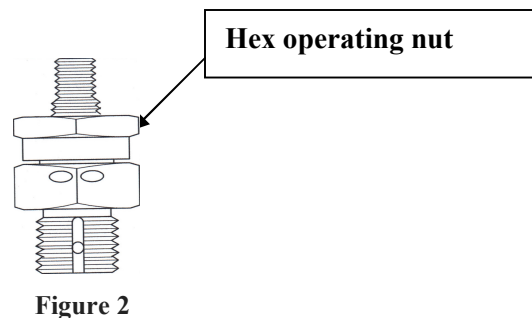
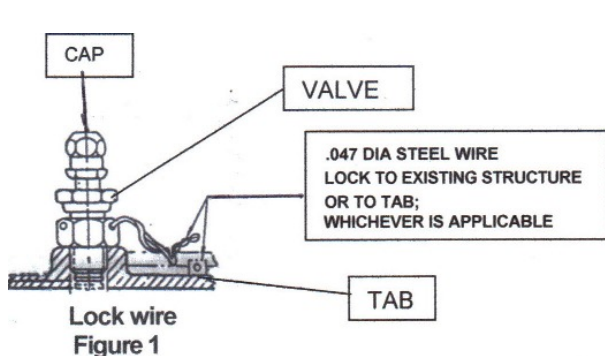


## Instructions for Operation of AV10M / AV10K 10,000 PSI Valves

1. The valve should be installed in the closed position as received, into the appropriate female boss, with an installation torque of 250 inch lbs + 10 inch lbs - 0" using a calibrated torque wrench.
2. Lock wires should be attached to prevent the valve from backing out of the boss during operation. (Note: The use of the lock wires is extremely important for the safe operation of the valve). (Figure 1)



**Never exceed pressure rating of the valve. This valve is rated for 10,000 PSI. All component parts used in the system to charge the valve must also be rated to be able to withstand the rated pressure or working pressure of the valve.**

### Operation

1. Remove the cap from the valve and attach a charging and a gage assembly to the valve. The assembly should be connected to the source of the gas. Start the flow from the charging gas source to the valve. (Note: There shouldn't be any gas leakage from the connections at the source of the gas or the air container).
2. Open the valve for charging by turning the hex operating nut counterclockwise 1-2 turns. (Figure 2)
3. During charging some leakage may occur from the air chuck connection between the chuck and the valve stem. This condition is acceptable if the leakage is not extreme.
4. When the unit being charged reaches the desired pressure, the valve must be closed using a hand (non power) torque wrench to **60 inch lbs** of torque (see below). Over torquing can result in the failure of the valve to seal (see below). Close the valve by turning the operating nut clockwise (Figure 2). After closing the valve, stop the flow of the gas from its source and remove the air chuck or connection to the valve stem and replace the cap on the valve using **5 to 10 inch lbs**.

### Torquing

The closing torque applied to the operating nut should be started 55-60 inch pounds at first. It is suggested that when the valve is first operated, the maximum closing torque of 60 inch lbs be used by the operator, and as required, during its operational life, as the metal to metal valve seat wears, the torque should be increased gradually and only enough to seal off the valve. This must be done by hand with hand operated torque wrench.

When used in applications that are subject to shock and vibrations, a higher torque will be required. Each application is unique; therefore the user must determine a torque that works best for their application. May be required depending on the amount of the shock, vibrations or pulse the valve will be subject to.

If the valve is not operated by using a hand torque wrench then over torquing by the operator can not only damage the seat but also strip the threads out of the operating nut thereby causing the valve to fail. If the valve's operating nut's threads strip out, then the valve will not operate properly. A valve damaged in this manner may not be opened and therefore pressure may not evacuate through the valve.

Furthermore a gage mounted on a gage assembly or charging chuck may not show any pressure in the system when in fact there will be pressure beyond the “crippled” valve. If the valve is not damaged and is torqued past 125 inch pounds and, still does not seal, then it has outlived its operational life and must be replaced.

### **Replacement or Removal of the Charging Valve**

Extreme care should be used in the removal or replacement of the valve from the unit that the valve is connected to.

1. Remove the cap from the stem of the valve.
2. Slowly open the valve to allow any pressure in the system to bleed off until all the pressure is evacuated from the system.
3. With the valve in the open condition remove the lock wires from the valve to allow the valve to be turned for removal.
4. Slowly turn the valve counter clockwise to start the removal. This operation should be done slowly in order to allow any unobserved pressure to evacuate from the system so that the valve does not **blow out** of the unit.

This charging valve is very operator sensitive and care should be used to follow the instructions as outlined to have the valve perform as designed. During each usage the operator must use only enough torque as is required to seal the valve. Failure to follow this procedure will cause the valve seat to wear out prematurely and consequently the valve will not function to the extent of its expected number of usage cycles. Failure to follow safety measures in connection and operation of the valve can cause serious injury to the operator or end user.