

Form #MANIFOLDS

## Operators Instructions PBM Manual and 12 Volt Manifolds

### Manual (UPO Series) Manifolds

Manually operated manifolds consist of an inlet, one plugged outlet, (*For gun kit or other options*), one 1/4" gauge port and one, or more outlets with on/off valves. The most common manifolds from PBM are the UPO series which consists of a stainless steel body between two and four bronze ball valves, distributing the fluid to the boom sections. The manifold will come plumbed with valves for left and right, or left, center, and right, These will control the sections accordingly. By simply pulling the handle of the bronze ball valve forward, you have opened a boom section. Push the handle back to close the flow to the selected boom section. *Repair kits for the bronze ball valves are available through PBM or your PBM dealer.*

### 12 Volt (BM-144A Series) Manifolds

**Caution: Do not allow pressure to exceed 100 PSI when using BM-144A series valves.**

BM-144A series 12 Volt manifolds consist of solenoid valves which are ganged together to provide distribution of the spray material to the boom sections. Each valve requires a 12 volt switch to operate independently. A short wire harness, *or pigtail* is included with most 12 volt manifolds. One black wire for ground and one wire for 12 volt power in from each switch. (*It does not matter which side you connect the power as long as it is the same side on each valve in your manifold.*)

### 12 Volt (BM-Raven Series) Manifolds

**Caution: Do not allow pressure to exceed 175 PSI when using BM-Raven series valves.**

BM-Raven series 12 Volt manifolds consist of motorized poppet valves which are ganged together to provide distribution of the spray material to the boom sections. Each valve requires a 12 volt switch to operate independently. Each valve comes factory equipped with a 3-wire pigtail. Red (Pin A) to positive 12VDC, White (Pin B) to ground and Black (Pin C) = Signal. Positive 12VDC opens valve.

PBM offers a selection of control boxes and wiring harnesses which contain a switch for each valve plus a master on/off switch. If you are using a PBM control/toggle box the valves will be labeled left, center and right. (*Equipment operators left = drivers side and right = passenger side.*) To install the PBM control/toggle box connect the red lead that is exposed on the control box side of the wiring harness to your 12 volt source and the green wire to an adequate ground source. Turn the master switch on and then the left, center or right switches will activate their specific valve. To turn off all sections at one time you have the option of using the master switch.