



Universal HVAC/R  
Parts and Supplies

# INSTRUCTION SHEET

## BAROMETRIC BYPASS DAMPER SETUP

Bypass Damper adjustment is critical in order for any zone system to work properly. When the damper is removed from the box, the weighted arm will be attached to the shaft. It must be adjusted to the 4 o'clock position on the side with the airflow label. If the damper arm is moved to the opposite side of the damper from the AIRFLOW label, the damper arm must be placed in the 8 o'clock position.

### Horizontal AIRFLOW - right to left

This is the way the Bypass Damper is usually set up with the damper arm and arrow label on the same side. **Adjust the damper arm to the 4 o'clock position with the damper closed.**

(See illustration on back side of this page)

### Horizontal AIRFLOW - left to right

Sometimes it is easier to access the damper arm by moving it to the opposite side of the Bypass Damper. If the damper arm is moved to the opposite side (side WITHOUT ARROW LABEL), **adjust the damper arm to the 8 o'clock position with the damper closed.** (See illustration on back side of this page)

### Vertical AIRFLOW - UP

**Adjust the damper arm to the 4 o'clock position with the damper closed.**

(See illustration on back side of this page)

### Vertical AIRFLOW - DOWN

**Adjust the damper arm to the 4 o'clock position with the damper closed.**

(See illustration on back side of this page)

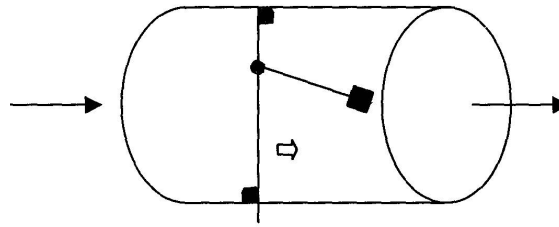
## INITIAL SETUP AND ADJUSTMENT

1. Make a call for heating or cooling in **every zone**. Verify that all zone dampers are open.
2. Verify that the barometric bypass damper is fully closed with the damper arm in the 4 o'clock or 8 o'clock position. Sometimes, a duct system will have higher than normal static pressure; and an additional weight may be required to keep the bypass damper closed with all zones open. Slowly move the weight toward the shaft in half-inch increments until the bypass damper starts to open slightly. Then move the weight in the opposite direction about half an inch, or until the damper just barely stays closed.
3. Close one or more zones and the bypass damper should open. Don't worry about how far the bypass damper opens as it will self-adjust.

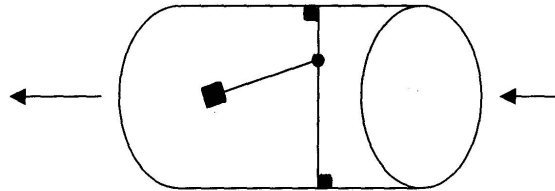
Size the bypass damper for the maximum amount of bypass airflow through the damper. Subtract the smallest zone CFM from the total CFM to determine bypass CFM. Select the bypass damper size from the chart below:

Bypass Damper Size	CFM
10"	800
12"	1200
14"	1600
16"	2000

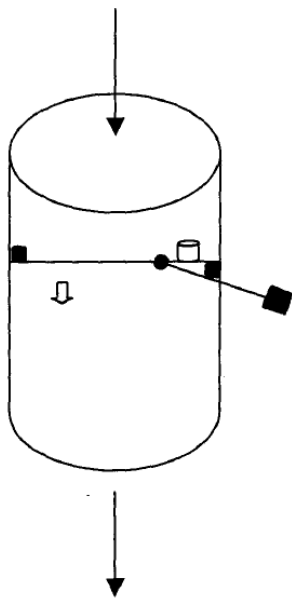
# BAROMETRIC BYPASS DAMPER SETUP



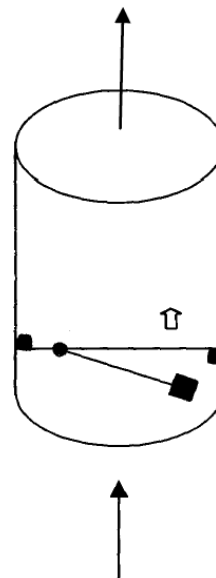
**HORIZONTAL airflow  
(Left to Right)**  
Adjust damper arm to 4 o'clock position with damper closed.



**HORIZONTAL airflow  
(Right to Left)**  
Damper arm moved to opposite side of damper. Adjust damper arm to 4 o'clock position with damper closed.



**DOWNFLOW air  
(UPFLOW air handler)**  
Adjust damper arm to 4 o'clock position with damper closed.



**UPFLOW air  
(DOWNFLOW air handler)**  
Adjust damper arm to 4 o'clock position with damper closed.

**NOTE: For UPFLOW AIR HANDLERS.** If you need excessive weights to hold the damper closed, add weight(s) on the short side of the damper blade. Add just enough weights to hold blade closed with the damper arm removed and the fan NOT running.