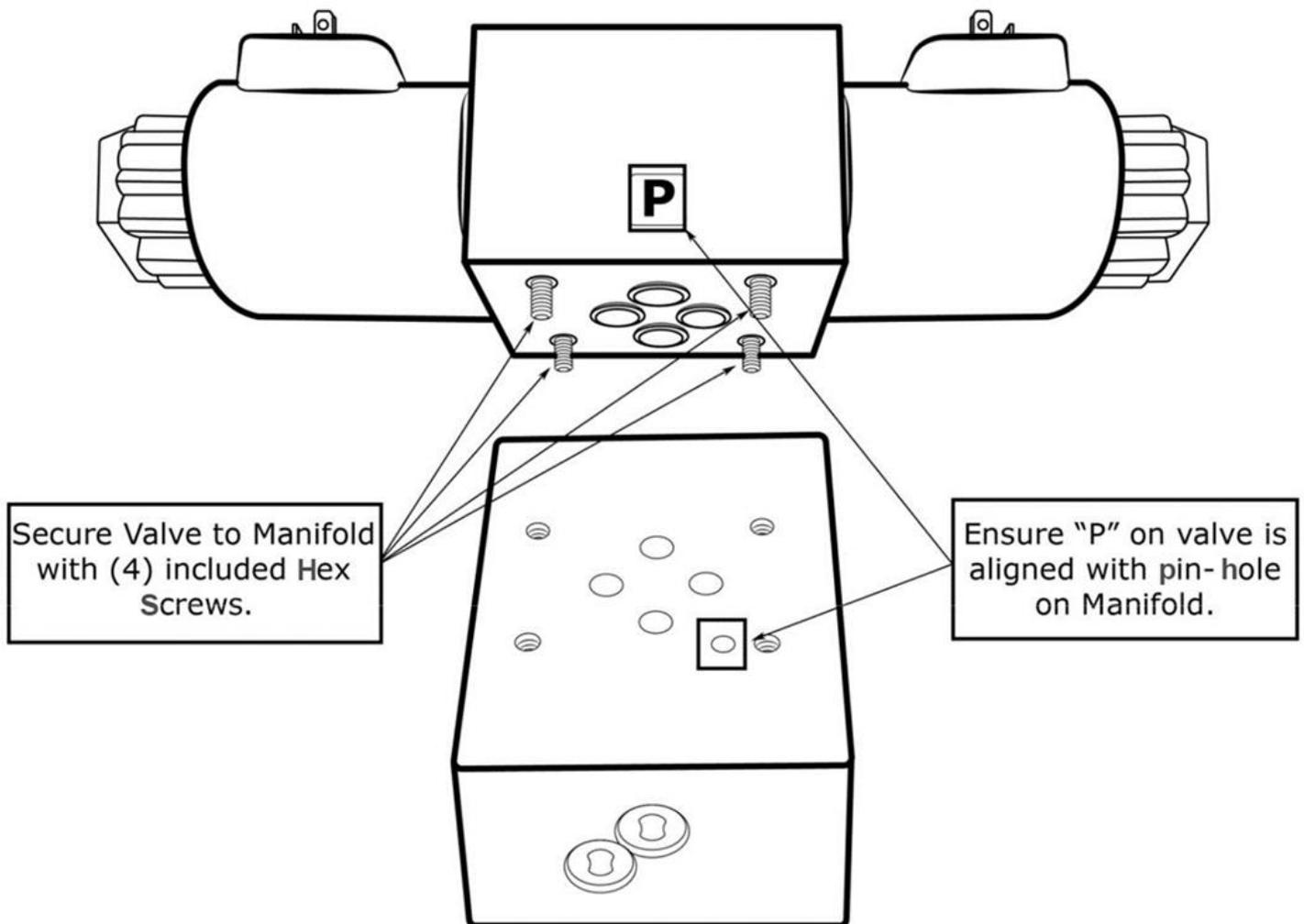


## **ATTENTION (READ BEFORE PROCEEDING)**

- **REMOVE AND DISCARD CARDBOARD PLATE** on valve (held in place by 4 yellow plastic inserts) before attaching baseplate as shown below.
- We strongly recommend that all hydraulics component are properly assembled & installed in a clean environment.
- Foreign object debris entering the hydraulic system could lead to clogging & damage to hydraulic valves/cylinders.



(4) Hex Screws Torque Specs: **2 ft-lbs.**



## NEED HELP?

Representatives are here to help with any questions concerning this product. Please email us with questions.

**Summit-Hydraulics.com**

**Contact@Summit-Hydraulics.com**

Monday-Thursday—7:30 AM to 4:30 PM (MST)

Friday—8:00 AM to 12:00 PM (MST)

## KUBOTA ELECTRIC REAR REMOTE VALVE KIT W/ SWITCH BOX

**APPLICATIONS:** L4600, L4701, L2501, L3301, L3901, L3200, L3800, MX4700, MX4800, MX5000, MX5100, MX5200, MX5800 & L3400

### SKU: EVK2-K5-SWB



This all-in-one rear remote valve kit is designed to install on your compact tractor (with power beyond kit installed) to add rear remote connections. This allows you to easily control various hydraulic implements using our Summit Hydraulics switchbox controls. You can add two, three, or four rear remote coupler sets to your machine.

### INCLUDED:

- Control Valve
- Joystick
- Switch Box
- Valve Harness
- 1/2" ISO 5675 Agricultural/Pioneer Style Couplers
- Quick coupler dust caps
- ROPS mounting bracket & hardware
- Hydraulic Pressure and Return Hose Lines
- Installation Instructions

### RECOMMENDED TOOLS & SUPPLIES

- General Mechanic Tool Set
- Open-Ended Wrench Set
- Crescent Wrench
- Torque Wrench

We recommend all Summit Hydraulics products are installed by experienced professionals. With proper installation and maintenance, Summit Hydraulics products will provide exceptional longevity and durability. For any questions, please contact us immediately. Thank you for trusting Summit Hydraulics!

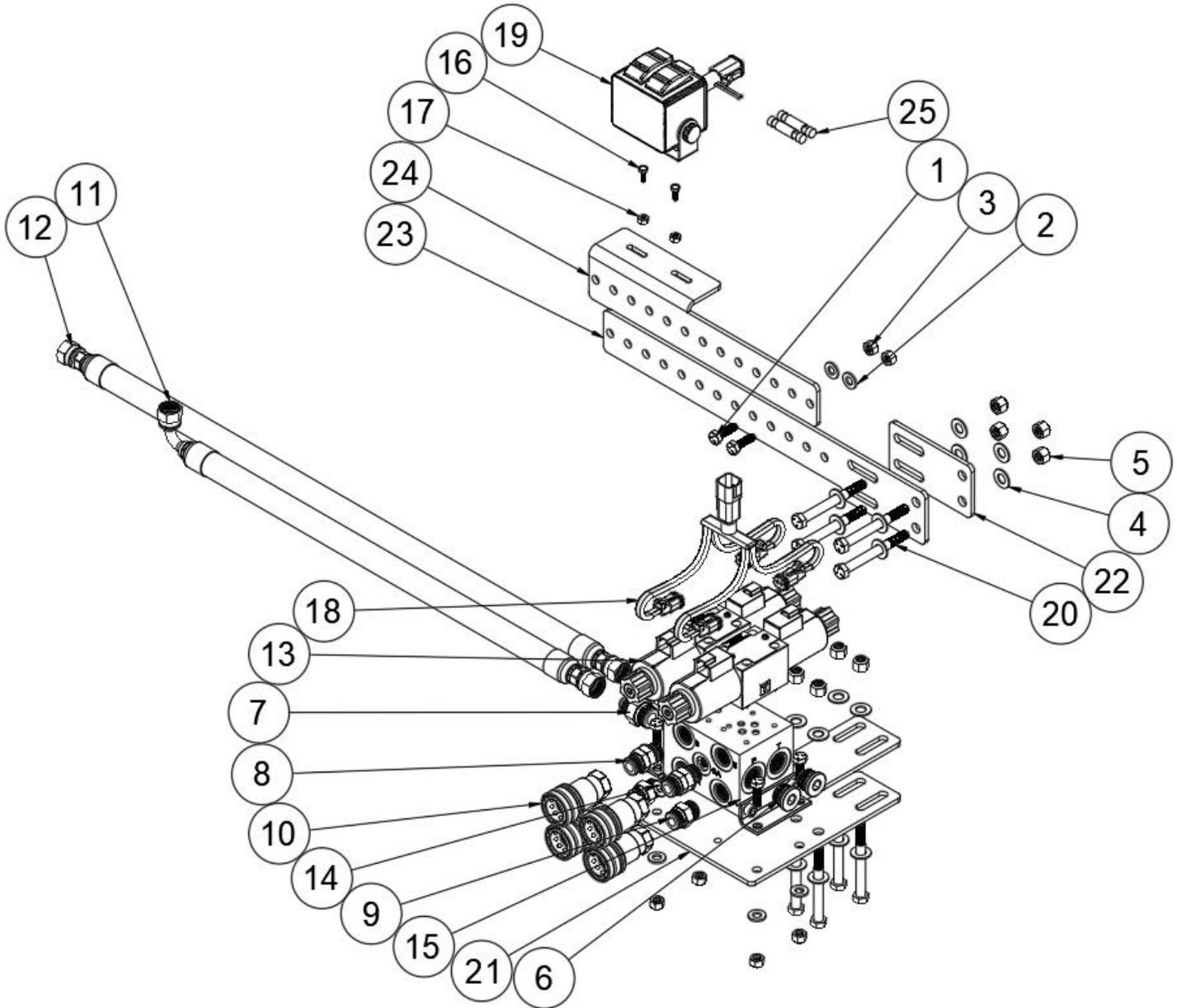
### REPLACEMENT PART?

For any OEM replacement hardware/parts, please refer to OEM service. For all included hardware/parts, please refer to Summit Hydraulics' website. Please email [Contact@Summit-Hydraulics.com](mailto:Contact@Summit-Hydraulics.com) for further questions.

### NOTE:

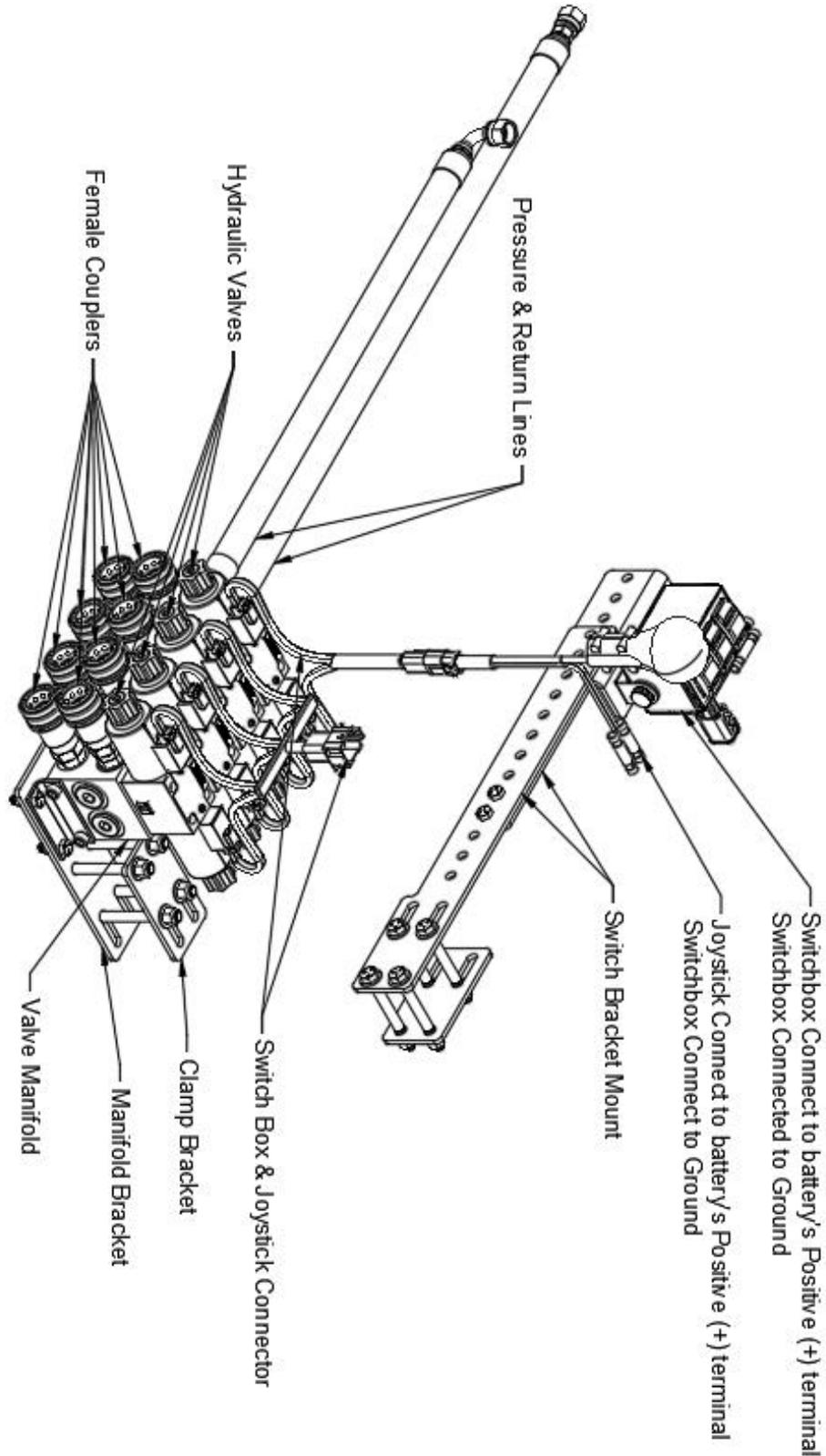
For any OEM hardware, please refer to your OEM service manual for torque specifications. For all included hardware, please torque to the specifications shown in the instructions. We recommend to use a torque wrench when tightening instead of an impact wrench. All torque specifications will be included throughout the instructions. Please reference instructions.

## Part Breakdown

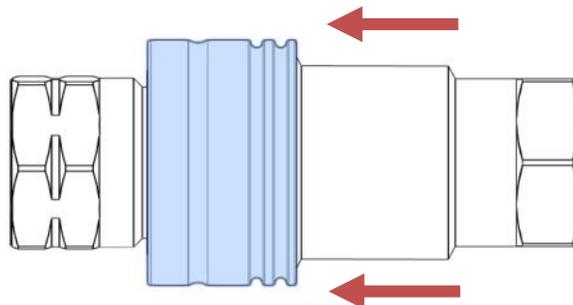
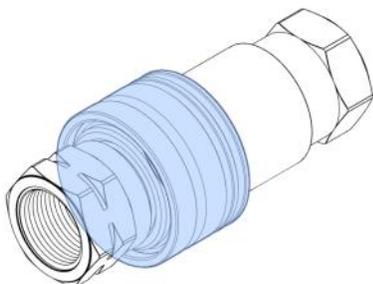
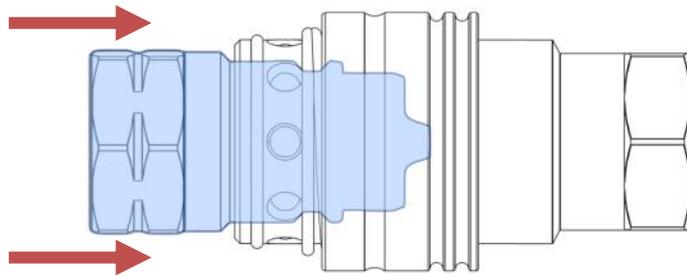
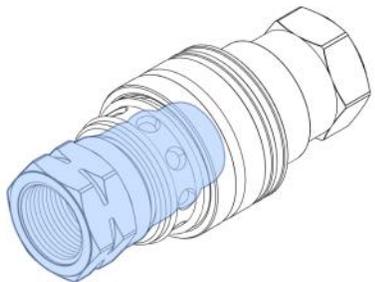
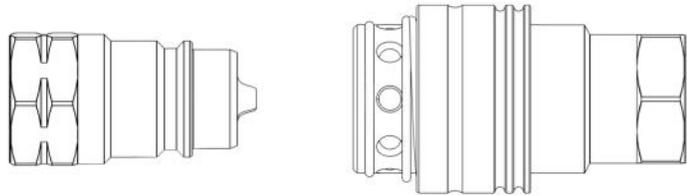
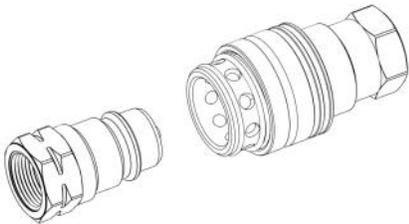
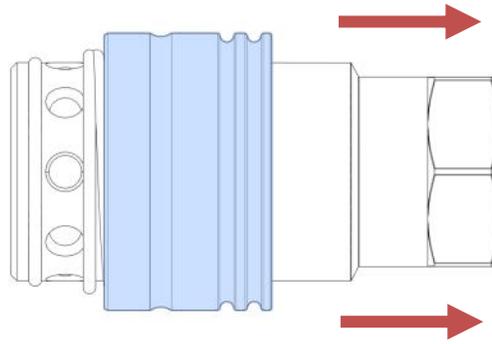
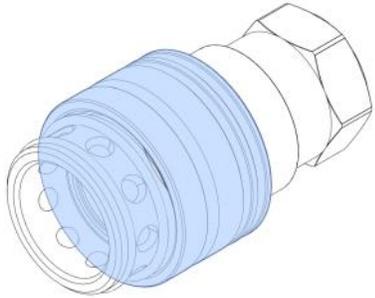
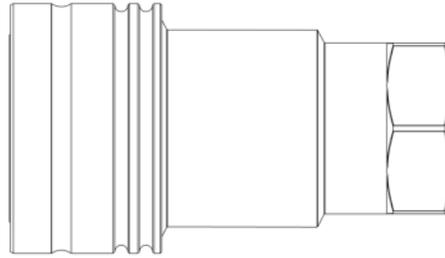
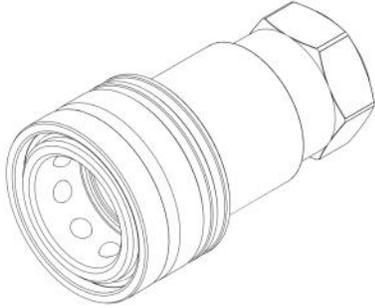


PARTS LIST			PARTS LIST			PARTS LIST			PARTS LIST		
ITEM	PART NUMBER	QTY	ITEM	PART NUMBER	QTY	ITEM	PART NUMBER	QTY	ITEM	PART NUMBER	QTY
1	HW026	6	8	3474-08-08-FG	2	15	D03S2-08S	1	22	BR007	2
2	HW008	6	9	N08S-08S	2	16	HW076	2	23	BR020	1
3	HW007	6	10	AG12F-08S	4	17	HW075	2	24	BR021	1
4	HW011	16	11	HS069	1	18	SW-A-13	1	25	SW132	2
5	HW010	8	12	HS075	1	19	SW-2RM	1			
6	6409-10	2	13	D03W-2A-12V	2	20	BL002	8			
7	6400-08-10-FG	2	14	6409-06	1	21	BR019	1			

## Electric Rear Remote



# Hydraulic Quick Couplers Guide





## Hose Routing Guides

### WARNING:

- Summit Hydraulics designed their hoses to be long enough to accommodate different factory options on tractors. If you have excess length, please identify the best routing scenario to accommodate it.
- To ensure safe routing and prevent damage, Summit Hydraulics often routes their hoses along multiple factory hardlines, away from hot surfaces, moving parts, and sharp bends.
- Following these routing guides will ensure proper support and protection for your tractor's hydraulic hoses, reducing the risk of accidents and promoting reliable long-term operation.

**1) Identify the factory hardline:** The first step is to identify the factory hardline on your tractor. This is the metal pipe or tubing that carries hydraulic fluid between the various components of the hydraulic system.

**2) Separate the hoses:** Once you have identified the factory hardline, you can determine the different pressure line, return line, and A & B work line (if applicable) that is provided by Summit Hydraulics. Identify the fitting, length, and size of each hydraulic line. This will ensure that the proper hose is routed to the correct location on the tractor.

**3) Plan the hose routing:** With the hoses being separated and identify, you can now plan the most appropriate hose route. Start by identifying the hose pathway along the hardline for each hose. Avoid sharp bends or kinks in the hose and keep the hose away from any moving parts or hot surfaces.

**4) Install supports:** To support the hoses along the factory hardline, install appropriate supports such as zip ties. Make sure that the supports are securely mounted to the tractor frame or the factory hardline.

**5) Route the hoses:** Begin routing the hoses one at a time, following the path of the factory hardline. Secure the hoses in place using the zip tie as supports, and make sure that the hoses are not stretched too tightly or compressed.

**6) Connect the hoses:** Once the hoses are routed, connect them to the appropriate components using the correct fittings.

**7) Test the system:** After the hoses are installed and connected, test the hydraulic system to ensure that it is working properly. Check for any leaks or abnormal noises, and make any necessary adjustments.

**8) Inspect and maintain the hoses:** Regularly inspect the hoses for signs of wear or damage, and replace them as necessary. Keep the hoses clean and protected from



## Connect Implements to Rear Remote

### WARNING:

- Connecting implements to an electric rear remote kit involves following a series of steps to ensure a proper and safe connection. Electric rear remote kits are used to control hydraulic functions on various implements or attachments, like mowers, tillers, or sprayers, from the operator's seat. The kit typically includes electric control switches, wiring harnesses, and solenoid-operated hydraulic control valves. Here's a

- 1)** Park the tractor on a level surface and engage the parking brake. Turn off the engine and remove the key from the ignition to ensure safety during the process.
- 2)** Consult the operator's manual for the electric rear remote kit and your implement to familiarize yourself with the specific connection points, requirements, and any additional precautions.
- 3)** Identify the hydraulic connections for your implement, which may include a combination of pressure, return, and case drain hoses. Ensure the hoses are the proper length and have the correct fittings for the tractor and implement.
- 4)** Locate the hydraulic control valve(s) on the electric rear remote kit. These valves are usually mounted near the rear of the tractor and have quick-connect couplers for attaching hydraulic hoses.
- 5)** Clean the hydraulic couplers on the tractor and implement to remove any dirt or debris that may contaminate the hydraulic system.
- 6)** Connect the hydraulic hoses from the implement to the corresponding couplers on the electric rear remote kit's control valve. Ensure the connections are secure and free from leaks.
- 7)** Route the wiring harness from the electric rear remote kit to the operator's seat, following the manufacturer's guidelines for proper routing and securing of the wiring.
- 8)** Connect the wiring harness to the control switch(es) provided with the kit. The control switches should be mounted in a location that is easily accessible to the operator while seated on the tractor.
- 9)** Test the hydraulic functions of the implement using the control switches to ensure proper operation and make any necessary adjustments.
- 10)** Consult the implement's manual for any additional setup or adjustments that may be required for proper operation.

Remember to follow all safety precautions and consult the specific manuals for your tractor, electric rear remote kit, and implement to ensure correct installation and operation.

## Rubber Adhesive Pads Install Guides

### Recommended Tools:

- Adhesive rubber pad
- Scissors or utility knife
- Isopropyl alcohol (rubbing alcohol)
- Clean cloth or rag
- Measuring tape (optional)

### Procedure:

**1) Preparation:** Make sure the roll-over protection bar is clean and dry. Any dirt, grease, or moisture can interfere with the adhesion of the rubber pad. Use a clean cloth to wipe off any dust or dirt from the bar.

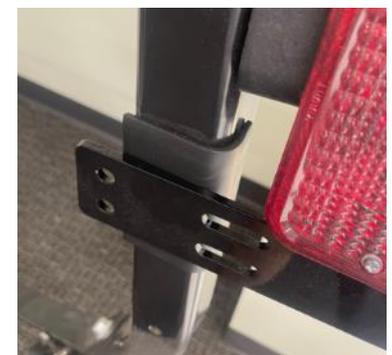
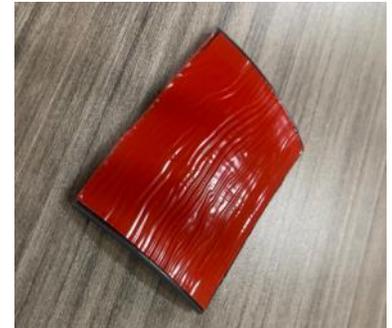
**2) Measure and Cut the Rubber Pad:** If the rubber pad requires cutting, use a measuring tape to measure the area where the bracket will be mounted onto the roll-over protection bar. Then, cut the rubber pad to size using the scissors or utility knife. We recommend folding the extra length over the ROPs.

**3) Clean the Area with Isopropyl Alcohol:** Dampen the clean cloth with a bit of isopropyl alcohol and thoroughly clean the area where the rubber pad will be installed. This will ensure the surface is as clean as possible for good adhesion. Allow the area to dry completely before moving to the next step.

**4) Apply the Adhesive Rubber Pad:** Peel the backing off one side of the adhesive rubber pad and carefully place it on the roll-over protection bar. Make sure to align it correctly before sticking it on, as adjusting it after it's been applied can reduce its stickiness.

**5) Press the Pad onto the Bar:** Once the pad is positioned correctly, apply even pressure across the surface of the pad to ensure it sticks well to the bar. You can use your hand or a soft cloth to do this.

**6) Install the Bracket:** Now, you can install the bracket. The rubber pad should provide a good buffer between the bracket and the roll-over protection bar, reducing vibration and preventing the bracket from scratching the bar's paint.



# Installation Procedure

## WARNING:

- Lubricate all threads and O-Rings with hydraulic fluid before installing fittings into the hydraulic manifold. All ports are SAE/O-Ring Boss Thread. Do not use Teflon tape or pipe dope.
- We recommend hand tightening the fitting first, snugging the fitting using a wrench, and applying a quarter turn of torque to the fitting.
- Unless stated otherwise, all fittings/adaptors are right hand thread. Please tighten all fitting/adaptor in the correct orientation. Right turn-tighten. Left turn-loosen. Damaged thread can lead to possible leaks and failure. Improper install of thread will result in warranty denial. Reference warranty page for details.

## Initial Preparations

**NOTE:** These steps need to be followed prior to installation of this valve kit.

- 1)** Park tractor on a flat surface. Place gear shift lever in park. Turn off engine and remove ignition key.
- 2)** Place chocks in front and behind tractor's left rear wheel.

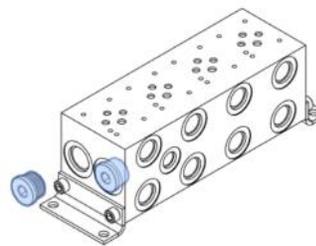
## Initial Assembly

- 1)** Install Hex Socket Plug, #10 SAE ORB Male (**fig. 1 #6**) into both "P" and "T" ports on manifold. See (**fig. 3**).

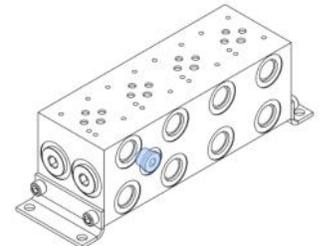
**NOTE:** #10 SAE ORB Male can be installed on either side of the "P" and "T" ports on the manifold.

- 2)** Install Hex Socket Plug, #6 SAE ORB Male (**fig. 1 #14**) into the Valve Manifold. See (**fig. 4**).
- 3)** Install (2) #8 SAE/ORB Male Adapter (**fig. 1 #8**) to the Valve Manifold. See (**fig. 5**).
- 4)** Install (2) #8 SAE/ORB (3/4-16 Thread) Male Adapter (**fig. 1 #9**) into the Valve Manifold. See (**fig. 6**).
- 5)** Install (2) 1/2" JIC Male x #10 SAE/ORB Male Adapter (**fig. 1 #7**) into the Valve Manifold. See (**fig. 7 & 8**).
- 6)** Position the ROPS D03 Valve Bracket (**fig. 1 #23**) to the Valve Manifold. See (**fig. 9**).
- 7)** Install (4) 5/16-18 Hex Bolt (**fig. 1 #1**) to the ROPS D03 Valve Bracket. See (**fig. 10**).

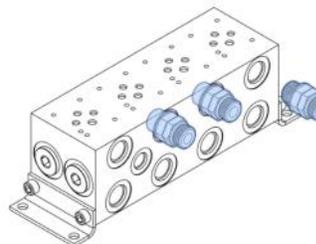
**Figure 3**



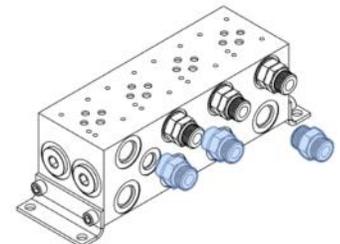
**Figure 4**



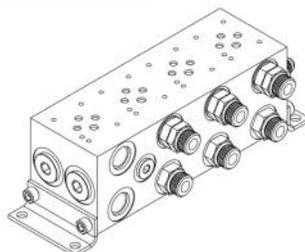
**Figure 5**



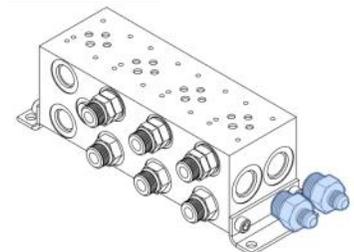
**Figure 6**



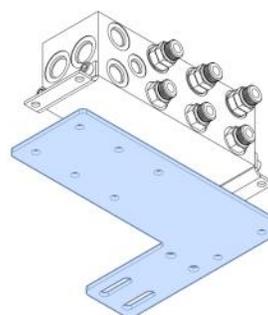
**Figure 7**



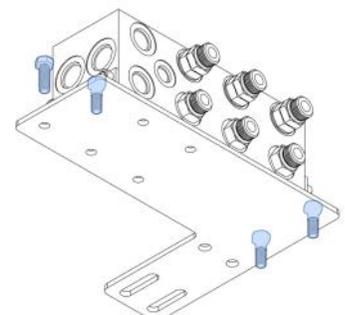
**Figure 8**



**Figure 9**



**Figure 10**

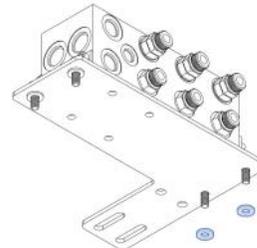


# Installation Procedure

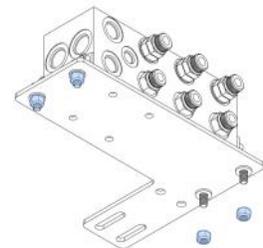
## Initial Assembly

- 9)** Install (4) 5/16" Washer (**fig. 1 #2**) onto the (4) 5/16-18 Hex Bolt (**fig. 1 #1**). See (**fig. 11**).
- 10)** Install (4) 5/16-18 Lock Nut (**fig. 1 #3**) onto the (4) 5/16-18 Hex Bolt (**fig. 1 #1**). See (**fig. 12**).
- 11)** Install (4) Ag 1/2" Female Quick Couplers (**fig. 1 #10**) to the 1/2" SAE Threaded Adapters on the manifold. See (**fig. 13**).
- 12)** Tighten the Bolt connected to the Valve Manifold to secure the Valve Manifold onto the Bracket. See (**fig. 14**).

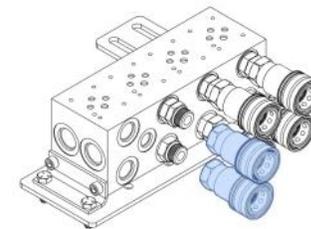
**Figure 11**



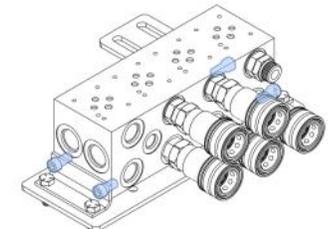
**Figure 12**



**Figure 13**



**Figure 14**

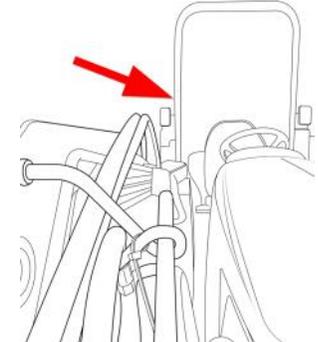


## Valve Assembly Install

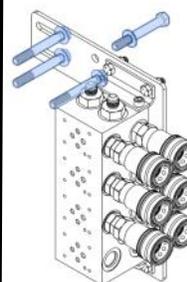
- 1)** Locate the Tractor Roll Over Protection Safety (ROPS) Bar. This ROPS Bar can be located towards the rear of the tractor.
- 2)** The Valve Mounting bracket can be installed on either side of the ROPS Bar. We recommend installing it on the side with easy access to the Power Beyond Port or High Pressure Hydraulic Coupler.
- 3)** Locate the provided hardware from the Hydraulic Kit (**fig. 1 #4, #5 & #22**). Install the hardware through the ROPS D03 Valve Bracket. See (**fig. 15**).
- 4)** Locate the Clamp bracket for the ROPS D03 Valve Bracket (**fig. 1 #24**) and mount the Hydraulic Valve assembly onto the ROPS using the provided hardware. See (**fig. 16**).
- 5)** Locate the provided hardware from the Hydraulic Kit (**fig. 1 #4 & #5**). Secure the Clamp bracket (**fig. 1 #24**) to the ROPS Bar using the provided hardware. See (**fig. 17**).
- 6)** Install (3) Solenoid Control Valve (**fig. 1 #13**) onto the Valve Manifold. Torque the Solenoid Control Valve Bolt to **2 ft-lbs**. See (**fig. 18**).



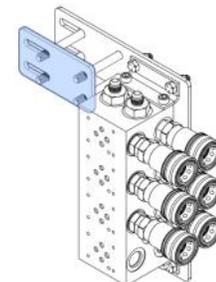
**Figure 15**



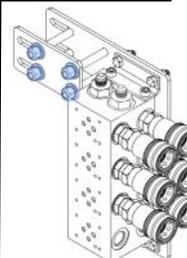
**Figure 16**



**Figure 17**



**Figure 18**



" Please Reference Page #1 for Solenoid Control Valve to Install "

# Installation Procedure

## Pressure & Return Line Installation

**1)** Locate the (1) Hydraulic Oil Lines with 1/2" Female JIC (**fig. 1 #12**). Thread the 1/2" Female JIC onto the (2) 1/2" JIC Male x #10 SAE/ORB Male (**fig. 1 #7**). See (**fig. 19**).

**2)** Locate the (1) Hydraulic Oil Lines with 1/2" Female JIC, 90 Degree 1/2" JIC Female (**fig. 1 #11**). Thread the 1/2" Female JIC onto the (2) 1/2" JIC Male x #10 SAE/ORB Male (**fig. 1 #7**). See (**fig. 20**).

### For Machine without rear remotes or backhoe:

**3)** Locate the hydraulic manifold under tractor's platform on the right-hand side of the machine. See (**fig. 21**).

**4)** Remove the hydraulic hose marked on (**fig. 21**) from the hydraulic manifold, and continue to trace the line to the loader control valve. See (**fig. 21**).

**5)** Connect the (1) Hydraulic Oil Lines with 1/2" Female JIC, 90 Degree 1/2" JIC Female (**fig. 1 #11**) to the hydraulic manifold under the tractor platform where the hose was previously removed. See (**fig. 21**).

**6)** Connect the (1) Hydraulic Oil Lines with 1/2" Female JIC (**fig. 1 #12**) to the hydraulic control valve where the hose was previously removed. See (**fig. 22**).

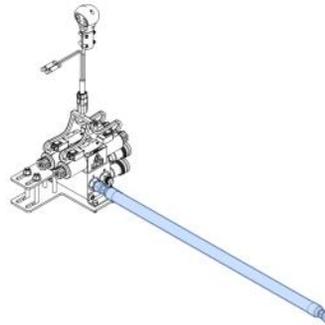
### For Machine with rear remotes or backhoe:

**Note:** Only follow this if backhoe/rear remotes are fed by top-left port on manifold block. If not; follow instructions from step 3-6.

**7)** Locate the hydraulic manifold under tractor's platform on the right-hand side of the machine. See (**fig. 23**).

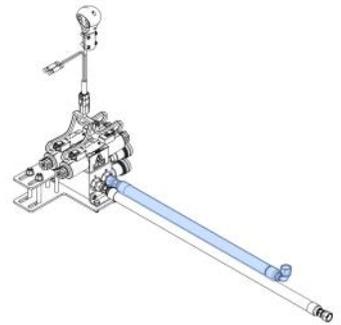
**8)** Remove the hydraulic hose marked on (**fig. 23**). This hose should be in the top front port. Follow this hose to the loader valve and remove from the elbow fitting located on the loader control valve. **Discard hose**. See (**fig. 24**).

**Figure 19**



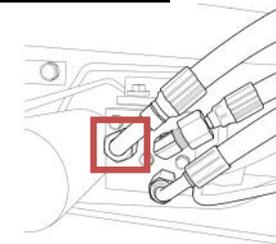
**Pressure (P)**

**Figure 20**

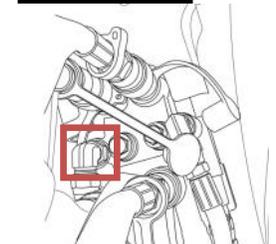


**Tank (Return) (T)**

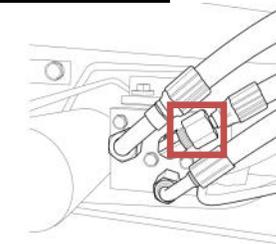
**Figure 21**



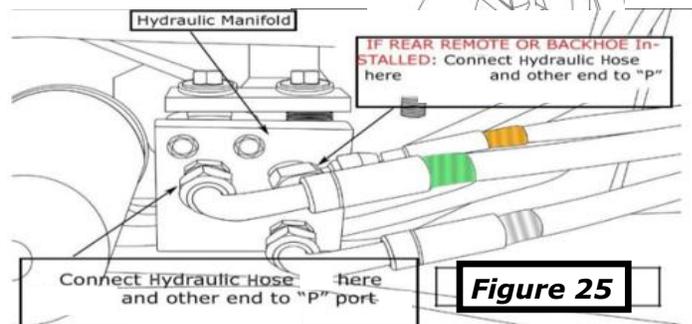
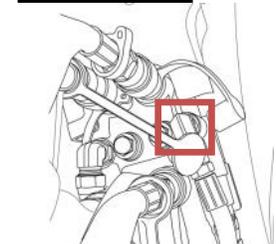
**Figure 22**



**Figure 23**



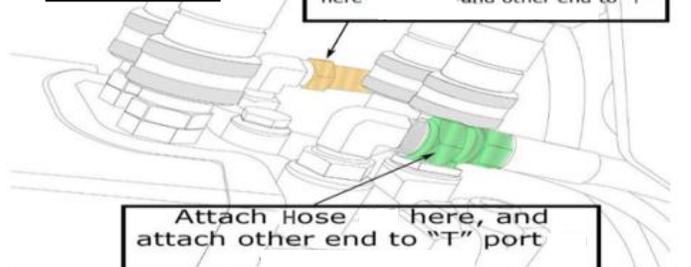
**Figure 24**



Connect Hydraulic Hose here and other end to "P" port

**Figure 25**

**Figure 26**



Attach Hose here, and attach other end to "T" port



## Installation Procedure

### Switch Box Installation (Electrical)

- 1) Gather the hydraulic valve harness (**fig. 1 #18**). See (**fig. 28**).
- 2) Connect the hydraulic valve harness (**fig. 1 #18**) to the hydraulic valve (**fig. 1 #13**). See (**fig. 29**).
- 3) Locate the electrical Deutsch connector (**fig. 30**). This electrical connector will be used to connect to the Switch Box (**fig. 1 #19**).
- 4) See the final valve assembly with electrical wiring harness for the valve (**fig. 31**).
- 5) Connect the black ground terminal end to a grounding post.
- 6) Properly route the wiring, and use zip ties to secure the routing in place.



Figure 27

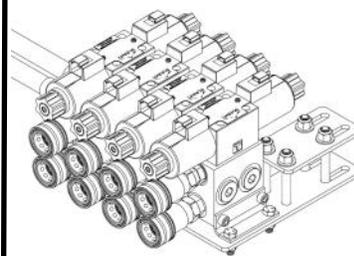


Figure 28

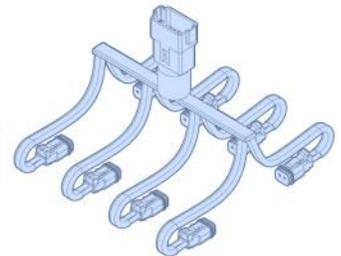


Figure 29

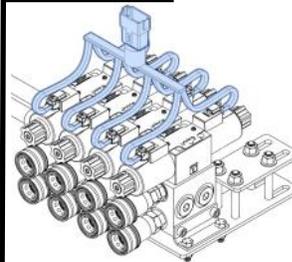


Figure 30

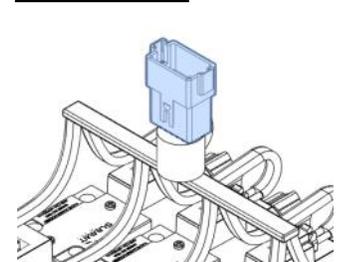
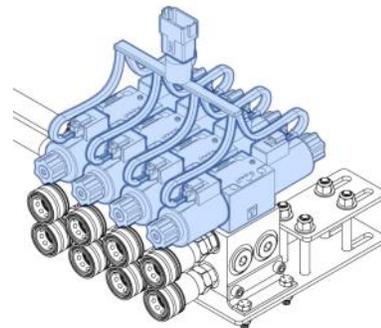


Figure 31



### Switch Box Installation (Switch Box)

- 1) Locate the Roll Over Protections Safety (ROPS) frame on the tractor. This ROPS can be located towards the rear of the tractor. See (**fig. 43**).
- 2) Locate the Switch Box Bracket (**fig. 1 #23 & #24**). The Switch Box Bracket is adjustable to allow for proper clearance, and user preference. See (**fig. 32 & 33**).
- 3) The Switch Box Bracket (**fig. 1 #23 & #24**) can be mounted together using (2) Nuts, (2) Washers & (2) Bolts (**fig. 1 #3, #2 & #1**). See (**fig. 34**).
- 4) Locate the provided hardware from the Hydraulic Kit (**fig. 1 #4, #5 & #20**). Attach the hardware through the ROPS Switch Box Clamp Bracket. See (**fig. 35**).

Figure 32

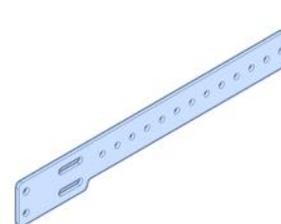


Figure 33

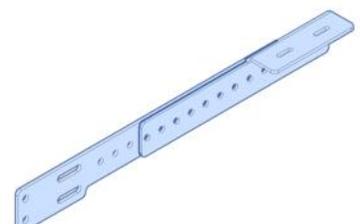


Figure 34

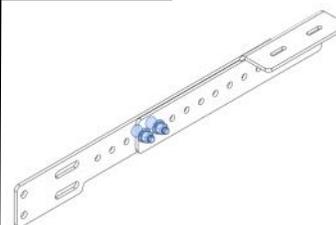
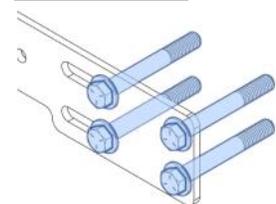


Figure 35



# Installation Procedure

## Switch Box Installation

**5)** Locate the Clamp Bracket for the ROPS Switch Box Bracket (**fig. 1 #22**) and insert the bracket to the ROPS Switch Bracket Assembly. See (**fig. 36**).

**6)** Locate the provided hardware from the Hydraulic Kit (**fig. 1 #4 & #5**). Secure the Clamp Bracket (**fig. 1 #22**) to the ROPS Bar using the provided hardware. See (**fig. 37**).

**7)** Locate the Switch Box from the Hydraulic Kit (**fig. 1 #19**). Position the Switch Box above the ROPS Switch Box Bracket. See (**fig. 38**).

**8)** Locate the provided hardware from the Hydraulic Kit (**fig. 1 #15 & #16**). Install the Switch Box to the ROPS Switch Box Bracket using the (2) bolt. See (**fig. 39**).

**9)** Secure the Switch Box to the Switch Box Bracket using the (2) Nut (**fig. 1 #16**). See (**fig. 40**).

**10)** Attach Harness Deutsch Connector to Switch Box Deutsch Connector. See (**fig. 41**).

**11)** Connect the red positive terminal end to battery's positive post. (**fig. 42E**).

**12)** Connect the black ground terminal end to ground source post. (**fig. 42D**).

**13)** Switch Box Adjustment Knob and Bracket. (**fig. 42B & 42C**).

**14)** Switches for Valve Activation. (**fig. 42A**).

## Operation Check

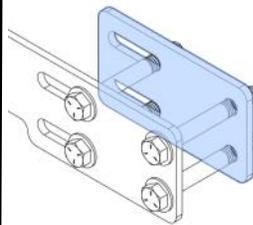
**1)** Upon completion of installation, ensure all connections are tight and secure.

**2)** Connect Hydraulic Implements Hoses to the rear hydraulic hose kit.

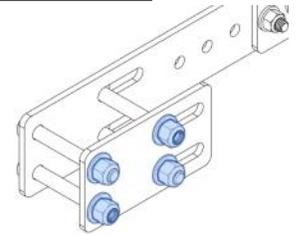
**3)** After hoses and cylinders are full of hydraulic fluid, check hydraulic fluid levels of your machine. If low, add hydraulic fluid.

**NOTE:** Air will be in hoses and cylinders. Continued actuation of cylinders will fill both hoses and cylinders with fluid and bleed air out of the hydraulic systems.

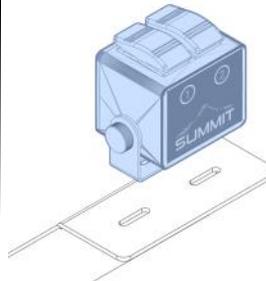
**Figure 36**



**Figure 37**



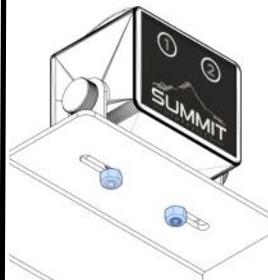
**Figure 38**



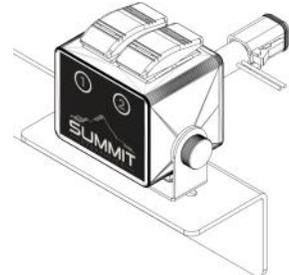
**Figure 39**



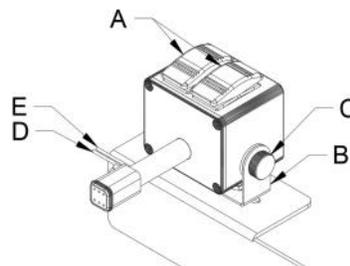
**Figure 40**



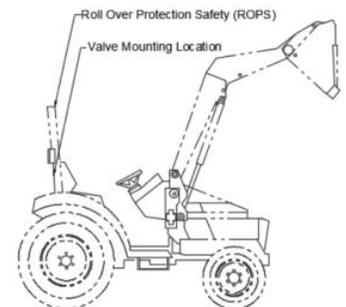
**Figure 41**



**Figure 42**



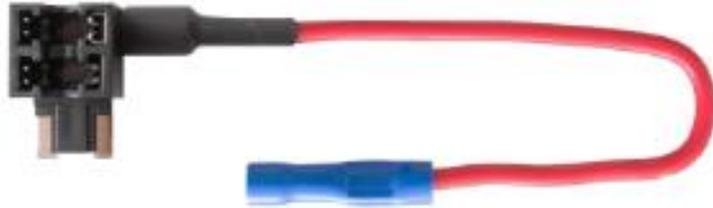
**Figure 43**



## “Add-A-Fuse” Install Guides

### Recommended Tools:

- Add-A-Fuse kit
- Wire strippers/crimpers
- Electrical tape
- Multimeter (for testing)
- Fuses

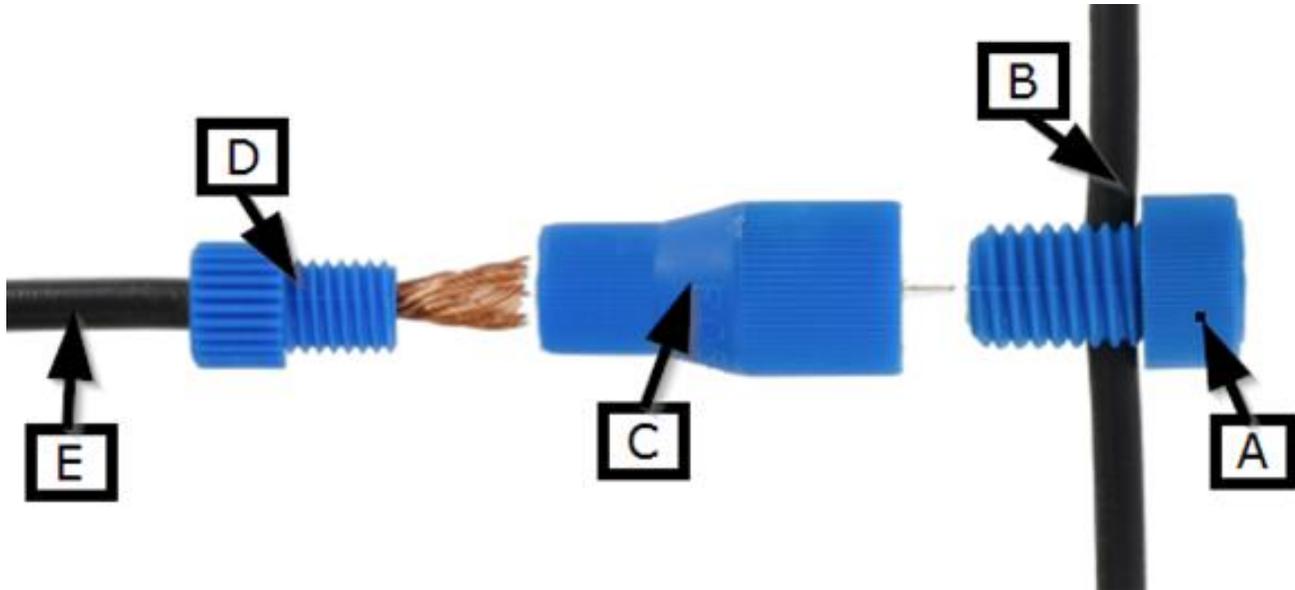


### Procedure:

- 1) Identify a Circuit:** Locate your tractor's fuse box (often under the hood or seat). Using your tractor's manual, identify a fuse slot to use. Ideally, it should be a circuit that is only on when the tractor is running, unless your device requires constant power.
- 2) Remove the Fuse:** Once you've chosen the slot, remove the fuse for that circuit.
- 3) Prepare the Add-A-Fuse:** Insert the removed fuse into the slot on the Add-A-Fuse closest to the prongs. Then, insert a new fuse into the slot further from the prongs. The fuse closest to the prongs protects the existing circuit, and the one further away is for your new circuit.
- 4) Connect the Add-A-Fuse:** Connect the power wire for your new device to the wire on the Add-A-Fuse kit. You might need to strip the wire and use a crimper, or it may simply plug in, depending on the kit and the device.
- 5) Install the Add-A-Fuse:** Insert the Add-A-Fuse into the slot from which you removed the fuse. Ensure it's inserted firmly and securely.
- 6) Ground the New Device:** Most electronic devices will also have a ground wire. This wire needs to be connected to a ground source, often a metal screw or bolt in the tractor's frame.
- 7) Check the Installation:** Before fully reassembling everything, test the installation by turning on your tractor and checking the new device. If everything works correctly, you're all set. If not, you'll need to troubleshoot.

As always, these are general instructions and your specific tractor or device may require a slightly different procedure. Always refer to your tractor's manual and the instructions for the device and the Add-A-Fuse kit. If you're uncomfortable doing this kind of work, consider hiring a professional.

## Installation Procedure



### Posi-Tap Connectors Detail (fig. 1 #27)

- 1)** Slide the large cap (A) over the wires (B).
- 2)** Carefully thread the large cap (A) onto the Posi-Tap body (C). Ensure the pin is centered on the wire. Keep the Posi-Tap straight, and thread until the wire is tightly tapped.
- 3)** Using a wire stripper. Strip 1/2-inch worth of wires €.
- 4)** Unscrew the cap (D) from the Posi-Tap body (C).
- 5)** Insert the strand of 1/2-inch stripped wires € through the cap. Ensure all of the strands are completely through the wires.
- 6)** Twist the strand of 1/2-inch stripped wires in a rotational motion.
- 7)** Insert the wire strands into one side of the metal core inside of the Posi-Tap body (C).
- 8)** Push and turn the cap (D) until the thread are engaged. Tightly turn by hand until the cap sits flush with the Posi-Tap Body (C).

### System Operation

- 1)** In neutral state, fluid will flow in the "P" port and out of the "T" port with full pressure & flow, allowing the power beyond circuit to connect back to the hydraulic pump
- 2)** When the Switch is pressed and held, fluid will flow out of the respective "A" or "B" work port, either extending or retracting that hydraulic cylinder.
- 3)** When the Switch is released, that cylinder will stay in the position it was set to until the opposite Switch/Solenoid is activated, thereby retracting that cylinder.



## TROUBLESHOOTING

Symptom	Possible Problem	Recommended Action
No Function	Electrical Issue/Solenoid	<ol style="list-style-type: none"> <li><b>1)</b> Touch the large mounting nut on the top of solenoid coil with a screwdriver.</li> <li><b>2)</b> If screwdriver does not stick to top of coil, use a voltmeter to check for voltage (min. 11V) between the coil terminal and mounting nut. If screwdriver sticks, then this not an electrical issue.</li> <li><b>3)</b> If low voltage, check voltage at source where power wire for control was connected.</li> <li><b>4)</b> If no voltage is found, measure the voltage between coil terminal and tractor frame. If voltage is indicated, the valve is not being grounded.</li> <li><b>5)</b> Check the black ground wire. If no voltage is indicated between the coil wire and the ground, first check the fuse and then the hot wire to the control.</li> </ol>
No Function: Non-Electrical	No Hydraulic Flow	<ol style="list-style-type: none"> <li><b>1)</b> If multiple valves are connected in-line, then Power Beyond Plug must be used (see section: "if connecting multiple valves in-line:").</li> <li><b>2)</b> Ensure Valve is plumbed in-series and no pressurized lines have tees.</li> <li><b>3)</b> Ensure hoses are each connected to their corresponding cylinder.</li> <li><b>4)</b> Inspect couplers and tips for proper mating.</li> <li><b>5)</b> Ensure that you have an open center hydraulic system; if not, then a Closed Center Plug must be installed.</li> </ol>
Slow Actuation	Low Voltage, Low Flow	<ol style="list-style-type: none"> <li><b>1)</b> Check voltage between coil terminal and mounting nut. If less than 11V, check all connections, battery and grounding.</li> <li><b>2)</b> Ensure pump is large enough to allow for enough flow to cylinders.</li> </ol>

## Maintenance

As with any pieces of equipment, periodic maintenance will help provide longer life and trouble-free operation of your valve.

- 1)** Periodically inspect electrical connections which are exposed to the elements for signs of corrosion or other damage.
- 2)** Replace any terminals that look as if they might fail in the field.
- 3)** Inspect the cable connecting the switch to the valve.
- 4)** Normal operation over time can cause a cable to move to a dangerous area. If the cable is in any danger of being crushed or cut, move it to a safer area and secure it.
- 5)** Check the hydraulic hoses connected to the Valve.
- 6)** Wipe the body of the Valve off and look for leaks. Tighten or replace any fitting you suspect of leaking. Inspect the hydraulic hoses for signs of leaking, cracking, or bulging. Replace any hose that shows these signs of impending failure.



## WARRANTY

Summit Hydraulics' only obligation under this Limited Warranty shall be as follows: If Summit Hydraulics determines, in its sole judgment, that an operational failure has occurred in a Product manufactured by Summit Hydraulics, that the Product was being used properly, and that such operational failure was caused solely by defective materials or workmanship, Summit Hydraulics will, at its sole option, either refund the price paid by the Customer for the Product, or replace the Product or part and pay shipping charges incurred as a result thereof for the lowest round-trip transportation charges from Summit Hydraulics' Customer's location to a designated Summit Hydraulics location for return. An inspection fee, plus shipping and handling, will apply to all returns that do not result from an operational failure, as determined by Summit Hydraulics.

Unless otherwise specified, Summit Hydraulics warrants all valves manufactured by Summit Hydraulics for a period of one (1) year and all Quick Couplers for a period of (180) days from the date of purchase against operational failure solely to the extent caused by defective materials or workmanship, provided that: (a) such failure occurs during use of the Product in conformance with the Product Specifications provided by Summit Hydraulics, and (b) there has been no disassembly, damage during shipment, abuse, misuse, misapplication, maintenance, alteration, or improper installation or maintenance or repair of the Product. Warranty coverage is conditioned upon Customer: (a) advising Summit Hydraulics in writing of the warranty claim, within fifteen (15) days of the alleged operational failure, (b) obtaining from Summit Hydraulics warranty personnel an RGA and location for return of the Product, (c) complying with all applicable procedures and instructions from Summit Hydraulics regarding the return of Product, (d) providing to Summit Hydraulics a complete written report of the circumstances of the claimed operational failure of the Product, and (e) providing Summit Hydraulics a reasonable time to inspect the Product and investigate the claim.

Summit Hydraulics has the right to refuse a warranty claim if procedures are not met by the original consumer. Summit Hydraulics reserves the right to refuse any and all warranty claims from any Distributor which has not purchased the original Summit Hydraulics product directly from Summit Hydraulics. Summit Hydraulics reserves the right to refuse any Return Goods Authorization of said merchandise in which it is believed to be fraudulent or distressed merchandise not purchased originally from Summit Hydraulics. Summit Hydraulics also reserves the right to not cover any 3rd party costs, labor, or services for troubleshooting or installation of our product.

This warranty does not apply to any Summit Hydraulics' product which has been modified, customized, painted, dented, rusted, or improperly installed.



### QR Code Instructions

1. Open your phone device camera
2. Hold your phone device camera over a QR code.
3. The phone will either automatically detect the QR code, or you must click on the QR code.
4. Once QR is detected. Press on the links to gain access to the information.

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