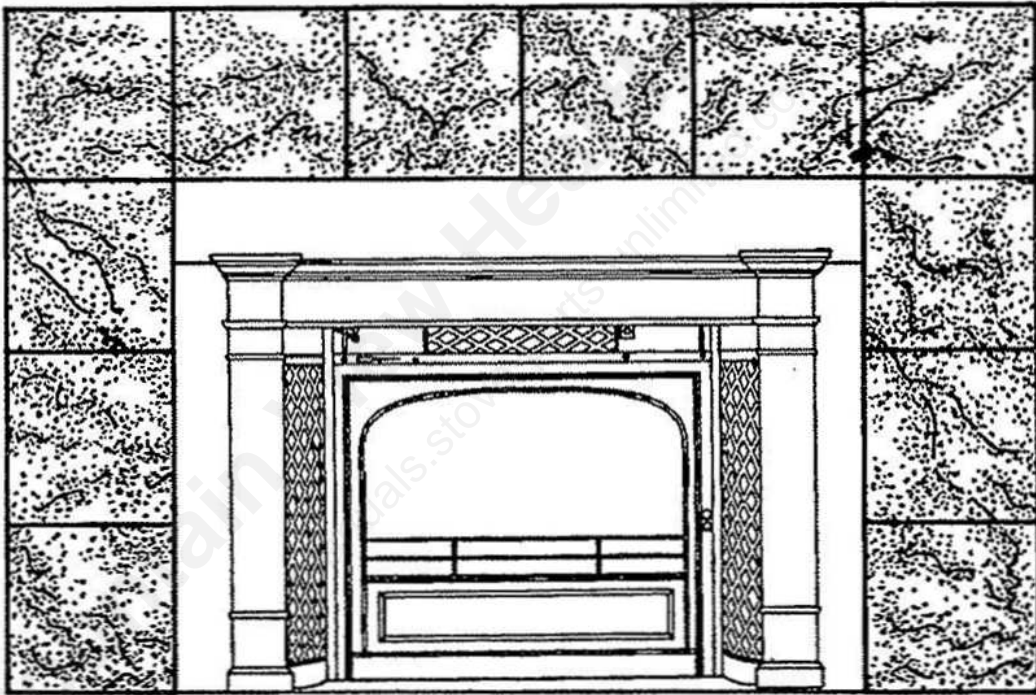


# Large Winter Warm

## Service Manual



VERMONT  
CASTINGS | GROUP

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# Changes to WinterWarm I and WinterWarm II

On the WinterWarm I (1280 WinterWarm I), the upper grill is solid, and the tops of the inner trim pieces are solid. The fan heat shields are made of sheet metal.

On the WinterWarm II (1280 WinterWarm II or 2100), the upper grill is slotted, and the tops of the inner trim pieces are open. The fan heat shields are made of cast-iron.

## WinterWarm I Changes: 3/89 – 2/90

### Door Hinge

In March, 1989, the door hinge was re-designed to add strength and to eliminate interference between the hinge halves.

*Door Hinge Half-Upper*

Old part no: 1604278

New part no: 1604280

*Body Hinge Half-Upper*

Old part no: 1604279

New part no: 1604281

### End Caps

In April, 1989, a change in the method of attaching the front columns and side lattice columns created dedicated left and right front columns, and dedicated left and right side lattice columns. Previously the left and right front columns and the left and right side lattice columns had been interchangeable.

*Side Lattice Columns--Trim, Outer, Cast*

Old part no: 13012862

New part no: 1301303

*Front Columns, Cast*

Old part no: 1301287

New part no: 1301300

During this change, ribs were added to the backs of the columns to accept the front edge of the air divider. The four "L" brackets (Hanger, Divider, 16 gauge –Part no: 1604510) were eliminated.

In September, 1989, a second change re-created interchangeable left and right side lattice columns, and left and right front columns. However, service claims for replacement of either side lattice columns or front columns will require both side lattice column and front column for proper fit.

A metal tab (Part no: 1601488) is used to hold the bottom of the column in place. The top of the column is held in place by the end caps at the ends of the mantel. The four retaining tabs (Plate, Outer Trim Retaining – Part no: 1604515) were eliminated.

### Ventilated Plinth

In May, 1989, the method of assembling the plinth was changed to simplify assembly. The new and old systems are not compatible without substitution of the correct hardware package.

*Top Mantel*

Mantel, Cast – Part no: 130-1278

In February, 1990, the rib on the underside of the mantel was lengthened to prevent warpage during enameling. The new and old parts are interchangeable.

## **WinterWarm II: 2/91 – 2008 (product discontinued)**

The WinterWarm II, which was introduced during the winter of 1990-91, incorporated several from the WinterWarm I.

### **Noise Reduction**

The speed of the fan was changed from 130 CFM to 107 CFM. The fans mount on the new, cast-iron fan heat shields instead of the sheet metal bottom shroud. The electric cover plate was no longer needed due to simplified wiring requirements, and was eliminated.

### **Increased Air Flow**

The re-designed fan heat shield prevented re-circulation of unheated air back into the room. Openings in the upper grill and the tops of the inner trim pieces allowed unrestricted flow of heated air. The net result of the changes was a better flow of heated air, and less noise.

### **Electrical System**

The fans were installed at the factory. The snap-stat and associated wiring was eliminated. On-site electrical assembly was changed so installation consists only of plugging in four “user-friendly” connectors.

# Disassembly

The first step in the disassembly of the *WinterWarm* is to remove the front, of which there are two types: the **Versatile Front** and the **Traditional Front**. An illustration of the Versatile Front and the directions for removing it are below on this page. An illustration of the Traditional Front and the directions for removing are found in the right-hand column on page 4. Exploded views of the front are included for reference.

## Remove the Versatile Front

Clear space for the parts that will accumulate as you remove the front from the firebox.

**Tools needed:** Pliers; 7/16" socket wrench with a 12" extension.  
Have the exploded view of the **Versatile Front** available for reference.

### 1. Lift and remove the Center Mantel.

There are no screws. The mantel is held in place by its own weight.

### 2. Lift and remove the Left and Right Sides.

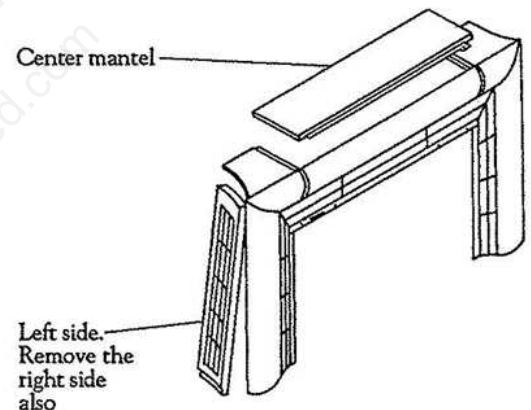
Again, there are no screws. Lift the side, pull the bottom away from the unit, and lower the side so that its top is clear of the mantel.

### 3. Disconnect the Flex Connector.

If a flex connector is attached to the collar, disconnect it. Reach in through the flue collar, straighten the retaining tabs at the bottom of the connector, and push the connector up and clear of the collar.

### 4. Pull the Firebox Forward

It will be necessary to move the firebox a few inches out from the cabinet.



*Remove the center mantel, left and right sides*

**\*\*CAUTION:** Be careful that the firebox does not tilt forward off the hearth or plinth.\*\*

Pull the firebox a few inches out from the cabinet.

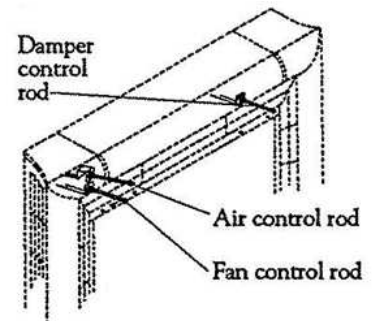
### 5. Remove the Surround Panels.

### 6. Remove the Air Dividers.

Remove the screws holding the air dividers in place and remove the dividers.

### 7. Remove the Air Control and Fan Control Rods.

These are 1/4" rods located at the top, left of the firebox. Loosen the nuts holding the rods in place, and unscrew the rods. The rod on the top, right will be removed later.



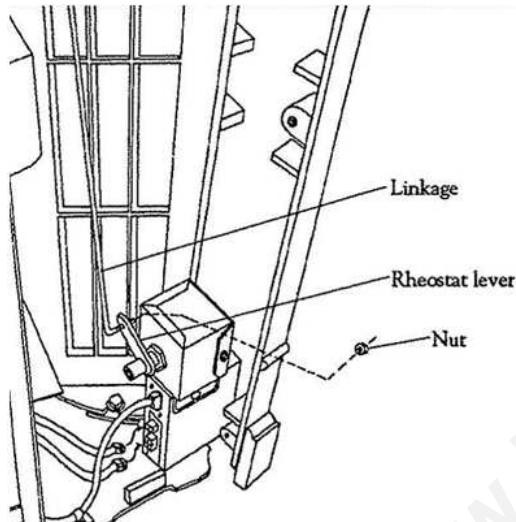
*Remove the rods on the left side*

### 8. Disconnect the Plugs from the Faces.

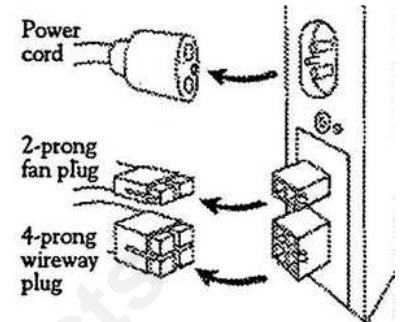
Disconnect the plugs for the face fans and the wireway cable from the junction boxes on the left and right faces. Disconnect the power cord from the junction box on the left face.

### 9. Disconnect the Rheostat Linkage from the Rheostat Lever.

Tilt the linkage to the outside, away from the firebox, and remove the nut. Pull the linkage from the thermostat lever. Thread the nut back on the rod.



*Tilt the linkage to the outside. Remove the nut. Pull the linkage from the lever.*



*Remove plugs from the inside of the left face*

### 10. Remove the Front from the Firebox.

Two people are needed to handle the front. Loosen the six bolts, two on top and two on each side, which hold the front to the firebox. Pull the right side of the front a few inches from the firebox. It will be necessary to move the front a short distance to the left so the edge of the left grill is clear of the load door hinges.

### 11. Remove the Damper Control Rod.

It is the 3/8" offset rod located at the top, right of the firebox. Remove the 3/8" nut holding the rod in position, unscrew the rod, and screw the nut back onto the rod.

## Remove the Traditional Front

Clear a space for storing the parts that will accumulate as you remove the front from the firebox.

Tools needed: Pliers; 7/16" socket wrench with a 12" extension.

Have the exploded view of the **Traditional Front** available for reference.

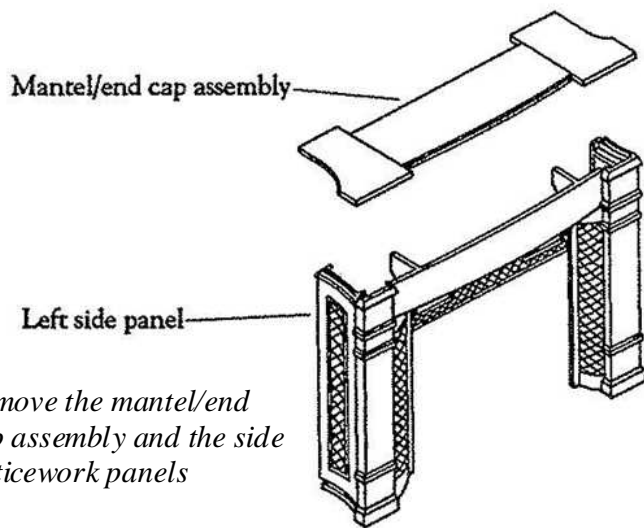
### 1. Remove the Mantel and Side Latticework Panels.

The tops of the side latticework panels are held in place by the end caps at the ends of the mantel. To prevent the panels from falling when the mantel is removed, temporarily tape the panel tops to the columns.

Lift the combined mantel/end caps assembly from the front.

Remove the tape holding the tops of the panels to the columns and lift the panels from the front.

*See figure in next page.*



Remove the mantel/end cap assembly and the side latticework panels

**4. Remove the Air Dividers.**

**5. Remove the Air Control and Fan Control Rods.**

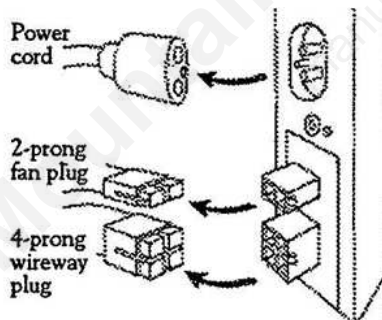
These are 1/4" rods located at the top, left of the firebox. Loosen the nuts holding the rods in place, and unscrew the rods.

**6. Remove the Damper Control Rod.**

It is the 3/8" rod located at the top, right of the firebox. Remove the 3/8" nut holding the rod in position, unscrew the rod, and screw the nut back on the rod.

**7. Disconnect the Plugs from the Faces.**

Disconnect the face fan plugs and the wireway cable from the junction boxes on the left and right columns. Disconnect the power cord from the junction box on the left column. Plugs may be a different design depending on the age of the insert.



Remove plugs from the inside of the left face

**8. Remove the Rheostat Rod Linkage.**

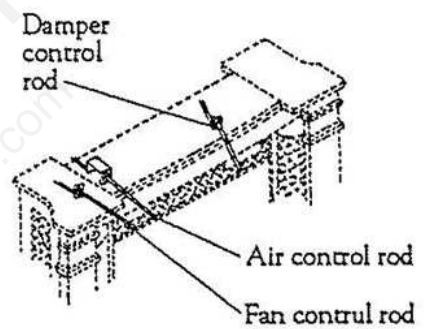
Tilt the rheostat lever to the outside, remove the nut from the end of the rod, and pull the rod from the lever. Screw the nut back on the rod.

**2. Disconnect the Flex Connector**  
If a flex connector is attached to the collar, disconnect it. Reach in through the flue collar, straighten the retaining tabs at the bottom of the connector, and push the connector up and clear of the collar.

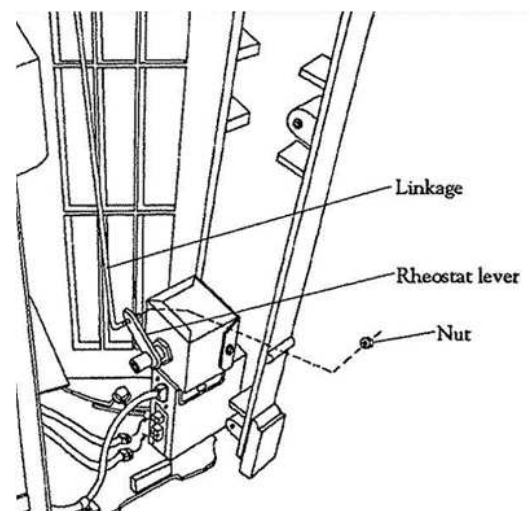
**3. Pull the Firebox Forward.**  
It will be necessary to move the firebox a few inches out from the cabinet.

**\*\*CAUTION:** Be careful that the firebox does not tilt forward off the hearth or plinth.\*\*

Pull the firebox a few inches out from the cabinet.



Remove control rods from the firebox



Tilt the linkage to the outside. Remove the nut. Pull the linkage from the lever.

## 9. Remove the Front from the Firebox.

Two people are needed to handle the front. Loosen the six bolts, two on the top and two on each side, which attach the front to the firebox. Pull the right side of the front a few inches out from the firebox. Before pulling the left side away from the firebox, it will be necessary to slide the front a short distance to the left so the edge of the left grill clears the load door hinges.

**\*\*CAUTION:** Don't let the edge of the right grill contact the brass door trim or handle as you slide the front to the left.\*\*

Slide the front to the left far enough so the edge of the left grill is level with the load door hinges. Pull the left side of the front a few inches out from the firebox. Store the front in a safe location.

## Disassemble the Firebox

These directions will explain how to separate the main pieces of the firebox from each other--damper, firebacks, sides, top, etc. Some sub-assemblies such as the primary air box, damper lever assembly, etc., will remain in place on the top or sides. The Assembly Section of the manual explains how these sub-assemblies go together. It isn't necessary to remove all the wire links and rods completely in order to get the main pieces apart, but it will be necessary to disconnect one end of some wire links. Some sections are slightly different depending on the age of the insert (WinterWarm I made 1988-1990 or WinterWarm II made 1991 to 2009).

Tools needed include: 9 mm, 5/16", and 7/16" socket wrenches; straight and Phillips head screwdrivers; pliers; vise-grip pliers; dead blow hammer. The dead blow hammer will be needed to dislodge parts where joints have been sealed with furnace cement. Have an exploded view of the **firebox** available for reference. It is attached later on in the manual.

### 1. Remove the Load Door, Grate Bar, Ash Grate, Ash Pan and Ash Door.

### 2. Remove the Sheet Metal Shroud.

The back/side (#120) and top sheet metal shroud (#117) panels, and the sheet metal flue connector plate (#118) will be removed in one piece. Remove the 10 - 16 x 1/2" hex head Tek screws along the sides and back of the bottom of the shroud. Remove the two 1/4 - 20 x 1/2" hex head cap screws which hold the flue connector plate to the flue collar. Lift the shroud off in one piece.

### 3. Remove the Flue Collar.

Remove the four 1/4 - 20 x 3/4" hex head cap screws which hold the flue collar (#58) to the top of the firebox, and remove the flue collar.

### 4. Disconnect Wire Links.

It will be necessary to disconnect some wire links in order to take the top off, as well as to separate the sides and back. To keep track of the nuts that are removed, screw them back in place after disconnecting the links.

On the left side: Unscrew the hex nut that connects the left end of the upper rheostat wire link (#128) to the top of the front bell crank (#32). Disconnect the wire link from the bell crank, and replace the nut. Unscrew the hex nut that holds the left end of the upper thermostat wire link (#41) to the top of the rear bell crank. Disconnect the wire link from the bell crank, and replace the nut.

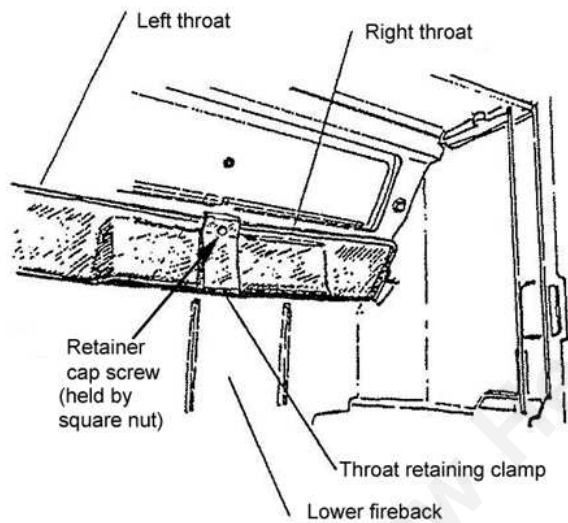
On the right side: Unscrew the hex nut that holds the right end of the wireform door/damper Interlock control (#16) to the door/damper Interlock (#15). Disconnect the wireform from the interlock, replace the nut.

### 5. Disengage the Damper.

Move the damper actuator lever (#84) all the way to the left so that the damper is all the way open--it will be angled toward the back of the stove. Reach in through the top of the flue collar and pull the damper forward so that it is disengaged from the damper actuator lever.

### 6. Remove the Throat Pieces and the Lower Fireback.

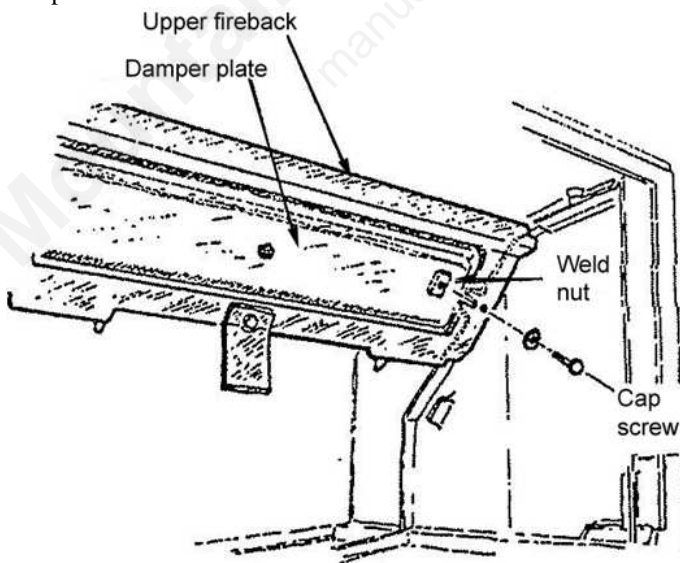
The lower fireback may fall forward when you remove the throat pieces. Hold it in place as you remove the throat pieces. Tap the throat pieces up on either end where they are captured by the side tabs and pull the end forward. You may need to loosen the  $\frac{1}{4}$  - 20 x  $1\frac{1}{4}$ " hex head screw that holds the throat retaining clamp (#69) in place. To remove the lower fireback, pull its top forward and lift out of the firebox.



*Remove the throat clamps and the lower fireback. Loosen the throat clamp if necessary*

### 7. Remove the Upper Fireback and the Damper.

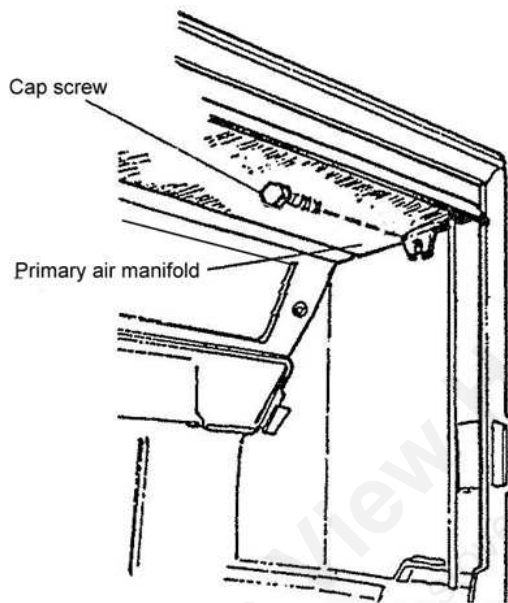
The upper fireback (#63) and the damper plate (#71) can be removed in one piece. Unscrew the two  $\frac{1}{4}$  - 20 x  $1\frac{1}{2}$ " hex head cap screws on the left and right sides of the upper fireback. Lift the upper fireback and damper out of the stove.



*Remove the cap screws on either side of the upper fireback. Lift the upper fireback and damper from the firebox.*

### 8. Remove the Primary Air Manifold

Remove the ¼ - 20 x ¾" hex head cap screw from the right end of the primary air manifold (#86). Lower the right end of the manifold and remove the manifold from the firebox.



*Remove the cap on the right side of the primary air manifold. Lower the right end of the manifold and drop it out.*

### 9. Separate the Sides, Back and Top.

When the tie rods are removed, the back and sides may separate from each other. Tie a rope around the insert, inside the tie rods, before removing the tie rods. Remove the four tie rods. Dislodge the top, and lift it off the firebox. Dislodge the two sides. Hold the back and one side in place, and remove the other side. Separate the back and the other side.

### 10. Remove the Bottom Shroud.

To remove the sheet metal bottom shroud (#123) from the bottom, turn the bottom upside down, remove the four ¼ - 20 x ½" Phillips flat head machine screws that secure the bottom shroud to the bottom, and remove the shroud.

# Assembly

## Assembly of the WinterWarm

To meet a variety of needs, instructions will be given for the assembly of the main parts of the firebox, the top, sides, back and bottom, and also for sub-assemblies such as the primary air box and the secondary air system. If you are re-building an insert, some sub-assemblies may be in place already and these instructions may be skipped. Instructions are given as you face the firebox.

### Gasketing

New parts may need to be gasketed and old parts re-gasketed. The parts which need gasketing are:

- Bottom
- Left Side (inner side and outside)
- Lower Fireback
- Upper Fireback (front and back)
- Air Manifold
- Top (top and bottom)
- Load Door

Do the gasketing before starting to assemble the firebox. See the Gasketing Section of the **Service Manual** for instructions on removing old gaskets and installing new gaskets.

### Cementing

The parts that must be cemented before they are put in place are:

- Bottom
- Left Side (inner side and outside)
- Right Side
- Top
- Primary Air Box

A two part procedure should be followed: Prepare the parts for cementing before starting to assemble the firebox. Cement the parts just before putting them in place. See the Cementing Section for instructions on removing old cement and putting in new cement.

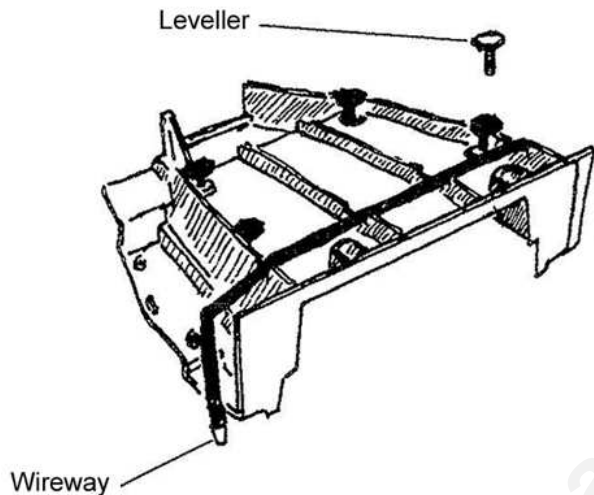
Have the exploded view of the firebox available for reference. It is attached later on in this service manual.

Tools needed include: 9 mm, 5/16", and 7/16" sockets; slotted (straight) and Phillips head screwdrivers; pliers; vise-grip pliers; dead blow hammer.

## Assembly Instructions

### 1. Insert Leg Levelers in the Bottom.

Turn the firebox bottom (#1) upside down with the front edge of the bottom facing you. Insert the four 3/8" - 16 x 2" hex head bolts in the bottom with the large hex head facing out.



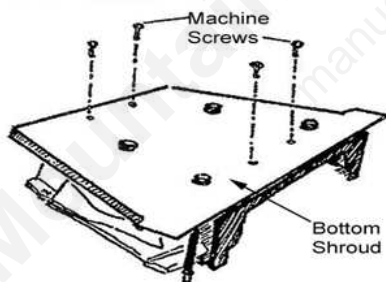
*Install the four levelers and the wireway harness.*

### 2. Install the Wireway.

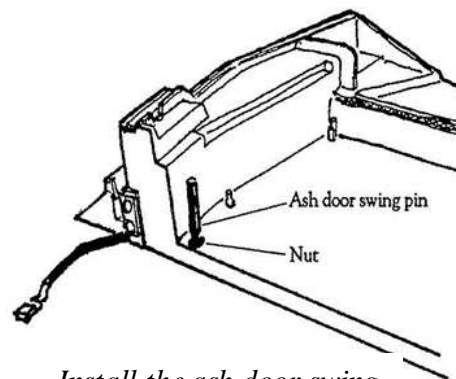
Place the wireway (#125) in the notches that are at the front of the ribs in the stove bottom.

### 3. Install the Bottom Shroud Panel.

Place the sheet metal bottom shroud panel (#123) on the bottom with the edge flanges toward the top of the stove (flanges facing down). Attach the shroud with four 1/4" - 20 x 5/8" Phillips flat head machine screws.



*Attach the bottom shroud*



*Install the ash door swing*

### 4. Turn the bottom right side up.

### 5. Install the Ash Door Swing Pin.

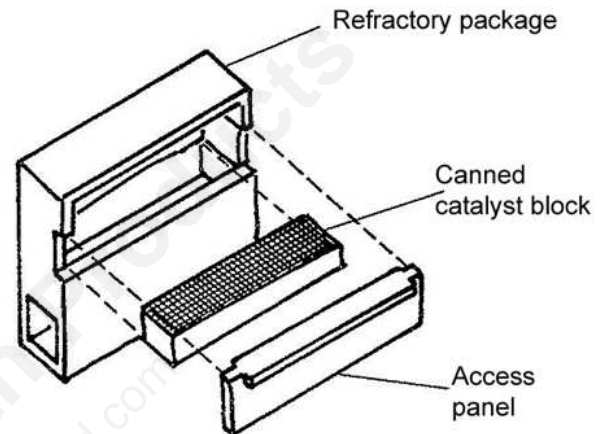
Thread a 3/8" hex nut onto the 3/8" ash door swing pin (#111) until it is 1/4" - 3/8" from the end of the pin. Thread the pin into the left front of the bottom up to the 3/8" nut. Tighten the nut.

## 6. Assemble the Sides and Back.

Cement the grooves in the bottom as shown in Figure C-1 in the Cementing Section. Cement the grooves in the inner side of the left side (#11) and the right side (#14) as shown in Figure C-2 and C-3. As the sides and back are put in position it will be necessary to use a temporary brace to hold them in position while the rest of the firebox is being assembled. Place the lower fireback (#62) in its groove in the bottom. Place the left and right sides in the grooves in the bottom, move the sides inward so that the edges of the back fit in the grooves in the left and right sides. Brace the sides and back in position.

## 7. Assemble the Combustion Package.

If the refractory package and/or refractory catalyst block access panel (#60) are being replaced, it may be necessary to cut and fit the access panel. Use the serrated edge of a kitchen knife to rim the panel for a tight fit. Insert the canned catalyst block (#61), with the honeycomb vertical, into the opening in the front of the refractory package. Be sure the canned catalyst slides all the way into its recess in the back of the refractory package. Place the access panel against the canned catalyst block with the lip on top of the panel projecting outward. Push the panel in gently so the right and left edges of the panel are flush with the edges of the refractory package. Tape the access panel in place with 1" masking tape.



*Install catalyst block and the access panel*

## 8. Install the Combustion Package.

The back of the combustion package will be against the inside of the back plate, and the bottom of the combustion package will be resting between the ribs at the back of the bottom plate. Put a small amount of furnace cement on each corner of the bottom of the combustion package. Put the combustion package in place.

## 9. Install the top Plate.

Cement the underside of the top plate (#51) as shown in Figure C-4 of the Cementing Section. Place the top plate in position. The upper edges of the sides and back must be seated in the cemented channels in the underside of the top plate. The top will be seated in two steps. Use the dead blow hammer to seat the top plate at this point. The top will be seated again after the tie rods have been installed.

## 10. Install the Tie Rods.

Thread a ¼ - 20 hex nut about 1" on each tie rod (#57). Slide a ¼" flat washer as far as the nut on each rod. Install the tie rods from the top down. Place a ¼" flat washer on the bottom of each tie rod and thread a ¼ - 20 hex nut onto each rod until the bottom of the rod is even with the bottom of the nut.

## 11. Tighten the Tie Rods.

The nuts on the tie rods will be tightened in two steps. Hold the center of the tie rods with your locking pliers to hold the rods from turning as you tighten the top nuts. Tighten the top nuts until they are fairly tight. Use the dead blow hammer to make sure the sides and top are completely seated in their cemented channels. Re-tighten the top nuts.

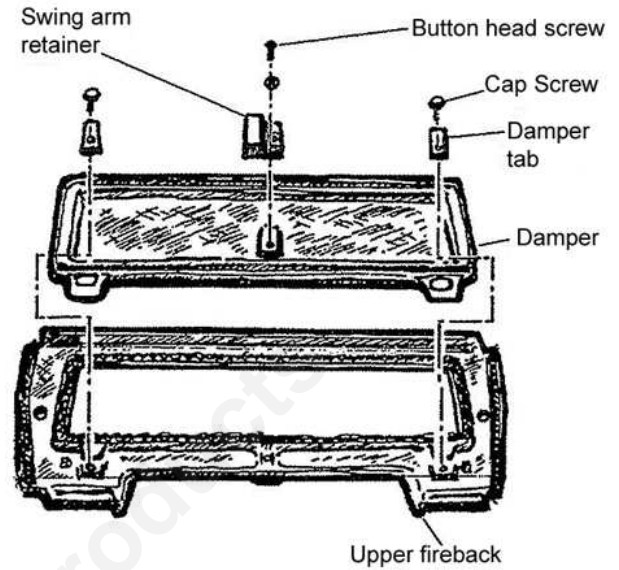
## 12. Remove any Excess From the Tops of the Front Tie Rods.

Tighten your locking pliers on the rod with the nose of the pliers against the top nut. The excess rod should stick up from the pliers. Rock the pliers back and forth until the excess rod breaks off. Smooth the end of the rod with a file.

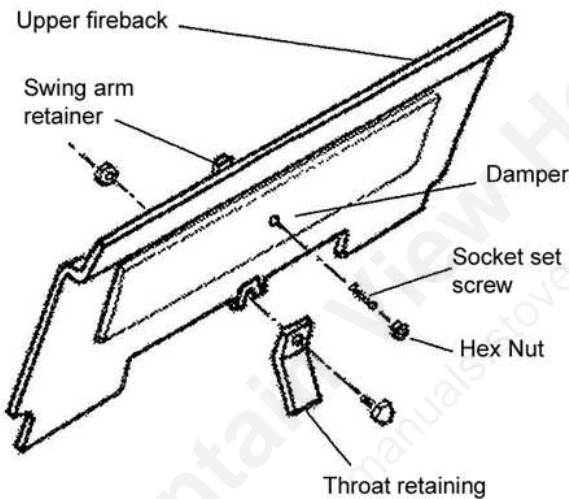
**13. Assemble the Upper Fireback and Damper.**  
Place the upper fireback (#63) on a flat surface with the gasketed side up. Put the damper (#71) in place. Secure the damper with two retaining tabs (#34) and  $\frac{1}{4}$  - 20 x  $\frac{1}{2}$ " hex head cap screws. Attach the damper swing arm retainer (#79) using a  $\frac{1}{4}$  - 20 x  $\frac{3}{4}$ " socket button head cap screw and narrow  $\frac{1}{4}$ " washer. Use a  $\frac{1}{8}$ " Allen wrench to tighten the screw.

**14. Turn the assembly over.**

**15. Install the Throat Clamp.**  
Place the throat retaining clamp (#69) in position on the upper fireback with the short, drilled part against the fireback and the long part angled down from the upper fireback. Attach it loosely with a  $\frac{1}{4}$  - 20 x 1 -  $\frac{1}{4}$ " hex head cap screw and a  $\frac{1}{4}$  - 20 nut on the inside of the damper. The screw will be tightened after the throat pieces are installed.



*Secure damper to the upper fireback. Attach the swing arm retainer to the damper.*



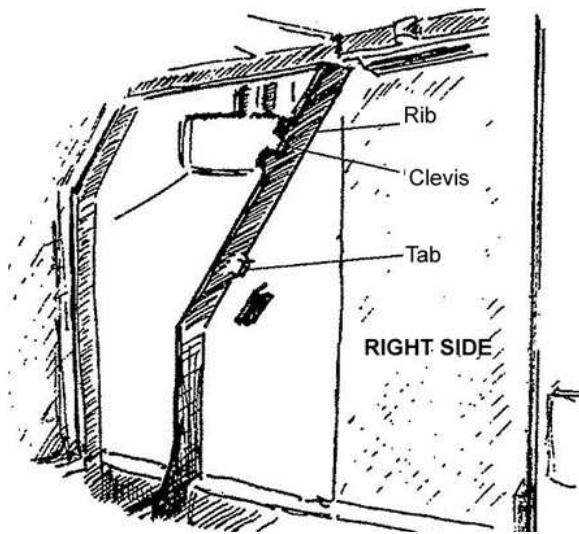
*Secure damper to the upper fireback. Attach the swing arm retainer to the damper.*

**16. Install the Damper Adjusting Screw.**  
A 1 -  $\frac{1}{4}$ "  $\frac{1}{4}$ -20 socket set screw is used to make adjustments on the damper. Thread a  $\frac{1}{4}$ -20 nut a short way onto a  $\frac{1}{4}$ -20 x 1 -  $\frac{1}{4}$ " socket set screw. Thread the socket set screw into the hole drilled in the center of the damper until it contacts the swing arm retainer. Tighten the nut against the damper.

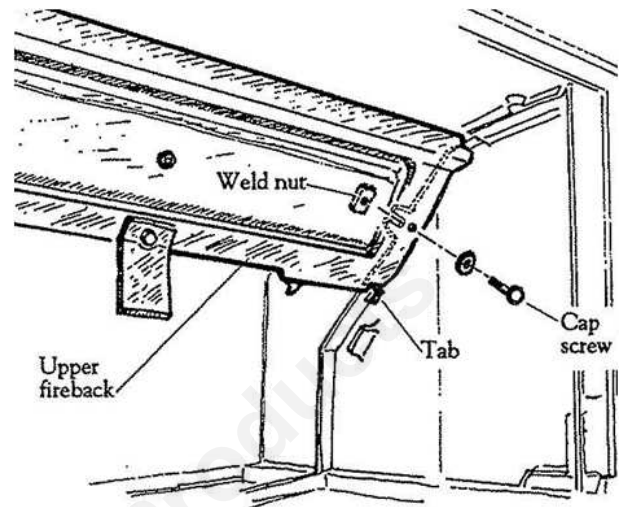
**17. Install the Upper Fireback/Damper Assembly.**

The bottom of the upper fireback/damper assembly will rest against ribs on the inner sides of the left and right sides and on tabs on the ribs. The gasketed ends of the fireback will be toward the back of the firebox, and the throat clamp to the front.

The assembly is held to the ribs by  $\frac{1}{4}$ -20 x 1 -  $\frac{1}{2}$ " hex head cap screws and  $\frac{1}{4}$ -20 weld nuts. Insert a cap screw through the hole in one end of the upper fireback and thread a weld nut a short way onto the screw. Lift the end into place and slide the weld nut over the clevis (slotted tab) on the rib. Lift the other end into place, and attach it with the screw and weld nut. Gradually tighten the screw, first on one side and then on the other side. Be sure the fireback is above the tabs on the ribs. *See illustrations on the next page.*



*Press the assembly up against the ribs and locate it with the tabs.*



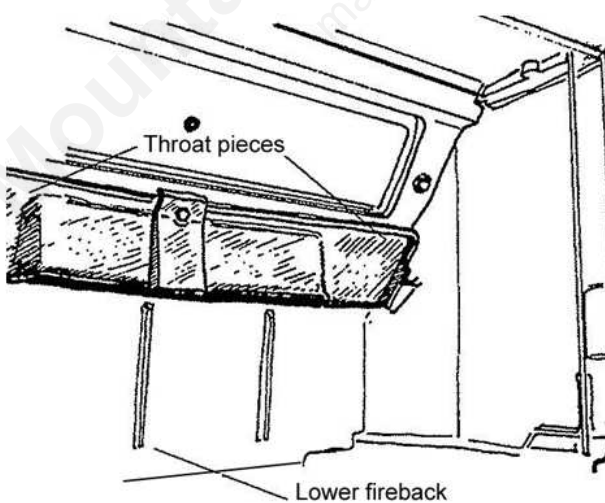
*Attach the upper fireback assembly*

**18. Install the Lower Firebacks and Left and Right Throat Pieces.**

The gasketed edges of the lower fireback (#62) will face the back of the firebox. Put the lower fireback in the firebox with the fireback's bottom edge seated in the gasketed channel in the bottom plate. Swing the top of the lower fireback upward until it meets the bottom edge of the upper fireback and hold it in place while you put in the throat pieces (#67 and #68).

Left Throat: With the left end of the throat higher than the right end, slide the right end behind the throat clamp. The slot in the right end of the throat should fit over the boss on the upper fireback. Use the dead blow hammer to tap down the left end of the throat. The throat should be parallel to the bottom of the stove.

Right Throat: With the right end of the throat higher than the left, slide the throat behind the throat clamp. The slot in the left end of the throat should fit over the boss on the upper fireback. Use the dead blow hammer to tap down the right end of the throat. The throat should be parallel to the bottom of the stove. Gradually tighten the bolt while holding the throat clamp in place.



*Install the lower fireback and throat pieces*

### 19. Assemble the Decorative Ash Door.

Place the ash door (#115) face down. Place the door clamp (#114) on the door with the opening for the door pin against the door. Hold the clamp in place with two ¼-20 x ½" hex head cap screws and washers. Center the long edge of the Ash Pan Bracket (#110) on the bosses on the inside of the door. On the boss on the end away from the clamp, place a ¼" washer between the boss on the inside of the door and the bracket. Attach the bracket to the door with two ¼-20 x ½" hex head cap screws and ¼" washers.

### 20. Place the Ash Door on the Ash Door Swing Pin.

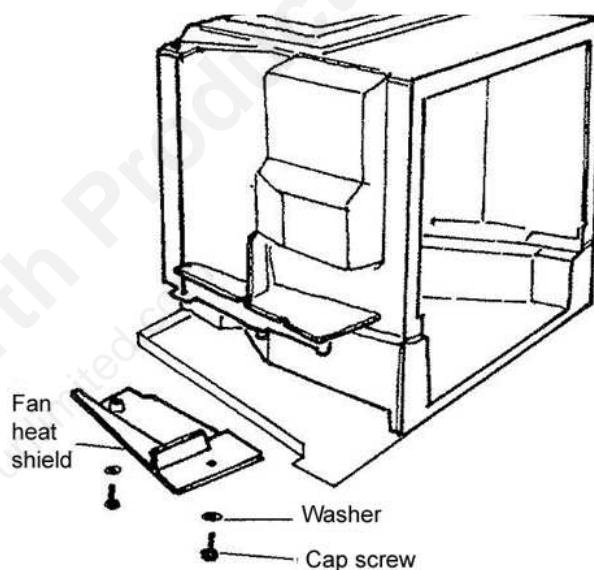
Place the ash pan (#108) in the bracket. Place the ash grate (#9) in the bottom of the firebox. Place the fuel retainer with the left end higher than the right, put the right end in place and then lower the left end.

### 21. Install the Left and Right Fan Heat Shields.

The left right cast iron Fan Heat Shields (#5 and #6) attach to the underside of the flanges on the outside of the left and right sides. Attach each shield with two ¼-20 x ¾" hex head cap screws and washers.

### 22. Install the Fans.

The two fans are the same and can be adjusted to fit on either the left or the right side. The cord should point away from the firebox, toward the sheet metal shroud. If a fan needs adjustment, remove the two long screws holding the clip to the fan, and attach the clip again with the cord pointing in the correct direction. The pairs of arrows on the case should point from front to back, and in a counter-clockwise direction. Slide the metal clip on the top of the fan onto the fan heat shield so that the hole in the clip fits on the nub on the heat shield.



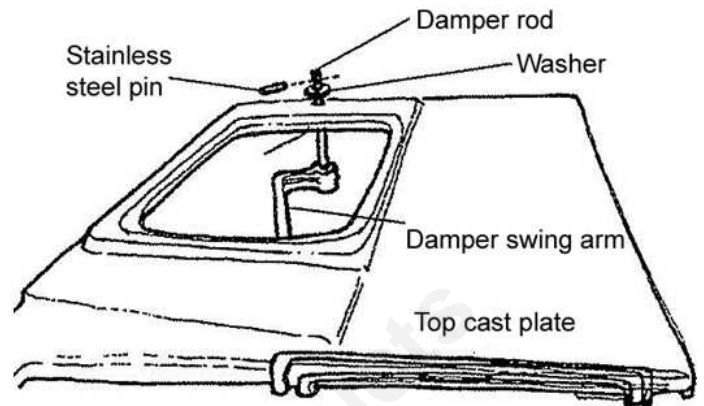
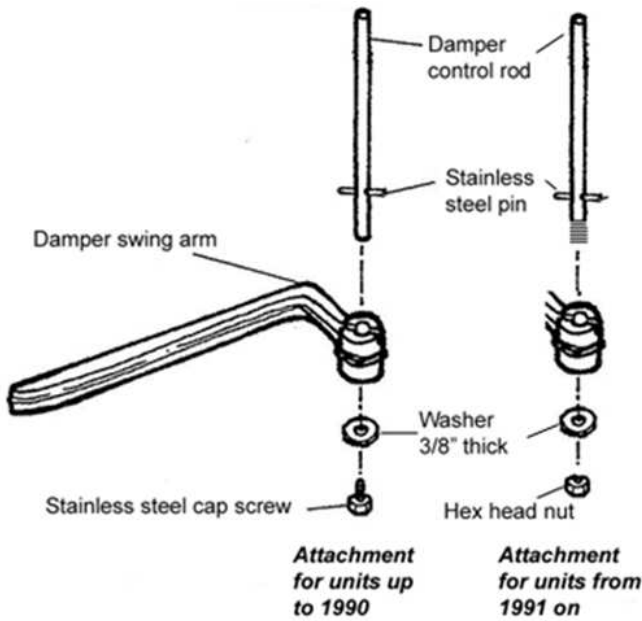
*Attach the fan shields to the firebox*

### 23. Assemble the Damper Rod and Swing Arm.

Center a 3/16" x 1" stainless steel damper rod pin (#76) in the hole in one end of the ½" x 5½" damper control rod (#73). Use "Loctite" glue when installing this pin. This will be the bottom end of the damper control rod. Insert the pinned end of the rod in the face of the damper swing arm (#75) so the ends of the pin are in the slots in the swing arm. Attach the swing arm to the bottom of the control rod with a ½" x 3/16" thick stainless steel washer and a ¼-20 x ½" stainless steel hex head cap screw for older pre '91 models or thread the hex lock nut on the threaded rod for the newer models. Use "Loctite" glue when installing this screw or hex nut. Slide two ½" x 7/8" o.d. flat washers on the rod.

### 24. Install the Damper Rod and Swing Arm.

Push the damper rod up through the hole in the right rear of the top plate. Place a ½" flat washer on the rod. Center a stainless steel pin in the hole in the upper end of the control rod. Use "Loctite" glue when installing this pin. *See figure on next page.*



Install the damper rod

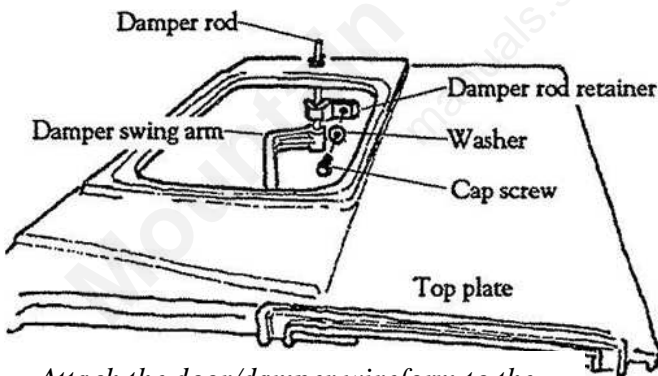
Attach the damper swing arm to the damper control rod

**25. Install the Damper Rod Retainer.**

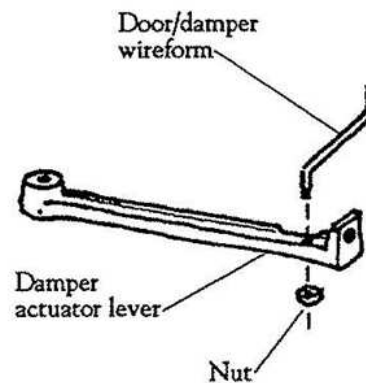
Place a 1/4" flat washer on a 1/4-20 x 1" hex head cap screw, and insert the cap screw through the damper rod retainer (#85) and the hole in the upper right side of the firebox. The retainer should hold the damper control rod to the side of the firebox. Attach the retainer with a 1/4-20 hex nut and washer on the outside of the firebox. *See figure above.*

**26. Attach the Door/Damper Interlock Wireform.**

Attach the left end of the door/damper interlock wireform (#16) to the front end of the damper lever with a #8-32 top lock nut. The right end will be connected later.



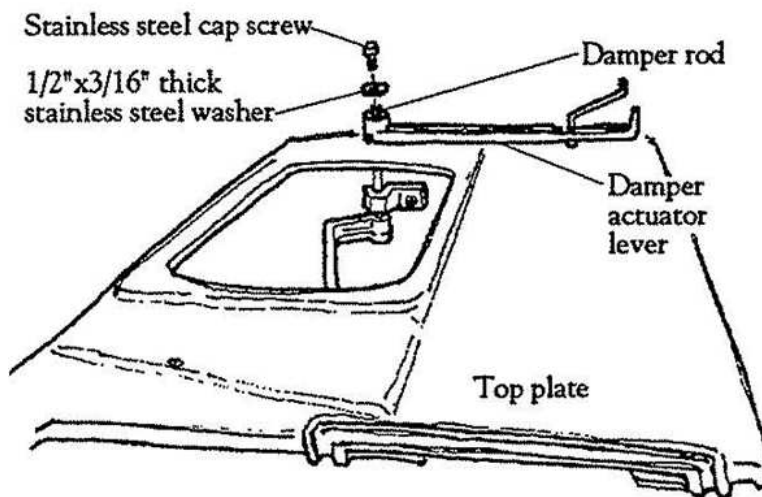
Attach the door/damper wireform to the damper actuator lever



Attach the damper swing arm to the control rod

**27. Install the Damper Actuator Lever.**

Place the damper actuator lever (#84), with the slots down, on the top of the control rod so that the slots fit over the pin in the upper end of the control rod. Place a 1/2" x 3/16" thick stainless steel flat washer on the rod, and attach the lever to the rod with a 1/4-20 x 1/2" stainless steel hex head cap screw. Tighten it securely, but do not over-tighten. Use "Loctite" glue when installing this screw. *See figure next page.*



*Do not overtighten the lever to the rod.*

**28. Engage the Damper.**

Push the damper fully open by hand so that it is toward the back of the firebox. Move the damper lever all the way to the left. As you move the lever back to the right, the swing arm retainer will connect with the swing arm, and the damper will close.

**29. Install the Damper Actuator Lever Stop.**

Place a 1/4" flat washer on a 1/4-20 x 1/2" hex head cap screw and insert the screw through the damper actuator lever stop (#83). The short "L" leg of the stop should be up. Place another 1/4" flat washer on the underside of the stop, and thread the screw into the top of the firebox. The short "L" leg of the stop should be to the right, and can be moved to the left or right when adjusting the damper for a tight seal against the upper fireback. See the Maintenance Section of the manual.

**30. Install the Damper Lever Shim.**

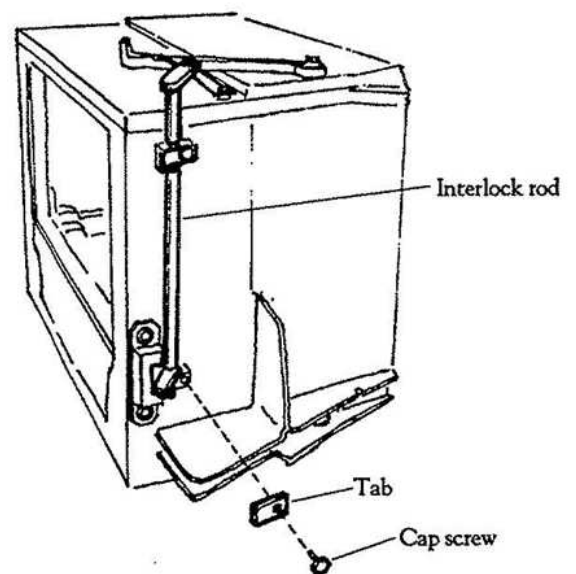
Place the damper lever shim (#52) under the damper lever and on top of the raised bosses on the top of the firebox. Attach the shim with two 1/4-20 x 1/2" hex head cap screws.

**31. Install the Door Latch Striker Plate.**

Position the door latch striker plate (#106) so the front edge of the striker plate lines up with the front edge of the right side. Attach the striker plate with two 1/4-20 x 1/2" hex head cap screws and washers.

**32. Install the Door/Damper Interlock Rod.**

Place the interlock rod (#15), short lever end down, in the grooves on the right side of the insert. Secure the rod with two 1/4-20 x 1/2" hex head cap screws and 1/2" tabs. Test the rod to confirm that it rotates freely. If the rod does not rotate freely, remove the rod and file the area of the rod where it rubs against the side plate.



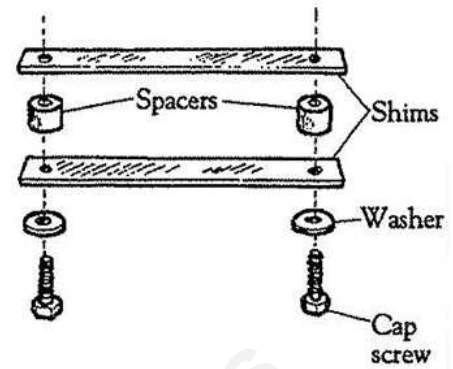
*Attach the door/damper interlock to the right side*

**33. Connect the Right End of the Door/Damper Interlock Control Wireform.**

Attach the right end of the wireform to the top of the interlock rod with a #8-32 top lock nut.

### 34. Install the Control Arm Shims.

Place a 1/4" washer on each of two 1/4-20 x 1" hex head cap screws. Place shims on top of the washers against the washers. Place 9/16" spacers on top of the shims. Place the second shim on the spacers. Hold the assembly together as you turn it over and thread the screws into the two bosses on the left side of the top.



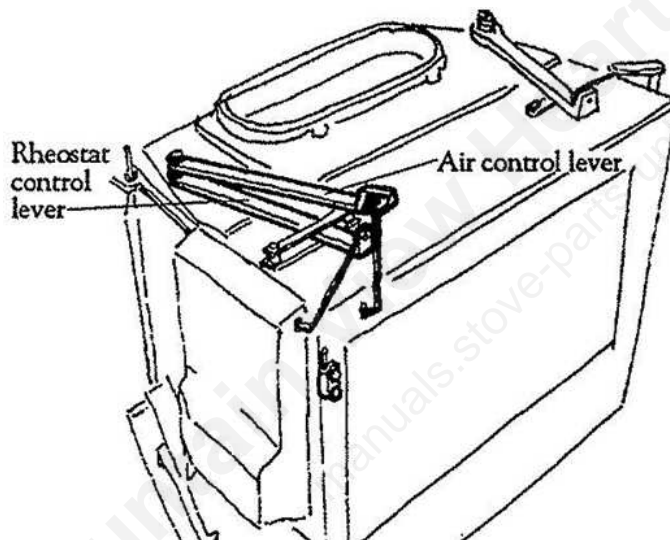
### 35. Attach Wirelinks to the Primary Air and Rheostat Control Levers.

Attach the right end of the upper thermostat wirelink (#41) to the front end of the primary air lever. Attach the right end of the rheostat wirelink (#128) to the front end of the rheostat lever. The other ends of the links will be connected later.

*Assemble the shims and spacers upside down. Turn the assembly over and install it.*

### 36. Install the Primary Air and Rheostat Control Levers.

The primary air control lever (#35) goes on top of the shims, and the rheostat control lever (#126) goes between the shims. Place a 1/2" flat washer under the bottom lever (rheostat control lever) and a 1/2" flat washer between the levers. Insert a 3/8"-16, 1/2" x 1-1/4" shoulder bolt through the two levers and two washers and into the top of the insert. Tighten the bolt with a 1/4" hex key wrench.



*Install primary air control and rheostat control levers.*

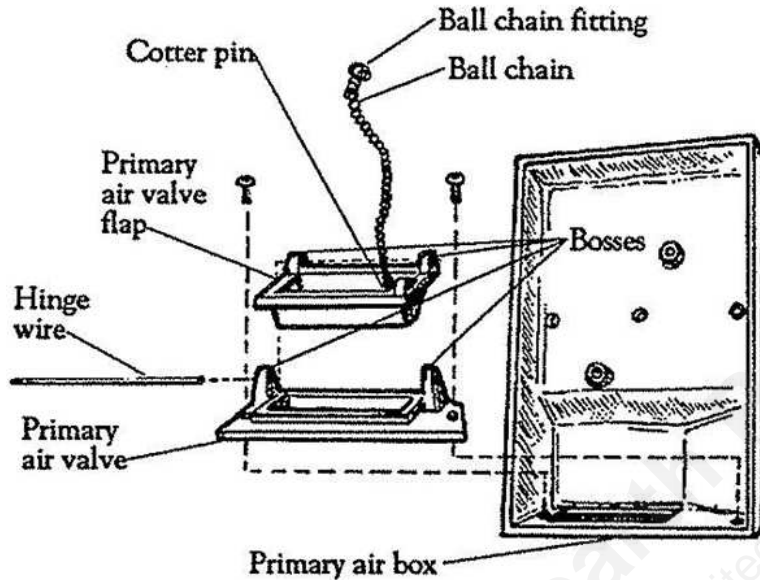
### 37. Install the Hinge Halves.

Place each hinge half (#88) on its boss with the pin up. Secure each hinge with two 1/4-20 x 1/2" leveler bolts. The hinge halves can be moved up and down, and to the right and left a little to allow for adjusting the fit of the load door. Center them on the bosses; they can be adjusted later.

### 38. Assemble the Primary Air Box.

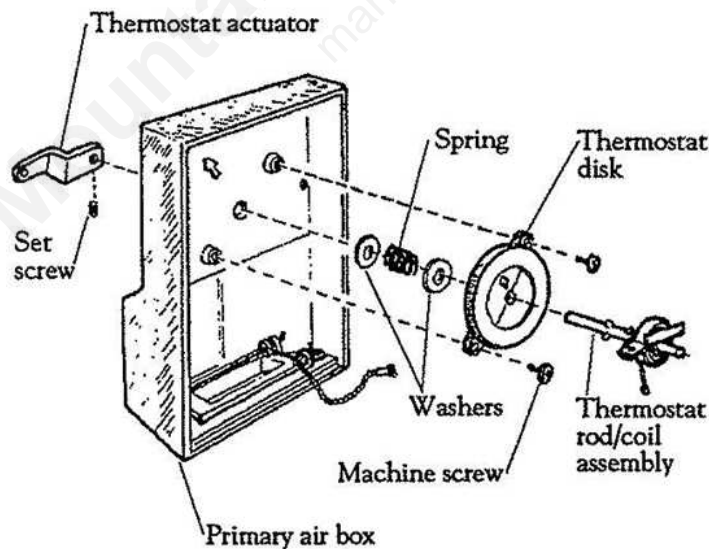
Please read through all the instructions and look at the illustrations for this section before beginning to assemble the primary air box (#18). Place the primary air valve flap (#27) in its recess in the primary air valve (#26). The 1/8" x 6" hinge wire (#29) holds the flap to the valve. Pass the wire through the four bosses. Bend each end of the wire up about 30 degrees to hold the wire in place. Snap ball chain fittings (#24) on either end of the ball chain (#25). The 7/16" x 5/8" square cut cotter pin (#28) holds the ball chain to the air flap. Insert the cotter pin through a ball chain fitting and through the boss on the outside edge of the air flap from the inside out.

Bend each leg of the cotter pin 90 degrees. Cement the bottom portion of the primary air box as shown in Figure C-5 in the Cementing Section. Place the assembled air valve in the cemented air box bottom. Attach the air valve to the air box with two 1/4-20 x 5/8 Phillips round head machine screws.



*Assemble the air valve and attach it to the air box*

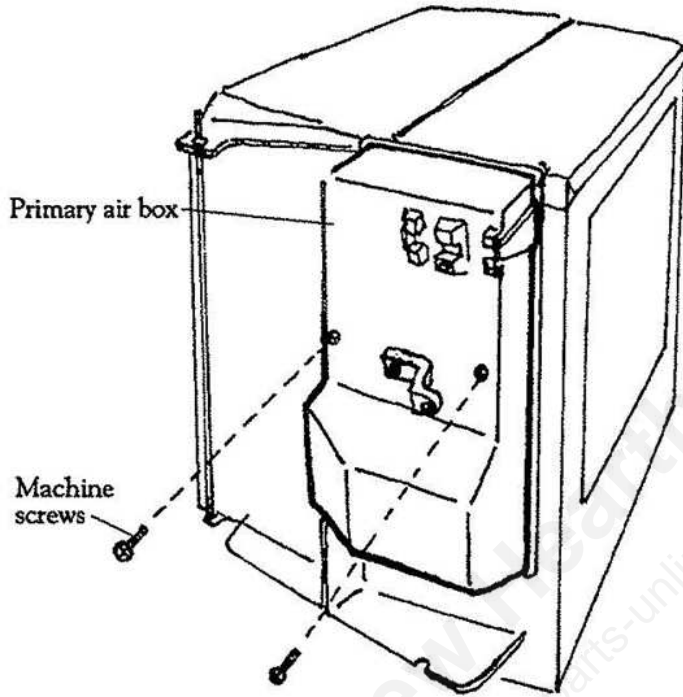
The illustration following shows how the thermostat coil and rod assembly (#19) and the thermostat disk (#21) are attached to the inside of the primary air box. Insert the thermostat rod through the hole in the center of the disk. Attach the free end of the ball chain to the loop on the end of the wire with a jump ring. Place a 1/4" washer, the coil spring and another 1/4" washer on the rod. Place the disk on the inside of the primary air box with the arrow on the disk pointing in the same direction as the arrow on the inside of the primary air box. Attach the disk to the bosses on the inside of the primary air box with two 1/4-20 x 5/8" Phillips round head machine screws. Thread the 1/4-20 x 1/4" socket set screw a short way into the thermostat actuator (#30). Put the actuator on the end of the rod on the outside of the air box. The end of the rod should be just even with the outside of the actuator. Tighten the set screw to hold the actuator in this position.



*Attach the coil assembly and disc to the inside of the air box. Attach the thermostat actuator to the air coil assembly.*

**39. Install the Primary Air Box.**

Cement the channels in the left side and top as shown in Figure C-6 in the Cementing Section. Place a 1/4" flat stainless steel washer as far as it will go on the thermostat shaft. Pass the thermostat shaft through the hole in the left side plate, and attach the box with two 1/4-20 x 1-3/4" Phillips flat head machine screws.



*Place the washers on the thermostat shaft and install the primary air box.*

**40. Attach the Bell Cranks.**

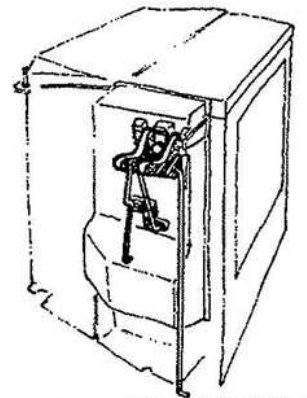
Place a bell crank (#32) on each end of the 1/4" x 2-3/16" bell crank pin (#33). Place the assembly in the groove at the top, front of the left side. Attach the assembly with a retainer tab and a 1/4-20 x 1/2" hex head cap screw.

**41. Connect the Upper Wirelinks to the Bell Cranks.**

The right ends of the upper wirelinks have already been connected to the two levers. Connect the left end of the wirelinks on the top lever to the top of the rear bell crank with a #8-32 top lock nut. Connect the left end of the wirelink on the lower lever to the top of the front bell crank with a #8-32 top lock nut.

**42. Connect the Lower Wirelinks.**

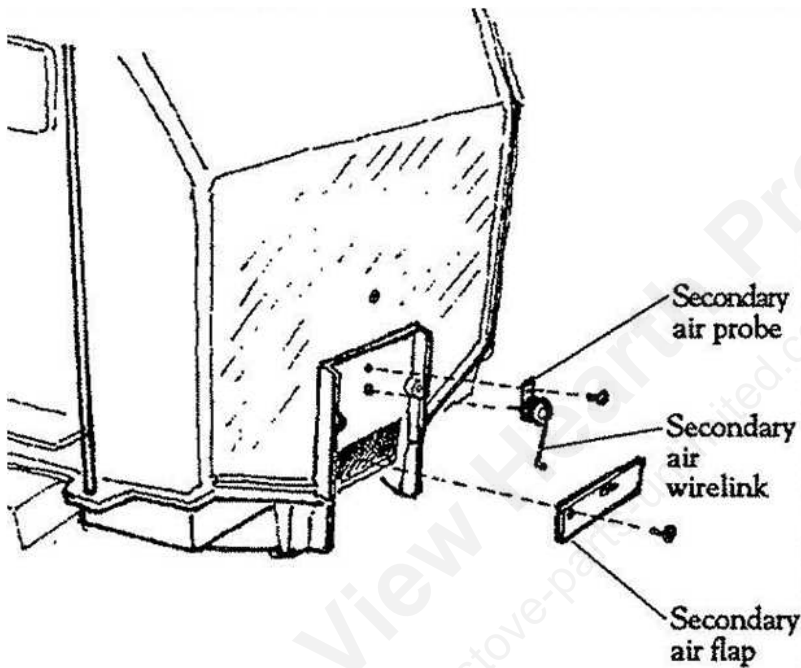
Connect the lower thermostat wirelinks (#39) between the bottom of the rear bell crank and the thermostat actuator lever. Connect one end (the ends are the same) of the lower rheostat wirelink (#127) to the bottom of the front bell crank. The other end of this link will be connected after the installation of the front.



*Attach the bell cranks*

#### 43. Install the Secondary Air Assembly.

Insert the secondary air probe assembly (#44) through the lower hole. Attach the probe assembly using a 10-24 x ¼" Phillips Pan Head Machine Screw. The secondary air wirelink (#48) connects the end of the coil on the probe assembly to the secondary air flap (#46). Insert the hook on the end of the wirelink through the hole in the end of the coil so the leg on the other end of the wirelink sticks out from the back of the firebox. Push the lower end of the wirelink through the hole in the secondary air flap. Attach the air flap to the back plate with a 10-24 x ¼" Phillips Pan Head Machine Screw and wire shim ring. Do not install without the shim ring which prevents the flap from locking up tight.



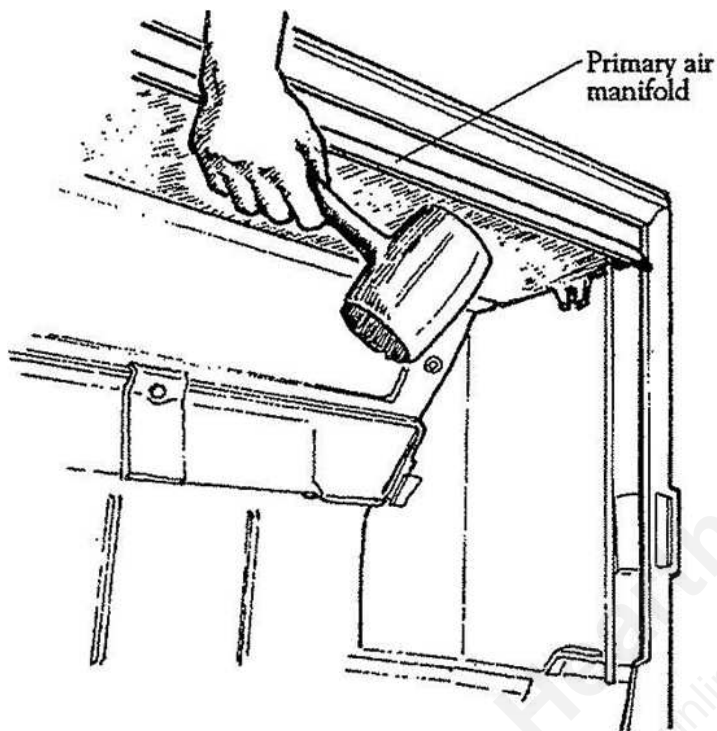
*Attach the air probe assembly to the back of the firebox. Connect the wire link to the secondary air flap and attach the flap to the back of the firebox.*

#### 44. Install the Flue Collar Plate.

Place the flue collar (#58) on the top plate adjusted for either the deep or narrow lintel adaptor. Attach the flue collar with four ¼-20 x ¾" hex head cap screws and washers.

#### 45. Install the Air Manifold.

Place the ungasketed left end of the primary air manifold (#86) in the gasketed channel near the top, front, of the left side plate. Swing the right side of the manifold up so that the gasketed right end seals against the bottom of the rib at the top of the right side plate. Tap the right side upward with a dead blow hammer. It is important that the right end of the manifold be tight to the rib and as far forward as possible. Insert a ¼-20 x ¾" hex head cap screw and washer through the clevis (slotted tab) on the manifold and through the hole in the side plate. Put a ¼" hex nut on the screw on the outside of the right side plate, and tighten.  
*See figure on the next page.*



*Tap the right end of the air manifold into place and secure it with a cap screw and washer*

**46. Assemble the Sheet Metal Shroud.**

Attach the sheet metal top shroud (#117) to the sheet metal back/side shroud (#120) with 10-16 x 1/2" hex head washer tek screws. Attach the sheet metal outside air cover plate (#124) with four 10-16 x 1/2" hex head washer tek screws.

**47. Install the Assembled Shroud.**

Place the assembled shroud on the insert with the sides and back inside the flanges on the bottom shroud. Attach the back and side shrouds to the bottom shroud with twelve 10-16 x 1/2" hex head washer tek screws.

**48. Install the Flue Connector Plate.**

Two of the holes in the Flue Connector Plate (#118) will line up with bosses in the flue collar. Attach the connector plate to the top shroud with six 10-16 x 1/2" hex head washer tek screws. Attach the flue connector plate to the flue collar with two 1/4-20 x 1/2" hex head cap screws.

# WinterWarm Gasketing

## Gasket Listing

120-3588	5/16" Medium Density 6ND Fiberglass Gasket	3'	Lower Fireback
		3'	Flue Collar
		1'	Left Side (For Air Manifold)
		1'	Left Side (For Thermostat Disc)
		1.5'	Bottom
		1'	Air Manifold
120-3589	3/8" Low Density 6ND Fiberglass Gasket	4'	Damper (Upper Fireback)
		3'	Upper Fireback
120-3556*	3/16" 4ND Black Fiberglass Gasket	6'	Glass
120-3564	1/2" Low Density Fiberglass Gasket	10'	Door
		2.1'	UP FB & Air Manifold

\*000-3427 kit contains enough gasket and cement to gasket the glass

## Instructions

If you are replacing load door, glass or damper gaskets as part of standard maintenance, refer to the "How to Replace Gaskets" information in the [Maintenance Section](#) of the **Owner's Guide**. If you are replacing all gaskets while re-building a firebox, follow the instruction given below.

Prepare parts carefully so that new gaskets will stay firmly in place. Channels must be free of old gasketing, cement and paint, and free of dust. Use **Vermont Castings** gasket or furnace cement. Work in an area where there is plenty of light and a level work surface. Wear gloves and protective eyewear.

If you are going to install gaskets on clean, new parts, start with step 3. If you are going to re-gasket old parts, they will need to be cleaned. Start with step 1.

### 1. Remove old gaskets.

If the ends of the gasket meet, note where the joint is.

### 2. Clean the channels.

Use a hammer and cold chisel or screwdriver to remove old cement. Use a wire brush to finish cleaning the channel. Vacuum the channel to remove dust. The cleaner the groove, the better the finished job.

### 3. Choose the correct size gasket and cut it to the right length.

Allow an inch extra for trimming. Size and length information are given on the illustrations.

### 4. Apply cement to the channel.

But first, wipe the channel to be gasketed with a damp cloth. Place an unbroken 1/8" bead of cement in the channel. Avoid using too much cement. The cement should not saturate the gasket, just hold it in place.

**5. Press the gasket into the channel.**

Starting with one end, lightly press the gasket into the cemented channel. Trim excess gasket with shears or side cutting pliers. Do not leave any ragged ends. If the ends of the gasket meet, there should be no gaps or overlaps. Unless you are compensating for warped panels, do not stretch or bunch the gasket: doing so will thin or thicken it, respectively.

**6. Press the newly-gasketed part against the surface it will meet.**

This will seat the gasket evenly.

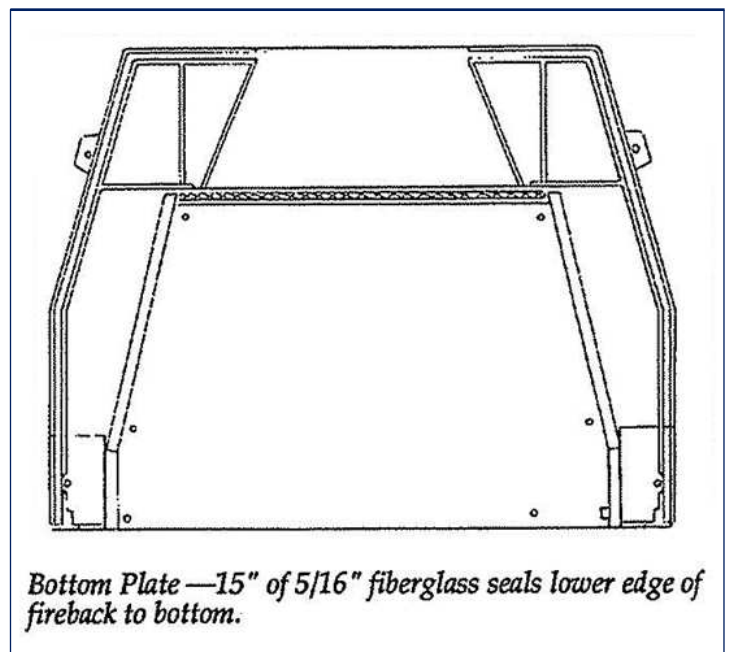
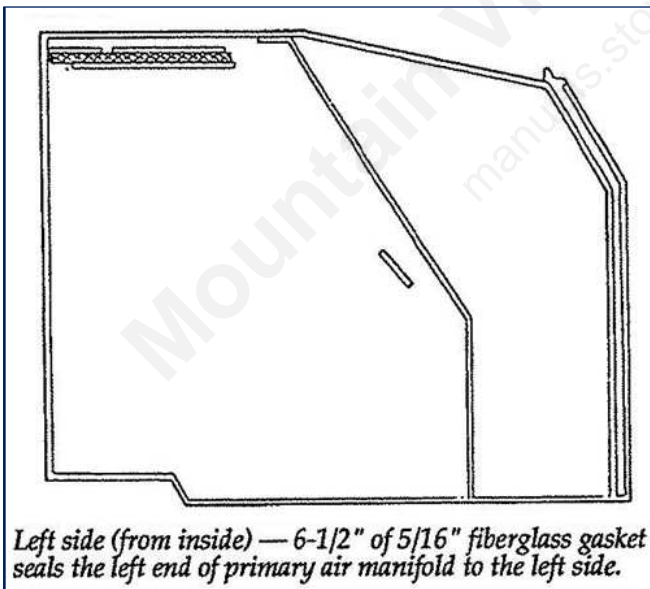
**7. Clean any excess cement that has squeezed out around the gasket.**

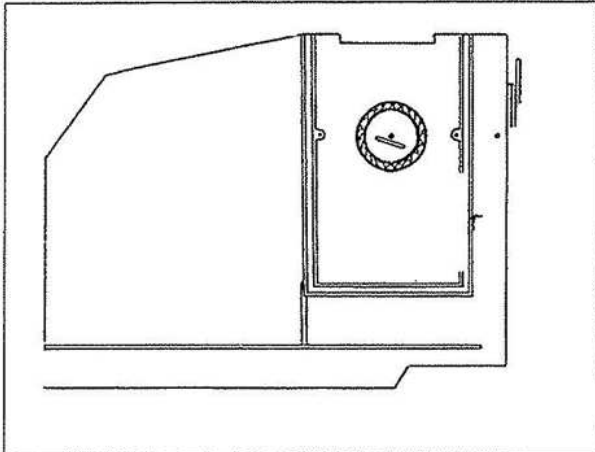
**8. Adjust the components as needed.**

After installing new gaskets, it may be necessary to make adjustments on the damper or load door. Refer to the Maintenance Section of the **Owner's Guide** for information on testing and adjusting the door latch and the damper.

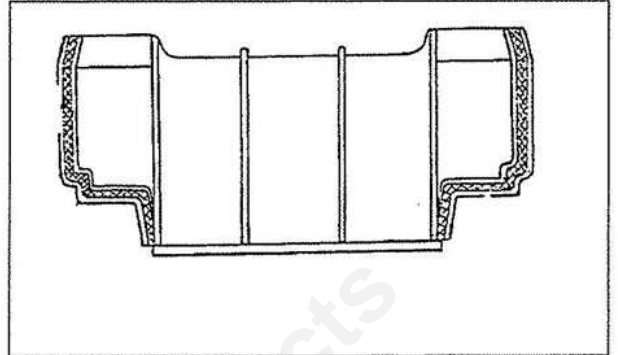
### Gasket Layout

For each illustration, the information includes the plate to be gasketed, the length and size of the gasket, and the joint to be sealed.

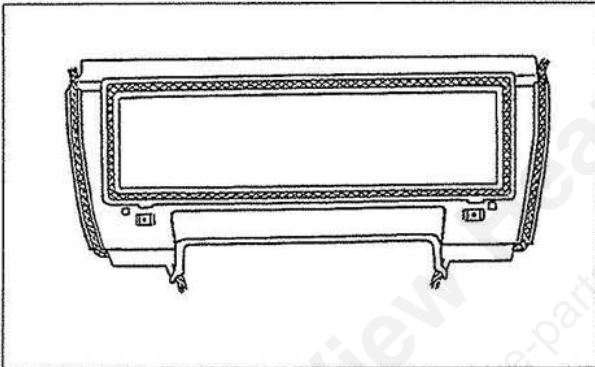




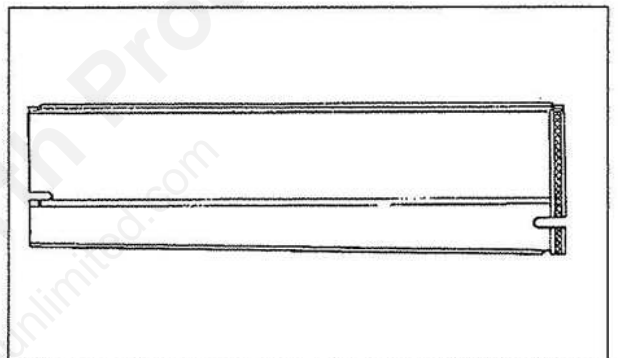
*Left Side (from outside) — 10" of 5/16" fiberglass seals the thermostat disk to the left side.*



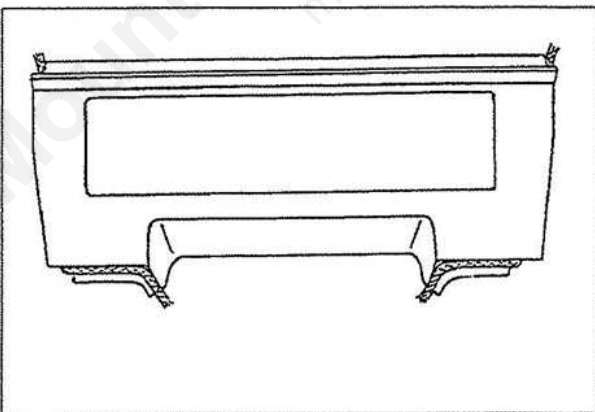
*Lower fireback (rear view) — two 17" pieces of 5/16" fiberglass*



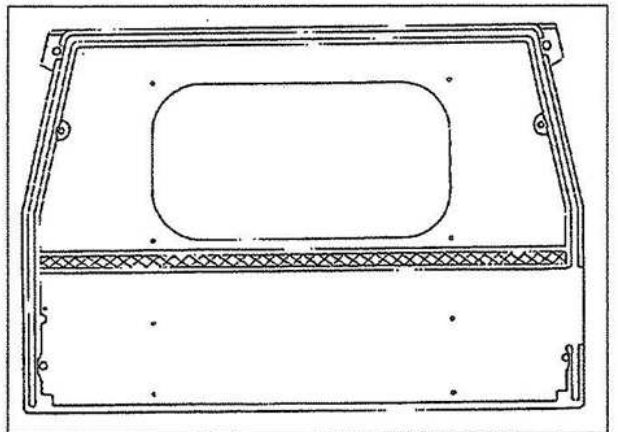
*Upper Fireback (rear view) Two 17" pieces of 5/16" fiberglass seal the upper fireback to the sides and the lower fireback; One 54" piece of 3/8" fiberglass seals the damper to the upper fireback.*



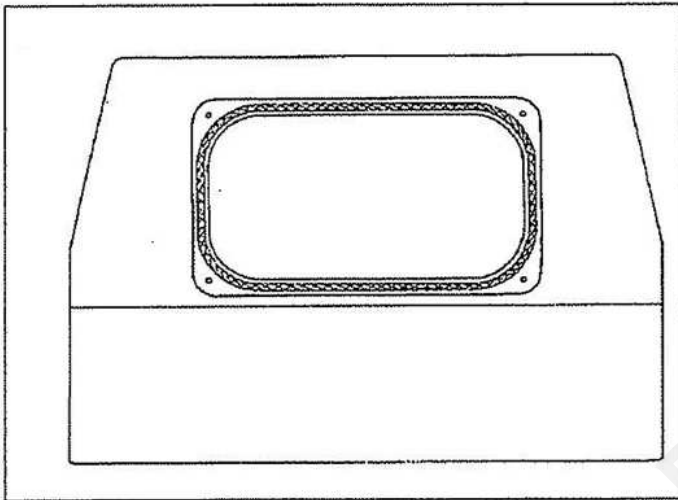
*Primary Air Manifold (top view) — a 6-1/2" piece of 5/16" fiberglass seals the primary air manifold to the right side.*



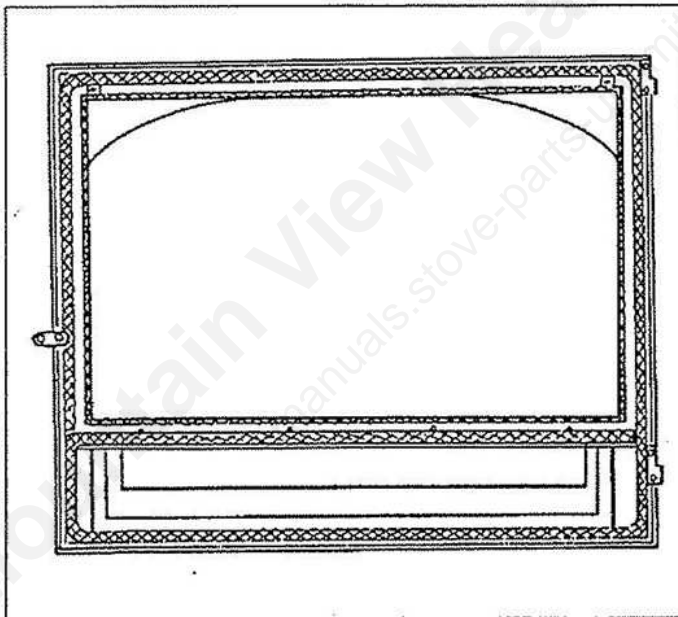
*Upper fireback (front view)*



*Top Plate (bottom view) — a 24" piece of 1/2" fiberglass seals the upper fireback and the primary air manifold to the top.*



*Top Plate (top view) — 42" of 5/16" fiberglass seals the flue collar to the top.*



*Loading Door (inside view) — a 114" piece of 1/2" fiberglass seals the load door to the inner door frame; a 72" piece of 3/16" fiberglass seals the door glass to the inner door frame. Use Tite-Bond glue for this gasket.*

## WinterWarm Cementing

Prepare parts carefully so that new cement makes a tight seal between the parts to be joined, the channels and edges to be cemented must be completely free of old cement and dust.

Use high quality stove cement.

New cement hardens quickly when exposed to air.

- ❖ Clean and prepare parts ahead of time.
- ❖ Apply cement just before putting the parts in place.

Work in an area where there is plenty of light, and a level work surface. Wear gloves and protective eyewear.

If the parts to be cemented are new, start with step 2. If old parts are to be re-cemented, they will need to be cleaned. Start with step 1.

### 1. Clean old cement from the channels and edges to be joined.

Use a hammer and cold chisel, or slotted screwdriver with rounded edges to remove old cement. Use a wire brush or a buffing wire wheel to finish cleaning the channels and edges, and vacuum the channels to remove any dust.

### 2. Lay a bead of cement in the channel.

Wipe the surface to be cemented with a damp cloth. Apply a generous bead of cement. Excess cement may squeeze out of the joint. Do not scrimp on the cement.

Excess cement on the outside may be removed with a damp sponge if cleaned promptly. Excess cement on the inside of the unit will not usually be a problem. If clean-up is necessary, wipe clean with a damp cloth. Make sure all the excess is off any exposed cast surfaces.

### 3. Join the two parts. Move the parts as little as possible after they have been put together.

For each illustration, the plate is labeled and the channel to be cemented is marked.

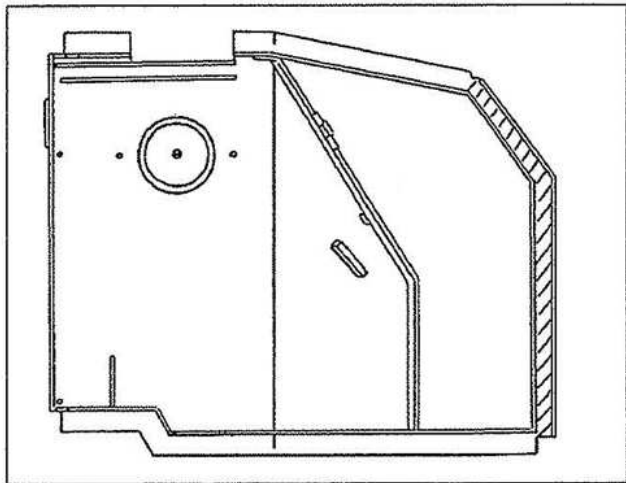


Figure C-2: Left Side Plate (inner side)

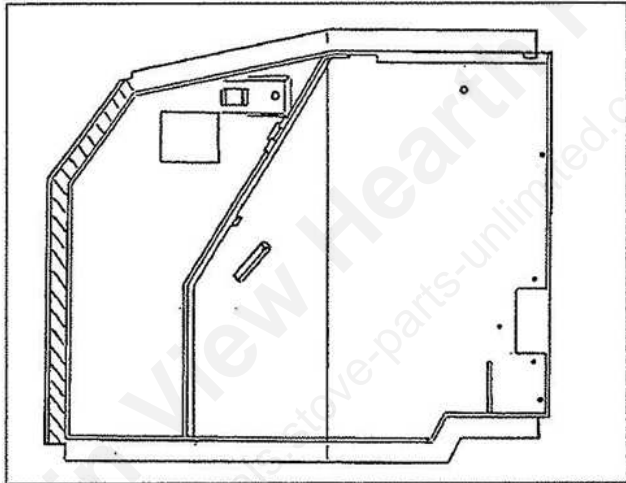


Figure C-3: Right Side Plate (innerside)

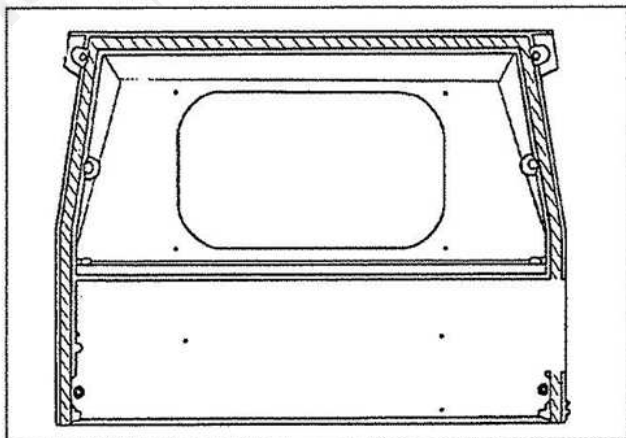


Figure C-4: Top Plate (under side)

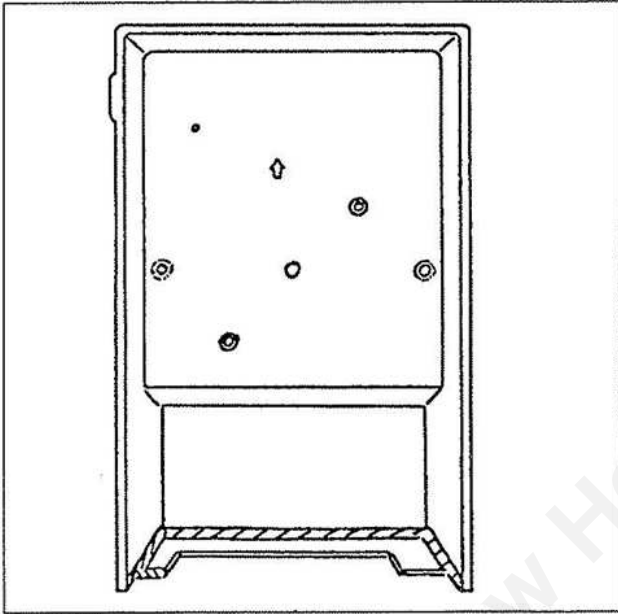


Figure C-5: Primary Air Box (inner side)

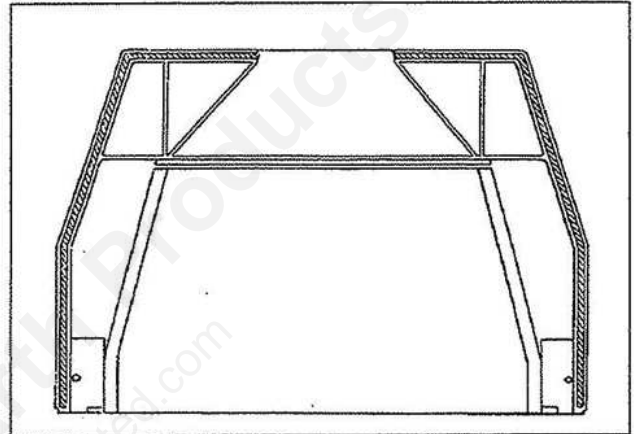


Figure C-1: Bottom Plate (upper side)

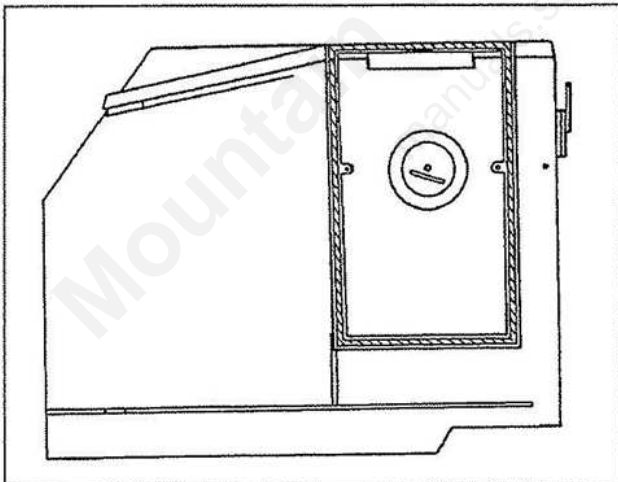


Figure C-6: Left Side Plate (outside)

# WinterWarm Repairs

## Electrical Repairs

These electrical repairs are for the WinterWarm I. The wiring system for the WinterWarm II was changed, and these instructions do not apply to the WinterWarm II. The WinterWarm II has no snap-stat in the system.

On the WinterWarm I, the upper grill and the tops of the inner trim pieces are solid. The fan heat shields are made of sheet metal.

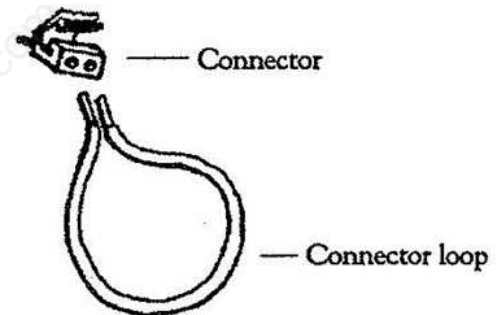
On the WinterWarm II, the upper grill is slotted, and the tops of the inner trim pieces are open. The fan heat shields are made of cast-iron.

Three areas may need attention.

- The snap-stat
- The rheostat
- Loss of power in wireway

### 1. Snap-stat

Turn off the power to the WinterWarm. Bypass the snap-stat by unplugging the two-wire connector from the left junction box to the snap-stat. Make a connector loop from a short (6 inch) piece of 14 gauge wire. Strip ½" of insulation from both ends. Plug the ends of the connector loop into the open connector from the left junction box. Turn the power on. If the fans work, the problem is with the snap-stat. Replace the snap-stat.



### 2. Rheostat

Turn off the power. Remove the left junction box from the column. In order to keep track of how to re-connect the wires after this test, use a piece of tape to mark the black shiny wire coming from the rheostat. Remove both wire nuts, and separate the black and white shiny wires coming from the rheostat. Wire nut all three black cloth wires together, and push the shiny wires to the side. Turn on the power. If the fans work, the problem is the rheostat. If the fans do not work, the problem is a break in a wire. If the rheostat needs replacement, it must be installed right side up. When it is right side up, a plastic nub will show through a hole in the junction box.

### 3. Loss of Power

An inexpensive ohmmeter can be used to check for breaks in wires. When the leads from the meter are attached to the two ends of a wire, the needle on the meter will move all the way to the right if the wire is unbroken. The meter can be used in the same way to check for breaks in wires in fans. When the leads from the meter are connected to the two wires from the fan, the needle will move all the way to the right if the fan wiring is unbroken.

If the needle doesn't move at all, or moves only part way to the right, the fan is defective. Check the fans first. Next, check the four wires in the wireway. The ends of the wires are marked in the plastic connectors.

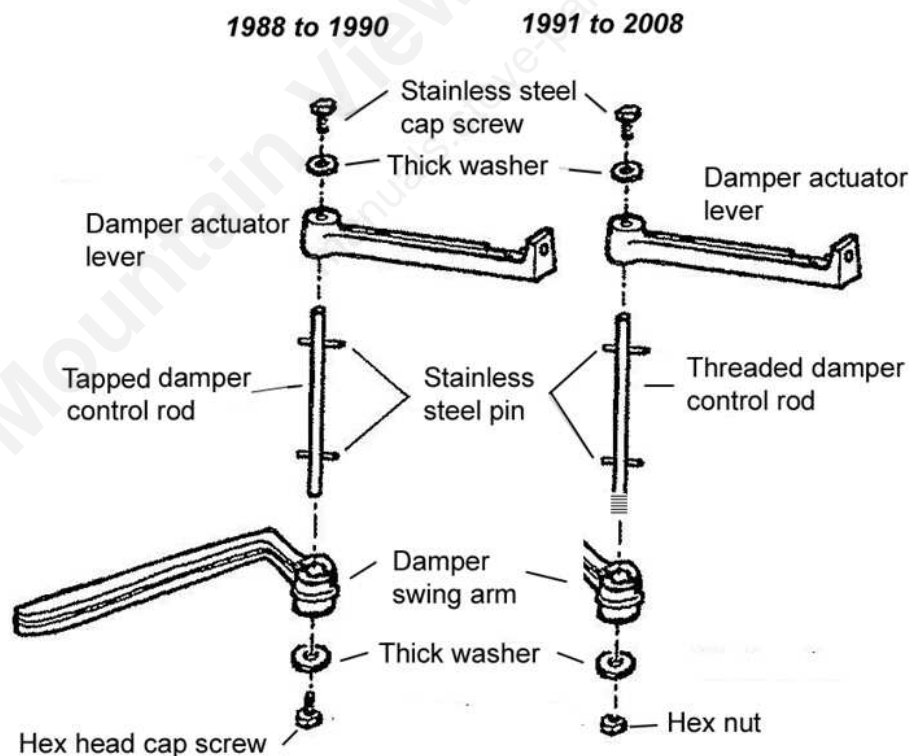
## Damper Repairs

The damper actuator lever on the front of the firebox is connected to the damper swing arm inside the firebox. The damper swing arm moves the damper. The two rods are connected to a large steel pin, the damper control rod, which passes through the top plate. Small, steel roll pins near the top and bottom of the control rod fit in grooves in the actuator lever and the swing arm. The assembly is held together with washers and bolts threaded into the top and bottom of the large pin.

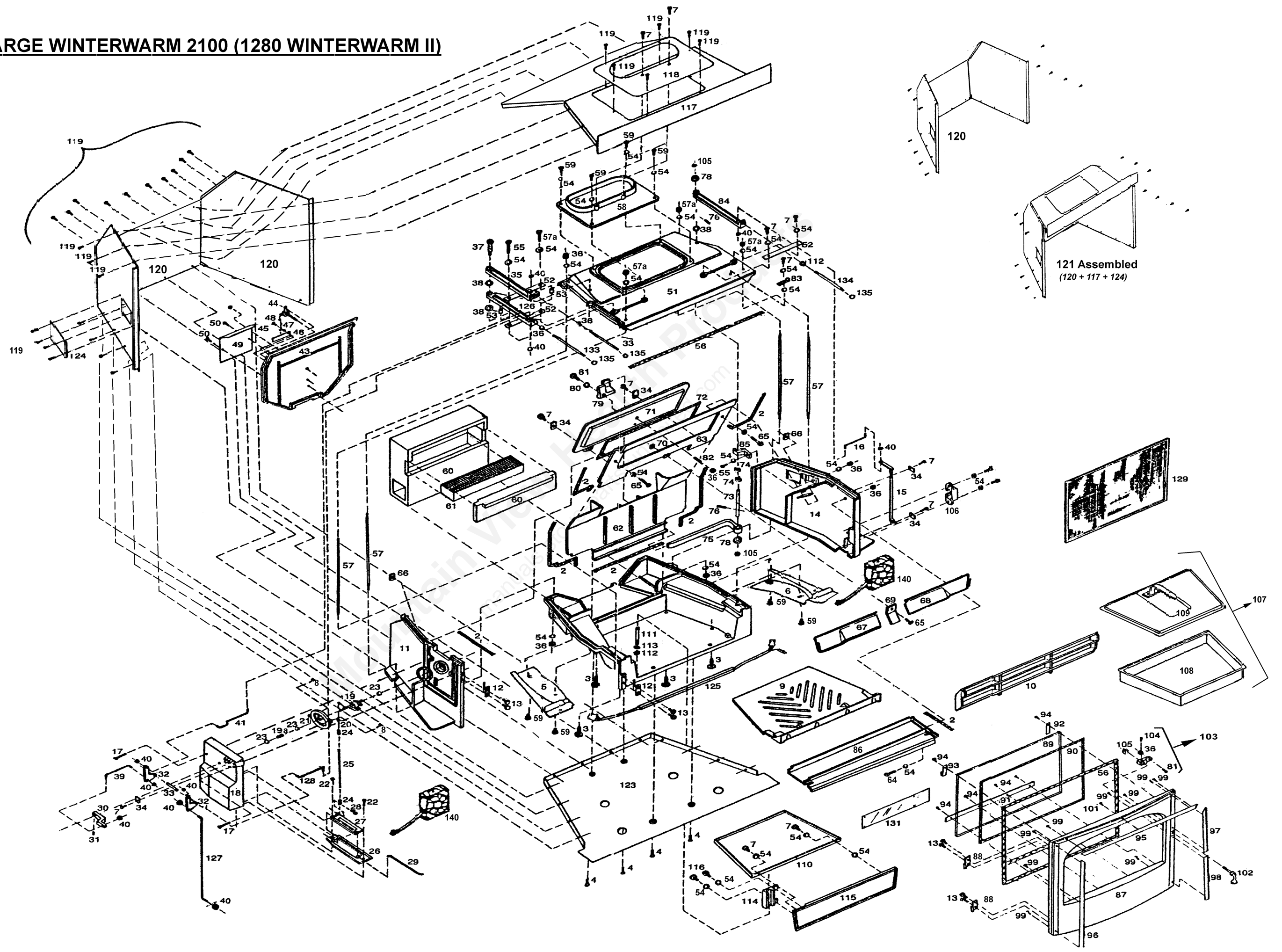
In time, there will be wear in the grooves, and the damper may not seal tightly against the upper fireback. Two adjustments are built into the system. Refer to the [Maintenance Section](#) of the **Winter Warm Owner's Guide** for instructions on making the fine adjustment, and if necessary, the coarse adjustment of the damper. Make these adjustments first.

The bolts holding the assembly together may loosen. Check the bottom bolt first. The 7/16" wrench to tighten the bolt.

If it is necessary to tighten the top bolt, remove the front, and pull the firebox far enough forward to reach in through the flue collar. Instructions for removing the front are given in the [disassembly section](#) of the service manual. It will also be necessary to remove the sheet metal shroud. After removing the shroud, tighten the bolt at the top of the large pin. Also, be sure the bolt holding the retainer to the damper is tight.



# LARGE WINTERWARM 2100 (1280 WINTERWARM II)



# LARGE WINTERWARM PARTS LIST

**MODEL#**                      **2100 WINTERWARM FIREBOX (1280 WINTERWARM II)**

**FEATURES:**                      **MANUFACTURED FROM 1/11/91 to 2008 WHEN IT WAS DISCONTINUED.  
FANS COME INSTALLED IN THE FIREBOX, NO FAN THERMODISC**

<b>DIAGRAM #</b>	<b>ITEM #</b>	<b>PART DESCRIPTION</b>
1	130-1150	Bottom Only
2	120-3588	5/16 Fiberglass Medium Density (sold by the foot)
3	120-1742	3/8-16 x 2" Hex Head Leveller Bolt
4	120-0865	1/4-20 x 5/8" Phillips Flat Head Screw
5	130-1151	Left Fan Heat Shield
6	130-1152	Right Fan Heat Shield
7	120-1338	1/4-20 x 1/2" Hex Head Cap Screw
8	120-0894	1/4-20 x 1/2" Phillips Round Head Screw
9	130-1256	Ash Grate
10	130-1275	Bar Grate
11	130-1280	Left Side Firebox
12	160-4281	Half Hinge, Body (With Pin)
	30001897	Hinge set with Half Hinge Body and Half Hinge Door ( Item #'s 12 and 88)
13	120-1347	1/4-20 x 1/2" Hex Head Leveller Bolt
14	130-1264	Right Side Firebox
15	130-1299	Damper Door Interlock
16	160-1568	Interlock Door/Damper Wire
17	120-0830	1/4-20 x 1 3/4" Phillips Flat Head Screw Black
	500-0343	Primary Air Box Assembly (Includes Item #'s 7, 8, and 18 through 34)
18	130-1281	Primary Air Box
19	500-5470	Thermostat Assembly
19a	120-1846	Friction Spring
20	120-1985	Jump Ring
21	130-1269	Thermostat Disc
22	120-0896	1/4-20 x 5/8" Phillips Round Head Screw
23	120-2471	Washer, Flat 1/4 #304 SS .294 ID x .63 OD x .047 Thick
24	120-1972	Ball Chain Fitting
25	120-1960	#6 Nickel Ball Chain, 21 Balls, Attach Chain @ 19 Balls (Sold by the Foot)
26	130-1268	Thermostat Valve
27	130-1265	Thermostat Flap
28	120-3027	7/16 x 5/8" Cotter Pin
29	160-4503	Thermostat Flap Wire
30	130-1258	Thermostat Actuator
31	120-0417	1/4-20 x 1/4" Socket Set Screw
32	130-1263	Bell Crank
33	160-0524	Crank Pin
34	160-1488	Damper Tab
35	130-1284	Thermostat Control Arm
36	120-3210	1/4-20 Plain Hex Nut
37	120-1319	3/8-16 Threaded Shoulder Bolt, 1/2 x 1 1/4" Body
38	120-2491	Washer, Flat 1/2 SAE

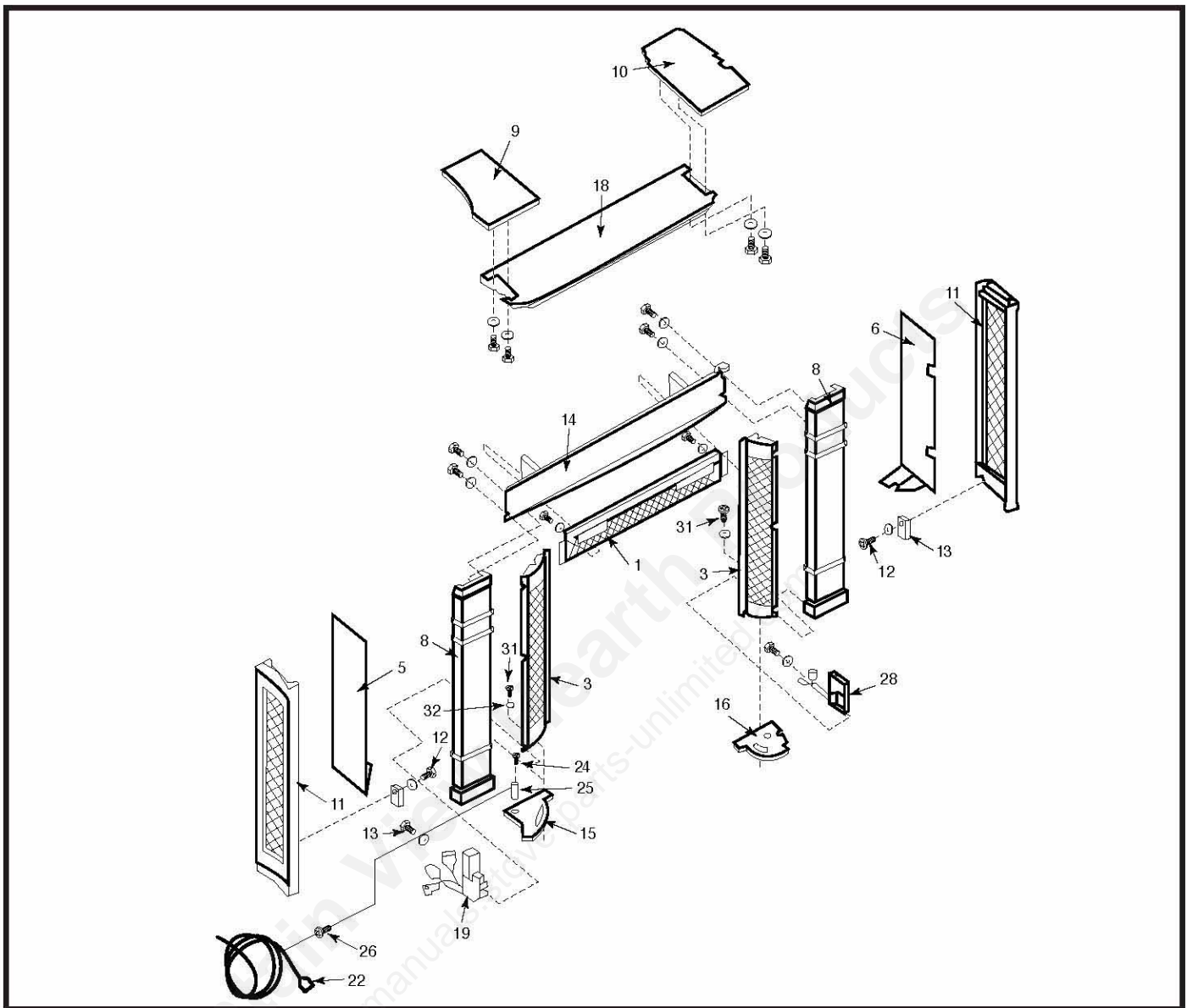
39	160-4501	Lower Thermostat Wire Link
40	120-3275	#8-32 Hex Top Lock Nut
41	160-4502	Upper Thermostat Wire Link
42	120-1899	5/16" Hole Plug
43	130-1251	Firebox Back
44	160-1489	Secondary Thermostat
45	120-0980	10-24 x 1/4" Phillips Pan Head Screw
46	160-1490	Secondary Air Flap
47	120-1986	Shim Ring, 18 Ga Nickel
48	160-1486	Secondary Air Link
49	160-4505	Secondary Air Coverplate
50	120-0993	1/4-20 x 3/8" Phillips Pan Head Screw
51	130-1253	Firebox Top
52	160-4338	Control Shim
53	120-1781	Control Spacer
54	120-2474	Washer, Standard Flat 1/4 - Z .313 OD x .742 OD x .06 Thick
55	120-1326	1/4-20 x 1" Hex Head Cap Screw
56	120-3564	Gasket, 1/2" Low Density Black (Sold by the Foot)
57	500-7499	Tie Rod Set ( Includes 4 of 160-1640 Tie Rods & 4 of 120-3210 Plain Hex Nuts)
57a	30002229	1/4-20 Top Lock Hex Nut
58	130-1276	Flue Collar
59	120-1374	1/4-20 x 3/4" Hex Head Cap Screw
60	160-2510	Refractory Assembly (Includes PN 160-2511 Access Panel)
61	30001152	Catalyst (Old PN 160-2505 in a carton)
62	130-1252	Lower Fireback
63	130-1260	Upper Fireback
	500-0044	Upper Fireback & Damper Assembly (Includes Item #'s ,7, 34, 36, 63, 65, 69 to 72, 79 to 82)
64	120-1376	1/4-20 x 1" Hex Head Cap Screw - Black
65	120-1386	1/4-20 x 1 1/2" Hex Head Cap Screw
66	120-3105	1/4-20 Nut Plate
67	130-1296	Left Throat
68	130-1297	Right Throat
69	130-1298	Throat Clamp
70	120-3329	1/4-20 Square Nut
71	130-1259	Damper
72	120-3589	Gasket, 3/6" Low Density 6ND (Sold by the Foot)
73	160-4522	Damper Control Rod
74	120-2492	Washer, Thick Flat .52 ID x .875 OD x .085 Thick
75	130-1282	Damper Swing Arm
76	120-1839	3/16 x 1" Stainless Steel Damper Rod Pin
78	120-2488	Washer, Flat 3/8 - Z .442 ID x 1 OD x .074 Thick
79	130-1270	Damper Swing Arm Retainer
80	120-2475	Washer, Narrow Flat 1/4 .275ID x .5 OD x .063 Thick
81	120-0461	1/4-20 x 3/4" Socket Head Cap Screw
82	120-0446	1/4-20 x 1 1/4" Socket Set Screw
83	160-4507	Damper Actuator Link Stop
84	130-1283	Damper Actuator Link
85	130-1271	Damper Rod Retainer
86	130-1274	Door Air Manifold
	500-6079	Door Assembly (Includes Item #'s 13, 56, 87 to 92, 94 to 99, 101, 102, 103, 105)
87	130-1257	Door

88	160-4280	Half Hinge, Door (No Pin)
89	500-2617	Glass Cassette (Aproximately 22" x 13")
90	120-3556	Gasket, 3/16 Fiberglass 4ND Black
91	160-1403	Glass Retainer, Lower
92	160-1409	Glass Retainer, Upper (2 required)
94	120-0985	10-24 x 3/8" Phillips Pan Head Screw
95	140-2504	Brass Trim, Top
96	140-2505	Brass Trim, Left
97	140-2507	Brass Trim, Upper Right
98	140-2508	Brass Trim, Lower Right
99	120-2041	8-32 x 1/2" Phillips Flat Head Screw
101	120-2045	8-32 x 1 1/4" Phillips Flat Head Screw (Upper Brass Trim- Center Screw)
102	500-4273	Handle Stub Assembly with Shaft, Gold
103	30002362	Pawl Assembly Short Adjustment
104	120-0415	1/4-20 X 3/16" Socket Set Screw
105	120-3290	3/8-16 Top Lock Hex Jam Nut
106	130-1273	Striker Plate
107	500-5746	Ash Pan Assembly (Includes Item #'s 108 and 109)
108	160-1025	Ash Pan Only
109	160-1027	Ash Pan Cover with Handle
110	160-1039	Ash Pan Bracket
111	160-0523	Ash Pan Swing Pin, 3/8" OD
112	120-3157	3/8-16 Hex Jam Nut
113	120-2560	Washer, Narrow Flat 3/8
114	130-1272	Ash Pan Door Clamp
115	130-1277	Decorative Ash Door
116	120-1372	1/4-20 x 5/8" Hex Head Cap Screw
117	140-2445	Shroud Top
118	140-3363	Shroud Flue Connector Plate
119	120-2058	#10 x 1/2 Phillips Pan Head Sheet Metal Screw - Black
120	140-2450	Shroud Sides and Back Assembly
121	500-0043	Shroud Assembly (Includes Item #'s 117, 120, 124 and 119)
123	140-2448	Shroud Bottom
124	140-2453	Outside Air Cover
125	500-2779	Wireway Assembly
126	130-1255	Rheostat Control Lever
127	160-4511	Lower Rheostat Wire Link
128	160-4512	Upper Rheostat wire Link
129	120-6343	Spark Screen (Inserted In Door After Removing Glass Cassette)
131	N/A	Listing Label, UL, ULC, EPA, Safety
133	160-4504	Wire Handle 1/4" Diameter (Fans & Thermostat)
134	160-4514	Wire Handle 3/8" Diameter (Damper)
135	160-2470	Gold Ball For Wire Handles
140	500-2771	Fan Assembly
	160-1244	Fand Mounting Bracket
	160-1245	Rubber Bands For Mounting Fans
	120-2423	Washer, Flat #10 SAE
	120-3273	8-32 Hex Nut
	120-1243	8-32 x 2" Round Head Slotted Screw - Z

## HARDWARE WINTERWARM LARGE 2100

120-0417	¼-20 x ¼" Socket Set Screw <b>(Thermostat Actuator, Pawl Assembly)</b>	120-0446	¼-20 x 1¼" Socket Set Screw <b>(Damper Swing Arm Retainer Adjuster)</b>
120-0461	¼-20 x ¾" Socket Head Cap Screw <b>(Damper Swing Arm Retainer, Pawl Assembly)</b>	120-0830	¼-20 x 1¼" Phillips Flat Head Screw Black <b>(Primary Air Box)</b>
120-0865	¼-20 x ⅝" Phillips Flat Head Screw <b>(Bottom to Shroud)</b>	120-0894	¼-20 x ½" Phillips Round Head Screw <b>(Thermostat Disc)</b>
120-0896	¼-20 x ⅝" Phillips Round Head Screw <b>(Thermostat Air Valve)</b>	120-0980	10-24 x ¼" Phillips Pan Head Screw <b>(Secondary Probe, Secondary Flap)</b>
120-0985	10-24 x ⅜" Phillips Pan Head Screw <b>(Glass Retainers)</b>	120-0993	¼-20 x ⅝" Phillips Pan Head Screw <b>(Secondary Air Cover Plate)</b>
120-1243	8-32 x 2" Round Head Slotted Screw - Z <b>(Fan Mount to Bracket)</b>	120-1319	⅜-16 Threaded Shoulder Bolt, 1/2 x 1 1/4" Body <b>(Thermostat Control Arm)</b>
120-1326	¼-20 x 1" Hex Head Cap Screw <b>(Damper Rod Retainer, Damper Control Shim)</b>	120-1338	¼-20 x ½" Hex Head Cap Screw <b>(Striker Plate, Ash Pan Bracket, Airbox, Shroud, Damper Tab, Damper Actuator Link Stop, Damper Interlock, Collar Assembly)</b>
120-1347	¼-20 x ½" Hex Head Leveller Bolt <b>(Body and Door Half Hinges)</b>	120-1372	¼-20 x ⅝" Hex Head Cap Screw <b>(Ashdoor Clamp)</b>
120-1374	¼-20 x ¾" Hex Head Cap Screw <b>(Flue Collar, Fan Heat Shields)</b>	120-1376	¼-20 x 1" Hex Head Cap Screw - Black <b>(Air Manifold)</b>
120-1386	¼-20 x 1½" Hex Head Cap Screw <b>(Upper Fireback, Throat Clamp)</b>	120-1839	3/16 x 1" Stainless Steel Pin <b>(Damper Rod)</b>
120-1500	5/16 x 2½" Hex Head Lag Bolt <b>(Bottom to Pallet)</b>	120-1846	Friction Spring <b>(Thermostat to Air Box)</b>
120-1742	⅜-16 x 2" Hex Head Leveller Bolt <b>(Bottom)</b>	120-1864	Eyelet #SE 57 <b>(Thermostat Assembly)</b>
120-1781	Control Spacer <b>(Control Shim)</b>	120-1899	5/16" Hole Plug <b>(Firebox Back)</b>
120-1960	Ball Chain #6 <b>(Thermostat Assembly)</b>	120-1985	Snap Ring <b>(Primary Air Assembly )</b>
120-1972	Fitting, Ball Chain <b>(Thermostat Assembly Ball Chain)</b>	120-2041	8-32 x ½" Phillips Flat Head Screw <b>(Brass Trim [Except Top Centre])</b>
120-1986	Shim Ring, 18 Ga Nickel <b>(Secondary Flap)</b>	120-2045	8-32 x 1¼" Phillips Flat Head Screw <b>(Brass Trim Top Centre)</b>
120-2058	#10 x ½" Ph Pan Head Sheet Metal Screw - Blk <b>(Shroud, Fan Ground Jumper, Flue Collar Shrd)</b>	120-2471	Washer, Flat ¼ #304 SS .294 ID x .63 OD <b>(Thermostat Assembly)</b>
120-2423	Washer, Flat #10 SAE <b>(Fan Mount)</b>	120-2475	Washer, Narrow Flat ¼ .275ID x .5 OD <b>(Damper Swing Arm Retainer)</b>
120-2461	Washer, Ext Star <b>(Behind Body Half Hinges)</b>	120-2488	Washer, Flat ⅜ - Z .442 ID x 1 OD x .074 Thick <b>(Damper Control Rod)</b>
120-2474	Washer, Flat ¼ - Z .313 OD x .742 OD <b>(Flue Collar, Damper Retrainer Rod, Door Manifold, Top, Tie Rod, Upper Fireback, Damper Actuator Link Stop, Ashdoor, Ashpan Bracket, Striker Plate, Control Lever Shims)</b>	120-2491	Washer, Flat 1/2 SAE <b>(Thermostat Control, Rheostat Control, Damper Control Rod)</b>
120-2492	Thick Flat Washer .52 ID x .875 OD x .085 Thick <b>(Damper Control Rod)</b>	120-2560	Washer, Narrow Flat ⅜ <b>(Ash Pan Swing)</b>
120-2906	Pop Rivet ⅜ x ⅜ - Z <b>(Various)</b>	120-3027	7/16 x ⅝" Cotter Pin <b>(Primary Air Flap)</b>
120-3105	¼-20 Nut Plate <b>(Upper Fireback)</b>	120-3210	¼-20 Plain Hex Nut <b>(Tie Rod, Damper Swing Arm Retainer, Damper Retainer Rod, Door Manifold, Pawl Assembly, Wire Handle)</b>
120-3157	⅜-16 Hex Jam Nut <b>(Ash Pan Swing, Damper Handle Wire Link)</b>	120-3273	8-32 Hex Nut <b>(Fan Mount)</b>
30001229	¼-20 Top Lock Hex Nut <b>(Tie Rods)</b>	120-3290	⅜-16 Top Lock Hex Jam Nut <b>(Damper Control Rod, Pawl Assembly)</b>
120-3275	#8-32 Hex Top Lock Nut <b>(All Wire Links)</b>	120-5116	⅜ Allen Wrench Short Arm
120-3329	¼-20 Square Nut <b>(Throat Clamp)</b>	120-5147	5/32 Allen Wrench Short Arm
160-4503	Wire, Thermostat Flap <b>(Thermostat Flap)</b>	120-2479	Washer, Flat 5/16 <b>(Door Handle)</b>

# WinterWarm Traditional Front



Item Description	Part Number
1. Upper Grille	1301153
2. Flat Washer, 1/4" Plain - 7/8" od	1202470
3. Inner Trim	1301154
4. Hex Head Cap Screw, 1/4-20 x 3/4" Gr 5 Black	1201374
5. Left Divider	1604508
6. Right Divider	1604509
8. Column	See Chart Pg. 12
9. Left Cap	See Chart Pg. 12
10. Right Cap	See Chart Pg. 12
11. Outer Trim	See Chart Pg. 12
12. Hex Hd Cap Screw, 1/4-20 x 1/2" Gr 5 Black	1201338
13. Outer Trim Retaining Plate Damper Tab	1601488

Item Description	Part Number
14. Spandrel	See Chart Pg. 12
15. Left Base Plate	1301155
16. Right Base Plate	1301156
18. Mantel	See Chart Pg. 12
19. Left Junction Box Assembly Rheostat	5002776 1601410
20. Electric Cord Set	1204816
24. 10-24 x 1/2" Phillips Truss Hd Mach. Screw	1200996
25. 1/4" Spacer	1601755
26. Metal Cord Clamp	1203057
28. Right Junction Box Assembly	5002777
31. Hex Head Cap Screw, 1/4-20 x 5/8" Black	1201372
32. SAE #10 Flat Washer .313 id x .742 od - Zinc	1202423

# WinterWarm

## Traditional Front (continued)

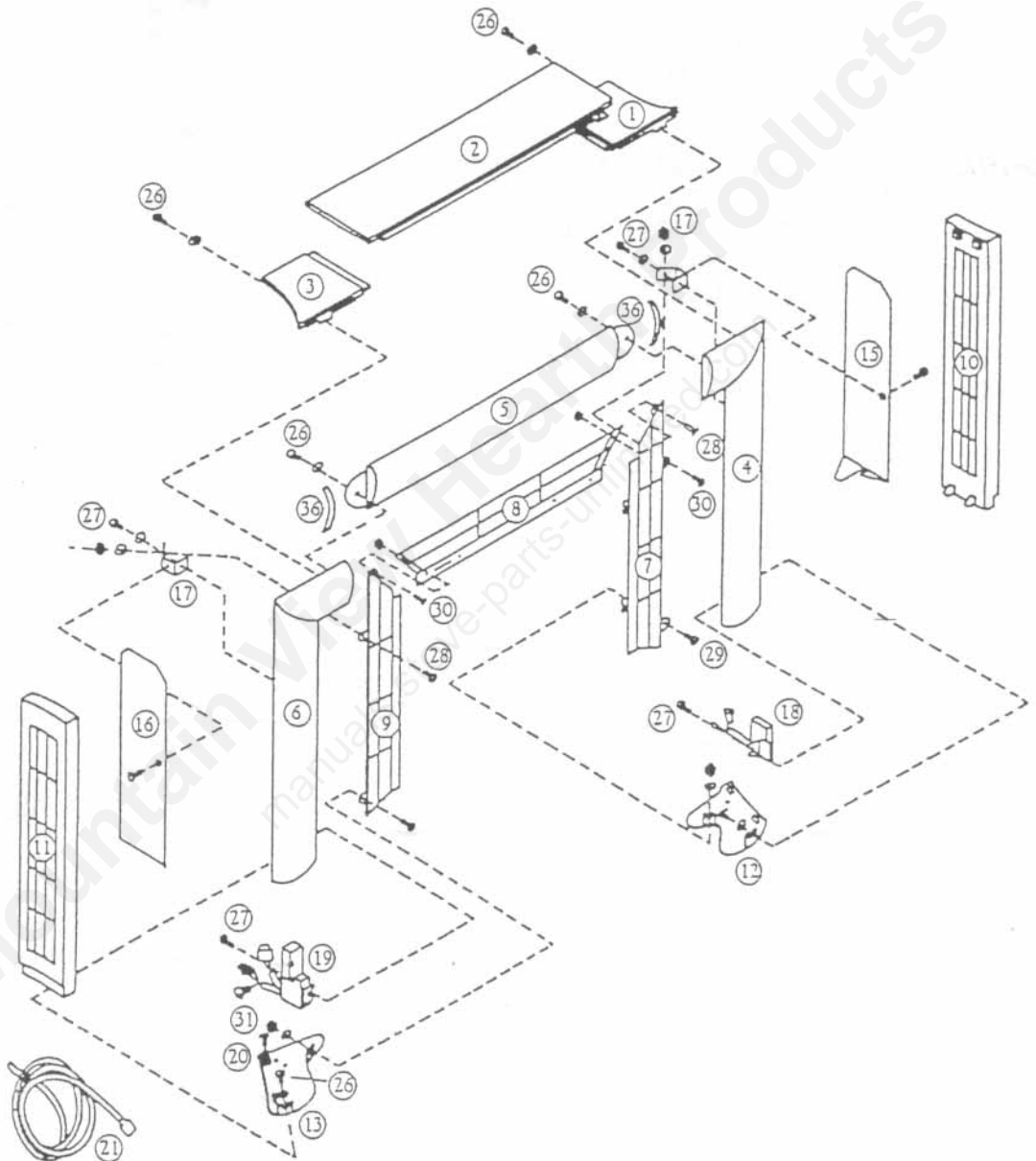
### Hardware

1202310	1/4-20 Plain Nut (right junction box)
1203365	Push Nut (left junction box)
1202474	1/4 Flat Washer (12 used) (attaches front to firebox, upper grille, inner trim, outer trim, spandrel, base plate)
1200998	10-24 x 1/4 Truss Head (left junction box)

**NOTE:** All hex had cap screws are 1/4-20 x 3/4" except for those labelled #12, #24 or #31. All washers are 1/4" - 7/8 oc except for the one labelled #32.

Shell Enamel Parts - WinterWarm Traditional Front				
Part Name	Classic	Sand	Midnight	Antique Brown
Mantel	1301278	1321278	1341278	1391278
Spandrel	1301279	1321279	1341279	1391279
Left Cap	1301289	1321289	1341289	1391289
Right Cap	1301290	1321290	1341290	1381290
Column	1301300	1321300	1341300	1391300
Outer Trim	1301303	1321303	1341303	1391303

# WINTERWARM VERSATILE FRONTS



# WINTERWARM VERSATILE FRONTS

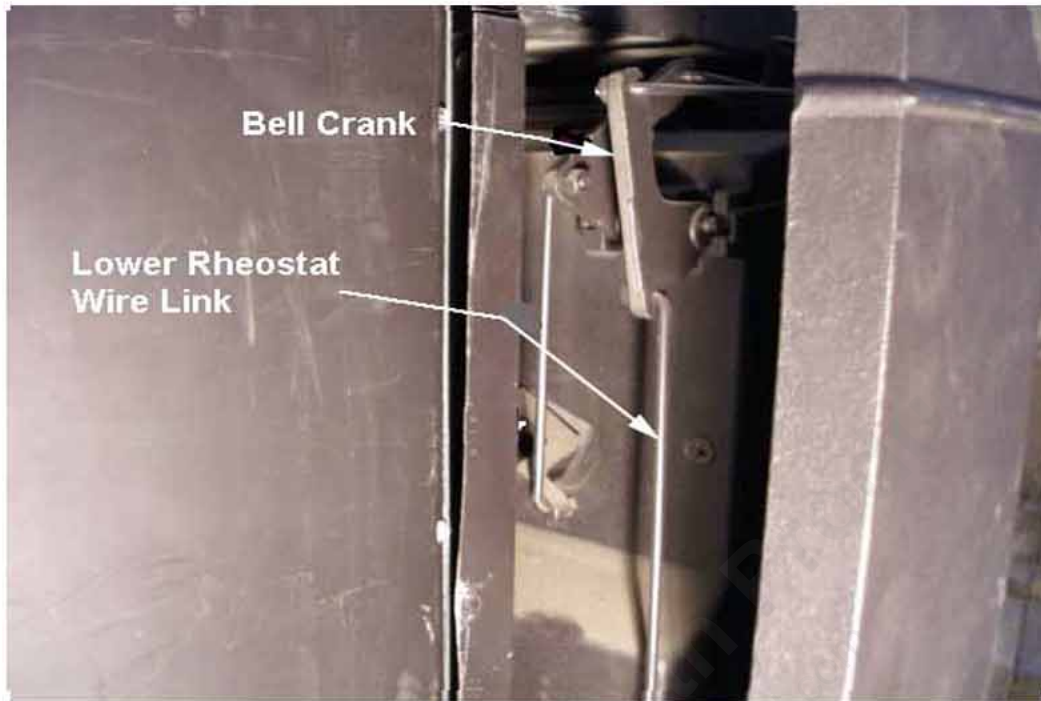
## DIAGRAM

#	ITEM #	PART DESCRIPTION
1	130-1161	RIGHT MANTEL
2	130-1162	MANTEL
3	130-1163	LEFT MANTEL
4	130-1164	RIGHT FACE
5	130-1165	CENTER FACE
6	130-1166	LEFT FACE
7	130-1167	RIGHT GRILL
8	130-1168	CENTER GRILL
9	130-1169	LEFT GRILL
10	130-1170	RIGHT SIDE
11	130-1171	LEFT SIDE
12	130-1172	RIGHT FOOT
13	130-1173	LEFT FOOT
15	140-1182	RIGHT DIVIDER
16	140-1181	LEFT DIVIDER
17	160-4515	3/4 X 1/8 CONNECTOR
18	500-2777	RIGHT JUNCTION BOX ASSEMBLY
19	500-2776	LEFT JUNCTION BOX ASSEMBLY <b>(INCLUDES RHEOSTAT ASSEMBLY)</b>
20	120-3057	WIRE-METAL CLAMP 5/16"
21	120-4816	ELECTRICAL CORD
26	120-1374	1/4-20X 3/4 HEX HD CAP SCREW
27	120-1338	1/4-20 X 1/2HEX HEAD CAP SCREW
28	120-0900	1/4-20 X 3/4 PH RD HD
29	120-0907	1/4-20 X 3/4 PH RD HD SCR
30	120-0947	10-24 X 1 PH RD HD SCR
31	120-0993	1/4-20 X 3/8 PH PAN HD
32	120-3210	1/4-20 PLAIN NUT
33	120-3251	10-24 HEX NUT
35	120-2474	1/4 FLAT WASHER
36	140-1183	BRASS TRIM, FRONT
n/s	<b>1604516</b>	<b>3/8"DAMPER HANDLE</b>

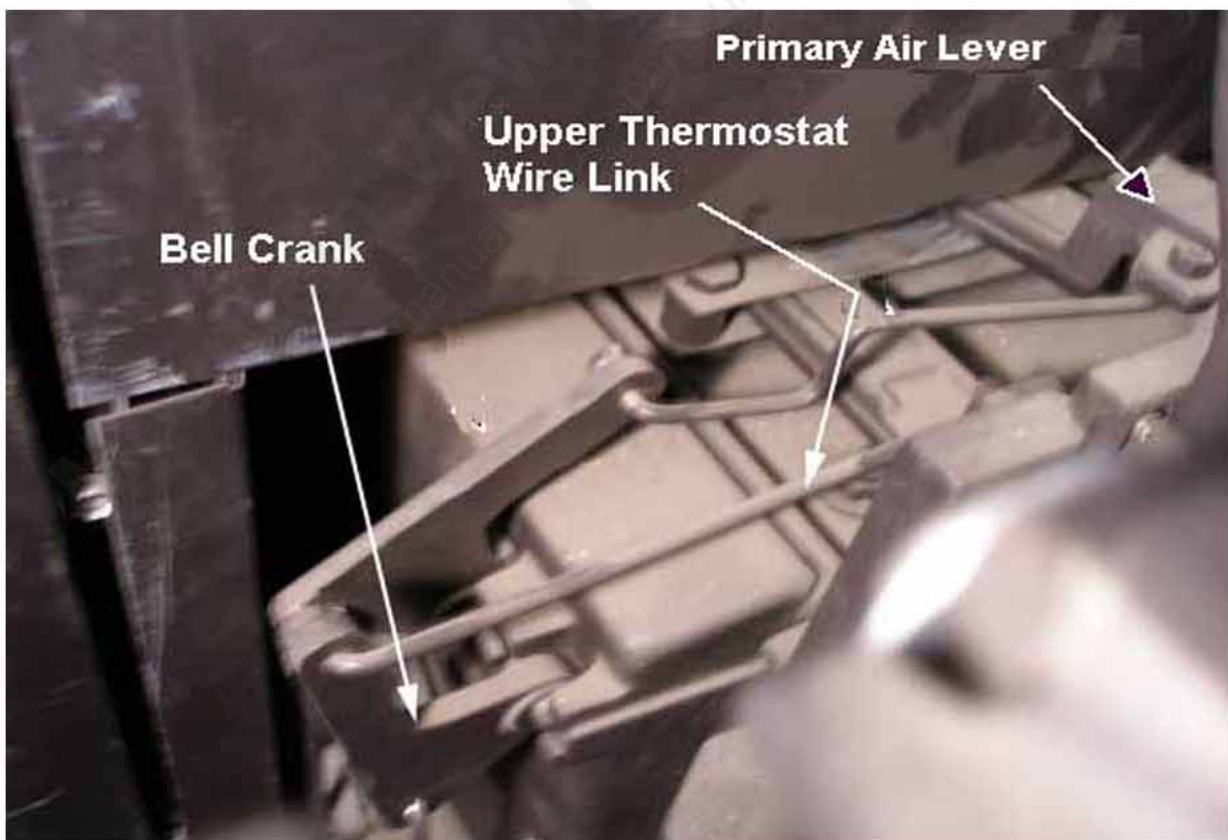
## ITEMS NOT SHOWN

160-1488	DAMP
000-5835	HARD
120-0996	10-24 <b>(LEFT &amp; RIGHT DIVIDER)</b>
120-1376	1/4-20 X 1 HEX HD CS <b>(FRONT GRILL)</b>

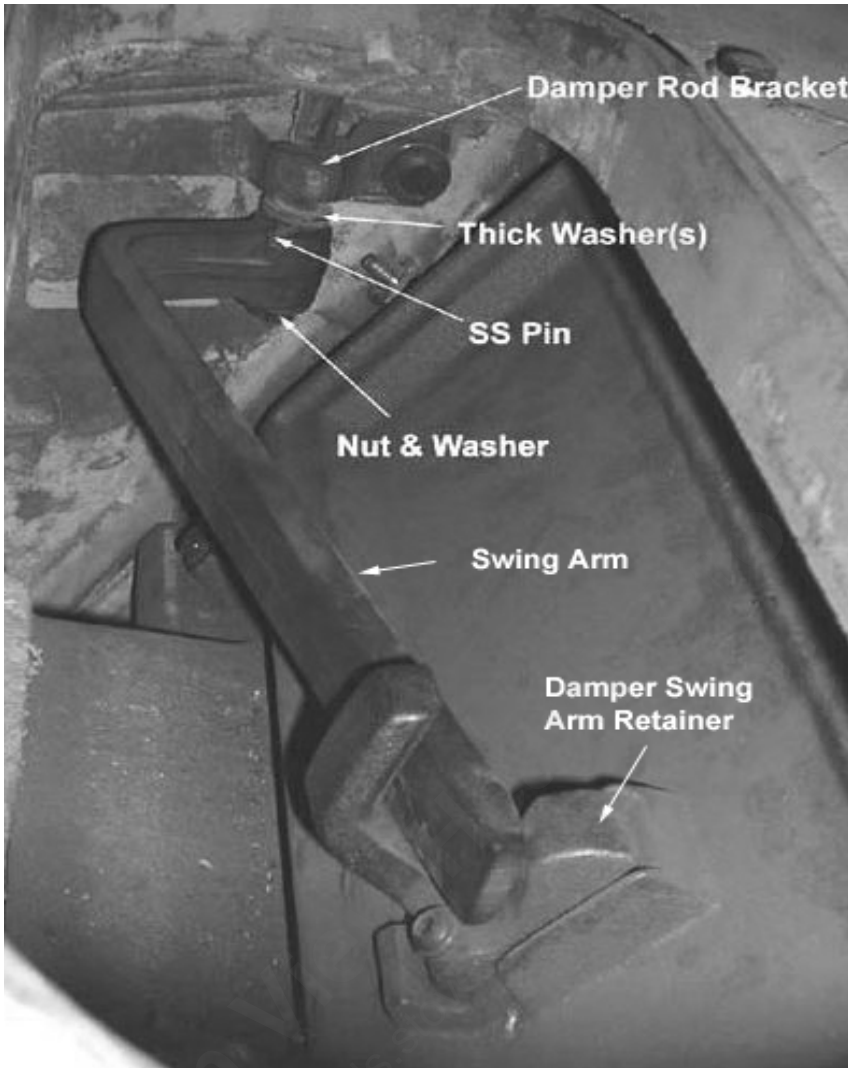
## MISCELLANEOUS ASSEMBLY PHOTOS



*Lower rheostat connections*



*Upper rheostat connections*



*Damper operation parts*