

**NOTICE**  
Series  
Identification

Read the boiler rating label to determine the series number. The rating label is located on the back of the boiler.

# Combustion Air Damper Installation Instructions

Combustion Air Damper Kit part number

Damper Kit - 384-000-157

## **STOP!** Read before proceeding

### **Hazard definitions**

The following defined terms are used throughout this manual to bring attention to the presence of hazards of various risk levels or to important information concerning the life of the product.

**▲ DANGER** Indicates presence of hazards that will cause severe personal injury, death or substantial property damage.

**▲ WARNING** Indicates presence of hazards that can cause severe personal injury, death or substantial property damage.

**▲ CAUTION** Indicates presence of hazards that will or can cause minor personal injury or property damage.

**NOTICE** Indicates special instructions on installation, operation or maintenance that are important but not related to personal injury or property damage.

**▲ WARNING** **These instructions must only be used by a qualified installer/service technician.** Read all instructions completely before beginning the installation. Failure to follow all instructions can cause severe personal injury, death or substantial property damage.

**▲ WARNING**

You must read and have the **SVF™ Boiler Manual** with you to proceed with these instructions.

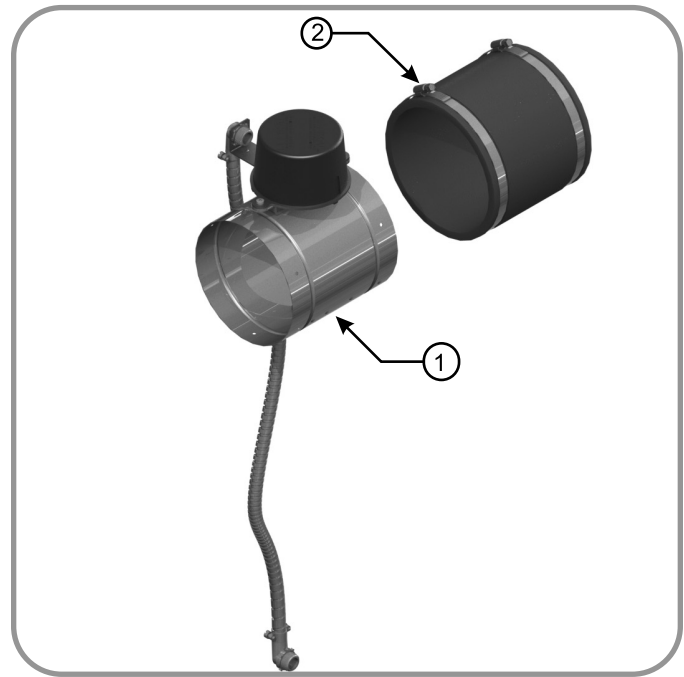
The Boiler Manual is available online at [Weil-McLain.com](http://Weil-McLain.com)



## Combustion Air Damper Kit SVF™ 750/1000/1100

### P/N 384-000-157 Kit contents:

Item	Description	Qty
1	Damper	1
2	Fernco Fitting	1
3	Damper Installation Instructions	1



### STOP! Read before proceeding

**⚠ WARNING** The boiler contains ceramic fiber and fiberglass materials. Use care when handling these materials per instructions in the Boiler Manual, available on-line at [Weil-McLain.com](http://Weil-McLain.com). Failure to comply could result in severe personal injury.

**⚠ WARNING** **Shut off power to the boiler and close main gas valve. Close all isolation valves.** Failure to do so can result in severe personal injury, death or substantial property damage.

**⚠ WARNING** **Wait for the heat exchanger to cool down before proceeding.** Failure to do so can result in severe personal injury.

### STOP! Read before proceeding

**⚠ WARNING** Removing and reinstalling components can change boiler behavior. After any maintenance procedure, you must prove the boiler is operating correctly. To do so, **follow the complete procedure for boiler and system start-up as instructed in the Boiler Manual.** Failure to comply could result in severe personal injury, death or substantial property damage.

**⚠ WARNING** For component location reference, see previous pages. This is duplicated from the SVF™ Boiler manual, but included here for convenience. All instructions in the Boiler manual must be followed, including fuel requirements, water requirements and start-up/operation.

## Recommended tools

4mm Allen Wrench	Phillips Head Screwdriver
8mm Wrench	

## Clearance requirements

This procedure requires adequate clearance to do the following:

- Remove top panel and top front panel.
- Access internal components of the boiler, remove components and set components aside in a clean staging area.

It is assumed that the boiler will NOT need to be moved in order to meet these clearance requirements.

## Isolate the boiler

1. Shut off power to the boiler.
2. Shut off the supply of gas to the boiler.

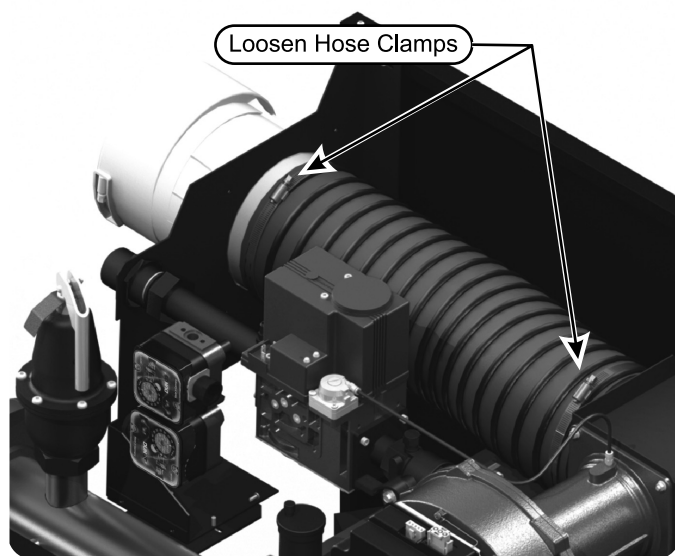
## Remove ALL jacket panels for access to internal components

1. Remove the top panel
  - a. Remove four (4) screws.
  - b. Lift off boiler. Set aside.

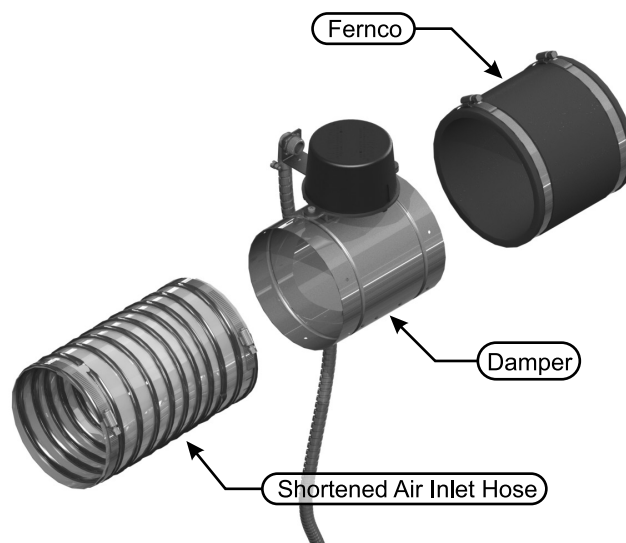
## Remove the air inlet hose

1. Use a screwdriver to loosen the two hose clamps holding the air inlet hose.
2. Slide the air inlet hose off the air inlet elbow and the air inlet adapter. Set the air inlet hose aside.

**Figure 1** Removal of flexible air tube



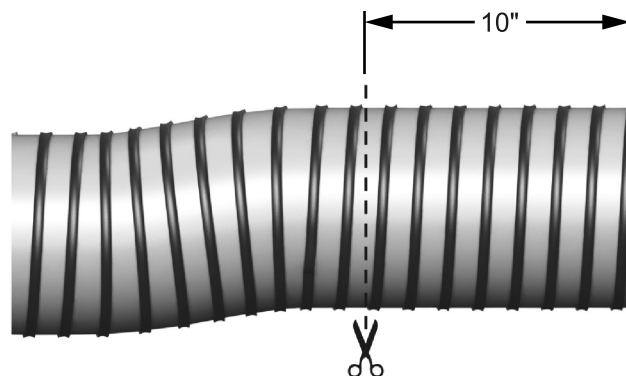
**Figure 2** Slide Fernco fitting and air inlet hose onto damper



## Modify the air inlet hose

1. Remove the hose clamps.
2. Using a tool, cut the air inlet hose to a relaxed length of 10 inches.
3. Slide the hose clamps over the ends of the air inlet hose.

**Figure 3** Air inlet hose cut to 10 inches in relaxed length

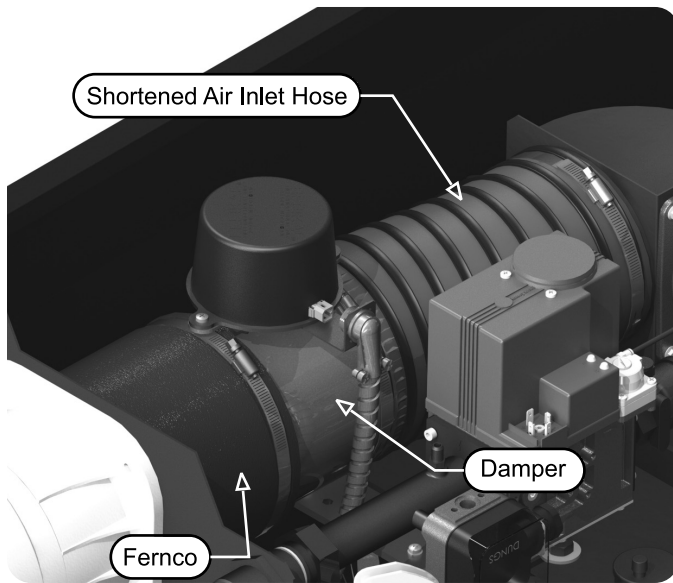


## Install the damper kit assembly

1. Get the damper and 6" Fernco fitting from the replacement kit.
2. Slide the Fernco fitting and modified air inlet hose onto the damper as shown in Figure 2 and tighten the hose clamps.

**NOTE:** The flexible conduit should be located on the side of the damper facing the gas valve, NOT the side facing the right jacket panel.

3. Slide the Fernco fitting onto the air inlet adapter and tighten the hose clamp.
4. Slide the air inlet hose onto the air inlet elbow and tighten the hose clamp.

**Figure 4** Damper Assembly Installed

### Install the damper wiring

1. Open the rear terminal box using a Phillips head screwdriver.
2. Route the flexible conduit down the rear terminal box. Secure the conduit fitting through an available knockout in the first five knockouts from the top.
3. Attach wires as shown in Figure 5.
  - a. Red wires to "Closure Switch 2" and "Closure Switch 1" in Block "P11"
  - b. Choose output 2 or 3 (OUTPUT 3 shown)
  - c. Green wire to selected output ground in block "P2"
  - d. White wire to selected output neutral in block "P2"
  - e. Blue wire to selected output hot in block "P2"
  - f. Black wire to "1 Power (HOT) 120 VAC" in block "P1"
4. Close the rear terminal box using one (1) screw with a Phillips head screwdriver

### Reinstall all jacket panels

1. Reinstall the top panel using four (4) screws with a Phillips head screwdriver.

### Adjust control settings

1. Assign INPUT 2 or INPUT3 (whichever was selected when wiring) as AUX PUMP/OUTPUT function.
2. See NOTE A on page 5
3. OUTPUT 2 or OUTPUT 3 (whichever was selected when wiring) will provide 120VAC to the damper motor.

NOTE: Whichever output is selected will also make the corresponding input unusable. For example, if OUTPUT 3 is selected INPUT 3 would be unusable.

### Start up, test, and adjust boiler

1. Refer to Boiler Manual for proper startup procedure
2. Follow all instructions in the Boiler Manual to start up, test, and adjust the boiler

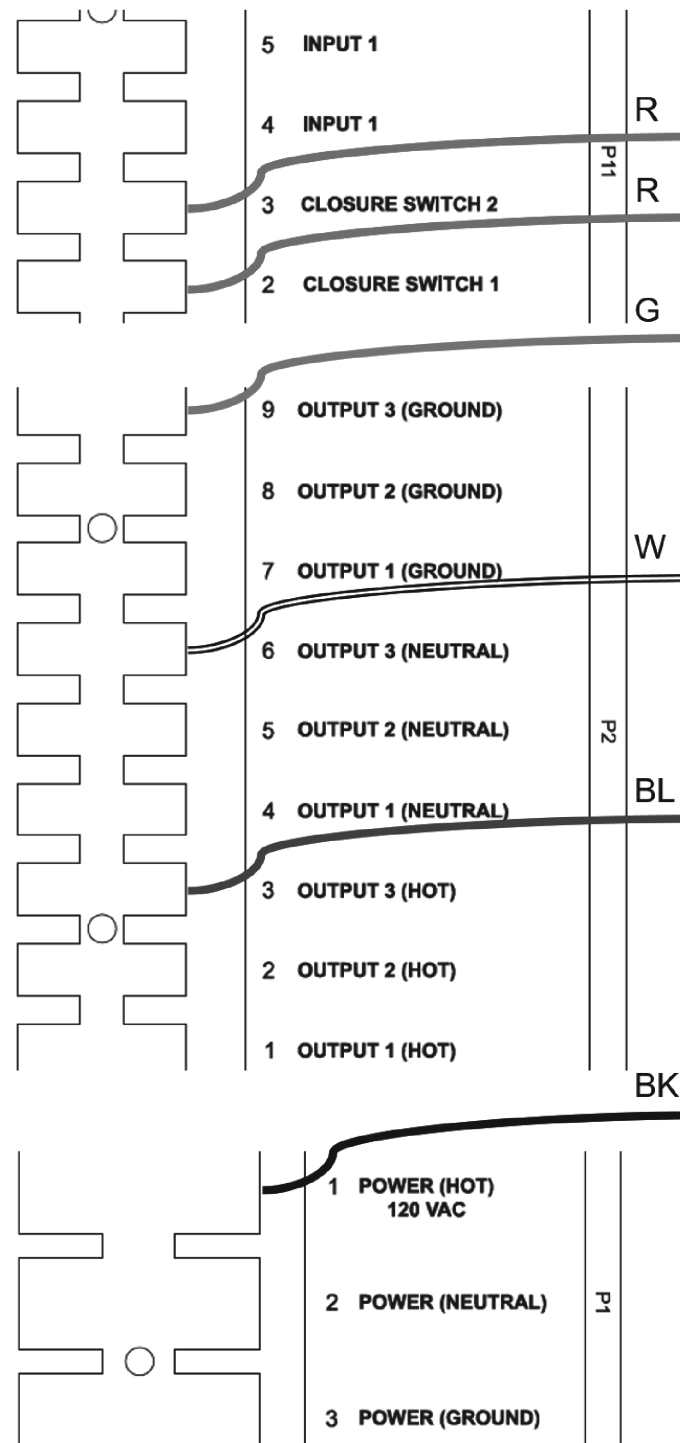
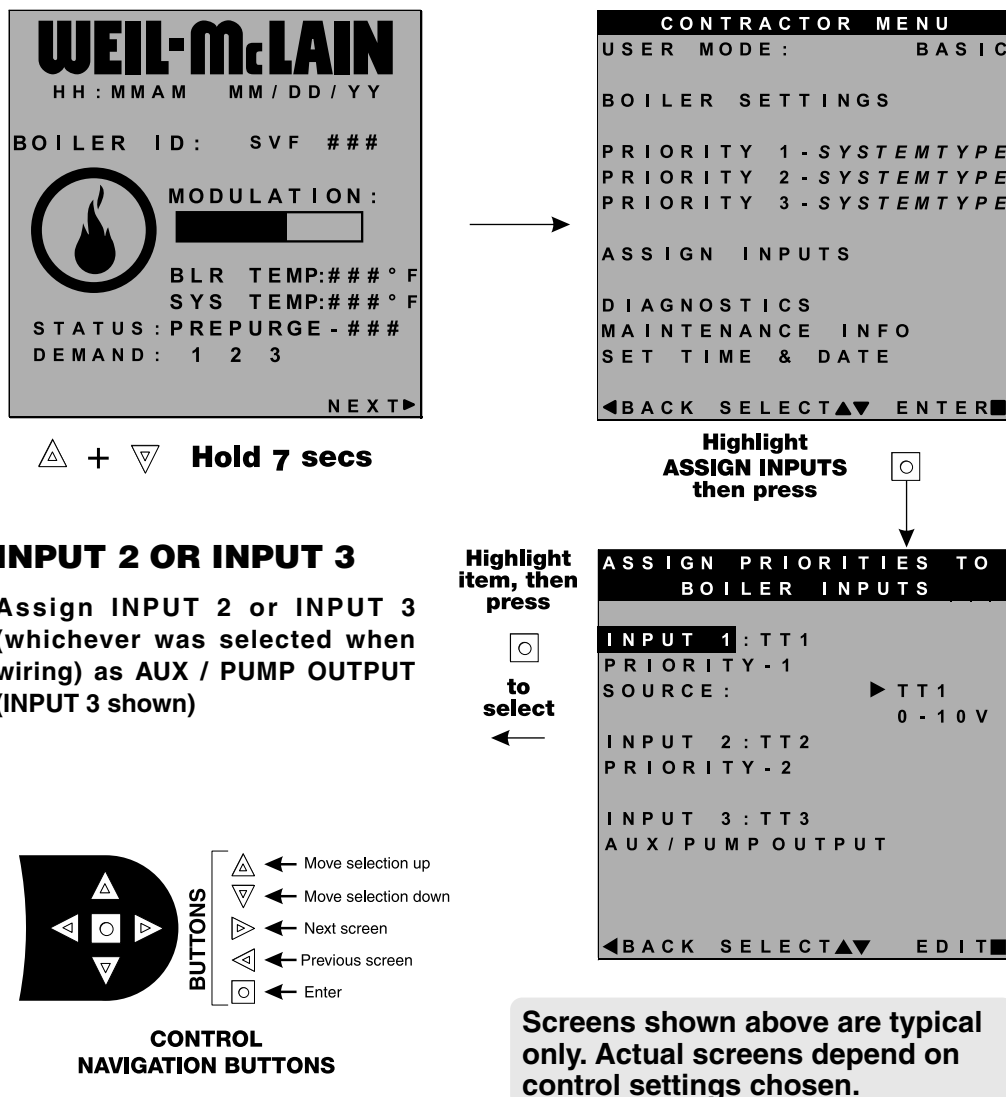
**Figure 5** Damper Wiring

Figure 6 Adjusted Control Settings



## NOTE A

### For the AUX PUMP/OUTPUT operating mode:

- If a single boiler installation, select ANY BURNER DEMAND or DAMPER CONTROL.
- If a multiple boiler installation, select DAMPER CONTROL.

**This ensures the damper will be activated any time the boiler is called on to fire.**

**NOTICE** If DAMPER CONTROL is not show as an option, please consult the Weil-McLain Factory.







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