

Rate Control Kit Installation Guide

Kit: Rate Control, Single Product Dry
P/N 911-0010-000

Fits Single Product Dry Spinner Spreaders

Read and Follow Safety Messages

- In these instructions, you may see the heading WARNING and the safety alert symbol . They indicate a hazardous situation that, if not avoided, could result in death or serious injury. The safety messages provide information to identify a hazard associated with potential injury.
- Before installing, operating, or performing maintenance or service on any part of the system, read and understand this installation guide.
- Do not allow anyone to operate without instruction.
- Keep these instructions and all related safety information with the manuals for your machine and other implements.

If you have questions or need assistance, contact your local dealer or distributor.

Overview

This kit contains the components and instructions to connect an AC110 with the Outback MAX terminal for single product dry rate control.

Please read this manual thoroughly before beginning the installation.

- NOTE:**
- (i) Because of the nature of dry fertilizer material, it is very important that any unused connectors be completely dust/weatherproofed. Use discarded dust caps where available or other suitable sealing method (see also note at steps).
 - (ii) Apply a generous amount of dielectric grease (supplied) around the inside surface of all receptacle (female) connectors used in connections outside the machine cab.

Kit Contents

Unpack this kit and identify the required parts as shown. Kit items are referenced A, B, C etc. and those references are used in the installation steps and pictures. The kit table details only the standard kit items, applicable to all installations. You will use them with any extension or adapter cables ordered for your installation.

REF	PART NUMBER	QTY	DESCRIPTION	PHOTOGRAPH
A	054-0164-000#	1	Interface cable (AC110 'harness') (See Appendix for connection details, including use of extension and adapter cables)	



Kit Contents *(continued)*

REF	PART NUMBER	QTY	DESCRIPTION	PHOTOGRAPH
B	750-5006-000#	1	Section/rate controller (AC110)	
C	054-0144-000#	1	Power cable	
D	054-0185-000#	1	Power switch cable (See Appendix for connection details, including use of extension cable)	
E	051-0067-005#	1	Input/output splitter ('Y') cable (See Appendix for connection details, including use of extension cable)	
F	051-0288-000#	1	CAN loop back connector (terminator)	
G	699-0010-000	2	Dielectric grease (Use on all receptacle [female] connectors used in cable connections outside the cab)	
H	677-2001	20	Tie strap, 11" heavy duty	

Connections and Installation

1. Standard AC110 connections.

NOTE:

The text and figures in this section detail the connections that you will need to make. Exactly when you make the connections depends on individual installations and your working preferences. See “Appendix - AC110 Cables and Connections”, page 6.

- a. Install the loop back connector (terminator) **F** in the appropriate connector on interface cable **A** then connect **A** (main plug and power connectors) to AC110 **B** (red to + positive, black to - negative). Do not refit terminal nuts yet.

Install power cable **C** (‘non-fused’ end) on AC110 **B**. Refit the terminal nuts and tighten the power connections (Figure 1a).

- b. Using the splitter (‘Y’) cable **E** (but see note following), tie into the existing CAN connection. For example, connect **E** between the 7-pin CAN connector labeled “**RATE CONTROL**” on the Out-back MAX cable (with the white main connector) and the 7-pin CAN connector on interface cable **A** (Figure 1b).

NOTE:

You can use cable **E** to connect the switchbox if installed (Figure 1b).

- c. Connect power switch cable **D** (using the extension cable if required/obtained) to the 4-pin connector on interface cable **A** (Figure 1c).

2. Install the AC110.

Find a location—inside or outside the cab—in which to install the AC110. On completion of the installation, ensure all cabling is secured and excess cabling is stowed properly so it is not a trip or entanglement hazard.

NOTE:

(i) In the following steps, not all make/model, valve types and connector variations are shown. Each step shows one (example) disconnection/reconnection.

(ii) When connecting the AC110 harness to the various machine components, connect the harness directly or through the appropriate, pre-ordered adapter cable.

(iii) Use the appropriate, pre-ordered extension cable as required.

(iv) Weatherproof any of the machine’s connectors no longer used (use discarded dust caps whenever possible).

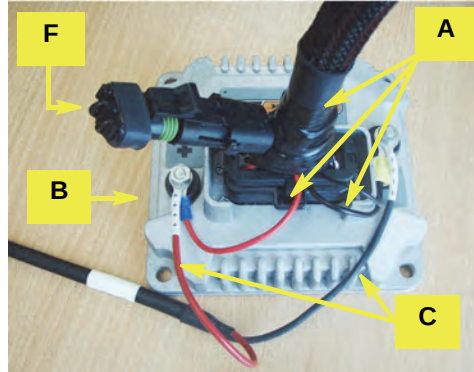


Figure 1a: Connections at AC110

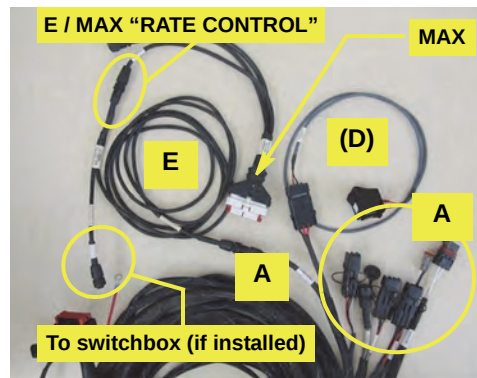


Figure 1b: Splitter cable connections

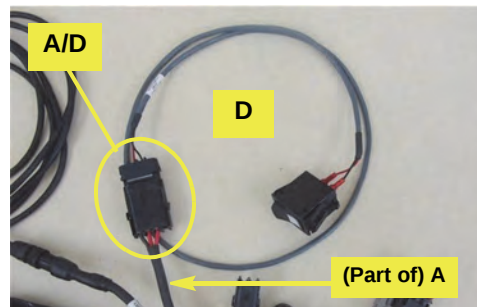


Figure 1c: Connecting the power switch cable

3. Connect the belt valve.

NOTE:

The belt valve is typically located on the left side of the hopper 1/3 back or at the rear of the hopper. This can be either a PWM valve or a servo valve (Fast Valve or standard).

Disconnect the machine harness's valve connector. Connect the AC110 harness (at label "BELT VALVE" - use extension/adaptor cable[s] as required) to the valve's cable connector (Figures 3-i [PWM] and 3-ii [servo/Fast Valve]).

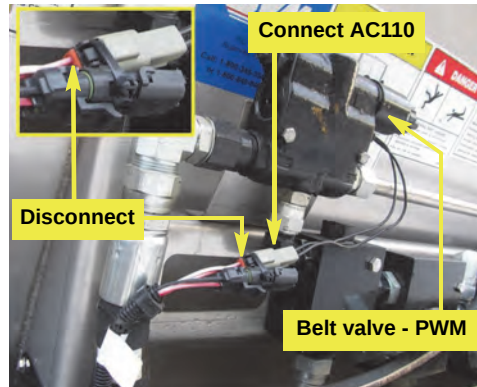


Figure 3-i: Connecting the belt valve (PWM)

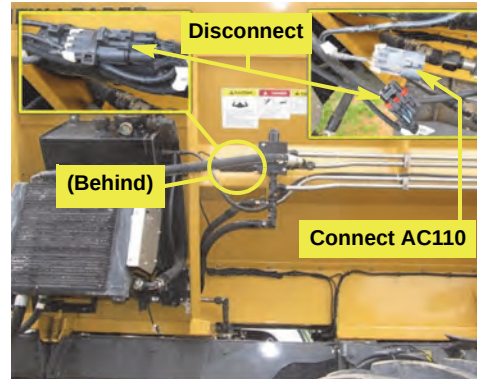


Figure 3-ii: Connecting the belt valve (servo/Fast Valve)

4. Connect the spinner valve.

NOTE:

(i) The spinner valve is typically located on the left side of the hopper under the walk plate or cooling radiator. This will be a PWM type valve.

(ii) Some machines have a manual spinner control valve. If yours does, simply ensure the AC110 harness (at label "SPINNER VALVE") is dust/weather-proofed with its attached cap.

Disconnect the machine harness's valve connector. Connect the AC110 harness (at label "SPINNER VALVE" - use extension/adaptor cable[s] as required) to the valve's cable connector (Figure 4 with inset).

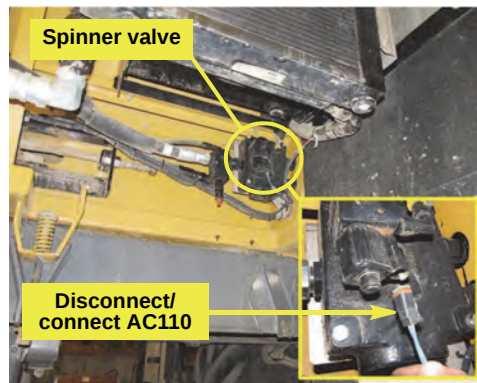


Figure 4: Connecting the spinner valve

5. Connect the belt (conveyor) sensor.

NOTE:

(i) The belt sensor is typically located at the rear of the hopper.

(ii) Your Outback cable comes with both 5V and 12V connectors. Determine which supply voltage the sensor needs by using a voltmeter and measuring the voltage between the positive (+/red) and negative (-/black) pins on the existing harness.

(iii) If there is no machine harness to controller installed, contact customer service or the manufacturer to confirm the voltage by providing the sensor's part number.

Disconnect the machine harness's belt sensor connector. Connect the AC110 harness (at label "BELT SENSOR" - use extension/adaptor cable[s] as required) to the sensor's cable connector (Figure 5 with inset).

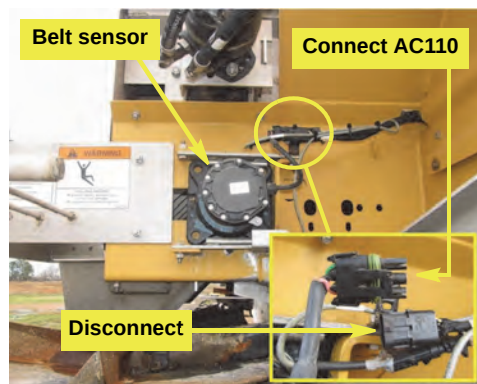


Figure 5: Connecting the belt sensor

6. **Connect the spinner sensor.**

NOTE:

The spinner sensor is typically located under the spinners.

Disconnect the machine harness's spinner sensor connector. Connect the AC110 harness (at label "SPINNER SENSOR" - use extension/adaptor cable[s] as required) to the sensor's cable connector (Figure 6 with inset).

7. **Connect the bin level sensor.**

NOTE:

The bin level sensor is typically inside and toward the rear of the hopper. If your machine does not have any bin level sensors, just ensure the AC110 harness (at label "BIN LEVEL SENSOR") is dust/ weather-proofed with its attached cap.

Disconnect the machine harness's existing bin level sensor connector. Connect the AC110 harness (at label "BIN LEVEL SENSOR" - use extension cable if required) to the sensor's cable connector (Figure 7 with inset).

NOTE:

*If your AC110 connections are not yet complete, refer to 1. **Standard AC110 connections** on page 3.*

8. **Complete connections.**

- a. Connect the fused end of power cable **C** to the machine's battery.
- b. Secure all cabling with tie straps **H**.

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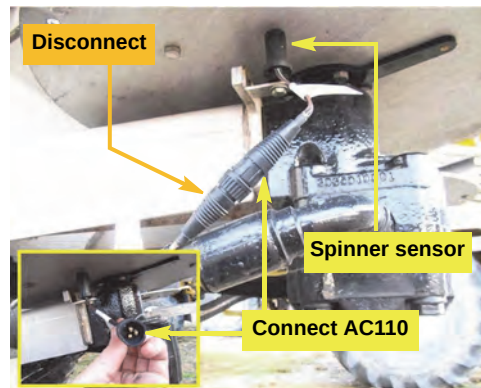


Figure 6: Connecting the spinner sensor

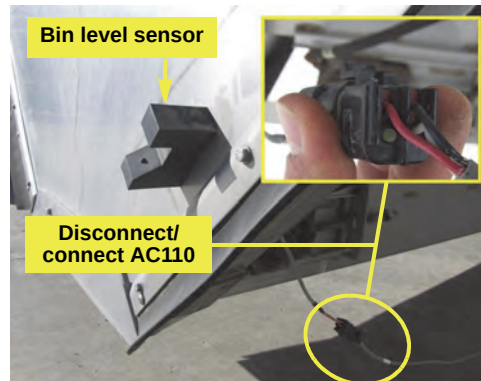


Figure 7: Connecting the bin level sensor

Appendix - AC110 Cables and Connections

