constant Power. Put positive side of wire in (+) and negative in (-). <ul style="list-style-type: none"> • If the components still do not start, there is a definitive wiring issue on the line. • If the components do start on constant power, then the controller may need to be repaired or replaced.
One or more components on the <i>primary</i> line and/or on the <i>supplemental</i> line are not running.	
The polarity of the connector wire is reversed.	Look for consistency of positive and negative wiring between the low voltage wire and the black/white connector wire.
The connection of the connector wire has an issue.	Check to see if the connector wire is completely inserted into component. Look for a full splice through the wires at the quick splice connectors.
The individual component is defective.	Test the component in question in a working connector wire location to see if it will operate. <ul style="list-style-type: none"> • If the component works, it is not defective and there is a definitive wiring issue at the original location. • If the component does not work, it may need to be repaired or replaced.
All components on the <i>supplemental</i> line are not running.	
The connection of the primary and supplemental wires has an issue.	Look for consistency of positive and negative wiring between the primary and supplemental lines. Look for a full splice through the wires at the quick splice connectors.

ATMOX LIMITED THREE-YEAR WARRANTY

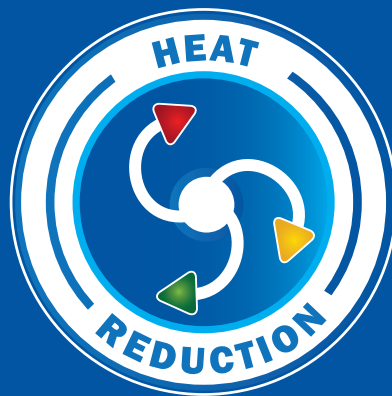
When installed, operated, used and maintained as intended in residential applications and according to the instructions supplied with ATMOX products, ATMOX warrants its products for a period of 3-years from the date of purchase against any defects in material and workmanship. The products covered by this warranty include the control boxes, fans, sensors and wiring manufactured by ATMOX. ATMOX will repair or replace, at ATMOX's option, any ATMOX product or component found to be defective within the 3-year warranty period.

ATMOX products are designed to improve conditions in the crawl space, basement or attic, yet are limited by atmospheric and natural conditions over which ATMOX has no control and which are not covered by this warranty. ATMOX products are not warranted against damage caused by electrical surges, fire or other casualty, vandalism, or acts of God (including lightning strikes and floods). This warranty does not make representations regarding mold, insects, termites, water, rot, electrical, HVAC, roof, framing, foundation, floors, drywall, gutters, ice dams or other problems that may occur in a house structure. The warranty does not include any costs of removal or reinstallation.

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