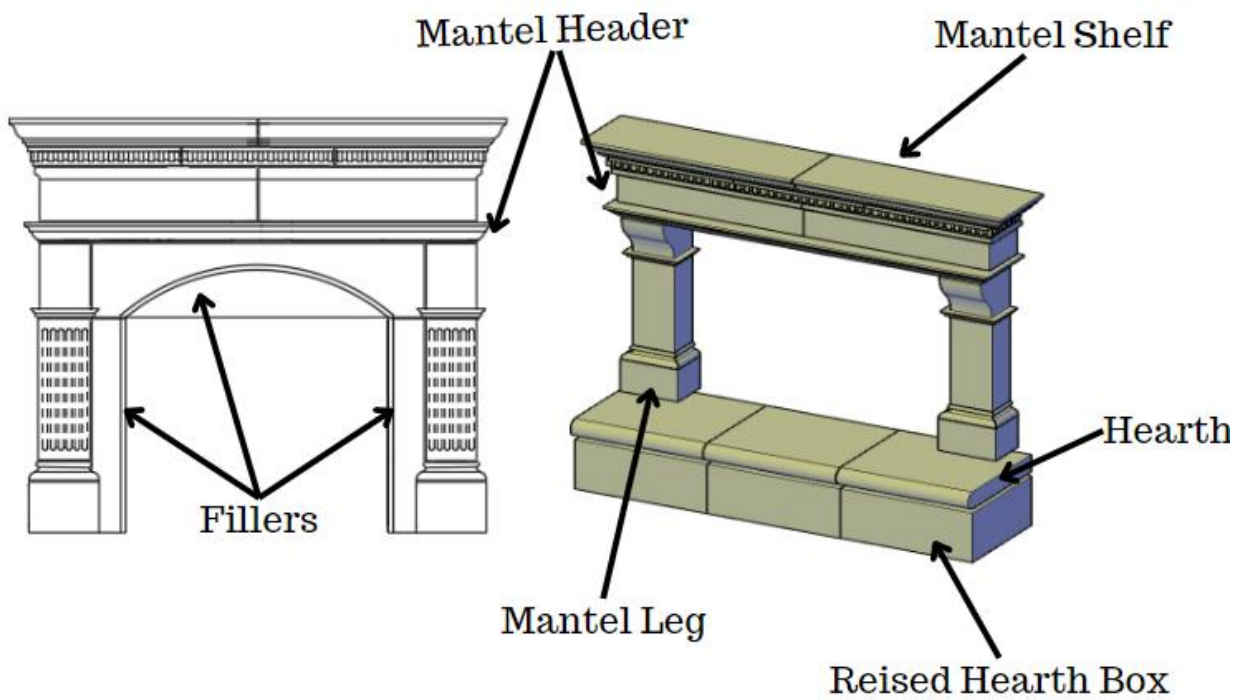




INSTALLATION GUIDE

ANATOMY OF A FIREPLACE



Warnings, Cautions & Notes

All informational and installation documentation contains warnings, cautions, and notes as needed.



A warning shall be provided to inform the reader of a hazard that could cause death or personal injury of any degree. The warning shall be worded clearly and shall be placed immediately before the text that refers to the hazardous condition.



A caution shall be provided to inform the reader of a hazard that could cause damage to Colmex Cast Stone products and/or the home or facility in which they are being installed. The caution shall be worded clearly and shall be placed immediately before the text that refers to the hazardous condition.



A note shall be provided to give the reader information that needs to be separated from the general text for emphasis. The note shall be worded clearly and shall be placed near the text that requires clarification.

Transportation Disclaimer

Receiving Shipment

The utmost care is taken at our factory to protect the integrity of our shipping crates and the fireplace components within. Should the shipping container be damaged in transit, you must be prepared to capture photo documentation of the damage prior to opening the container as well as the condition of its contents prior to signing for receipt of the shipment. Signing for receipt of damaged shipping containers and their contents would release both the shipper and Colmex Cast Stone for responsibility of any damage that has occurred. Once off the transport, safeguarding the containers and their content becomes the responsibility of the owner.

Uncrating Product

Within twenty-four (24) hours of signing for receipt of the fireplace, it must be uncrated and all contents inspected for damage. During the uncrating process, care must be taken to protect the integrity of the shipping crate and contents. Should any damage be identified, Colmex Cast Stone must be notified within twenty-four (24) hours of signing for receipt. Such notification must include photographic evidence of damage(s) along with photographs of the crating and packing components. Failure to notify Colmex Cast Stone of damage within the identified period releases Colmex Cast Stone from any responsibility for damages during the preparation and shipping processes. Should any damages be identified outside the above parameters, Colmex Cast Stone will work with the shipping recipient in the most expeditious manner to bring resolution to the identified issue(s).

Receipt of Shipment and Inspection of Contents



The shipping crate and contents are extremely heavy. Assure that appropriate equipment and personnel are available to assist shipping carrier with staging the shipping crate and breaking down its content for inspection.

Receiving Shipment of Colmex Cast Stone product(s)

1. Shipping recipient should generate a photo journal of the receiving and unpacking process to assure proper resolution of any issues encountered.
 - a. Capture images of all sides and top of packing crate immediately upon delivery by carrier.



Whenever possible, it is advantageous to unpack and inspect shipping crate contents prior to signing shipping receipt. Signing the receipt prior to inspection can sometimes release the carrier and Colmex Cast Stone of liability for any damage that may have occurred in transit. Damage can occur to contents due to improper handling even when there is no visible damage to the shipping crate.

- b. sign shipping receipt and release carrier.

Inspecting Contents



Some fireplace components are heavy and unwieldy; care must be taken to assure personal safety during the unpacking and inspection process.



Colmex Cast Stone products are thoroughly inspected and carefully packaged for shipment. Care must be taken during the unpacking process to assure that components do not strike one another, which could cause chipping or abrasion.



Colmex Cast Stone proactively strives to assure its products arrive at their destination in the best possible condition. Whenever possible, we request that our customers compile a photo journal during the unpacking process and email the photos back to us for review by our shipping department.

1. Carefully remove top panel of packing crate.
2. Locate and remove packing list for use with inventorying crate contents.
3. Carefully remove formed foam protective packaging, assuring that fireplace components do not shift or collide.
4. Carefully remove packing crate sides as necessary during the inventory and inspection process, assuring that contents do not shift.
5. Remove all fireplace components, positioning them separately on clean and level surfaces.
6. Inventory all crate contents using the packing list. Carefully inspect all contents.
7. Should any deficiencies or damages be identified, notify Colmex Cast Stone within twenty four (24) hours of signing for receipt of shipment via phone (817-876-9437) and/or email (colmexcaststone@gmail.com)

Installation

Install Site Preparation:

There are a few things to go over before it is time to install the mantel components.

1. Check that wall face is level vertically and horizontally. (See Figure 6.1)
2. If a hearth is to be used, consult the dimensions on your install sheet and outline the perimeter of the hearth on your floor. Check that floor in hearth area is level from left to right and from the wall face 20". (See Figure 6.2)
3. Check that firebox face is flush to wall face.
4. Note any variances, as they may need to be accounted for later in the process.
5. Mark the centerline of the firebox in pencil above (and below if applicable) on the wall (See Figure 6.3)
6. In pencil, mark the center of all studs located within the install area (See Figure 6.4)
7. Cover surrounding areas to protect them during the process. Grout can cause staining & dust may collect.



If the floor is not level, use varied heights of spacers below the hearth base along the length of it to bring it to level. The hearth base must be level to ensure the mantel is level.



Depending on the severity, if face of wall is not plumb, you may want to consider adding drywall or plaster to bring it out to plumb behind the mantel. This is not always necessary, but irregular wall faces can result in an uneven joint between the wall face and the rear of the fireplace surround.



Figure 6.1



Figure 6.2



Figure 6.3

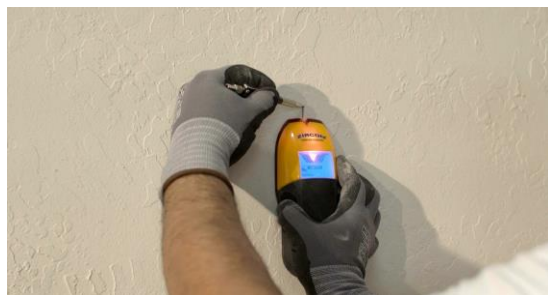


Figure 6.4



Figure 7.1



Figure 7.2



Figure 7.3

Hearth Installation:

Many of our mantel kits are shipped with a three-piece hearth, depending on the customer's desired application.



Fireplace codes generally require that combustible materials (wood flooring, carpeting, etc.) shall be a minimum of twenty inches from the face of the firebox. Colmex's 20 inch hearths are designed to meet or exceed these requirements. The installer is responsible for adhering with local requirements and those specified by the firebox insert manufacturer.

1. If a hearth is used, follow the instructions below for placement. If a hearth is not used, skip to page 8 for filler panel installation.
2. Find and mark the centerline of the middle hearth stone. Make only a small, light mark towards the back of the piece, closest to the wall. (See Figure 7.1)
3. Apply a layer of construction adhesive, such as thinset, to the bottom side of the stone.
4. Place middle hearth stone on floor, aligning its center mark with the center mark on the wall. (See Figure 7.2)
5. Check center hearth stone for level left to right and front to back. Add shims as needed to maintain level.
6. After applying mastic, place left and right hearth stones with their edges 1/4" from edge of middle stone (using spacers). Use spacers as needed to bring the side hearth stones to level with the center stone.
7. Check that full hearth is level left to right and front to back. (See Figure 7.3) If so, move on to filler installation.

Filler Installation.

Your surround will be sent with all pieces pre-sized to fit, so no cutting is necessary unless to make modifications for unforeseen circumstances.



Always wear eye, hand, skin, breathing, and hearing protection appropriate for the procedure being performed. Due to silica considerations, a N95 or better respirator must be worn when sawing concrete.



It is the installer's responsibility to assure that the fillers do not interfere with the operation of the fireplace.

Our surrounds are installed from the bottom up. After the hearth, the next piece installed will be the bottom filler. If a bottom filler is not used, the next pieces installed will be the side fillers. If no fillers are being used, skip to the legs.

1. Locate and mark the center of the bottom filler panel lightly in pencil. (See Figure 8.2)
2. Position 1/4" of spacers on the hearth or floor below the outer edges of the firebox.
3. Apply mastic to the back of the filler panel and to the surface it will sit on.
4. Align the center mark on the filler panel with the center line scribed on the wall or hearth. Set it on top of the spacers positioned earlier and press the panel against the wall.
5. Check and adjust level as needed and secure the panel to the wall at its farthest possible right and left outer edges (no less than 1" from edge) using the smaller J-02 brackets. (See Figure 8.3)



Figure 8.1



Figure 8.2



Figure 8.3



Figure 9.1



Figure 9.2



Figure 9.3



Figure 9.4

 **NOTE**

There should be a 1/4" joint space between all pieces. This includes between all filler edges. Design compatibility relies heavily on proper joint spacing.

 **NOTE**

Wall brackets must always be located so that they will be completely covered by later panels. They are secured to the wall using a Tapcon at a stud point or with a toggle lock heavy duty drywall anchor. They are secured to the stone components by drilling a 3/16" hole and inserting a 1/4" Tapcon.

7. Position 1/4" of grout spacers and mastic on both ends of the bottom filler, closest to the J-02 brackets. (See Figure 9.1)
8. Apply mastic to the back of one of the side filler panels.
9. Align one of the side fillers edge with the firebox, placing it within the J-02 bracket used to fasten the bottom panel. (See Figure 9.2)

 **NOTE**

If the firebox has an open face, you will overlap each side by 1/2". If the firebox has a face with vents, screens, or doors, the fillers are to be set back 1/4" from the features to ensure they remain functional and accessible.

10. Check and adjust level as needed and secure the panel to the wall at its top edge using a J-02 bracket. (See Figure 9.3)
11. Install the other side filler panel in the same manner.
12. Make any adjustments necessary to assure that both side filler panels are plumb and level with each other and across their faces. (See Figure 9.4)

13. Mark the center on the top edge of the top filler panel.
14. Position 1/4" of grout spacers and mastic on the top of both side filler panels nearest the J-02 brackets.
15. Apply mastic to the back of the panel.
16. Align its center with the center mark on the wall. Position it on top of the spacers set earlier, placed within the J-02 brackets used to secure the tops of the side filler panels. (See Figure 10.1)
17. Check and adjust level as needed and secure the panel to the wall at its top edge using two Z-01 brackets. (See Figures 10.2 and 10.3)
18. Clean any extraneous mastic off installed panels.



Figure 10.1



Figure 10.2



Figure 10.3

Mantel Leg Installation

After all fillers have been installed, the mantel legs will be placed. Refer to the setting drawings that were included in your shipment for placement of mantel components.



There should be a 1/4" joint space between all pieces. This includes between the leg base and the hearth top. Design compatibility relies heavily on proper joint spacing.

1. Referring to the installation setting drawings. Lightly mark the side fillers in pencil to identify the locations of the inside edges of the legs. (These marks will be covered during the grouting process)
2. Identify the start point and width of the notch in the base of a leg. Measure from the interior of the leg outward.
3. Using the marks from step 1 as reference, mark the hearth or the floor near the wall on both ends to signify the location of the notches measured in step 2.
4. Drill one J-01 bracket into place on each side, in a stud or with a toggle lock heavy duty drywall anchor. (See Figure 11.1)



When installing a J-01 leg and mantel mounting bracket, two Tapcons must be drilled and secured through the horizontal surface into the floor or hearth and at least two Tapcons or screws into the wall at stud locations.

5. Place 1/4" of grout spacers on both sides of each J-01 mounting bracket.
6. For one leg, apply a generous amount of mastic between the spacers.
7. Carefully lift the leg in place so that its bottom slot fits over the toe of the J-01 bracket and its inside edge aligns with the marks on the side filler panels. Press the leg against the wall. (See Figure 11.2)



Figure 11.2



Figure 12.1



Figure 12.2



Figure 12.3

8. Assure placement and check with a level and secure leg at top with a J-01 bracket. (See Figure 12.1)
9. Install the opposing leg in the same manner.
10. Check level across tops of legs and make any necessary adjustments.

Mantel Header Installation

After legs have been installed, the header is next. The header will be mounted using methods similar for leg mounting.



At both sides of the mantel header, there are slots to accommodate the toe of the J-01 brackets.

1. On the top of the mantel header, make a small mark at the back center.
2. Place a small amount of mastic on the top of the legs near the J-01 brackets. (See Figure 12.2)
3. Carefully lift the mantel header in place so that it is aligned with the center line on the wall and its bottom slots fit over the toes of the J-01 brackets on the top of each of the legs. (See Figure 12.3)
4. Check level side to side and front to back. Assure that top of header is even with top of legs.



Figure 14.1



Figure 14.2



Figure 14.3



Figure 14.4

Mantel Shelf Installation

Some of our mantels have a three piece shelf that sits atop the mantel header. These shelves are installed using a combination of 1/4" dowels and L brackets drilled into place. I

If your design does not include a three piece mantel shelf, skip to grouting on page 15.

1. Identify and mark the center of the center shelf piece. (See Figure 14.1)
2. Place 1/4" of grout spacers on top of the mantel header near where the center shelf will rest.
3. Put a small amount of mastic on the back and bottom sides of the center shelf piece. (See Figure 14.2)
4. Place the center shelf piece on top of the grout spacers and mastic atop the mantel header. (See Figure 14.3)
5. Adjust for level, and fasten the left and right sides of the shelf to the top of the header using provided L brackets. (See Figure 14.4)

The left and right shelf pieces will be mounted using 1/4" dowel pins. Each shelf piece should use at least 2 dowels.

6. Place 1/4" of grout spacers vertically on the left and right of the center shelf piece to appropriately distance the left and right shelf pieces.
7. Choose placement for 2 pilot holes and mark them on the top of the header. Holes should be located close to the center of the piece and along the length of it.
8. Measure hole's distance from the edges of the center shelf piece.
9. Measure from the inside edges of the left and right shelf pieces and mark where holes will line up with the base of the shelf pieces. (Make sure to include the 1/4" space between shelf piece edges.)

10.

11. Drill holes using 3/16" masonry bit at designated locations about 1-1/2" deep. (or 1/2" the length of the pins used)
12. Fill the holes in the top of the header with liquid nails & place dowels into holes.
13. Place 1/4" of grout spacers and a small amount of mastic on top of the mantel header.

Place a small amount of liquid nails into the

14. holes on the underside of the shelf pieces.

Place the shelf pieces on top of the header,

15. aligning dowels with holes in the base of the piece. Shelf should rest on 1/4" grout spacers placed previously.

Check for level across the top of the full shelf and front to back.

- 16.

Move on to grouting steps.

- 17.

Grouting

All of Colmex's Fast Favorite mantels are sent with a grout kit. The grout is color matched to the mantel.

Follow the instructions for mixing and applying grout.



Always wear eye, hand, skin, breathing, and hearing protection appropriate for the procedure being performed.



When taping, set tape back 1/32" to 1/16" from opening to provide a slight overlap. This aids in ease of finishing the grout lines. Added care given in the taping process will greatly enhance the appearance of the finished product.



Only prepare grout in a quantity that can be used in approximately one hour. Reserve a portion of the components for possible future patching needs.

1. Carefully tape both sides of areas to be grouted. This should be between the 1/4" space between all stones edges. (See Figure 15.1)
2. Once taping is complete, check floor and surface coverings to make sure they are still in place.



Grout can stain floors, walls, and ceilings. Take necessary precautions to cover areas surrounding the workspace. Care should also be taken to prevent grout from splattering onto untaped portions of the mantel.



Figure 15.1

2. Prepare Grout

- In a clean container, add the sand and the white cement with some water. The ratio is 2-part cement for 5 parts sand. Add water until a grout consistency is set.
 - After initial mixing is complete, allow grout to rest approximately 5 minutes and then re-agitate. This will break the grout's initial bond and make it easier to squeeze out of grout bags.
3. Prepare the grout bag by cutting the small end of it so that the opening is approximately 3/8" in diameter. Rinse the interior of the bag with water to prevent sticking of the grout.
 4. Fill the grout bag half to two thirds full and twist the top to seal. The bag can be squeezed to expel the grout from the small end. (See Figure 16.2)



Its always good to have a container of clean water and a sponge available for cleaning up splatters throughout the grouting process.

5. Begin grouting mantel from bottom, working up. (See Figure 16.3)
6. Fill grout joint liberally and work first course back into joint approximately 1/4" to 1/2" with tuck pointing trowel or similar tool. (See Figure 16.4)



Should the grout mixture begin to stiffen, rework it with mixer to return it to a usable state. DO NOT add additional water unless mixing does not return grout to its initial consistency.



Figure 16.1

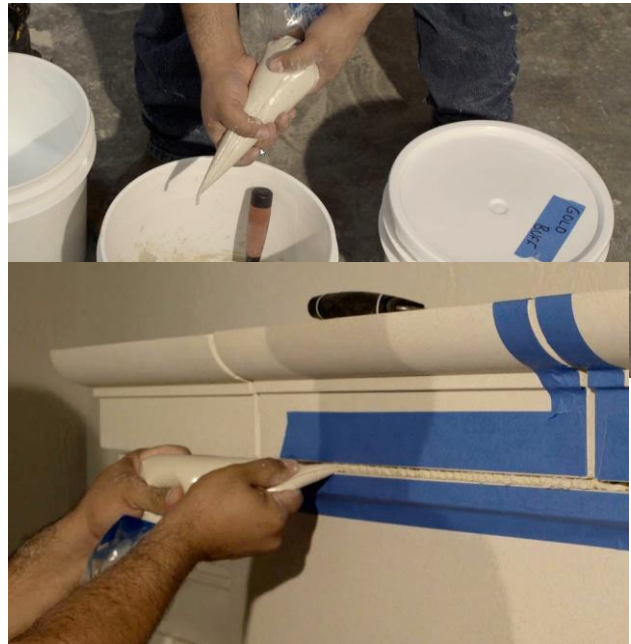


Figure 16.3



Figure 16.4



Figure 17.1



Figure 17.2



Figure 17.3



Figure 17.4

7. Apply second bead of grout, leaving it standing proud (well out from the joint) (See Figure 17.1)
8. Continue the two course grouting method throughout, filling all joints.
9. Allow grout to set up until it provides resistance to slight finger pressure and grout does not transfer to finger when touched.
10. Using a pointing tool with medium pressure & a sliding motion, press the grout into the joints. The blade of the tool should be flat, wider than the joint, and free of rust. A mastic trowel will do perfectly.



This helps reduce chances of the mortar cracking later. The pressure applied pushes the mortar farther into the joint, eliminating any unseen voids.

11. Allow the grout to dry for approximately 1/2 hr. (until it is dry enough that it doesn't transfer to your finger when pressed)
12. Then, holding the blade of your grouting tool perpendicular to the grout lines and using short shaving motions, work grout flush with tape. (See Figure 17.2)
13. Once flush, the joints can be tooled smooth with a trowel, brushed with a horsehair masonry brush, or rubbed with a piece of carpet. (See Figure 17.3)
14. Remove tape, touching up minor inconsistencies as you go with flat bladed tool.
15. Tape back edges of the mantel where it meets the wall. Caulk should be used between the wall face and the rear of the surround. After caulk has dried, you may paint and then remove the tape. (See Figure 17.4)
16. Clean tools and surrounding work areas.

CONGRATULATIONS! YOU HAVE JUST COMPLETED THE INSTALLATION OF YOUR COLMEX CAST STONE MANTEL!