

# Specifications & Installation Guidelines

## FOR AQUAFIRE LITE SERIES

### Highlights

- 8 to 10 hours of runtime on a full tank
- Patented “Double Air-Vapor Flow” system for finely sculpted and even more realistic flames.
- Available in 3 sizes .
- Air Intake through the top, sides, and bottom for flexibility in hearth design.
- Flush mount, drop-in install.
- Control via buttons on device or remote control.
- Adjust the height and speed of the flames to create the perfect atmosphere.



### Aquafire Series

AWL-20-50 / AWL-40-100 / AWL-60-150

AWL-16-42 / AWL-16-42-GAT

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## Packing Contents



Aquafire Insert



Fill/Drain Tube



AC Power Adapter



Remote Control



Siphon Hand Pump



User Manual

## Considerations

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**Aquafire** water vapor fireplace inserts have been designed to be extremely easy to install, simple to operate, and easy to maintain. When designing your fireplace, feel free to send your plans in for review and suggestions by our professional design staff.

### Considerations:

- Recessed into wall, sitting proud of a wall or completely free-standing - your only limit is your creativity!
- If light cast upwards to ceiling is undesirable, consider recessing into the wall for a traditional hearth appearance. (we advise to create a 'light trap'. see **Light Trap** page for details. 📖 9
- Determine decorative materials and finishes you expect to use. Since there is no heat, there are virtually no limitations.
- Plan to make it easy to remove fireplace insert should maintenance or repairs become necessary.
- Avoid or prevent air currents from doors, windows, and existing HVAC system which affect flame quality.

### Installation:

Prepare the housing for your fireplace insert(s) and make sure the cutout has sharp corners (not rounded) and dimensions are exactly as specified. These dimensions are critical because the modules are suspended on flanges that span the opening. Too small, and fireplace will not fit, too large of opening, and fireplace insert will look sloppy or may even fall through the opening. Using the built in 'lifting loops', suspend the **Aquafire** into the cutout after plugging in electric power converter(s) Simply fill tank with water using the integrated pumping system once installed into enclosure.

That's it!– the installation is complete. Now start your fireplace and enjoy an extraordinary fireplace experience every day of the year!

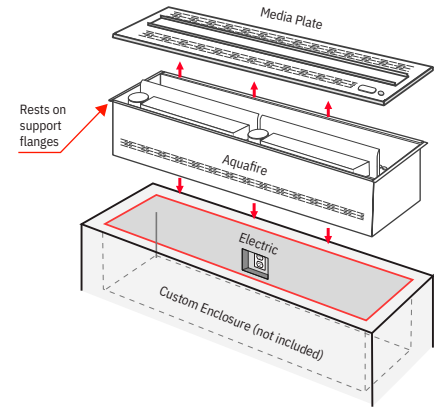


World's most advanced  
water vapor fireplace  
technology.

## Quick Start Guide

### STEP 1 Build and install into enclosure

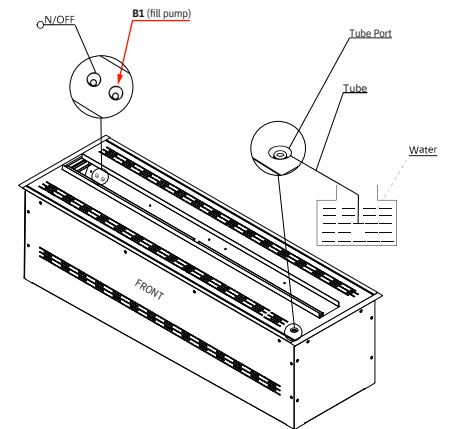
- 1 Remove the media plate for easy access to lift points.
- 2 Connect 24V power adapter (located on the back side of the unit).
- 3 Drop Aquafire into enclosure, resting on support flanges.
- 4 Fill with water, connect electrical and replace media tray.



### STEP 2 Fill with water

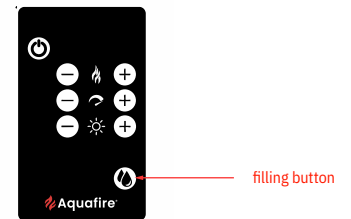
#### Option 1: Fill manually with integrated pump.

- 1 Place the filter end of the fill tube in your water source.
- 2 Connect the other end of the fill tube to the water inlet port.
- 3 Press and hold the “B1” button for 5 seconds to begin fill.
- 4 The pump will stop automatically when the tank is full.



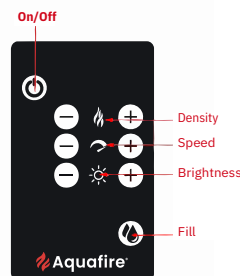
#### Option 2: Use Remote Control

- 1 Place the filter end of the fill tube in your water source.
- 2 Connect the other end of the fill tube to the water inlet port.
- 3 Press and hold the ‘filling’ button on the remote for 5 seconds to begin.
- 4 The pump will stop automatically when the tank is full.



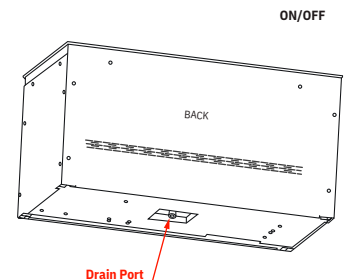
### STEP 3 Pair remote

- 1 Press and hold the Power button on the unit for 5 seconds or until the button will begins flashing.
- 2 Press any button on the remote, you will hear a beep.
- 3 Beep confirms the control is paired to the fireplace unit.



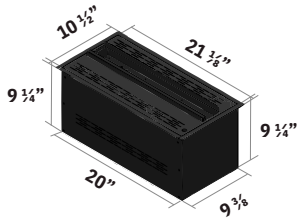
### STEP 4 How to drain

- 1 Prepare a water bucket under the bottom of the device.
- 2 Remove the drain plug located on the bottom of the fireplace.
- 2 Completely drain water until empty.

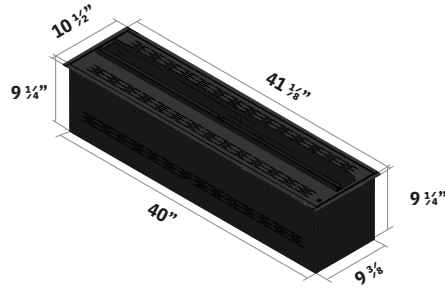


## Technical Specifications

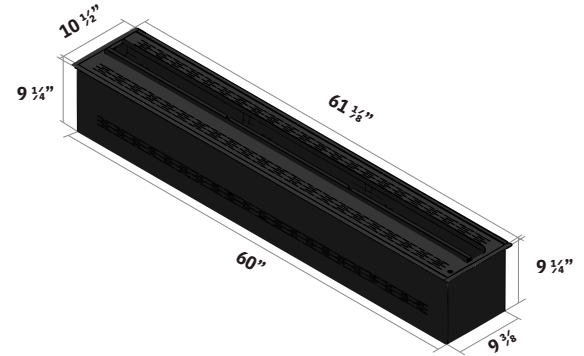
### Fireplace Dimensions



20"



40"



60"

### Fireplace Specifications

**20"** AWL-20-50:

**Power:** 60 W (Standard wall receptacle)

**Tank Capacity:** 2.0 Liters / Run Time 20 Hours

**Direct Plumbed:** 1/4" water line (If using DP Kit)

**Weight:** 29 lbs / Crated Weight 53 lbs

**40"** AWL-40-100:

**Power:** 55 W (w/ standard 24v adapter)

**Tank Capacity:** 4.0 L / Run Time 8-10 Hrs

**Direct Plumbed:** N/A

**Weight:** 35.2 lbs / 16 kg

**60"** AWL-60-150:

**Power:** 80 W (w/ standard 24v adapter)

**Tank Capacity:** 6.0 L / Run Time 8-10 Hrs

**Direct Plumbed:** N/A

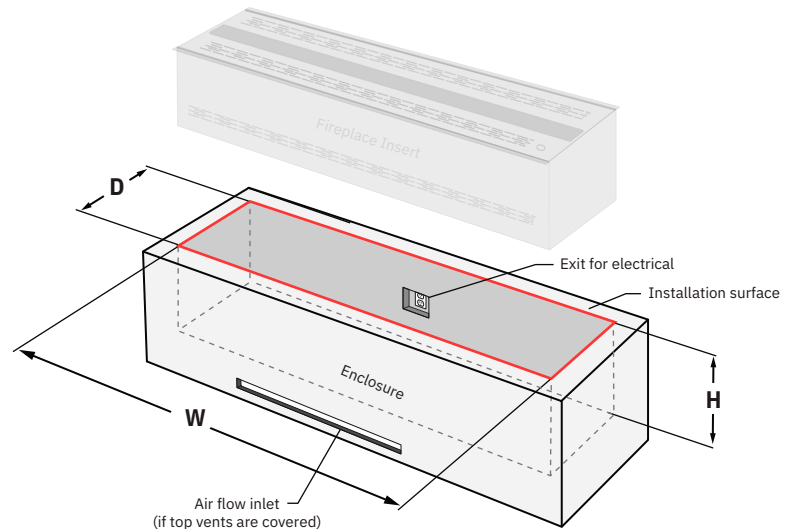
**Weight:** 51.2 lbs / 23.2 kg

### Cutout/Housing Dimensions

SIZE		W	D	H*
<b>20"</b>	AWL-20-50	20 1/4" x	9 5/8" x	11" min.
<b>40"</b>	AWL-40-100	40 1/4" x	9 5/8" x	11" min.
<b>60"</b>	AWL-60-150	60 1/4" x	9 5/8" x	11" min.

**⚠ Important!**

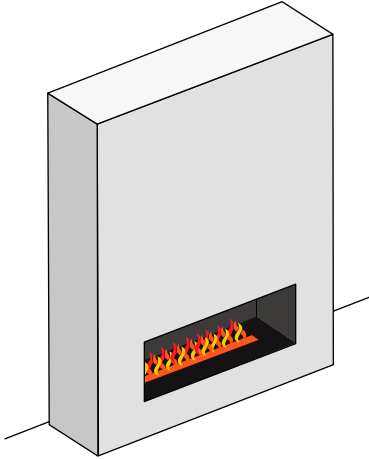
Cutout dimensions are critical! Fireplace inserts are suspended in cutout opening from the attached flanges so be sure to measure carefully!



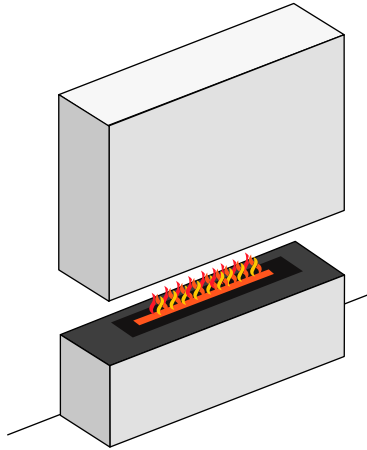
## Enclosure Design

### Types of Enclosures

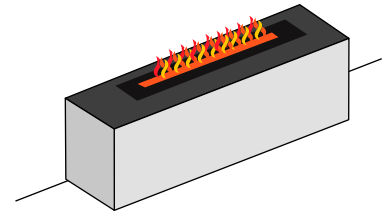
Type 1: Recessed Hearth



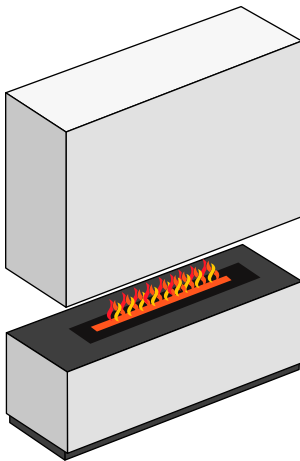
Type 2: Split Hearth (against wall)



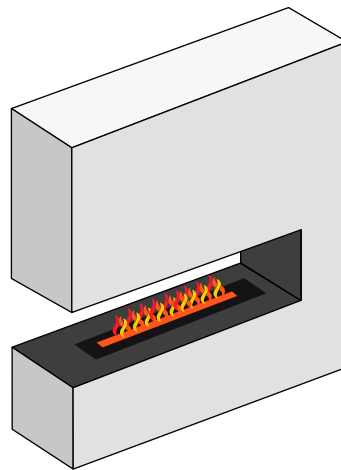
Type 3: Open Hearth (against wall)



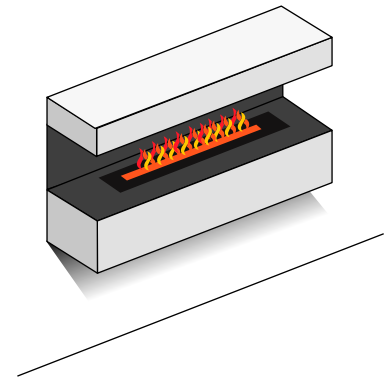
Type 4: Room Divider/Floating Wall



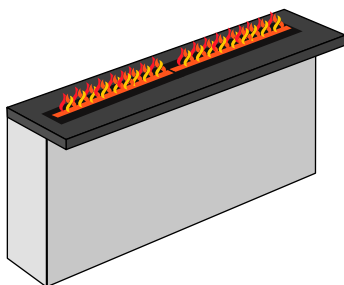
Type 5: 3-Sided Peninsula



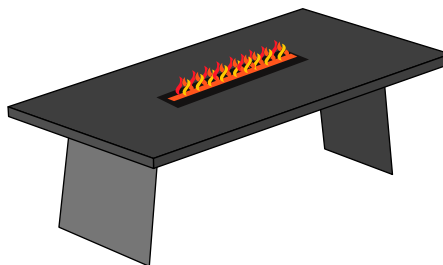
Type 6: Wall Hung



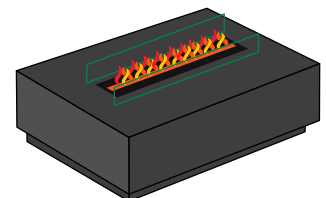
Type 7: Bar Top



Type 8: Dining Table



Type 9: Coffee Table

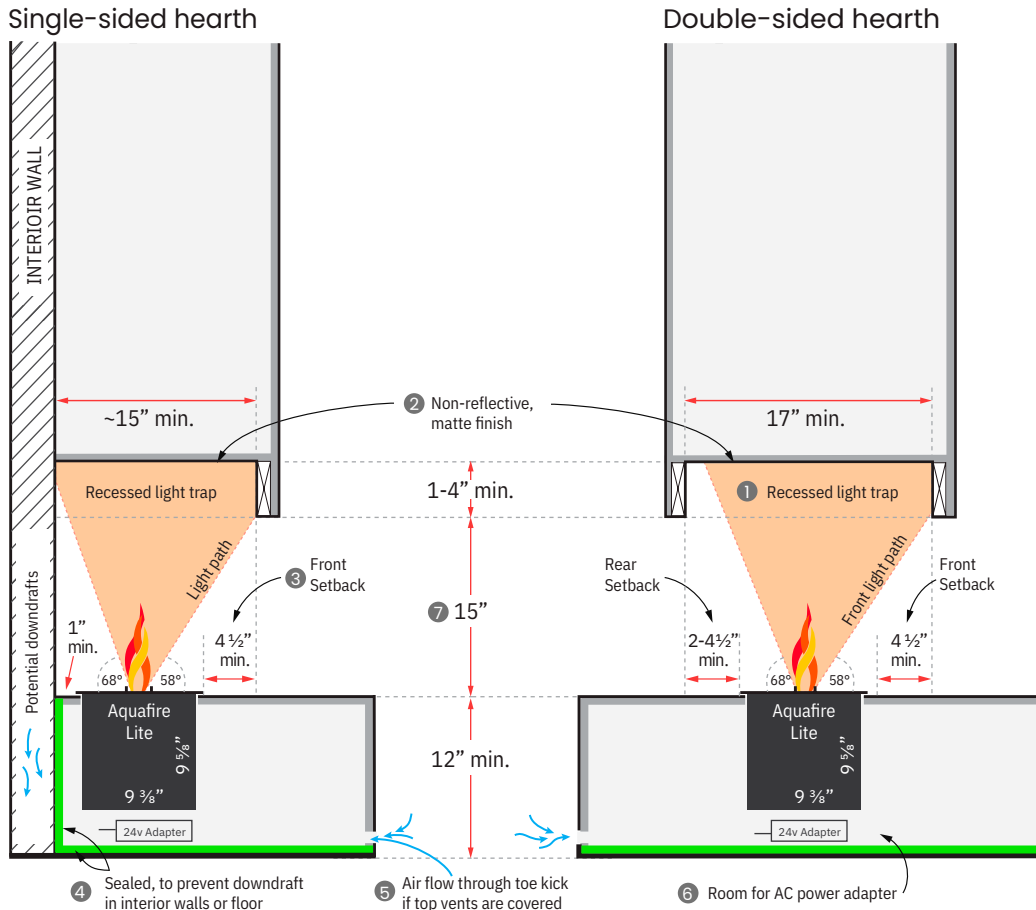


## Enclosure Design

### Ideal Enclosure Guidelines

Minimum dimensions to finish to reduce the amount of light escaping the enclosure.

#### SIDE VIEW



#### Pro Tip!

A well-built enclosure consists of:

- 1 Recessed light trap.
- 2 Matte black interior walls.
- 3 Proper setback (fireplace edge to light trap edge).
- 4 Sealed off from interior walls and floor.
- 5 Allow for air flow through top vents or toe kick.
- 6 Space under fireplace.
- 7 Correct viewing area height to avoid light escaping.

#### Design Review!

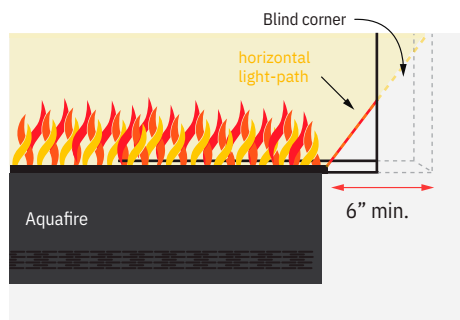
When you have your design schematic or working drawings, it's a good idea to get a review by an Aquafire professional. We are here to help!

Contact us [sales@aquafire.com](mailto:sales@aquafire.com)

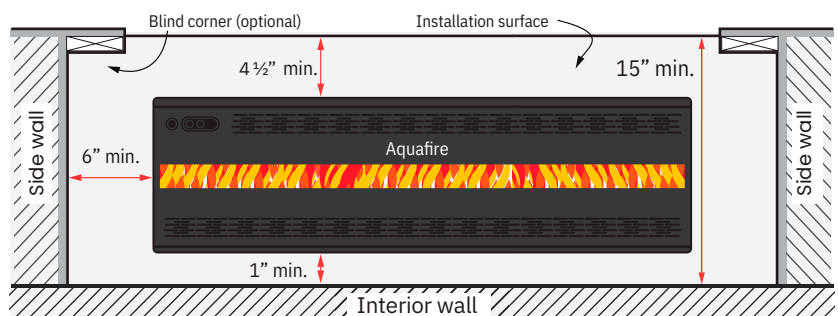
### Side Light Considerations

Installing Aquafire too close to a side wall may cause lateral light reflection onto adjacent surfaces. Maintain a minimum 6-inch clearance on each side, or utilize an open-ended or blind-corner design to mitigate light bleed.

#### FRONT VIEW



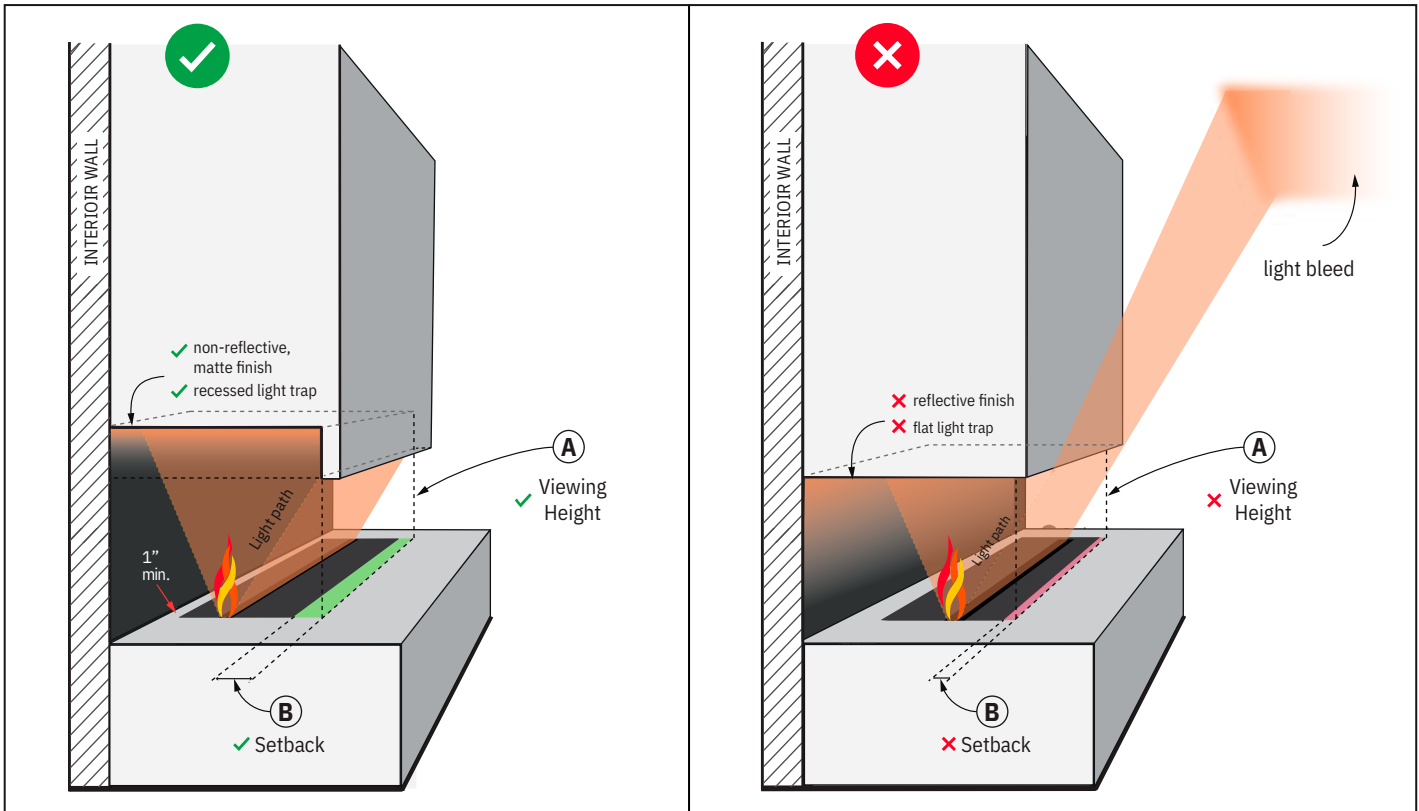
#### PLAN VIEW



## Enclosure Design

### Light Trap Design

Light from the Aquafire may project above the enclosure, illuminating the ceiling. To reduce this effect, incorporate a light trap in your enclosure design. Use the chart below to determine optimal finished dimensions.



**AQUAFIRE PRO SERIES (AWPRx)**

(A) *	(B) **
Viewing Height	Setback (min.)
x	x
x	x
14"	6"
15"	6-1/2"
16"	7"
17"	8"
18"	9"
19"	9-1/2"
20"	10"
21"	11"

**AQUAFIRE SERIES (AWAx)**

(A)	(B)
Viewing Height	Setback (min.)
12"	2"
13"	3-1/2"
14"	4"
15"	4-1/2"
16"	5"
17"	6"
18"	7"
19"	7-1/2"
20"	8"
21"	9"

**AQUAFIRE LITE SERIES (AWLx)**

(A)	(B)
Viewing Height	Setback (min.)
12"	2"
13"	3-1/2"
14"	4"
15"	4-1/2"
16"	5"
17"	6"
18"	7"
19"	7-1/2"
20"	8"
21"	9"

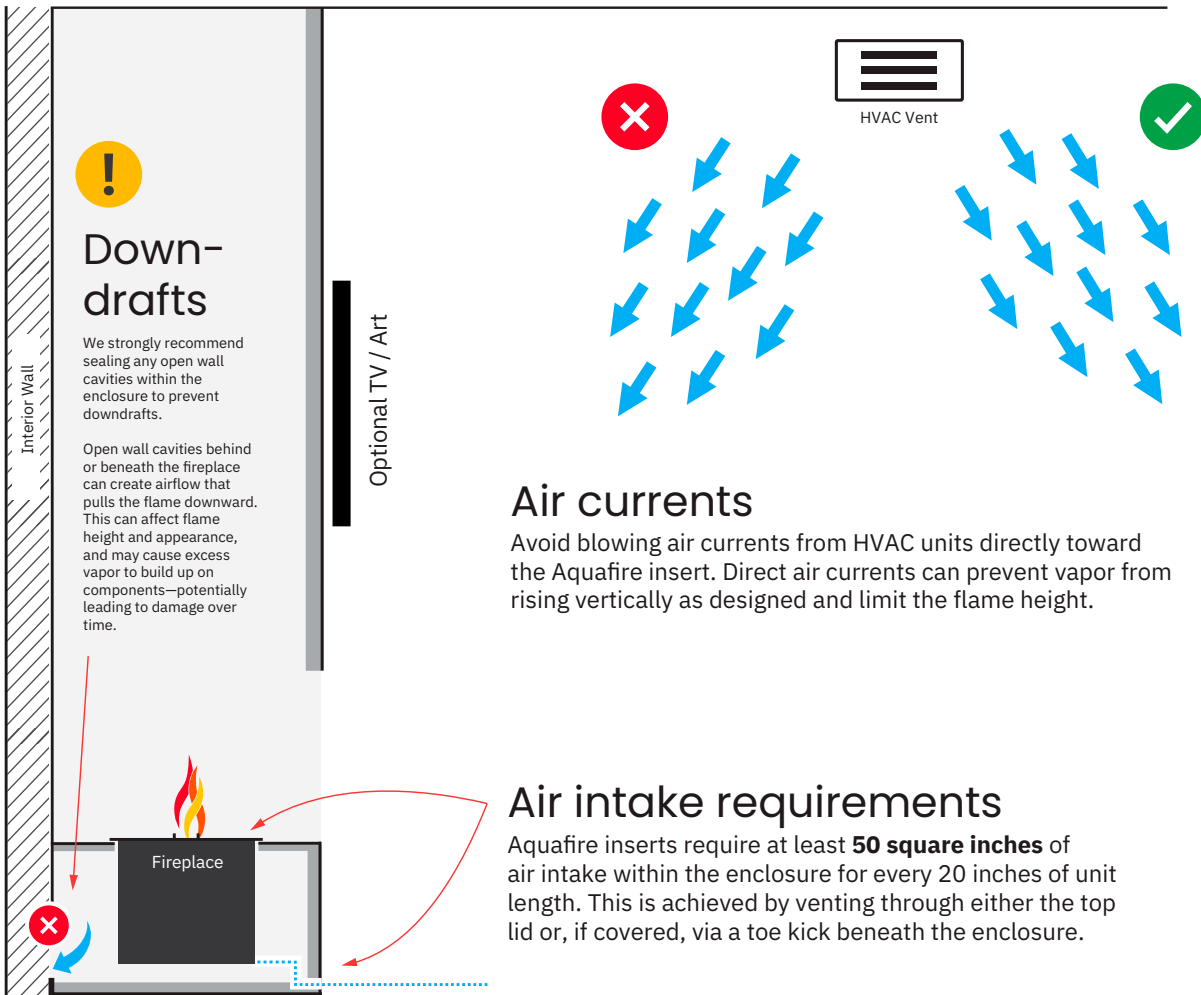
\*Vertical distance extending from Aquafire's media tray to bottom edge of enclosure/hearth's light trap.

\*\*Horizontal distance from Aquafire's front edge to the point directly below the inside edge of the light trap.

## Other Considerations

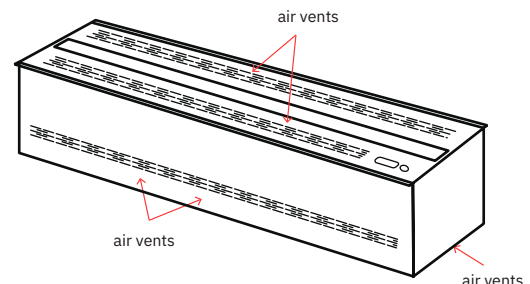
### Air Flow Considerations

#### SIDE VIEW SINGLE-SIDED HEARTH



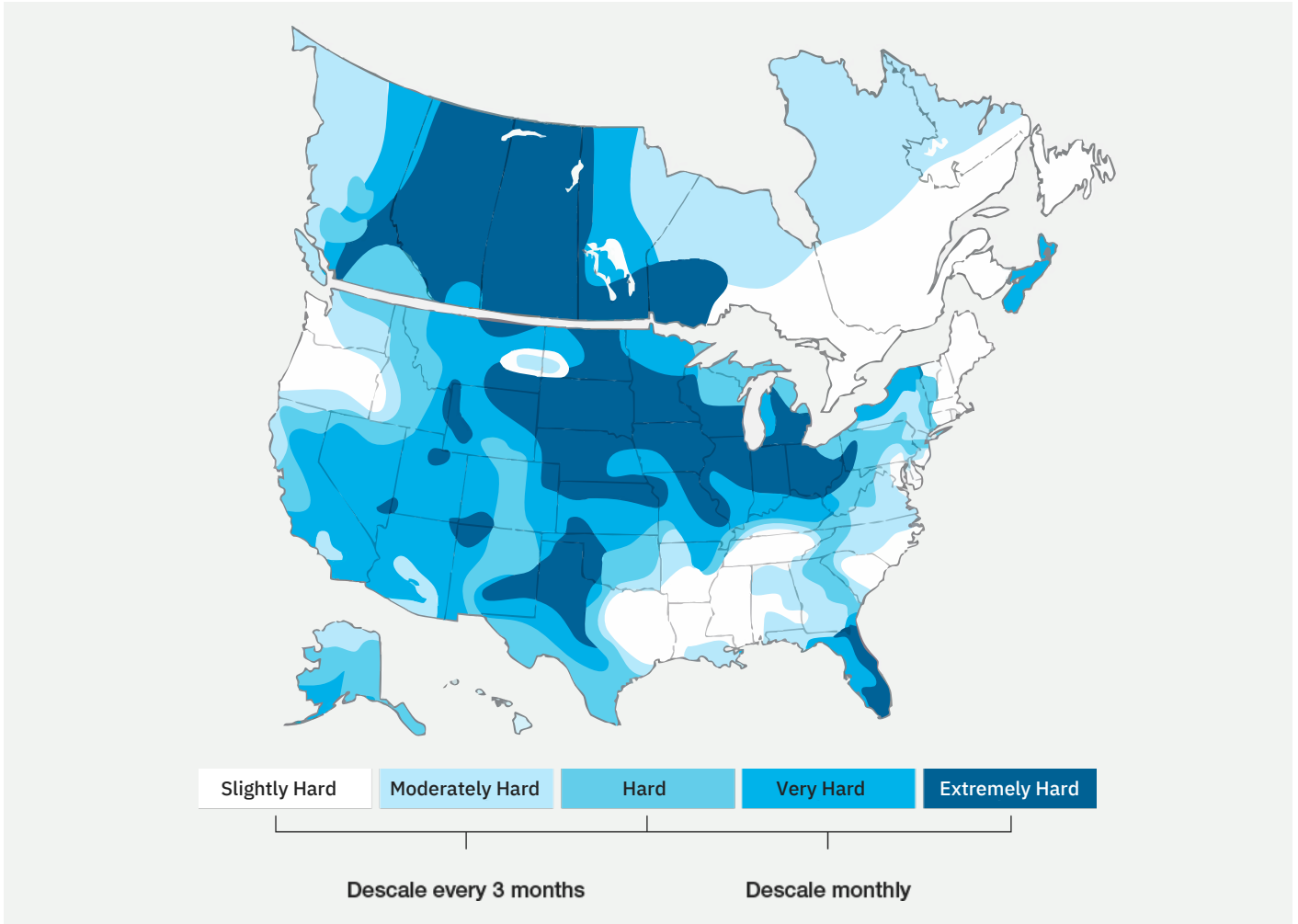
### Venting

Air vents are situated atop the insert to enable airflow when the device is placed within an enclosure. Should there be a preference for a decorative top or media obstructing these vents, the enclosure design needs to facilitate adequate airflow through the sides or bottom.



## Maintenance and Cleaning Guidelines

### Hard Water Guidelines



**For best results, descale your fireplace every three months or more frequently if you live in an area with hard water.**

3.5 to 8.5 Grains Per Gallon, Ideal is 7.0 (moderately hard)

- Hard may produce scaling, shorten transducer life, and require more frequent cleaning.
- If water hardness needs to be adjusted, consult local water conditioning professional.
- Water that is too soft will have reduced flame effect.

Reverse Osmosis is not recommended, it removes all minerals and vapor flame effect will be greatly diminished.

💡 For complete cleaning instruction visit [www.aquafire.com/cleaning](http://www.aquafire.com/cleaning)





## Troubleshooting Guide

<b>PROBLEM</b>	<b>POSSIBLE CAUSE</b>	<b>SOLUTION</b>
<b>Power</b>		
Unit fails to turn on when using the power button on the fireplace	Power supply not properly plugged in	Check power supply connections and look for green LED on power supply indicating that it's powered
	Wall outlet may not be powered	Check breaker main panel in building to see if breaker has been tripped or turned off
Power supply indicator light is green, but unit still won't turn on	Main fuse inside the fireplace may be blown	Contact support for assistance
Power supply indicator light is red	Power supply has somehow been damaged	Contact support for assistance
Unit turns on, but power button flashes and immediately shuts off	Possible internal component failure due to rough handling during shipping	Contact support for assistance
Unit appears to have power, but a "buzzing" sound is heard	Power supply may not be fully plugged in on the back of the unit	Check that 90 degree fitting is securely plugged in on the back of the unit. If it is and buzzing continues, contact support
	Power supply is fully plugged in on the back of the unit, but buzzing persists	Main power outlet may be loose. Contact support for assistance

<b>Water</b>		
Musty or stale smell when unit is running	Old or stale water generally created from lack of use	Drain and refill with fresh water. Consider cleaning per the PM maintenance guidelines
Leak detected after unit has been unused for an extended period of time	Float sensor in mist tank may be stuck creating above normal water level in mist tube	Drain excess water to proper level; Lift and plunge mist maker rack vigorously 10 -15 times to free up float sensor in mist tank. Allow unit to run and recheck to make sure correct water level is maintained
Unit beeps then turns off	Low water level	Refill unit manually or verify that water feed is on if unit is permanently plumbed

<b>Remote Control</b>		
Remote control does not turn fireplace on/off	Possible dead battery	Install new CR-2032 battery (Lithium)
	Remote may not be synced to this particular fireplace	Push and hold the power button on the fireplace until it flashes, then hit any button on the remote. Use this process to sync multiple fireplaces to a single remote
Remote control powers the fireplace on/off, but doesn't seem to respond to flame adjustments or color changes	Possible low battery	Install new CR-2032 battery (Lithium)
	Possible sync issue	Follow instructions above to re-sync the remote
Remote does not work despite trying all steps listed above	Remote may be malfunctioning	Contact support for further assistance

## Troubleshooting Guide (cont'd)

PROBLEM	POSSIBLE CAUSE	SOLUTION
<b>Mist Makers/Flame Appearance</b>		
Flame height is less than 6" high in all sections	Possible air flow issue due to enclosure design or ambient room currents	Verify that fireplace is getting sufficient air and that no AC vents, fans, or air currents are impacting the mist from rising vertically
	Flame volume may be low	Use remote (or phone app) to increase volume of mist by pressing the "+" 
Flame height is less than 6" high in one section only	Mist maker may need to be cleaned	Follow PM instructions for cleaning mist maker. Consider cleaning all mist makers
	Water level in mist tube may be too high	Remove excess water to proper level which is the height of the black mushroom cap
Flames appear more "smoky" than desired	Excess mist is being generated	Use remote (or phone app) to decrease volume of mist by pressing the "-" 
Slower flame movement is desired	Flame speed setting is too high	Use remote (or phone app) to decrease speed of mist by pressing the "-" 
Faster flame movement is desired	Flame speed setting is too low	Use remote (or phone app) to increase speed of mist by pressing the "+" 

<b>LED Lights- AWA MODELS</b>		
Lights are not on when unit is on	Loose connection on light strip(s)	Check connection on right end of light strip to make sure it is securely connected
	Possible problem with the light strip or LED driver card	Contact support for further assistance
One or more light cells are not working on an individual light strip	There is a problem with the light strip	Contact support for further assistance

<b>Lights and Beeps Key</b>			
Lights	Beeps	Alert	Possible cause
N/A	Two quick beeps, every two seconds	Low / No Water	The water supply hasn't been turned on.
			Water needs to be added.
N/A	Three long beeps, every second	Overflow / High Water Alert	Water level is too high.
			Float sensor is stuck.
N/A	One short beep, every two seconds	Voltage Alert	Possible shortage.
			Faulty power adapter.



## **Contact Us**

[sales@aquafire.com](mailto:sales@aquafire.com)

[www.aquafire.com](http://www.aquafire.com)

(877) 888-4260

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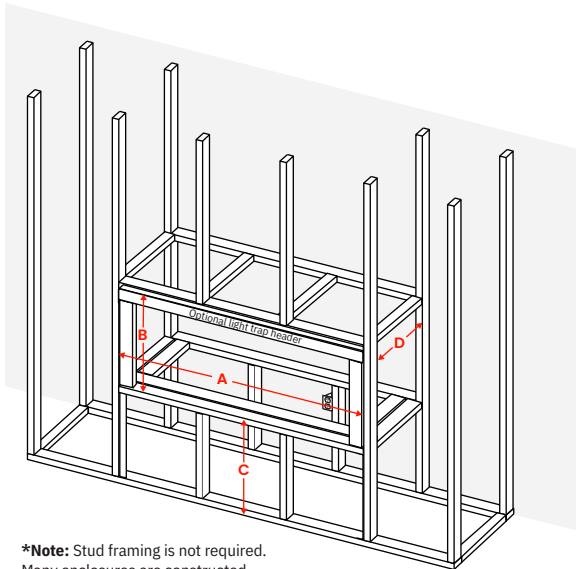
 [www.aquafire.com](http://www.aquafire.com)

## Enclosure Design



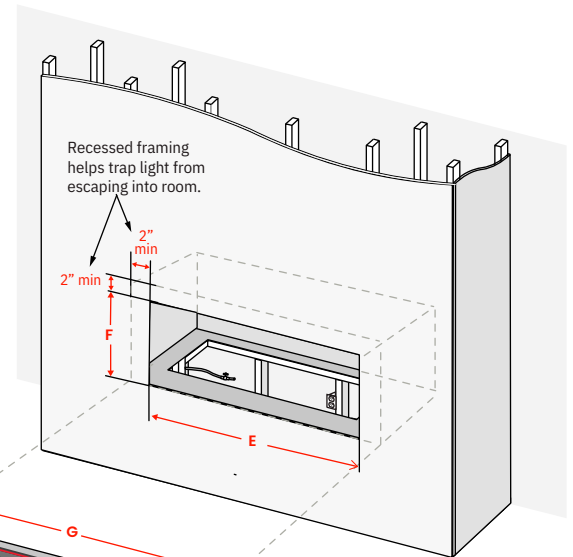
All dimensions are finished dimensions. Consider your material thickness, overlays, and clearances to calculate your final framing dims. All dimensions are in inches. All framing must be self-supported. Drawings are not to scale.

### 1 Framing\*

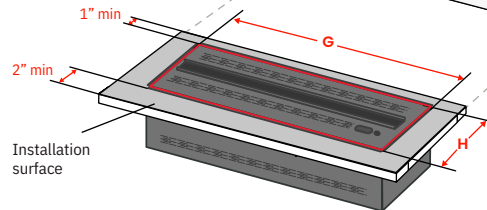


\*Note: Stud framing is not required. Many enclosures are constructed from plywood or other materials as case goods or cabinetry.

### 2 Drywalling



### 3 Cutout & Setback



## Minimum Finished Dimensions



All dimensions are absolute **minimums**. Building to the minimums across all measurements will result in side light reflection and light escaping the enclosure reflecting onto the ceiling of the room. For optimal results, see **ideal enclosure guidelines.** ( 9 )

Model	Series	Dimensions to Finish				Drywall Opening		Fireplace Cutout	
		Width	Opening	Height*	Depth	Width(min.)	Height(max.)	Width	Depth
		A	B	C	D	E	F	G	H
AWL-20	Lite	26"	12"	12"	12 ½"	22"	17"	20 ¼"	9 ½"
AWA-20	OG	26"	12"	12"	15 ¼"	22"	17"	20 ¼"	12 ¼"
AWPR-20	Pro	26"	14"	14"	15 ¼"	22"	14"	20 ¼"	12 ¼"
AWL-40	Lite	46"	12"	12"	12 ½"	42"	17"	40 ¼"	9 ½"
AWA-40	OG	46"	12"	12"	15 ¼"	42"	17"	40 ¼"	12 ¼"
AWPR-40	Pro	46"	14"	14"	15 ¼"	42"	14"	40 ¼"	12 ¼"
AWL-60	Lite	66"	12"	12"	12 ½"	62"	17"	60 ¼"	9 ½"
AWA-60	OG	66"	12"	12"	15 ¼"	62"	17"	60 ¼"	12 ¼"
AWPR-60	Pro	66"	14"	14"	15 ¼"	62"	14"	60 ¼"	12 ¼"

\*Using a Direct Plumb Kit (sold separately) requires additional 2 in. of height from the floor.