

AprilAire

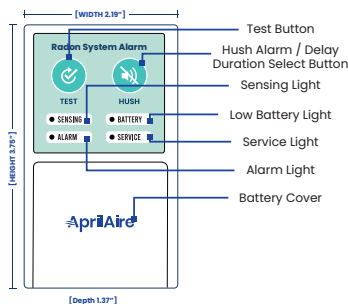
Radon

System Alarm

with PPS Technology

PATENT-PENDING

Model ARNALM



ABOUT THE ALARM

The Radon System Alarm is a vacuum monitoring product utilizing piezoresistive pressure sensor (PPS) technology. This product provides audible and visual indication when the Radon System's vacuum pressure has dropped below the preset operating limit, resulting in insufficient pressure to be effective.

BOX CONTENTS

- ARNALM Radon System Alarm
- Wall Mount Adapter (flat)
- Pipe Mount Adapter (curved)
- Silicone Alarm/Pipe Connector Elbow
- Battery
- Product Instructions
- Two Adapter Mounting Screws

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FEATURES

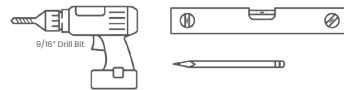
- Battery Operated (No Wiring Required)
- Vacuum Sensing
- Visual and Audible Indicators
- Selectable Alarm & Service Delay Functions (48 Hours / 7 Days / 30 Days)
- Hush and Test Buttons
- Mounts on 2", 3", 4" or 6" Pipe, or Flat Surfaces

INSTALLATION INSTRUCTIONS

This alarm is for conditioned* indoor installations only and should be located in an area where it will be readily observed by the occupants. Outdoor installation will void the warranty!

*Conditioned living space that is temperature and humidity controlled.

TOOLS NEEDED



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DIRECT PIPE MOUNTING - HORIZONTAL & VERTICAL PIPE

1. Choose a location on the suction side of the radon fan (a minimum of 12 inches from fan) in an area readily observable by building occupants.
2. Drill a hole using a 9/16" drill bit. Clean hole of drill debris and make sure the pipe surrounding the hole is clean and free of dirt, oils and grease.
3. Without removing the protective film on the pipe mount adapter, test the fit by placing the adapter into the hole in the pipe and adjust hole if necessary.
4. Connect one end of the silicone pipe connector elbow to the alarm housing port located inside the battery compartment by pushing it onto the port barb.
5. Slide the pipe mounting bracket into the back of the alarm housing, making note of the curvature and how it relates to the orientation of the pipe at the place of installation. Connect the open end of the silicone pipe connector elbow to the pipe mounting bracket port by pushing it onto the port barb.
6. Peel back the protective film on the mounting tape and insert the assembled alarm/bracket assembly into the drilled hole, making sure it is level, and firmly press in place to seat mounting tap (See ACTIVATION section for alarm activation instructions). When attaching the pipe adapter for the alarm, first make sure the pipe is clean, dry and free of any debris.

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NOTE: ADAPTER MUST BE PRESSED FIRMLY AGAINST PIPE FOR 30 SECONDS TO ENSURE THAT THE 3M TAPE BONDS TO THE PIPE AND BRACKET SURFACES.

Alternative Pipe Adapter Mounting: Once the selected adapter is installed (**Note: make sure that the connector elbow is NOT installed**), slide off alarm body from adapter and attach the adapter plate using two of the four adapter plate holes and two screws provided with the ARNALM (a 1/16" drill bit can be used to drill pilot holes in the pipe). **NOTE:** regardless of adapter orientation (horizontal or vertical in relation to the alarm), use the two screw holes located at 9 and 3 o'clock so that the screws do not interfere with sliding the ARNALM onto the adapter.

REMOTE - WALL MOUNTING

1. Mount the ARNALM Alarm within 50' of where the radon system piping will be monitored. Wall surface must be clean and free of dirt, oils and grease.
2. Using a liquid level and pencil, mark a line on the wall surface where the edge of the ARNALM housing will be located.
3. Mount the pipe adapter (at a minimum distance of 12 inches from the fan) on the suction side of the radon fan. Drill a hole using a 9/16" drill bit. Clean hole of drill debris and make sure the pipe surrounding the hole is clean and free of dirt, oils and grease.
4. Without removing the protective film on the

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pipe mount adapter, test the fit by placing the adapter into the hole in the pipe and adjust hole if necessary.

5. Peel back the protective film on the mounting tape and insert the pipe mounting bracket onto the radon system pipe.
6. Connect one end of the tubing (50' max; sold separately) to the pipe mount adapter by pushing the tubing onto the port barb. Route the tubing to the location where the ARNALM alarm will be mounted, avoiding pinching or kinking the tubing along the way.
7. Insert the tubing into the hole located at the bottom of the alarm housing until it reaches into the battery compartment.
8. Connect the tubing to the alarm housing by pushing the tubing onto the port barb. Slide the wall mounting bracket into the back of the alarm housing.
9. Peel back the protective film on the mounting tape and firmly press the assembled alarm/bracket assembly onto the wall to seat mounting tape, making sure it is aligned with the pencil mark previously placed on the wall.

NOTE: ARNALM uses a permanent tape that may cause damage if removed. If you must remove the mounted device, use a piece of dental floss or wire held tautly between two hands. Pull back and forth to split the tape, and release the mounted object. (See ACTIVATION section for alarm activation instructions)

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ACTIVATION

Prior to alarm activation, make sure both ends of the silicone pipe connector are connected and the radon fan is running. Remove the battery isolator installed for shipping from the positive pole end of the battery. The battery may have been shipped separate from the alarm box and in that case, the battery must be installed to activate. Ensure battery is properly seated. Alarm is now powered on and will begin the activation sequence automatically.



Battery Isolator

CALIBRATION

The ARNALM self-calibrates automatically upon installation of the battery. After the alarm is powered on, the system will run a 20-second initialization to measure baseline system operating pressure. The green sensing LED will flash during this time. A single beep of the buzzer will indicate the initialization is complete and the alarm is now active. No additional calibration is necessary.





AUDIBLE ALARM DELAY SELECTION

The ARNALM comes equipped with three optional audible & service alarm delays. To select the desired alarm delay duration complete the following steps:

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Step 1: Press and hold "Hush" button for a minimum of 5 seconds to start the time delay selection mode.

Step 2: Keep "Hush" button held down until the desired time delay appears (every 5 seconds) as shown below:

LED States	Descriptions	Delay durations	Note
 SENSING  ALARM	Both the "SENSING" and the "ALARM" LED's are lighted up.	48 hours	Default
 SENSING	Only the "SENSING" LED is lighted up.	7 days	Selected by holding down Hush button for 5 Seconds
 ALARM	Only the "ALARM" LED is lighted up.	30 days	Selected by holding "Hush" button down for 10 seconds

Step 3: Stop depressing "Hush" button when desired time delay appears as indicated by the LEDs. Time delay selection mode will cycle in a continual loop until the "Hush" button is no longer depressed. Once the "Hush" button is no longer depressed the time delay mode will no longer be activated.

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FUNCTIONAL MODES

Sensing Mode (Visual Only) - Sensing light blinks @ 60-second intervals (3 flashes).

Pre-Alarm Mode (Visual Only) - Alarm light blinks @ 60-second intervals when low or no pressure is sensed. Pre-alarm ends when the pressure is restored within the selected delay duration or it enters Alarm Mode.

Alarm Mode - After selected delay duration, buzzer beeps and Red alarm light flashes, then no light or beep for 60 seconds, then repeat until "Hush" is pressed or system is serviced.

Service Mode - After 3 pre-alarm conditions occur within the selected delay duration, buzzer beeps and blue Service light flashes, then no light or beeps for 60 seconds, then repeat until "Hush" is pressed or system is serviced.

Hush Mode - Silences audible sound for 7 days but visual remains as programmed; after 7 days goes back to sensing mode, alarm mode (with sound) or service mode (with sound).

Low Battery Mode - 1 "chirp" and simultaneous flash @ 5-minute intervals.

Test Mode - Audible "beep" sounds and all lights illuminate when "Test" button pressed.

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FUNCTIONAL SPECIFICATIONS

Sensing Range: -0.1"WC to -20"WC
Alarm Range: ≥90% reduction of baseline pressure

Service Condition: 3+ Pre-Alarm Trig. @ 48 Hrs
After 48 Hours, 7 Days or 30 Days

Low Battery Condition: <3.35 V
Hush Button: Silences alarm sound for 7 days

Test Button: Sounds alarm / activates lights
Dimensions: W x H x D (2.19" x 3.75" x 1.37")

Overpressure: ±20"WC
Audible Alarm: ≈85 dba

INDICATOR LIGHT EXPLANATION

- Sensing, Green Light (Flashing) = Operating / Sensing
- Alarm, Red Light (Flashing) = Low / No Pressure (Vacuum)
- Service, Blue Light (Flashing) = Service Mode
- Battery, Yellow Light (Flashing) = Low Battery



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BATTERY REPLACEMENT

1. Remove existing battery.
2. Be sure fan is operating and alarm tubing is still connected.
3. Install new battery and make sure it is properly seated.
4. 20-Second self-calibration operation will then begin (refer to CALIBRATION section for additional information).

WARRANTY INFORMATION

Subject to applicable consumer protection legislation, AprilAire warrants that the Alarm (model ARNALM) will be free from defective material and workmanship for a period of (2) years from the date of purchase. Warranty is contingent on installation in accordance with the instructions provided. This warranty does not apply where repairs or alterations have been made or attempted by others; or the unit has been abused or misused. Warranty does not include damage in shipment unless the damage is due to the negligence of AprilAire. All other warranties, expressed or written, are not valid. To make a claim under these limited warranties, you must return the defective item to AprilAire with a copy of the purchase receipt. AprilAire is not responsible for installation or removal cost associated with this warranty.

In no case is AprilAire liable beyond the repair or replacement of the defective product FOB AprilAire.

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THERE ARE NO WARRANTIES WHICH EXTEND BEYOND THE DESCRIPTION ON THE FACE HEREOF. THERE IS NO WARRANTY OF MERCHANTABILITY. ALL OTHER WARRANTIES, EXPRESSED OR WRITTEN, ARE NOT VALID.

For service under these warranties, contact AprilAire for a Return Material Authorization (RMA) number and shipping information. No returns can be accepted without an RMA. If factory return is required, the customer assumes all shipping costs to and from factory.

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