

**('04 & Newer) Case IH SPX
3185 & 3200 Patriot Cabs with
CAN Product Control, w/wo
AIM Command**

Manual No. 016-1001-066-B 04/17

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Congratulations on your purchase of the Raven AccuBoom system! This system is designed to provide worry free turn on and turn off of your booms with respect to the as-applied coverage map. The following instructions are designed to assist you in the proper installation of the AccuBoom system. See your Console Operation Manual for instructions on setting up the software and using the AccuBoom system.

NOTE: All boom switches must remain in the ON position while AccuBoom control is in operation.

REQUIRED COMPONENTS

The following components are required for complete installation of the Raven AccuBoom™ system.

Component	Part Number
CAN, Node, AccuBoom™ Control	063-0172-316
Cable, AccuBoom™ Control, Case IH SPX ('04 & Newer) 3185, 3200 Patriot Cabs w/wo AIM Command	115-0171-667
Cable, CAN, Adapter Tee, 24'	115-0171-363
Manual, AccuBoom™ Installation, Case IH SPX ('04 & Newer) 3185, 3200 Patriot Cabs w/wo AIM Command	016-1001-066

NOTE: If a CANbus system is not already installed on your machine, the CANbus Power Adapter Tee and Terminator Kit (P/N 117-0159-923) will be required to complete the AccuBoom™ installation.

SAFETY REQUIREMENTS

Read this manual carefully before installing the AccuBoom™ system.

- Follow all safety information presented within this manual.
- If you require assistance with any portion of the installation or service of your Raven equipment, contact your local Raven dealer for support.
- Follow all safety labels affixed to the machine or implement. Be sure to keep safety labels in good condition and replace any missing or damaged labels.

When operating the machine after installing AccuBoom™, observe the following safety measures:

- Do not operate AccuBoom™ or any agricultural equipment while under the influence of alcohol or an illegal substance.

- Remain in the operator's position in the machine at all times when AccuBoom™ is enabled.
- Disable AccuBoom™ when exiting from the operator's seat and machine.
- Do not drive the machine with AccuBoom™ enabled on any public thorough-fare or main road.
- Determine and remain a safe working distance from other individuals. The operator is responsible for disabling AccuBoom™ boom section control when the safe working distance has diminished.
- Ensure AccuBoom™ is disabled prior to starting any maintenance work on the machine.

Please review the operation and safety instructions included with your implement and/or controller.

CAUTION

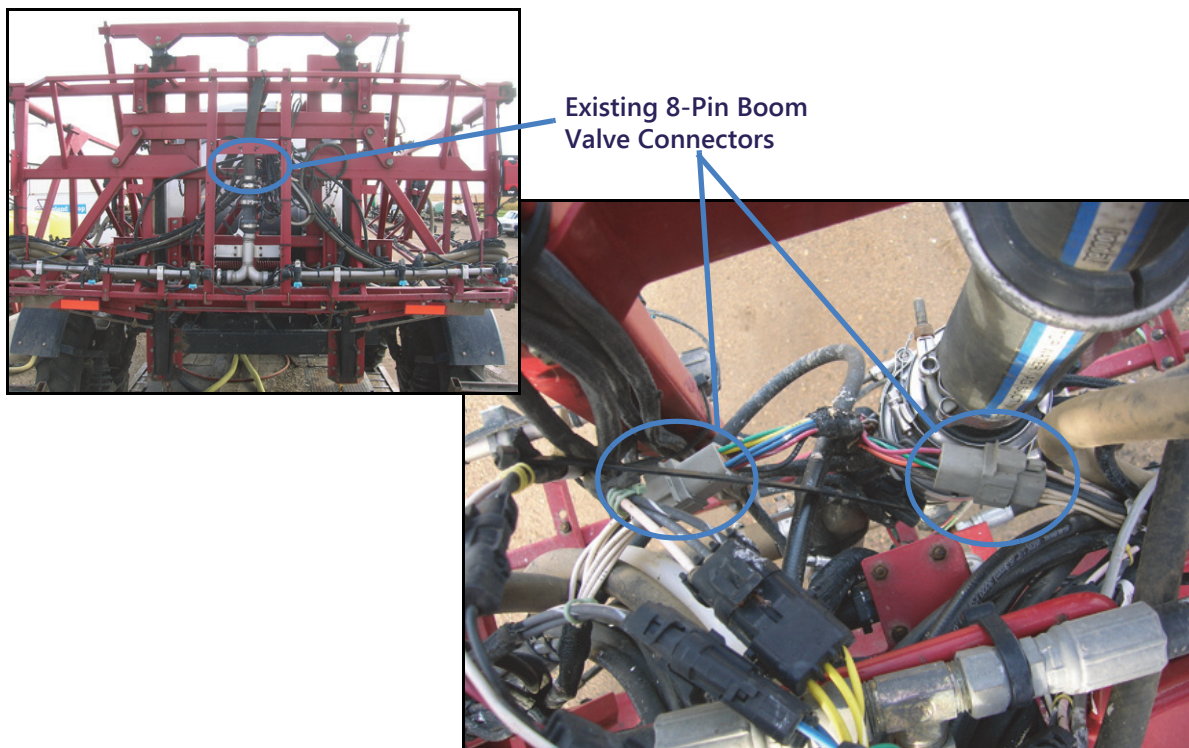
Do not reverse the battery leads. Doing so will cause severe damage to the electrical equipment. Read and follow installation instructions carefully when connecting lead wires to the battery.

Use the following procedure to properly install the AccuBoom™ system on Case IH SPX ('04 & Newer) 3185, 3200 sprayers with Patriot cabs and CAN Product Control (w/wo AIM Command).

BOOM VALVE CONNECTIONS

1. Locate the existing 8-Pin Deutsch connectors on the center rack at the back of the machine.

FIGURE 1. Boom Valve Connector Location



2. Disconnect the machine's right boom valve connector (connector with wires leading to your machine's right boom).
3. Insert the AccuBoom™ Control Cable (P/N 115-0171-667) connectors labeled "Booms 4-6 RH Foam" and "RH Foam" into the existing right boom valve cabling.

FIGURE 2. AccuBoom™ Control Cable (P/N 115-0171-667) Installed

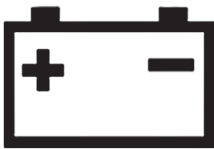



4. Repeat steps 2 and 3 to connect the AccuBoom™ Control Cable left boom valve connectors to the existing left boom valve cabling.

ACCUBOOM™ NODE INSTALLATION

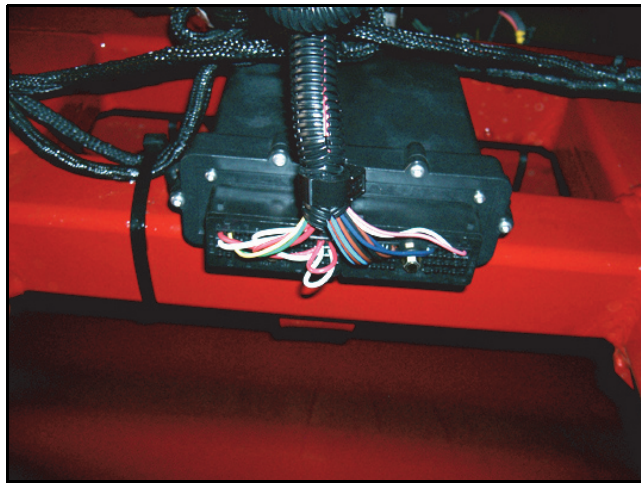
1. Select a location on the machine's center rack to mount the AccuBoom™ CAN Control Node (P/N 063-0172-316). When selecting a mounting location, keep the following in mind:
 - a. Length and routing of the AccuBoom™ Control Cable (P/N 115-0171-667). Mounting the node toward the right side of the center rack provides for convenient routing to the vehicle cab.
 - b. Keep the cable away from moving components to avoid pinching or breaking the cable during machine operation due to rack movement.
 - c. Node must be mounted with the rectangular connectors pointing toward the ground to avoid collecting moisture or debris.
 - d. Node should not be subjected to heavy pressure washing. Select a location away from sprayer components which may require direct pressure washing.
2. Mount the AccuBoom™ Control Node securely to the machine's center rack.

ACCUBOOM™ NODE POWER

	 CAUTION
<p>Do not reverse the battery leads. Doing so will cause severe damage to the electrical equipment. Read and follow installation instructions carefully when connecting lead wires to the battery.</p>	

1. Insert the large rectangular connectors on the AccuBoom™ Control Cable (P/N 115-0171-667) to the AccuBoom™ CAN Control Node (P/N 063-0172-316).

FIGURE 3. AccuBoom™ Node Connections



NOTE: Do not force the connectors. The node and cable are designed to only connect if the plug and connector are in the correct orientation.

2. Route the power and ground leads on the AccuBoom™ Control Cable (P/N 115-0171-667) along the right side of the vehicle's frame toward the vehicle cab.
3. Route power leads into the cable compartment located on the right side of the machine cab.

FIGURE 4. Cable Compartment on Patriot Cabs

Patriot Cab



4. Connect the power leads as follows:
 - a. Connect the power lead to a clean source of switched +12 V power.
 - b. Connect the ground lead directly to the battery ground.

CONNECTING ACCUBOOM™ TO AN EXISTING CANBUS SYSTEM

1. In the vehicle cab, locate and remove a CAN Passive Terminator (P/N 063-0172-369) from the cable connected to the console.

2. Connect the supplied CAN Adapter Tee Cable (P/N 115-0171-363) to the 4-Pin Deutsch connector from which the Terminator was disconnected.
3. Route the CAN Adapter Tee Cable out of the vehicle cab and back to the AccuBoom™ Control Node.
4. Connect the CAN Adapter Tee Cable to the connector labeled "To CANbus" on the AccuBoom™ Control Cable (P/N 115-0171-667).
5. Install the CAN Passive Terminator (removed in Step 1) to the remaining plug on the CAN Adapter Tee Cable.

NOTE: If the machine is not equipped with a CAN system, refer to Chapter 3, Installing a CANbus System for instructions on installing the CANbus Power Adapter Tee and Terminator Kit (P/N 117-0159-923).

Notes:

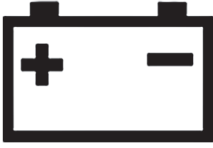
If your machine is not currently equipped with a Raven CANbus System, a CANbus Power Adapter Tee and Terminator Kit (P/N 117-0159-923) must be installed to complete the AccuBoom™ installation.

The Power Adapter Tee and Terminator Kit contains the following components:

Component	Part Number
Cable, CAN Adapter Tee with Power	115-0171-368
CAN, Passive Terminator (X2)	063-0172-369

CAN POWER

1. Locate a convenient source for switched power and ground near the control system.
2. Route the power and ground lead wires on the CAN Adapter Tee with Power Cable (P/N 115-0171-368) to the power source located in step 1.



CAUTION

Do not reverse the battery leads. Doing so will cause severe damage to the electrical equipment. Read and follow installation instructions carefully when connecting lead wires to the battery.

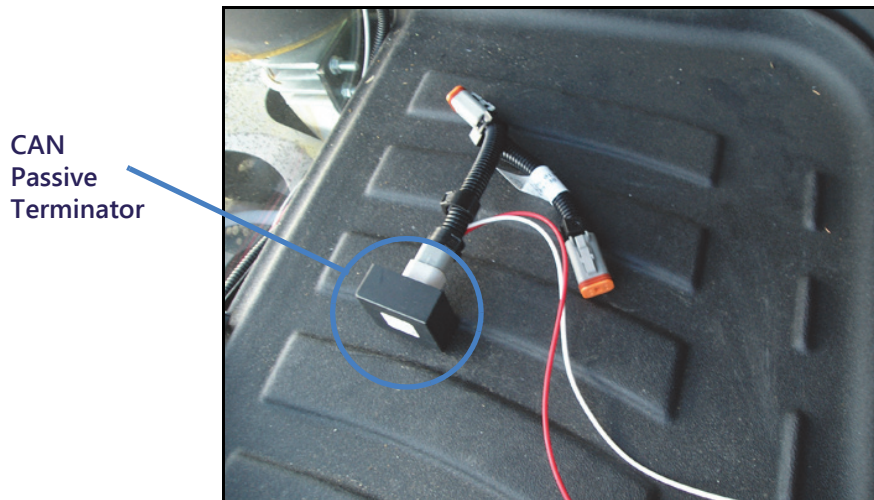
- a. Connect the power lead to a clean source of switched +12 V power.
- b. Connect the ground lead directly to the battery ground.

FIGURE 1. CAN Adapter Tee Cable with Power (P/N 115-0171-368)



3. Install one of the supplied CAN Passive Terminators (P/N 063-0172-369) to the Adapter Tee with Power.

FIGURE 2. Power Tee Cable with Passive Terminator (P/N 063-0172-369) Installed



NOTE: To provide the most robust CANbus System, Raven recommends connecting the CAN Passive Terminator (P/N 063-0172-369) to the 4-Pin Deutsch connector nearest to the power leads.

4. Connect one of the remaining 4-Pin Deutsch connectors on the Adapter Tee with Power Cable (P/N 115-0171-368) to the existing controller cable.

FIGURE 3. Power Tee Cable Connections



5. Additional CAN Tee cables and nodes can now be connected to the remaining 4-Pin Deutsch connector on the CAN Adapter Tee Cable to expand the CANbus System.

NOTE: Be sure to install a second CAN Passive Terminator (P/N 063-0172-369) to the remaining 4-Pin Deutsch connector after the AccuBoom™ Control Node or after additional CAN extension cables and nodes have been installed. A proper CANbus System will always have two Passive Terminators in the system.

Notes:

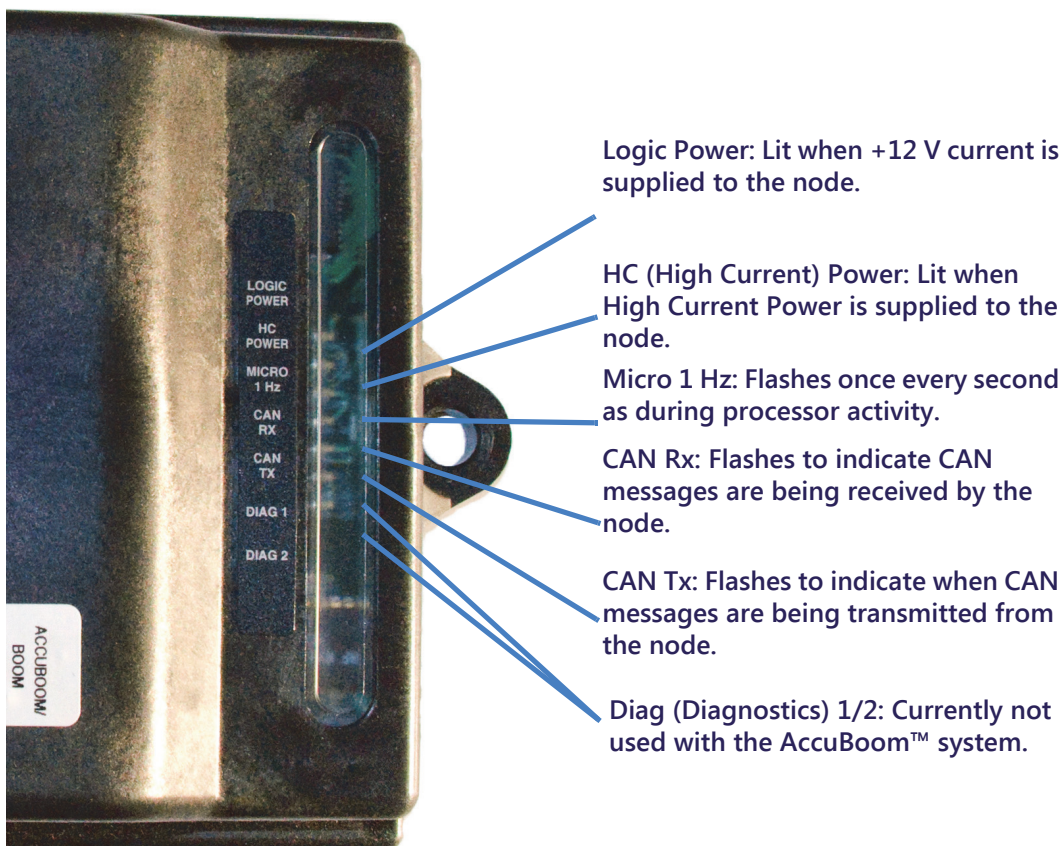
CHAPTER

4

TROUBLESHOOTING THE ACCUBOOM™ SYSTEM

The AccuBoom™ CAN Control Node (P/N 063-0172-316) enclosure features several green LED lights which may be used to diagnose issues within the AccuBoom™ system.

FIGURE 1. AccuBoom™ CAN Control Node (P/N 063-0172-316)



NOTE: If the LED lights are not displayed as described in the figure above, check the CAN connections and the control cable connections on the node. If the issue persists, contact your local Raven dealer for additional technical support.

Notes: