

# FIELDPILOT<sup>®</sup>

## USER MANUAL

Assisted Steering Hydraulic Installation Manual for  
Vehicle Kit Number 91-02317  
Fits only Case SPX 4260b



A Subsidiary of  Spraying Systems Co.<sup>®</sup>

## FIELDPILOT®

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## PREPARATION

1. Before beginning the installation, thoroughly clean the vehicle to remove dirt and contaminants that might get into the hydraulic circuit.
2. Park the vehicle on a clean, level floor with adequate clearance to work around.
3. Do not attempt to loosen any hydraulic fittings while the engine is running.
4. Allow the motor and the hydraulics to cool until it is no more than warm to the touch before proceeding.
5. Prior to loosening any hydraulic fittings, be sure to have the appropriate plugs and caps available in order to limit loss of hydraulic fluid from the open fittings.



**PREVENT HYDRAULIC SYSTEM CONTAMINATION.** It is essential to thoroughly clean hydraulic system fittings and hose connections prior to disconnecting or removing them. Use a spray cleaner such as “Brake Clean” to prevent hydraulic system contamination. Note that o-rings used on ORB and ORFF type fittings may be damaged by solvent cleaners such as “Brake Clean”. If a fitting is to be cleaned internally, the o-ring should first be removed and cleaned with a fiberless cloth.

### **IMPORTANT!**

**TO AVOID EXCESS LEAKAGE, DO NOT TURN THE STEERING WHEEL WHILE THE FITTINGS ON THE MANUAL STEERING VALVE ARE DISCONNECTED.**



**WARNING: HOT, HIGH PRESSURE FLUID HAZARD.** Hydraulic oil may be hot and under extreme pressure. To prevent serious injury or death, relieve system pressure and allow the system to cool before repairing or disconnecting. Wear proper hand and eye protection when searching for leaks, using wood or cardboard instead of hands. Keep all hydraulic components in good repair.



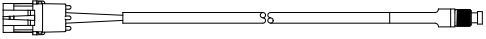
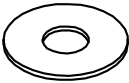
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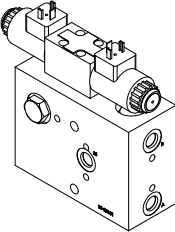
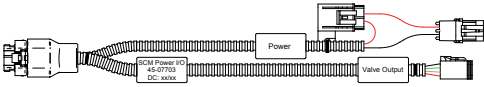
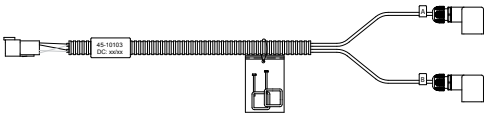
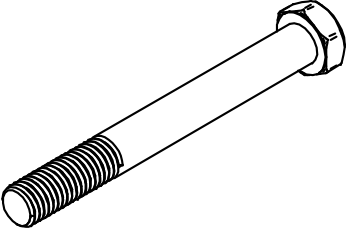

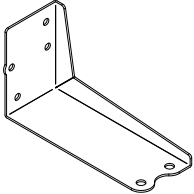
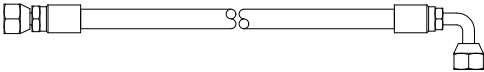
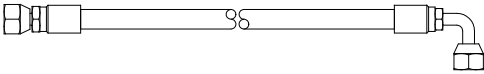


## KIT CONTENTS

Unpack the installation kit and identify the required parts.

Item	Part Number	Description	Quantity
A	32-04040	Switch, Engage/Disengage.....	1
B	350-0037	Washer, Flat - 3/8" SST .....	2
C	35-02180	Valve, FLDPLT, PWM, CC, 2.1GPM .....	1
D	45-07703	Harness, SCM .....	1
E	45-10103	Harness, Valve.....	1
F	60-04087	Bolt, Hex- 3/8-16 x 3-1/4" SST.....	2
G	60-07027	Nut, NyLock 3/8-16, SST .....	2
H	65-05169	Bracket, Hyd. Block Mnt. SPX 4260 (-2001).....	1
I	68-01113	Hose, Hyd. - 3/8" x 22", #6FORF X #6FORF 90° .....	2
J	68-01114	Hose, Hyd. - 3/8" x 15", #6FORF X #6FORF 90° .....	1
K	68-01115	Hose, Hyd. - 3/8" x 18", #6FORF X #8FORF 90° .....	1
L	68-02026	Adapter, Hyd. Run Tee - #8 ORF .....	1
M	68-02071	Adapter, Hyd. Run Tee - #6 ORF .....	3
N	68-02074	Adapter, Hyd. 90° - #6MORF x #6MORB .....	4
O	68-02070	Adapter, Hyd. Plug - #6MORB .....	1
P	90-50013	Cable Tie Kit, 15 .....	1
Q	91-07011	Steering Wheel Switch Kit .....	1
R	98-05128	Installation Manual, FP, Case SPX 4260b .....	1

Item	Part #	Description	Illustration
A	32-04040	Switch, Engage/Disengage, Momentary	
B	350-0037	Washer, Flat - 3/8" SST	

Item	Part #	Description	Illustration
C	35-02180	Valve, FLDPLT, PWM, CC, 2.1GPM	
D	45-07703	Harness, SCM	
E	45-10103	Harness, Valve	
F	60-04087	Bolt, Hex- 3/8-16 x 3-1/4" SST	
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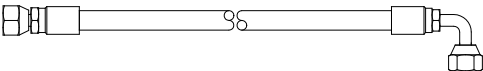
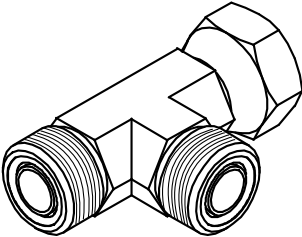
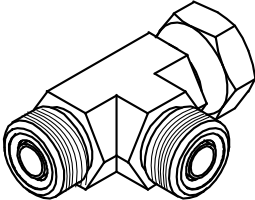
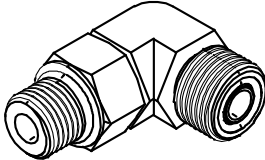

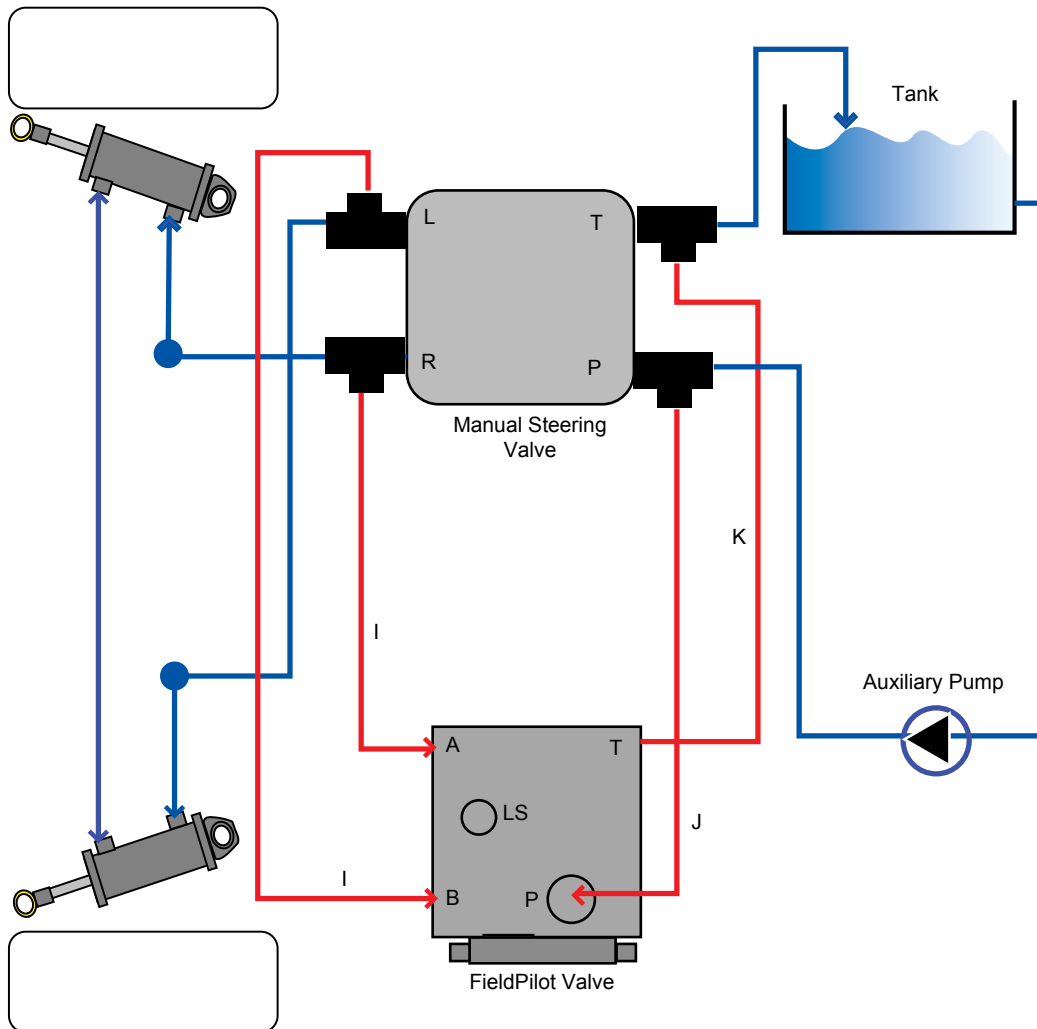
Item	Part #	Description	Illustration
K	68-01115	Hose, Hyd. - 3/8" x 18", #6FORF X #8FORF 90°	
L	68-02026	Adapter, Hyd. Run Tee - #8 ORF	
M	68-02071	Adapter, Hyd. Run Tee - #6 ORF	
N	68-02074	Adapter, Hyd. 90° - #6MORF x #6MORB	
O	68-02070	Adapter, Hyd. Plug - #6MORB	
P	90-50013	Cable Tie Kit, 15	
Q	91-07011	Steering Wheel Switch Kit	
R	98-05128	Installation Manual, FP, Case SPX 4260b	

Figure 1-1: Hydraulic Diagram



Existing Hoses —————

Hoses From Kit —————

## INSTALLATION



If there are questions concerning the installation of the FieldPilot system on this vehicle, or due to the changes in component specifications the parts supplied in the kit are not exactly as presented in this document, please contact your dealer or TeeJet Customer service representative for clarification before installation. TeeJet Technologies is not responsible for misuse or incorrect installation of the system.

**NOTE: BE VERY CAREFUL TO ABSOLUTELY SECURE ALL CABLES AND HOSES SO THAT THEY DON'T INTERFERE WITH THE MANY MOVING PARTS OF THE MACHINE!**

### 1. PREPARE THE FIELDPILOT VALVE

Install fittings (**N**) in the A, B, P and T ports of the valve. Install plug (**O**) in the LS port.

**NOTE:** All references to left and right are stated as if the user is seated in the driver's seat.

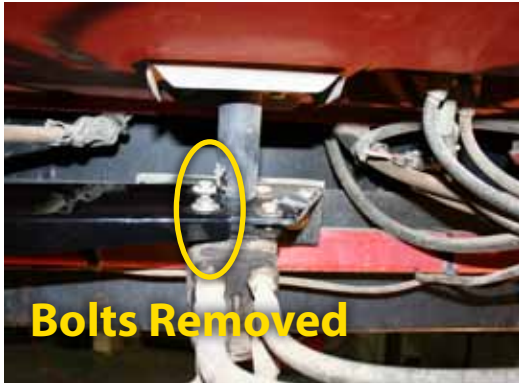
*Figure 1-2: Preparing FieldPilot Valve*



## 2. INSTALL THE MOUNTING BRACKET

Remove the two bolts on the left side used to mount the orbital. Using the same bolts, install bracket **(H)** on top of the existing bracket.

*Figure 1-3: Install Mounting Bracket*



## 3. INSTALL THE FIELDPILOT VALVE

Using parts **(B, F & G)** mount the valve to the bracket as shown. The P & T ports should face up and the A & B ports should face down.

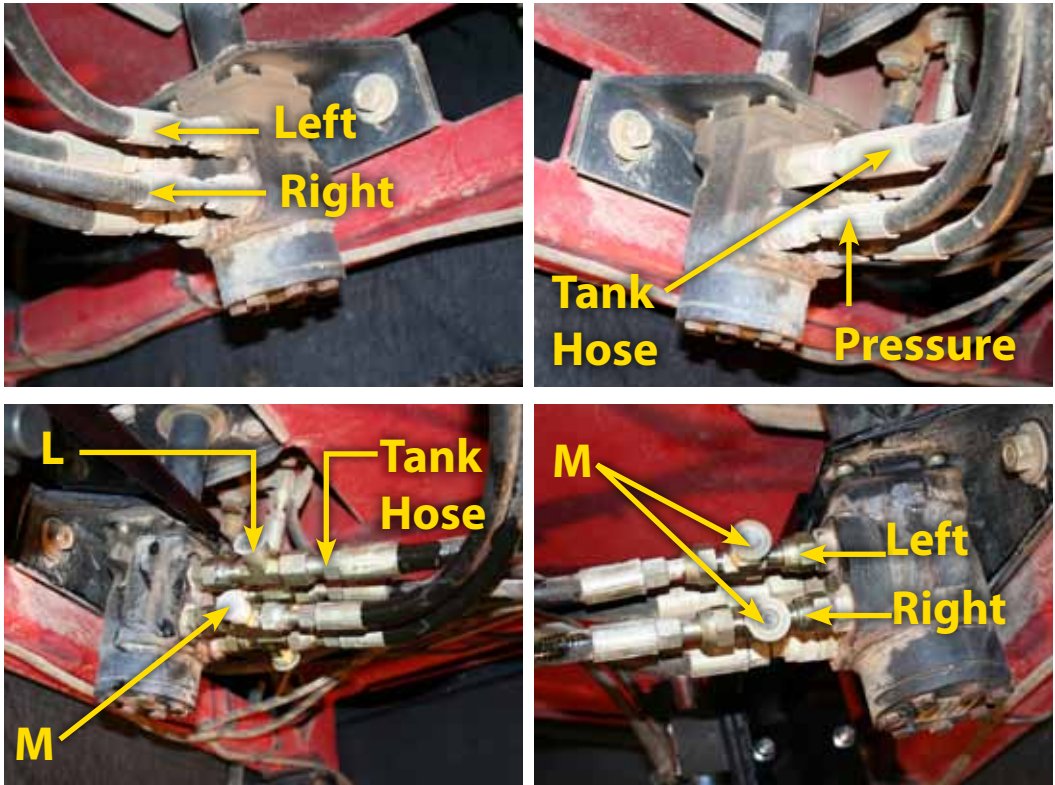
*Figure 1-4: Install the FieldPilot Valve*



#### 4. INSTALL THE TEES AT THE ORBITAL

The FieldPilot Valve will tee into the Left, Right, Pressure, and Tank hoses at the orbital. Disconnect the Tank hose on the orbital and install run tee (L). Connect the original tank hose to the run of the tee. Disconnect the Pressure, Left, and Right hoses from the orbital one at a time and install Run Tees (M). Then reconnect the original hoses to the run of the tees.

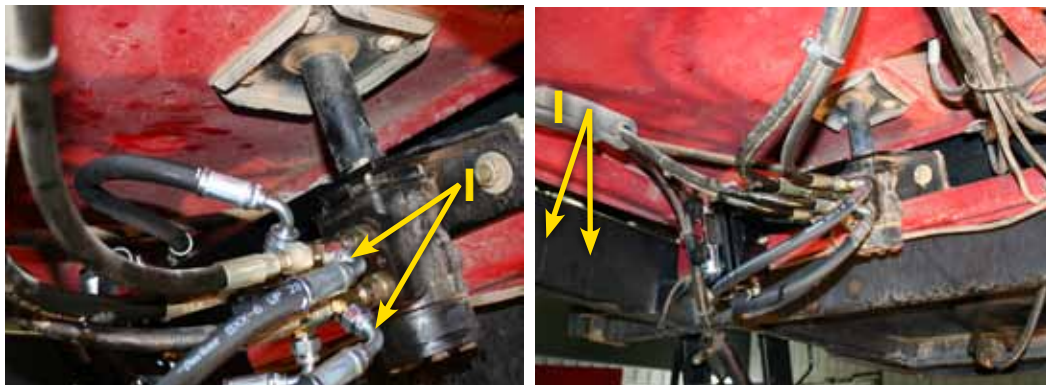
Figure 1-5: Install Tees at Orbital



## 5. INSTALL STEERING HOSES

Install the steering hoses (I) by connecting the end with the 90° fitting to the branch of the Run Tees and route the other end to the FieldPilot valve. Connect them to the fittings in the A and B ports.

Figure 1-6: Install Steering Hoses



## 6. INSTALL THE PRESSURE HOSE

Install the Pressure hose (J) by connecting the end with the 90° fitting to the fitting in the P port on the FieldPilot Valve. Route the other end to the branch of Run Tee (M) installed in the orbital P port in Step 4.

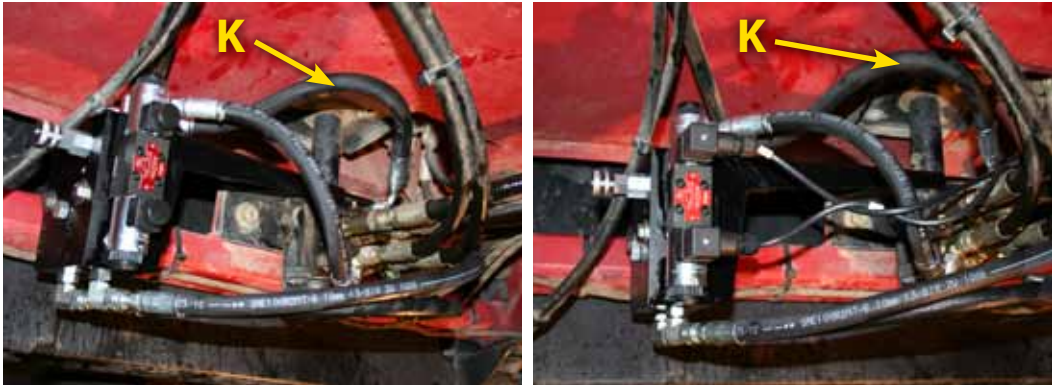
Figure 1-7: Install Pressure Hose



## 7. INSTALL TANK HOSE

Install the Tank hose (**K**) by connecting the end with the 90° fitting (this will be the #8 fitting) to the branch of Run Tee (**L**) installed in Step 4. Route the other end to the fitting in the T port of the FieldPilot Valve.

Figure 1-8: Install Tank Hose



## 8. INSTALL THE VALVE CONTROL CABLE

Connect the FieldPilot valve control cable (**E**) to the coils on the FieldPilot valve and route the cable into the cab. Connect it to the SCM harness. Do not be concerned at this time about which connector is connected to which solenoid coil.

## 9. INSTALL STEERING DISENGAGE SENSOR

The steering disengage kit (**Q**) is used to automatically disengage FieldPilot when the steering wheel is turned. The magnets mount on the steering shaft or other rotating part of the steering wheel and the sensor mounts so that there is a 1/8" clearance between the sensor and magnet.

Figure 1-9: Install Steering Disengage Sensor



## 10. INSTALLATION OF ENGAGE/DISENGAGE SWITCH

Connect item (A) to the connector on the SCM harness labeled Remote Engage/Disengage. Install the push button in a location that is easily accessible during operation of the machine. This switch (A) is not required if the optional foot switch 32-04020 is used.

*Figure 1-10: Engage/Disengage Switch*

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## 11. RECOMMENDED ELECTRONICS INSTALLATION

The Steering Control Module (SCM) should be mounted securely to the floor of the cab. The control console can be mounted to the operator's preference. The GPS antenna should be mounted as far forward as possible on top of the cab on a metal surface of at least 4" square.

*Figure 1-11: Recommended Electronics Installation*

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## 12. VERIFY OPERATION OF HYDRAULICS AND SET THE STEERING CONTROL RATE

Clean and pick up the area around the vehicle and make certain that it is safe to operate. Start the engine and check hydraulic connections for leaks. Rotate the steering wheel from one extreme to the other and back to center, check for leaks. While steering through the extremes of movement, check the cables and hoses for wear points and strain, adjust as necessary.

**If using a Matrix series console and PWM control, then the oil flow rate adjustment is accomplished through the console. The target lock to lock time is 6 seconds. Refer to the Matrix manual for further instructions.**

Use the electronic steering control console to perform the left to right steering test. Count the seconds to move the wheels from full left to full right and also in the opposite direction. The vehicle should be moving forward very slowly during these tests so there is not excessive side pressure on the tires. If you find that the machine steers in the opposite direction from that being commanded in this steering test sequence, switch the valve connectors at the FieldPilot valve.

*NOTE: To activate the manual overrides, a tool such as a small screwdriver or allen wrench must be inserted into the end of the coil to depress the override button.*



**WARNING: PINCH POINT HAZARD!** To prevent serious injury or death, avoid unsafe practice while manually operating hydraulic steering circuits. Keep others away and stay clear of mechanical steering linkages.

## 13. COMPLETE ELECTRONIC INSTALLATION

Refer to the owner's manual supplied with the automated steering system to complete the electronic installation and setup.



# FIELDPILOT®


## USER MANUAL

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A series of equipment-specific hydraulic installation kits have been developed to work in conjunction with your assisted steering system. This kit contains the necessary components and instructions to install assisted steering hydraulics on the SPX 4260b. Please review this manual thoroughly before beginning the installation process.



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