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SmartBoom Installation Manual



Universal Installation

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

Required Components

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

Part	Part Number
SmartBoom Controller Box	063-0171-828
SmartBoom Cable	115-1001-039
SmartBoom Universal Installation Manual	016-1001-074
GPS Interface Cable	115-0171-460

Important: *Boom switches must be in the OFF position during SmartBoom operation.*

Safety Requirements

NOTICE

Read this manual carefully before installing the SmartBoom 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 SmartBoom, observe the following safety measures:

- Do not operate SmartBoom 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 SmartBoom is enabled.
- Disable SmartBoom when exiting from the operator's seat and machine.
- Do not drive the machine with SmartBoom 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 SmartBoom boom section control when the safe working distance has diminished.
- Ensure SmartBoom 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.

CHAPTER

2

Installation

Installation

Mount Controller Box

Find suitable location in cab and mount SmartBoom controller box (063-0171-828).

Connect SmartBoom Harness to SmartBoom Controller Box

Locate 20 pin connector on SmartBoom harness (115-1001-039) and connect to the Control port on the rear of the SmartBoom controller box.

Locate the 4 pin power connector on the SmartBoom harness (115-1001-039) and connect to the Power port on the rear of the SmartBoom controller Box.

Connect SmartBoom Harness to Boom Valves

Find suitable location and splice SmartBoom boom wires onto appropriate machine boom signal wires between the boom switches and boom valves. Listed below are the SmartBoom section wire colors and corresponding boom sections.

Color	Boom
Black	1
Brown	2
Blue	3
Black/White	4
Brown/White	5
Blue/White	6
White/Black	7
White/Brown	8
White/Blue	9
Pink	10

Note: *Seated in the cab facing forward; booms are assigned Left to Right. Boom 1 is the far left boom section. Depending on the number of boom sections on machine, some boom section wires may not be used.*

Important: *Not recommended for boom valves that require more than 2 amps.*

Connect Master Apply Switch

Locate orange/white wire on SmartBoom harness (P/N115-1001-039) and connect to master switch, so that +12 volts is applied to the orange/white wire when master switch is in the ON position.

Connect Power

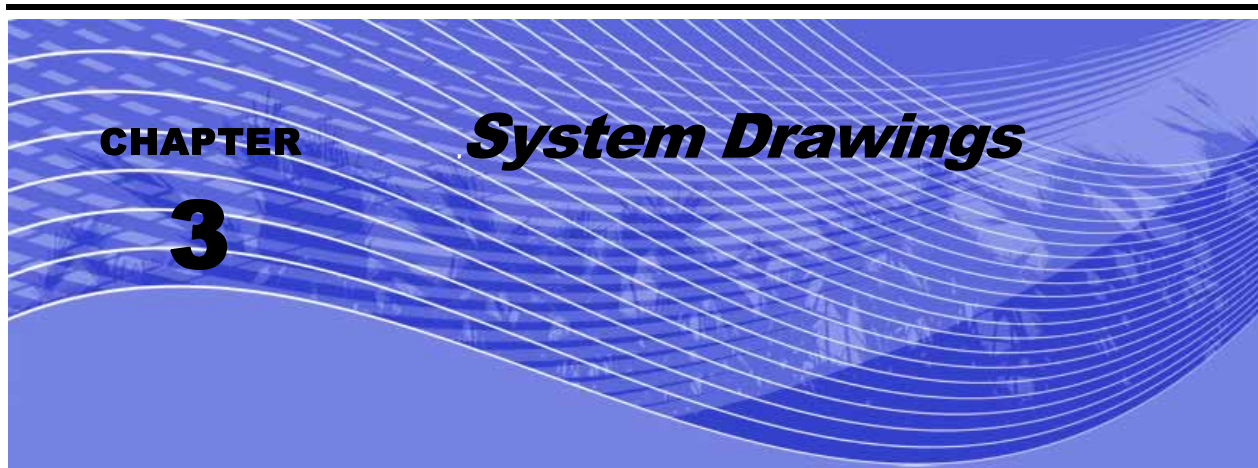
Locate and connect to a good source of switched power.

Connect GPS Receiver

Connect the GPS interface cable (P/N 115-0171-460) to the DGPS port on SmartBoom console and GPS receiver cable.

The SmartBoom Installation Is Now Complete

Refer to the SmartBoom Operator's manual for console setup instructions.

The header graphic for Chapter 3 features a blue background with white, wavy, horizontal lines. The text 'CHAPTER' is in a bold, black, sans-serif font, followed by a large, bold, black number '3'. To the right of the '3', the title 'System Drawings' is written in a bold, black, italicized serif font.

CHAPTER **3** ***System Drawings***

The following diagrams may be helpful for installing or troubleshooting the SmartBoom system. The following diagrams may show optional features or components not required for operation and will not apply to your system if the required hardware has not been installed. Contact your local dealer for purchasing or more information on components shown in the following diagrams.

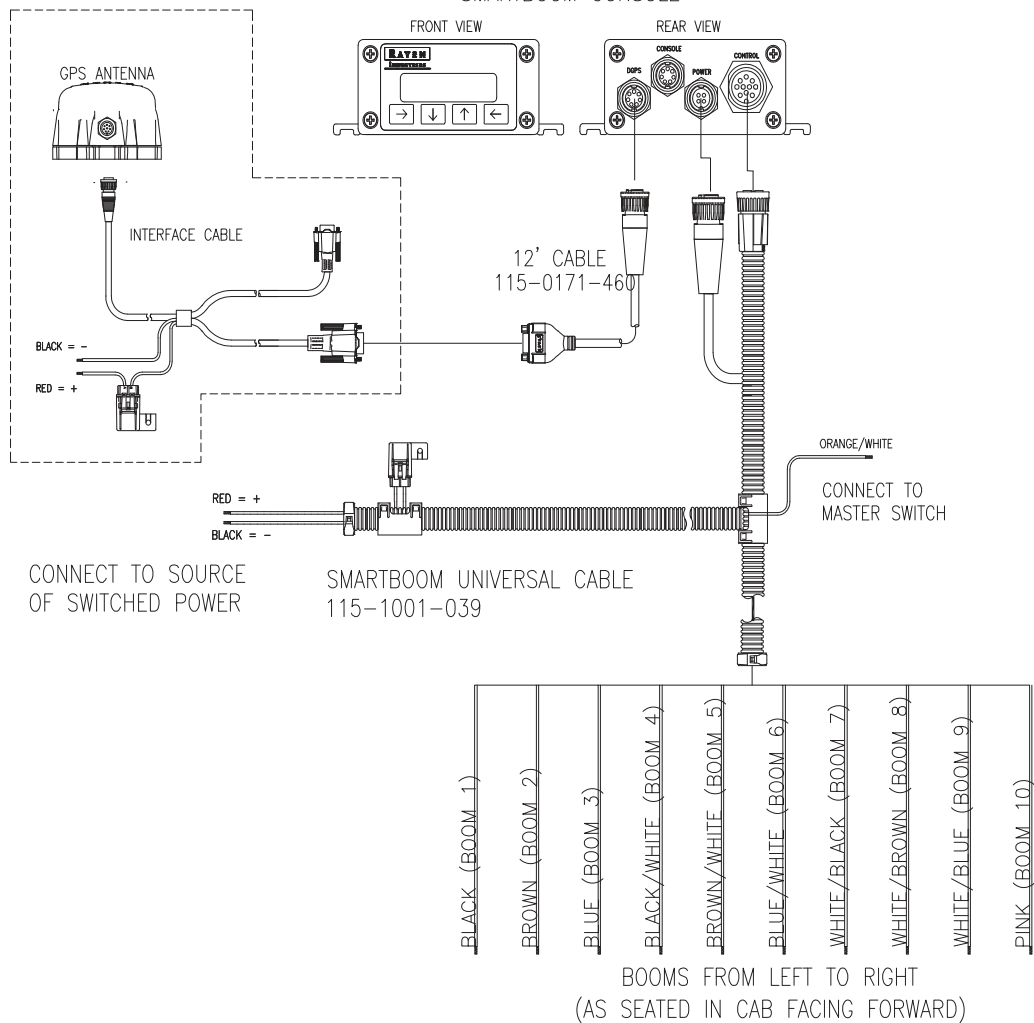
Additional system diagrams are available from the Raven Industries web site:

<http://www.ravenprecision.com/Support/ApplicationDrawings/index2.jsp>

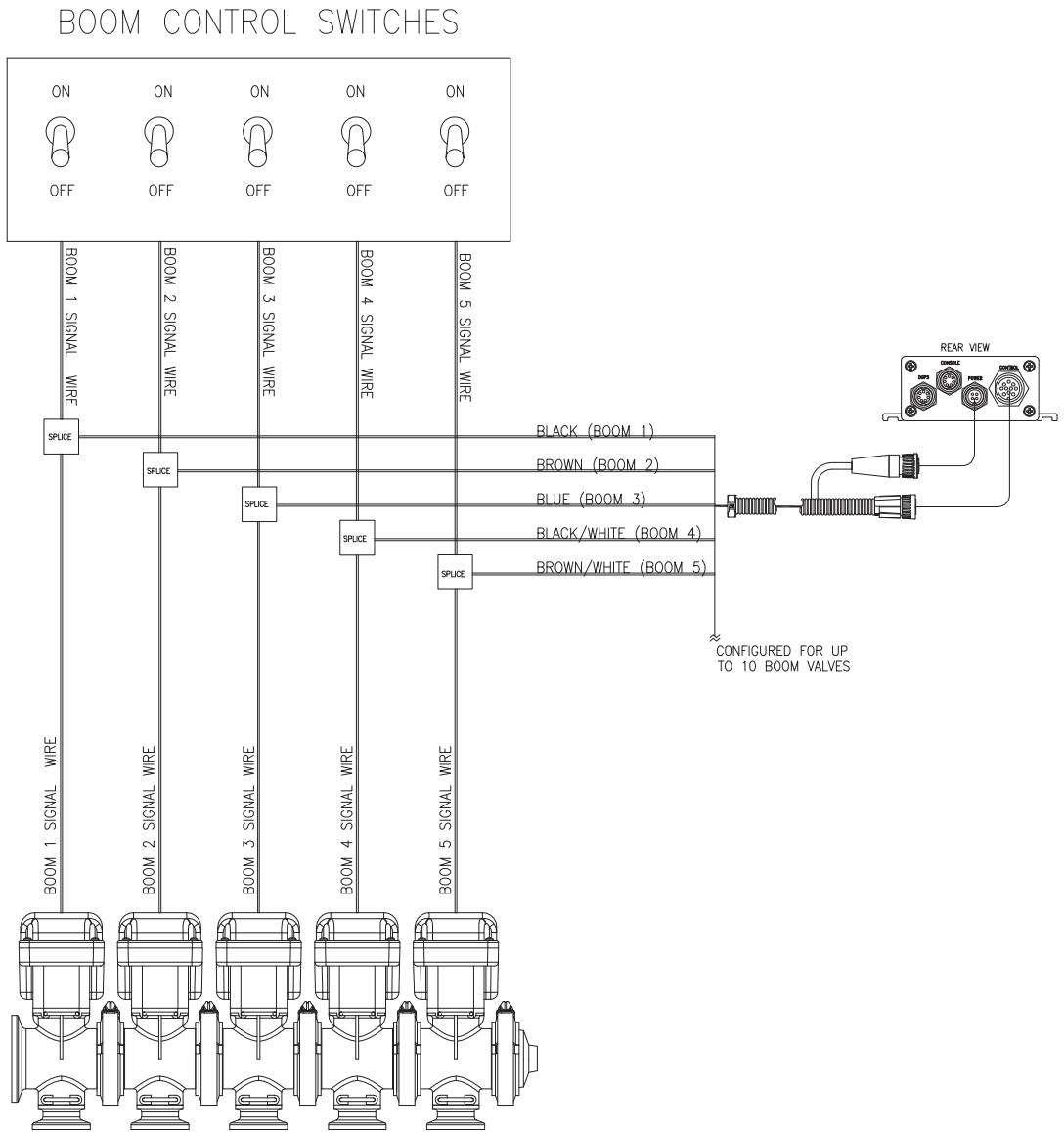
SMARTBOOM UNIVERSAL 10 BOOM KIT

117-1001-074

063-0172-828
SMARTBOOM CONSOLE



BOOM VALVES NOT TO EXCEED
CURRENT DRAW OF 2 AMPS



RAVEN

RAVEN INDUSTRIES

Limited Warranty

What Does this Warranty Cover?

This warranty covers all defects in workmanship or materials in your Raven Flow Control Product under normal use, maintenance, and service.

How Long is the Coverage Period?

Raven Flow Control 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 non-transferrable.

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

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