



## **Adjustment Procedure Gold Cup 9C Controller**

**Refer to Figure 1 for location of adjustments on the control.**

### **1. Null the pump**

- a. If the unit has the bypass function connected, remove the tubing connected to the BG port and AG Port and cap the fittings. This will allow pressure to build at low stroke.
- a. Hold the “Trimmer adjustment” in position and loosen the “trimmer locknut”.
- b. Adjust the “Trimmer Adjustment” until the pump is at zero displacement. At this time, the pump should not build pressure on either port. (equal pressure on A and B ports with no motion of the actuator). Lock the trimmer locknut at this time.
- c. Remove the plug and manually operate the control with an Allen wrench. Stroke the pump each direction and release. The pump must return to center from each direction. If it does not return to center, go to step 3.

### **2. Center the brake release.**

- a. Check the brake release pressure at port Z. Remove the plug and manually operate the control with an Allen wrench. Stroke the pump each direction. The brake pressure should come on with equal motion of the control each direction and within about 2 Degrees of motion off center. To achieve this condition, loosen the “Brake Release Locknut” and Adjust the “Brake Release Adjustment” to achieve this condition. Only small adjustments (less than ¼ turn) should be required. Lock the adjustment with the “Brake Release Locknut”. Reconnect the Bypass tubing (if required).

- 4. Maximum Volume Adjustments:** Place the pump into a running condition and apply full current (350 mA) to one coil. The maximum volume adjustment is on the side opposite the energized coil. Loosen the locknut and adjust this to give the desired speed on the actuator (or maximum, if desired). Lock the setting with the locknut. Repeat with the opposite coil energized.

- 5. Operational Checks:** Smoothly adjust the coil current from minimum (~ 150 mA) to maximum (~330 mA). Note that the pump operates smoothly and continuously and the actuator moves accordingly. Repeat with current to the opposite side. Removal of current must result in the pump returning to center and the actuator not moving.

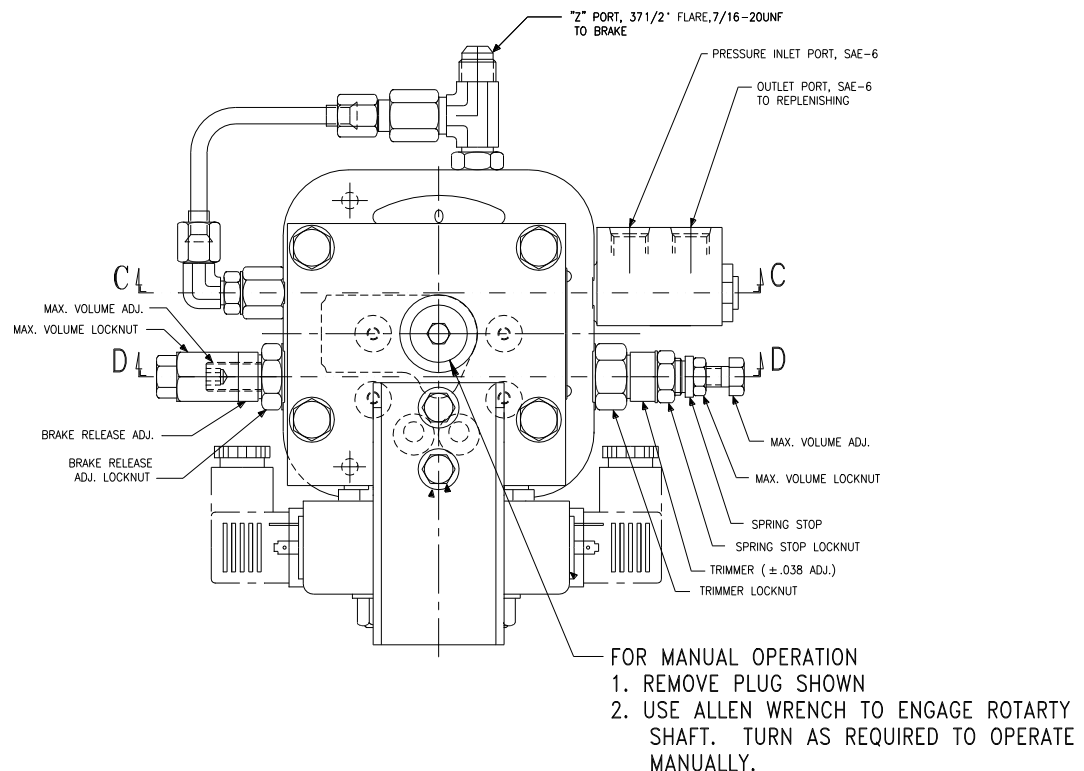
**Manual Control:** If current is not available for setting the pumps, the control may be manually operated by removing the Manual Control Access plug and using a 3/16” Allen wrench to stroke the pump. Centering and max volume adjustments may be made by manually stroking the unit.



## 6. Spring Stop adjustment

**Do not do this step unless it is determined that it is absolutely necessary. This preset on all controls and should only need adjustment the adjustment has been disturbed.**

- The purpose of this adjustment is to remove backlash from the control. When mounted on a pump, the backlash (lost motion) is very difficult to feel. Only slight adjustments should be attempted without removing the control from the pump.
- Move the Control manually with an Allen Wrench with only light force. If lost motion is present, loosen the "Spring Stop locknut" and adjust the "Spring Stop adjustment" remove this lost motion. Lock the "Spring Stop locknut" at this time. Return to step 1 and repeat adjustment.



**Figure 1. Control adjustment locations**