

All-Air Control Settings

A 3-Step Interrelated Process

IMPORTANT NOTICE: Coast Controls All-Air guiding systems are designed to operate on low-pressure plant air.

It is important to know that there are three (3) interrelated control settings. Changing one setting can affect the other two.

Before making any adjustments, remove the web from the guide sensor. Once the web is removed, begin the 3-step adjustment process.

1 OPERATING PRESSURE ADJUSTMENT

Set the air pressure regulator to 5 PSI for minimal air usage and economical operation.

If additional shifting force is needed for guiding a large Intermediate/Displacement Guide or a comparatively heavy Shifting Roll-Stand, increase the operating pressure in 1 PSI increments until satisfactory movement is achieved or up to about 10 PSI maximum.

Changing the air pressure will require resetting the gain and/or bias adjustments.



2 GAIN ADJUSTMENT

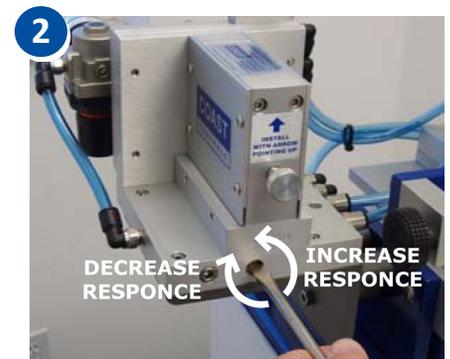
Gain adjustment is controlled by a needle valve located in the Servo Controller's base plate under a removable black cap. This controls the system's frequency response through the amount of air going to the airflow sensor.

Using a flat head screwdriver, close the needle valve by turning it clockwise until resistance is felt. Then, open the valve by turning it counter-clockwise, between 3-¼ to 3-¾ turns.

This is a sensitive adjustment. Adjust while inserting a paper "flag" in and out of the sensor to simulate a web and observe the guide movement. The objective is responsiveness and stability.

If opened a little too far, the system will become too responsive, causing the guide to move quickly and erratically.

If the needle valve is not opened far enough, the guide will respond/move very slowly.



3 BIAS ADJUSTMENT

The Bias Adjustment Knob is located on the same end of the servo controller as the needle valve.

While moving a piece of paper in and out of the sensor, slowly turn the bias adjustment knob one way or the other until guide movement is detected. Continue until the guide moves at the same speed in both directions.



There is an interrelationship between the air pressure, needle valve, and bias adjustment knob, and when adjusting one, you may have to slightly readjust the other. Once the system is properly set, it will move smoothly and responsively with a balanced shifting speed. Further adjustments should not be needed.

Note: If the guide stays to one side and does not respond to the moving piece of paper, this usually means that either the bias adjustment knob or the needle valve has been screwed in or out too far. Slowly turn the adjustment the other way, while using the piece of paper at the sensor to again find the adjustment range as described in steps 2 and 3.

