



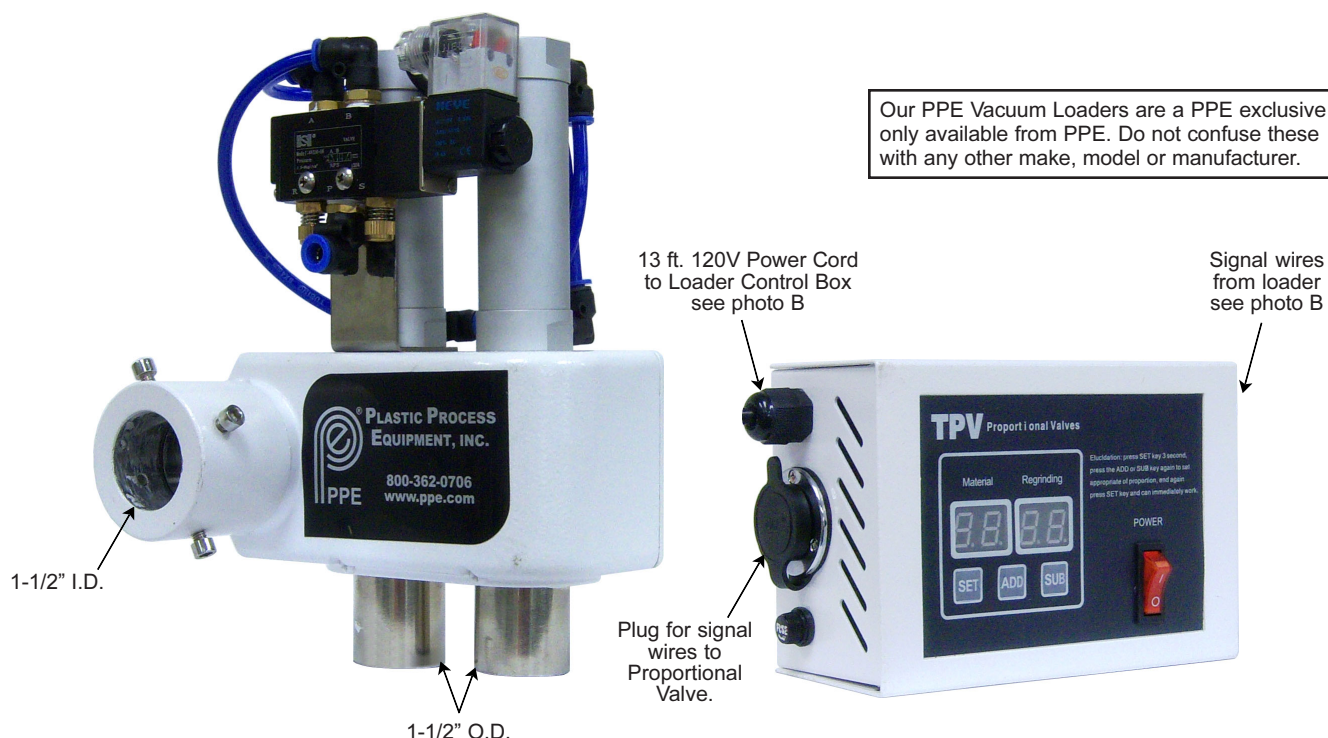
# INSTRUCTIONS

## FOR

# TPV-38-C Proportional Valve

**FOR USE WITH PPE VACUUM LOADER MODELS  
TAL-15U, TAL-3U-E, TAL-6U & TAL-12U**

**These loaders have a provision in the control circuit to allow the  
TPV-38-C Dual Feed Valve to slave off both power and the control.**



## CAUTION NOTICE:

All service work should be carried out by a person with technical training or corresponding professional experience. The manual contains instructions for both handling and servicing. The Trouble Shooting section contains service instructions intended for service engineers. Other sections contain instructions for the daily operator.

## MODIFICATIONS:

**WARNING!** Do not modify this machine in any way. Modifications of any kind not only void any warranty, but it can cause serious injury or damage to personnel or equipment.



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# TPV-38-C Proportional Valve

## WARRANTY

All PPE machinery is warranted to be free of defective material and workmanship for a minimum period of 1 YEAR from date of sale. Some machinery components may carry longer warranties per our suppliers policies which are passed on to our customers (i.e. our drier compressors, conveyor motors, etc.).

## KNOW YOUR WARNING SIGNS AND SYMBOLS!

This instruction manual uses the following signal words Caution and/or Danger and symbols to call attention to the degree or level of possible hazard seriousness.

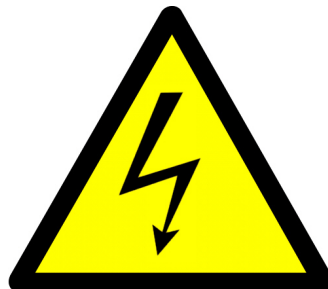
1. **CAUTION:** A warning to indicate a potentially hazardous situation which, if ignored, may result in personal injury or threat of health. Also used to alert against unsafe practices which could cause property damage or accidents. See label B.
2. **WARNING:** Warns of a potentially hazardous situation which, if not avoided, could result in serious injury. Warning signs are a yellow triangle with a black border and black symbols. See Label A.
3. **DANGER:** Indicates an imminently hazardous situation which, if not avoided, may result in serious injury or death. This signal word is limited to the most extreme situations. Always follow the warnings or instructions that accompany the danger label, such as: High Voltage, Acid, Hot Surface, etc, etc, etc. See Label C.
4. **SYMBOL/PICTORIAL:** Conveys a message without words. See labels A & B.
5. **SAFETY ALERT SYMBOL** (an exclamation point inside a triangle): Is a general warning and indicates a potential personal injury hazard. Follow instructions and read labels and/or product information. See Label A.

Label A



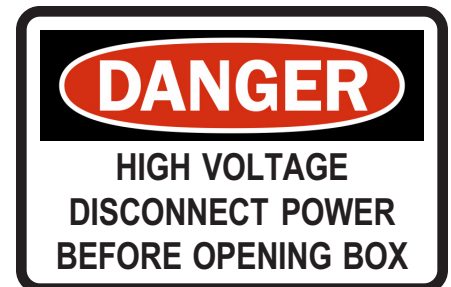
General Warning Sign

Label B



Hazard Warning Sign

Label C



Danger Warning Sign



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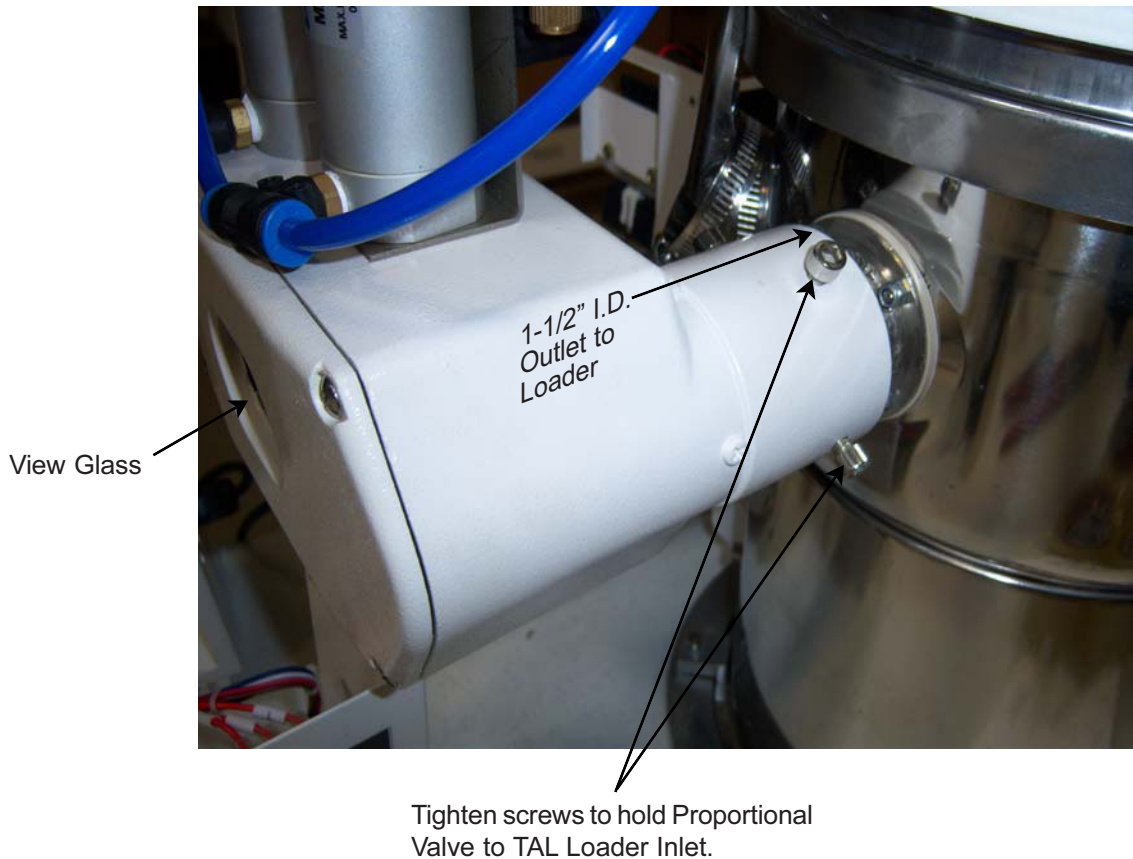
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# TPV-38-C Proportional Valve

## SET UP

### PHOTO A



**CAUTION:**  Disconnect all power to the TAL Vacuum Loader!

1. Attach Proportional Valve Unit to the TAL Loader inlet and tighten set screws (you may have to clean or lightly sand with emery paper Proportional Valve outlet to ensure the fit). **See Photo "A"**.
2. Now open the TAL Loader Control Box cover by removing the 4 screws.



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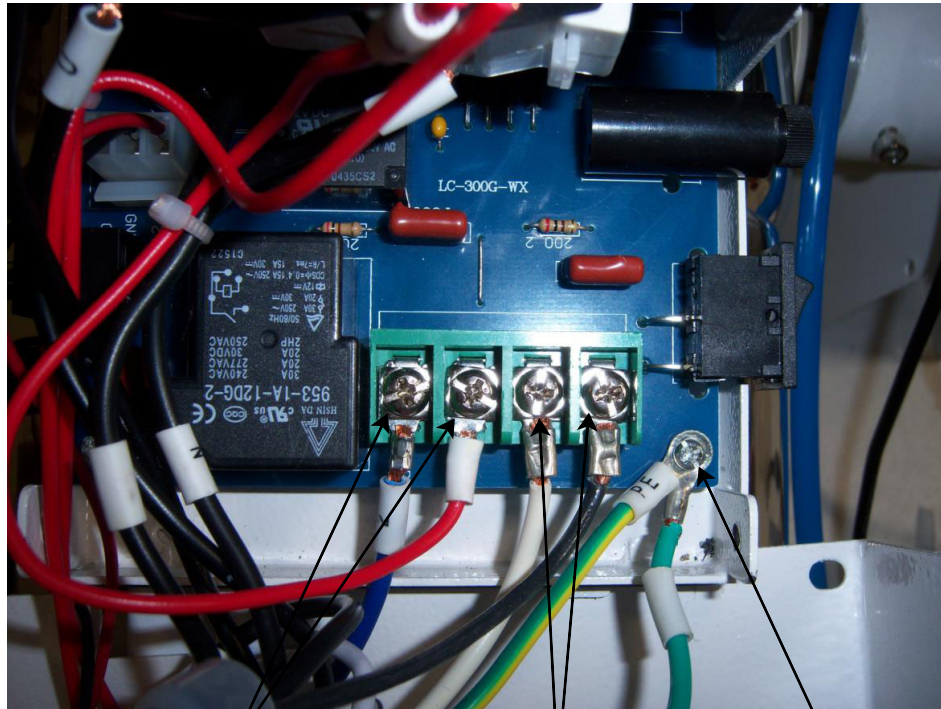
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# TPV-38-C Proportional Valve

## SET UP (continued)

**PHOTO B** shows TAL Loader Control Box.  
Wiring TPV-38-C Proportional Valve to TAL Loader.



Add signal wires here.

Power wires here.

Ground wire here.

3. First, feed the Proportional Valve signal wires & power wires through the plastic strain relief fitting supplied and then feed the wires and strain relief through the hole in the bottom of the TAL loader control box. For the TAL-3U-E loader only, you must feed the control and power wires through 2 of the existing strain relief fittings that have other wires in them. These wires are 13 feet long. Attach strain relief bushing into the cover hole and tighten. The signal wires (black) attach to the first 2 locations on the terminal strip (starting on the left side). The power wires are connected to the next 2 locations on the terminal strip (these are marked by a yellow 120v label and are in an oversleeve with the ground wire). The ground wire must be attached to the ground post located to the right of the terminal strip. See Photo "B".
4. Remount the cover onto the TAL Loader Control Box.
5. Plug TAL loader into 120v outlet to power up both units.



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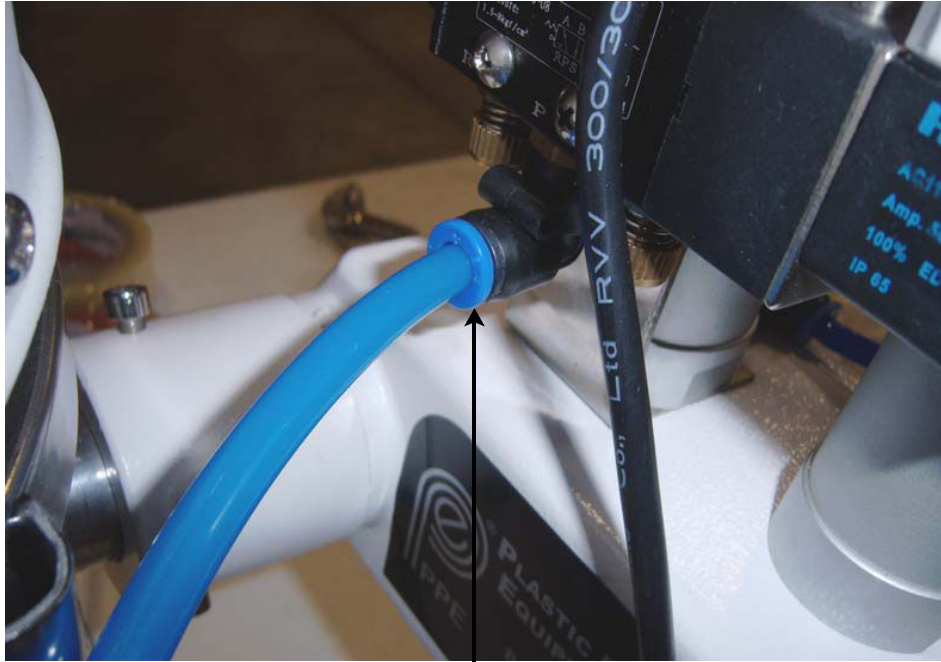




# TPV-38-C Proportional Valve

## SET UP (continued)

### PHOTO C



Connect 8mm air line to solenoid valve,  
40-45 P.S.I. required.

5. Connect a 8mm airline to the solenoid valve 40-45 PSI is required. See Photo "C".
6. Attach connector plug to Proportional Valve Control Box to complete the signal circuit between both control boxes.
7. Plug TAL loader into 120v outlet to power up both units.

## OPERATION

1. Set TAL loader loading time to be equal or greater than the time you set for the virgin line and regrind line. Refer to TAL loader instructions.
2. Set and hold the set button on the TPV Ratio control box for 3 seconds until the first display starts to blink. The hit the "ADD/SUB" buttons to add or subtract time for each line. When finished, hit the "SET" button again to accept changes. Make sure the times entered are equal to or less than the load time set on the TAL loader.
3. If you don't touch the keys for 5 seconds the control will default to the normal display mode.



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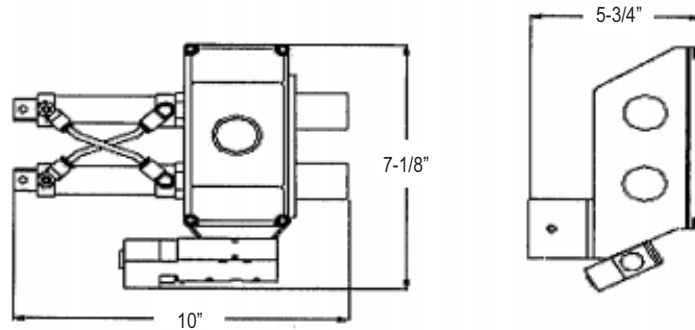
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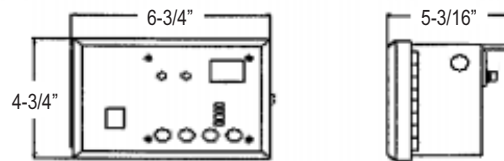
# TPV-38-C Proportional Valve

## SPECIFICATION

### TPV-38-C Proportional Valve Overall Dimensions



PROPORTIONAL VALVE



CONTROL BOX

## PRODUCT SPECIFICATION

Model No.	Compressed Air Required	Drive Means	Max. Material Flow	Pipe Outlet Size (1)	Pipe Inlet Size (2)	Dimensions H x W x D	Net Weight
TPV-38-C	42 P.S.I.	Air Cylinder	77 lbs/hr	1-1/2" I.D.	1-1/2" O.D.	8.9" x 5.9" x 6.5"	7.7 lbs

Note: Motor Power: 120V, 60Hz



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# TPV-38-C Proportional Valve

## REPAIR AND MAINTENANCE

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### COMMON FAULTS AND SOLUTIONS

Problem	Cause	Correction
Air cylinder not working.	Solenoid valve is damaged.	Change the solenoid valve, #4VZ10-08.
	Loss of compressed air.	Connect the compressed air.
	Signal line failure.	Connect or change the signal line.



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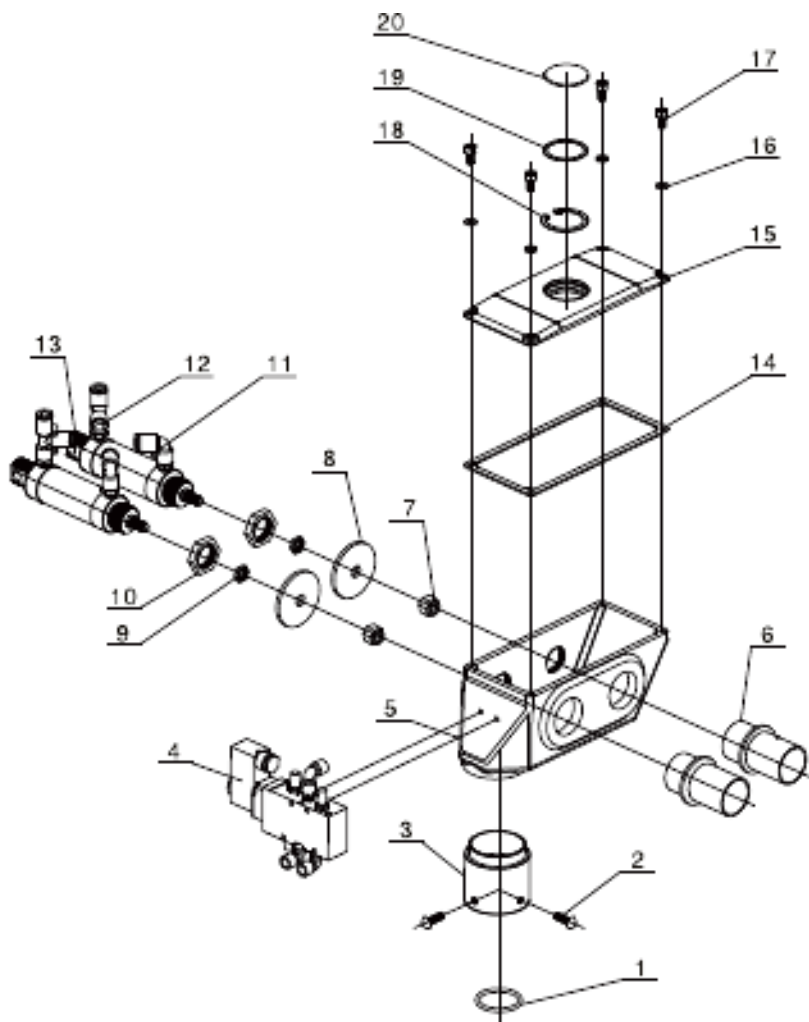
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# TPV-38-C Proportional Valve

## ASSEMBLY DRAWING



Item No.	Description	Part No.
1	O-Ring	VAP001A-P1
2	Cross Recessed Screw	
3	Suction Pipe Casting	
4	Solenoid Valve*	VAP001A-P4
5	Proportional Valve Body	
6	Suction Pipe	
7	Locknut	
8	Membrane	VAP001A-P8
9	Nut	
10	Nut	
11	Connector	VAP001A-P11
12	Connector	VAP001A-P12
13	Air Cylinder	VAP001A-P13
14	Valve Cover	VAP001A-P14
15	Cover	
16	Seal	
17	Hexagon Socket Screw	VAP001A-P17
18	Spring Shield Ring	
19	O-Ring	
20	Glass Lenses	

\*Means easily damaged part.



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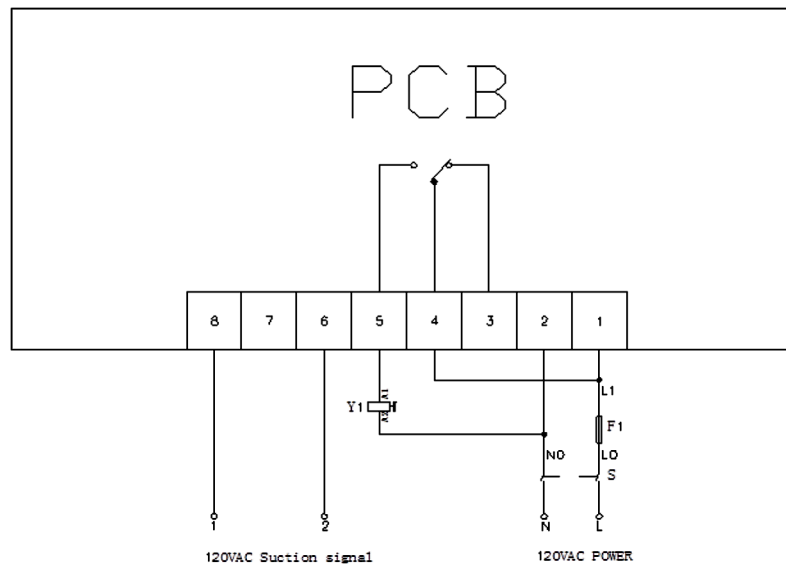




# TPV-38-C Proportional Valve

## TPV-38-C ELECTRICAL ELEMENT LIST

No.	Symbol	Description	Standard	Part No.
1	F1	Fuse Base	250V 2A	GMA-2
2	S1	Switch	12x19 5A	
3	Y	Solenoid Valve	120V 60Hz	
4	A1	PC Board	115/230 VAC 50/60Hz	
5	X1	Plug Wire	250V 10A	
6	X2	Waterproof Connector	3P	
7	K1	Relay	LJQX-13F 24VDC	
8	X3	Metalic-Joint	2P	



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