



# **SMI & HYDRAULICS**

**Unified 5 Zone Power Unit**

**Model # 5ZPS-PB-H24**



**— PLEASE READ BEFORE OPERATING —**

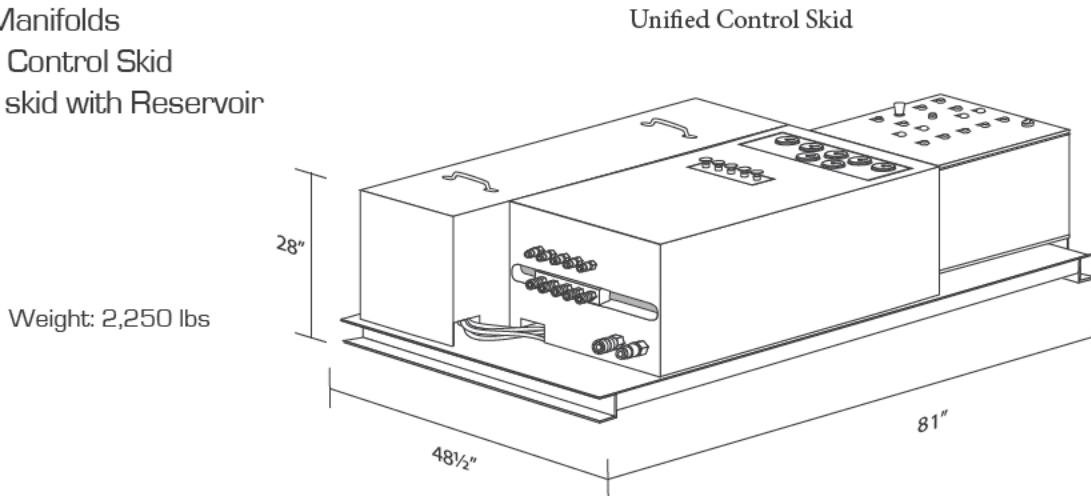
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**5ZPS REV-1**

# UNIFIED 5 ZONE OPERATION

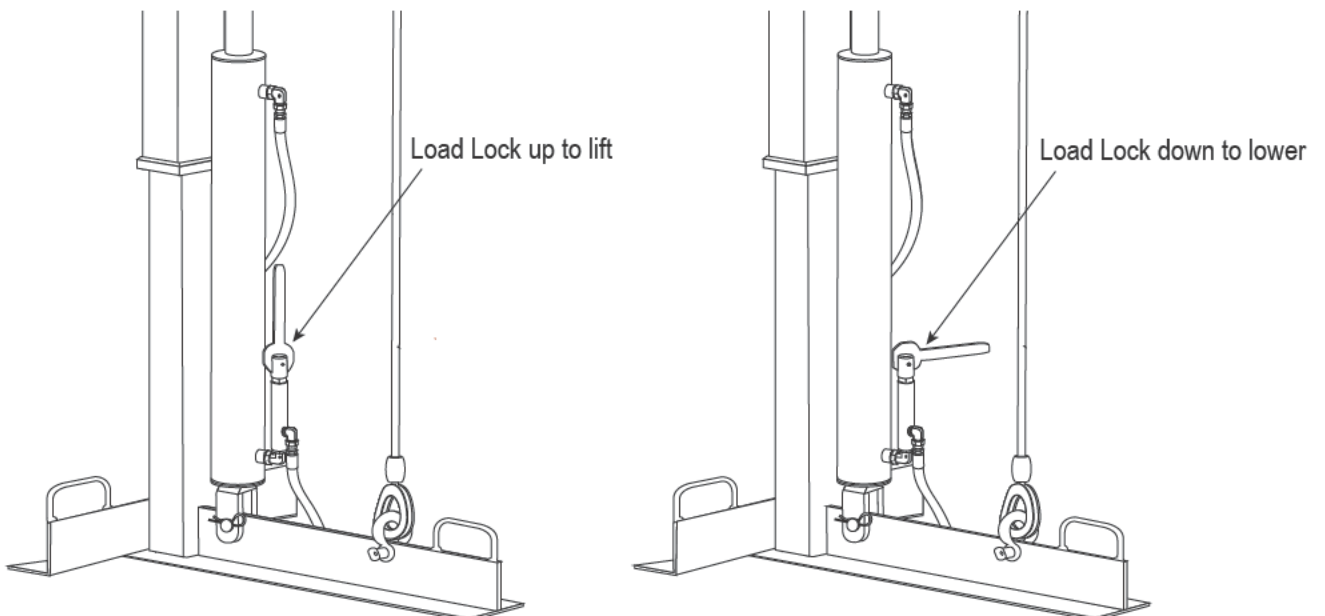
The SMI unified bin jacking system consists of:

- Bin Jacks
- Hose Manifolds
- Unified Control Skid
- Engine skid with Reservoir



## JACKS

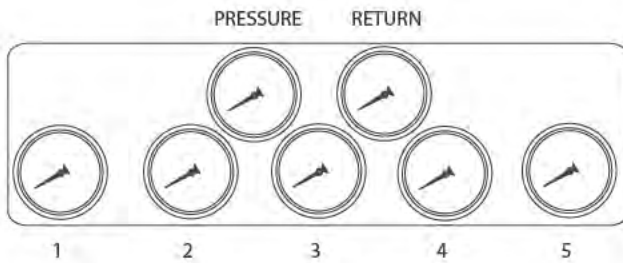
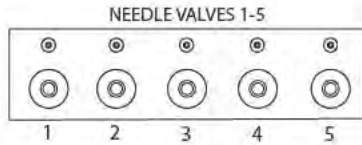
Make sure the jacks are slid up tight to the bin wall and anchored to the concrete. Then bolt the lifting bracket to the bin wall using a sufficient number of bolts to handle the load. Each jack has a load lock valve mounted to the bottom of the hydraulic cylinder, it has a red handle. The load lock valve will keep the jack from coming down if a hydraulic hose were to be cut. The red handle should be in the up position while jacking and any time there is a load on the jack. Move the red lever 90° to either side to allow the jack to come down to reconnect to the bin wall.



# MANIFOLDS

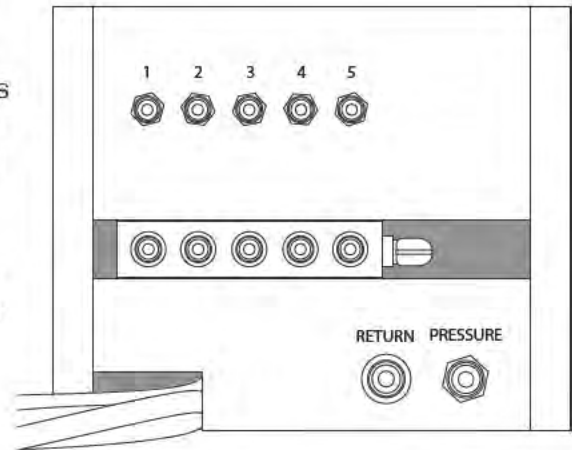


The unified control skid comes with manifolds to connect multiple jacks to each zone. There are 5 zones available; an equal number of jacks must be connected to each zone used. For example, if you need to use 8 jacks, connect 2 jacks to 4 zones and put the 5th zone in bypass by opening the needle valve corresponding to the zone not being used.



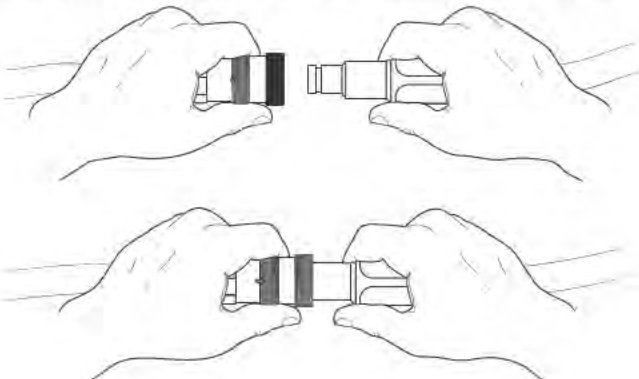
The needle valves are located above the pressure gauges. The needle valves must be closed when the zones are in use.

Connect the manifold hoses to the quick couplers on the end of the power unit. The top row (male) of small couplers are connected to the bottom of the hydraulic cylinders on the jacks and are zone specific. The second row (female) connects to the top of the hydraulic cylinders and is not zone specific. Connect the jacks to the manifolds and keep the number of jacks per zone equal. The large quick couplers are connected to the hoses from the engine and reservoir skid.



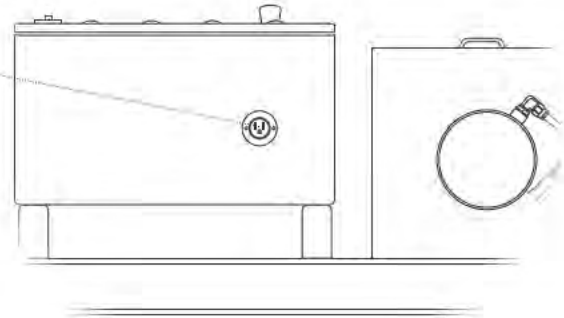
## IMPORTANT

Clean the ends of each coupling with a rag before connecting to each other.



## RUNNING THE UNIFIED SYSTEM

The control box needs a 115 VAC power cord connected to the receptacle located on the side of the box.



Start the engine, there should be a small amount of pressure registering on the pressure gauge marked "P".

Be sure the red E-STOP button is pulled up/out.

Press and hold the MANUAL UP button until a small amount of pressure registers on the gauge provided for each zone, then release the button. This will preload the jacks at equal pressure and tighten the cables to give the jacks an equal starting point for the lift.

If all of the cables are tight and you are ready to lift, turn the AUTO selector switch to UP and press and release the UP UNIFIED button. The jacks will begin to raise the bin in the unified mode. The green UP light next to the UP UNIFIED button should be on.

When the pumping cylinders inside the unit stroke out the jacks will stop raising and the pumping cylinders will restroke (fill back up with oil). The RESTROKE light will turn on during restroke.

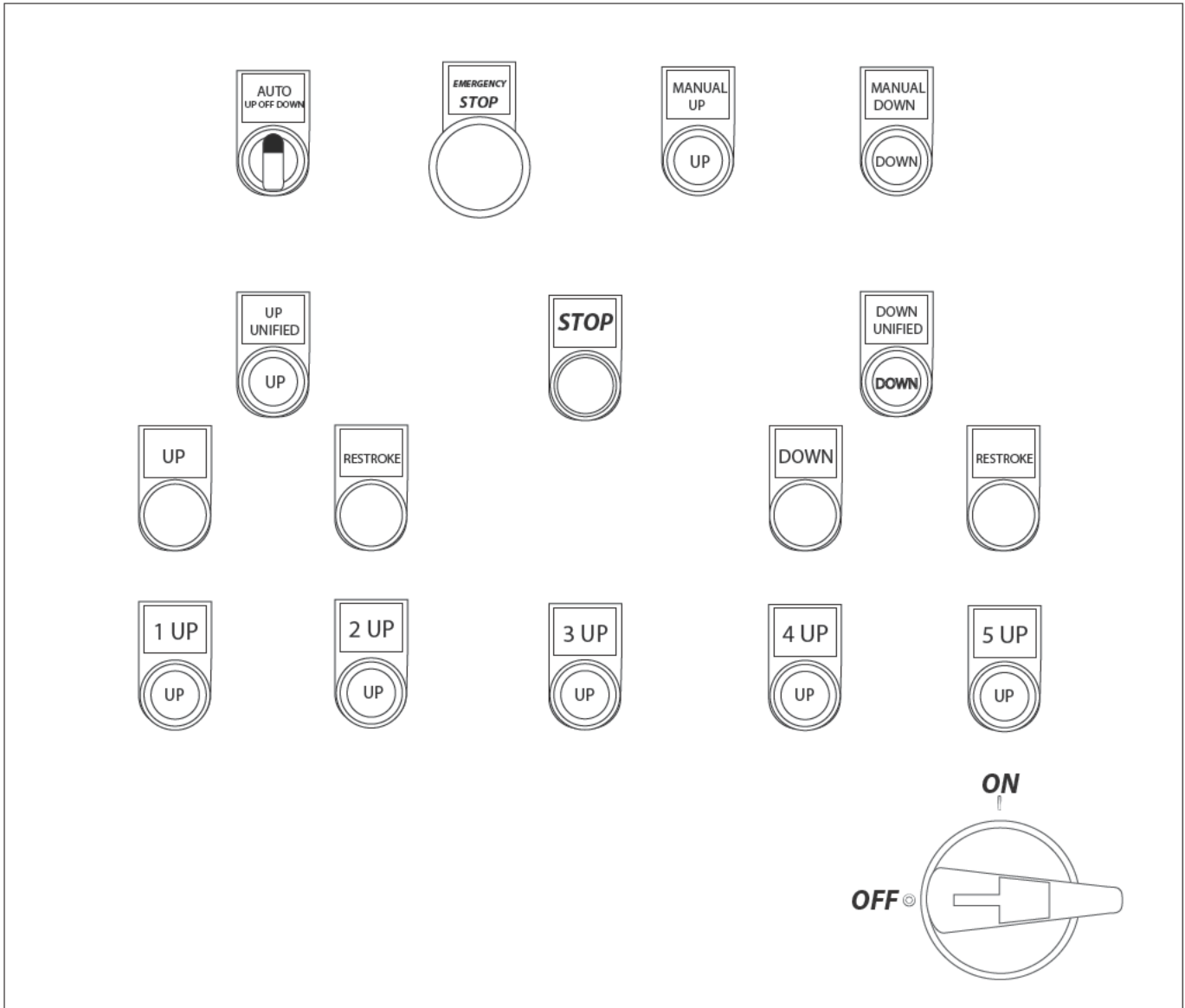
The power unit will continue to raise the bin automatically until the bin gets to the desired height, at that time press the red STOP button located in the center of the control box to stop the jacks.

During the lift, the pressure gauges should be monitored to see that the zones are operating at roughly the same pressure.

Each zone can be raised individually if needed by pressing the buttons marked 1UP – 5UP.

Each zone or jack can be lowered individually by releasing the load lock valve on the jacks in the zone and opening the needle valve corresponding to the zone.

Be sure to raise the lever back up when the jacks are at the proper height.



Bring the bin down to disconnect the jacks from the bin by releasing all of the load lock valves.

Turn the **AUTO** selector switch to the **DOWN** position and press the **DOWN UNIFIED** button momentarily, the jacks will begin to lower the bin, press the red **STOP** button in the center of the control box to stop the unified down mode.

Once the jacks are disconnected from the bin, they can be lowered in the unified down mode or by pressing and holding the **MANUAL DOWN** button, which bypasses the unified system. The unified down mode will lower the bin evenly, which is helpful when taking a bin down.