AccuBoom
Automatic Boom Control Option

SCS4600 Console Universal Kit

CHAPTER

1

INTRODUCTION

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 the Viper Installation and Operation Manual for instructions on setting up the software and using the AccuBoom system. You will also need a valid AccuBoom Control activation key for your Viper in order to activate the AccuBoom system.

Important! All boom switches must remain in the **OFF** position while AccuBoom control is in operation!

COMPONENTS NEEDED

- CAN AccuBoom Control Node – P/N 063-0172-316
- AccuBoom Control Activation Key – P/N 077-0180-010
- SCS4600 Console Universal CAN AccuBoom Cable – P/N 115-1001-004
- CAN AccuBoom installation Sheet, SCS4600 Universal Cable – P/N 016-0171-091

Important: If no CAN system currently exists on the machine you are installing AccuBoom on, you will need these additional components:

Kit, CANBus, Terminators & Power Adapter "T" – P/N 117-0159-923

Appropriate length CANBus Tee Cable:

6 inch CAN Tee Cable – 115-0171-364
6 Ft CAN Tee Cable – 115-0171-326
12 Ft CAN Tee Cable – 115-0171-362
18 Ft CAN Tee Cable – 115-0171-690
24 Ft CAN Tee Cable – 115-0171-363

Notes:

CHAPTER

2

INSTALLATION
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 Use the following procedure to properly install the CAN
AccuBoom/Serial Console cable:

1. Connect the CAN AccuBoom/Serial Console Cable P/N 115-1001-004
    between the boom switches and the boom valves.

Important! The CAN AccuBoom Serial
Console Cable P/N 115-1001-004 is
compatible with Raven switchbox and
interface cables.

   a.   Disconnect the existing switchbox cable from the boom valve
        cable.

b. Connect CAN AccuBoom/Serial Console Cable P/N 115-1001-004 between the two connectors previously disconnected.

2. Connect the CAN AccuBoom cable to the CAN AccuBoom node.
   a. Connect the rectangular connectors from the CAN AccuBoom/Serial Console Cable P/N 115-0171-705 to the CAN AccuBoom Node P/N 063-0172-316.

3. Mount the CAN AccuBoom Node.
    a. Route the CAN AccuBoom/Serial Console Cable P/N 115-1001-004 from the console connection to a location suitable to mount the CAN AccuBoom node P/N 063-0172-316.
    b. Bolt the CAN AccuBoom Node P/N 063-0172-316 securely in place.

Note: If your system does not currently have a CAN system installed, see the CAN installation instructions in Chapter 3 of this installation guide.

4. Connect the CAN bus to the Raven SCS4600 console.
    a. Determine the desired length of CAN Tee Cable needed to connect between the CAN bus connector and the CAN connector on the AccuBoom cable P/N 115-0171-705.

    6 inch CAN Tee Cable – 115-0171-364
    6 Ft CAN Tee Cable – 115-0171-321
    12 Ft CAN Tee Cable – 115-0171-362
    18 Ft CAN Tee Cable – 115-0171-690
    24 Ft CAN Tee Cable – 115-0171-363

b. Connect the selected length CAN Tee cable to the connector at the end of the CAN system.

Note: If this is an existing system, you will need to remove one of the CAN terminators in order to add on this cable.

c. Connect one connector on the other end of the selected CAN Tee Cable to the CAN connector on the SCS4600 console.

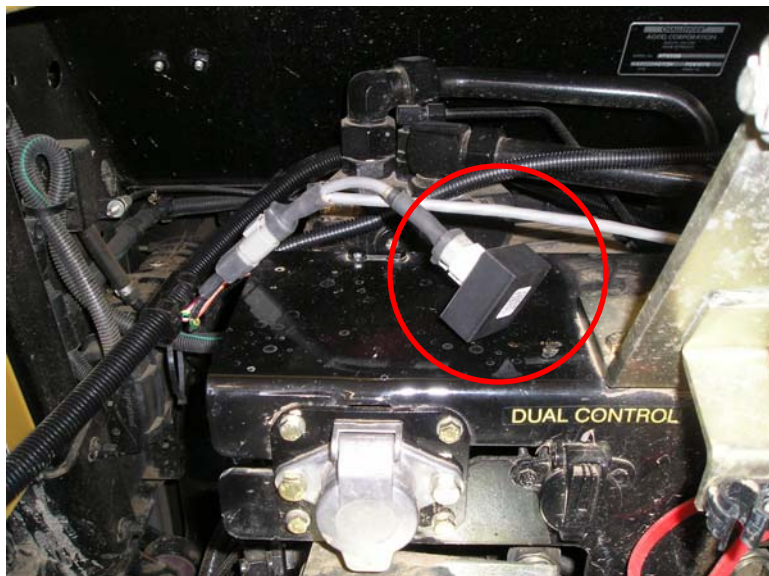   d. Connect a CAN Terminator P/N 063-0172-369 to the remaining open CAN connector near the console.

5. Connect the CAN bus to the AccuBoom system.
    a. Determine the correct length of CAN Tee Cable needed between the remaining connector on the cable leading to the console and the AccuBoom cable CAN Connector.
    b. Remove the CAN Terminator P/N 063-0172-369 and install the selected CAN Tee Cable to the remaining CAN connector on the previously installed CAN Tee Cable.

c. Connect one of the connectors on the other end of the CAN Tee Cable to the CAN connector on the CAN AccuBoom Cable P/N 115-1001-004.

d. Connect a CAN Terminator P/N 063-0172-369 to the remaining open CAN connector.

6. The AccuBoom installation is now complete.

CHAPTER

3

CAN INSTALLATION

If the machine you are working on does not currently have a Raven CAN system, you will need a Kit, CANbus, Terminators & Power Adapter "T" P/N 117-0159-923. This kit contains the CAN Cable Adapter Tee With Power P/N 115-0171-368 and two(2) CANBus Terminators P/N 063-0172-369. To install a Raven CAN system:

7. Connect CAN Tee to power and ground.
   a. Locate a convenient source of power and ground near the control system.
   b. Connect the red wire of the CAN Cable Adapter Tee With Power P/N 115-0171-368 to a source of clean 12 volt power.
   c. Connect the white wire from the CAN Cable Adapter Tee With Power P/N 115-0171-368 to a clean battery ground.

8. Connect the CAN bus to the Controller.
   a. Connect CAN Terminator P/N 063-0172-369 to one connector on the Can Cable Adapter Tee With Power P/N 115-0171-368.

CAN Terminator

   b. Connect the second connector on the CAN Cable Adapter Tee With Power P/N 115-0171-368 to the CAN connector on the Envizio or Viper interface cable.

The CAN bus system is now installed and CAN nodes may be connected to it.
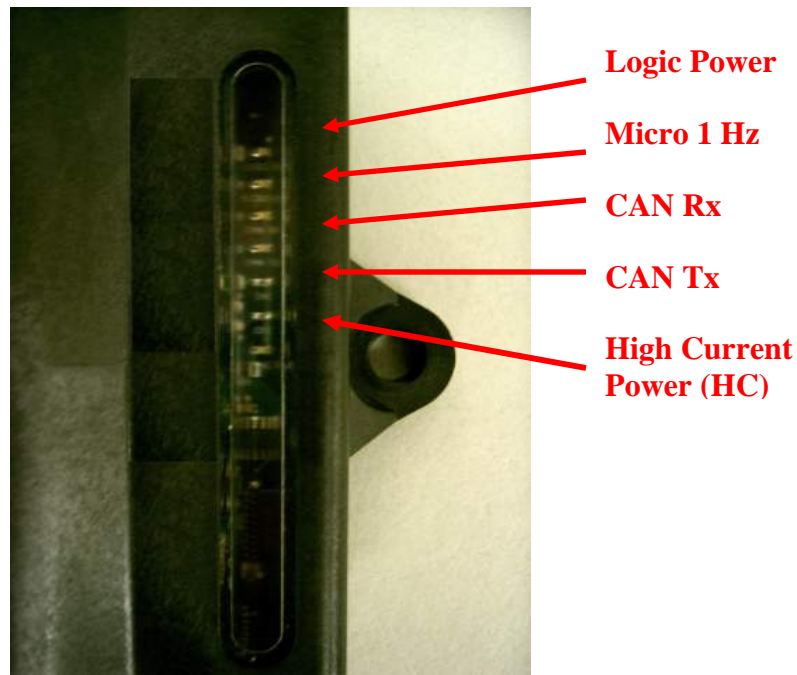
CHAPTER

4

SYSTEM TROUBLESHOOTING

The CAN AccuBoom Node P/N 063-0172-316 has additional features to allow the user to diagnose the AccuBoom system. The CAN AccuBoom node has a plastic window in the case that allows the user to view green diagnostic lights. The picture below shows the positioning and function of each of the LED lights.

Logic Power

Micro 1 Hz

CAN Rx

CAN Tx

High Current Power (HC)

- **Logic Power:** Lit when 12VDC logic power is available at the node.

- **Micro 1 Hz:** Flashes at 1 Hz interval when processor is active.

- **CAN Rx:** Flashes when CAN messages are being received.

- **CAN Tx:** Flashes when CAN messages are being transmitted.

- **High Current Power:** Lit when High Current Power is applied to the node.

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RAVEN INDUSTRIES

LIMITED WARRANTY

WHAT IS COVERED?

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?

This warranty coverage runs for 12 months from the purchase date of your Raven Flow Control Product. This warranty coverage applies only to the original owner and is not transferable.

HOW CAN YOU GET SERVICE?

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

WHAT WILL RAVEN INDUSTRIES DO?

When our inspection proves the warranty claim, we will, at our option, repair or replace the defective part and pay for return freight.

WHAT DOES THIS WARRANTY NOT COVER?

Raven Industries will not assume any expense or liability for repairs made outside our plant without written consent. We are not responsible for damage to any associated equipment or product 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 is authorized to assume for us any liability. 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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