

AutoSPRAY Tru Count Air-Clutch Installation

I. Description

- a. The Leica AutoSPRAY controller is compatible with a wide variety of spray rate controllers and planter row shut-off systems. Leica has a range of easy to install interface cables available for some of the more popular spray rate controllers and planter controls on the market.
- b. Following is a step by step instruction for installation of interface cable between the Leica AutoSPRAY system and the Tru Count planter air clutches. (part number 2-2307)

II. Installation Steps

- a. Connecting to the Tru Count valves
 - i. Connect the large 16-pin circular connector to the back of the Leica AutoSPRAY unit
 - ii. Connect the first flat, 6-pin connector labeled "sections 1-4" to the Tru Count harness connector for valves 1-4. This connector has a black, white, green, orange and blue wire going into it. These are sections 1-4 from left to right as seen by standing behind the implement.
 - iii. For installing more than 4 sections, connect the next flat, 6-pin connector labeled "sections 5-8" to the Tru Count harness connector for valves 5-8. This connector has a black, yellow, red, gray and violet wire going into it.
 - iv. For installing more than 8 sections, connect the next flat, 6-pin connector labeled "sections 9-12" to the Tru Count harness connector for valves 9-12. This connector has a black, red, brown, tan and blue wire going into it.
 - v. For installing 13 sections, connect the final flat, 6-pin connector labeled "section 13" to the Tru Count harness connector for valve 13. This final connector has only 2 wires going into it.
- b. Grounding the Circuit
 - i. Extending out near the large, 16-pin circular connector that was connected earlier to the Leica AutoSPRAY unit, is a black fly-out wire. To ensure that there is a common ground and therefore, proper operation between the Leica and Tru Count systems, this wire **MUST** be connected to an electrical ground inside the cab.
- c. Configuring the AutoSPRAY software
 - i. The Leica AutoSPRAY system must be configured so that it knows that it is connected to a Tru Count Air-clutch system. This ensures that the AutoSPRAY and the clutches will properly communicate.
 - ii. In the "Settings" menu, set the controller type to "Tru Count."

- iii. While in the field, the AutoSPRAY unit must know when to seed and when to stand-by. This is referred to as setting up the Master Control
 - iv. The AutoSPRAY can be set up so that either the operator manually tells it when to seed or when to stand-by, or it can be set up to stand-by on an automatic trigger such as when the implement has been lifted. See “Connecting to an implement switch” below to setup an automatic trigger.
 - v. To set up the AutoSPRAY so the operator manually operates the master control (telling AutoSPRAY when to seed and when to stand-by), set the Master Source in the Settings menu to “Keypad”.
 - vi. To manually operate the master control, the operator must push the “check” button on the front keypad of the AutoSPRAY unit. Refer to the AutoSPRAY operators’ manual for more details.
- d. Option: Connecting to an implement switch
- i. The Leica AutoSPRAY system can be connected to an implement switch to automatically detect when the operator has lifted the implement and seeding should be stopped. Similarly, the Leica AutoSPRAY would then detect when the implement is lowered and seeding should resume.
 - ii. The Tru Count air clutch interface cable is equipped with 2 red and white fly-out wires. One is near the 16-pin connector at the AutoSPRAY box. The other is near the flat 6-pin connectors that are connected to the Tru Count harness. Both wires do not need to be connected; the wire that is most easily accessed should be used.
 - iii. The AutoSPRAY unit will think the implement is down and attempt to start seeding if 12vdc is placed on either of the red or white wires. The AutoSPRAY will assume the implement is up and stop seeding if 0vdc are on the red or white wires.
 - iv. The operator is responsible for acquiring the parts and installing an implement switch to the Leica AutoSPRAY unit.
 - v. A common approach to install in implement switch is to install a whisker switch on the implement so that it is closed (ON) when the implement is down and open (OFF) when the implement is up. One contact of the switch should be attached to a 12vdc source while the other should be connected to one of the red or white wires on the Tru Count Air Clutch harness.
 - vi. Before the AutoSPRAY unit will read the signals from the red and white wires, the AutoSPRAY unit must be set in the master control menu to “external”.
- III. Test Configuration
- a. It is best to test the AutoSPRAY unit when the shaft is turning to simulate seeding. The self-test operation in the AutoSPRAY unit should be run and

observed that the sections are turning ON and OFF in the proper sequence (from left to right while standing in the back facing the front). If it is not possible to turn the shaft during the test, the operator should listen to the Tru Count clutches to hear if they “click” ON and OFF.

- i. If the clutches do not respond, the wiring should be double checked, including the black ground wire on the Interface cable.
 - ii. If the clutches engage, but in the wrong order, the flat connectors on the Interface cables should be checked to verify that they are connected to the proper Tru Count connectors and verify that the Tru Count valves are wired properly.
 - iii. If it is too difficult to correct the section order in the wiring, the Leica controller has a boom translation feature than can change the order in the software. (menu 2.2) Refer to the users’ manual for details.
- b. If an implement switch was installed, it must be tested as well. While watching the AutoSPRAY screen, the implement should be lifted and lowered to verify that the AutoSPRAY unit is detecting the movements properly.
- i. If the Leica controller does not recognize the implement position, the Master Control (menu 6.5) should be checked that it is set to “external” and that the implement switch is placing 12vdc on either of the master detect wires (white wire with red stripe) when the implement is down and 0vdc when the implement is up.

IV. Disclaimer

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Leica **AS7500**