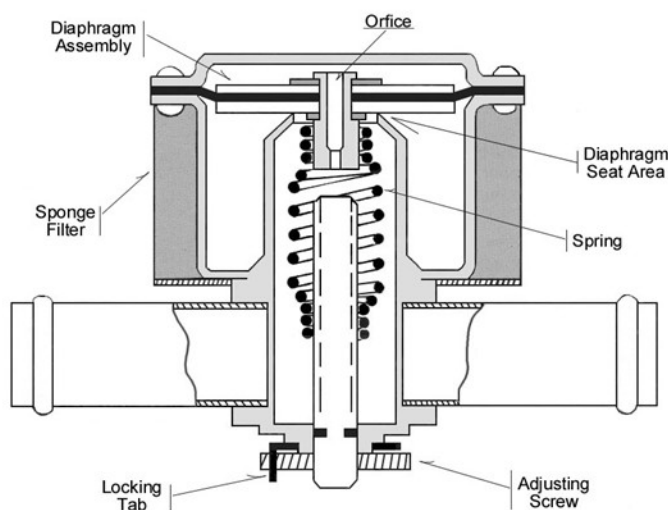


# "A Clear View"

*Into*  
**Construction  
& Operation**

## 2H3-[ ] Vacuum Regulator



### Description

The 2H3-[ ] vacuum regulator is designed to maintain desired vacuum to the aircraft gyro instruments via a spring-loaded diaphragm. All 2H3 valves operate in the same basic manner, with model number variations ( - [ ] ) denoting number of connecting tubes, tube diameter and/or vacuum adjustment range.

A foam filter provides protection to the internal valve and system components.

### Operation

Vacuum created by the air pump enters the valve center body, then bleeds through the diaphragm orifice to the top of the diaphragm. The outer bottom portion of the diaphragm is open and exposed to ambient air pressure located in the engine compartment or cabin.

With regulator spring tension normally set for 4.7" to 5.0" Hg., any increase in pump vacuum will lift the diaphragm upward off its seat allowing excessive vacuum to be diluted by incoming atmospheric air.

Increasing spring tension by turning the adjustment screw will result in higher system vacuum in the valve body and higher differential pressure across the air pump. The result will always be shorter pump life.

### **NOTE:**

**The gyro instrument vacuum gage does not record air pump vacuum !**

### Common Problems

A damaged or deteriorated diaphragm, loose valve cover or rivets, or a broken adjusting spring will result in loss of desired vacuum control.

Loss of system regulation caused by carbon particles wedged under the valve diaphragm is another common occurrence following air pump failure.

### **Remember!**

**If the regulator needs adjustment  
Your system needs maintenance**