

PH-FRT, PH-SIDE
Models: MEZZO-C Series, CRAVE-C Series, ECHELON-C Series
Passive Heat Kit Installation Instructions



Leave this manual with party responsible for use and operation.

CAUTION! Risk of Cuts, Abrasions or Flying Debris.
Wear protective gloves and safety glasses during installation. Sheet metal edges are sharp.

CAUTION! Do not install damaged components.
If any parts are missing or damaged, contact your dealer before starting installation. **DO NOT** install a damaged kit.

DANGER

HOT GLASS WILL CAUSE BURNS.

DO NOT TOUCH GLASS UNTIL COOLED.

NEVER ALLOW CHILDREN TO TOUCH GLASS.

A barrier designed to reduce the risk of burns from the hot viewing glass is provided with this appliance and must be installed for the protection of children and other at-risk individuals.

Introduction

The Passive Heat (PH-FRT, PH-SIDE) Heat Management System conveys warm air from the fireplace into the same room through either a front discharge slot or two side discharge heat registers. Installation of the Passive Heat kit must be done in conjunction with the appliance installation. Installation of this kit **MUST** be performed by a qualified service technician.

WARNING! Risk of Fire! DO NOT install the Passive Heat (PH-FRT or PH-SIDE) Heat Management System with models that are not approved. Overheating will occur.

The Passive Heat Trim Kit (PHTRIM-36C, -48C, -60C or -72C) is also available for installation with the Front Discharge Passive Heat systems and must be purchased separately. Follow instructions included with the trim kit to complete installation of the Passive Heat system.

The Passive Heat kit is tested and safe when installed in accordance with this installation manual. It is your responsibility to read all instructions before starting installation and to follow these instructions carefully during installation.

The Passive Heat kit is carefully engineered and must be installed only as specified. If you modify it or any of its components you will void the warranty, and you may possibly cause a fire hazard. Installation must be done according to applicable local, state, provincial, and/or national codes.

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Preparation

Plan the location of the appliance.

Determine whether front or side discharge is to be installed and follow instructions for the appropriate application.

Power Vent Option

If an optional power vent will be installed in conjunction with the Passive Heat Kit (PH-FRT or PH-SIDE), Hearth & Home Technologies recommends the PVLP-SLP power vent option. If the application does not allow for the PVLP-SLP to be used, the PVI-SLP-B may be used. The PVI-SLP-B must be mounted outside the chase due to the higher noise level created.


CAUTION! Risk of Burns!

- *Appliance MUST be turned off and cooled before kit is installed.*
- *Shut off gas supply.*

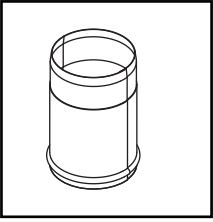
Kit Contents

Verify and remove contents from packaging before beginning installation. See Figure 1 (Front Discharge) or Figure 2 (Side Discharge).

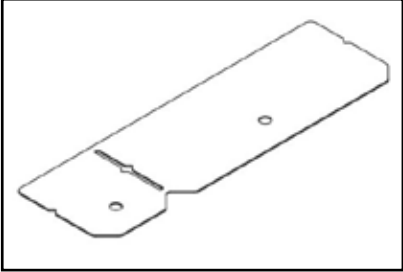
FRONT DISCHARGE KIT (PH-FRT)		
DESCRIPTION	SERVICE PART NO.	QTY
Inner Flue, Top	Service part not available	4
Pull Tool	2600-200	1
Passive Heat Template	2617-137	2



Pull Tool



Inner Flue, Top



**2617-137
Passive Heat Template**

Figure 1 Front Discharge Passive Heat Kit Components

Contents of Side Discharge Kit PH-SIDE

SIDE DISCHARGE KIT (PH-SIDE)		
DESCRIPTION	SERVICE PART NO.	QTY
Register Cover	2560-120	2
Inner Flue, Top	Service part not available	4
Pull Tool	2600-200	1
Passive Heat Template	2617-137	4

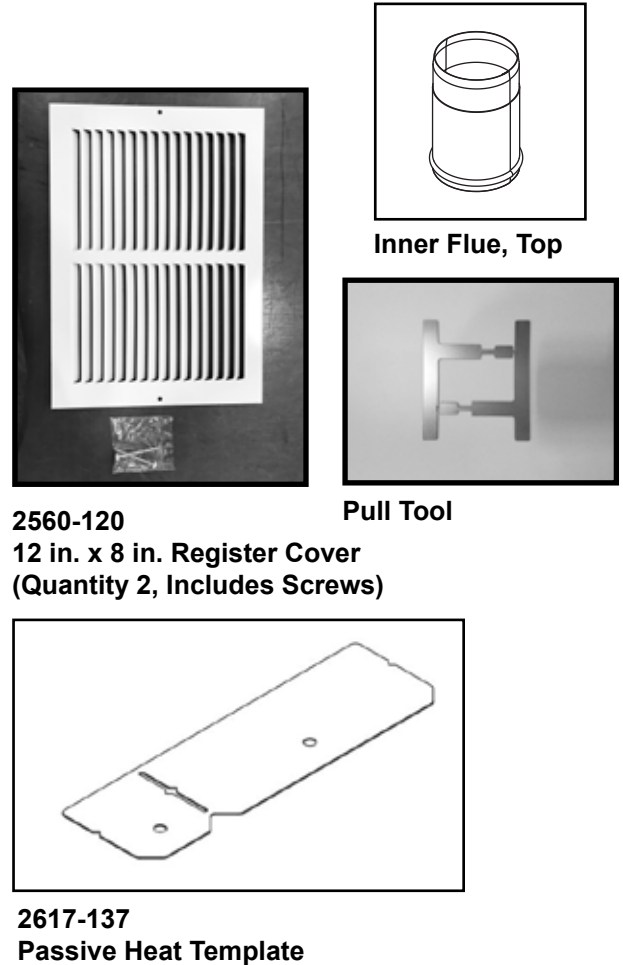


Figure 2 Side Discharge Passive Heat Kit Components

Clearances

WARNING! Risk of Fire! Maintain clearances to combustibles as specified.

Ensure all clearances are maintained.

- Maintain minimum distance from top of appliance opening to the room ceiling. Refer to the figures in the Framing section of this instruction.
- A chase ceiling is required at the top of the passive heat discharge opening for all installations. An open space, or "cavity," is not allowed above the passive heat discharge opening. Construct the false ceiling from material such as metal, drywall or plywood.

NOTICE: (See Through models ONLY) If Passive Heat-Front Discharge or Open Top Chase is the selected heat management option, consider these recommendations:

- Locate the Passive Heat discharge opening in the larger of the two rooms served by the See-Through model installed for optimal comfort.
- Locate the control side of the appliance and the Passive Heat discharge opening in the same room.

Clearance - Sprinkler to Passive Heat

Figure 3 references the clearances that must be adhered to when installing a sprinkler head near a passive heat discharge opening.

- * If the distance from the top of the passive heat front discharge opening to the ceiling is 36 inches or greater, then there is no 36 inch clearance requirement. This is for a ceiling sprinkler head installation only.

Note: When installing a sprinkler head near a heat discharge opening, it is recommended to use a sprinkler head with an Extra High sprinkler activation temperature rating.

- When installing a sprinkler head exterior of the chase, maintain the following clearances to discharge openings (convection slots, passive heat registers, heat zone registers, etc.): 36 inches top, 18 inches sides and 6 inches bottom.
- **DO NOT** install a sprinkler head inside a chase that is set up for passive heat.

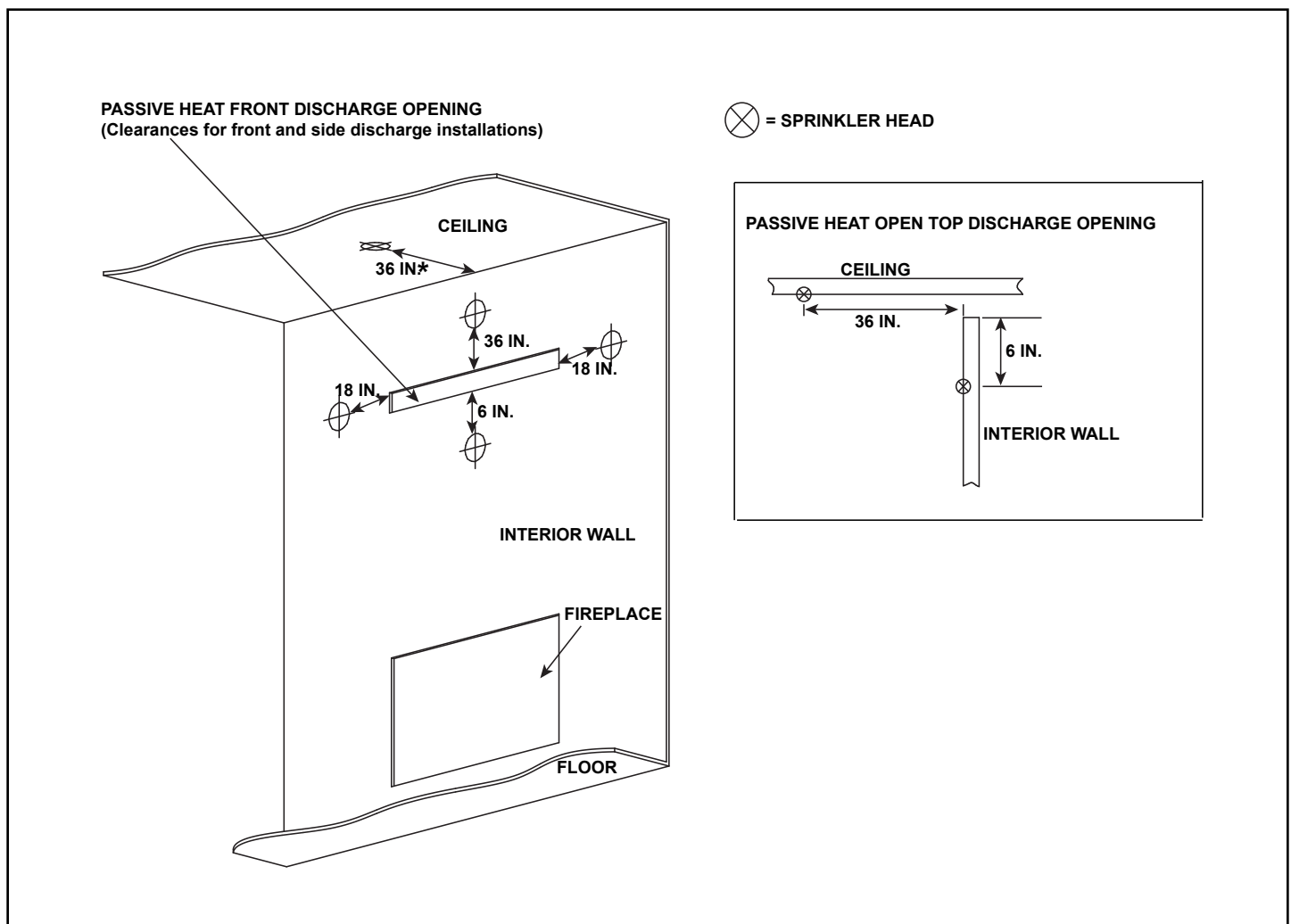


Figure 3

Framing

1. Dimensions for framing using front discharge are shown in Figure 5 using either the trim kit or using the clean face finishing method.
2. Figure 6 shows the framing requirements for the PH-SIDE kit using a side discharge. Do not place combustible objects or combustible materials on the finished wall adjacent to the non-combustible zone (E) on either side of the appliance.
3. Dimensions for framing using the Open Top Discharge method of installation are shown in Figure 7 using the clean face finishing method.

WARNING! Risk of Fire! *Wire mesh required on discharge opening bottom at top of framing when discharge opening is greater than 3 inches.*

4. If discharge opening (Dimension A in Figure 7) is three inches or greater, a piece of wire mesh with 1/2 inch x 1/2 inch opening is required to be installed on the top of the framing above the appliance.

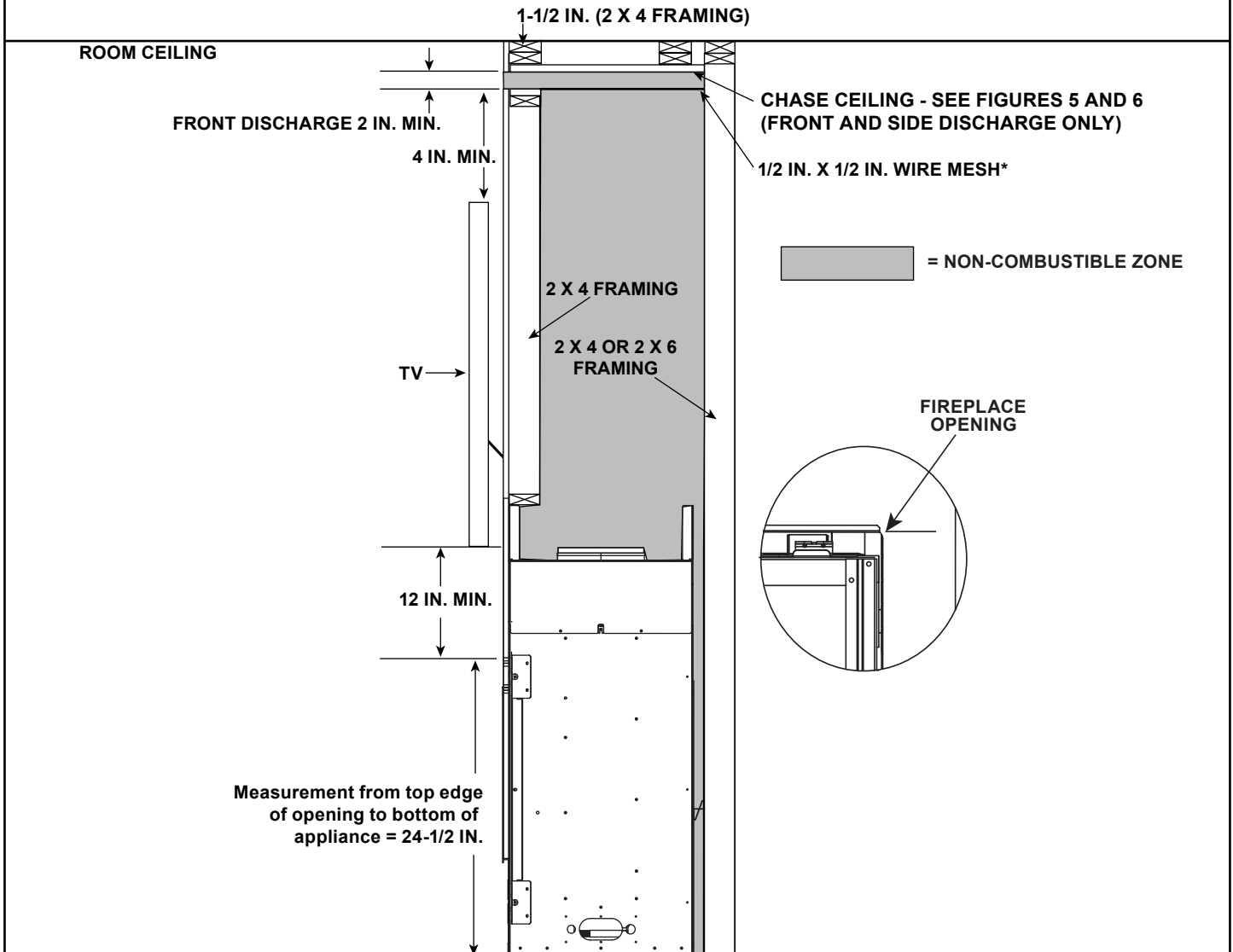
The wire mesh will prevent objects from falling through the opening and onto the top of the appliance. The wire mesh may be available at a hardware or home improvement retailer.

The wire mesh must be fastened to the top of the framing on the bottom side of the discharge opening.

Good Faith TV Guidelines

Good Faith Guidelines for TV Installations Above a MEZZO-C/CRAVE-C/ECHELON-C Fireplace with Passive Heat Option (Single-Sided Appliance Shown)

WARNING! Risk of Fire! Wire mesh required on bottom of discharge opening when discharge opening is greater than 3 inches. Secure wire mesh to top of framing.

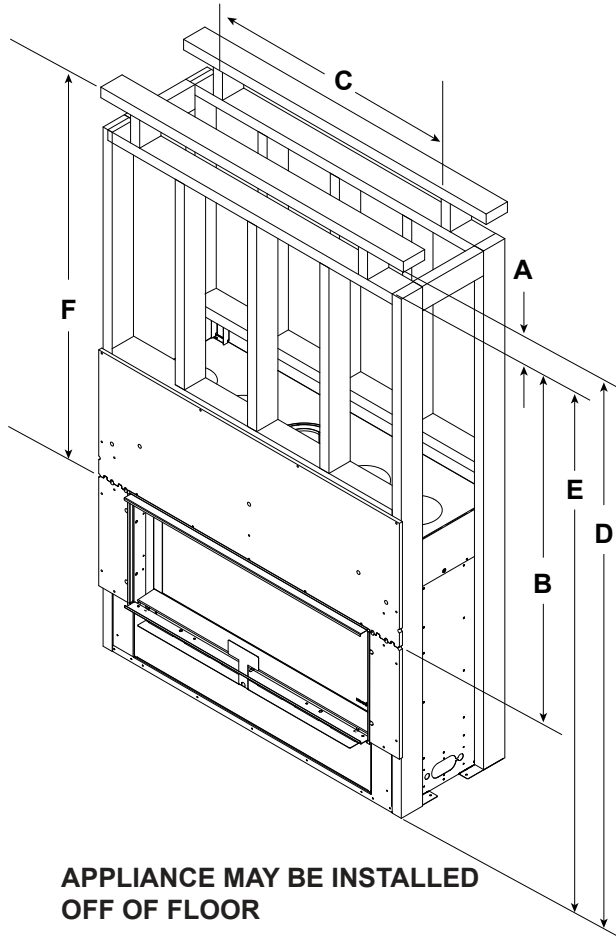


* Wire mesh required for front discharge or open top discharge passive heat installations with discharge opening of 3 inches or greater.

Figure 4 Good Faith TV Guidelines

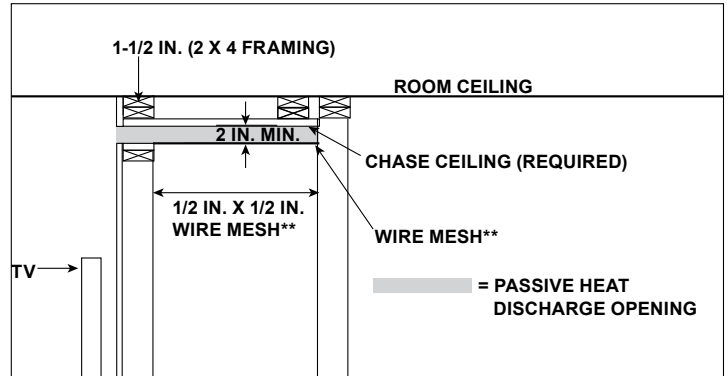
Framing Dimensions - Passive Heat Front Discharge (PH-FRT) Single-Sided or See-Through

Front Discharge: Air conveyed into the room through one front discharge slot.



APPLIANCE MAY BE INSTALLED OFF OF FLOOR

CHASE DETAIL



WARNING! Risk of Fire! Wire mesh required on bottom of discharge opening when discharge opening is greater than 3 inches. Secure mesh to top of framing.

FRONT DISCHARGE FRAMING DIMENSIONS

		A		B	C	D	E	F
		TRIM KIT* (PH-TRIM)	NO TRIM KIT**					
		Height of Discharge Opening	Minimum Height of Discharge Opening					
		Minimum Clearance to Framing	Width of Discharge Opening	Clearance to Top of Discharge Opening from Bottom of Appliance	Clearance from Bottom of Appliance to Bottom of Discharge Opening	Minimum Clearance Appliance Opening to Ceiling		
MEZZO36-C/ST-C CRAVE4836-C/ST-C EHEL36IN-C/STIN-C	Inches	3-1/2	2	48	36-1/2	74-1/2	72-1/2	51-1/2
	millimeters	89	51	1219	927	1892	1842	1308
MEZZO48-C/ST-C CRAVE6048-C/ST-C EHEL48IN-C/STIN-C	Inches	3-1/2	2	48	48-1/2	74-1/2	72-1/2	51-1/2
	millimeters	89	51	1219	1232	1892	1842	1308
MEZZO60-C/ST-C CRAVE7260-C/ST-C EHEL60IN-C	Inches	3-1/2	2	48	60-1/2	74-1/2	72-1/2	51-1/2
	millimeters	89	51	1219	1537	1892	1842	1308
MEZZO72-C/ST-C CRAVE8472-C/ST-C EHEL72IN-C	Inches	3-1/2	2	67-1/2	72-1/2	94	92	71
	millimeters	89	51	1715	1842	2388	2337	1803

* Measurement for Trim Kit = 3-1/2 in. + additional finishing material thickness

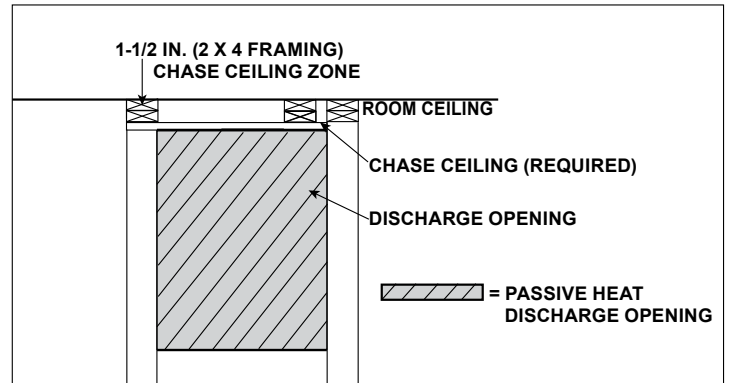
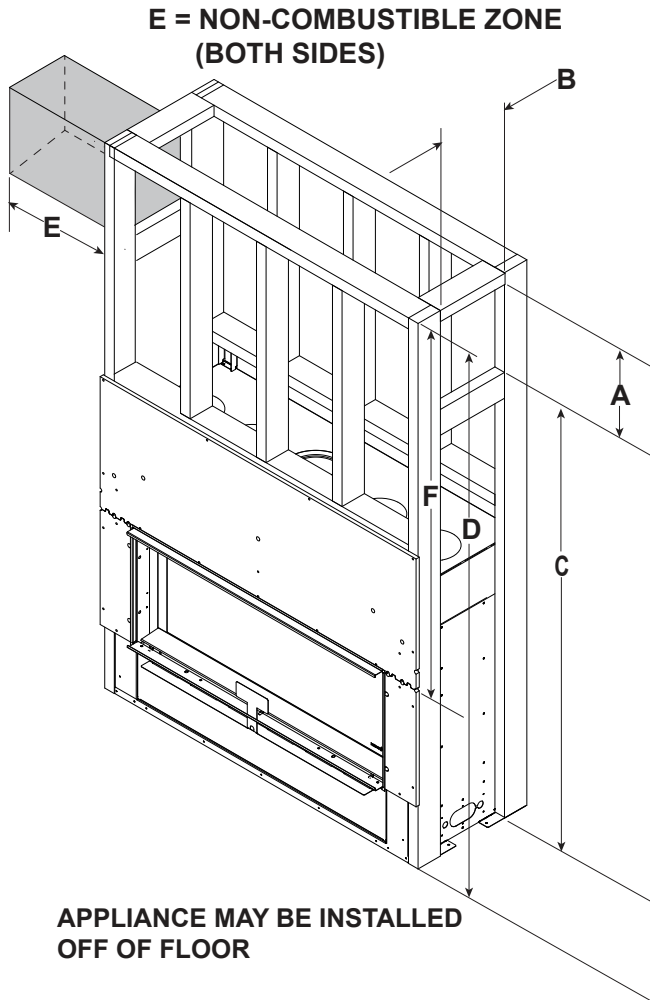
** Measurement for without trim kit = 2 in. + additional finishing material thickness. If discharge opening is greater than 3 inches wire mesh is required. See details in the Framing Section.

Figure 5 Passive Heat Front Discharge Framing Dimensions with Clean Face Finish or Trim Kit

Framing Dimensions - Passive Heat Side Discharge (PH-SIDE) Single-Sided or See-Through

Side Discharge: Air conveyed into the room through two discharge registers, one on each side of appliance.

CHASE DETAIL



WARNING! Risk of Fire! DO NOT place combustible objects or combustible materials in non-combustible zone. Appliance and combustible materials will overheat.

SIDE DISCHARGE FRAMING DIMENSIONS

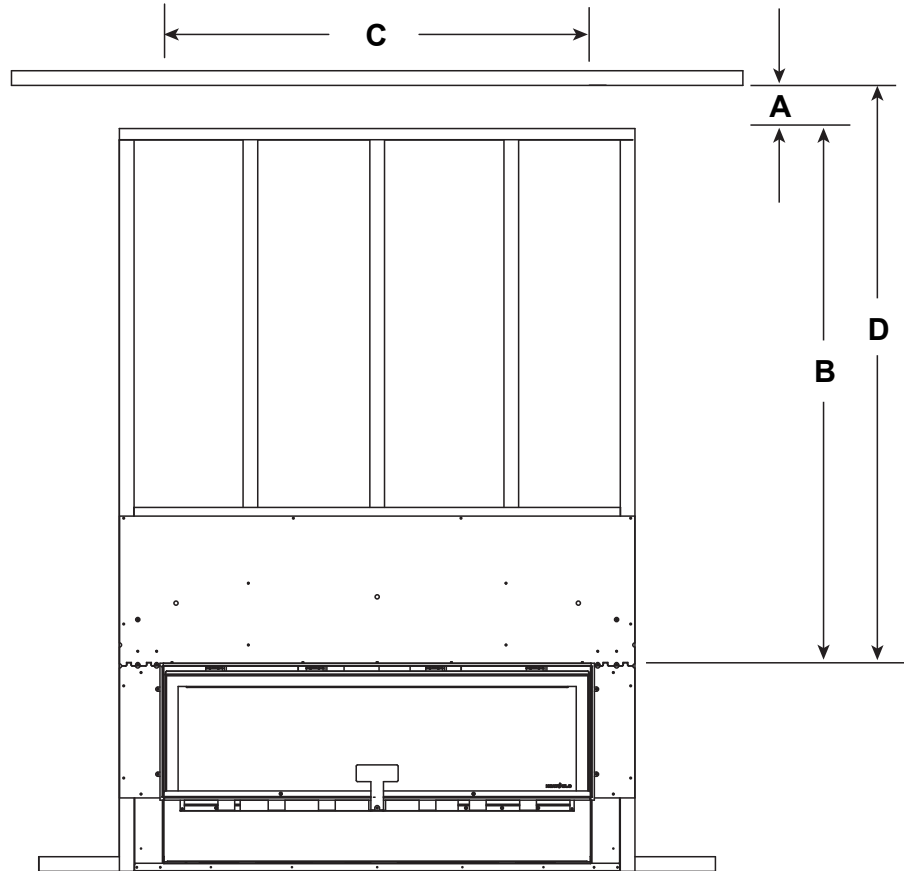
		A	B	C	D	E	F
		Height of Discharge Opening	Width of Discharge Opening	Minimum Clearance to Discharge Opening from Bottom of Appliance	Minimum Clearance Bottom of Appliance to Ceiling	Minimum Clearance to Combustible Materials	Minimum Clearance Appliance Opening to Ceiling
MEZZO36-C/ST-C CRAVE4836-C/ST-C ECHEL36IN-C/STIN-C	Inches	12-1/4	8-3/4	62-3/4	76-1/2	18	52
	millimeters	311	222	1594	1943	457	1321
MEZZO48-C/ST-C CRAVE6048-C/ST-C ECHEL48IN-C/STIN-C	Inches	12-1/4	8-3/4	62-3/4	76-1/2	18	52
	millimeters	311	222	1594	1943	457	1321
MEZZO60-C/ST-C CRAVE7260-C/ST-C ECHEL60IN-C	Inches	12-1/4	8-3/4	62-3/4	76-1/2	18	52
	millimeters	311	222	1594	1943	457	1321
MEZZO72-C/ST-C CRAVE8472-C/ST-C ECHEL72IN-C	Inches	12-1/4	8-3/4	81-1/4	95	18	70-1/2
	millimeters	311	222	2064	2413	457	1791

Figure 6 Passive Heat Side Discharge Framing Dimensions

Framing Dimensions - Passive Heat Open Top Discharge Single-Sided or See-Through

Open Top Discharge: Both sides and the top are open allowing air to be conveyed into the room.

WARNING! Risk of Fire! Wire mesh required on bottom of discharge opening when discharge opening is greater than 3 inches. Secure mesh to top of framing.



OPEN TOP DISCHARGE MINIMUM FRAMING DIMENSIONS

		A*	B	C	D
		Minimum Height of Discharge Opening	Clearance to Framing	Width of Discharge Opening	Minimum Clearance Appliance Opening to Ceiling
MEZZO36-C/ST-C CRAVE4836-C/ST-C ECHEL36IN-C/STIN-C	Inches	2	48	36-1/2	50
	millimeters	51	1219	927	1270
MEZZO48-C/ST-C CRAVE6048-C/ST-C ECHEL48IN-C/STIN-C	Inches	2	48	48-1/2	50
	millimeters	51	1219	1232	1270
MEZZO60-C/ST-C CRAVE7260-C/ST-C ECHEL60IN-C	Inches	2	48	60-1/2	50
	millimeters	51	1219	1537	1270
MEZZO72-C/ST-C CRAVE8472-C/ST-C ECHEL72IN-C	Inches	2	67-1/2	72-1/2	69-1/2
	millimeters	51	1715	1842	1765

* Wire mesh required for front discharge or open top discharge passive heat installations with discharge opening of 3 inches or greater.

Figure 7 Passive Heat Minimum Framing Dimensions Open Top Discharge

Installation Instructions

(Front, Side or Open Top Discharge)

CAUTION! Risk of Cuts, Abrasions or Flying Debris. Wear protective gloves and safety glasses during installation. Sheet metal edges are sharp.

1. Remove the four knockouts on the top of the appliance by dislodging them with a hammer and then using a screwdriver to remove from the holes. See Figure 8.

WARNING! Risk of Fire! All four knockouts **MUST** be removed. Appliance and combustible materials will overheat.

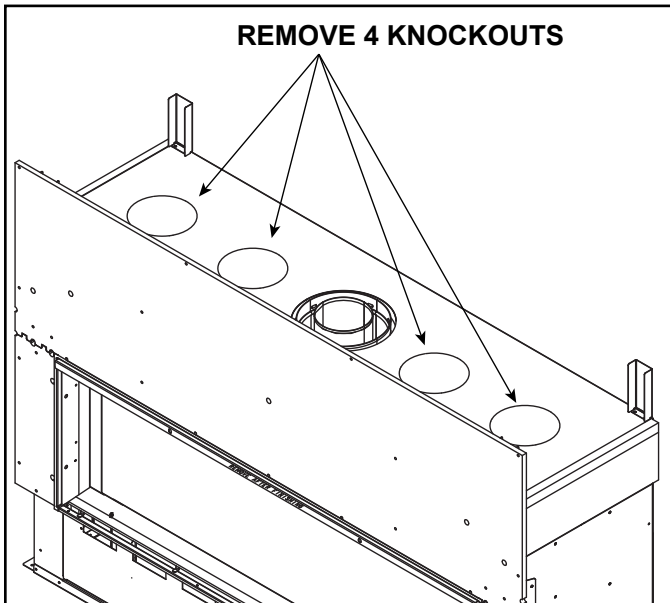


Figure 8 Remove Knockouts

2. Remove the insulation plug from each knockout. Discard. See Figure 9.

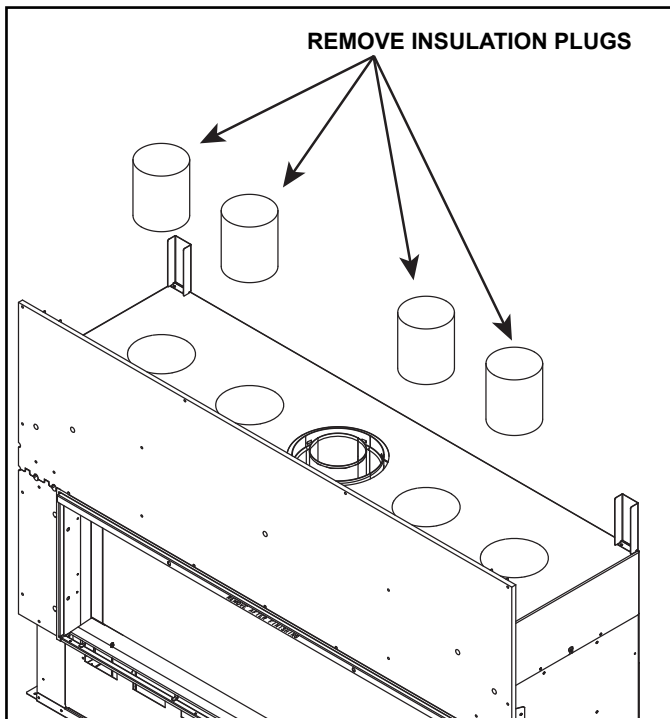


Figure 9 Remove Insulation Plugs

3. Set a collar in each of the holes where the knockouts were removed. See Figure 10.

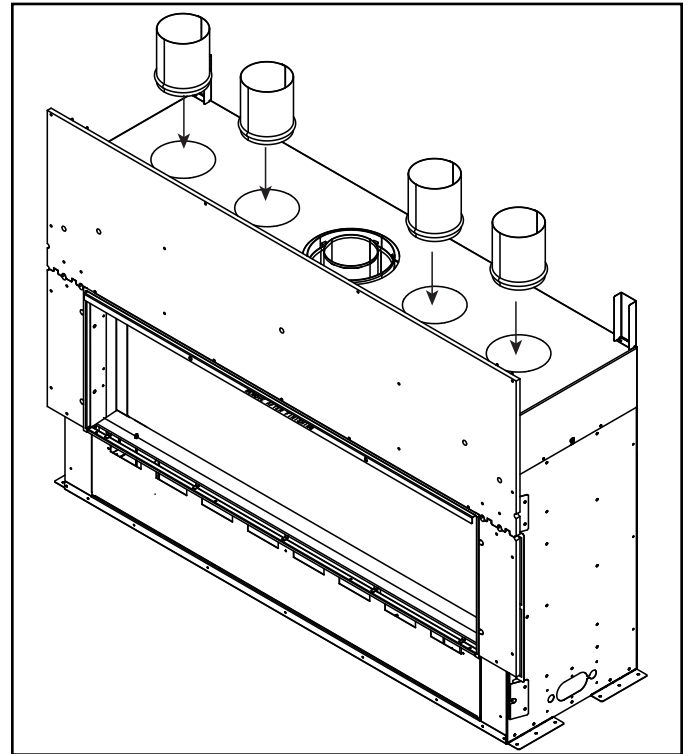


Figure 10 Install Collars

4. Remove the screws from the heat shield as shown in Figure 14. Quantity and location of screws will vary between models.

CAUTION! Risk of Cuts or Abrasions. Wear protective gloves. Sheet metal edges are sharp.

5. Bend pull tools and break apart as shown in Figure 11 and Figure 12.

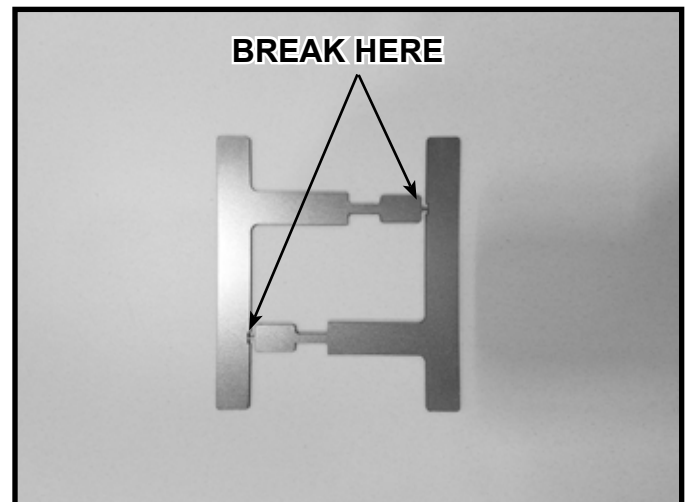


Figure 11 Bend and Break Pull Tools Apart



Figure 12 Pull Tools Separated

6. Insert pull tool into slots on left and right sides of appliance. See Figure 13.

7. Carefully pull the heat shield out of the appliance as shown in Figure 14 and Figure 15. Discard heat shield. Repeat procedure on other side if application is on a see-through appliance.

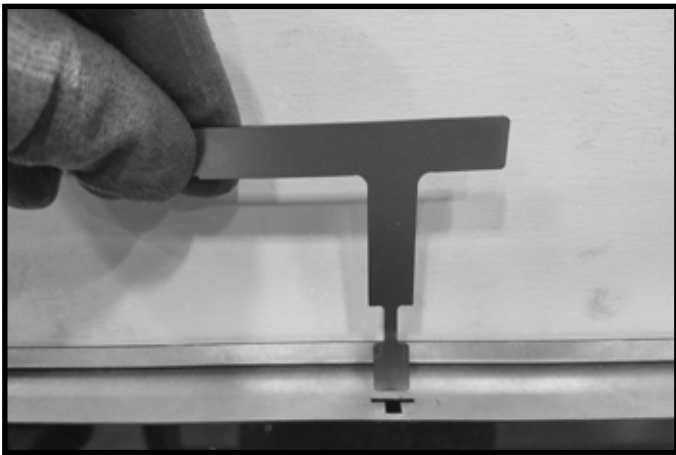


Figure 13 Pull Tool Inserted Into Slot

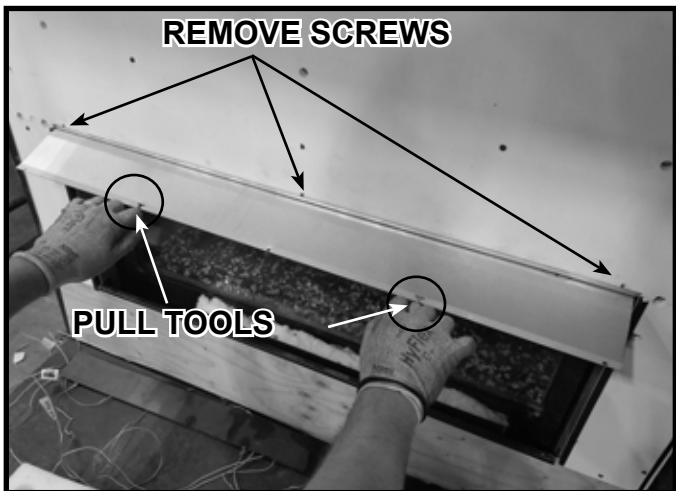


Figure 14 Use Pull Tools to Remove Heat Shield

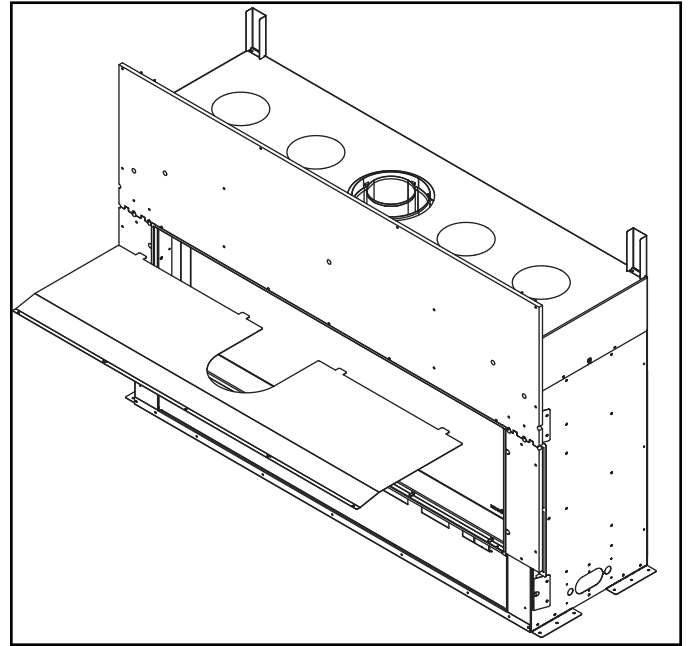


Figure 15 Remove Heat Shield

WARNING! Risk of Fire! Remove all debris and objects from firebox top and appliance top before operating the appliance.

8. Inspect for and remove all debris that may have accumulated or objects that may have been placed on the firebox top and appliance top during the installation process. All debris and objects must be removed prior to operation of the appliance. Firebox top and appliance top are shown in Figure 16.

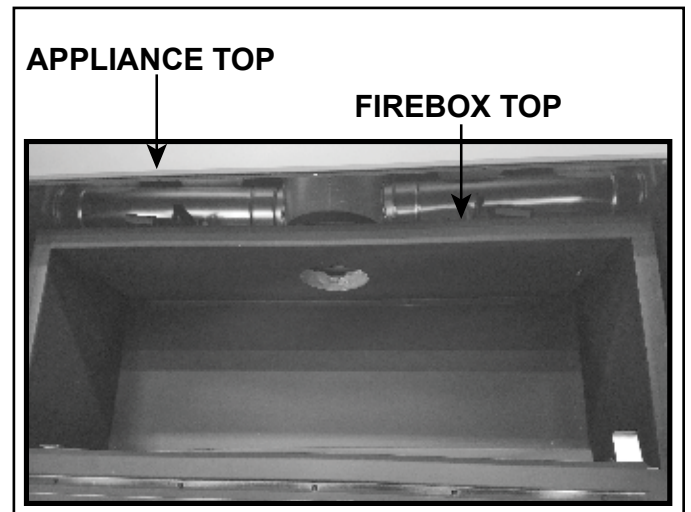


Figure 16

9. **Side Discharge Only:** Instructions continue on the following page.

Passive Heat Template - Front and Side Discharge

Install the passive heat templates to prevent finishing material from being installed over passive heat discharge openings. Use two templates for front discharge and four templates for side discharge.

1. Hand bend templates as shown in Figure 17.
2. Place one template into the top left corner of the discharge opening as shown in Figure 18. Align the outside edge of the framing with the notch in the template as shown in Figure 19. Attach to framing using wood screws.
3. Place the second template into the bottom right corner and attach using the same method as in Step 2. If installing templates on framing for a side discharge kit, repeat the process for the additional two templates on the other side discharge opening.
4. Once the wall finishing material has been installed, remove the templates and discard. After the templates have been removed, the trim kit, register, or other finishing options may be installed.

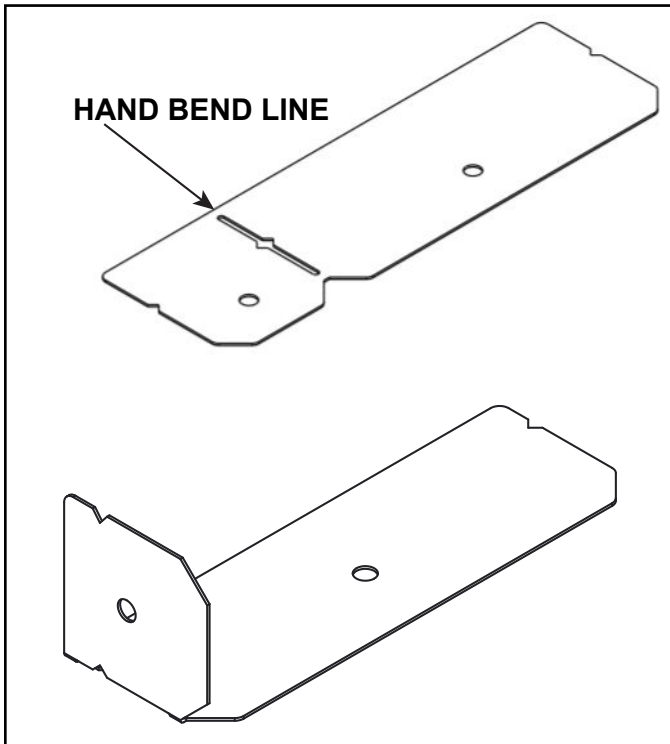


Figure 17 Hand Bending the Template

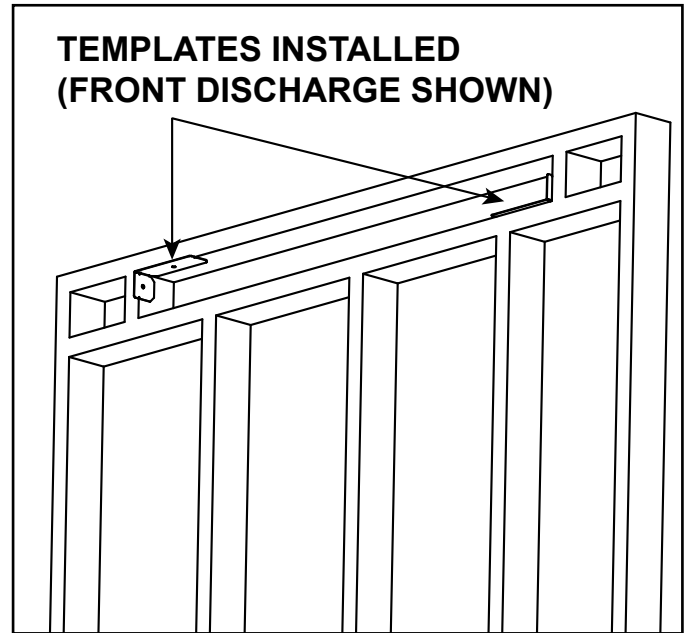


Figure 18 Template Installation

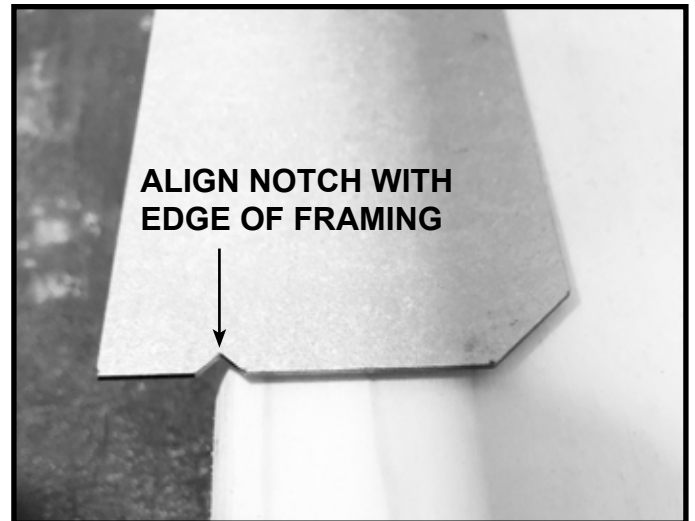


Figure 19 Template Notch Alignment

Finishing

1. Apply wall sheathing material, such as drywall up to 1/2 in. (13mm) thick up to the edge of the discharge opening.

WARNING! Risk of Overheating! DO NOT apply wall sheathing past the edge of discharge opening or finishing templates. Remove finishing templates before appliance operation. Overheating of appliance and combustible materials will occur.

2. Facing Material with Front Trim Kit (PHTRIM-36C, -48C, -60C or -72C)

1 Inch Thick or Less: When using Non-Combustible facing material in this thickness range, the Overlap Fit method may be used. Place facing materials up to the edge of the discharge opening and install trim kit as instructed. Facing must not interfere with the air flow through the trim kit.

Greater than 1 Inch: Non-Combustible facing material in this thickness range must use the Inside Fit method. Place facing materials up to 1/2 in. (13mm) away from the edge of the trim kit to allow for proper removal of the vent cover. Install trim kit as instructed. Consult the appliance Installation Manual to determine maximum facing material thickness.

3. Facing Material with Side Discharge

1 Inch Thick or Less: When using Non-Combustible facing material in this thickness range, the Overlap Fit method may be used. Place facing materials up to the edge of the discharge opening and install register covers as instructed. Facing must not interfere with the air flow through the trim kit.

Greater than 1 Inch: Non-Combustible facing material in this thickness range must use the Inside Fit method. Place facing materials up to the edge of the register covers. Install register covers as instructed. Consult the units Installation Manual to determine maximum facing material thickness.

4. Install trim kit as instructed.

Side Discharge: Side discharge registers, included with kit, are required to complete installation.

Front Discharge: The PHTRIM (-36C, -48C, -60C, -72C) kit is an optional finishing method. Other standard finishing methods may be used as well.

Painting

Side Discharge:

If desired finishing includes painting of the side discharge vent covers, Hearth & Home Technologies recommends using high temperature paint with a minimum of 300 °F (149 °C) continuous exposure rating.

Front Discharge and Open Top Discharge:

The location of the Passive Heat discharge opening could allow for venting and other construction materials to be visible. It is recommended to paint the vent pipe, firestop, and other visible construction materials, as shown in Figure 20, using a high temperature paint with a minimum of 300 °F continuous exposure rating. Hearth & Home Technologies recommends using black touch up paint (part number TUP-GBK-12) available from your Hearth & Home Technologies dealer.

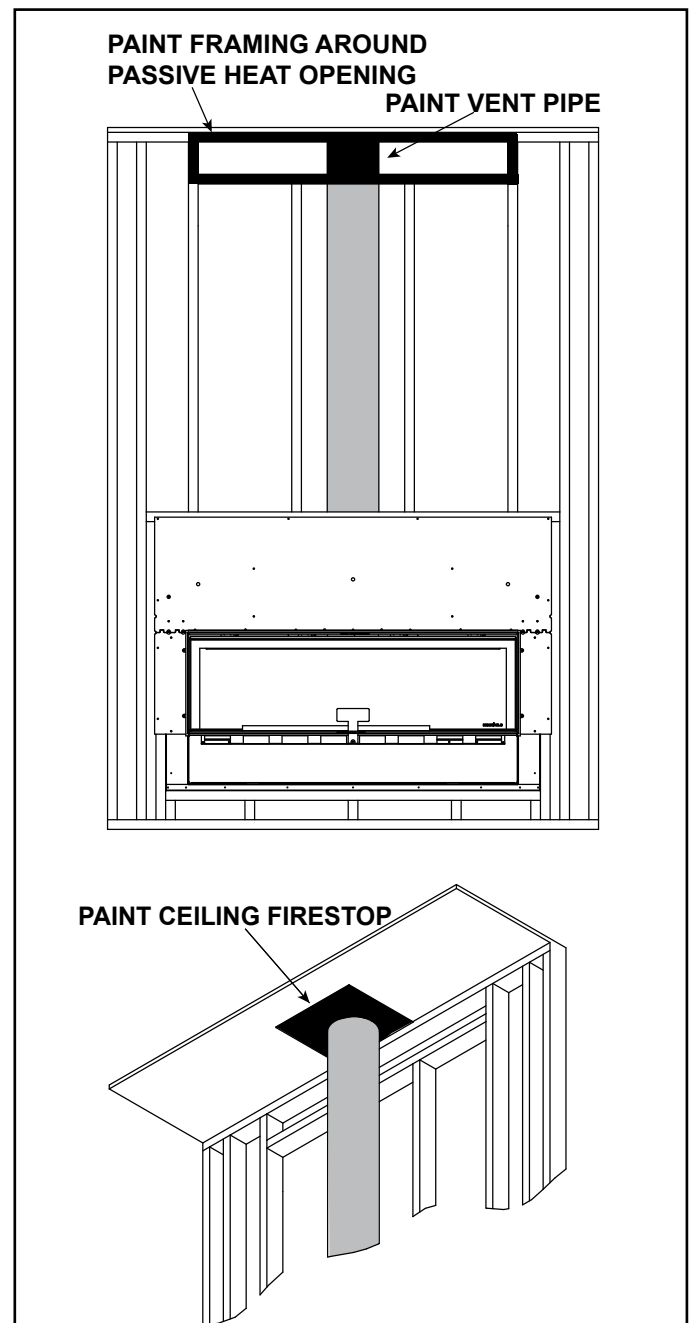


Figure 20 Painting Visible Components

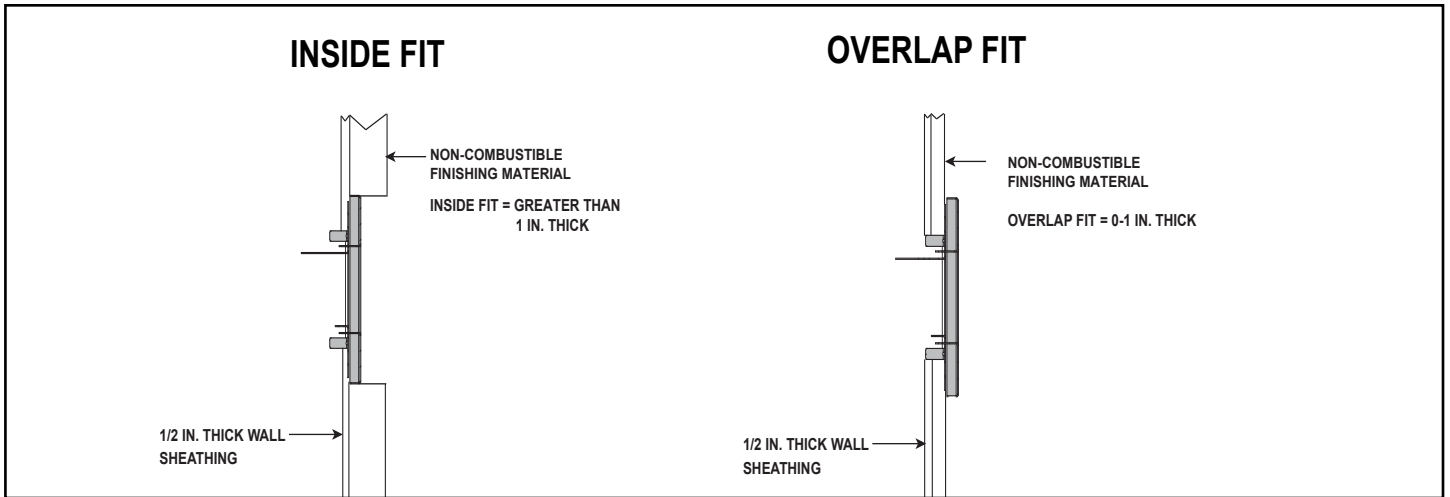


Figure 21 Finishing Material Installed

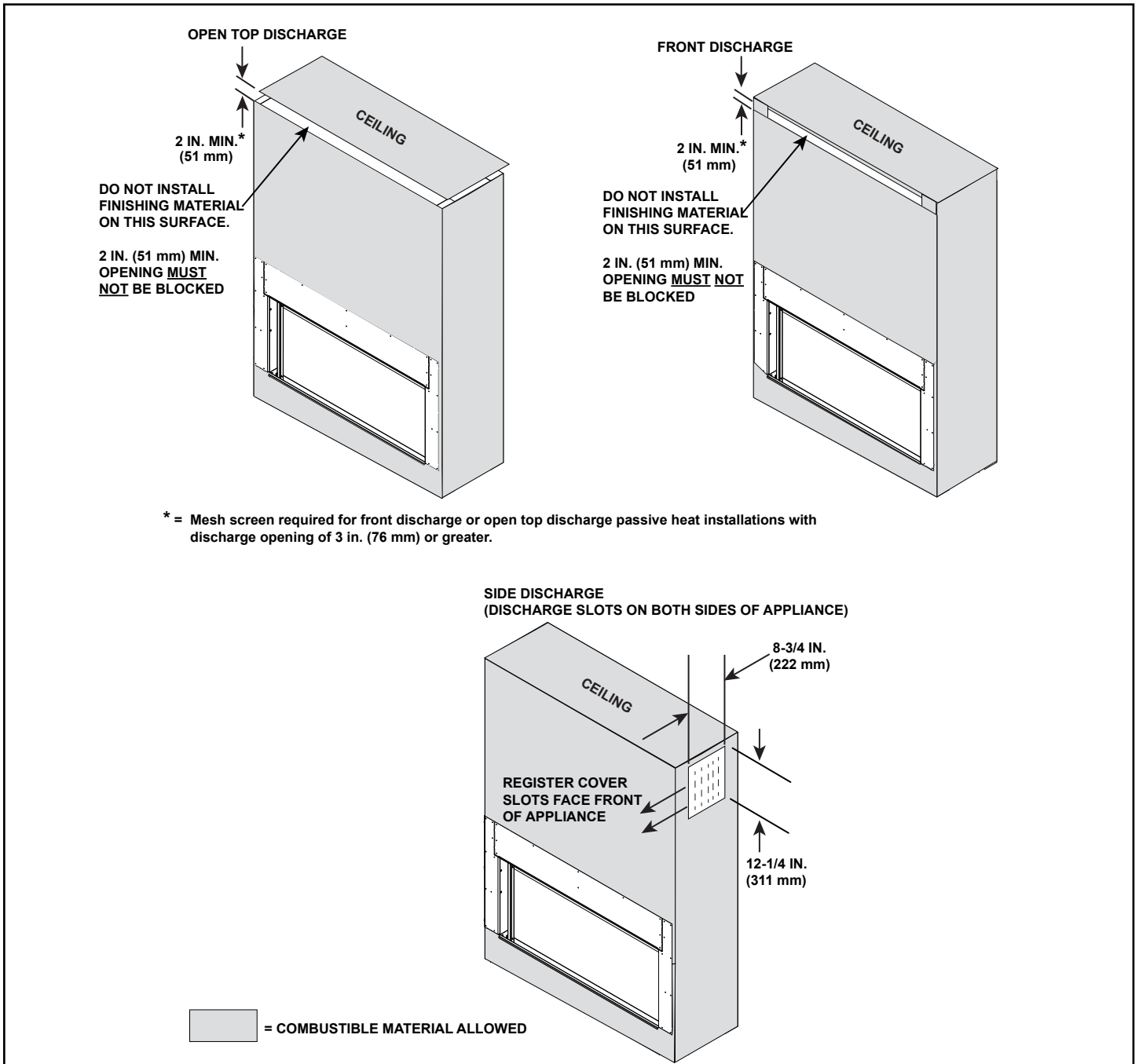


Figure 22 Finishing Material Installed

Install Register Cover - Side Discharge Only

WARNING! Risk of Overheating! Both passive heat side discharge assemblies included with kit **MUST** be installed and operational. Overheating will occur.

1. Install register cover with louvers facing the front of the fireplace (control side) using provided screws. See Figure 23.

WARNING! Risk of Fire! DO NOT block passive heat registers! Overheating will occur.

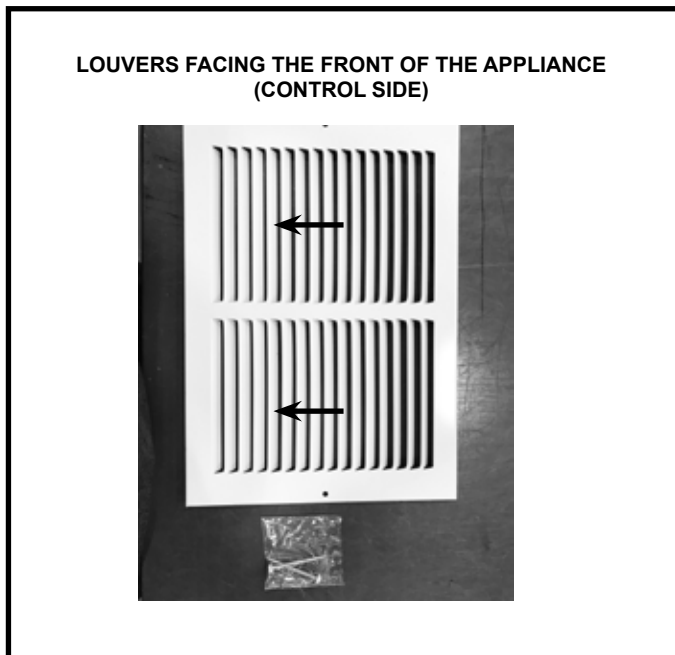


Figure 23 Correct Register Orientation

Mantel Projections

Refer to the appliance Installation Manual.

Installation of Passive Heat with Other Optional Heat Management Systems

There are other heat management options available for use with the MEZZO-C, CRAVE-C and ECHELON-C models. Consult the appliance manual for compatible options. Only one Passive Heat knockout may be used for additional heat management systems.

WARNING! Risk of Fire! DO NOT cover a knockout unless a heat management system will be installed in its place. Only one Passive Heat knockout may be used for an additional heat management system. Appliance and combustible materials will overheat.

Note: The optional Heat-Zone® Gas and Heat-Out-Gas kits contain two collars. One collar will remain unused when installing either kit in addition to the Passive Heat kit.

Passive Heat Kit Installed with Optional Heat-Zone® Gas

- Only one Heat-Zone® Gas kit may be installed and used in conjunction with the Passive Heat kit.
- The HZLIN-ADP adapter kit is required and MUST be ordered separately.
- Refer to the instructions included with the Heat-Zone® Gas kit for more information.

Passive Heat Kit Installed with Optional Heat-Out-Gas

- One Heat-Out-Gas kit may be installed and used in conjunction with the Passive Heat kit. Refer to the instructions included with the HEAT-OUT-GAS kit for more information.

Maintenance

Service and maintain the gas fireplace per instructions. Keep the air register(s) clean and free of any blockage.

Hearth & Home Technologies
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