

## Technical Data Sheet

### Manchester Model 8361, 8362 Primary Air Control Fix

*Kit number 93-87610*

**INCLUDED IN KIT:**

- (1) 4100-0240 Shoulder Screw
- (1) 4200-0855 Finishing Nut
- (4) 4500-1876 10-24x1/2" Screw
- (2) 4600-0300 1/4" Flat Washer
- (2) 4600-1210 #10 Flat Washer
- (1) 4700-0810 3/16" Spacer
- (2) 5012-066 Bushing
- (1) 5360-020 Roller
- (1) 5361-030 Push Rod
- (1) 5362-024 Primary Air Slider
- (20') 3110-057 3/8" Gasket
- (2) 4500-2132 Screw, 10-24 Allen Head

**TOOLS REQUIRED:**

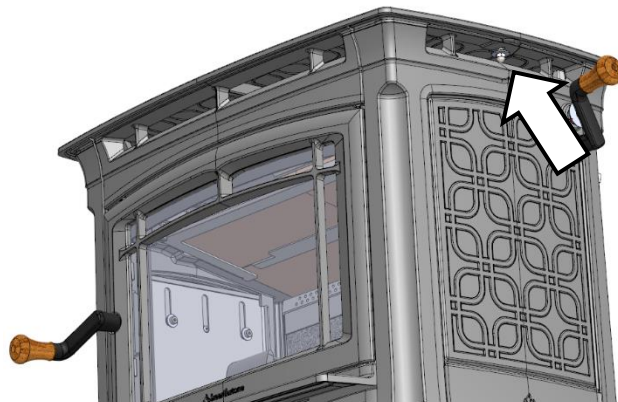
- Phillips Screwdriver
- Short Phillips Driver Bit
- Allen Wrench Set
- 7/16" Wrench
- 3/8" Wrench
- 1/4" Hex Wrench
- Anti-seize
- Rubber Mallet
- Bar Clamp
- Bottle Jack

**Read This Before You Begin:** The failure which results in a seized air control handle is caused by a hole drilled out of tolerance. The replacement Push Rod accounts for this machining variance.

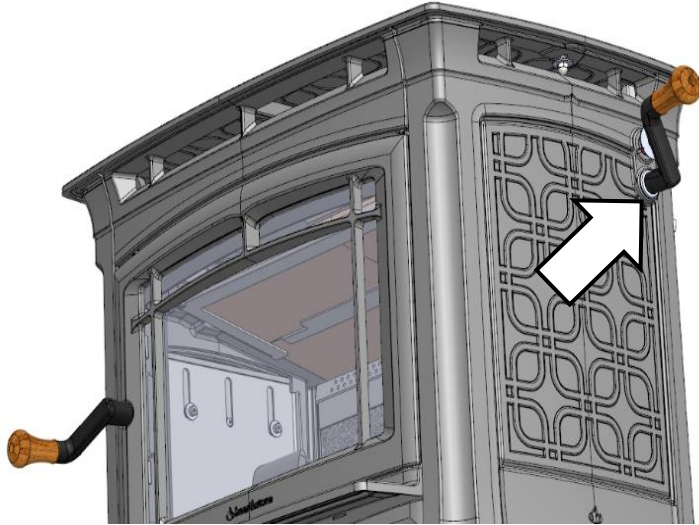
If force has been used to attempt to free the air control handle, the Primary Air Slider could be damaged and need to be replaced as well. A new Primary Air Slider has been provided with this kit if damaged parts are found during the repair. If the Primary Air Slider is not damaged, this portion of the replacement is unnecessary. Follow the procedure through to step 7 to access the internal components and determine if the Primary Air Slider needs replacement as well.

**Procedure:**

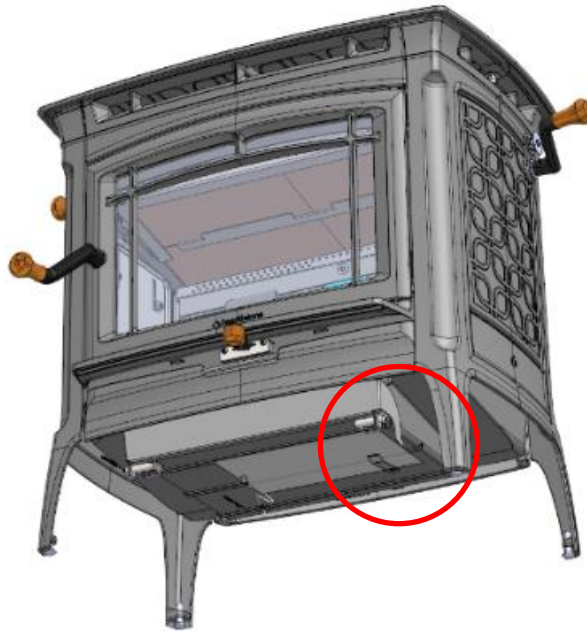
- 1) Remove the stove pipe.
- 2) Locate the two nuts that secure the top casting to the stove. There is one nut on either side of the top. Remove the nuts and washer, save them for reuse. The top can now be lifted off. If enameled, place on a soft cloth or cardboard to protect the enamel.



- 3) Loosen the set screw retaining bypass handle. Spin the bypass handle off of the bypass rod. Remove the catalyst thermometer at this time.

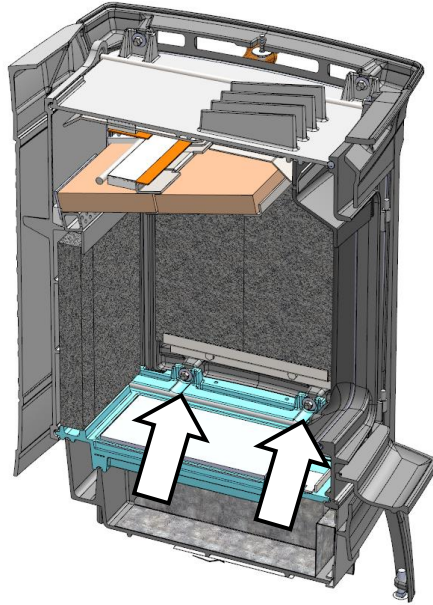


- 4) Position the bottle jack under the flat face below the ash pan on the right-hand half of the stove. Lift the **right side** of the stove slightly using a bottle jack, or cribbed wood. The feet must be off the floor at least  $\frac{1}{2}$ " to remove the side.

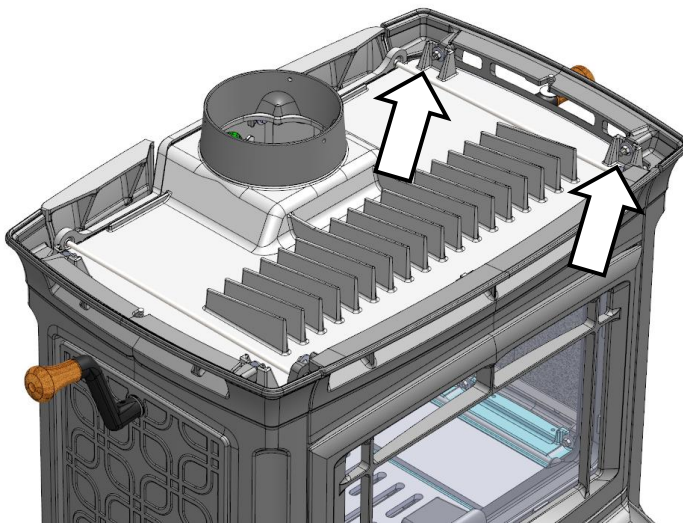


- 5)

- 6) Using a 7/16" wrench, remove the inner **right side** casting retention nuts and washers. Save the hardware for reuse.



- 7) Using a 7/16" wrench, remove the two outer **right side** casting retention nuts and washers. Save the hardware for reuse.

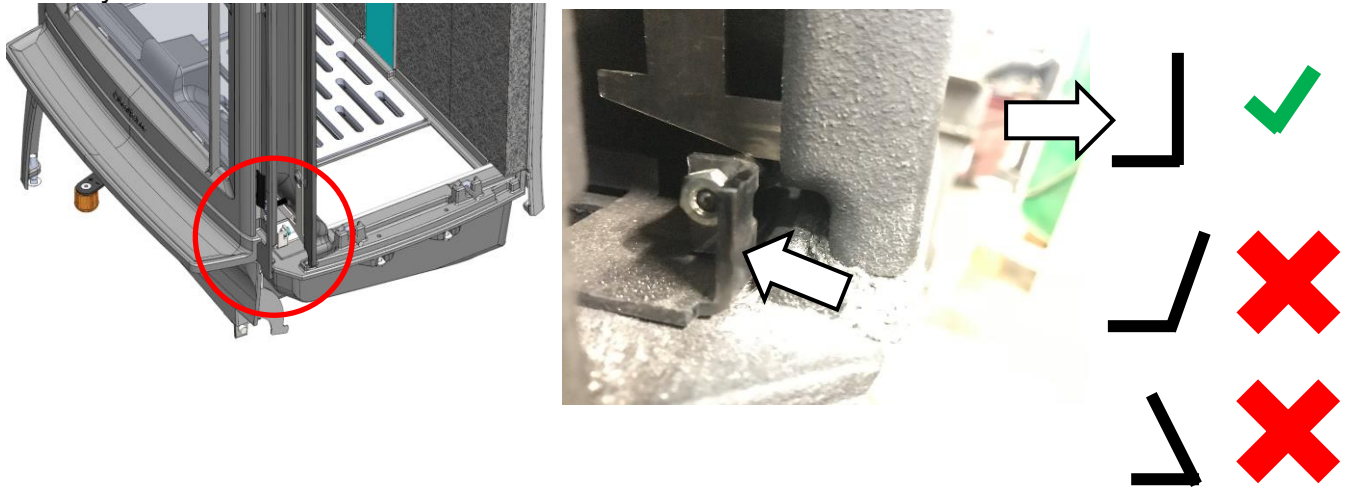




- 8) The side can now be removed from the stove. Gently pull the side away, and set it outside-face down on a non-marring surface. Be careful of the piece of blanket gasket located below the bypass rod, and of the side stones, which are retained, but can fall out if the side is placed firebox side down or if the side is tilted in.

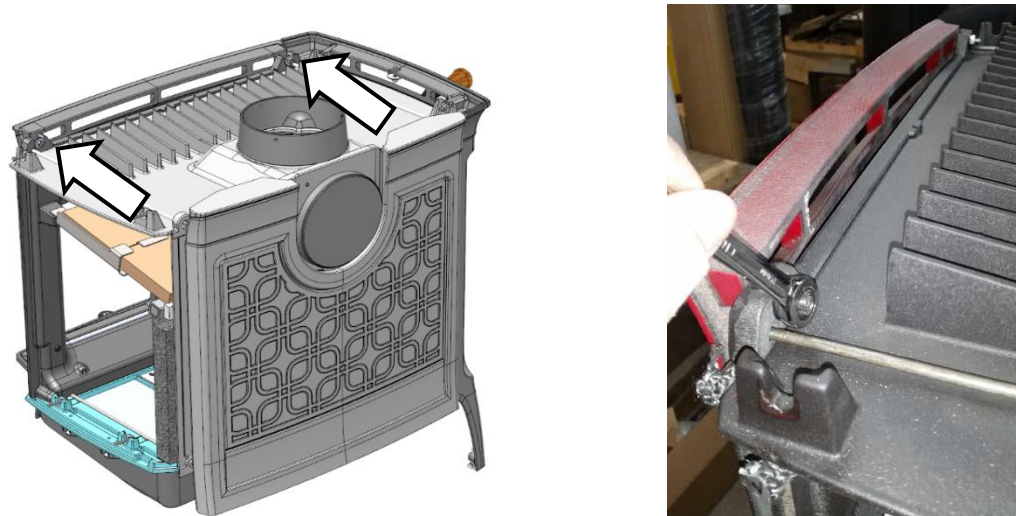
### **Determining if the Primary Air Slider needs to be replaced:**

In the lower right corner of the stove, locate the Primary Air Slider. If the vertical flange which the roller is attached to is **bent in any direction other than vertical, the Primary Air Slider must be replaced.** This is caused by attempting to force a seized Primary Air Control.



***IF THE PRIMARY AIR SLIDER IS DAMAGED PROCEED WITH THE FOLLOWING STEPS FOR REPLACING THE PRIMARY AIR SLIDER, If not damaged, skip this section and proceed to page 9:***

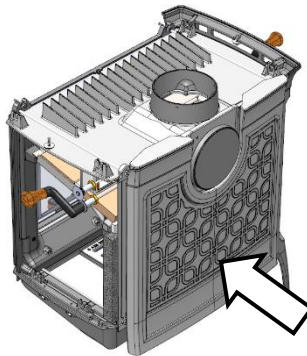
- 1) With a 7/16" wrench, loosen-but do not remove the two nuts that hold the front upper grill to the stove. Lift the grill up and away from its mounting tabs, set the grill on a non-marring surface.



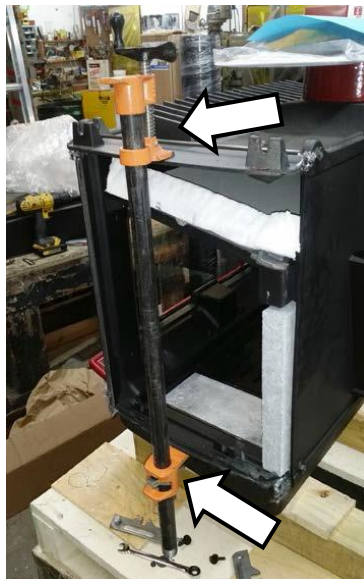
- 2) With a Phillips Screwdriver, remove the two screws holding the ash lip to the fire box. Once removed, set it on a non-marring surface. Save screws for reuse.



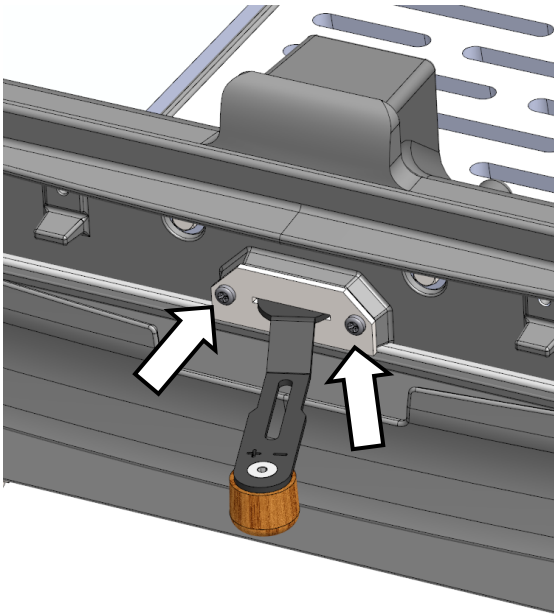
- 3) Lift the rear body panel off the stove. Set aside on a non-marring surface.



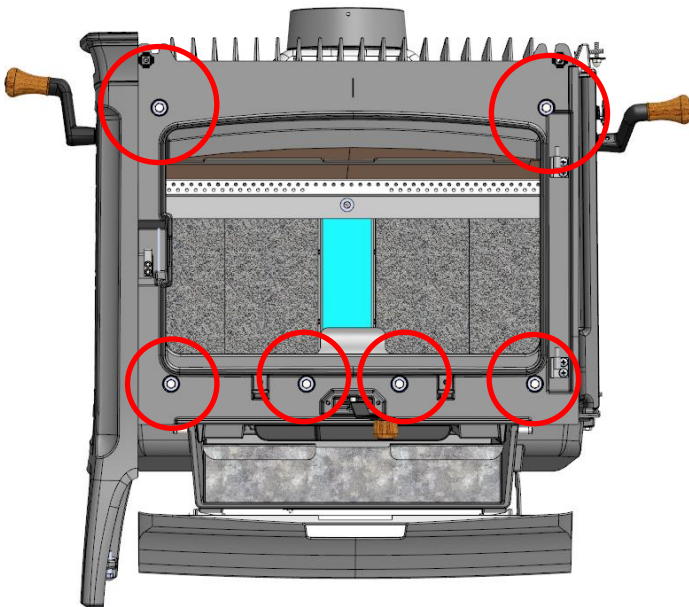
- 4) Place a bar clamp from the bottom casting to the top casting, as shown below. Apply slight pressure on the clamp and remove the hex barrel nuts from the tie rods on the back of the stove. Pull the tie rods out from the front of the stove.



- 5) Remove the front door of the unit by lifting the door from the hinges. Tap the bottom of the door upward with a rubber mallet if necessary. Place the door on a non-marring surface.
- 6) Remove the two screws retaining the Primary Air Control. Let the air control hang loose.



- 7) Open the ash pan door. Remove the six bolts in the front cast face of the stove. Begin from the right side of the front cast face, pull the cast away from the stove. Be careful to not chip the enamel on the left side of the stove.

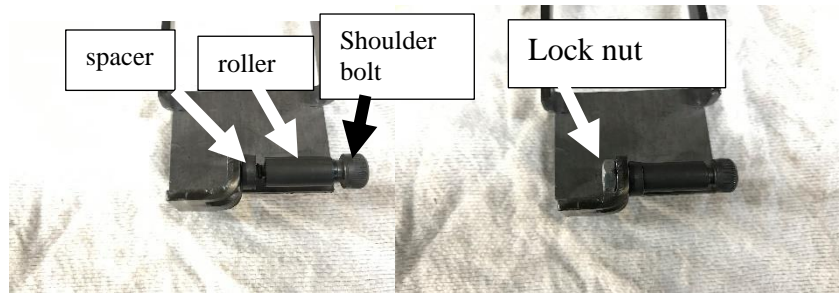




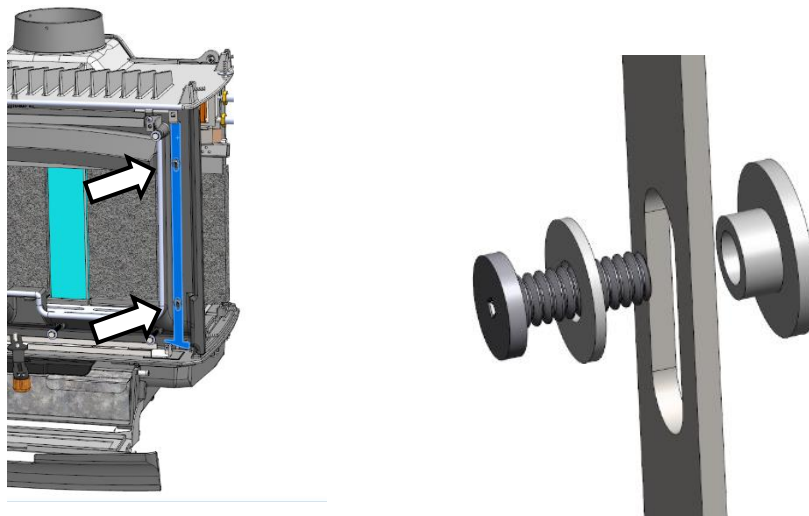
- 8) The mounting screws are now accessible for the Primary Air Shutter. A short screwdriver, or a Philips driver bit in a 1/4" wrench is necessary to remove the screws. Remove the damaged Primary Air Shutter.



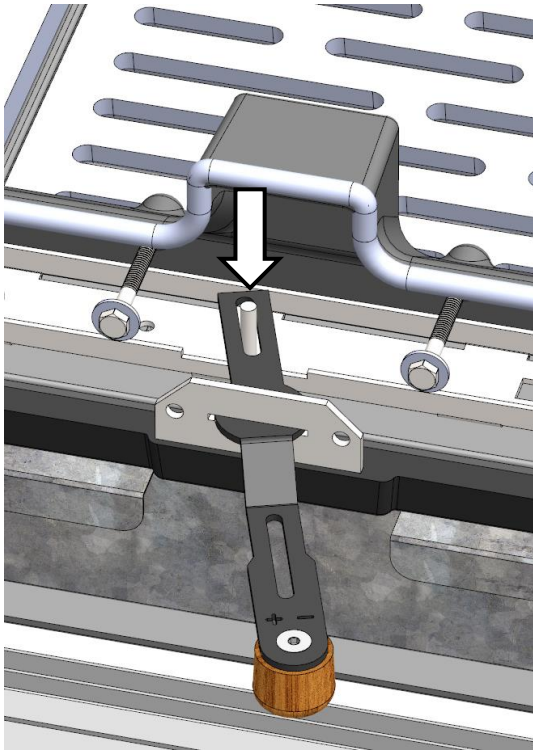
- 9) Install the new Primary Air shutter by reversing the process in step 8. If hardware is damaged during removal, replacement screws and washers are provided in the kit. Apply anti-seize to the back face of the shutter where it contacts the cast iron. The roller portion of the air shutter should be assembled as seen in the picture below. Note: the hex lock nut must be tightened against the back face of the roller mounting face to ensure the roller does not come loose during use.



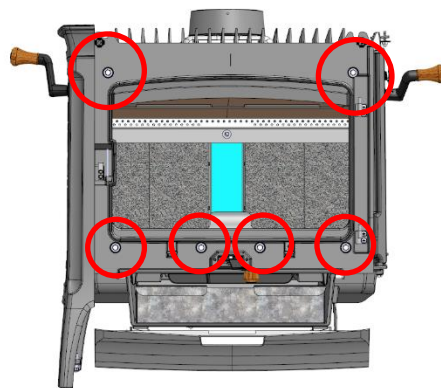
- 10) Remove the push rod from the front casting. Reinstall the new push rod. If hardware is damaged during removal, replacement screws, washers and bushings are provided in the kit.



- 11) This kit comes with gasket to re-gasket any damaged gasket on the front casting and side casting. Remove any damaged gasket and apply new 3/8" gasket before reassembly. See page 10 for gasket layout.
- 12) Reinstall the front casting to the front of the stove reversing step 7. Start by angling the left side of the casting into the left side gasket channel, align the center locating notch. Be sure that the primary air control is properly engaged on the pin on the Primary Air Shutter.



- 13) Reinstall the six bolts securing the front casting to the primary air plenum. The four longer bolts go on the bottom, the two shorter bolts go on the top.



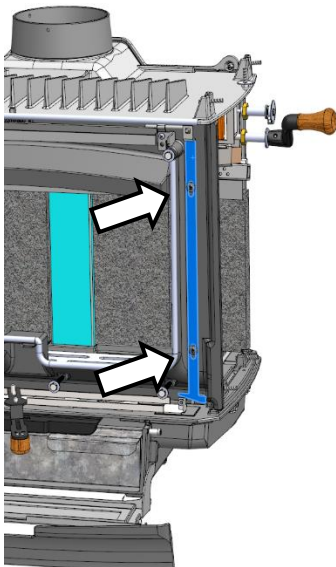


- 14) Reinstall the screws for retaining the air control handle. Replacement screws are provided in the kit if necessary.
- 15) Reinstall the top front-to-back tierods. Tighten the rear hex barrel nuts.
- 16) Reinstall the front door, top cast trim, ash lip, right side of stove, back panel, and top cast iron.
- 17) Reinstall the bypass door rod, catalyst probe, and flue.
- 18) Return stove to service.

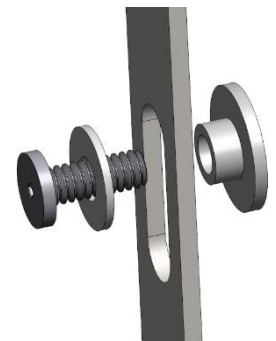
### **If the Primary Air Slider is not damaged:**

If the Primary Air Slider is not bent or damaged, only the push rod needs to be replaced. Follow steps 1-7 from the first section to remove the side of the stove to access the Push Rod.

- 1) With the right side of the stove removed, access the two screws retaining the Push Rod. Remove the Push Rod. A short screwdriver, or a Philips driver bit in a 1/4" wrench is necessary to remove the screws.



- 2) Install the new Push Rod. It is recommended to swap the Philips head screws removed in the previous step with the 10-24 Allen head screws provided in the kit. The Allen head screws are much easier to tighten properly in the confined space. Replacement washers and bushings are also provided should replacement hardware be necessary. See picture for proper assembly order.



- 3) Reinstall the right side of stove. Use the supplied gasket to regasket the right side of the stove if any gasket has been damaged.
- 4) Reinstall the bypass door rod and catalyst probe.
- 5) Lower the stove back on to it's feet, reconnect the flue.
- 6) Reinstall the top cast iron.
- 7) Return stove to service.

## Front Casting Gasket Location

