



# INSTALLATION MANUAL

## L7211A – REAR REMOTE VALVE BASE KIT AND 1ST LEVER for KUBOTA L2501, L3301 and L3901 TRACTORS

### BEFORE INSTALLING FIRST POSITION LEVER KIT

- Read all instructions and safety instructions in this manual. Failure to do so may result in serious injury or death.
- Refer to your machines operator's manual and safety instructions on your machines safety decals.
- Wear appropriate personal protective equipment (PPE) when performing work.
- Disconnect negative terminal on battery before performing work.
- Hang a "DO NOT OPERATE" tag in operator station.

#### CALIFORNIA PROPOSITION 65



**WARNING:**

Cancer and reproductive harm - [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)



### WARNING

To avoid high pressure fluids hazard:



- Escaping fluid under pressure can penetrate the skin causing serious injury
- Relieve all residual pressure before disconnecting hydraulic lines or performing work on the hydraulic system.
- Make sure all hydraulic fluid connections are tight and all hydraulic hoses and lines are in good condition before applying pressure to the system.
- Use a piece of paper or cardboard, NOT BODYPARTS, to check for suspected leaks.
- Wear protective gloves and safety glasses or goggles when working with hydraulic systems
- **DO NOT DELAY.** If an accident occurs, see a doctor familiar with this type of injury immediately. Any fluid injected into the skin or eyes must be treated within a few hours or gangrene may result

### OVERVIEW:

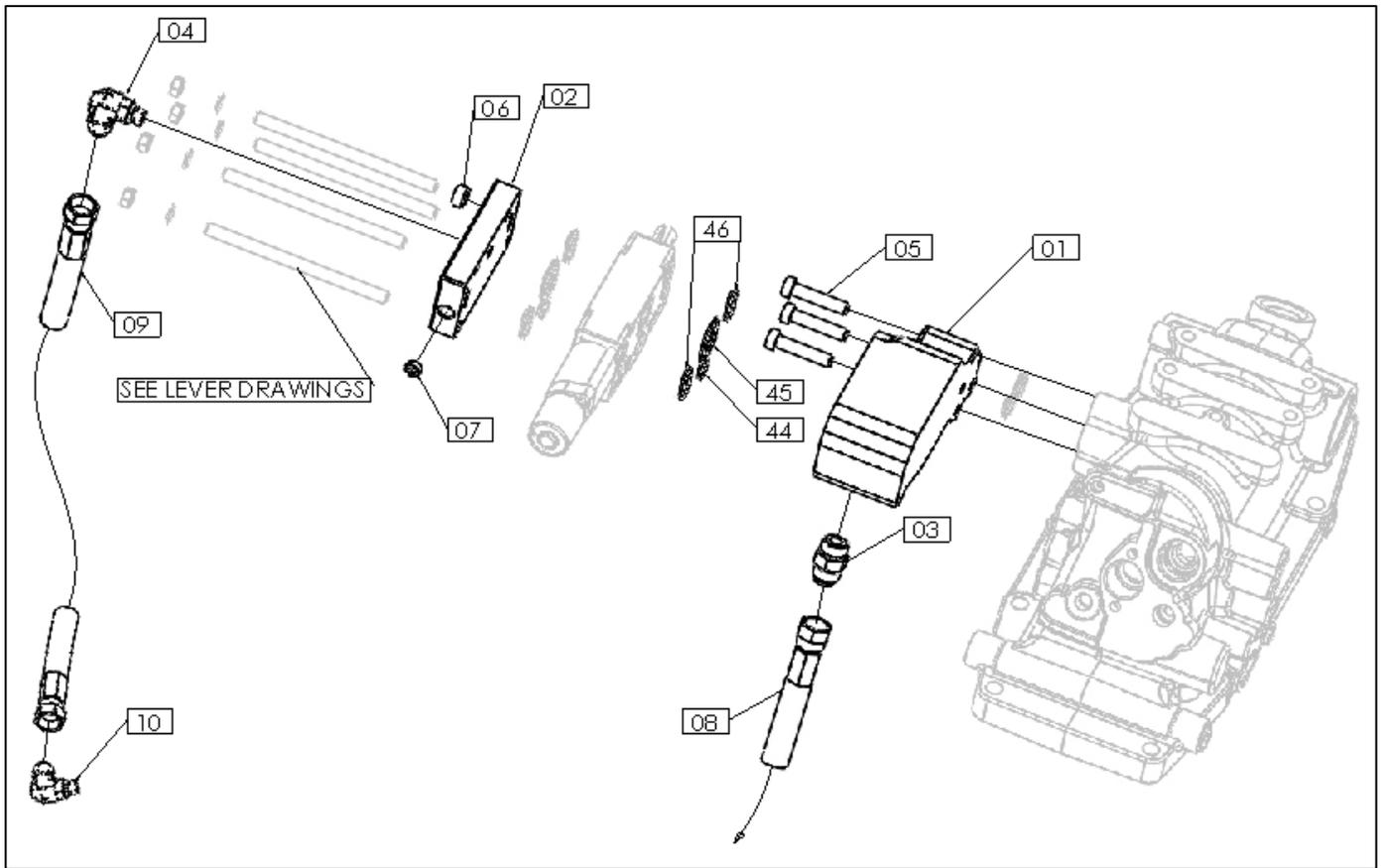
**This is the installation manual for the Rear Remote Valve Base Kit and 1<sup>st</sup> Lever for application on the following Kubota Tractors:  
L2501, L3301, L3901 (all transmission types)**

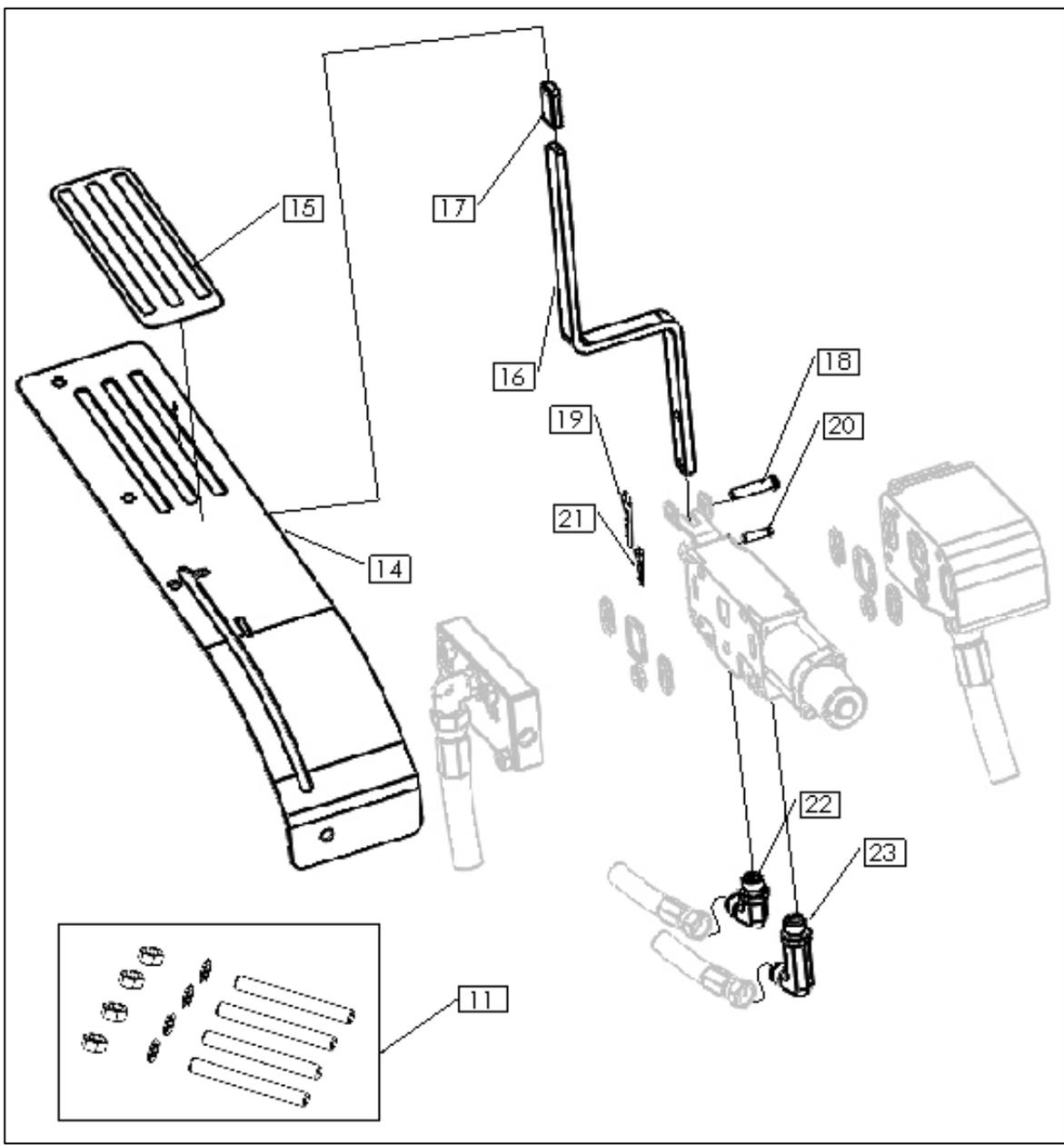
#### **Valve options (purchased separately):**

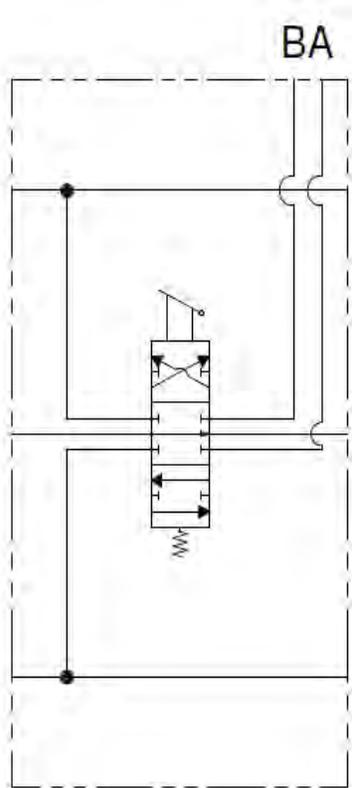
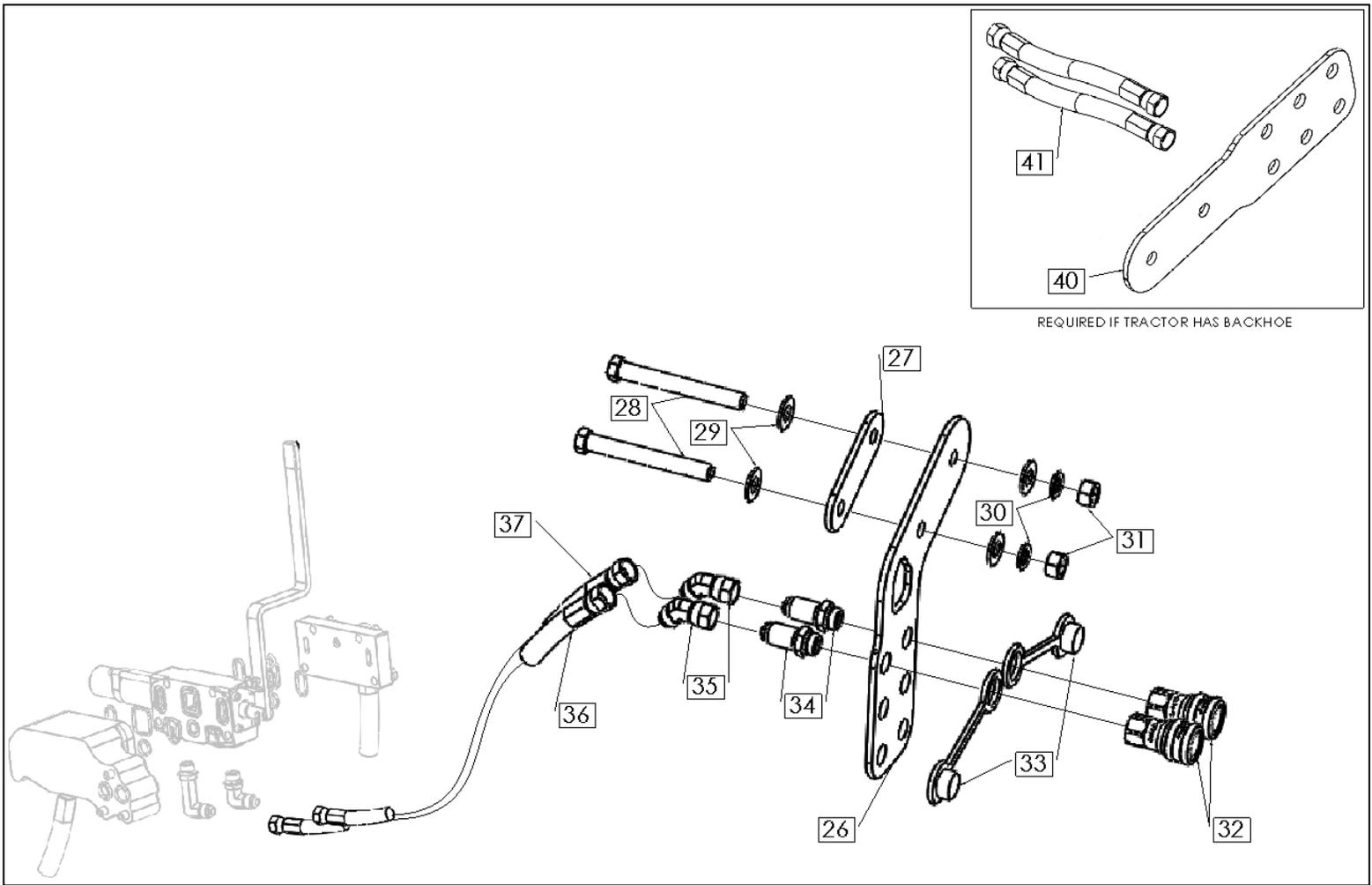
L7231A - Spring Center  
L7232A - Float Detent  
L7233A - Self-Cancelling Detent  
L7234A - Detent

**If tractor is not equipped with a loader, prepare the tractor with the L7344A kit.**

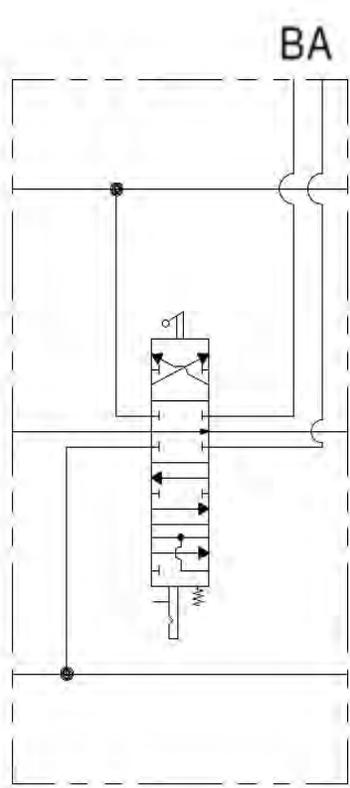
# CHECKING PARTS:



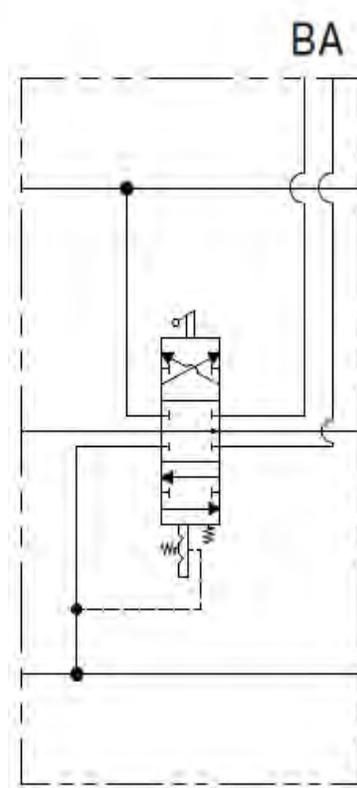




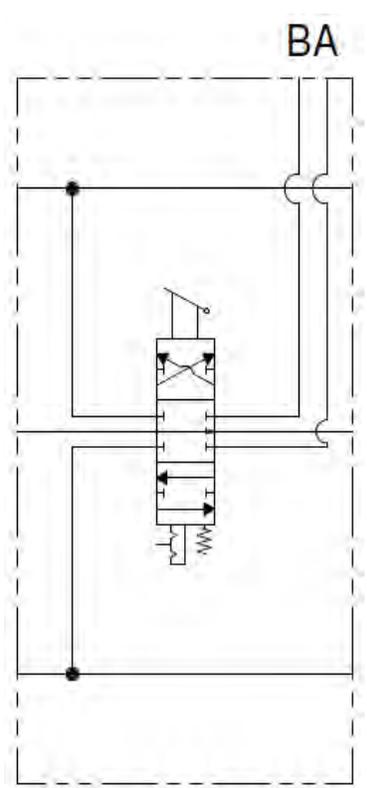
L7231A - Spring Center Valve



L7232A - Float Detent Valve



L7233A - Self Cancelling Detent Valve



L7234A - Detent Valve

**PARTS LIST:**

Ref. Number	Description	Part Number	Qty	Remarks
1	Inlet Adapter Block	77700-05666	1	
2	Outlet Section	77700-05664	1	
3	Straight Thread ORB x JIC	77700-04477	1	
4	3/8" M SAE X M JIC 1/2" Elbow	77700-03851	1	
5	M8 X 1.25MM Socket Head Cap Bolt	77700-05648	3	
6	9/16" O-ring Boss Plug	70000-02406	1	
7	1/4" NPT Hollow Hex Plug	77700-06148	1	
8	65" Hose Asly 1/2" F JIC X 1/2" F JIC	77700-03823	1	
9	37" Hose Asly 1/2" F JIC X 1/2" F JIC	77700-05665	1	
10	M JIC 1/2" X F JIC 1/2" Elbow	77700-10051	1	
11	KIT STUD,BKO 4 Bolt VO50 First Position*	77700-05647	1	
14	Lever Guide Bracket	77700-10626	1	
15	Lever Guide Label	77700-10627	1	
16	1st Position Lever	77000-10628	1	
17	Lever Cap	77700-10629	1	
18 & 19	1/4" X 1.5" STEEL CLEVIS PIN W/HAIR PIN	77700-05634	1	
20 & 21	3/16" X 3/4" PIN w/cotter pin	77700-05635	1	
22	3/8" 37 Deg - 3/8" SAE Oring Short	77700-03822	1	
23	3/8" 37 Deg - 3/8" SAE Oring Long	77700-03791	1	
26	Bulkhead coupler bracket	77700-10630	1	
27	Clamp Bracket	77700-03798	1	
28	9/16" X 5" Hex Head Bolt	77700-10047	2	
29	9/16" SAE Flat Washer	77700-10048	4	
30	9/16" Lock Washer	77700-10050	2	
31	9/16" Hex Nut	77700-10049	2	
32	Female Coupler	77700-10043	2	
33	Dust Cap (Green)	77700-10631	2	
34	Straight Bulkhead fitting w/ jam nut	77700-10046	2	
35	45 Deg JIC Fitting	77700-10632	2	
36	26" Hoses with sleeves - Female Swivel	77700-10633	1	
37	29" Hoses with sleeves - Female Swivel	77700-10634	1	
44	VO50 O-ring - .549 ID	77700-06151	1	
45	VO50 O-ring - 1.112 ID	77700-06153	2	
46	VO50 O-ring - .862 ID	77700-06152	1	

**ORDER SEPARATELY FOR USE WITH BACKHOE**

40	Bulkhead coupler bracket (BACKHOE)	77700-10635	1	
41	Hose Extension	77700-10636	2	

## ■ ASSEMBLY PROCEDURE

### WARNING

To avoid personal injury or death:

- Park the vehicle on a firm and level surface.
- Ensure the loader and other attachments are lowered to the ground.
- Apply the parking brake.
- Stop the engine and remove the key.
- Disconnect the negative (-) terminal from the battery.
- Wear appropriate personal protective equipment (PPE).

#### NOTE:

- All assembly procedures listed within this manual are generally representative of the machine model for which the manual is written. Your machine may be configured differently, but the outline for the procedure should still be followed. For further support for any issues not covered within the pages of this manual, please contact your local Kubota representative.

1. Remove the existing lever guide plate. Be sure to keep all hardware for installing the new lever guide plate. (Fig. 1)



Figure 1: Original lever guide plate for removal

2. Chock the front wheels, secure the tractor on jackstands, and remove the rear right wheel and fender.

3. Remove the fender support bracket. (Fig. 2)

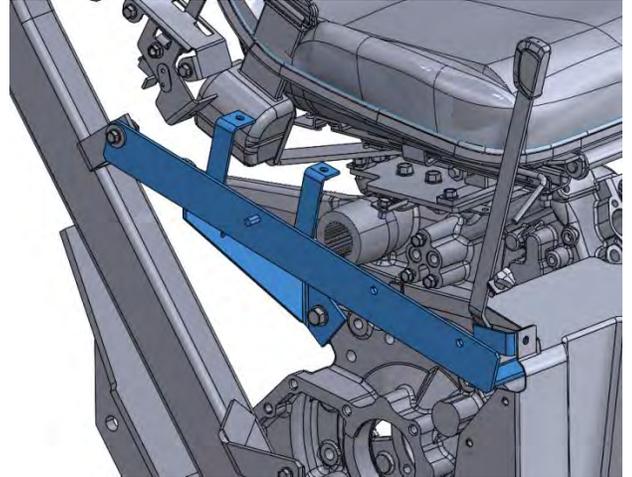


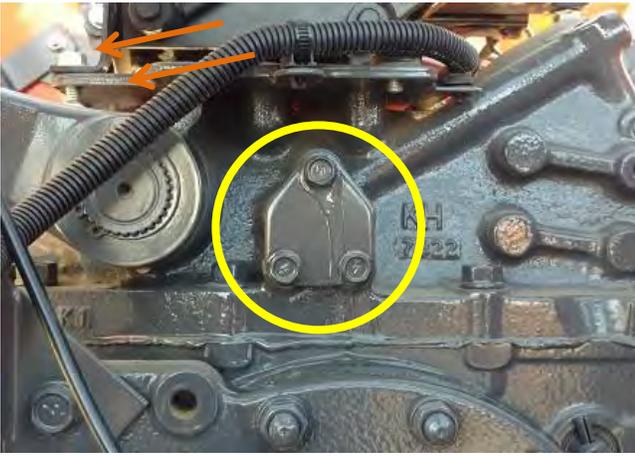
Figure 2: Fender support bracket

4. Mount bulkhead coupler plate onto the rear ROPs (roll over protection) tube as shown below in Figure 3. Fastening is accomplished with the supplied hardware (Ref. 28-31). Torque bolts to 40 ft-lbs.



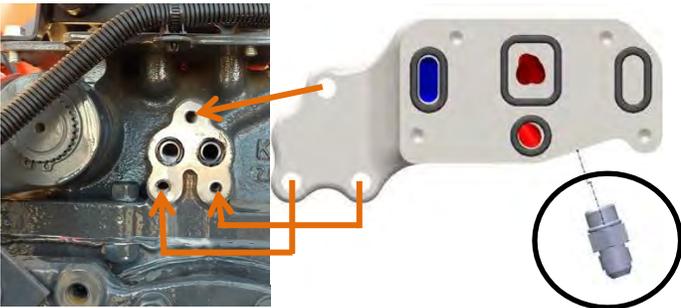
Figure 3: Bulkhead Coupler Mount

5. Remove return port cover to expose manifold block mating surface. (Fig. 4)



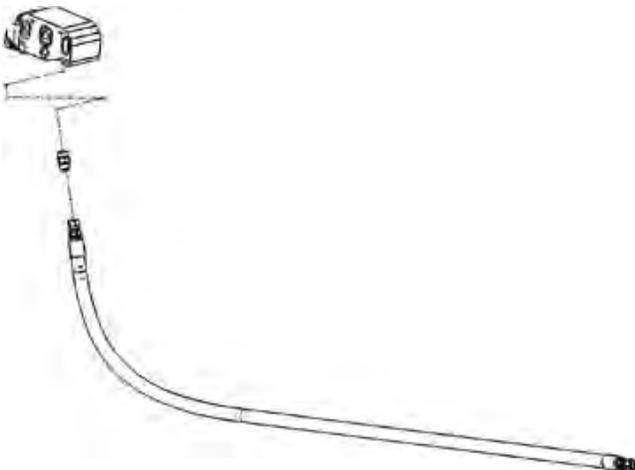
**Figure 4: Return port cover**

6. Install fitting (Ref. 03) prior to fastening manifold block (arrows). Use the supplied hardware (Ref. 05) to mount manifold block to return port mating surface. Ensure O- rings are in place and tighten to 18-20 ft-lbs.



**Figure 5: Installing manifold block**

Ref. 03



**Figure 6: Manifold to loader power beyond hose**

7. Install loader power beyond hose (Ref. 08) to the manifold block at this time. The other end of the hose will attach to the loader's power beyond port later in step 24. (Fig. 6)

8. Hand tighten the applicable studs into the manifold block. The application list is as follows:
  - L7211A – stud kit for 1 valve (Ref. 11)
  - L7212A – stud kit for 2 valves
  - L7213A – stud kit for 3 valves
9. Install the 90 degree fittings (Ref. 22-23) and applicable hoses (Ref. 36-37) to each valve. Note the approximate 30 degree angle that each is oriented in (Fig. 7)

**NOTE:**

- "A" Port – Install the longer 90 degree fitting & 29" hose. (Ref. 23 & 37)
- "B" Port – Install the shorter 90 degree fitting & 26" hose. (Ref. 22 & 36)



**Figure 7: 90 degree fittings installed with approximate 30 degree angle**

10. Install each applicable lever onto the valve utilizing the included pins (Ref.18-21) before sliding the valve onto the studs. The lever caps can also be installed at this time.



**Figure 8: Lever guide in place with levers**



**Figure 9: Valve position reference**

11. Ensure all four O-Rings (Ref.44-46) are installed on the manifold block, and slide on the desired first position valve in place. Ensure that all O-Rings are correctly placed before clamping down.

- If multiple valves were purchased, install them now. Be sure to install O-Rings on each valve during installation.
- The lever guide will need to be loosely installed onto the levers during the process of sliding the valves into place. The lever guide label should also be installed at this time. (Fig. 8)

**NOTE:**

- Installation of multiple valves requires the purchase of the 2<sup>nd</sup>, and/or 3<sup>rd</sup> Lever Kits (L7212A, L7213A).
- Each valve must be purchased separately.

12. Install the 90 degree fitting (Ref. 04) onto the outlet section (Ref. 02) at this time. Orient the fitting directly downward.

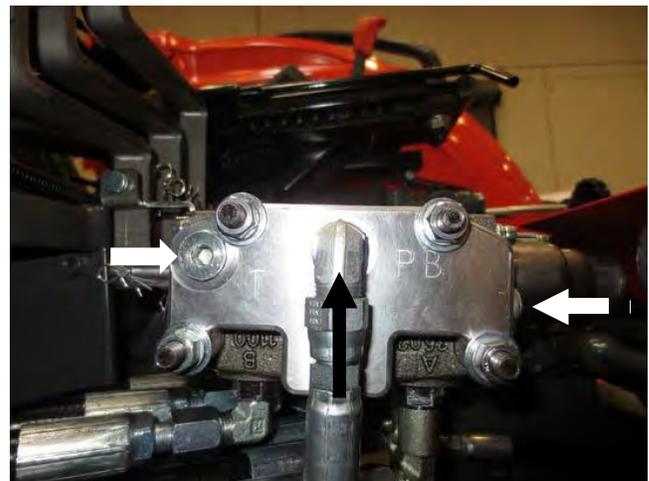
13. Once all three valves and lever guide are in place, slide the outlet block on the remaining end of the studs, and use the washers and nuts provided in the stud kit to clamp the valves together. (Fig. 9) Tighten the nuts to 18 ft-lbs.

**NOTE:**

Make note of installation order. From top to bottom, the location of the valves will be referred to as follows: 1<sup>st</sup> position, 2<sup>nd</sup> position, 3<sup>rd</sup> position.

14. Ensure right side cross-port and tank outlet are both plugged. (white arrows on Fig. 10)

15. Install 37" hose (Ref. 09) to the fitting shown by the black arrow. Leave the other end hanging, it will be installed in step 23.



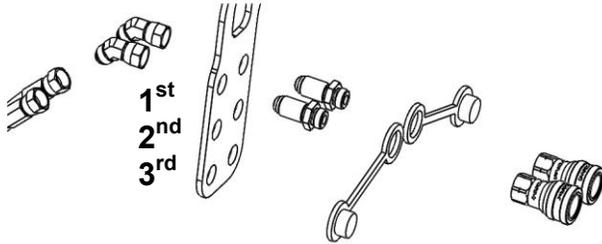
**Figure 15: Outlet section**

16. The fender support bracket can be reinstalled at this time using the original hardware.

17. Bolt the new lever guide to the fender support bracket utilizing the original hardware.

18. Loosely install the 45 degree fittings (Ref. 35) onto the end of each 26" and 29" hose.

19. Install the bulkhead fittings (Ref. 34) onto the bulkhead coupler plate (Ref. 26).
20. Connect the 45 degree fittings to the bulkhead following the orientation shown in Figure 16.



**Figure 16: Coupler bank**

21. Once all applicable hoses have been installed onto the bulkhead coupler plate, ensure that the hose routing follows the orientation shown in Figure 17, and then fully tighten every connection. This will ensure clearance with the 3PT lift linkage.



**Figure 17: Hose routing for 3PT lift arm clearance**

22. Slide the dust caps onto the couplers, and then install the female couplers to the bulkhead fittings. Be sure to use thread sealant on this connection.

**NOTE:**

Ensure that the dust cap colors match the lever guide label shown in Figures 3 & 8

23. Install the 90 degree fitting (Ref. 10) to the 37" return hose and mount to the power beyond port on the front auxiliary block. See Figure 19.
24. Route the 65" hose around the Loader Mainframe and install to the port shown in Figure 20.
  - It might be necessary to angle the 90 degree fitting slightly in order to prevent contact with the other couplers.
25. Verify that all hydraulic connections are tight and that all hoses are properly installed.

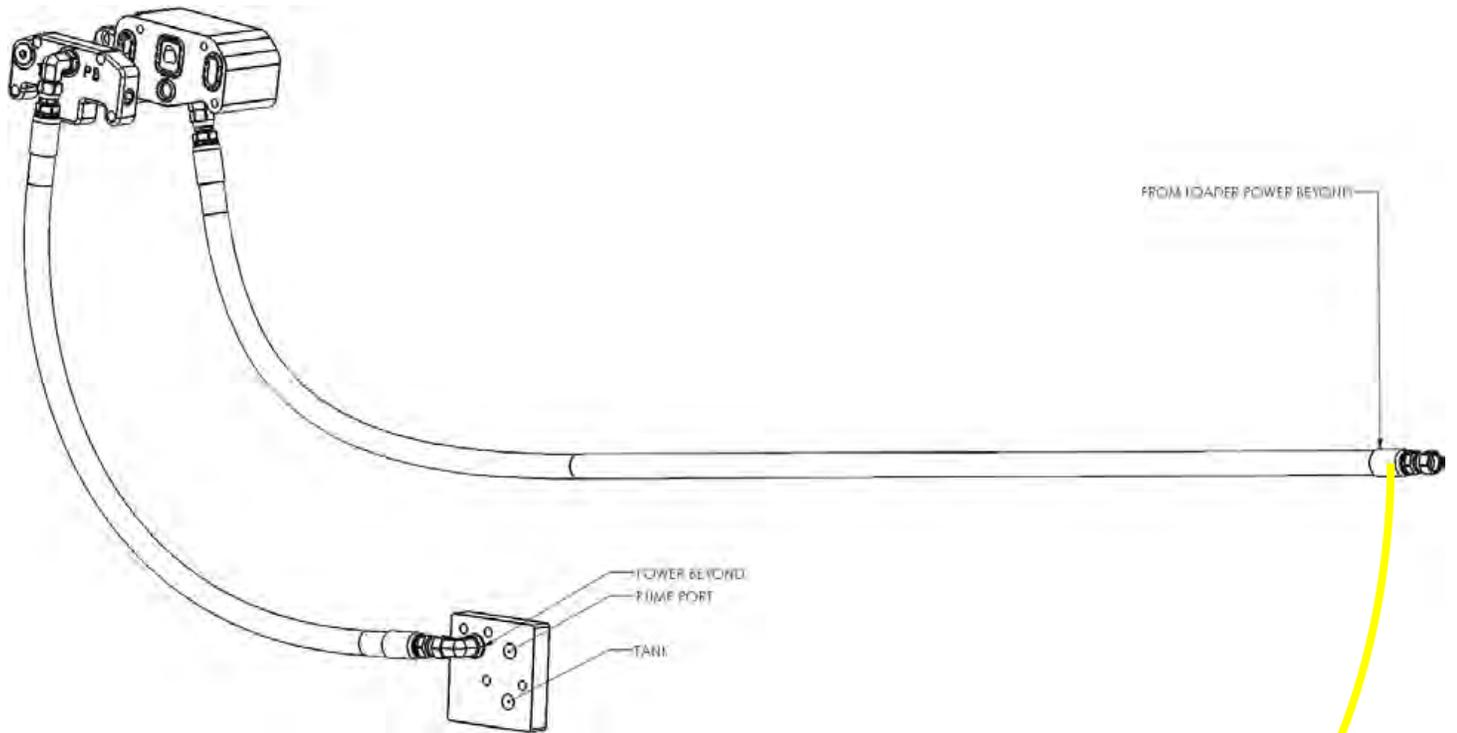
**NOTE:**

It is recommended to test the function of all the remote valves before reassembling the fender in order to check for leaks.

26. Reinstall the fender and tire and wheel.
27. Check the hydraulic fluid level on the machine, it is likely necessary to refill to proper levels. Check your Operator's Manual for more information on hydraulic system maintenance.

**NOTE:**

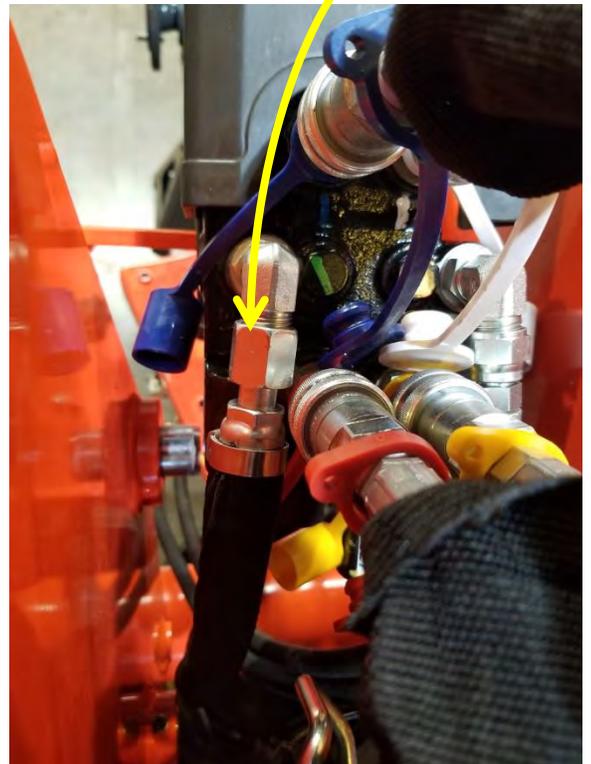
When reinstalling the PTO engagement lever, ensure that the cable routing does not have any binds or harsh angles.



**Figure 19: Inlet/Outlet section plumbing**

**NOTE:**

Install the 65" hose to the loader valve port shown here.



**Figure 20: Loader Power Beyond port**

## • FOR INSTALLATION WITH A BACKHOE

1. Order part number 77700-10635 in addition to two hose extensions (77700-10636) per valve section.
2. The replacement bulkhead coupler bracket needs to be installed in a different orientation in order to provide clearance for the backhoe assembly. See Figure 21.

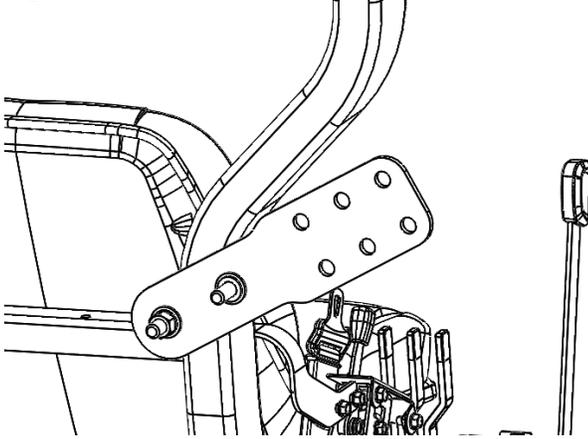


Figure 21: Bulkhead coupler bracket for backhoe compatibility

### NOTE:

When installing the bulkhead coupler bracket, ensure that you do not cover the amber lamp on the fender.

3. Install the hose extensions inbetween the bulkhead fittings and hoses

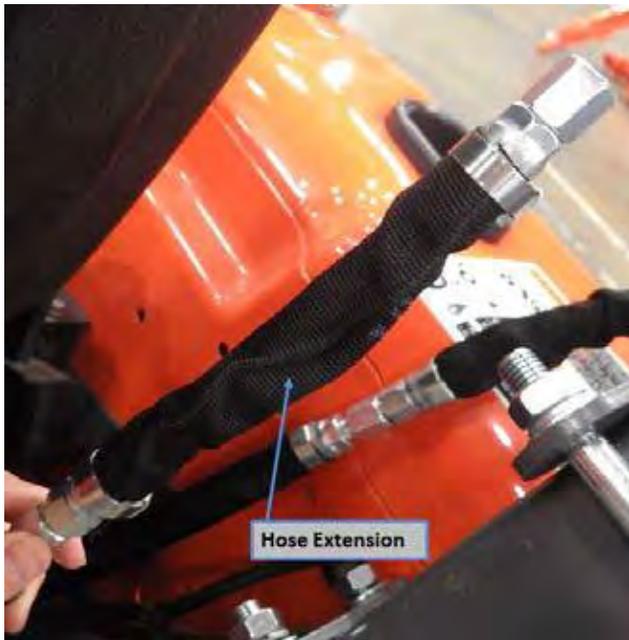


Figure 22: Required hose extensions for backhoe use

4. The same 65" hose (Ref. 08) will be used for the remote valves. See Figures 19 and 20 for installation.
5. The rear remote return line (Ref 09) will now be installed between the outlet section of the valves (Ref 02) and the backhoe inlet section. See figure 23, this is the red line.
6. The return line that is included in the backhoe installation kit will still be used as normal. Follow the backhoe installation manual for installation of this hydraulic line. See figure 23, this is the blue line.

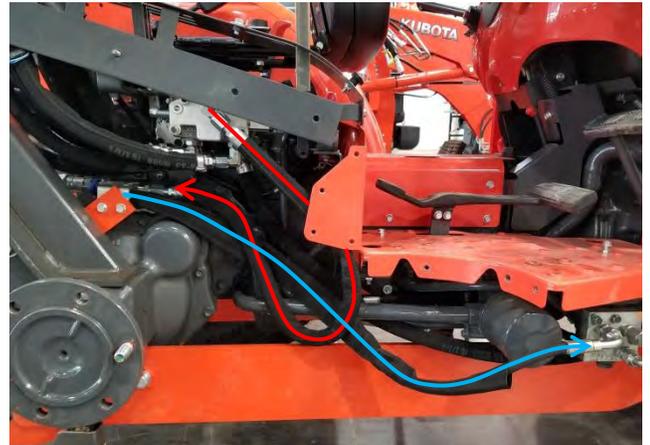


Figure 23: Hydraulic system routing for backhoe use