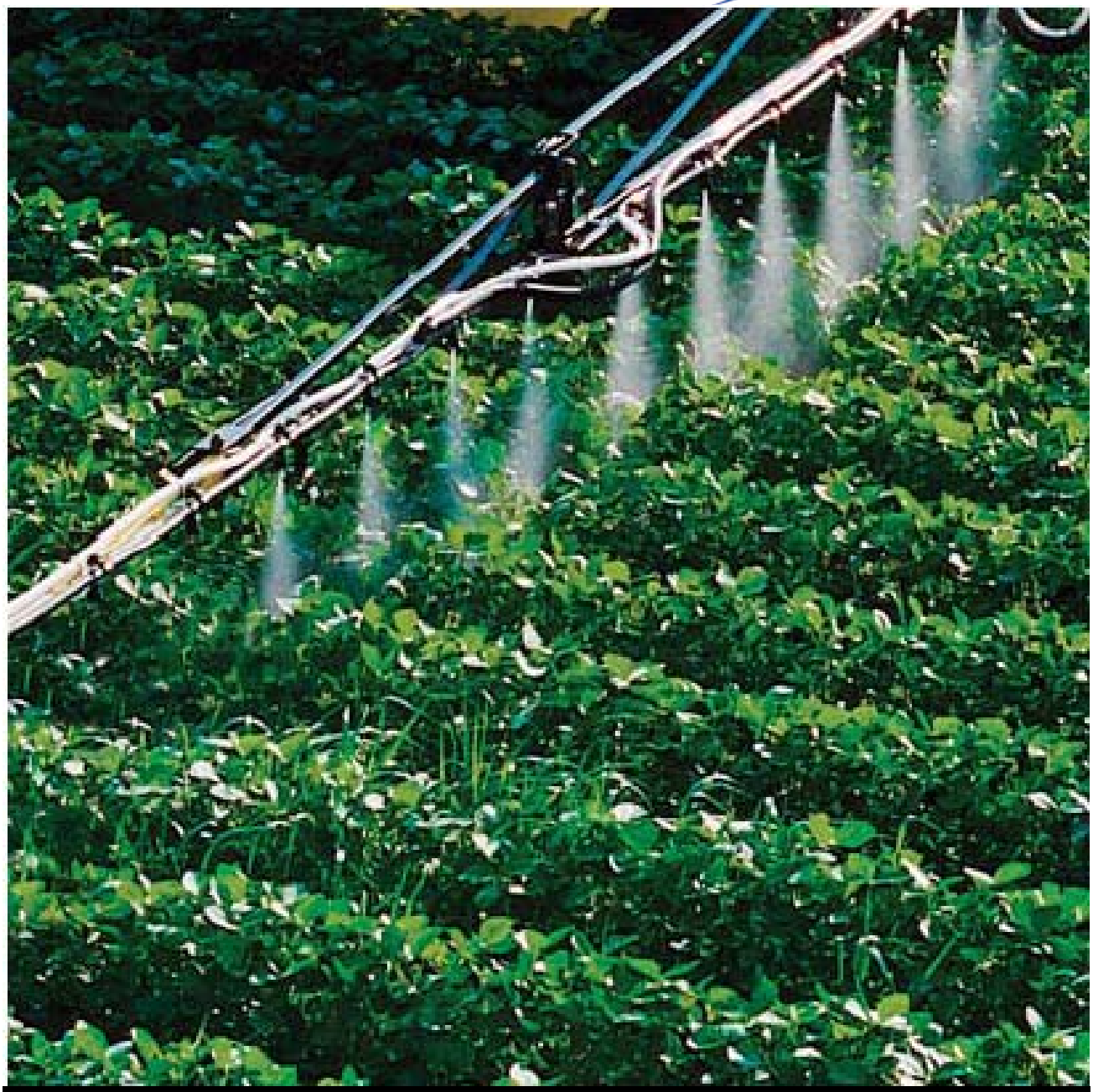
AccuBoom
Automatic Boom Control Option



Parallel Installation Manual

Spra-Coupe 3000 & 4000 Series

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

- Kit, Parallel Accuboom 3000/4000 Series SpraCoupe including:
  - Parallel AccuBoom Control Node – P/N 063-0172-517
  - 5-Channel Driver – P/N 063-0172-753
  - Spra-Coupe 3000/4000 Series AccuBoom Cable – P/N 115-0171-598
  - AccuBoom Control Activation Key – P/N 077-0180-010
  - Spra-Coupe 3000/4000 Parallel AccuBoom Installation Manual – P/N 016-0171-013

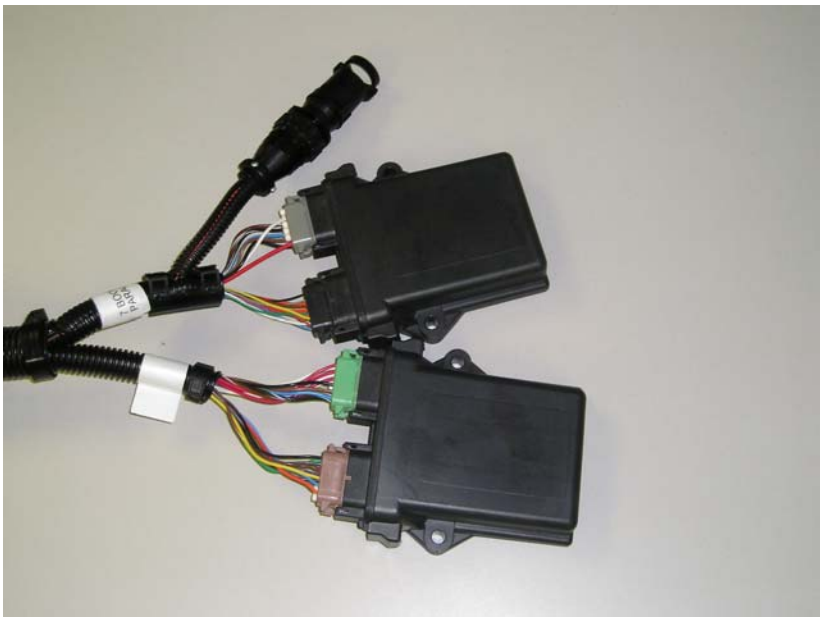
Notes:

CHAPTER 2

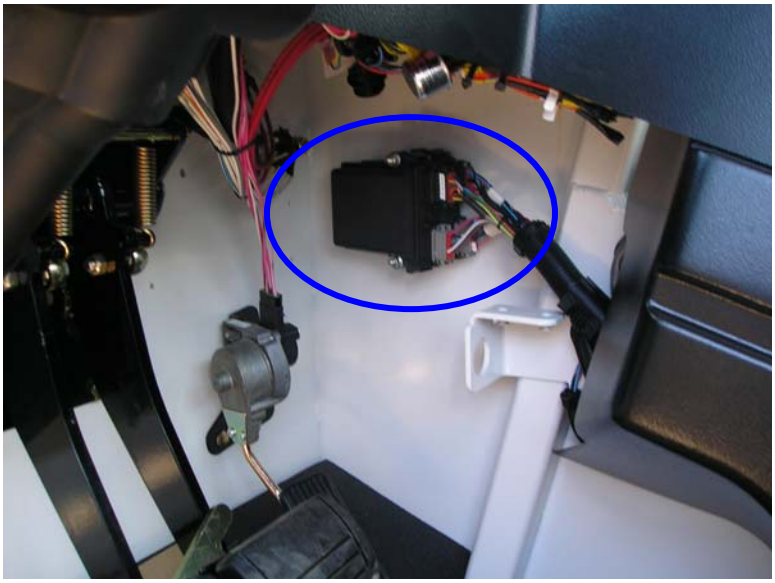
INSTALLATION

Use the following procedure to properly install the AccuBoom system on a Spra-Coupe 3000/4000 Series sprayer using a Raven console connected to a Raven Viper.

1. Connect the AccuBoom Control Node and Relay Box to the AccuBoom Cable.
   a. Connect the Parallel AccuBoom Cable P/N 115-0171-598 to the Parallel AccuBoom Control Node P/N 063-0172-517
   b. Connect the Parallel AccuBoom Cable P/N 115-0171-598 to the 5-Channel Driver P/N 063-0172-753.



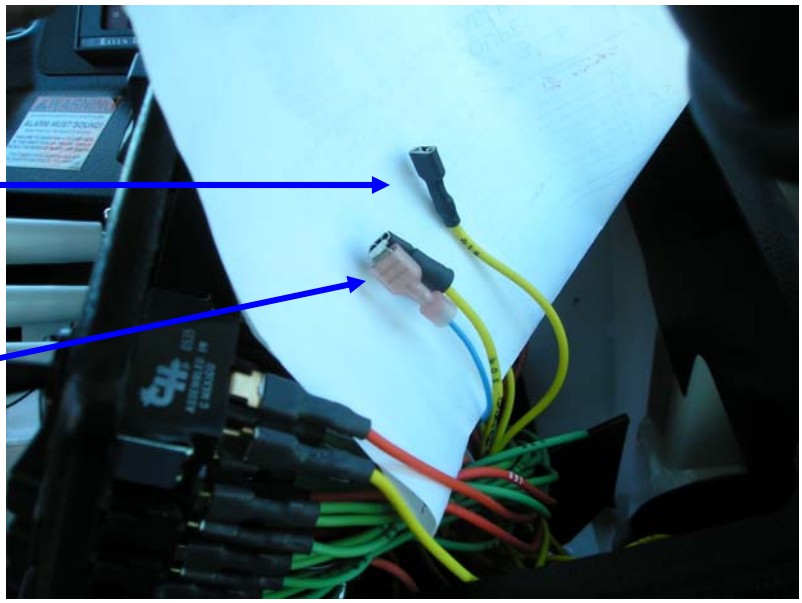
2. Mount the AccuBoom Control Node and Relay Box.
   a. Locate a suitable mounting location on the side of the cab below the console.
   b. Drill two holes to mount the Parallel AccuBoom Control Node and Relay Box.
   c. Mount the Parallel AccuBoom Control Node P/N 063-0172-517 and the 5-Channel Driver P/N 063-0172-753 to the inside of cab below the console.



3. Connect the AccuBoom Cable to the boom switch wires.
   a. Remove the four screws securing the switch panel cover.

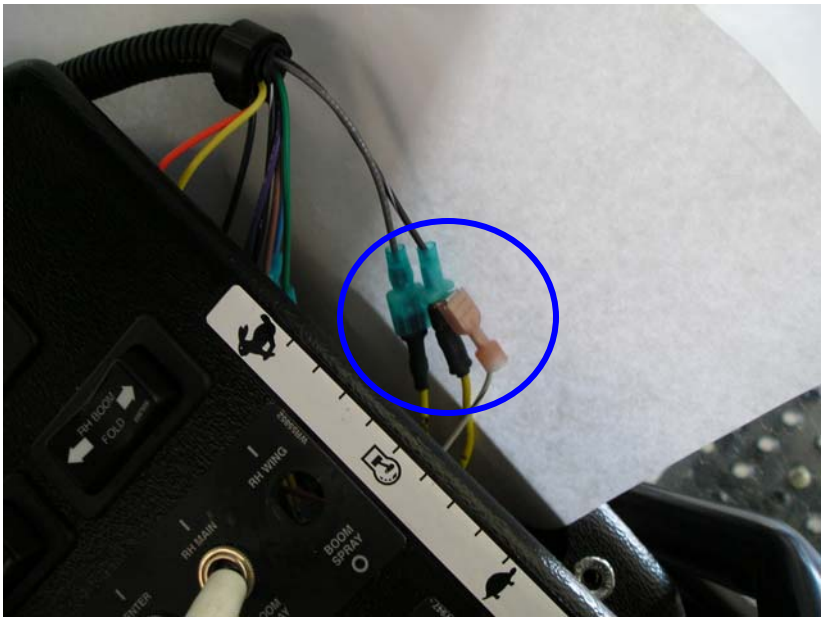
   b. Carefully pull the switch panel upward to access the switches.
   c. Locate the boom wires that parallel with the console wires.

Helpful Hint: One of the switch connectors has an adapter allowing two wires to be connected to the switch connector. This is the positive boom switch wire. The connector this wire is connected to will be used to trigger the relay box in manual mode. Make sure you identify these connectors for later connection.



d. Route the two smaller wire bundles from the AccuBoom Cable P/N 115-0171-598 up into the switch location.

e. Remove each boom section wire from each boom switch and substitute the corresponding boom wire from the Parallel AccuBoom Cable P/N 115-0171-598 following the chart below.



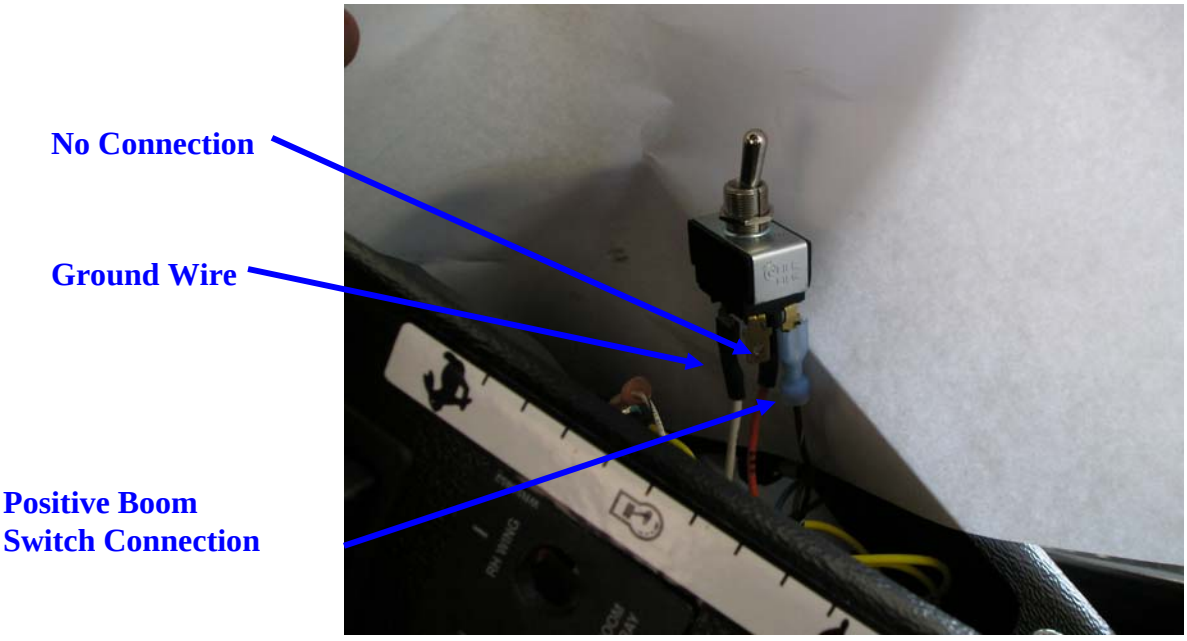
3-Boom System

Boom Number	AccuBoom Wire Color	Connector Shielding	SpraCoupe Wire Number
1 +	Black	Un-Shielded	505B
1 -	Gray	Shielded	506B
2 +	Brown	Un-Shielded	507B
2 -	Yellow	Shielded	508B
3 +	Blue	Un-Shielded	509B
3 -	Orange	Shielded	510B
	Blk/Wht	Un-Shielded	N/C
	Green	Shielded	N/C
	Brn/Wht	Un-Shielded	N/C
	Purple	Shielded	N/C

5-Boom System

Boom Number	AccuBoom Wire Color	Connector Shielding	SpraCoupe Wire Number
1 +	Black	Un-Shielded	503B
1 -	Gray	Shielded	504B
2 +	Brown	Un-Shielded	505B
2 -	Yellow	Shielded	506B
3 +	Blue	Un-Shielded	507B
3 -	Orange	Shielded	508B
4 +	Blk/Wht	Un-Shielded	509B
4 -	Purple	Shielded	510B
5 +	Brn/Wht	Un-Shielded	511B
5 -	Green	Shielded	512B

4. Connect the AccuBoom Cable to the boom control switch.
   a. Connect the AccuBoom control switch wires from the Parallel AccuBoom Cable P/N 115-0171-598 to the previously identified positive boom connection on each boom switch, being sure to follow the Switch Connection chart.
   b. Remove the white ground wire from each switch.



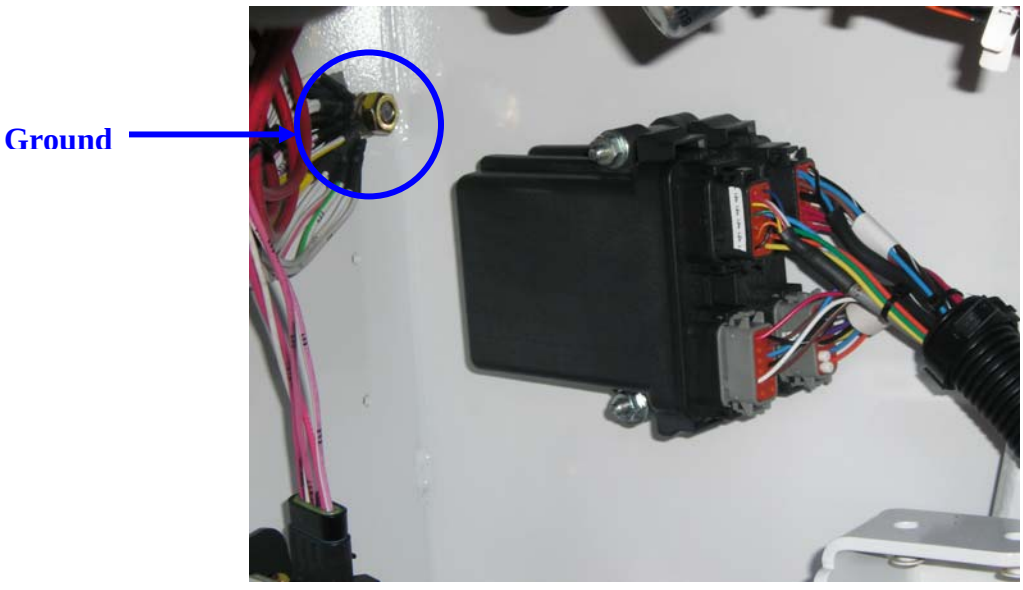
Switch Connection

AccuBoom Wire Color	Boom Number 3-Boom System	Boom Number 5-Boom System
Black	1	1
Brown	2	2
Blue	3	3
Blk/Wht	N/C	4
Brn/Wht	N/C	5

Important: Make sure the ground wire is removed from each spray switch. Failure to remove the ground wire will cause the spray pump fuse to blow when AccuBoom is enabled.

5. Connect Power and Ground to the AccuBoom Cable.
   a. Route the two white wires from the Parallel AccuBoom Cable P/N 115-0171-598 to a secure battery ground.

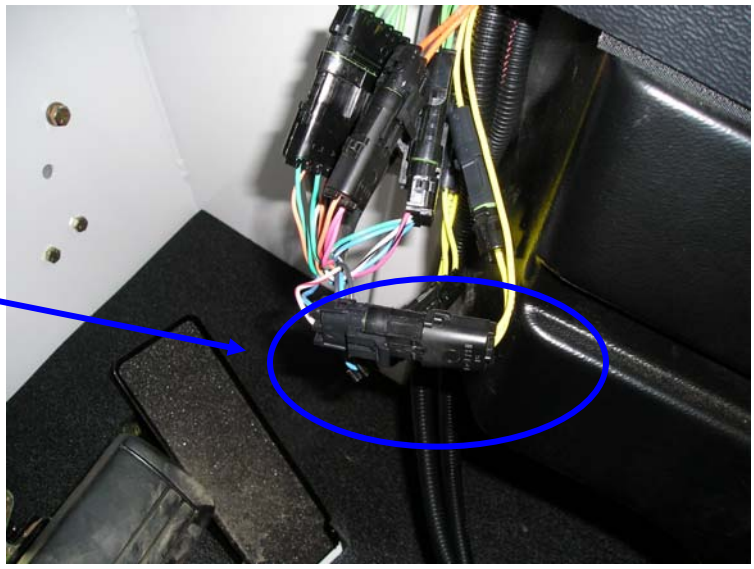
Helpful Hint: The main ground lug is located under the dash in the right hand corner of the cab.



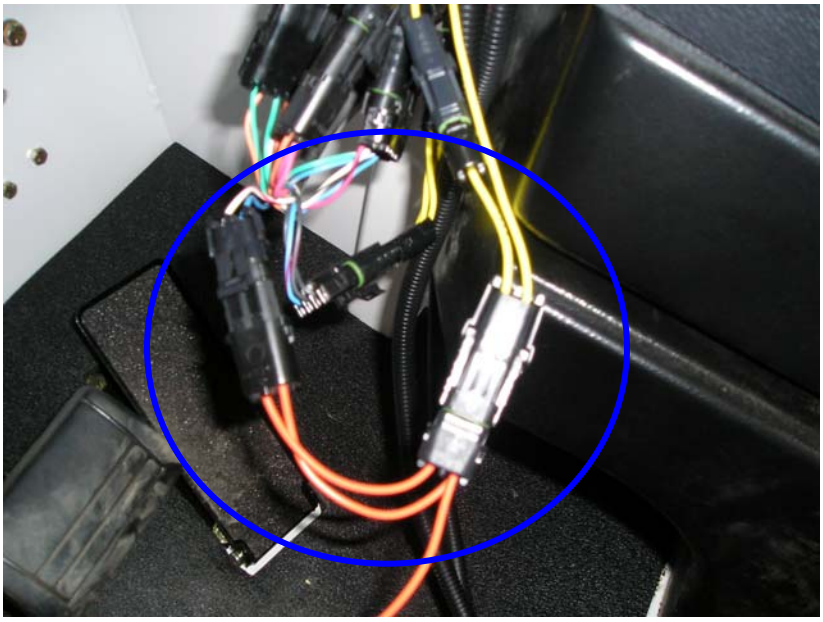
b. Connect the high current power wire (10 ga red wire in Parallel AccuBoom Cable P/N 115-0171-598) to a fused connection from the fuse box.

c. Connect the logic power wire (small red wire in Parallel Accuboom Cable P/N 115-0171-598) to a source of clean switched power.

Master Spray/Hold Switch Connection



6. Connect the orange wire from the Parallel AccuBoom Cable P/N 115-0171-598 to the master boom enable switch on the machine.
   a. Pull the joystick cable connectors out from under the side console.
   b. Identify the master spray/hold switch connector.
   c. Disconnect the two pin weatherpac connectors.
   d. Plug in the orange “Tee” connector from the Parallel AccuBoom Cable P/N 115-0171-598 into the weatherpac connectors.
   e. Return the wires and connectors to their location under the side console.



7. Connect the 15 pin D-sub connector from the Parallel AccuBoom Cable P/N 115-0171-598 to the Auxil1ary connector on the Viper 115-0171-256 interface cable.

8. The Parallel AccuBoom hardware installation is now complete. Install the Activation Key on the Viper and th e system is ready for operation.

Notes:

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.

Spra-Coupe 3000 & 4000 Series AccuBoom Parallel Installation Manual (P/N 016-0171-013 Rev C 1/07

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