## Installation & Maintenance Data

IM 974-1

Group: WSHP

Part Number: 910124314

Date: October 2013

# Console Water Source Heat Pumps – Model MHC & MHW Outside Air Damper Assembly (Manual and Motorized)

## **⚠** WARNING

Installation and maintenance are to be performed by qualified personnel who are familiar with local codes and regulations, and experienced with this type of equipment.

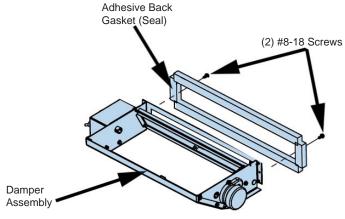
## **⚠** CAUTION

Sharp edges can cause personal injury. Avoid contact with them.

#### **Procedure – Field Installed Accessory**

1. Remove the damper assembly from the shipping carton and check that all parts are included in the kit (Figure 1). Compare the parts to the parts list enclosed with the kit.

Figure 1: Motorized Outside Air Damper Assembly Kit



**Note:** Manual damper assembly not shown, installs the same as motorized damper assembly.

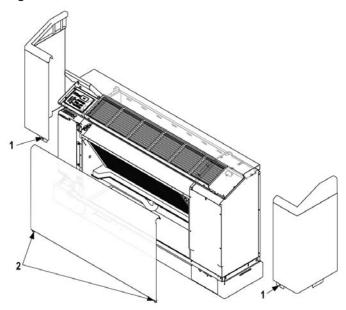


2. To allow access to the interior of the subbase for installation of the damper assembly, disassemble the unit by performing the following:

**Note:** Skip to step 3, page 2 if the damper kit being installed is a new unit installation.

2a. Remove the fasteners (numbered 1) shown in Figure 2, securing the right and left side /corner panels to the subbase. Lift the panels up and out until the bottom tab clears the slot in the subbase.

Figure 2: Panel Fastener Locations



**Note:** Set the unit panels aside where they will not be damaged. Maintain all screws and fasteners for reinstallation.

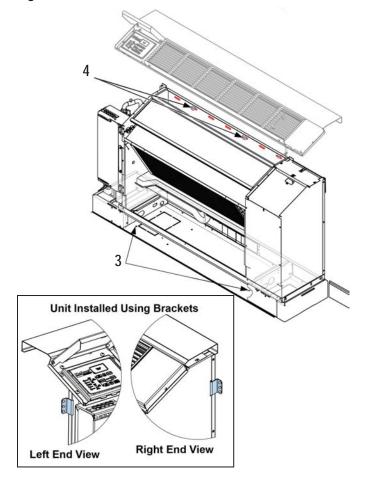
2b. Remove the two fasteners (numbered 2) in Figure 2 securing the front panel to the subbase and remove the panel by lifting up and tilting out until the panel tabs clear the slots in the subbase.



- 2c. Remove the filter and locate the fasteners in the bottom of the subbase (numbered 3) in Figure 3.
- 2d. Remove the fasteners securing the subbase to the floor at locations (numbered 3).

**Note:** If the unit was installed using mounting brackets, it will NOT be necessary to remove the top panel assembly (see Figure 3, bracket detail). If mounting brackets were not utilized, do the following.

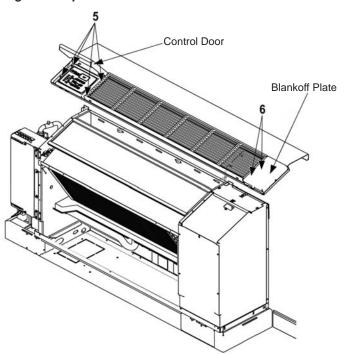
Figure 3: Chassis and Subbase Fastener Locations



2e. Open the control door and remove the four screws that hold the top panel and control pad in place (numbered 5) in Figure 4. On the opposite end of the cabinet top lift off the blank-off plate to the right and remove the last two mounting screws (numbered 6) in Figure 4. Lift the top panel off, turning the control pad so that it fits down through the opening in the top panel.

**Note:** After removing the top panel, set it aside in a safe area where it will not be damaged. Retain all fasteners to be used for re-installation.

Figure 4: Top Panel Fastener Location



2f. Locate and remove the fasteners along the chassis back, flange slots securing the unit chassis to the wall (numbered 4) in Figure 3.

### **IMPORTANT**

Field installation of an outside air damper assembly within preinstalled units, require water-supply and return ball valves to be closed, hose connections disconnected and all wiring to the unit be given consideration before and during movement of the unit away from its installed position. It is the responsibility of the installing contractor to prevent damage to pre-installed components

2g. Carefully move unit away from the wall taking care that electrical wiring or plumbing components do not hang up or pull away and become damaged.

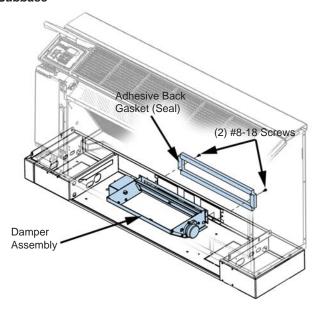
**Note:** Move the unit a distance from the wall allowing adequate room to access the outside air opening knockouts in the back of the subbase. Sufficient clearance between the wall and the subbase is necessary to secure the damper assembly to the subbase.

3. Check that the subbase outside air knockouts align with the outside air damper duct opening in the wall:

**Note:** For new unit installations, confirm that the water loop piping connections are properly located in the subbase piping end. Also confirm that the electrical supply line is in the correct location.

- 3a. If all components align and are properly located, remove the knockouts of the outside air damper opening in the back of the subbase.
- 3b. Position the outside air damper assembly within the subbase, through the front return air opening. Align the mounting holes of the assembly with the subbase outside air opening mounting holes (Figure 5).
- 3c. Using the (2) #8-18 screws provided with the damper kit, secure the damper assembly to the subbase from the back of the subbase into the damper assembly (Figure 5).

Figure 5: Position the Damper Assembly Within the Subbase



- 3d. Apply the 3/4" adhesive-backed gasket (4) to each edge of the outside air opening on the back of the subbase (Figure 5).
- 3e. Slowly move the unit back into position against the wall, paying close attention to the alignment of the outdoor air opening and seal.

The gasket (seal) prevents infiltration of ambient Note: conditions. It is the responsibility of the installing contractor to assure that the gasket matches up with the wall opening or that additional material is used to assure a positive seal.

3f. Secure the unit in place by performing steps 2a through 2f, in reverse order.

DO NOT reinstall the cabinet panels before routing and making electrical connections for the MOTORIZED damper assembly. If a MANUAL outside air damper was installed complete the assembly of panels to the unit, in reverse order as described in steps 2a through 2f.

## Wiring the Motorized Outside Air Damper Assembly

- 4. Route the wire from the motorized outside air damper assembly as shown in Figure 6 (left hand units) or Figure 7 on page 4 (right hand units).
  - 4a. Make wiring connections as shown in Figure 8 on page 4.

Figure 6: Routing the Motorized Outside Air Damper Wiring for Right Hand Units

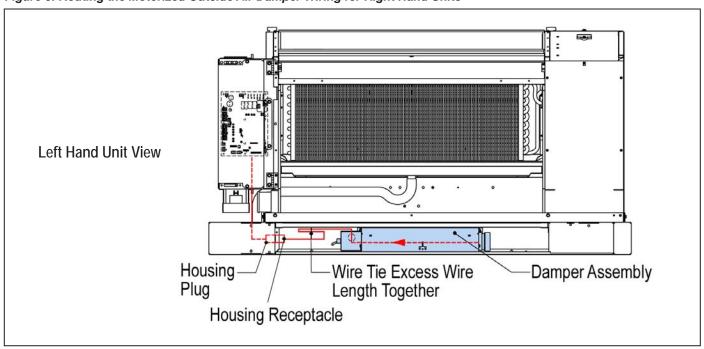


Figure 7: Motorized Outside Air Damper Wiring Diagram

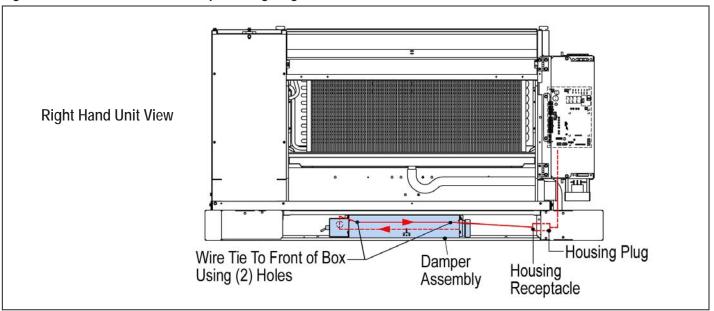


Figure 8: Motorized Outside Air Damper Wiring Diagram

