

Encore 2190 Refractory Replacement



Defiant Encore 2190 Service Procedure

REPLACING THE REFRACTORY PACKAGE

1. Open the damper and remove the handle stub (faucet). Use an Allen key wrench to loosen the Allen bolt in the base of the damper handle stub. Pull the handle off the damper rod.
2. Remove the andirons; one 7/16" hex head bolt each.
3. Remove the throat hood; swing its bottom edge forward and then slide the hood to one side until the trailing end drops from its supports. Take it out of the stove.

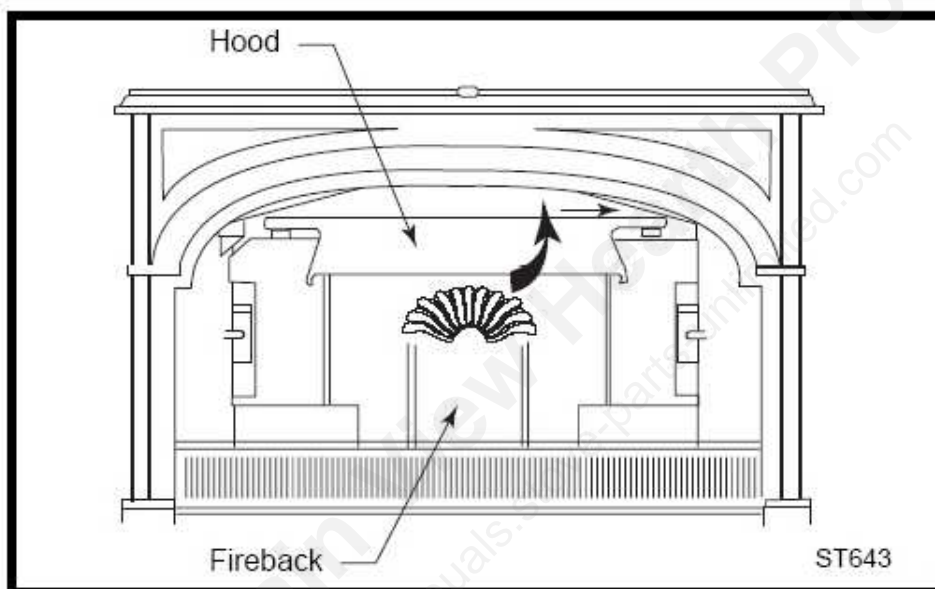


Fig. 1 Remove the throat hood.

4. Use a hammer to tap the two wedges upward and out of the stove

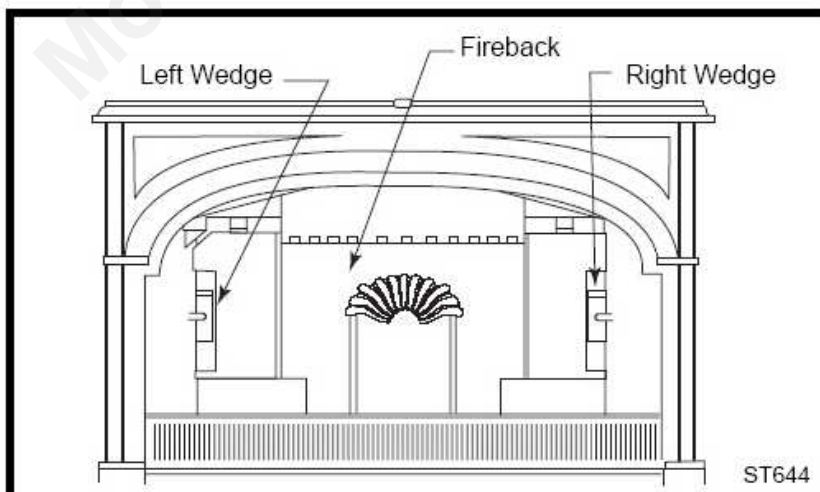


Fig. 2 Tap the wedges out with a hammer.

5. Remove the lower fireback by pulling the upper edge toward the front of the stove. Then lift it and angle it out of the stove through the front door. Scoop out any ashes in the bottom groove where the lower edge of the lower fireback sits. Inspect the gasket on the back of the fireback and replace if damaged.

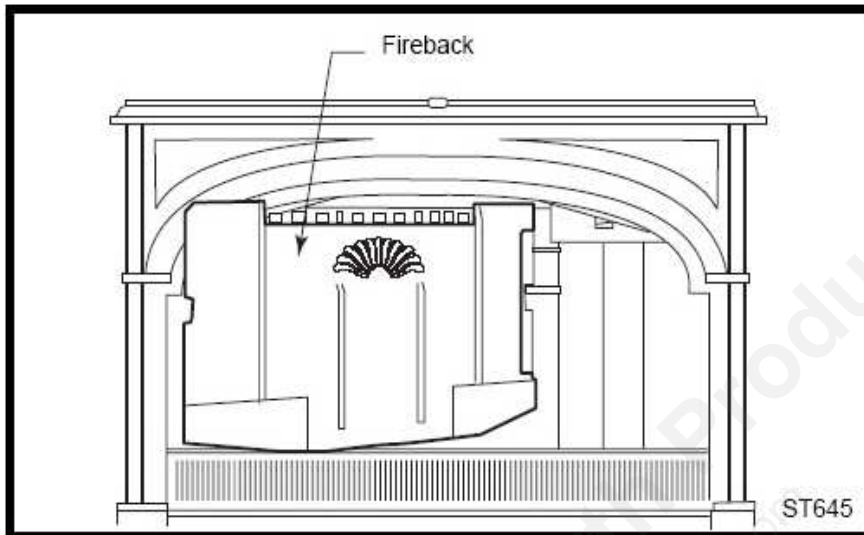


Fig. 3 Lift out the lower fireback.

6. Remove the left and right air plates (inner walls). 7/16" hex head bolts at the top and bottom hold them in place. These air plates have rope gaskets sealing them to the ends of the stove. With the bolts removed, pry the forward edges of the plates toward the center of the firebox and remove them through the front or griddle opening. See photo lower right.
7. With the damper open, remove the damper activating link on the left side of the firebox. This piece is shaped like a hockey stick and has a hole in each end. The forward hole engages the damper activating arm and the rear hole engages the damper torsion bar (rod). See photo lower left.



8. If the stove has a rear heat shield, remove the four bolts holding it in place and put it to one side. Four hex head bolts hold it in place.
9. Remove the upper fireback. A hex head bolt on each side of the stove upper back holds the upper fireback assembly in place. Remove the bolts and washers. From inside the firebox, pull the right hand end of the upper fireback toward yourself; you may need to use a flat head screwdriver to pry the fireback loose from the rear panel behind it.
10. Remove the catalyst access panel, part of the refractory assembly that houses the catalytic combustor. It is friction fit into place. Wiggle it slightly to remove it. Take note of its position for reinstallation.
11. Remove the catalytic combustor, inspect and clean it and put it aside. Do not use compressed air to clean fly ash out of the honeycomb.
12. Carefully pull the entire refractory package straight forward. Leave the steel heat exchangers in place in the left and right sides of the stove back.
13. From the back of the stove, remove the secondary air access cover and put to one side with the two Phillips screws. Unscrew the probe assembly and lift it off the linkage. Put it to one side.
14. Install the new refractory package. Replace the catalyst. Install the access panel.
15. Re-install the upper fireback assembly. If held in place with gasket, ensure it is in good condition before re-installing. If held by cement, clean the grooves and the rear of the upper fireback before re-cementing. Fasten it in place with two 1/4"-20 x 1-1/2" hex bolts and washers.
16. Re-install the damper activating link. Make sure it engages the damper rod and looks like Fig. 4.
17. Attach the handle and its 'faucet' to the damper handle rod with the Allen bolt, and test the damper for smooth action.
18. Re-install the left and right wear plates, each with their two bolts.
19. Re-install the lower fireback, and secure it with two wedges. Gently tap with a rubber mallet to make sure the top of the fireback seats tightly to the bottom of the upper fireback. If not, clean the groove it sits in again and/or loosen the two bolts that hold the upper fireback in place and re-install the lower fireback. Tighten the upper fireback outer bolts when finished.
20. Replace the throat hood and re-install the andirons.
21. To reinstall the probe, pilot (with your hand) a small hole into the combustion package through the hole in the back of the stove with a bit of smaller diameter than the probe. Replace the assembly by inserting it into the hole, hooking it onto the linkage and screwing it back onto the firebox.