Section/Rate Control Kit Installation Guide

Kit: SECT RATE CTRL APACHE 20 Series
P/N 911-0011-000

Fits Apache 20 Series Sprayer Models:

AS710	**AS1010**	**AS1210**
AS720	**AS1020**	**AS1220**

Note: *Excludes models with PWM valve*

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

A series of equipment-specific kits has been developed to enable the AC110 section/rate controller to interface with your machine. This kit contains the components and instructions to connect an AC110 with the sprayer models listed above.

Please read this manual thoroughly before beginning the installation.

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.

REF	PART NUMBER	QTY	DESCRIPTION	PHOTOGRAPH
A	054-0178-000#	1	Interface cable (‘cable A’)	

Kit Contents *(continued)*

REF	PART NUMBER	QTY	DESCRIPTION	PHOTOGRAPH
B	750-5006-000	1	Section/rate controller (AC110) (Mount using H)	
C	054-0144-000#	1	Power cable	
D	054-0185-000#	1	Power switch cable	
E	051-0067-005#	1	Input/output splitter (‘Y’) cable	
F	051-0288-000#	1	CAN loop back connector (terminator)	
G	750-5012-000	1	Pressure transducer (‘sensor’)	
H	675-2009 678-1053 676-1036	4 4 4	Bolt - 5/16NC x 1-1/4" Gr5, ZP Washer, flat - 5/16", ZP Nut, lock - 5/16NC, ZP (Mount B)	

Kit Contents *(continued)*

REF	PART NUMBER	QTY	DESCRIPTION	PHOTOGRAPH
I	640-0162-000	1	Mounting bracket (Mount A's fence switches vertically or horizontally on Outback MAX)	
J	675-1019-000 678-1052-000	2 2	Screw, 8-32, 5/16" Washer, split-lock, #8 (Mount I on Outback MAX)	
Ka Kb	485-2128-000# 485-2129-000#	1 1	Label (vertical switches mount) Label (horizontal switches mount) (For fence switches - if used. Use one or the other label on bracket I)	
L	677-2001	20	Tie strap, 11" heavy duty	
M	054-0199-000#	1	Adapter cable (2013 models only - use at control valve)	
N	054-0200-000#	1	Adapter cable (2013 models only - use at flow meter)	

Connections and Installation

1. Install and connect the AC110.

NOTE: *The text and figures in this guide 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 7.*

a. After drilling as required, use hardware **H** (not shown), attach AC110 **B** on the rear face of the right side rear compartment bulkhead (Figure 1a with inset—you will attach cables at the next step).

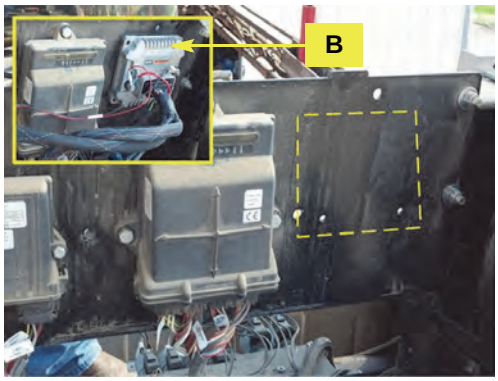

Figure 1a with inset: AC110 installation

b. 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 1b).

NOTE: *Dust/weatherproof all the machine's disconnected harness connections in steps 2 to 5.*

2. Connect boom logic.

Locate the machine boom logic connection between the section valves and the boom harness. Disconnect the machine's harness connector and connect cable **A**'s12-pin connector labeled "BOOM LOGIC" (Figure 2 with insets).

3. Connect the control valve.

Locate the machine control valve connection to the left of the section valves. Disconnect the machine's harness connector and connect cable **A**'s connector labeled "CONTROL VALVE" (Figure 3 with inset). Use adapter cable **M** if required (not shown).

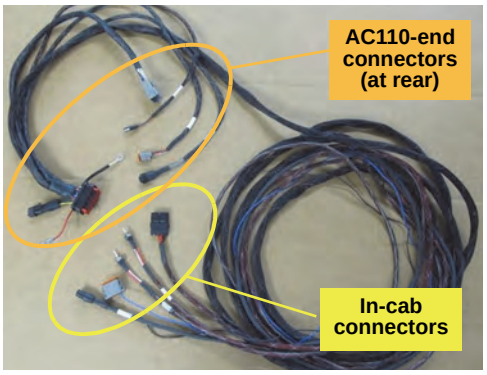

Figure 1: Interface cable A's connectors

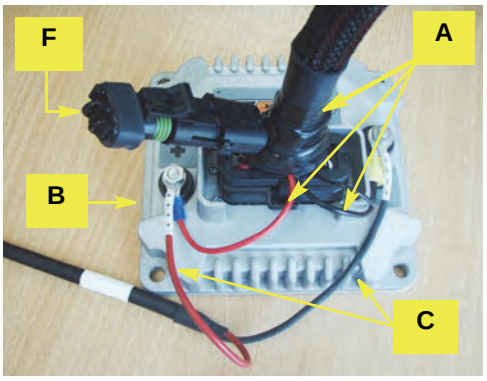

Figure 1b: Connections at AC110

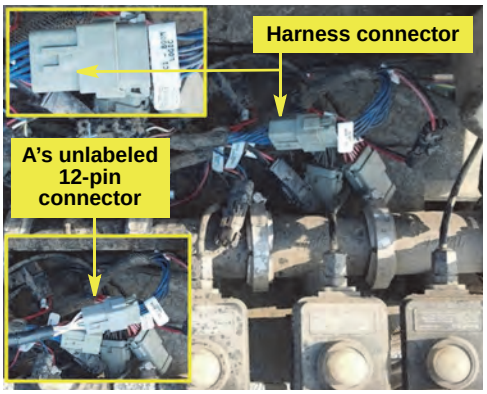

Figure 2 with insets: Machine's boom logic connection; inset, cable A's connection

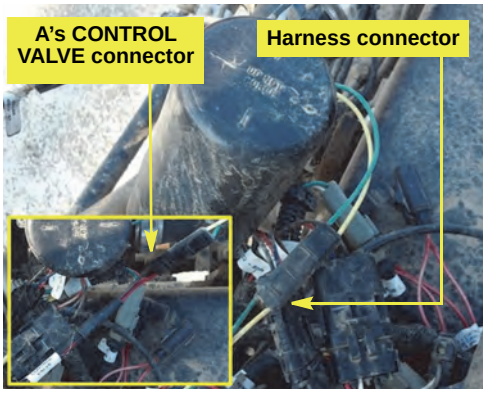

Figure 3 with inset: Cable A's control valve connection

4. Connect the flow meter.

Locate the flow meter connection to the left of the section valves. Disconnect the machine's harness connector and connect cable **A**'s connector labeled "FLOW METER" (Figure 4 with inset). Use adapter cable **N** if required (not shown).

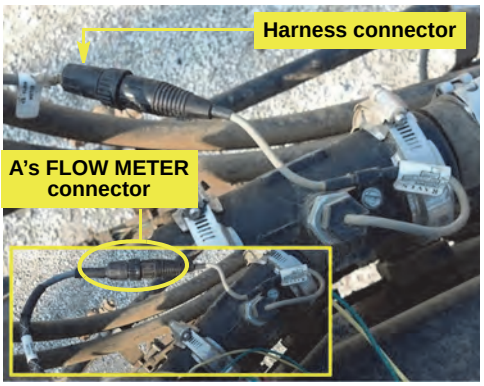

Figure 4 with inset: Cable A's flow meter connection

5. Install the pressure sensor (if applicable).

NOTE: *This step always applies if your machine already has a pressure sensor. If your machine does not have a pressure sensor (as in this installation)* **either** *dust/weatherproof A's "PRESSURE SENSOR" connector and stow it securely* **or**, *in a suitable location, install the supplied sensor G and connect it as described below.*

Locate the pressure sensor (if installed—see note preceding) to the right of the section valves. Disconnect the machine's harness connector and remove the pressure sensor. Install pressure sensor **G** and connect cable **A**'s connector labeled "PRESSURE SENSOR" (Figure 5 with insets).

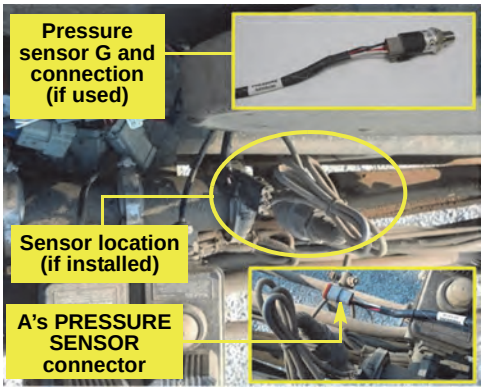

Figure 5 with insets: Cable A's pressure sensor - not connected

6. Complete cable connections.

a. Route remaining cable **A** connectors (the in-cab connectors) forward along the frame under the tank and into the cab through the access hole inside the compartment on the right of the driver's seat (Figure 6a).

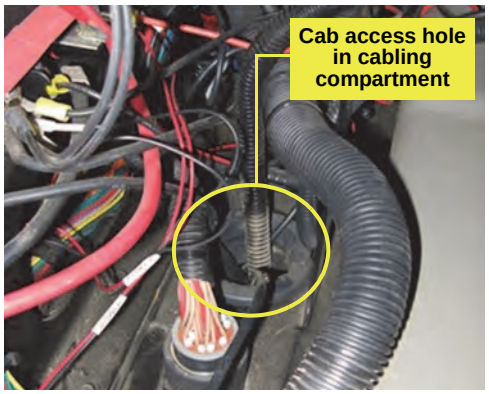

Figure 6a: Cab access hole

b. Inside the cabling compartment, locate the machine's master switch connection. Disconnect the master switch and connect cable **A**'s single-blue wire connector (Figure 6b).

c. If installing cable **A**'s left and right fence switches (not shown but see Figure 6d, next page), using hardware **J**, mount switch bracket **I** vertically or horizontally on the MAX terminal. Use label **Ka** or **Kb** as required. (If not using the switches, stow them [cable ends] securely.)

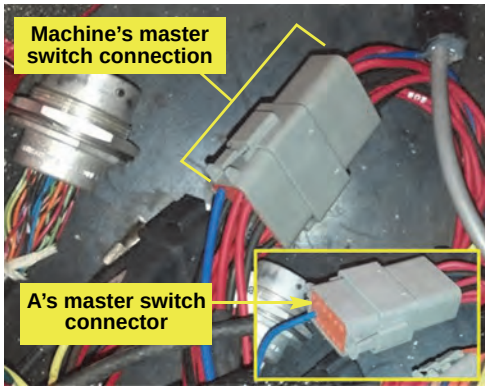

Figure 6b: Cable A's master switch connection

6. Complete cable connections *(continued)*.

d. 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 "**ECU**" on the MAX cable (with the white main connector) and the 7-pin CAN connector on interface cable **A** (Figure 6c).

NOTE: *You can use splitter cable E as an extension cable between cable A and the CAN connection "ECU" on the (white connector) MAX cable. You can also use cable E to connect the switchbox if installed (Figure 6c).*

e. Connect power switch cable **D** to the 4-pin connector on cable **A** (Figure 6d).

f. Connect the fused end of power cable **C** to the machine's battery.

g. Secure all cabling with tie straps **L**.

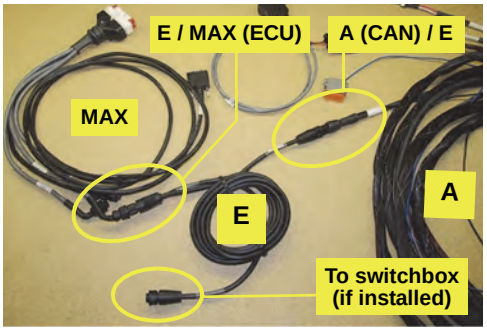

Figure 6c: Splitter cable connections

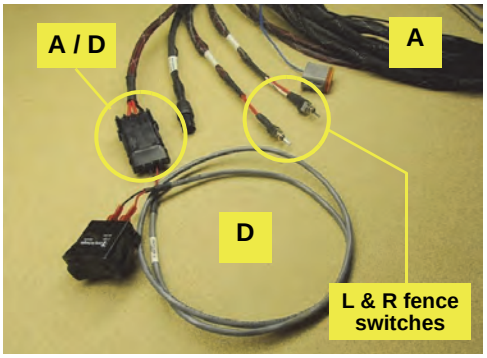

Figure 6d: Power switch cable connection

Appendix - AC110 Cables and Connections