

Upgrade Kit Caterpillar Track Tractors

P/N: ED-CATUPGRADE

Fits CAT Tractor Models:

CAT Row-Crop

35

45

55

CAT E-Series

65E

75E

85E

95E



Overview




A series of equipment-specific kits have been developed to work in conjunction with your automated steering system. This kit contains the necessary components and instructions to upgrade your ED-CAT or ED-CATE automated steering kit to work with new and improved automated steering software.

Machine Preparation

Before attempting to install the update kit, park the machine on a clean, level floor with adequate clearance to work all around.

Kit Contents

Unpack the installation kit and identify the required parts as shown.

REF	P/N	QTY	DESCRIPTION	PHOTOGRAPHS
A	054-0144	1	Cable, Interface - 10 ft	
Bag #1 of 1 includes B & C				
B	054-0091	2	Coil, 12 VDC 14W /w DIN Connect	
C	760-2091	1	Adapter, Hyd Orifice, 6mJIC, 6fJIC, 0.053	

INSTALLATION

1. Prepare Automated Steering Block and Install Valve Coils:

a. Remove your automated steering block from your tractor. Carefully disconnect hoses and wiring. Make sure the automated steering block is clean and dust free prior to performing any upgrades.

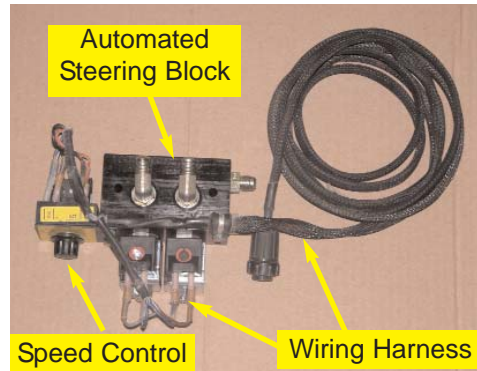


Figure 1a. Automated steering block

b. Remove the wiring harness and speed control knob assembly from the automated steering block. (Figure 1a. and 1b.)

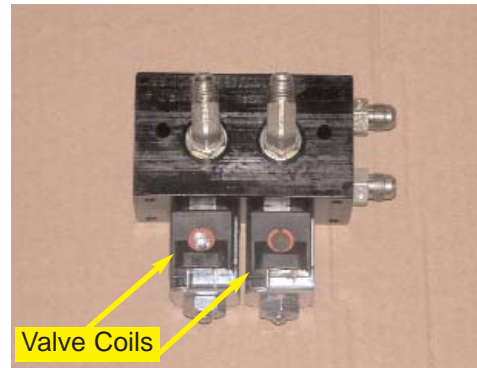


Figure 1b. Automated steering block with wiring and speed control removed.

c. Remove both valve coils from the cartridge valves on the automated steering block by removing the two top retainer nuts. (Figure 1b. and 1c.)



Figure 1c. Valve coils removed

d. Install the two new valve coils (**B**) supplied. Tighten the retainer nuts 1/4 turn past finger tight. Over tightening will damage the cartridge valves. (Figure 1d.)

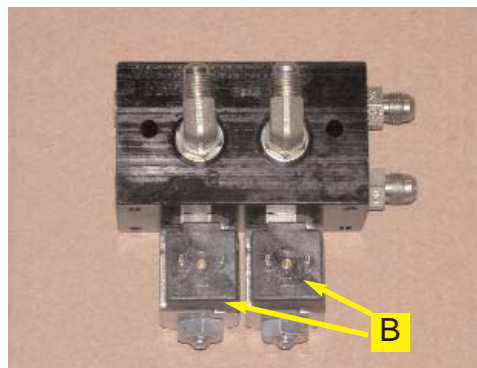


Figure 1d. Valve coils (**B**) installed.

2. Install Control Orifice:

- a. Install the orifice fitting (C) onto the P port fitting of the automated steering block. (Figure 2.)
- b. Reinstall your upgraded automated steering block onto your tractor with the hoses connected in the same positions as they were removed.
- c. Connect the valve control cable (A), supplied, to the valve coils on the automated steering valve and route it securely into the tractor cab.

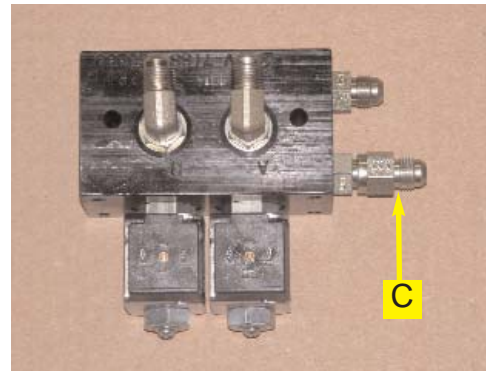


Figure 2. Installed orifice fitting (C).

3. Verify Operation and Set Automated Steering Control Rate:

- a. Tighten all of the connections and clean up the installation area around the machine and make certain that it is safe to operate.
- b. Start the machine and check the hydraulic connections for any leaks.
- c. Rotate the steering wheel from one direction to the other and back to check manual steering function.
- d. Make sure the **Vehicle Type** in your automated steering controller is set to **Track** mode.
- e. Use the **Valve Test/Steering Adjust** function in your automated steering controller to verify that the machine steers in the proper direction, left and right.
- f. In the menu of your automated steering controller adjust the **Steering Speed** to a starting value of **35** and adjust the **Max Turn Rate** to a value of **75** for CAT Row Crop tractors. For CAT E-Series tractors adjust the **Steering Speed** to a starting value of **25** and adjust the **Max Turn Rate** to a value of **90**.
- g. Operate the machine in an open field with the automated steering system to fine tune the **Steering Speed**. Increasing the **Steering Speed** value will cause the steering to make faster corrections, decreasing the value will cause slower corrections.
- h. The **Max Turn Rate** value should **ONLY** be adjusted lower to prevent extremely large steering movements in reaction to disturbances or aggressive line acquisition. This adjustment is secondary to the **Steering Speed**.

IMPORTANT: It is very important that the manual steering of the machine be in good working order prior to using automated steering. If the machine will not drive in a relatively straight line with no input to the steering wheel, then the manual steering must be serviced in order to achieve balanced tracking.

WARNING: **CRUSHING HAZARD.** To prevent serious injury or death, avoid unsafe practices while operating hydraulic steering circuit on track tractors. Keep others away and stay clear of tracks. Turning the steering wheel while the vehicle is stationary causes the tracks to counter rotate. Be Alert!

NOTE: The automated steering contour guidance mode is not recommended with track tractors. This automated steering system uses a constant, fixed rate steering control method. This method is extremely robust on track machines in straight guidance. In contours with track tractors, however, this method may result in aggressive corrections and poor tracking performance.

