

# Technical Data Sheet

## Replacement of the Tucson Cast Iron Components *All Tucson Models*

**Date:** 1/2/2003

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**NOTE:** These instructions are in six parts. Some cross-references may be necessary.

**PART I:** Replacement Of The Top Grill And Ash Lip

**PART II:** Replacement Of The Top Casting

**PART III:** Replacement Of The Front Grill

**PART IV:** Replacement Of The Left Or Right Side Panel

**PART V:** Replacement Of The Heat Exchanger

**PART VI:** Replacement Of The Front Door/Glass Retention Frame

### **TOOLS REQUIRED:**

7/16" Wrench  
7/16" Socket & Short Extension  
Phillips Screwdriver  
Vise-Grips  
Bungee Cord

### **OTHER MATERIALS REQUIRED:**

(For Part VI Only)  
5' - 3/8" Rope Gasket  
5' - 3/4" Tape (Glass Gasket)  
Gasket Glue  
Penetrating Oil (WD-40)

### **BEFORE YOU BEGIN:**

Always work on a cool stove. Turn off the gas supply. If the stove is equipped with a blower, disconnect it from the electrical outlet.

### **PART I:** Replacing The Top Grill And The Ash Lip

- 1) These two components will simply lift up and off the stove. The ash lip is removed by lifting the front lip up and pulling the lip away from the stove. The top grill can simply be lifted out of the stove top.

## **PART TWO: Replacing The Top Casting**

- 1) Remove the top stones by reaching in through the back of the stove and pushing the stone up while removing it with your other hand. The top grill can be lifted out of the top. Wrap a bungee cord tightly around the body of the stove.
- 2) With a 7/16" wrench, loosen the two bolts, which attach the top of the stove to the sides and bottom. This will allow you to lift the stone clip/heat shield up and remove it by pulling it through the back of the stove. Carefully remove the side stones through the side of the stove - you will have to lift the top stone up and slide the bottom stone out first.
- 3) Using a 7/16" socket with a short extension, or 7/16" wrench, turn the two 1/4" nuts located in the top casting while holding the threaded rod with a pair of vise-grips. When both nuts have been removed, you can remove the top casting by lifting it straight up off the stove until it clears the threaded rods.
- 4) Place the new top casting onto the stove so that the threaded rods extend through the appropriate holes. Make sure the side cast iron panels are seated in the recessed lip in the top casting. Turn the nuts back onto the top of the rods - do not tighten them down yet.
- 5) Replace the side stones by inserting the top stone through the side of the stove. Hold this stone up so that the bottom stone can be put into place. Lower the top stone onto the bottom stone. Once the stones are correctly positioned, slide the stone clip/heat shield in place between the stones and the threaded rod, with the slotted tabs against the rods. Position each stone clip/heat shield so that they are in the center of the rods. Using the 7/16" socket or wrench while holding the rods with the vise-grips, tighten the nuts down to the top. **CAUTION:** turn the nuts until they are just snug to the top - **overtightening these nuts will break the tab in the bottom casting.** ;
- 6) Carefully set the top stones and top grill back into place on the top casting.

## **PART III: Replacing The Front Grill**

- 1) Remove the top casting as described in Part II. With the top off, the front grill can be lifted up and out of the stove.
- 2) When placing the new grill into the stove, make sure it seats into the slots in each of the side panels. Replace the top as outlined in Part II.

## **PART IV: Replacing The Left Or Right Side Panel**

- 1) To replace a side panel, you will need to remove the stones on the top (see Part II) and on the side that you are working on. To remove the side stone, loosen the nut on the top

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casting with a 7/16" wrench or socket while holding the rod with vise-grips. When the nut is loose, lift the side heat shield/stone clip up and pull it through the back of the stove.

- 2) Remove the two nuts and bolts that hold the side panel to the base of the stove. You will need to reach in through the panel to hold the hex head of the bolts with a 7/16" wrench while turning the lock nut underneath with a 7/16" socket or wrench. Remove the two bolts after the nuts are removed.
- 3) Lift the stove up slightly so that you can pull the panel out of the stove. You can allow the stove to rest on the valve compartment while you discard the original panel.
- 4) Lift the stove up slightly again and place the new panel into position. Line the holes up with the base and insert the bolts. Before replacing the nuts, make sure the top of the side panel fits into the recessed groove in the top casting and that the front grill tab is inserted into the slot in the front edge of the panel. When the panel is properly positioned, tighten the nuts underneath the panel.
- 5) Replace the side stones by inserting the top stone through the side of the stove. Hold the top stone up so that the bottom stone can be positioned. Lower the top stone onto the bottom stone. Slide the side shield/stone clip in place between the stones and the threaded rods. The shield/clip should be centered on the top and bottom stone. Tighten the 1/4" nuts on the top casting. Hold the threaded rod with vise-grips as you turn the nut. **Important:** these are lock nuts, do not over-tighten as this will cause the tab in the base piece to snap off. Just turn the nuts down until they are flush to the top.
- 6) Place the top stones and top grill carefully back onto the top of the stove.

#### **PART V: Replacing The Heat Exchanger**

- 1) Follow the instructions in Part II to remove the top casting.
- 2) Using a phillips screwdriver, remove the back metal shroud extension (Direct Vent models only).
- 3) Using a 7/16" wrench and 7/16" socket, remove the eight nuts from the bolts that retain the heat exchanger. Lift the heat exchanger out of the stove. Be careful not to damage the gasket under the heat exchanger. If the gasket is broken or otherwise damaged it must be replaced.
- 4) Placed the new gasket onto the gasket on top of the firebox and replace the eight bolts and nuts. Tighten them with a 7/16" wrench and socket.

- 5) Refer to Part II to replace the top casting.

## **PART VI: Replacing The Front Door/Glass Retention Frame**

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- 1) Using a phillips screwdriver, remove the screw that holds the front door closed. Open the door and lift it straight up and off the stove. Be careful not to lose the shim washers that fit between the door and the hinge tabs.
- 2) Lay the door face down on a clean, smooth work surface. Care should be taken not to chip or scratch enameled surfaces. Pull out the 3/8" gasket that runs around the glass retention frame. Using a phillips screwdriver, remove all eight bolts that hold the glass retention frame to the front door. If the stove has been used, apply WD-40 or another penetrating oil to the screw heads before removing. Note for reassembly, the two shorter screws go into the top of the glass retention frame (under the 3/8" rope gasket).
- 3) Lift the ceramic glass pane out of the door. Inspect the 3/4" tape gasket around the edge of the glass, replace if loose or frayed.
- 4) Discard the damaged door or retention frame. Place the gasketed ceramic glass onto the new door. Fit it into the recessed area designed to accept the glass. Place the retention frame on top of the ceramic glass with the recessed groove in the top of the door facing out. Place the eight screws back into the glass retention frame and tighten them with a phillips screwdriver. Apply a 1/16" layer of gasket glue into the recessed area in the top of the retention frame and around the other three sides. Do not apply an excessive amount as it will harden the gasket or run onto the glass. Push the new section of 3/8" rope gasket around the glass retention frame. Do not bunch or stretch the gasket. **HINT:** The use of a self-adhesive gasket does not eliminate the need for gasket glue. We still recommend using a small amount of gasket glue to cement the gasket to the door.
- 5) Return the door to the stove. Make sure the shim washers are in place between the door and frame hinges. Close the door and retain it by tightening the Phillips screw.