

# INSTALLATION AND USER MANUAL

UNITED STATES & CANADA

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## THE AETHER & THE HEARTH SUSPENDED FIRES

Wood & Bioethanol Fires



Tested by OMNI Test Laboratories and certified to UL-737-2011 (R2015) and ULC-S627-00. Report number: 0564WF001S and 0564WF002S.



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KEEP THESE INSTRUCTIONS FOR FUTURE USE



*We would like to thank you for your purchase of an Aurora Suspended Fireplace. The care and craftsmanship we put into each fire will give you trouble free heating for many years to come. 🔥*

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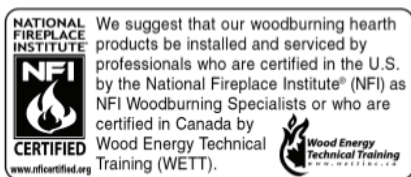
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# INTRODUCTION

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For your safety, ensure you have read the operation guidelines prior to use. Your fire must be installed by a qualified professional. Contact your local building or fire officials about restrictions and installation inspection requirements in your area.



**!** *Mixing of appliance or flue-system components from different sources or modifying the dimensional specification of components may result in hazardous conditions. Where such action is considered, Aurora Wood Fires Pty Ltd must be consulted in the first instance.*

**!** **WHEN THIS FIREPLACE IS NOT PROPERLY INSTALLED, A HOUSE FIRE MAY RESULT. TO REDUCE THE RISK OF FIRE, FOLLOW THE INSTALLATION INSTRUCTIONS.**

## WARNING

**NOT FOR MOBILE HOME INSTALLATION.**

**DO NOT CONNECT TO ANY AIR DISTRIBUTION DUCT OR SYSTEM.**

**THE AUTHORITY HAVING JURISDICTION (SUCH AS MUNICIPAL BUILDING DEPARTMENT, FIRE DEPARTMENT, FIRE PREVENTION BUREAU, ETC.) SHOULD BE CONSULTED BEFORE INSTALLATION TO DETERMINE THE NEED TO OBTAIN A PERMIT.**

**USING ANY COMPROMISES DURING INSTALLATION CAN CAUSE DAMAGE. SUCH INSTALLATION IS NOT COVERED BY YOUR WARRANTY.**

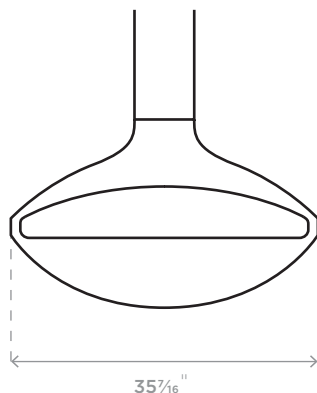
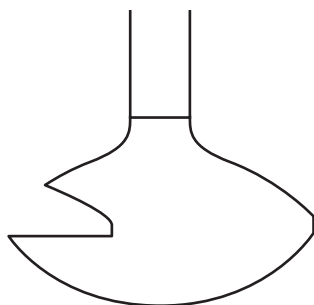
**PLEASE READ THIS ENTIRE MANUAL BEFORE YOU INSTALL AND USE YOUR NEW STOVE. FAILURE TO FOLLOW INSTRUCTIONS MAY RESULT IN PROPERTY DAMAGE, BODILY INJURY, OR EVEN DEATH**

# 1. DIMENSIONS & SPECIFICATIONS



# THE AETHER

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## FEATURES

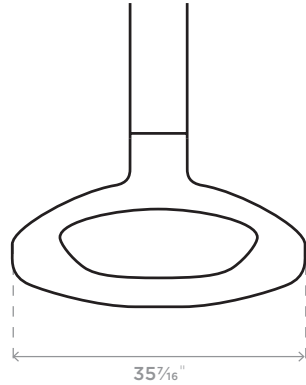
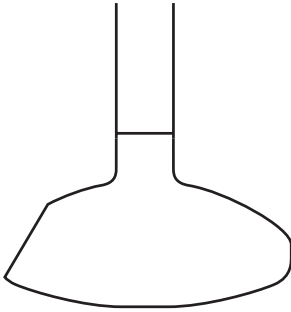
- Stainless steel ball bearing 360 degree rotation system
- Custom flue length with damper
- Material:  $\frac{5}{32}$ " Steel and Stainless Steel
- Finish: high temperature coating system.
- Heat Output: 8.2kW
- Colour: matte black.  
A range of other colours are available on request.  
For more information download our colour chart.

## WEIGHT & DIMENSIONS

Firebox diameter	35 $\frac{7}{16}$ "
Firebox weight	122lbs
Flue diameter	6 $\frac{1}{2}$ "
Flue weight	8.5lbs per foot
Standard bracket weight	48lbs
Grate	22lbs

# THE HEARTH

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## FEATURES

- Stainless steel ball bearing 360 degree rotation system
- Flue custom length with damper
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Grate	22lbs





# 2. PLANNING



# CLEARANCE TO COMBUSTIBLES

A combustible surface is anything that can burn (i.e. plaster, wall paper, wood, fabrics etc.) These surfaces are not limited to those that are visible, but also include materials that are behind non-combustible material. Timber frames behind gyprock are considered combustible.

## IMPORTANT

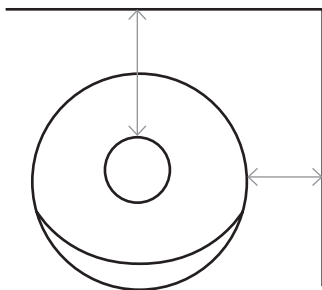
Window frames must also be considered. Timber window frames must be treated as combustible surfaces. Aluminium frames can be treated as non-combustible.

### Parallel Wall Using Single Wall Connector Pipe

Clearance Description	Inches	Millimeter (mm)
Side wall to appliance	26.0	660
Side wall to connector pipe	41.0	1041
Back wall to appliance	17.0	432
Back wall to connector pipe	32.0	813
Combustibles in front of fuel opening	48.0	1219.2
Ceiling – from floor	96.0	2438
Floor to bottom of appliance	18.5	470

Type of thermal floor protection required

None R=0



### ▶ REDUCING CLEARANCE TO COMBUSTIBLES

Clearances may only be reduced by means approved by the regulatory authority.

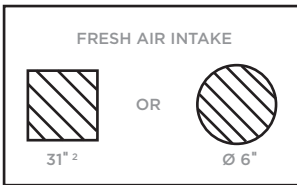
Please refer to the 'Installation Planning' section of our website for further information on reducing clearances safely.

# FRESH AIR INTAKE

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Fresh air is important. The air supply has to be sufficient to keep the smoke moving up the chimney. If the heater is starved for air the draw will weaken and the unit will leak smoke back into the room. This is a health hazard. For optimum functioning, we recommend a fresh air intake in the room. We recommend deflect-O A0684 semi rigid aluminium duct.

**MINIMUM FRESH AIR INTAKE SIZE:**

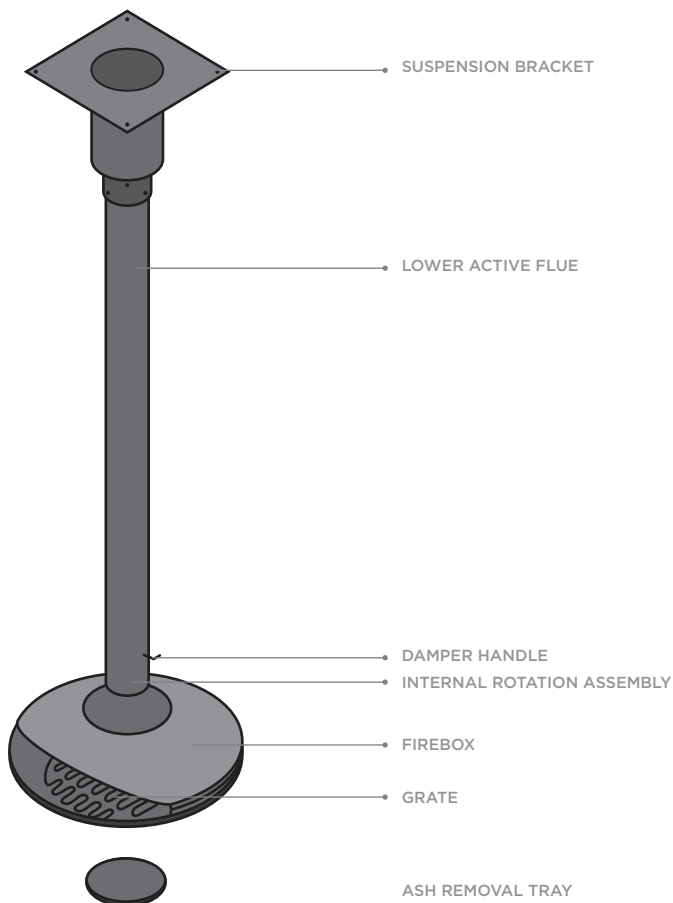


**Important:** this fresh air intake is compulsory when operating venting appliances such as kitchen hoods, permanent air extractors or any appliances creating an air depression in the habitation.

# MINIMUM TOTAL FLUE LENGTH

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To guarantee efficiency the minimum total flue length (lower & external triple skin flue combined) is 15ft. measured from the point the firebox joins the flue to the top of the external flue.



# FLUE POSITION

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## FLUE REQUIREMENTS

DO NOT CONNECT THIS UNIT TO A CHIMNEY FLUE SERVING ANOTHER APPLIANCE

Aurora Fireplaces must be connected to a chimney complying with the requirements for Type HT chimneys in the standard for Chimneys, Factory-built, Residential Type and Building Heating Appliance, UL 103 / ULC S629. For example, a class A insulated stainless steel flue chimney system with a 6-inch minimum inside diameter.

## FLUE CONNECTOR REQUIREMENTS

Use the Aurora flue connector to connect into the class A insulated chimney. This connection must be inside the insulated body of the ceiling bracket to avoid heat traps. That a chimney connector shall not pass through an attic or roof space, closet or similar concealed space, or a floor, or ceiling. Where passage through a wall, or partition of combustible construction is desired, the installation shall conform to CAN/CSA-B365, Installation code for Solid-Fuel Burning Appliances and Equipment.

**WARNING: The chimney and chimney connector must be in good condition and be kept clean.**

## FLUE HEIGHTS & TERMINATION

The minimum flue height recommended for optimum performance of our fireplaces is 15ft. (4.57 m) from the top of the firebox to the top of the external flue.

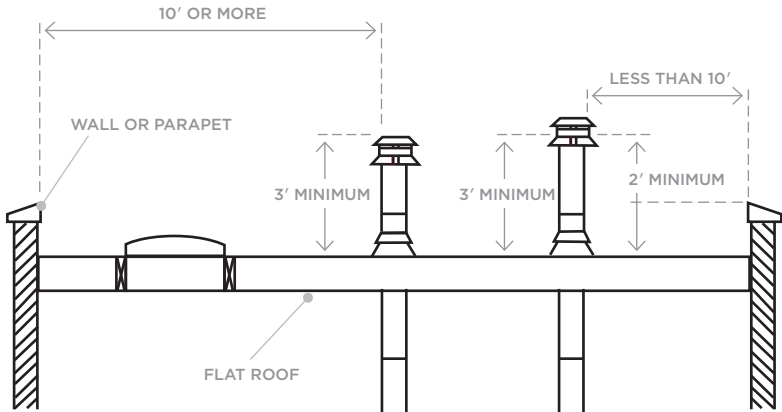
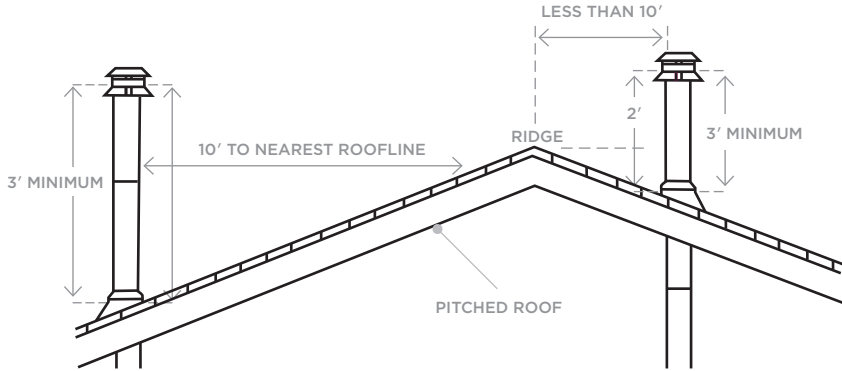
The chimney must also be at least 3 feet (92 cm) higher than the highest point where it passes through the roof and at least 2 feet (61 cm) higher than the highest part of the roof or structure that is within 10 feet (3.05 m) of the chimney, measured horizontally.

It is best to position the flue so that it goes straight up as near to the roof ridge as possible. The diagram over page shows the minimum flue discharge heights and positions for all wood burning and multi-fuel applications.

In some cases, particularly when flues are towards the bottom of a sloping roof or at the eaves, it may be necessary to increase the flue height above these minimum mandatory requirements. The reason for this is to clear pressure zones created by wind hitting the roof and nearby structures, like trees, which may interfere with the up draught required by the fireplace.

Tall flues may need bracing, always consult your installer for advice.

### Minimum Flue Height:







# 3. INSTALLATION



# INSTALLATION OVERVIEW

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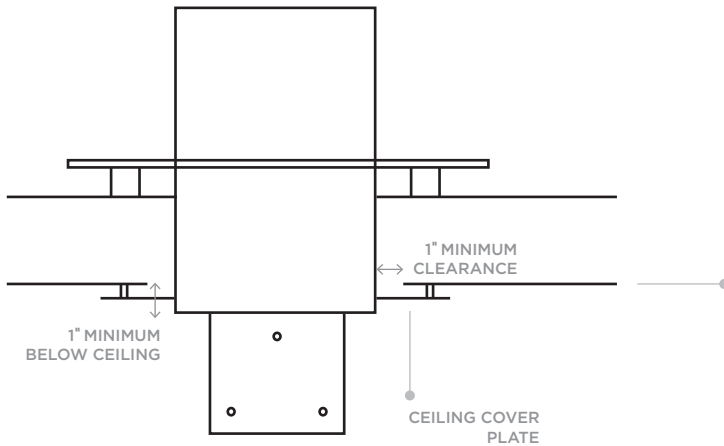
1. Choose the position of firebox and flue ensuring that you follow the clearances described within this section
2. Install the suspension bracket
3. Install the internal lower flue
4. Install the flue connector
5. Install the external insulated flue & anti-down draught cowl
6. Engage the firebox
7. Ensure the floor has adequate protection

# SUSPENSION BRACKET

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## » FLAT CEILING INSTALLATION

- The bracket must be structurally secured within the roof as shown in the diagram
- The largest cylinder must protrude down from the ceiling by at least 1" unless the ceiling is made from a non-combustible material such as concrete.
- You must leave a 1" clearance gap between the bracket and the ceiling. This gap will be covered by the ceiling cover plate.
- ½" ventilation gap between the plasterboard and the ceiling cover plate.
- ½" minimum clearance from the insulated flue to any combustible material within the roof space.



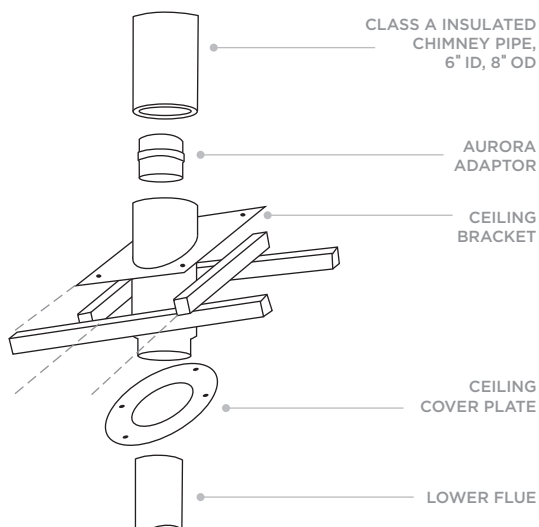
## » PITCHED CEILING INSTALLATION

For pitched ceilings we have 5 bracket sizes which your installer will adjust to achieve the exact angle for your installation.

- Up to a 5 degree pitch = Flat bracket
- 5 to 15 degree pitch = 10 degree bracket
- 15 to 25 degree pitch = 20 degree bracket
- 25 to 35 degree pitch = 30 degree bracket
- 35 to 45 degree pitch = 40 degree bracket

A custom bracket is available for anything larger than a 45 degree pitch. When installing the bracket, it is very important that the bracket is sitting plumb.

The installer may need to chock up one side of the bracket, with non combustible material i.e. cement sheet.



# LOWER FLUE

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## LOWER FLUE LENGTHS

We supply the lower flue in the standard sizes listed below. The extra length will be pushed up into the ceiling bracket, enabling you to set the correct distance of the firebox to the floor.

### FLUE LENGTHS

5'3"	9'1"	▶ Sizes above 11'6" will come in two pieces, with an internal joiner.
5'11"	9'9"	
6'7"	10'8"	
7'5"	11'6"	
8'3"	Custom	

## INSTALLING THE INTERNAL LOWER ACTIVE FLUE

The lower active flue is delivered with additional length to allow for small changes to set the correct firebox height.

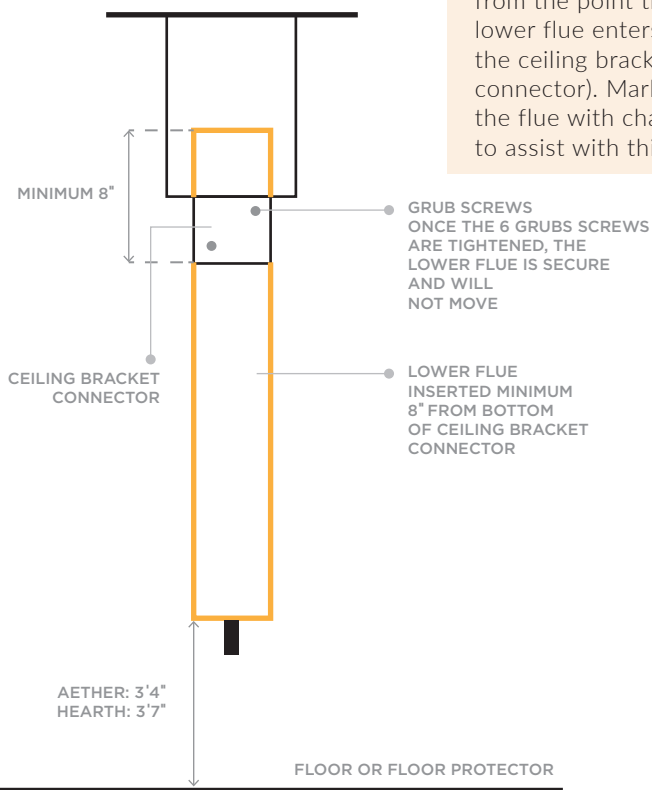
1. First position the lower active flue inside the suspension bracket to obtain the correct height.
2. When this is in place attach the lower flue.
3. For aesthetic reasons the lower flue should be positioned with the seam facing away from the front of the fire (this won't be possible for installations in the centre of the room). As you are facing the fire the flue damper handle will be on the right-hand side of the flue. For a centrally placed installation position the seam on the side which will be least visible.
4. Once the desired height is achieved tighten the 6" grub screws. Use a level to ensure that the flue is perfectly vertical.

## INSTALLING A TWO PIECE LOWER ACTIVE FLUE

Lower active flues over 11' 6" are supplied in two parts and are joined internally with a flue connector. This assists installers in achieving a safe and successful installation.

**Do not attempt to join these prior to attaching to the suspension bracket.**

1. Attach the upper piece to the suspension bracket first.
2. When this is in place attach the lower flue.



# BIOETHANOL FIREPLACE

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The fireplace (the Aether or the Hearth) is fitted with either a scope 340 EcoSmart grate insert & stainless steel burner or an EcoSmart XL500 burner which both use bioethanol fuel.

The burner comes fitted with a grate designed for our fireboxes. As bioethanol gives off nothing but water vapour there is no need for an external flue, therefore the lower active flue will be capped inside the suspension bracket. Fit the lower active flue as normal and then put the flue cap onto the end, inside the suspension bracket. This will stop any heat transference into your roof space.

**NOTE**

To install the bioethanol fireplace please follow the instructions.

## BIOETHANOL FIREPLACE CLEARANCES

Wall Material	Position Of Firebox	Firebox To Combustible	Ceiling Dropbox To Combustible
Non-Combustible	Fixed	3.938"	0.985"
Non-Combustible	Rotating	3.938"	0.985"
Combustible	Fixed	3.938"	0.985"
Combustible	Rotating	3.938"	0.985"

1. Insert the grate.
2. Ensure the opening in the grate lines up with the bioethanol burner.
3. Check that the burn chamber is in the centre of the firebox.
4. Insert the burner into the grate.

For instructions on lighting the burner refer to the EcoSmart instructions in the burner box.

# BIOETHANOL WOOD HYBRID

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## **BIOETHANOL WOOD-HYBRID FIREPLACE INSTALLATION**

The bioethanol/wood hybrid is a fully flued wood fireplace with a custom fitted bioethanol burner as an added extra.

You receive two grates, one for burning wood and one for bioethanol. When you wish to burn wood you simply swap grates and remove the bioethanol burner.

To get maximum available heat output when using the bioethanol burner the damper must be fully closed during operation. This will keep the warmth from escaping out the flue system.

### NOTE

This only applies to bioethanol operation. The damper must be fully open at all times when burning wood.

To install the Bio Ethanol-Wood Hybrid follow the installation instructions for standard wood fire installation.

See previous page for bioethanol burner & grate installation.



# FLUE ADAPTOR

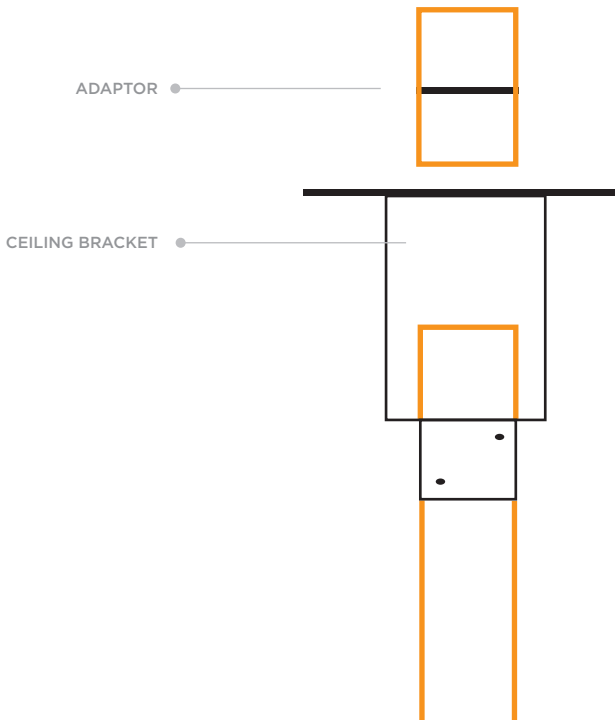
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## INSTALLING THE ADAPTOR

1. Push the the adaptor into the top of the lower active flue as far as it will go until it bottoms out. Use high temperature silicon sealant to ensure a good seal.
2. Install the insulated flue into the lower flue next. Ensure a good seal.

**IMPORTANT**

You must use high temperature sealant as regular sealant will melt.



## EXTERNAL FLUE

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Aurora Fires must be connected to a chimney & anti-downdraft cowl complying with the requirements for Type HT chimneys in the standard for Chimneys, Factory-built, Residential Type and Building Heating Appliance, UL 103 / ULC S629. For example, a class A insulated stainless steel flue chimney system with an 6-inch minimum inside diameter.

The chimney manufacturer's installation instructions must be followed precisely. Always maintain the proper clearance to combustibles as established by the pipe manufacturer. This clearance is usually a minimum of 2", although it may vary by manufacturer or for certain chimney components.

# ENGAGING THE FIREBOX

## FOR UNLOCKED FIRES WITH 360 DEGREE ROTATION

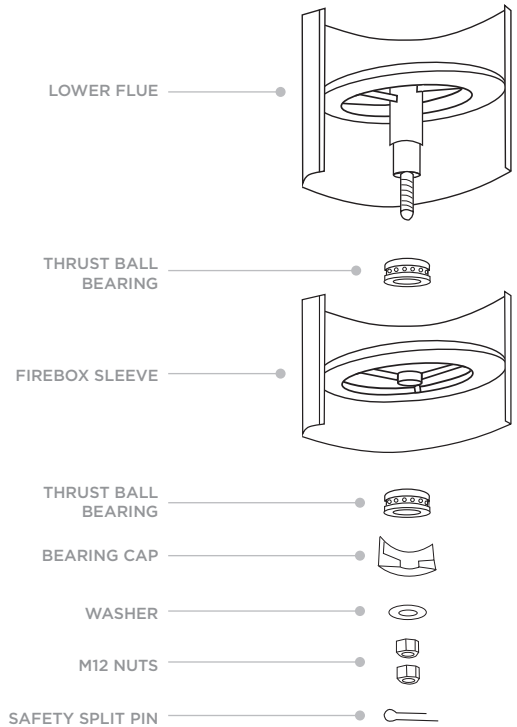
Assemble the shaft & bearing system in the following order:

1. Push thrust bearing over shaft.
2. Engage the firebox.
3. Push 2nd thrust bearing over shaft.
4. Fit bearing cap.
5. Fit washer.
6. Fit M12 nut & tighten.
7. Fit 2nd M12 nut & tighten.
8. Fit safety split pin.

**NOTE**

The bearing is shipped in the correct order on the shaft. The bearing must be installed in the correct order or the firebox will be too loose.

**IMPORTANT**  
Ensure the threaded shaft does not knock against the firebox when engaging. This can damage the thread.



### LOCKING THE FIREBOX IN A FIXED POSITION

If the firebox is 48" or closer to combustibles the firebox must be locked in a fixed position.

To do so follow the steps outlined above for engaging the firebox with the following exception:

**Remove the top thrust bearing in step 1 and tighten first nut until firebox does not rotate.**

### INSERTING THE GRATE

It is recommended that you place a protective cloth over the lip of the firebox when inserting or removing the grate to prevent scratching the paint.



**DO NOT OPERATE WITHOUT THE USE OF THE GRATE PROVIDED.**

**BUILD WOOD FIRE DIRECTLY ON THE GRATE PROVIDED. DO NOT ELEVATE THE GRATE OR ALTER IN ANY WAY.**

# FLOOR PROTECTOR REQUIREMENTS

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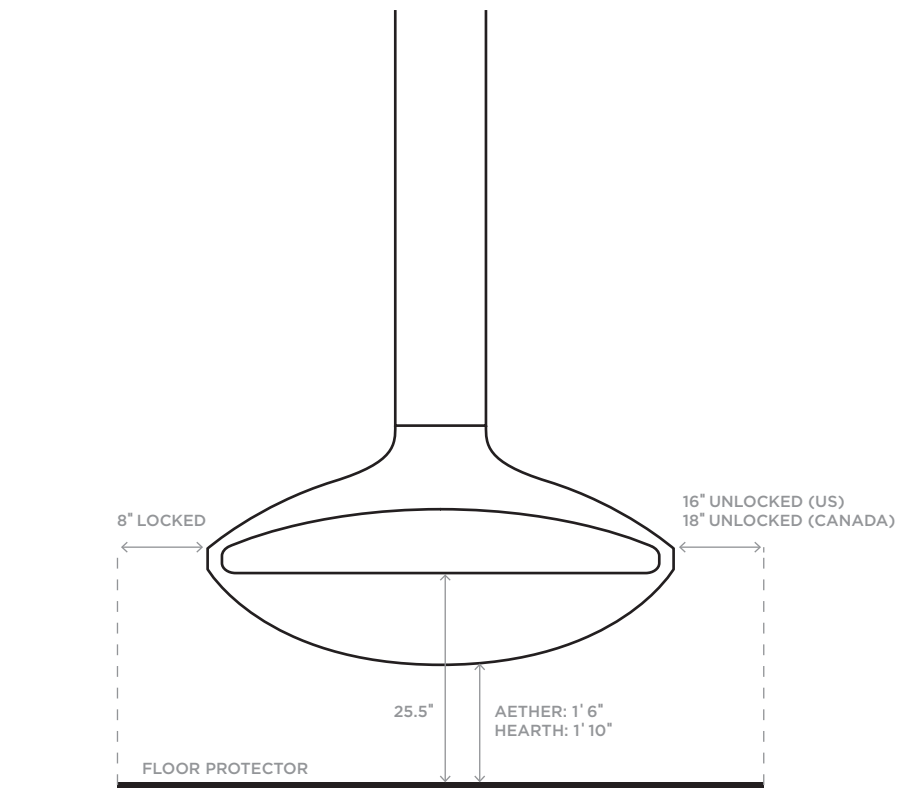
You will require a floor protector to protect any combustible floor beneath the firebox.

Thermal floor protection is not required but floor (Ember) protection is required.

Floor protectors can be made of non combustible materials such as:

- Tile
- Stone
- Steel
- Toughened Glass
- Polished Concrete

See over page for height specifications.



ROTATING VERSION REQUIRES 16 INCHES US & 18 INCHES CANADA OF FLOOR PROTECTION ON ALL SIDES (360°).

LOCKED VERSION REQUIRES 16 INCHES US & 18 INCHES CANADA ON THE FRONT AND TO EXTEND 8 INCHES ON THE LEFT, RIGHT AND BACK SIDES.

# FOR INSTALLERS

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## CLEANING UP

If the fire paint has accumulated dust, fingerprints or other residue during installation, wipe the firebox and lower flue down with a little water and a scratch free glass polishing cloth.

DO NOT RUB THE PAINT. A LIGHT PRESSURE IS ALL THAT IS NEEDED.

## HANDING OVER CHECKLIST

- Read the Users instructions and instruct the user on the operation of the fireplace and cleaning methods. Leave instructions with the customer.
- Inform the customer that any odours are due to the newness of materials and will disperse after the initial burn instructions are followed.
- Advise the customer on the operation of the flue damper.
- Advise the customer on the importance of an adequate air supply.

# INSTALLATION CHECKLIST

## INSTALLATION MUST TAKE PLACE IN THE FOLLOWING ORDER

- |   |   |
|---|---|
| <p><input type="checkbox"/> Suspension bracket installed plumb and clear of combustibles. Ceiling bracket to protrude minimum 1" below ceiling. More than 1" should only be used if the roof space prohibits a 1" drop.</p> <p><input type="checkbox"/> 1" clearance gap between the bracket and the ceiling. This gap will be covered by the ceiling cover plate.</p> <p><input type="checkbox"/> Lower active flue installed BEFORE insulated flue &amp; set to correct height from floor.</p> <p><input type="checkbox"/> Lower flue pushed up a minimum of 8" into the ceiling bracket (8" measurement taken from the point the lower flue enters the ceiling bracket flue connector). Mark the flue with chalk to assist with this.</p> <p><input type="checkbox"/> Flue seam facing the back of the fire, if possible.</p> <p><input type="checkbox"/> Grub screws tightened.</p> <p><input type="checkbox"/> Flue adaptor pushed into the top of the lower active flue as far as it will go until it bottoms out &amp; sealed with a high temp silicone sealant. If this is not done correctly, it may result in a weak draw.</p> <p><input type="checkbox"/> Flue adaptor sealed correctly.</p> | <p><input type="checkbox"/> Insulated flue installed to make up a total flue height (internal flue &amp; insulated flue) of 15' minimum.</p> <p><input type="checkbox"/> 2" minimum clearance from the insulated flue to any combustible material within the roof space.</p> <p><input type="checkbox"/> Insulated flue sealed with silicon sealant &amp; flashing installed. Braced ( if required). If necessary precautions against capillary action taken.</p> <p><input type="checkbox"/> Anti-down draft cowl installed.</p> <p><input type="checkbox"/> Firebox lifted into position evenly to protect the shaft from damage. Bearings and nut installed in the correct order and tightened to close the gap between firebox and lower flue to approximately <math>\frac{3}{64}</math>". Firebox rotates freely, if required.</p> |
|---|---|

### IMPORTANT

This must be ticked and signed by the person who installs your fire and returned to aurora suspended fires following installation for any warranty claims to be honoured.

NAME \_\_\_\_\_

SIGNATURE \_\_\_\_\_

DATE \_\_\_\_\_







# Aurora

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

