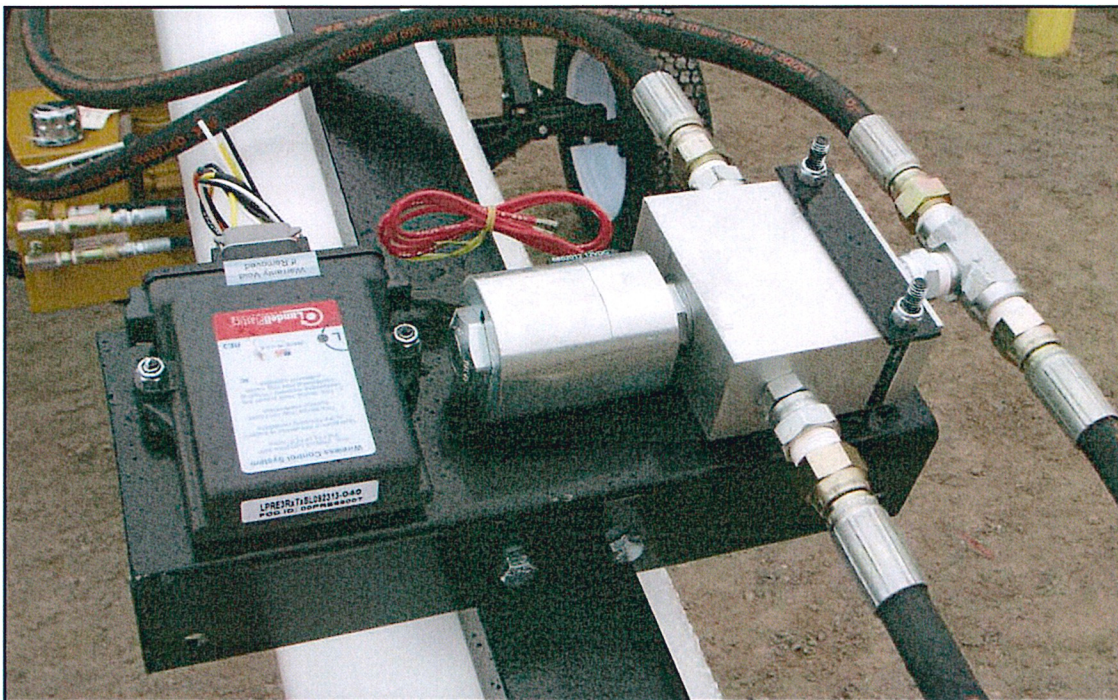




**OPERATOR'S MANUAL
SET-UP INSTRUCTIONS
&
PARTS LIST**

ELECTRIC SOLENOID VALVE KITS



MARKET FARM EQUIPMENT LIMITED, R.R.#1 DASHWOOD, ONTARIO, CANADA

TEL# 519-238-2301 FAX# 519-238-6044 E-MAIL: mfeltd@execulink.com

www.marketfarmequipment.com

"SERVING THE FARM INDUSTRY SINCE 1962"

WARRANTY PROCEDURE

MARKET FARM EQUIPMENT WARRANTS THEIR MANUFACTURED PRODUCTS TO BE FROM DEFECTS IN MATERIAL AND WORKMANSHIP FOR A PERIOD OF ONE (1) YEAR AFTER THE DATE OF PURCHASE TO THE FIRST END USER AND IS SUBJECT TO THE FOLLOWING CONDITIONS.

1. Damage caused by improper use, negligence, or operation beyond rated capacity, improper set-up, adjustment, or any unauthorized modifications made by the dealer or customer, shall void this warranty.
2. Notification of damage or warranty claims must be submitted to Market Farm Equipment (M.F.E.) within seven (7) days of the date of failure.
3. All defective parts must be made available by the dealer, for inspection by M.F.E. if required, and returned at the dealer's expense.
4. All warranty claims must be approved by M.F.E.
5. The labour and freight required to replace defective parts is not reimbursable.
6. Exchange, credit or warranty status will be based on the results of the inspection of damaged items by the manufacturer.
7. Credit will be issued if and when the warranty claim is approved and **MUST NOT** be deducted from the account by the dealer.
8. Products and/or parts not manufactured by M.F.E. are subject to their own manufacturer's warranty conditions.

WARRANTY CONSIDERATION IS ONLY VALID WHEN THE WARRANTY REGISTRATION FORM HAS BEEN RECEIVED BY MARKET FARM EQUIPMENT.

WARRANTY REGISTRATION

MARKET FARM EQUIPMENT LIMITED
R.R. 1 DASHWOOD, ONTARIO, CANADA, N0M 1N0
Fax: 519-238-6044 E-mail: mfeltd@execulink.com

Purchaser's warranty protection on this equipment is valid only when this registration form is completed by the purchaser and returned to Market Farm Equipment Limited.

Date of purchase: _____

Type of equipment: _____

Model number: _____ **Serial number:** _____

PURCHASER'S SIGNATURE INDICATES:

- **Acceptance of equipment, fully assembled () unassembled ()**
- **Receipt of operator's manual**
- **Clear understanding of warranty**
- **Receipt of instructions on special safety equipment available**
- **Receipt of instructions on safe and proper operating procedures**

PURCHASER:

Name: _____

Signature: _____

Mailing Address: _____

Prov./State: _____ **Postal/Zip Code:** _____

Telephone number: _____

Purchased from: _____

THIS WARRANTY MUST BE VALIDATED BY THE MANUFACTURER

It is valid only when a copy of the registration has been received by the manufacturer at address shown.

MARKET FARM EQUIPMENT LIMITED

EXPRESS WARRANTY

Market Farm Equipment Limited warrants against defects in construction and materials for a period of ONE year. We reserve the right to inspect and decide whether material or construction was faulty, or whether abuse or accident voids our guarantee.

This warranty does not cover a component which fails, malfunctions or is damaged as a result of (I) improper modification or repair, (II) accident, abuse or improper use, including loading beyond the specified maximum weights and requirements (III) improper or insufficient maintenance, or (IV) normal wear and tear.

THIS WARRANTY IS EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES OR CONDITIONS, EXPRESS, IMPLIED OR STATUTORY, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

In no way shall Market Farm Equipment Limited be liable for special, direct, incidental or consequential damages of any kind, including but not limited to labour charges.

The exclusive remedy under this warranty shall be repair or replacement of the defective component at Market Farm Equipment Limited's option. This is the entire agreement between Market Farm Equipment Limited and the owner about warranty. NO M.F.E. Ltd. employee or dealer is authorized to make additional warranty on behalf of Market Farm Equipment Limited.

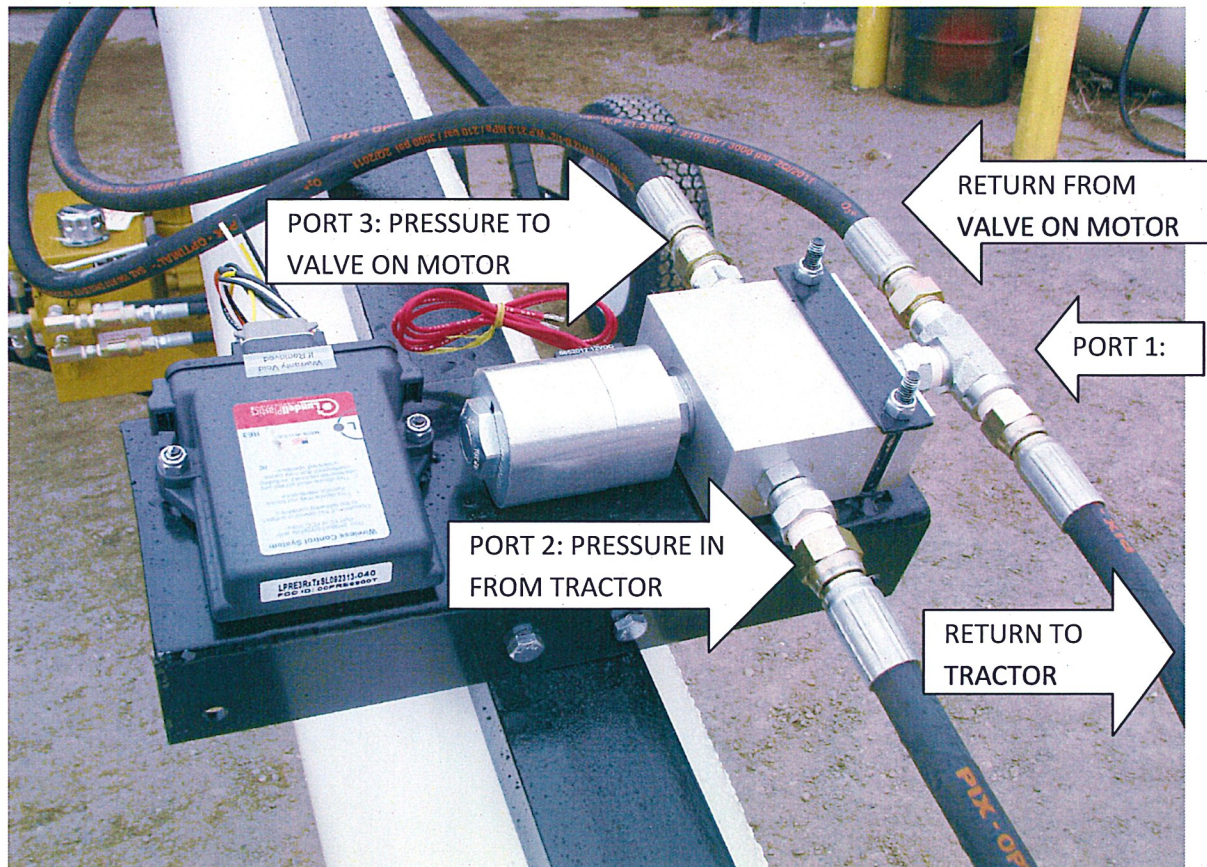
(Fill in the following for future reference)

Serial number: _____

Date of purchase: _____

Purchased from: _____

ELECTRIC SOLENOID VALVE



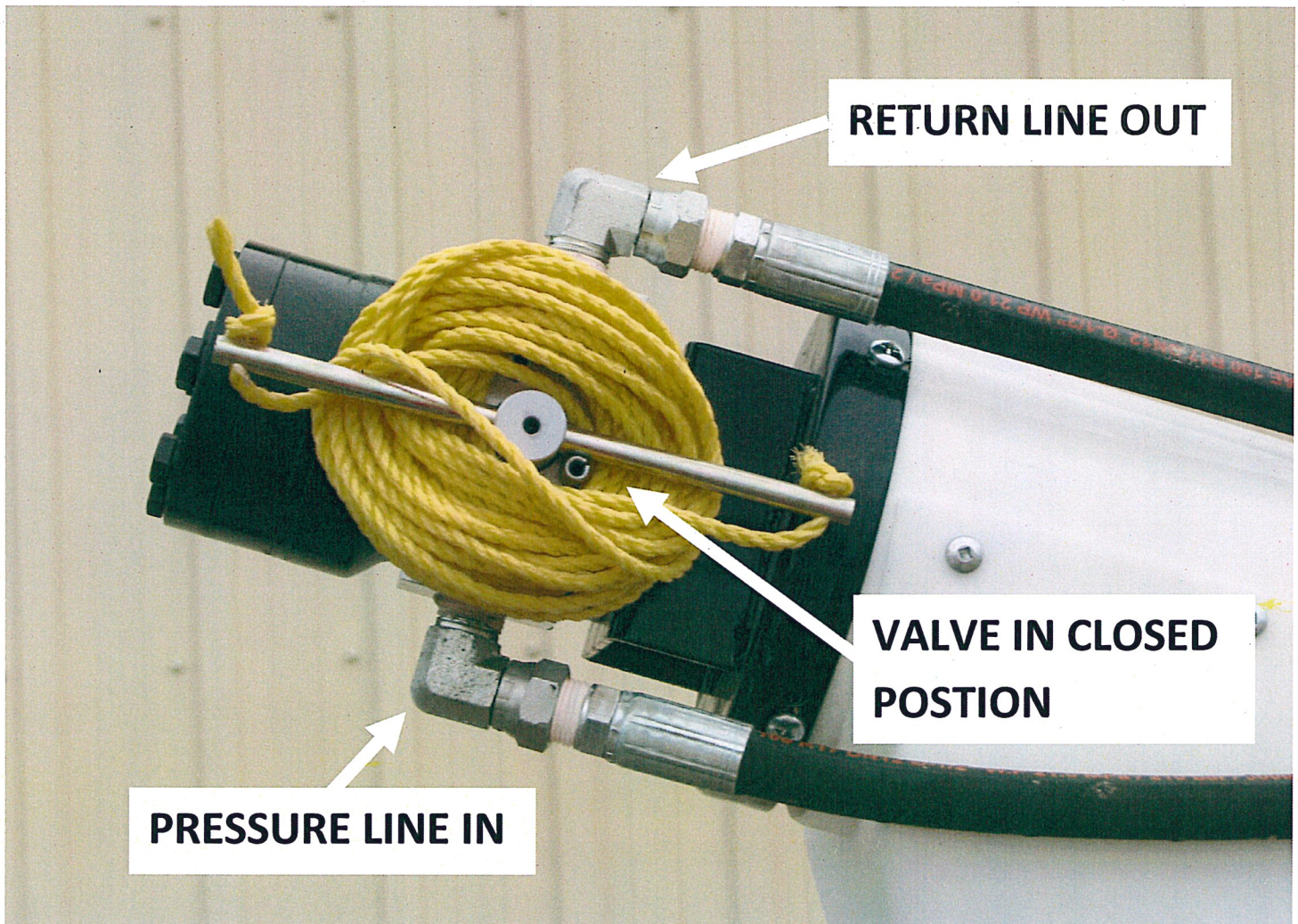
PLUMBING DIAGRAM

- 1: Determine which port on motor valve has to be the pressure line to run your auger in the proper direction. This changes as some augers pull the material up the auger tube while others push.
- 2: Connect the pressure port on the motor valve to Port #3 on the electric solenoid valve.
- 3: Connect the return port on the motor valve to Port #1 (This Port has a "Tee Fitting") on the electric solenoid valve.
- 4: Connect the other side of the "Tee Fitting" in Port #1 to the return line to the tractor.
- 5: Connect the pressure line from the tractor to Port #2 on the electric solenoid valve.

STANDARD ELECTRIC VALVE KIT INCLUDES

ELECTRIC SOLENOID VALVE, HYDRAULIC FITTINGS, TIE STRAPS, ELECTRICAL TAPE AND CORD WITH ON/OFF SWITCH

PLUMBING ON AUGERS WITH ELECTRIC SOLENOID VALVE KITS



NOTE: (TOP DRIVEN AUGERS SHOWN.) PRESSURE & RETURN LINES ARE OPPOSITE ON BOTTOM DRIVEN AUGERS.

THE MANIFOLD MOUNT VALVE (VALVE ON MOTOR) SHOULD BE IN THE CLOSED POSITION. THIS DIRECTS THE OIL THROUGH THE MOTOR CAUSING THE AUGER FLIGHTING TO TURN.

THE AUGER IS NOW CONTROLLED BY EITHER THE ELECTRIC SOLENOID VALVE'S ON/OFF CORD OR THE WIRELESS REMOTE.

ELECTRIC SOLENOID VALVE

CONTROL OPTIONS FOR ELECTRIC SOLENOID VALVE KIT



ON-OFF SWITCH AND CORD ASSEMBLY (STANDARD IN KIT)



REMOTE SHUT-OFF

WIRING INSTRUCTIONS FOR ON/OFF SWITCH AND CORD ASSEMBLY

- 1: Wiring in this kit is supplied to the electric solenoid valve only. (Additional wiring required to connect to power source is not included.)
- 2: Attach the white wire from the power cord to one of the red wires on the electric solenoid valve.
- 3: Attach the other red wire on electric solenoid valve to wire coming from positive terminal of your power source.
- 4: Attach black wire from power cord to the wire coming from the negative terminal of your power source.

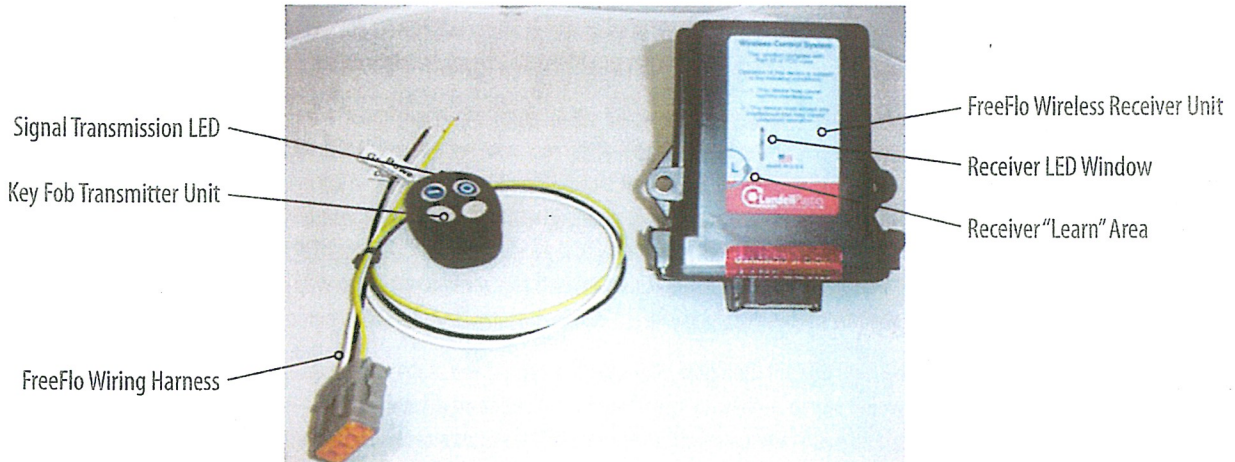
WIRING INSTRUCTIONS FOR REMOTE SHUT-OFF

Read attached “FREEFLO WIRELESS REMOTE INSTRUCTION MANUAL” and “CAUTION” sheets before operating. Improper or incorrect wiring will cause damage to the wireless unit. It is polarity sensitive.

- 1: Attach one of the red wires on the electric solenoid valve to the white wire labeled OUTPUT 1.
- 2: Attach the other red wire on the solenoid valve to the yellow wire labeled POWER and to the wire coming from the positive terminal on your power source.
- 3: Attach the black wire labeled GROUND to the wire coming from the negative terminal of your power source.

Model 01T0SL - Single Latched Output

Overview of Components : The FreeFlo wireless remote receiver unit is designed to provide highly dependable, functional, virtually maintenance-free service over the lifespan of the unit. The FreeFlo Wireless control system is crafted using high quality components, with long term service life and superior performance being the ultimate goal. It is our commitment to provide products that not only meet needs and expectations, but exceed them. Thank you for choosing our product.



Battery Replacement : During standard operation of the wireless unit, when you depress a button on the key fob transmitter (any button assigned a function) the LED indicator on the key fob will illuminate. Should the LED not illuminate, this is an indicator that battery voltage has dropped below 2.0 volts, and it is time to replace the battery. It is suggested that you change the battery (coin cell battery #CR2032) in the key fob transmitter at least once annually, prior to each operational season. The key fob battery can be changed by simply removing the small screw on the back of the unit and splitting the transmitter case. Once the case is open, slide the battery out of the battery holder and replace. It is important to be delicate during battery replacement so no damage to the unit occurs; especially with regard to the solder points where the metal battery holder connects to the transmitter board. Electrostatic discharge and/or contacting internal electronic circuitry with metal tools can cause damage to components as well. For this reason, no screwdrivers or other hand tools should be used inside of the transmitter case. Upon reassembly, make certain that the gray keypad is seated securely in the sealing channel. If this is not done properly with care, the unit may be susceptible to water damage. To seat the pad properly, once the battery is changed, position the keypad over the transmitter board, and ensure proper alignment. Place the top half of the transmitter casing (the side with four button holes) down over the entire assembly. **VERY IMPORTANT: DO NOT PLACE THE RUBBER KEYPAD IN THE TOP HALF OF THE CASING BEFORE REJOINING THE TWO HALVES. PLACE THE RUBBER KEYPAD OVER THE BOARD, THEN PLACE THE TOP HALF DOWN OVER THE ENTIRE ASSEMBLY.** Following the above procedure will result in a proper seal and ensure quality protection against environmental forces.

About Frequency "Learning" : When purchased, the communication between the key fob transmitter and the receiver will already be established. Once powered up, the unit should function properly with no further action required. (View the table below for the operational characteristics of your configuration.) Occasionally during your period of ownership, there may be times when it is necessary to reestablish the communication, or wireless communication between the key fob transmitter and the receiver unit. This is accomplished by "learning" the transmitter into the receiver unit. It may be necessary to perform this action after extended periods of storage, inactivity, key fob replacement, or the addition of extra key fob controls. It can also be used as a troubleshooting measure whenever communication between the transmitter and receiver unit has been lost.

(cont. next page)

About Frequency "Learning": (cont. from prev. page)

(Do this only after the initial troubleshooting measure of transmitter battery replacement has been completed.) Each transmitter generates a unique signal, and your receiver unit needs to be able to identify and respond to that signal in order to operate. The use of a unique signal for each transmitter prevents your receiver from being susceptible to outside interference, and protects against stray signals causing potentially undesirable operation. Some customers prefer to have multiple key fob controls for their units. Each FreeFlo Wireless Remote is capable of handling and responding to multiple (up to five) key fob transmitters; you simply have to "learn" each individual transmitter to your receiver unit. Additional key fob controls are available through Lundell Plastics (877) 367-7659.

"Learning" Instructions:

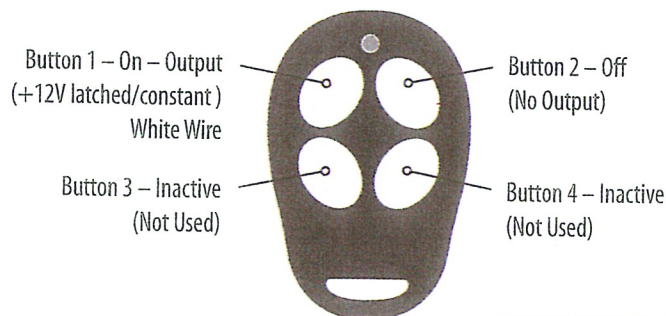
To complete the "learn" procedure, simply do the following. Power up the unit. When you do so, the LED on the receiver unit will flash RED four times. This indicates that the unit has received power. There is a magnetically controlled switching circuitry embedded in the receiver unit. Place a fairly powerful magnet over the receiver "learn" area (see diagram on page 1 for location) for a brief moment (3 seconds), and then remove it. (Learn magnets are available through Lundell Plastics.) The LED will go to a constant RED state. Now immediately press any button on the transmitter you are attempting to "learn". The LED will go to a GREEN/YELLOW color. This confirms that the receiver has picked up a signal from the transmitter, and subsequently "learned" that signal. Communication has been established, and it is now ready to function properly.

Troubleshooting:

Should the above procedure not complete successfully, wait until the LED light goes out, and repeat the procedure. If for any reason you experience a second failure of the "learn" procedure, do the following: place the magnet on the "learn" area and the LED will go to a constant RED state, leave the magnet in place on the receiver until the LED light goes out (approximately 10 seconds). This action completely clears the receiver's memory. It's akin to reformatting, or freeing up all of the space on a computer hard drive. Once you have cleared the memory, proceed with the standard "learn" procedure detailed above for each of the key fob transmitters you wish to use with the device. If, after all of the procedures detailed above are completed, the unit is still not functioning, check the battery in the transmitter once again. (Occasionally, even new batteries fail, or are defective from the factory. If you have a voltage meter, confirm that battery voltage is at least 2.7 volts.) If that still does not solve the problem, contact our wireless control customer service at (877) 367-7659 for assistance.

Operational Parameters:

During standard operation, to confirm the receiver is picking up a signal from the transmitter, the FreeFlo wireless receiver will respond to keypad inputs through illumination of the receiver LED (see diagram on page 1.) This system has a simple two button (on/off) configuration. The transmitter keypad configuration on your FreeFlo Wireless Remote is as follows:



The wiring harness has three wires coming out of the RF receiver unit. The plug pin-out and wire colors are as follows:

Pin 1 – Yellow - Power Lead (+12V in)

Pin 5 – White - Output (+12V latched once button 1 is depressed)

Pin 7 – Black - Ground Lead (connect to ground)

IMPORTANT: The receiver is intended for 12 volt input and 7 amp max output. Exceeding these limits will void any product guarantee and cause damage to the receiver.

CAUTION

R E C E I V E R

IMPROPER OR INCORRECT WIRING will cause damage to the wireless unit. It is polarity sensitive.

DO NOT reverse the system power and ground wires. *Reverse polarity will cause damage to the unit.*

DO NOT allow electrical feedback into the unit's output wires via manual control switches, etc. The receiver unit must be protected from electrical feedback current via diodes or it should be completely isolated electrically.

DO NOT exceed the unit's power handling ratings. (See Owner's Manual) To control high amperage loads, utilize the RF unit to control relays which control the high-amperage load.

BATTERY DISCHARGE may occur, even when the unit is not in use. If the system is not in use for an extended time or the implement is in storage, an On-Off toggle switch, or other means of disconnecting the receiver from the vehicle battery, should be used.

T R A N S M I T T E R

LOW BATTERY VOLTAGE, less than 2.8 volts, will cause intermittent, sub-standard system performance. (The battery is type CR2032)

TROUBLESHOOTING - In all situations, replacing the transmitter battery should be your **FIRST** effort. If that does not solve the problem, proceed as instructed in the Troubleshooting Guide.

BATTERY DISCHARGE occurs while the transmitter unit is at rest or not in use. The installed battery may become partially discharged.

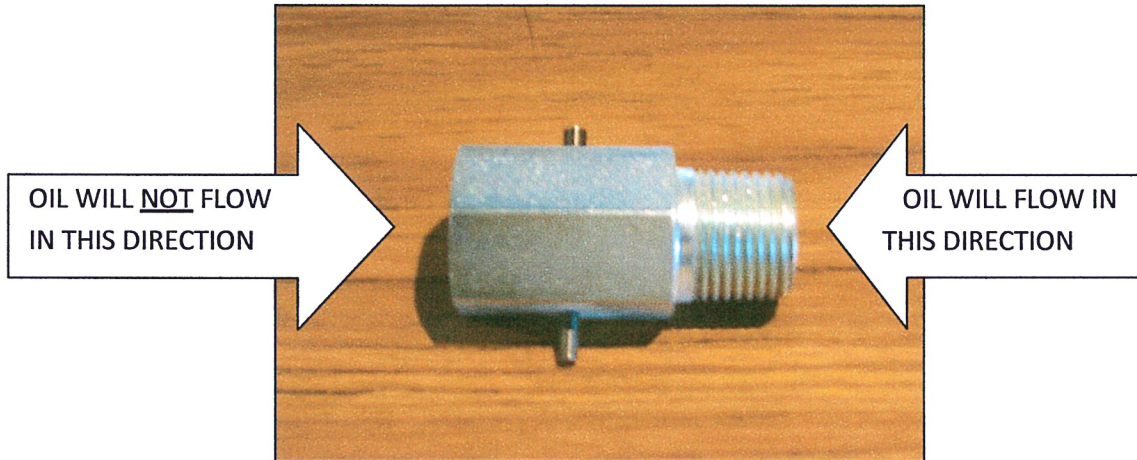
DO NOT use metal tools inside the transmitter case. Static electricity may short or damage internal components.

Failure to follow these guidelines will result in damage that is not covered by warranty.

OPTIONAL VALVES FOR HYDRAULIC AUGERS

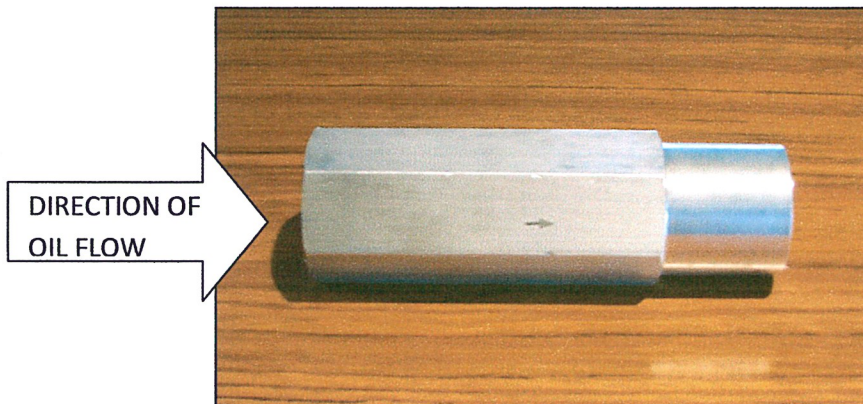
Note: These optional valves do not replace the shut-off valve on the auger.

A directional valve fitting can be installed to restrict the auger from running in the reverse direction. This valve should be installed on the return line, between the valve on motor and the tractor. Thread is $\frac{1}{2}$ " NPT. **RECOMMENDED FOR AUGERS THAT SHOULD NOT BE RUN IN REVERSE, AS IT MAY CAUSE DAMAGE TO THE FLIGHTING.**



An in-line, pressure compensated, nonadjustable flow regulator valve is available for CLOSED CENTER HYDRAULIC SYSTEMS. In the controlled direction, this regulator will maintain a constant flow rate of 10 GPM. This valve should be installed on the pressure line, between the tractor and the valve on motor. Thread is $\frac{3}{4}$ " NPTF (must be reduced to $\frac{1}{2}$ ")

RECOMMENDED FOR AUGERS OPERATED BY LARGER TRACTORS WITH LARGER HYDRAULIC OUTPUT.



Augers operate best at 10-12 GPM & 1200-1500 PSI.

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