

**SpraCoupe 7460/7660 AccuBoom™
Installation Manual**

P/N 016-1001-077 Rev C

04/16

E17443

Disclaimer

While every effort has been made to ensure the accuracy of this document, Raven Industries assumes no responsibility for omissions and errors. Nor is any liability assumed for damages resulting from the use of information contained herein.

Raven Industries shall not be responsible or liable for incidental or consequential damages or a loss of anticipated benefits or profits, work stoppage or loss, or impairment of data arising out of the use, or inability to use, this system or any of its components. Raven Industries shall not be held responsible for any modifications or repairs made outside our facilities, nor damages resulting from inadequate maintenance of this system.

As with all wireless and satellite signals, several factors may affect the availability and accuracy of wireless and satellite navigation and correction services (e.g. GPS, GNSS, SBAS, etc.). Therefore, Raven Industries cannot guarantee the accuracy, integrity, continuity, or availability of these services and cannot guarantee the ability to use Raven systems, or products used as components of systems, which rely upon the reception of these signals or availability of these services. Raven Industries accepts no responsibility for the use of any of these signals or services for other than the stated purpose.

Chapter 1	<i>Important Safety Information</i>	1
	Important Safety Information	1
Chapter 2	<i>Introduction</i>	3
	Introduction	3
	Recommendations	3
	Tools Needed	4
	Preparing for Installation	4
	Point of Reference	4
	AccuBoom Kit Contents	4
Chapter 3	<i>AccuBoom Installation</i>	7
	Install the AccuBoom Node	7
	Install the AccuBoom Harness Cable	8
	Install the Power Connection	8
	Connect the Harness to the Machine	9
Chapter 4	<i>Section Mapping Setup</i>	11
	Envizio Pro	11
	Viper Pro	12
Chapter 5	<i>Troubleshooting</i>	13

CHAPTER

1

Important Safety Information

Important Safety Information

NOTICE

Read this manual and the operation and safety instructions included with your implement and/or controller 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 AccuBoom system components. Be sure to keep safety labels in good condition and replace any missing or damaged labels. To obtain replacements for missing or damaged safety labels, contact your local Raven dealer.

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

- Be alert and aware of surroundings.
- 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 road.
- Determine and remain a safe working distance from other individuals. The operator is responsible for disabling AccuBoom when the safe working distance has been diminished.
- Ensure AccuBoom is disabled prior to starting maintenance work on AccuBoom or the machine.

CAUTION

- Always verify that the power leads are connected to the correct polarity as marked. Reversing the power leads could cause severe damage to the equipment.
- Ensure that the power cable is the last cable to be connected.

CHAPTER

2

Introduction

Introduction

Congratulations on your purchase of the Raven AccuBoom system! This system is designed to provide accurate and cost-efficient application control by avoiding no-spray zones and eliminating wasteful overlaps.

This manual applies to the following machines. For future reference, write your serial number in the space below.

MAKE: SpraCoupe
MODEL: 7460/7660
YEAR: 2010 - 2011
SERIAL NUMBER:

FIGURE 1. SpraCoupe 7660



Recommendations

Raven Industries recommends the following best practices when installing the AccuBoom system:

- Use part numbers to identify parts.
- Do not remove the plastic wrap from a part until it is necessary for installation.

Tools Needed

The following tools are recommended for installation of the AccuBoom system:

- SAE standard-sized wrenches
- Cable ties
- Set of tools

Preparing for Installation

Before installing AccuBoom, park the machine where the ground is level, clean, and dry. Leave the machine turned off for the duration of the installation process.

During the installation process, follow good safety practices. Be sure to carefully read the instructions in this manual as you complete the installation process.

Point of Reference

The instructions in this manual assume that you are standing behind the machine, looking toward the cab.

AccuBoom Kit Contents

This section contains a list of the components that are included in the AccuBoom kit. Before beginning the AccuBoom installation, compare the items in the AccuBoom kit with the components on this list. If you have questions about the kit, contact your local Raven dealer.

Important: *In addition to the following kit components, an AccuBoom CAN combo node (P/N 063-0172-714) and mounting kit (P/N 117-0171-342) is required for the operation of the AccuBoom system.*

TABLE 1. AccuBoom Installation Kit (P/N 117-1004-077)





Picture	Item Description	Part Number	Qty.
Not Pictured	Manual - SpraCoupe 7460/7660 AccuBoom Installation	016-1001-077	1
	Cable - 7000 Series SpraCoupe CAN AccuBoom Combo Node	115-1001-040	1
	Bolt - 5/16"-18 x 1" Hex	311-0054-105	2

TABLE 1. AccuBoom Installation Kit (P/N 117-1004-077)

Picture	Item Description	Part Number	Qty.
	Nut - 5/16"-18 Nylon Lock	312-4000-059	2
	Washer - 5/16" Flat	313-2300-011	2

CHAPTER

3

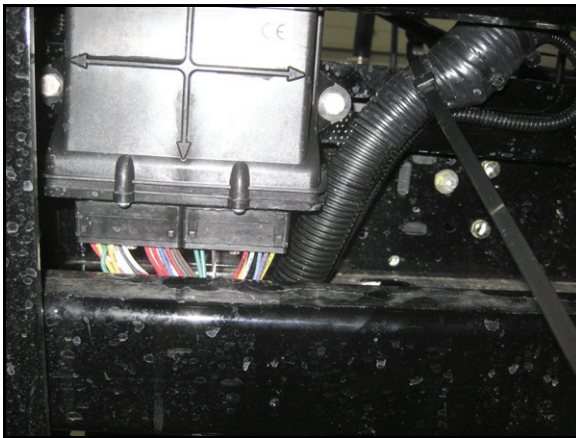
AccuBoom Installation

The instructions in this manual are designed to assist in the installation of the AccuBoom system on the 7460/7660 SpraCoupe sprayers. Refer to the Installation & Operation Manual for the specific field computer being used for instructions on setting up the software and using the AccuBoom system.

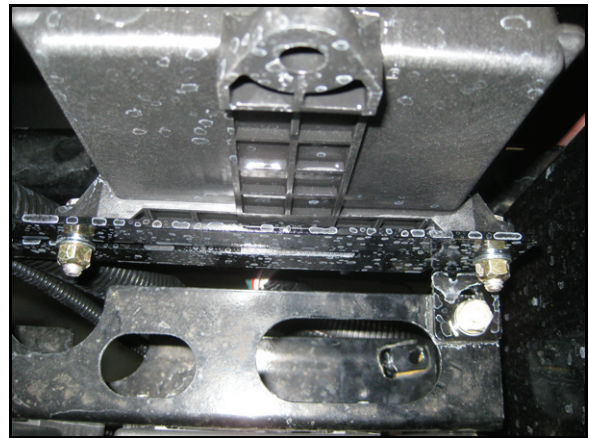
Install the AccuBoom Node

FIGURE 1. AccuBoom Node Installed

Front View
(Looking from the Front Toward the Back of Sprayer)



Top View
(From the Top of the Center Rack)



1. Locate the node mounting bracket on the right-inside cover of the center rack, in front of the existing CAN node bank.

Note: *The node bracket may be present if the machine is already equipped with the AutoBoom system. If it is not, refer to the mounting instructions in the 7460/7660 SpraCoupe AccuBoom/AutoBoom Power Cable/Node Mounting Kit Installation Procedure (P/N 016-0171-396) included in the node mounting kit (P/N 117-0171-342).*

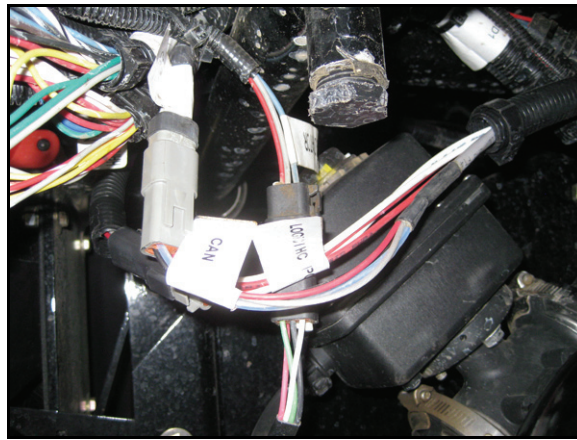
2. Mount the AccuBoom node (P/N 063-0172-714) to the mounting bracket using two 5/16"-18 x 1" hex bolts (P/N 311-0054-105), two 5/16" flat washers (P/N 313-2300-011), and two 5/16"-18 nylon lock nuts (P/N 312-4000-059).

Note: Mount the node so that the diagnostic lights face toward the front of the machine and the node connector ports face down.

Install the AccuBoom Harness Cable

Install the Power Connection

FIGURE 2. CAN/Power Harness (P/N 115-1001-041) Connection (Under Catwalk)



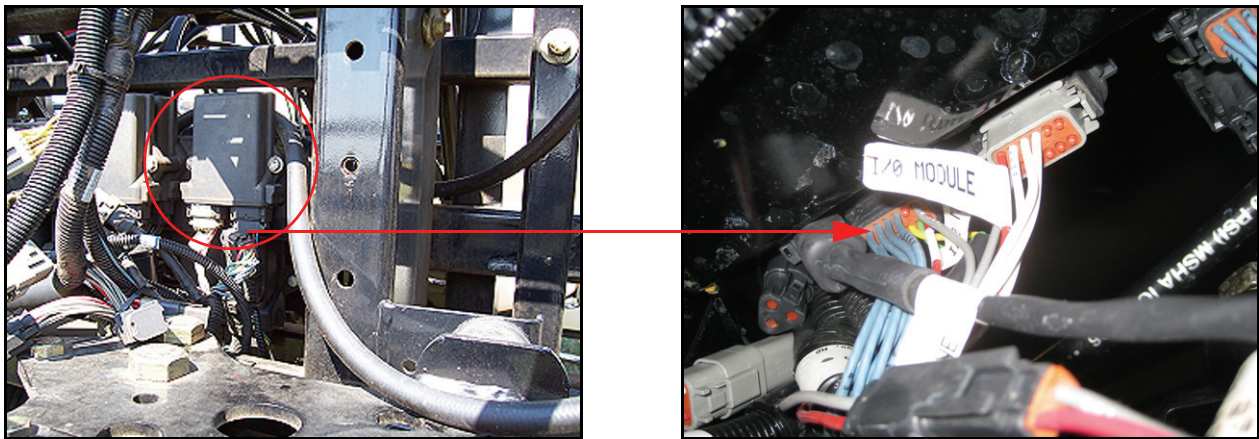
1. Locate or install the CAN/Power extension harness cable.

Note: The CAN/Power extension harness cable (P/N 115-1001-041) may be present if the machine is already equipped with the AutoBoom system. If it is not, refer to the mounting instructions in the 7460/7660 SpraCoupe AccuBoom/AutoBoom Power Cable/Node Mounting Kit Installation Procedure (P/N 016-0171-396) included in the node mounting kit (P/N 117-0171-342) to install it.

2. Locate the 4-pin Deutsch connector labeled “Logic/HC Power” on the AccuBoom harness cable and remove the dust cap.
3. Connect the Logic/HC Power connector to the CAN/Power extension harness cable.
4. Locate the CAN terminator on the CAN/Power extension harness or the previously installed AutoBoom harness cable (if applicable).
5. Remove the CAN terminator and connect it to the connector labeled “CAN Bus” on the AccuBoom harness cable (P/N 115-1001-040).
6. Connect the AccuBoom harness to the connector from which the CAN terminator was previously removed.

Connect the Harness to the Machine

FIGURE 3. SpraCoupe Boom Control Node



1. Locate the CAN node bank on the right-rear corner of the machine's center rack.
2. Locate the black connector on the machine's boom control node containing the blue boom control wires.
3. Disconnect the black connector from the machine's boom control node.
4. Connect the black node connector to the receiving end on the AccuBoom harness cable (P/N 115-1001-040).
5. Connect the node connector on the AccuBoom harness cable to the open port of the machine's boom control node.

Note: *The 3-pin Deutsch connectors on the AccuBoom harness cable should remain connected together. They are not needed for the 5-section machine configuration and are used only as a European option.*

CHAPTER

4

Section Mapping Setup

This section contains section mapping setting that are used to program the AccuBoom controller. Refer to the Installation & Operation Manual and the appropriate section in this chapter for the specific field computer being used for programming instructions and section mapping settings.

Envizio Pro

5 Section	
Boom	Section Label
1	1
2	2
3	3
4	4
5	5
6	L
7	R

8 Section	
Boom	Section Label
1	1
2	2
3	3
4	4
5	5
6	L
7	R
8	6
9	7
10	8

Important: The “AccuBoom Combo Node” and “Use As Boom/Speed AccuBoom Combo Node” selections under the Control Interface icon must be selected for the AccuBoom system to function properly.

Viper Pro

5 Section		
Boom	Wired As	Display As
1	6	L
2	1	1
3	2	2
4	3	3
5	4	4
6	5	5
7	7	R
8	8	*
9	9	*
10	10	*

8 Section		
Boom	Wired As	Display As
1	6	L
2	1	1
3	2	2
4	3	3
5	4	4
6	5	5
7	8	6
8	9	7
9	10	8
10	7	R

Important: The AccuBoom node “Combo” setting must be selected under the Miscellaneous Settings tab for the AccuBoom system to function properly.

CHAPTER

5

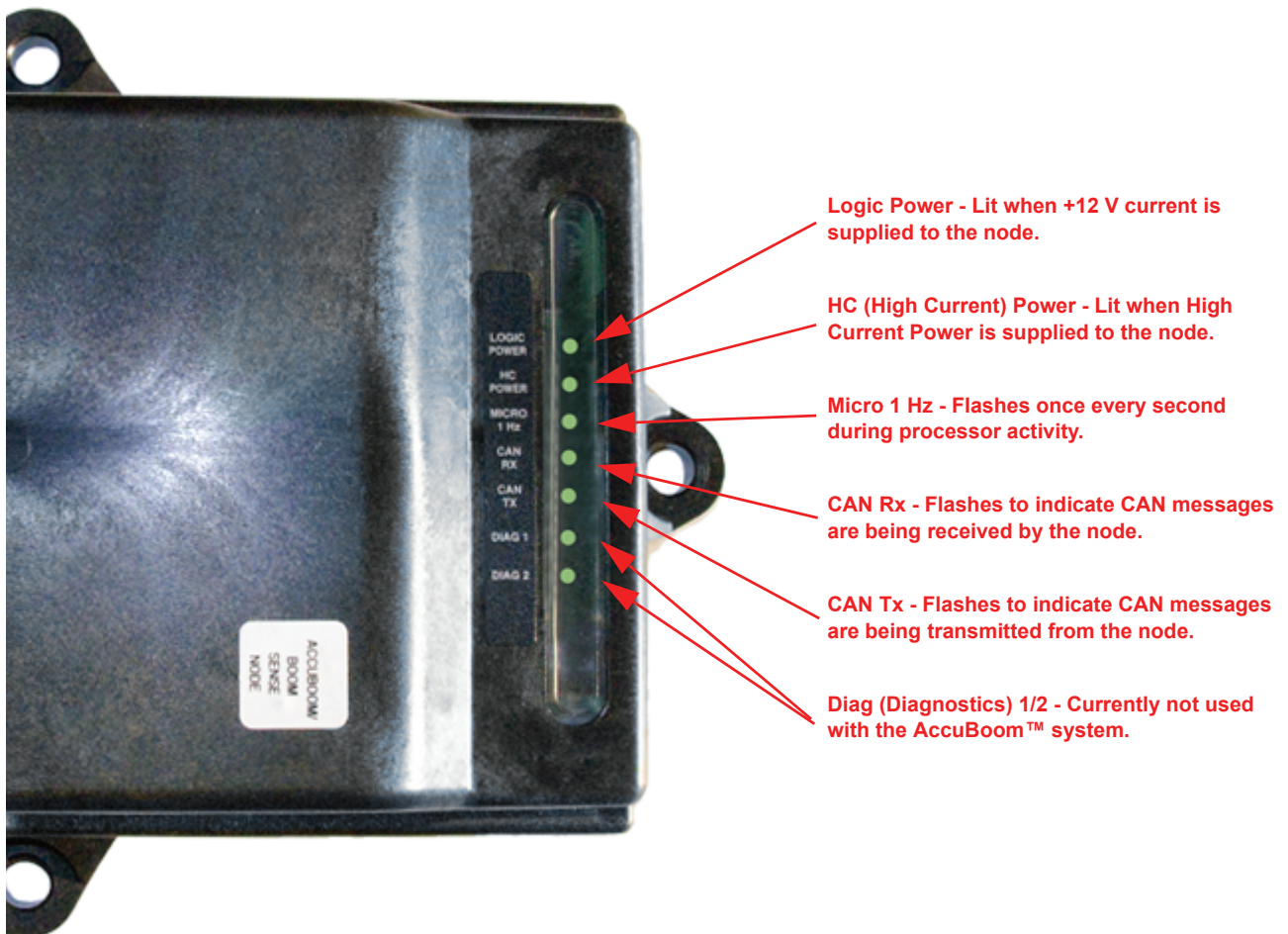
Troubleshooting

The AccuBoom CAN control node (P/N 063-0172-714) features several green light-emitting diodes (LEDs) which may be used to diagnose issues within the AccuBoom system.

Note: If the LEDs are not displayed as outlined in the figure below, 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.

Note: All boom switches must remain in the On position while AccuBoom control is in operation.

FIGURE 1. AccuBoom CAN Control Node LEDs



A

AccuBoom Installation 7

- Installing the AccuBoom Harness 8
- Installing the AccuBoom Harness Cable
 - Connecting the Harness to the Machine 9
- Installing the AccuBoom Node 7
- Installing the Harness Cable
 - Installing the Power Connection 8

I

Introduction

- AccuBoom Kit Contents 4
- Point of Reference 4
- Preparing for Installation 4
- Tools Needed 4

K

Kit Contents 4

S

Section Mapping Setup 11

- Envizio pro 11
- Viper Pro 12

T

Troubleshooting 13

RAVEN

RAVEN INDUSTRIES

Limited Warranty

What Does this Warranty Cover?

This warranty covers all defects in workmanship or materials in your Raven Applied Technology Division product under normal use, maintenance, and service.

How Long is the Coverage Period?

Raven Applied Technology Division products are covered by this warranty for 12 months after the date of purchase. This warranty coverage applies only to the original owner and is nontransferable.

How Can I Get Service?

Bring the defective part and proof of purchase to your Raven dealer. If your dealer agrees with the warranty claim, the dealer will send the part and proof of purchase to their distributor or to Raven Industries for final approval.

What Will Raven Industries Do?

Upon confirmation of the warranty claim, Raven Industries will, at our discretion, repair or replace the defective part and pay for return freight.

What is not Covered by this Warranty?

Raven Industries will not assume any expense or liability for repairs made outside our facilities without written consent. Raven Industries is not responsible for damage to any associated equipment or products and will not be liable for loss of profit or other special damages. The obligation of this warranty is in lieu of all other warranties, expressed or implied, and no person or organization is authorized to assume any liability for Raven Industries.

Damages caused by normal wear and tear, misuse, abuse, neglect, accident, or improper installation and maintenance are not covered by this warranty.