

Fexhull TFK3

Fexhull Third Function Valve Kit TFK3 Instruction Manual

For Kubota L4600 and L4701 Tractors

1. INTRODUCTION

This manual provides essential information for the installation, operation, and maintenance of your Fexhull Third Function Valve Kit, model TFK3. This kit is designed to expand the hydraulic capabilities of your Kubota L4600 or L4701 tractor, enabling the use of additional hydraulic attachments such as grapples, augers, snowplow tilts, and snow blowers. Please read this manual thoroughly before attempting installation or operation to ensure safe and efficient use of the product.

2. PRODUCT OVERVIEW AND COMPONENTS

The Fexhull Third Function Valve Kit (TFK3) is a comprehensive hydraulic system designed to integrate seamlessly with compatible Kubota tractors. It provides an additional hydraulic circuit for operating various implements.



Figure 2.1: All components of the Fexhull Third Function Valve Kit TFK3, including hoses, valve, joystick handle, and various fittings.

2.1. Kit Contents

The TFK3 kit includes the following main components:

- 12V Solenoid Operated Valve
- Joystick Handle with 2 momentary push-button switches
- Wiring harness with 2 weatherproof Deutsch connectors
- Valve Mounting Bracket (including hardware)
- Quick Coupler Mounting Bracket (including hardware)
- 3 - 1/2" Body Agricultural Style Female Couplers
- 3 - 1/2" Body Agricultural Style Male Couplers
- Dust Caps
- 4 - Hydraulic Hose Assemblies (To Connect Valve and (1) Hydraulic Cylinder)
- Zip Ties

THIRD FUNCTION VALVE KIT INCLUDES

- 12v Solenoid Operated Valve
- Joystick Handle with 2 momentary push button switches
- Wiring harness with 2 weatherproof Deutsch connectors
- Valve Mounting Bracket (including hardware)
- Quick Coupler Mounting Bracket (including hardware)
- 3 – 1/2" Body Agricultural Style Female Couplers
- 3 – 1/2" Body Agricultural Style Male Couplers
- Dust Caps
- 4 – Hydraulic Hose Assemblies (To Connect Valve and (1) Hydraulic Cylinder)
- Zip Ties



Figure 2.2: A closer look at the individual components included in the TFK3 kit, such as the solenoid valve, wiring, couplers, and mounting hardware.

3. COMPATIBILITY

This Third Function Valve Kit (TFK3) is specifically designed for the following Kubota tractor models:

- Kubota L4600 (compatible with LA 764 Loader)
- Kubota L4701 (compatible with LA 765 Loader)

Important Notice:

Before ordering, verify that the product part number TFK3 matches the interchangeable part number required for your tractor. If you are unsure about compatibility, consult a professional engineer or contact Fexhull customer support with

your tractor's model number for verification.

COMPATIBLE WITH

L4600

LA 764 Loader

L4701

LA 765 Loader



OE: TFK3

This 3rd function valve kit is powered by the power beyond port of your existing loader valve which will allow you to use multiple functions at the same time (i.e. curl bucket and close grapple).

Figure 3.1: Visual representation of tractor models compatible with the TFK3 kit, specifically Kubota L4600 and L4701.

4. KEY FEATURES

The Fexhull TFK3 Third Function Valve Kit offers several features designed for durability and ease of use:

- **Completely Weatherproof:** Components are designed to withstand various environmental conditions.
- **Mounts to Existing Loader Joystick Shafts:** Facilitates integration with your tractor's controls.
- **Removable Adapter Bushing:** Allows fitting to various joystick shaft sizes.
- **Ergonomic Design:** Joystick handle features two momentary push-button switches for intuitive control.
- **Durable Construction:** Features an aluminum body and #8 SAE O-Ring ports for solid seals and blockage

prevention.

THIRD FUNCTION VALVE KIT



Completely weatherproof



Mounts to existing loader joystick shafts



Removable adapter bushing to fit any joystick shaft



Ergonomic design with 2 momentary push-button switches

Figure 4.1: Illustration of the TFK3 kit's features, including its weatherproof nature and adaptable joystick mounting.

5. SETUP AND INSTALLATION

Safety First:

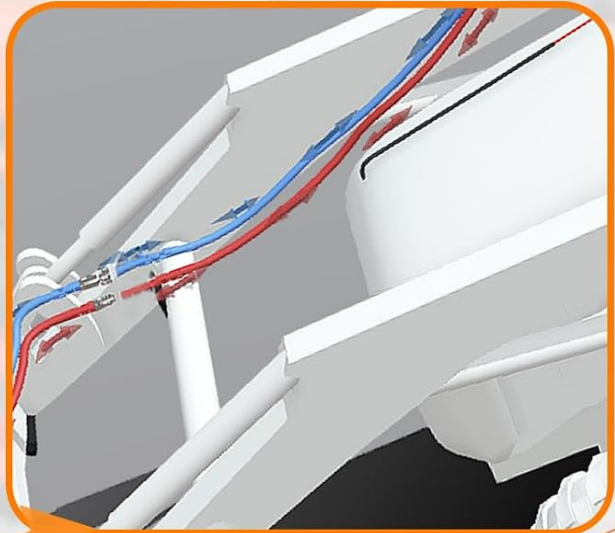
Always ensure the tractor is turned off, the engine is cool, and the parking brake is engaged before beginning any installation. Disconnect the battery to prevent accidental electrical activation. Wear appropriate personal protective equipment (PPE).

The Fexhull Third Function Valve Kit is designed for straightforward installation. It connects to the power beyond port of your existing loader valve, allowing for simultaneous operation of multiple functions.

5.1. General Installation Steps (Consult a professional if unsure):

1. **Mount the Valve:** Secure the 12V solenoid operated valve using the provided valve mounting bracket and hardware in a suitable location on your tractor, ensuring it is protected from damage and accessible for maintenance.
2. **Install Quick Couplers:** Attach the quick coupler mounting bracket and install the male and female quick couplers.
3. **Connect Hydraulic Hoses:** Connect the hydraulic hose assemblies from the tractor's existing loader valve (power beyond port) to the new third function valve, and then from the third function valve to your hydraulic cylinder or attachment. Ensure all connections are tight and free of leaks.
4. **Wire the Joystick:** Connect the joystick handle's wiring harness to the 12V solenoid valve. Ensure all electrical connections are secure and weatherproof.
5. **Test System:** After installation, carefully test the system in a safe, open area before operating with an attachment. Check for proper function and any leaks.

EASY TO INSTALL



COMMONLY USED TO ADD

GRAPPLES

AUGERS

SNOWPLOW TILT

SNOW BLOWER



Figure 5.1: Visual guide illustrating the general process of installing the hydraulic lines and components on a tractor loader.

While the kit is designed for ease of installation, hydraulic and electrical systems can be complex. If you lack experience with such installations, it is highly recommended to seek assistance from a qualified technician or refer to detailed

instructional videos available online for similar installations. Some users have found external resources, such as YouTube videos, helpful for visual guidance.

6. OPERATING INSTRUCTIONS

Once the Fexhull Third Function Valve Kit is correctly installed, operating your hydraulic attachments becomes straightforward.

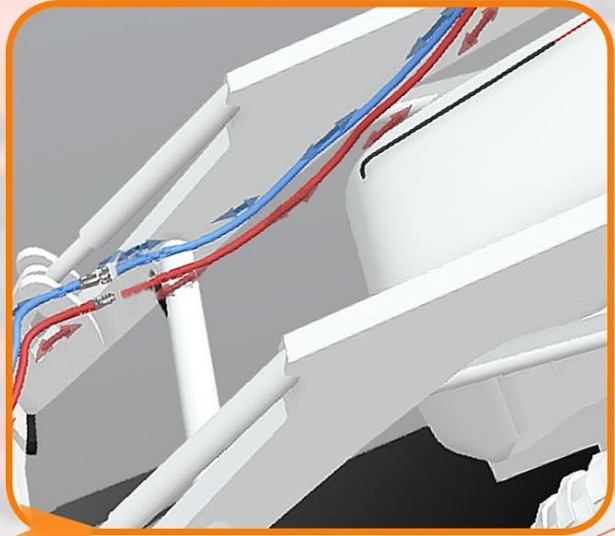
6.1. Basic Operation:

1. **Connect Attachment:** Securely connect your hydraulic attachment (e.g., grapple, auger, snowplow tilt, snow blower) to the quick couplers of the third function valve.
2. **Start Tractor:** Start the tractor engine and allow the hydraulic system to warm up to operating temperature.
3. **Engage Third Function:** Use the momentary push-button switches on the joystick handle to activate the third hydraulic function. Pressing one button will extend the hydraulic cylinder, while pressing the other will retract it, controlling your attachment.
4. **Monitor Performance:** Observe the attachment's movement and the tractor's hydraulic system for any unusual noises, leaks, or performance issues.

This kit is commonly used to add functionality for:

- Grapples
- Augers
- Snowplow tilt
- Snow blowers

EASY TO INSTALL



COMMONLY USED TO ADD



GRAPPLES

AUGERS

SNOWPLOW TILT

SNOW BLOWER

Figure 6.1: An example of a tractor utilizing a grapple attachment, made possible by the added third function hydraulic circuit.

7. MAINTENANCE

Regular maintenance ensures the longevity and reliable performance of your Fexhull Third Function Valve Kit.

- **Inspect Hoses and Connections:** Periodically check all hydraulic hoses for wear, cracks, or leaks. Ensure all fittings and quick couplers are clean and securely tightened. Replace any damaged components immediately.
- **Check Electrical Connections:** Inspect the wiring harness and Deutsch connectors for corrosion or damage. Ensure they remain weatherproof and secure.
- **Clean Components:** Keep the valve and other components free from dirt, debris, and excessive moisture.
- **Hydraulic Fluid:** Ensure your tractor's hydraulic fluid is at the correct level and is clean. Refer to your tractor's

owner's manual for recommended fluid types and change intervals.

- **Dust Caps:** Always use the provided dust caps on quick couplers when not in use to prevent contamination.

8. TROUBLESHOOTING

This section addresses common issues you might encounter with your third function valve kit.

Problem	Possible Cause	Solution
Attachment not responding or slow	Low hydraulic fluid level; clogged filter; air in system; faulty electrical connection to valve; valve malfunction.	Check hydraulic fluid level and condition; inspect/replace hydraulic filter; bleed air from system; verify electrical connections and power to the valve; consult a technician if valve is suspected faulty.
Hydraulic fluid leak	Loose fittings; damaged hoses; worn O-rings or seals in couplers/valve.	Tighten all fittings; inspect hoses for damage and replace if necessary; replace worn O-rings or seals.
Joystick buttons not activating valve	Loose or corroded electrical connections; faulty joystick switch; no power to the valve.	Check all wiring and connections for continuity and power; test joystick switches; ensure tractor's electrical system is functioning correctly.

If you encounter issues not listed here or are unable to resolve a problem, contact Fexhull customer support or a certified hydraulic technician.

9. SPECIFICATIONS

Technical specifications for the Fexhull Third Function Valve Kit TFK3:

- **Model Number:** TFK3
- **Material:** Metal (Aluminum Body)
- **Product Dimensions:** Approximately 10 x 10 x 10 inches
- **Item Weight:** Approximately 24.5 Pounds
- **Number of Ports:** 3
- **Inlet Connection Type:** Flange
- **Outlet Connection Type:** Flange
- **Maximum Operating Pressure (P, A & B):** 5080 PSI
- **Maximum Operating Pressure (T):** 3050 PSI
- **Flow Rating:** 15 GPM
- **Rated Pressure:** 3000 PSI
- **Port Type:** #8 SAE O-Ring ports

PRODUCT FEATURES



MAX OPERATING PRESSURE

P = 5080 PSI

T = 3050 PSI

A & B = 5080 PSI

Flow Rating: 15 GPM

Aluminum Body

3000 PSI Rated

#8 SAE O-Ring ports ensure solid seal and prevent blockages

Figure 9.1: Overview of the TFK3 kit's performance specifications, such as maximum operating pressure and flow rating.



PRODUCT DETAILS



Figure 9.2: Detailed views of the connectors and mounting brackets, illustrating the quality and design of the kit's components.

10. WARRANTY AND SUPPORT

10.1. Warranty Information

Specific warranty details for the Fexhull Third Function Valve Kit TFK3 are typically provided at the point of purchase or within the product packaging. Please retain your proof of purchase for any warranty claims.

10.2. Customer Support

For technical assistance, compatibility verification, or any other inquiries regarding your Fexhull product, please contact Fexhull customer support. You can often find contact information on the manufacturer's website or through your retailer. Fexhull emphasizes professional and efficient service, backed by over 20 years of experience in manufacturing.

ASK A QUESTION ABOUT THIS MANUAL

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

Name

Anonymous

Email

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. [Privacy details](#).

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question

Open the live page

<https://manuals.plus/asin/B0DQSMFKBY>

More documents and user manuals: <https://manuals.plus/>