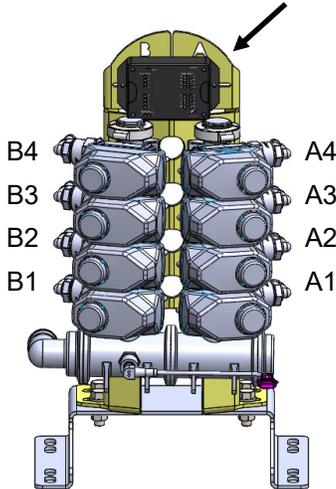


# 396-001860

## Multiple Section LiquiShift Assembly and Mounting

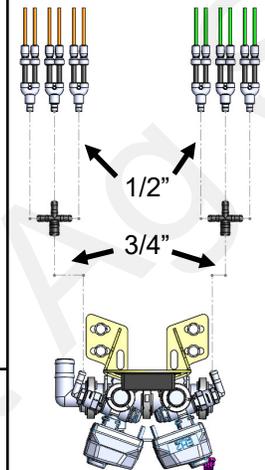
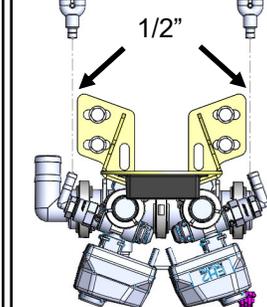
Manifold Control Module



Valve Stack can mount directly to forward/backward frame. Use optional bracket kit 515-105100 to mount valve stack to lateral frame members.

Feed into the section valve stack using 3/4", 1", or 1-1/2" hose from the pump. Each section valve output hose may be split using tees or crosses to feed the necessary number of banks per section.

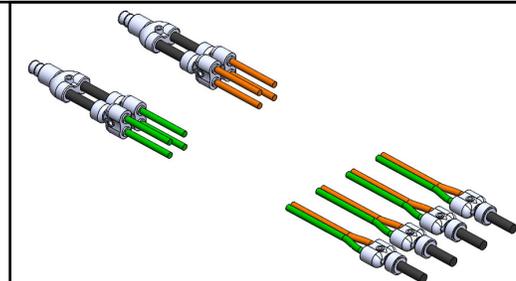
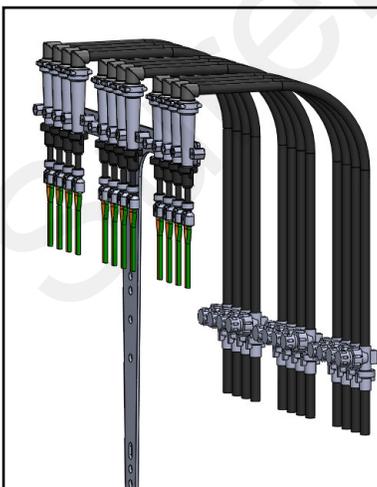
Examples shown:  
4 Rows per Section (left)  
12 Rows per Section (below)



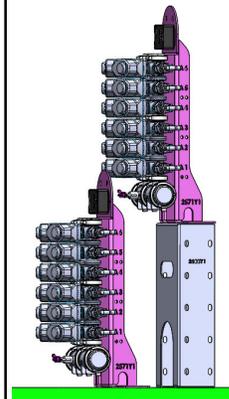
**The smaller ID tubing must be connected to the "A" series valves.**

Metering Tube Sizes	
Color	I.D.
Black	0.187
Yellow	0.170
Orange	0.150
Tan	0.125
Green	0.110
Blue	0.096
Purple	0.080
Gray	0.060

Dual metering tube comes pre-assembled in 3, 4, or 6 row assemblies. 1/2" hose barb ends go to the section valves, 3/8" tubing goes to flow indicators.

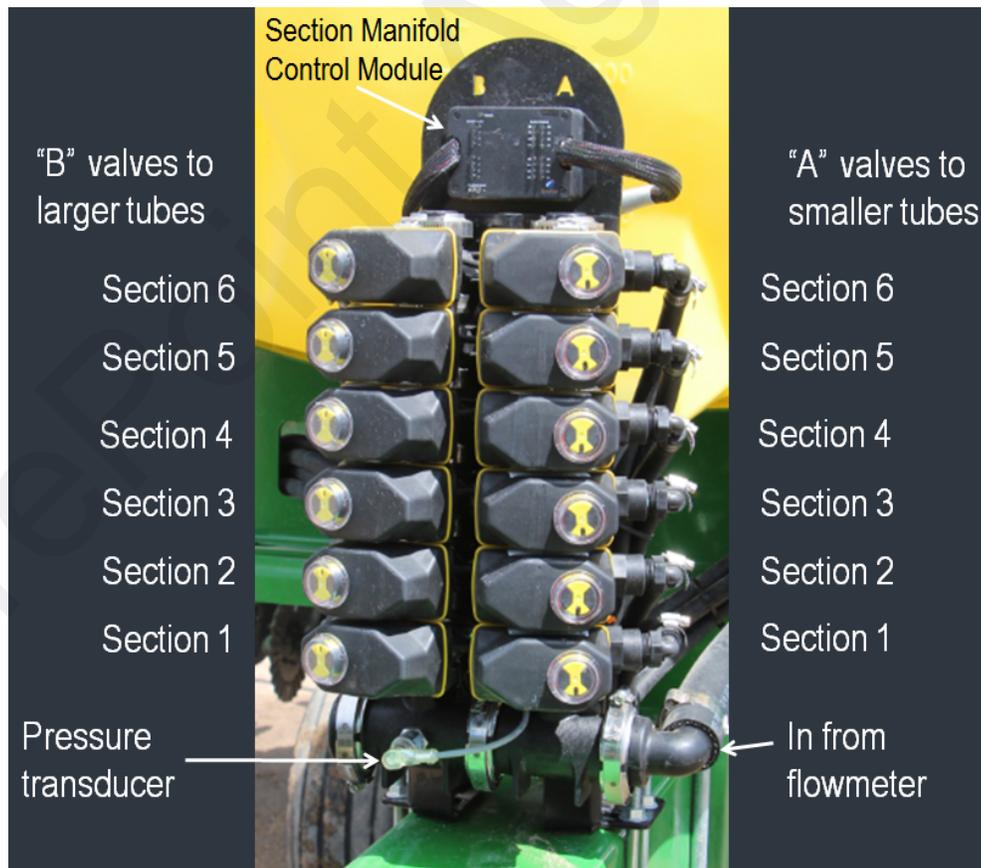


If applying dual products, use kit 515-105200 to raise the second valve stack above the first to allow visibility of the valves.



Mount flow indicators in banks (can be on one or multiple brackets). Dual metering tube Y's will attach to bottom of flow indicator. Top of flow indicator outputs through the check valve to the row.

# LIQUISHIFT





# 396-3315Y1 SurePoint LiquiShift® Instructions

## **What is LiquiShift® and how does it work?**

LiquiShift® is patent-pending technology from SurePoint Ag that allows a wide range of application rates and/or speeds. The system utilizes two metering tubes to each row to evenly distribute the product. The LiquiShift technology opens and closes valves to allow the product to flow through the small tube, through the large tube, or through both tubes, depending on the rate and speed at that time.

It works like this. At low flow rates, the product flows through the small tubes. As the flow increases, the pressure will increase. When the pressure reaches the top setpoint, the valve to the small tubes will close and the valve to the large tubes will open. When the flow and pressure increase in the large tube to the top setpoint, the valve to the small tubes will open, allowing product to flow through both tubes. As the flow and pressure decrease, the system will shift down to a smaller tube at each setpoint.

Rate control and section control are done by the rate control module and display as they are in any system. The LiquiShift technology handles all the adjustments to the tubes to deliver the right amount of product to the right rows.

A LiquiShift system is NOT an infinitely variable system. The system must be configured with the proper tube combination to match your rate range, speed range, product, and row spacing.

Harnesses and LiquiShift modules for SureFire LiquiShift for John Deere Rate Controller

ALL systems have:	218-2565Y1	MultiTube Controller (LiquiShift Control Module)
Single Section system has:	201-3147Y1	37-pin to 16-pin Single Section
Systems with two or more sections have:	201-2542Y2	GS2 Adapter Cable—37-pin to twin 16-pin
	218-2551Y1	Manifold Controller (LiquiShift Section Module)
Two Sections	201-2812Y1	37-pin to 4 Section A&B Valves
Three Sections	201-2812Y1	37-pin to 4 Section A&B Valves
Four Sections	201-2812Y1	37-pin to 4 Section A&B Valves
Five Sections	201-2813Y1	37-pin to 6 Section A&B Valves
Six Sections	201-2813Y1	37-pin to 6 Section A&B Valves
Eight Sections	201-2548Y1	37-pin to 8Section A&B Valves

See the LiquiShift Control Overview Schematic on Page 4 for a layout of how the harnesses and modules connect.

See the list of harnesses and wiring diagrams for Trimble and Ag Leader on pages 10-14.

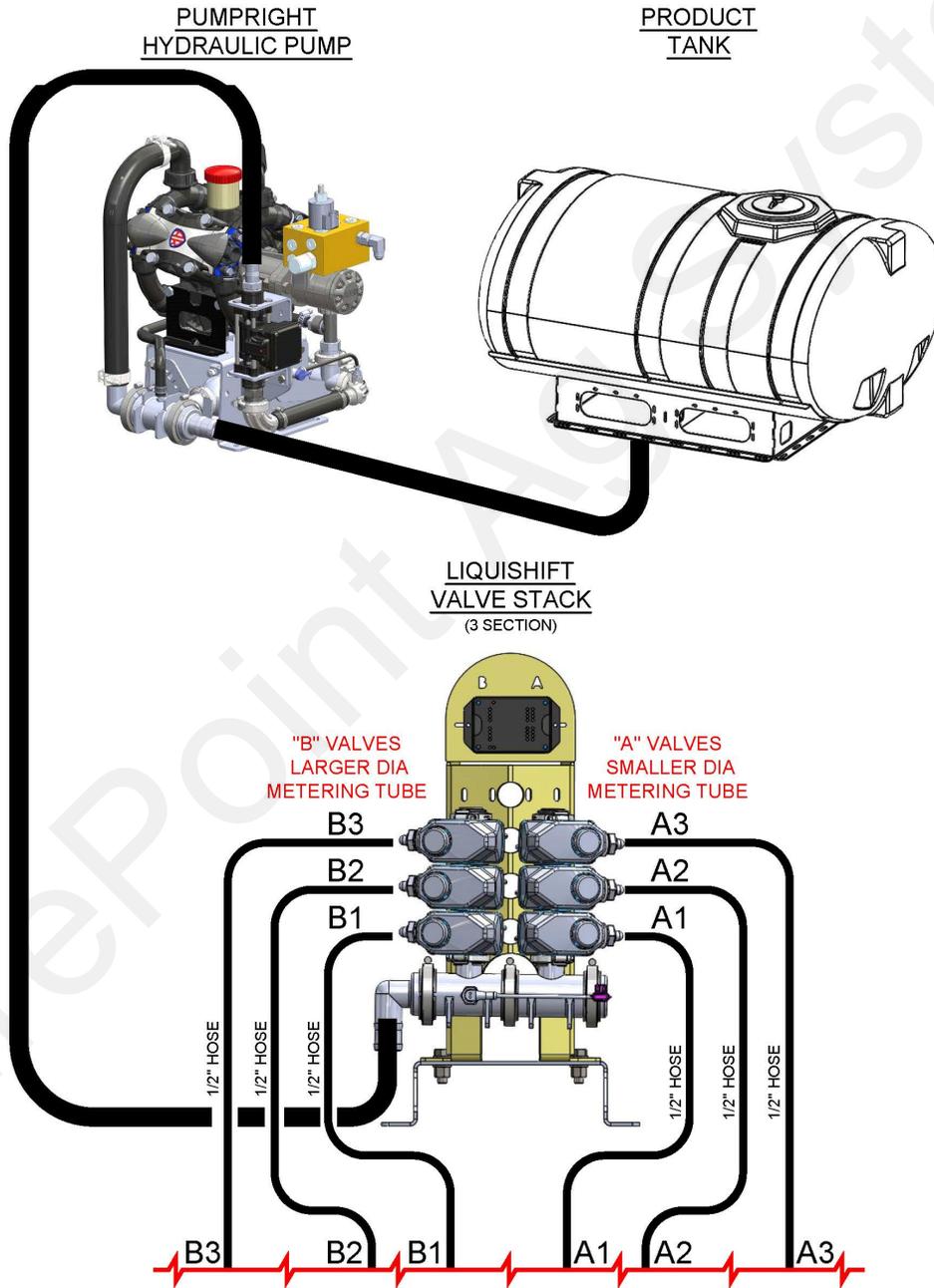
## **Critical Component**

The pressure transducer on the LiquiShift valve stack is a critical component of the LiquiShift operation. It must be functioning properly in order for the LiquiShift A & B valves to work as needed to direct the flow through the appropriate tubes based on the quantity of flow. See the directions on the back page for operation of the Manual Override feature in the event of a pressure transducer failure.



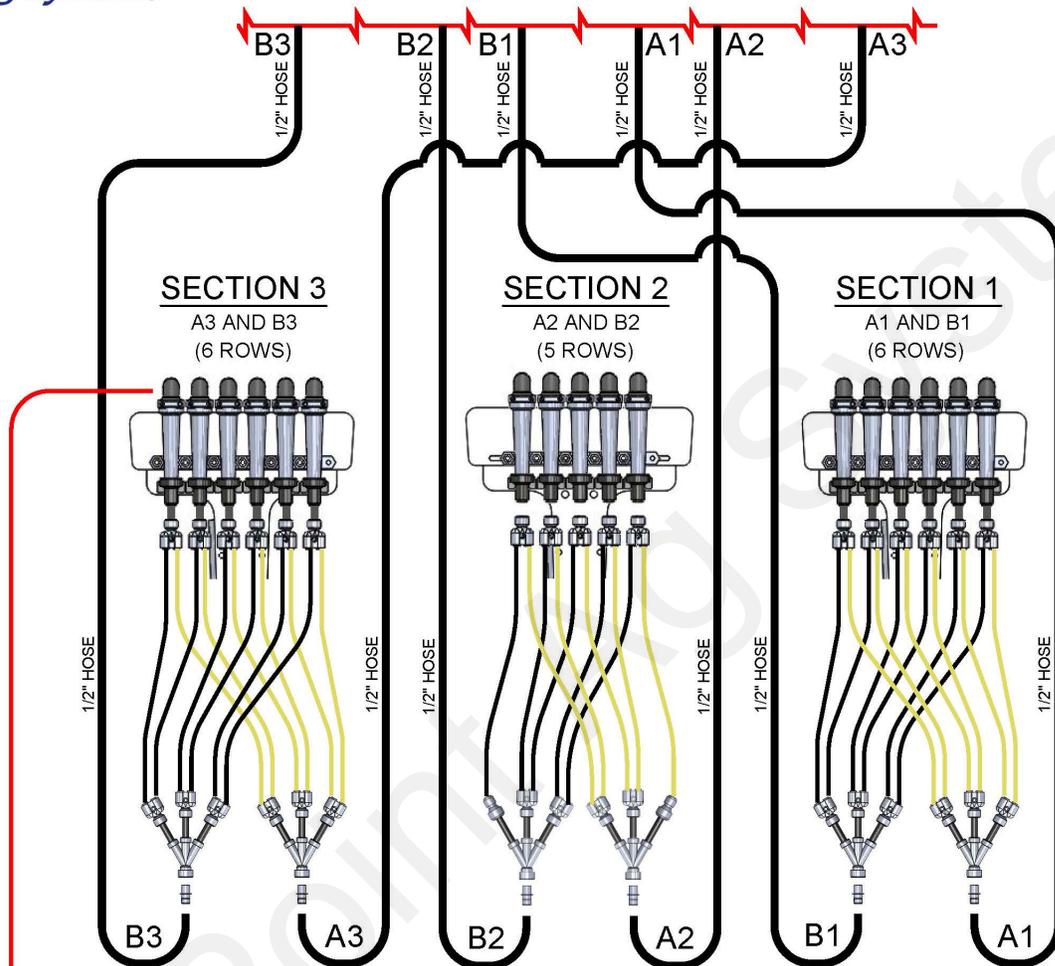
LiquiShift  
 Example Generic Planter Setup  
 Multiple Sections  
 Page 1 of 2

LIQUISHIFT - 3 SECTION - 17 ROW  
GENERAL PLUMBING DIAGRAM

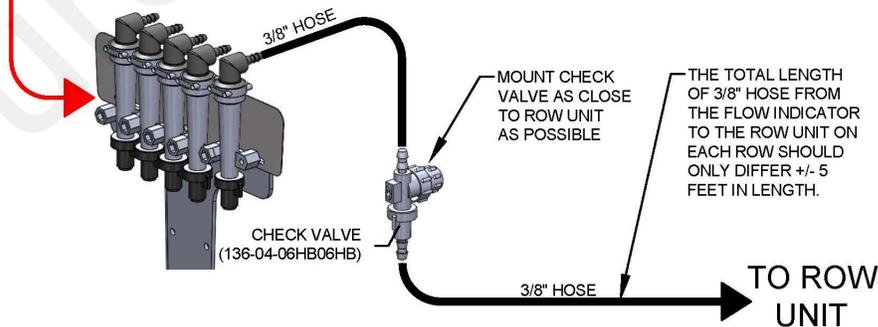




# LiquiShift Example Generic Planter Setup Multiple Sections Page 2 of 2

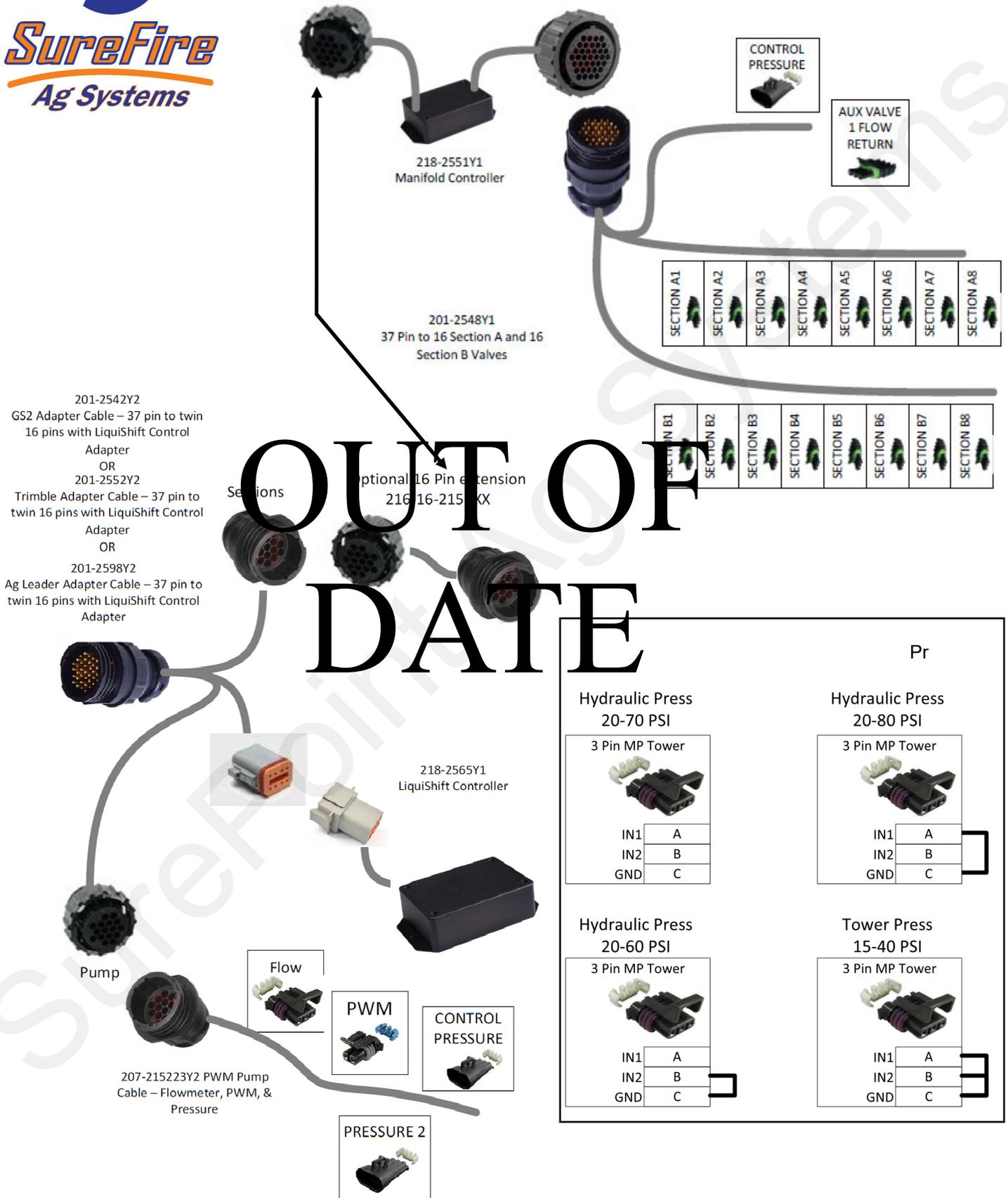


**STANDARD DISCHARGE PLUMBING  
FROM FLOW INDICATOR TO ROW**  
(TYP PER 17 ROWS)





# LiquiShift Multiple Sections Harness Schematic



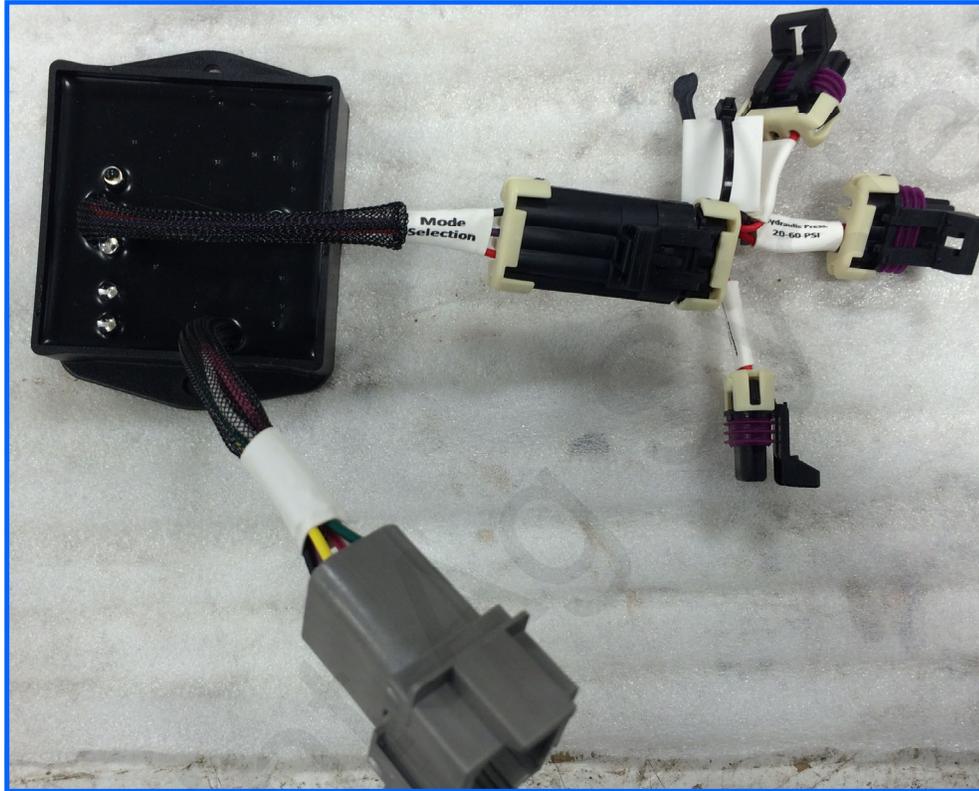


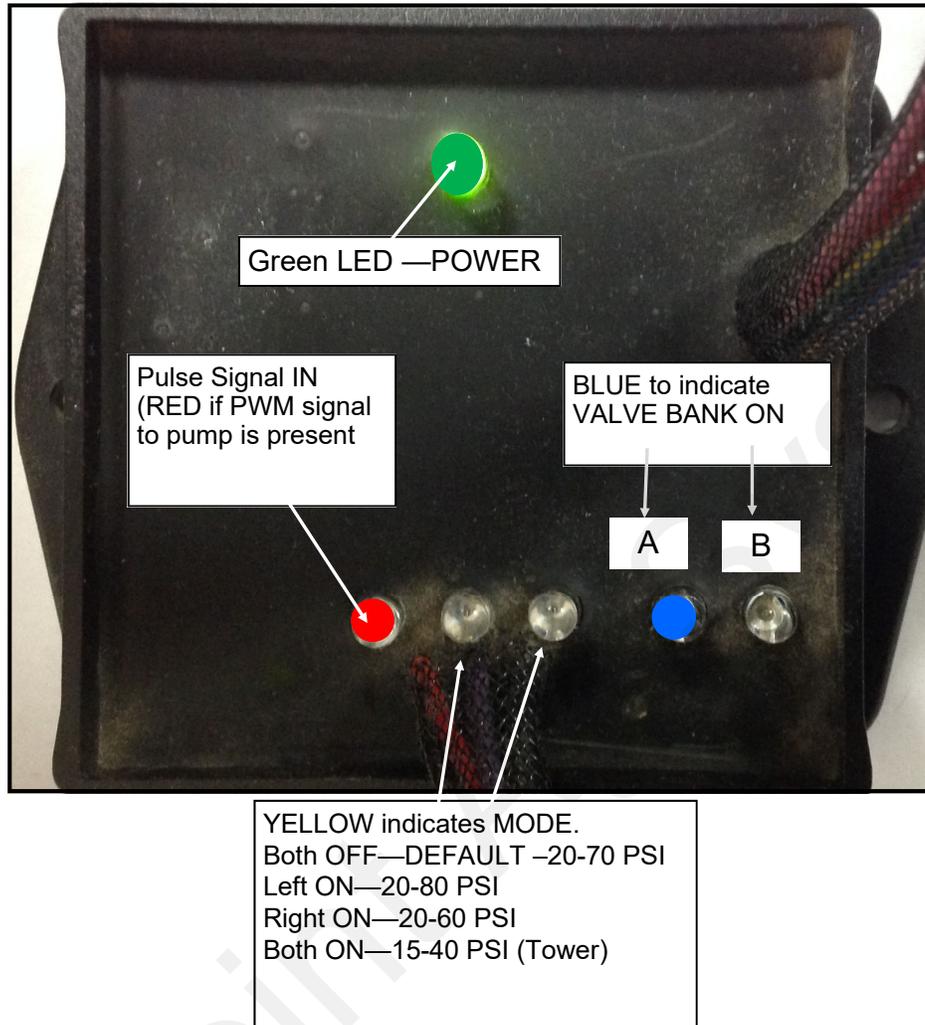
## 396-2942Y1 SurePoint LiquiShift Mode Selection

The LiquiShift ships with default shifting pressure of 20 PSI and 70 PSI. This can be changed by unplugging the 20-70 PSI jumper and plugging in the desired range. There are 4 settings available:

20-70 PSI (Default), 20-60 PSI, 20-80 PSI, and 15-40 PSI for Electric Tower systems.

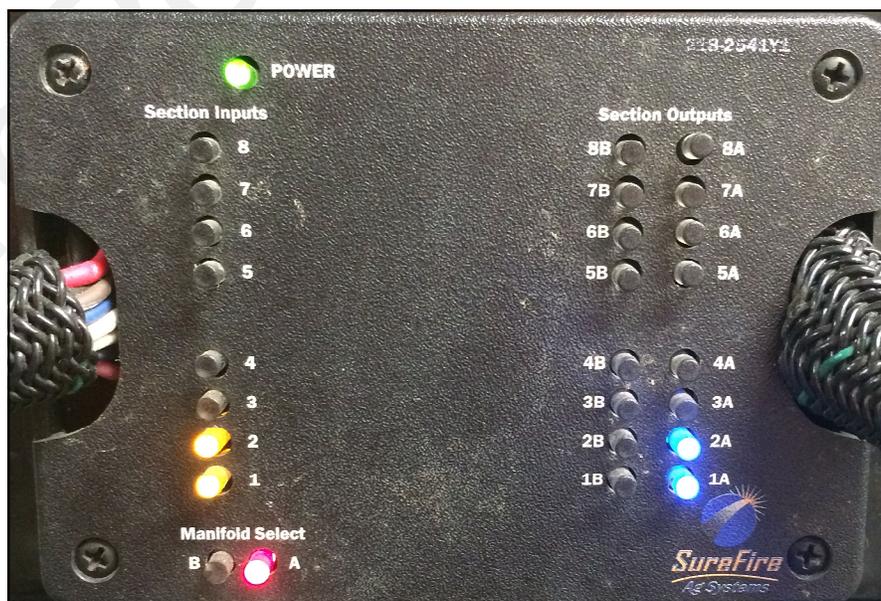
The Mode Selection pigtail is a part of the LiquiShift MultiTube Controller Module (shown below).





## LiquiShift® Section Module Lights (Manifold Controller)

Section INPUTS from system controller are on left (16-pin)  
 YELLOW lights show that the system controller is sending the signal for Sections 1 & 2 to be ON.  
 RED light shows that LiquiShift control module is calling for Valve Bank A (small tubes) to be ON.



Section OUTPUTS to section valves are on right (37-pin)

BLUE lights show that the LiquiShift Section Module is sending the signal for Sections 1 & 2 on Valve Bank A to be ON.



## Toggle Switches for LiquiShift Manual Override

The manual override features allows the user to manually open both sets of valves (A & B) for testing, flushing, winterizing, or for running the system in the event of a pressure transducer failure.

*For normal operation, the manual override switches must be OFF (in the down position.)*

When running a normal Section Test, only the A valves will open. To manually open both sets of valves, put the toggle switches in the Up position. The blue light for A and B will light up when that switch is ON. To open the valve, you must send a signal from the controller, such as with a Section Test, Nozzle Flow Check, or other manual operating mode.

In the event of a pressure transducer failure where the valves won't shift, you can use this feature to run the system with A or B or both sides open.

