

Disassembling Instructions and Parts Identification

There are quite a few of the CW-30 stoves still in use out there.

This guide will help you to identify parts and pieces while also providing instruction for replacing gaskets and/or other various components.

What better way to learn about a stove than to take it apart and put it back together?

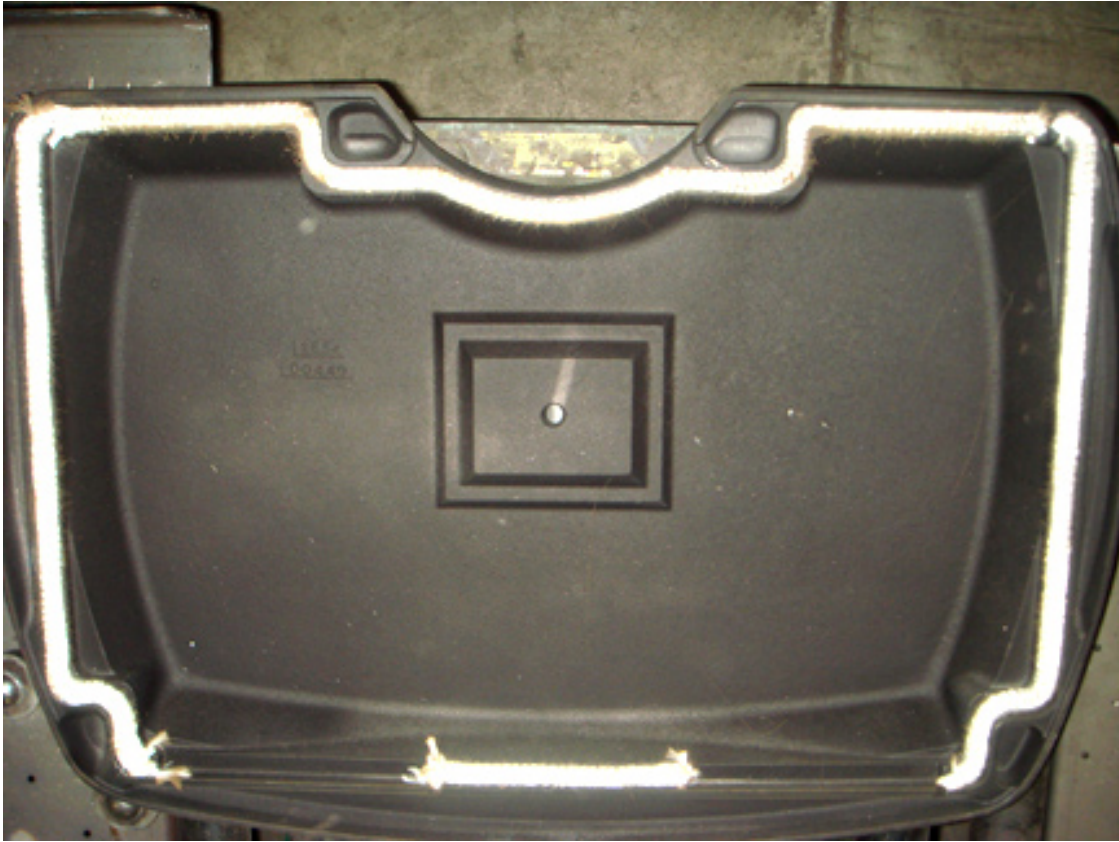
To begin dismantling the stove, remove the Harman Logo plate from the center of the top. This will expose a nut which secures the cast iron top to the stove.



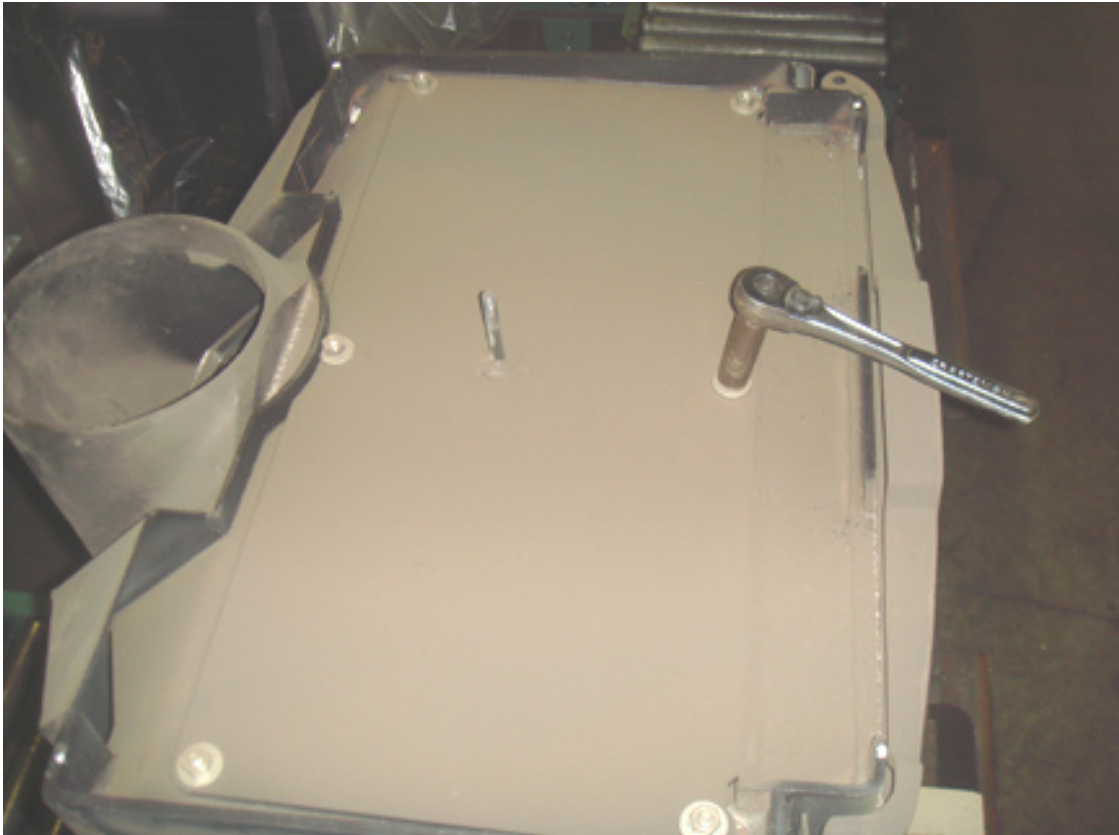
Using a ½” socket or wrench, loosen and remove the nut. Then lift the top off of the stove.



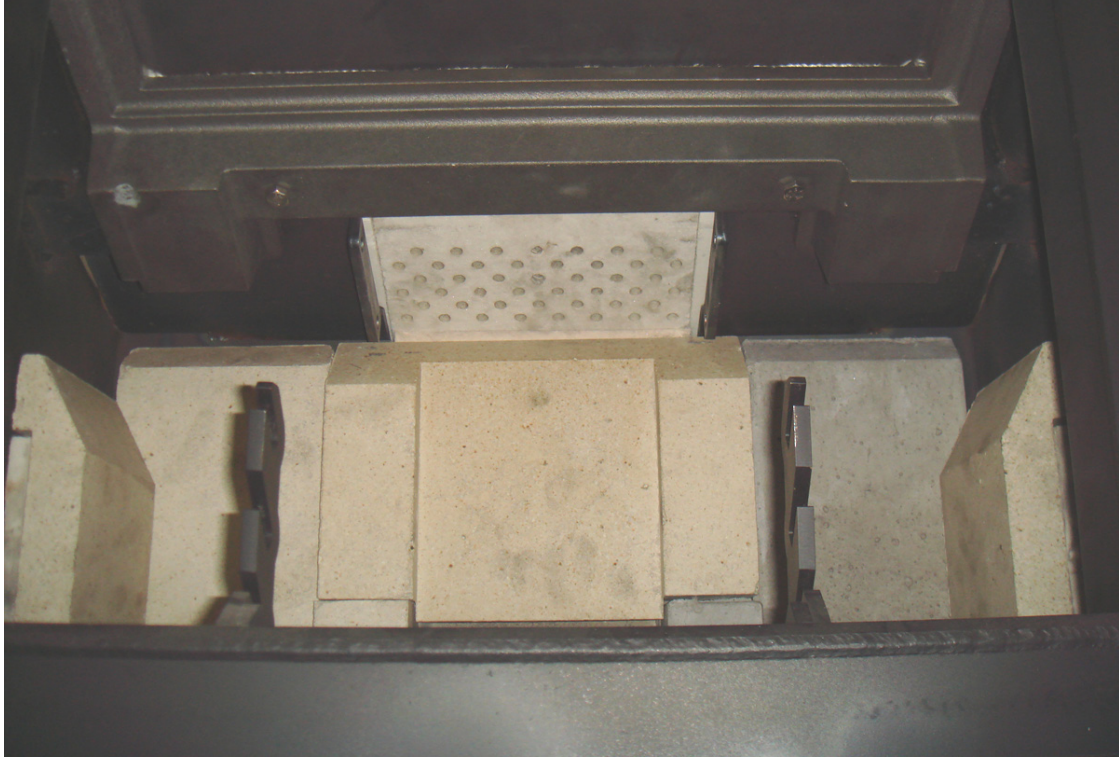
The under side of the cast iron top is gasketed, mostly to prevent rattles of metal to metal contact. This is $\frac{3}{8}$ " low density rope gasket (3-44-00888) attached with gasket cement.



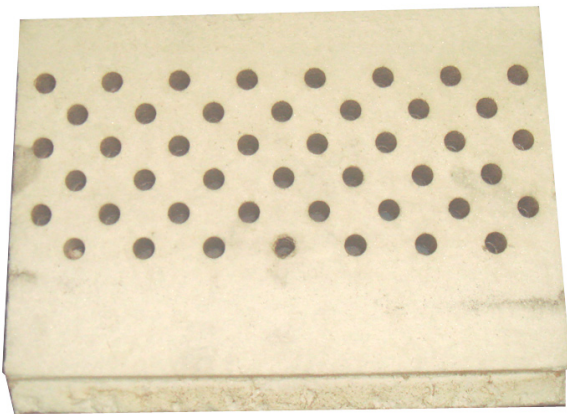
Now you'll see the inner top, which is held down with (6) $\frac{1}{2}$ " nuts and washers. Remove the nuts and washers to lift the inner top.



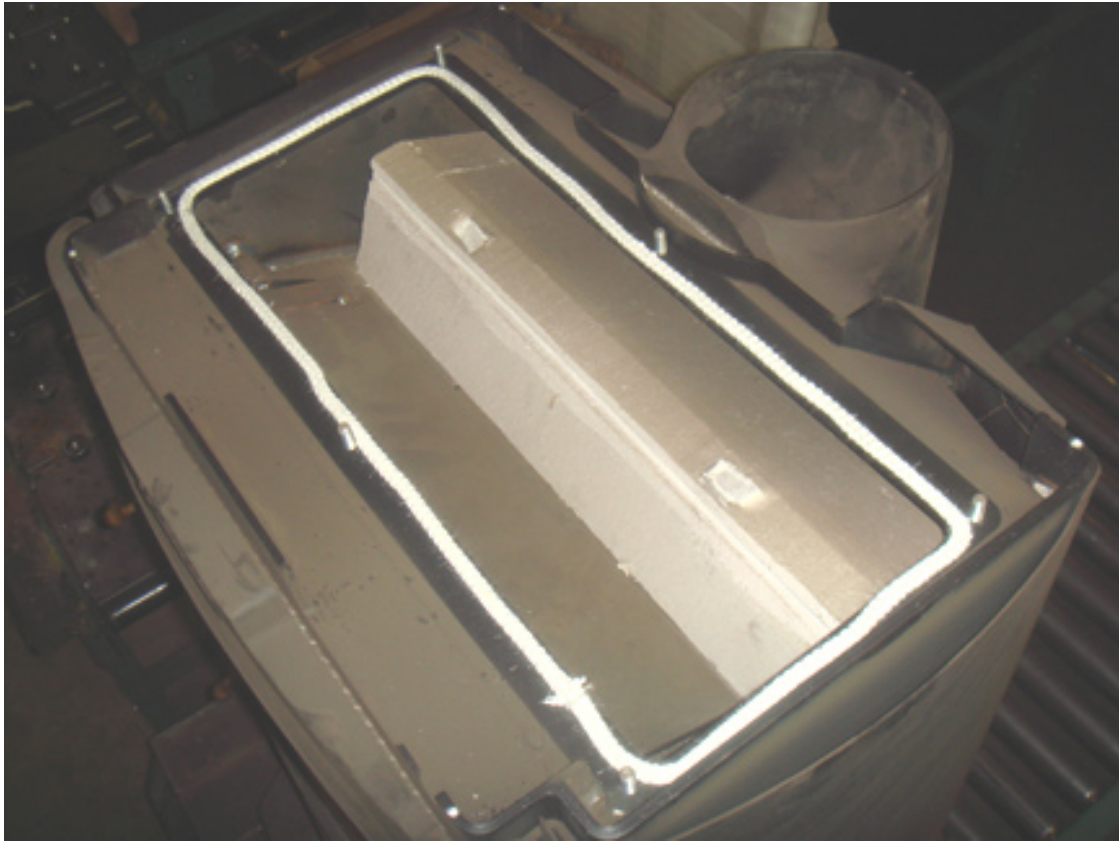
Looking into the top of the firebox, you'll see the waffle as shown below. Find a bolt or screw to fit the hole size (3/8" thread) and thread it into a hole near the center of the waffle. This will provide a handle with which to manipulate the waffle. Lift up on the waffle and tilt it back to drop it down and out.



Ceramic Fiber Waffle
Item # 3-40-00471



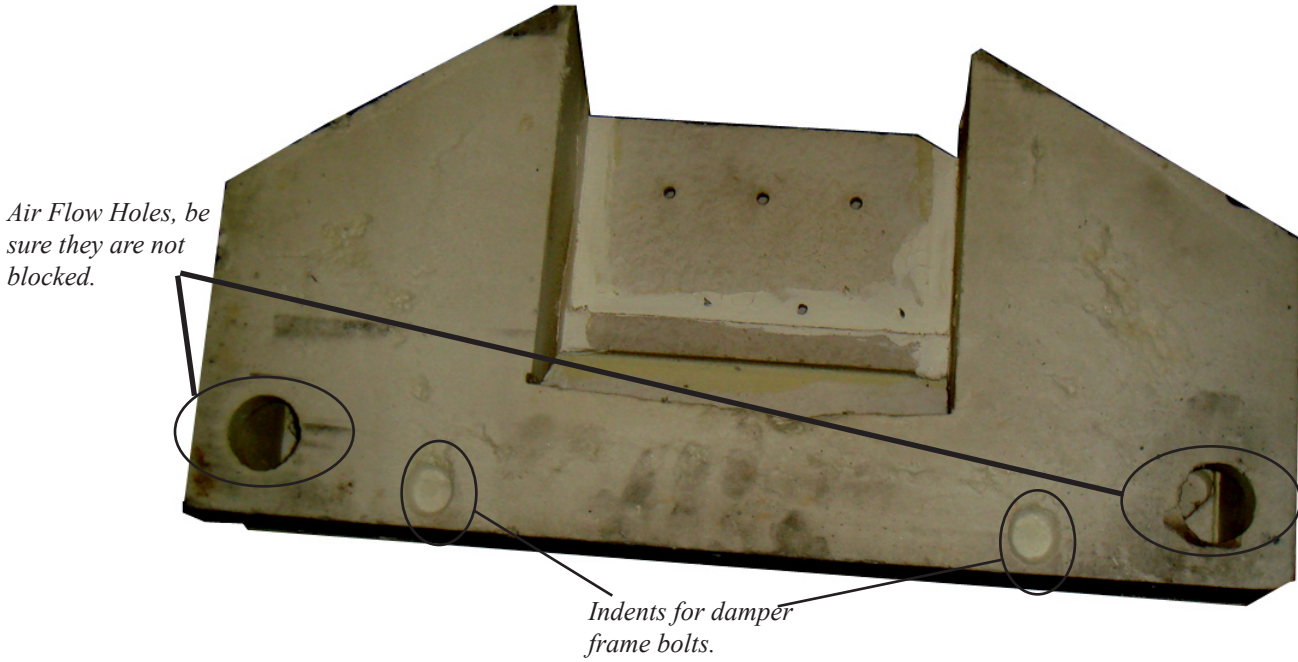
With the inner top removed, you’ll now see the damper (Damper Weldment # 1-10-00465) and the combustion package. (Ceramic Fiber Combustion Package # 3-40-00472)



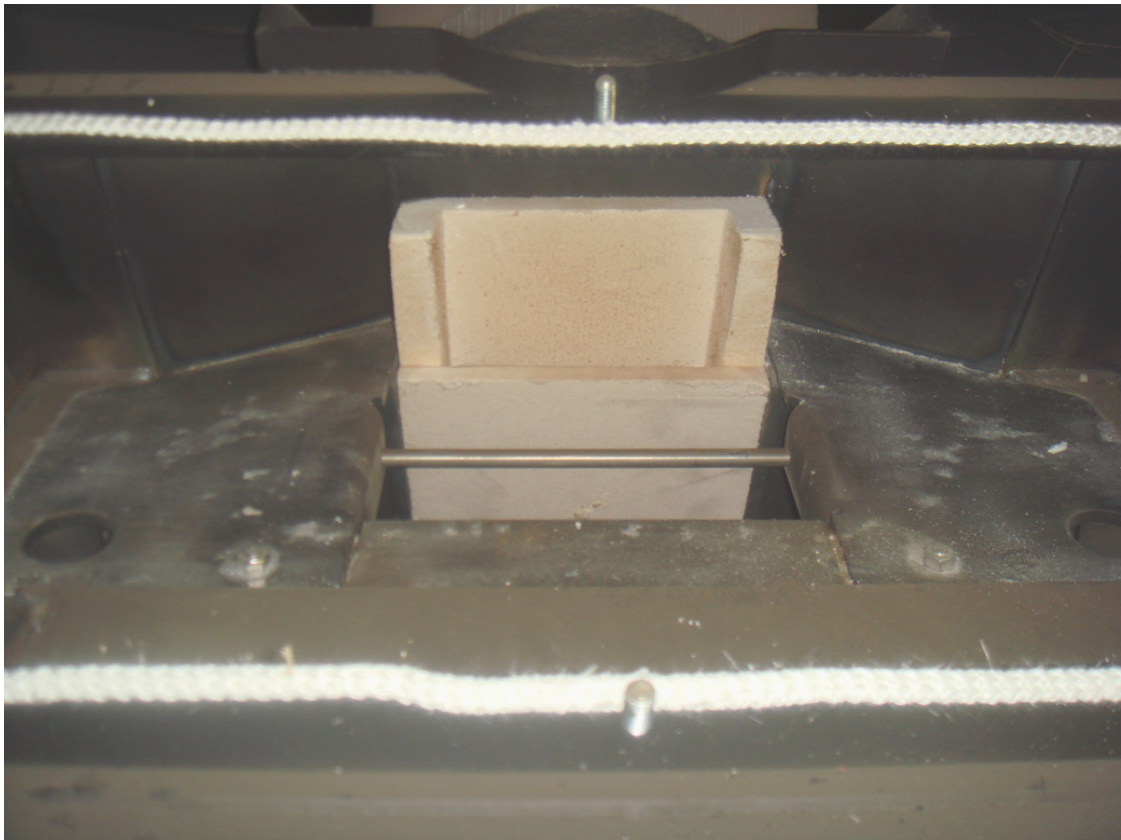
Pull forward and lift the combustion package out of the top of the stove. Use extra care when handling the combustion package, as it does become brittle after burning.

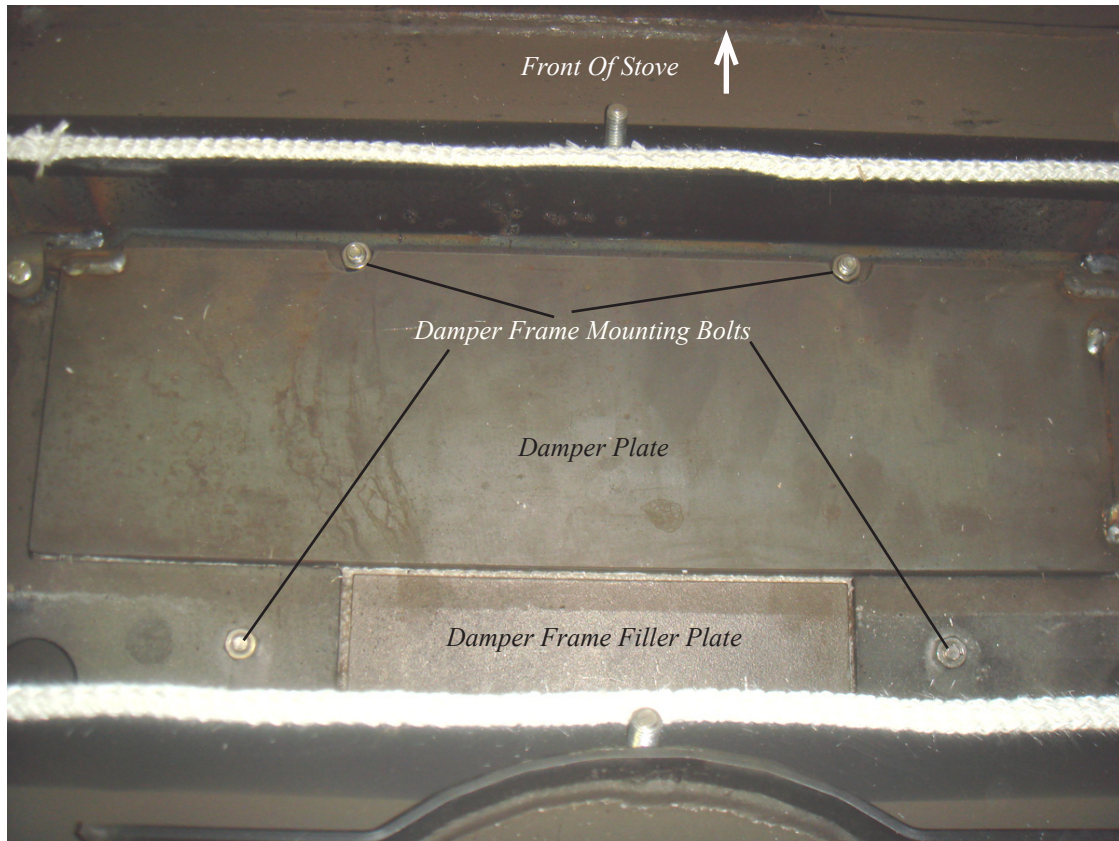


This view shows the underside of the combustion package. Note the holes and the indents for the damper frame bolts.

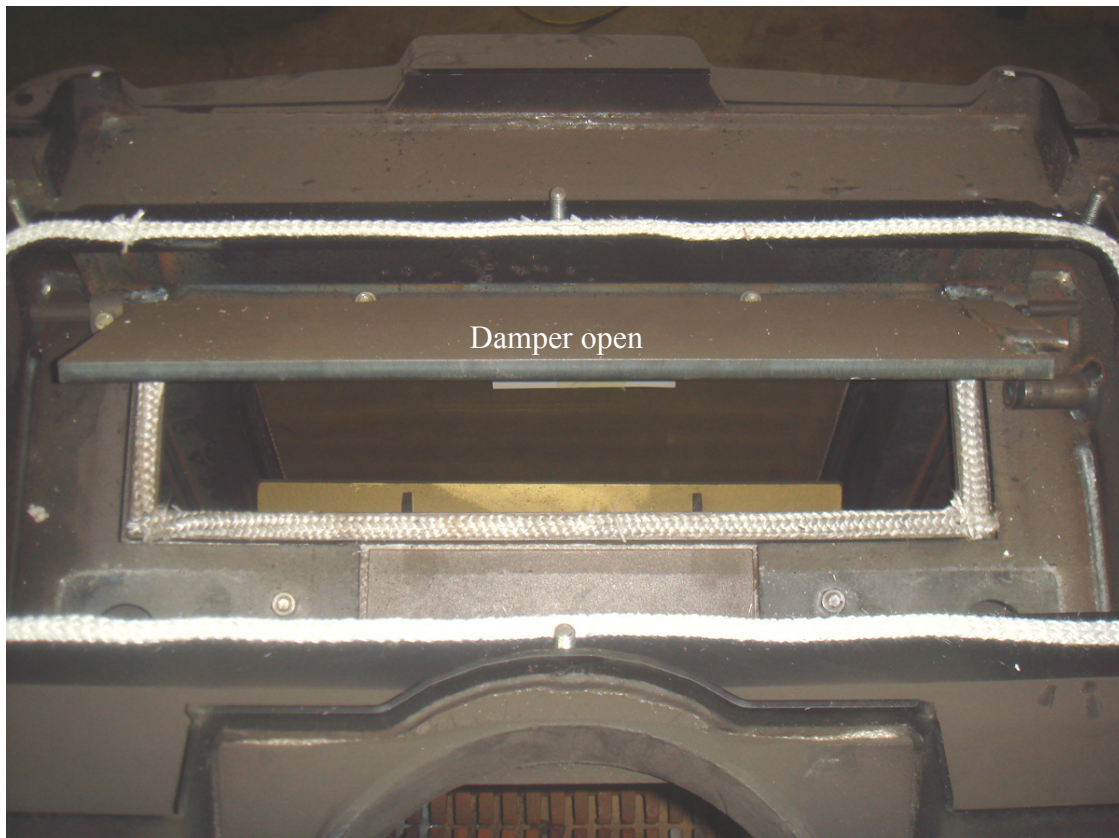


With the Package removed, you'll see the top of the Pyrolite Ignitor Tunnel. You can also now see the top of the damper and the damper frame filler plate.





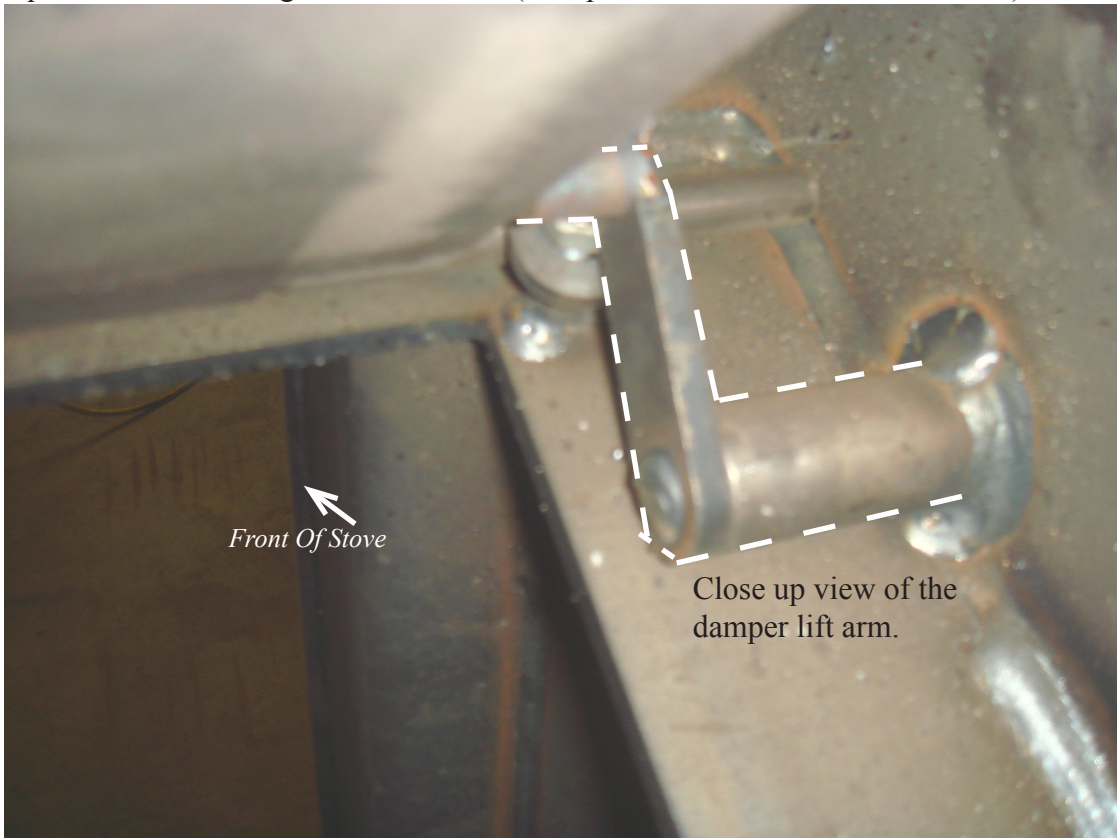
Using a ½" wrench and socket, remove the (4) bolts which hold the damper frame up in the top of the firebox. Be sure to secure the frame from below, as it will drop upon removal of the last bolt.



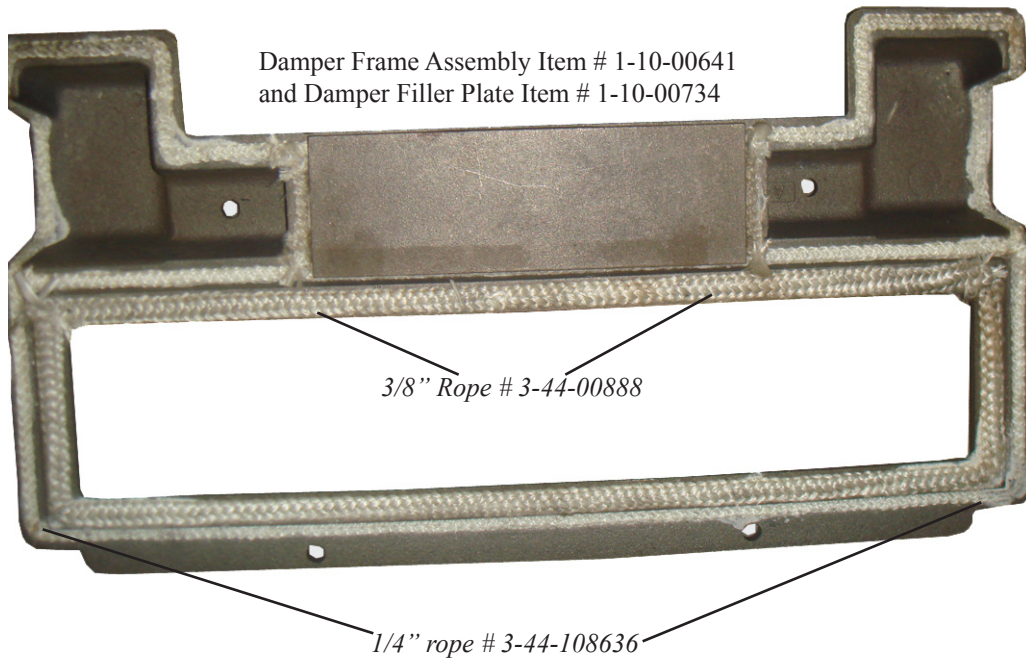
This is the damper frame assembly (# 1-10-00641) and filler plate (# 1-10-00734) as it is removed from the firebox.



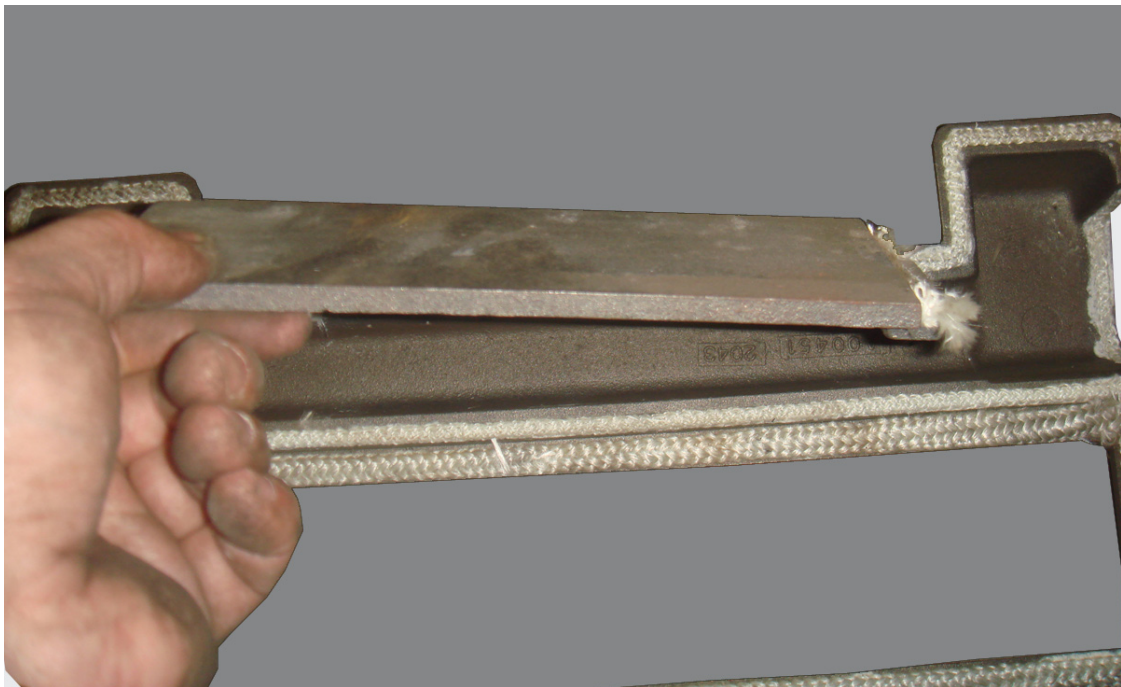
To remove the damper, loosen the two bolts and clips at the ends of the damper plate. The damper lift arm can be removed by first removing the external brass elbow. Then pull the damper lift arm in through the stove wall. (Damper Arm Weldment # 1-10-00638)



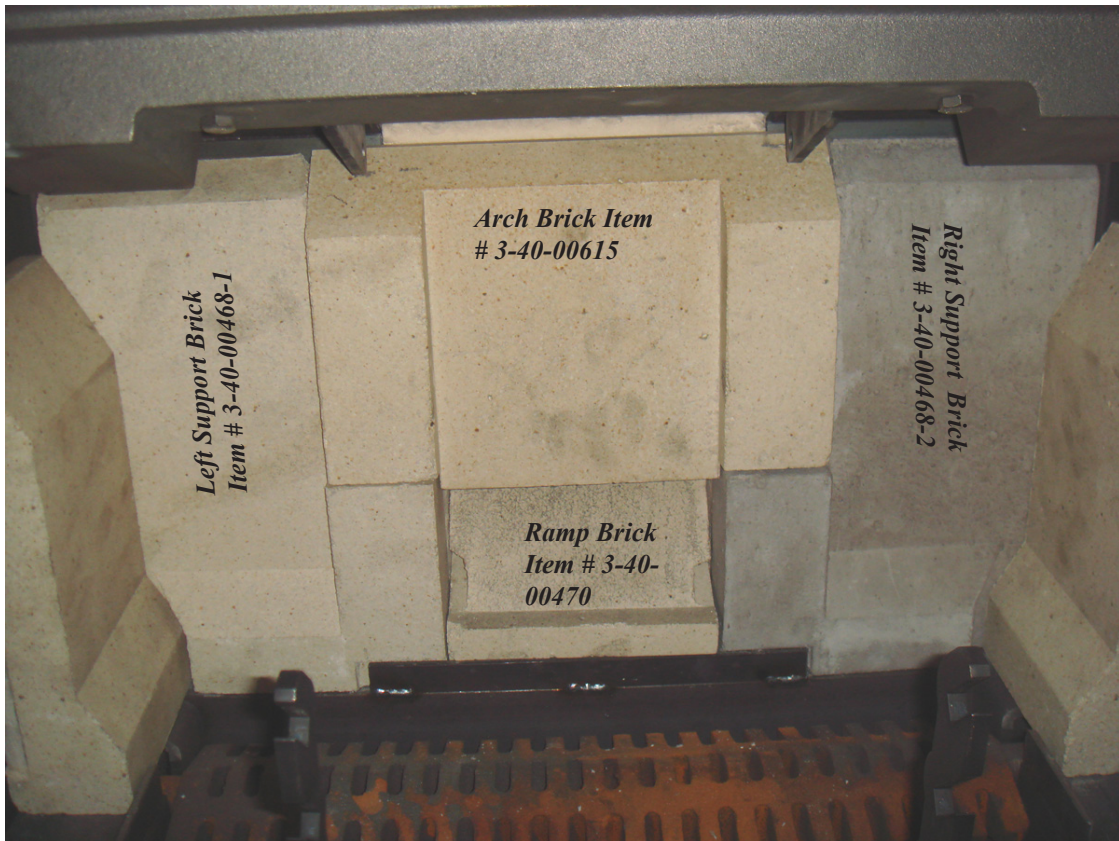
Close up view of the damper lift arm.



Note how the filler plate lays in the damper frame channel, with the end tabs inside.



Remove the Arch Brick (cast iron or refractory) by lifting up slightly then pull the bottom toward the front of the stove.



Next would be the side bricks. Note the insulation panel on the back side of the side bricks. There are two side bricks on each side of the firebox.



Once the side bricks are removed, the support bricks can be lifted up and out. To remove the ramp brick, you need to lift it up then pull the bottom toward you, once it clears the retainer.

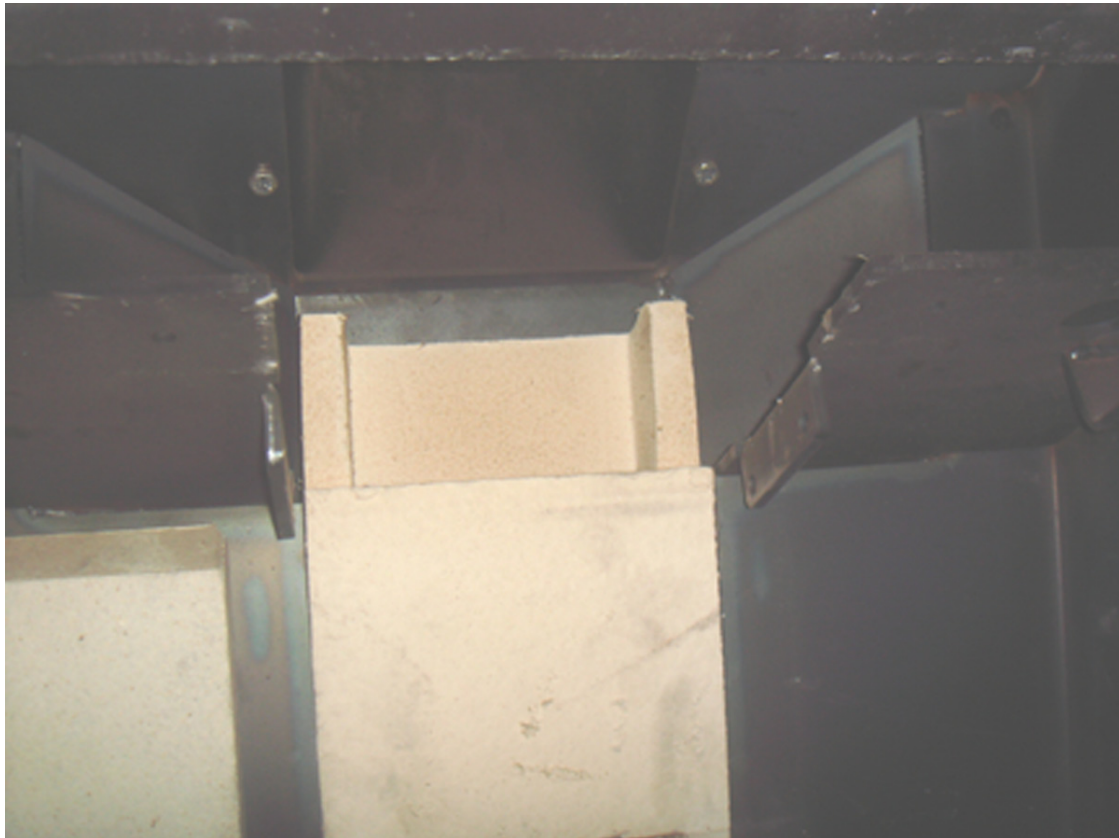


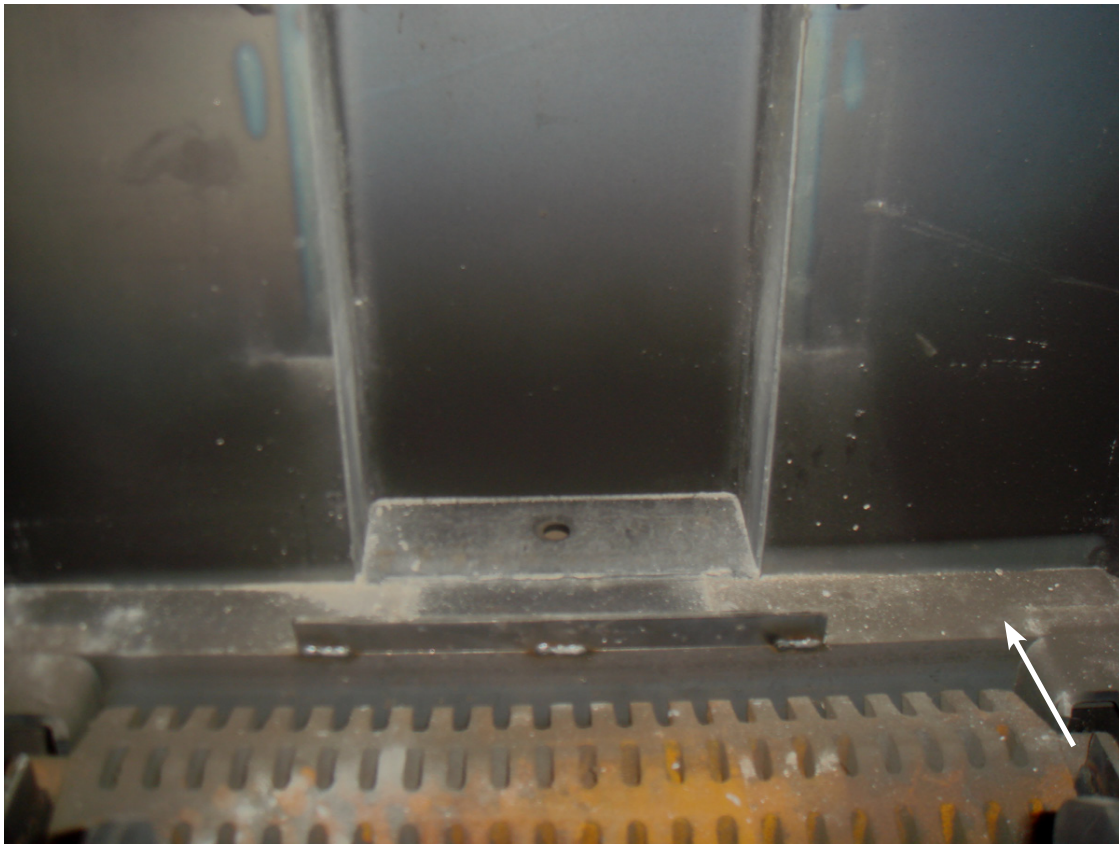
Along the front of the firebox, instead of bricks, there are three (3) cast iron Wear Plates. They fit behind tab retainers in front of the front shaker grate. Lift out for removal.



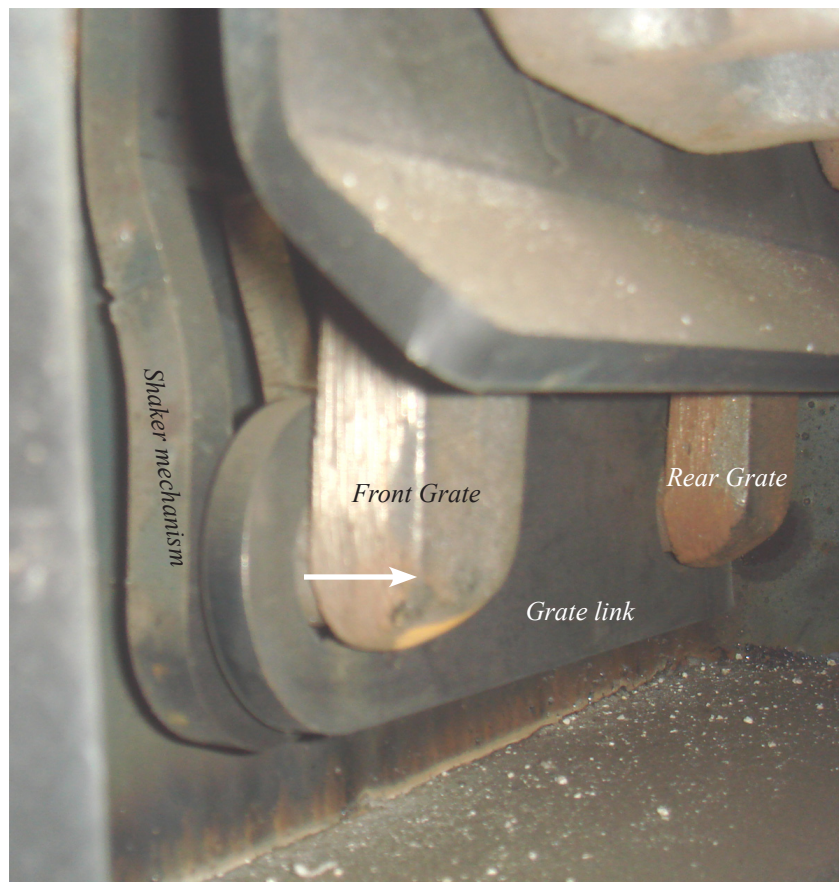


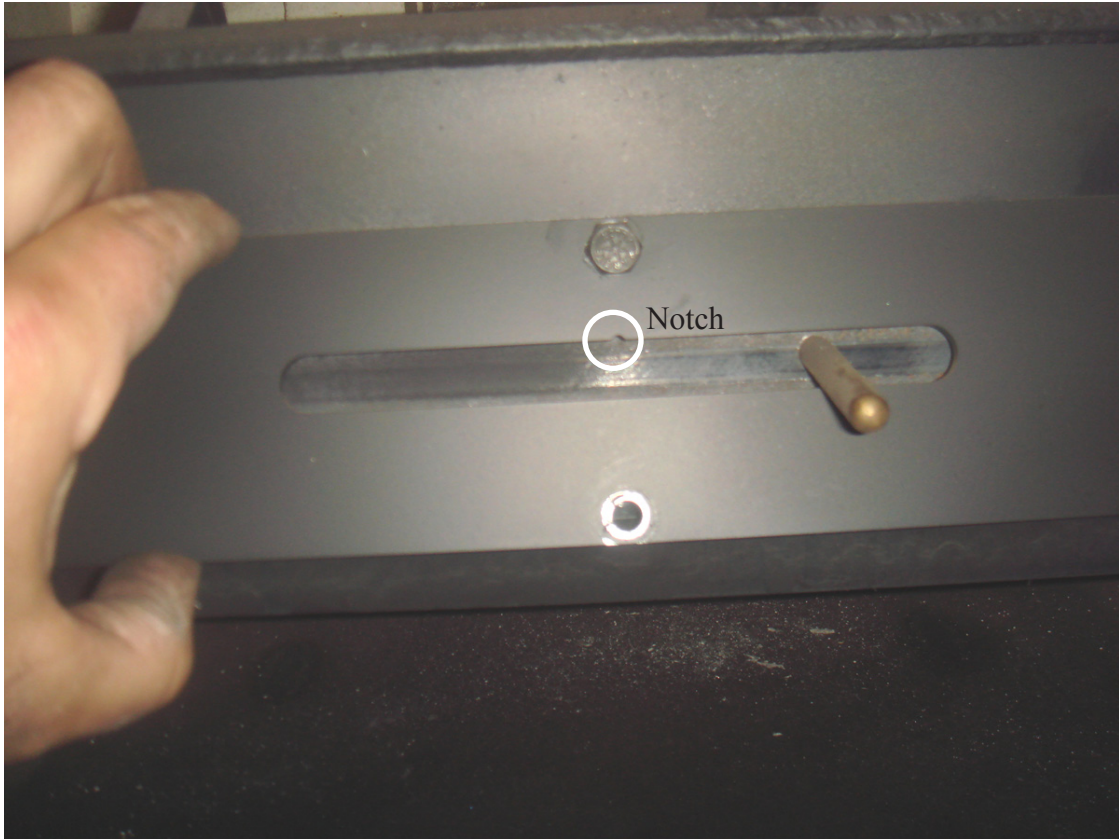
The last refractory item remaining is the Pyrolite Ignitor Tunnel, Item # 3-40-00616. This is the route which the exhaust takes, when woodburning, to the secondary combustion package. It is a snug fit in the back of the firebox, if you lift from the top, it will be easily removed.



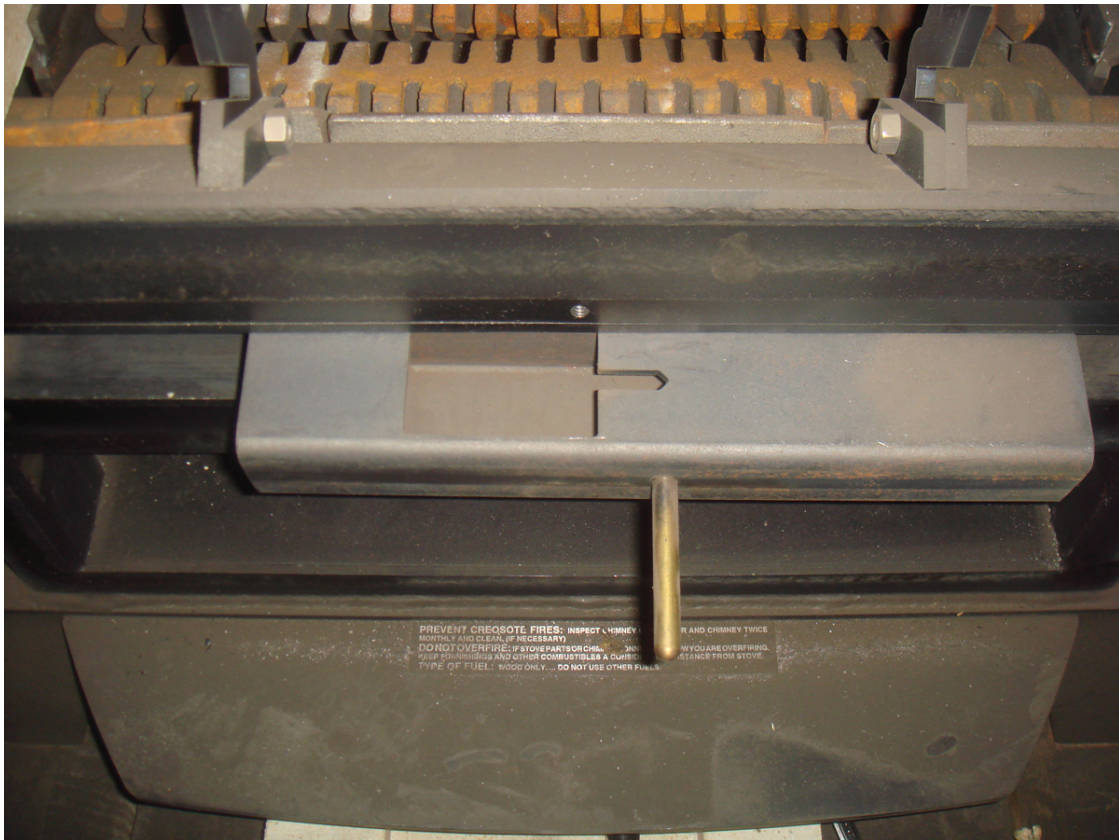


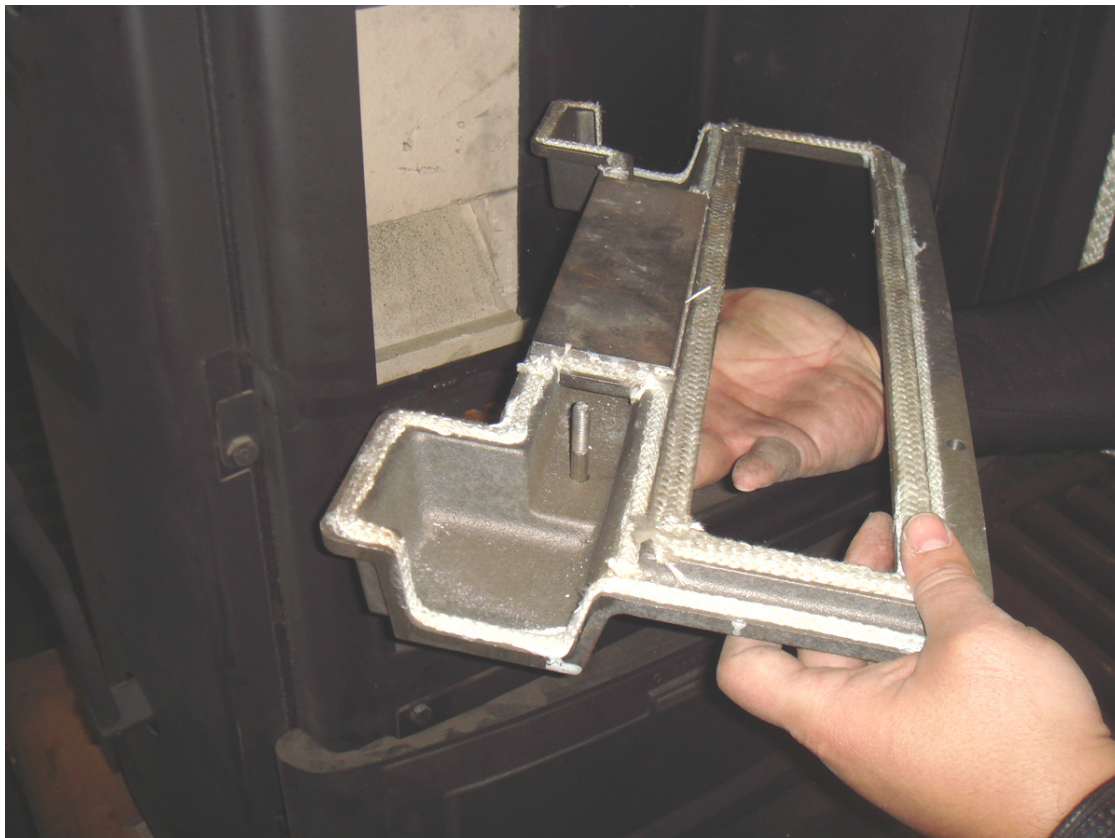
Once all of the refractory items are removed, remove the grates by lifting up on the right side until they are disengaged from the grate link and shaker mechanism. Then, lift out. (Grate # 3-00-00453, Grate Link #2-00-00457)





To access the air-slide, remove the six(6) bolts holding the cover in place. Notice the notch in the air slide slot. (must be on top) The air slide and channel can be lubricated with a dry graphite only. Be sure to re-install the air slide with the square hole upward.



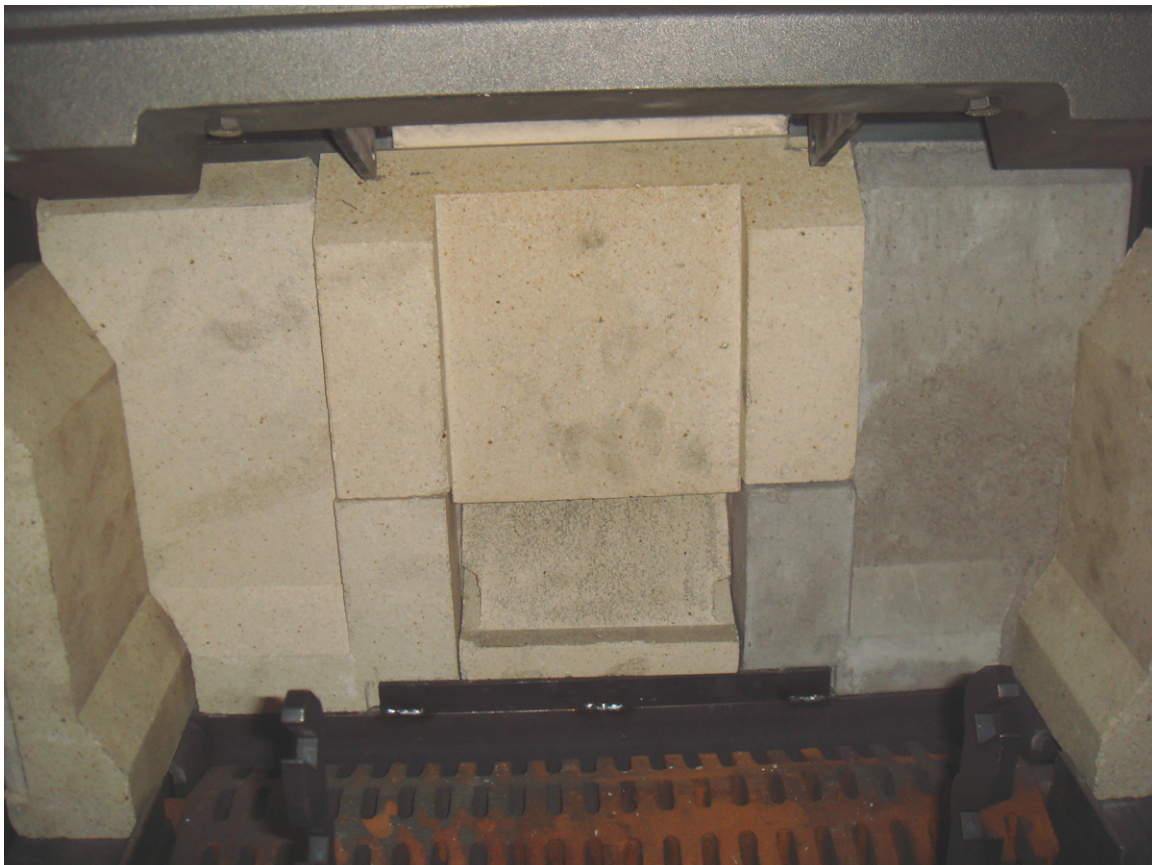


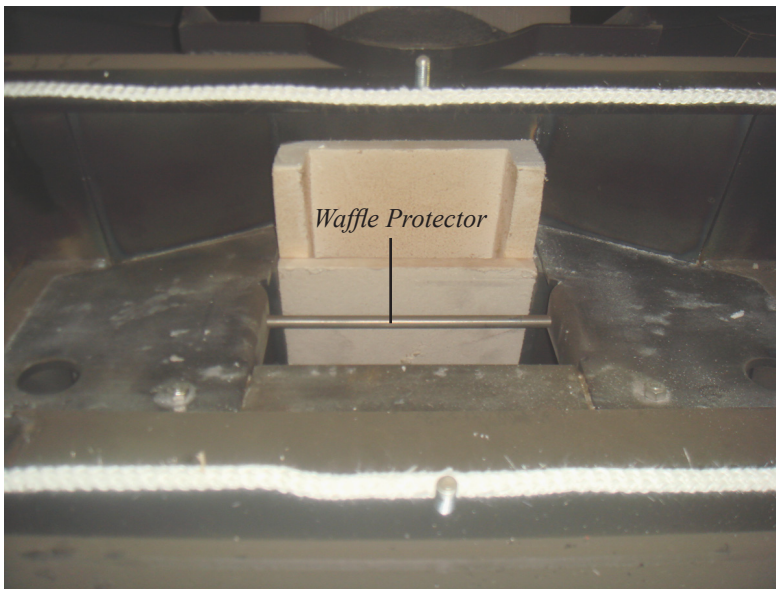
When re-installing the damper frame, start one of the rear bolts into the frame as shown above. Hold the bolt from below and have a nut ready to start on it above. While positioning the damper frame, guide the bolt up through the hole and start a nut onto it.



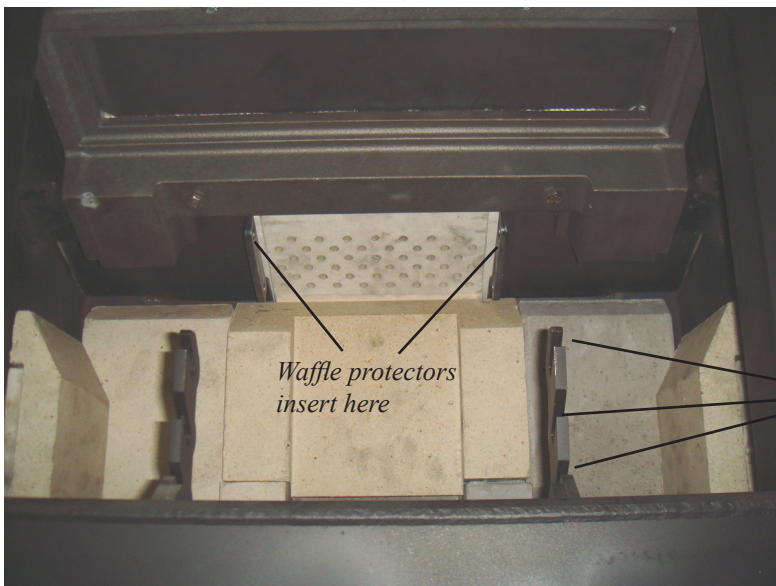


After positioning the tunnel in the back of the stove, install the ramp brick by first nosing the ramp portion into the tunnel. Guide it upward until the bottom of the ramp brick is back behind the channel. Allow the brick to fall behind the channel then push back on the ramp portion to ensure proper position. Next install the support bricks so that they are against the sides of the ramp brick. This may leave a gap in the corners but it is better there than in the middle since the side bricks will fit back against in the corners. Next, place the arch brick (whether it is cast or brick) onto the shelves created by the support bricks. Be sure the insulation is behind each side brick as you install them last.

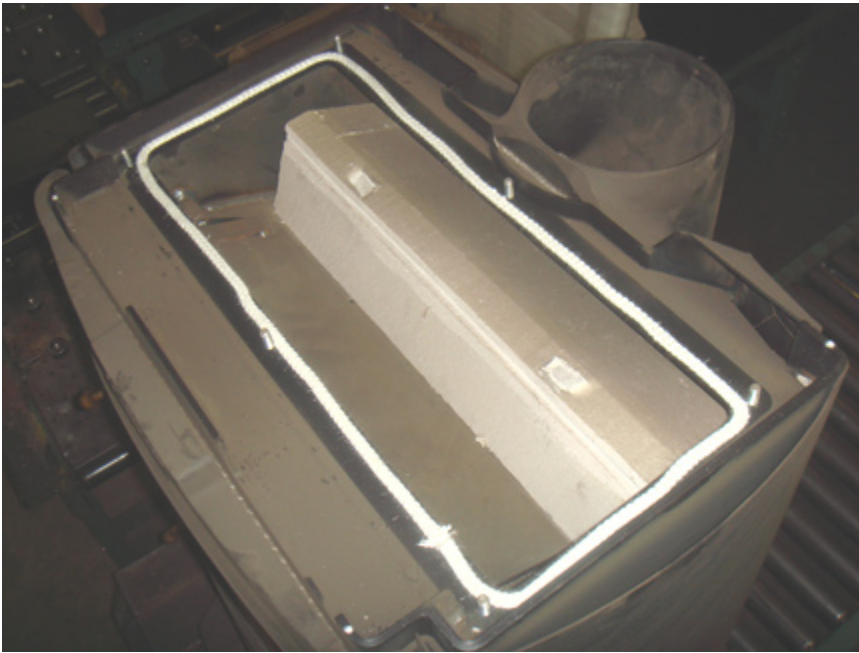




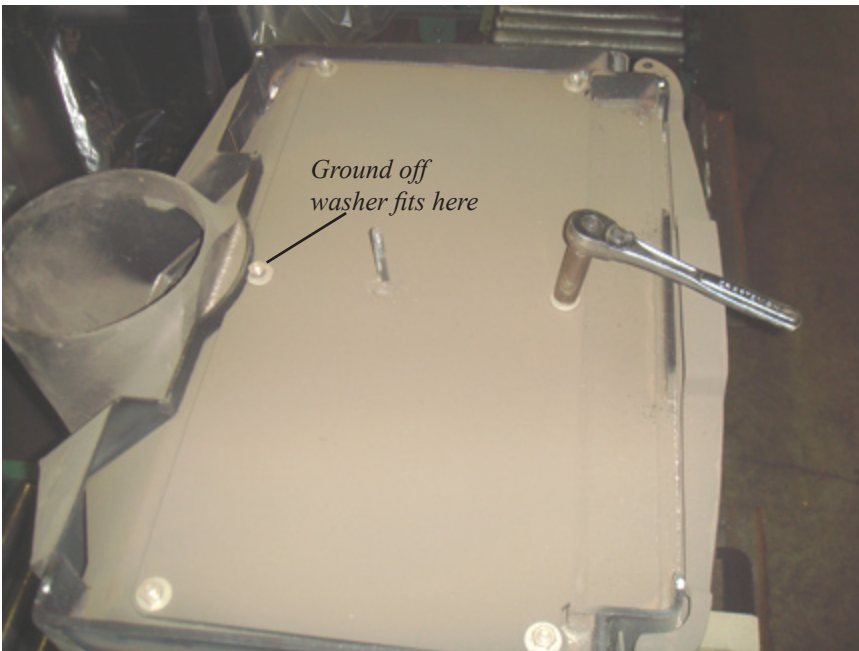
Guide the combustion package into the top of the stove. Be sure the tunnel fits between the legs of the package and the package fits all the way down. In the firebox top, install the waffle into the opening on the bottom of the package. Again, if you thread a bolt into one of the holes, it will provide a handle for manipulating the waffle into place. Be sure to remove the bolt once the waffle is in place. The top picture shows one of the waffle protectors. These two stainless steel rods simply slide into the holes on the tabs on each side of the waffle. (Waffle Protector #2-00-00617)



Insert the (3) coal bars into the slots on the coal bar holders. These protect the glass from logs or coal burning right against it. (Coal Bar #2-00-00621 and Coal Bar Holder # 2-00-03358)



Inspect the gasketing around the top of the stove. Replace if necessary, with 1/4" rope with adhesive backing item# 3-44-11862. Install the inner top using the washers and nuts removed earlier. One of the washers will be ground off to fit the bolt in the back. Tighten each of the six nuts securely. Re-install the cast iron top by guiding the center bolt upward through the hole in the top. Secure with a single nut and lay in the Harman logo plate to finish the job.



Helpful Tips: If the Grates warp; Empty the ash pan more frequently. Ashes against the bottom of the grates block air flow around the grates and will cause them to warp.

If the damper frame warps or sags; Over-fired. Check all gaskets and ensure doors are closed when burning. Close the damper after a good wood fire is established.