

RAVEN

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AutoBoom™ Operator's Manual



PowerGlide Calibration

CHAPTER

1

INTRODUCTION

Congratulations on your purchase of the Raven PowerGlide Autoboom system! This system is designed to provide worry-free operation of your hydraulically controlled booms. Once set up, your system is very easy to use and requires almost no attention. When you first install your system, it will need to be calibrated. To calibrate your system, make sure it is warmed up and that the hydraulic oil is at normal operating temperature. If you fail to warm the system, it may not perform properly. It is also important to make sure the machine is running at a sufficient engine speed so that the hydraulic pump is able to supply full flow to the system.

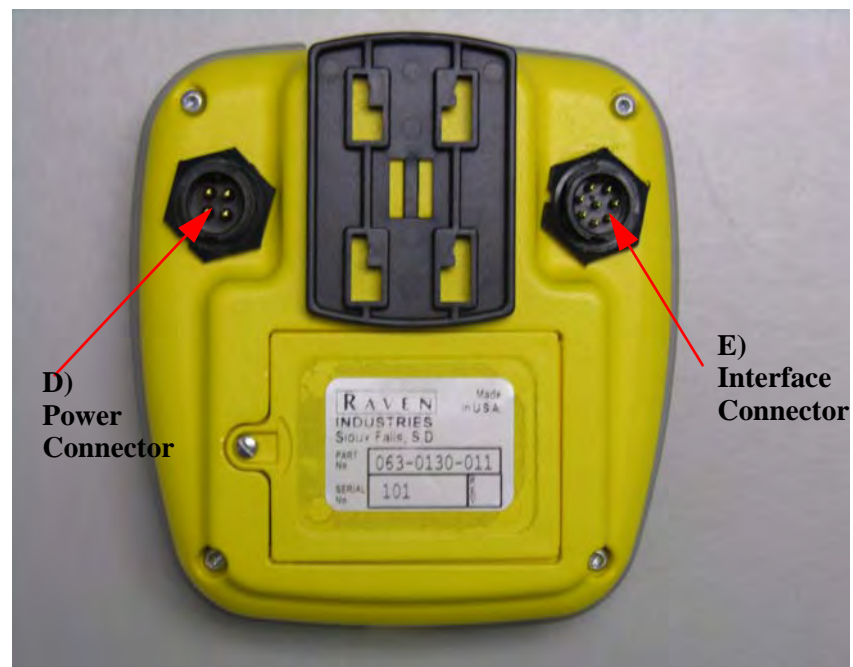
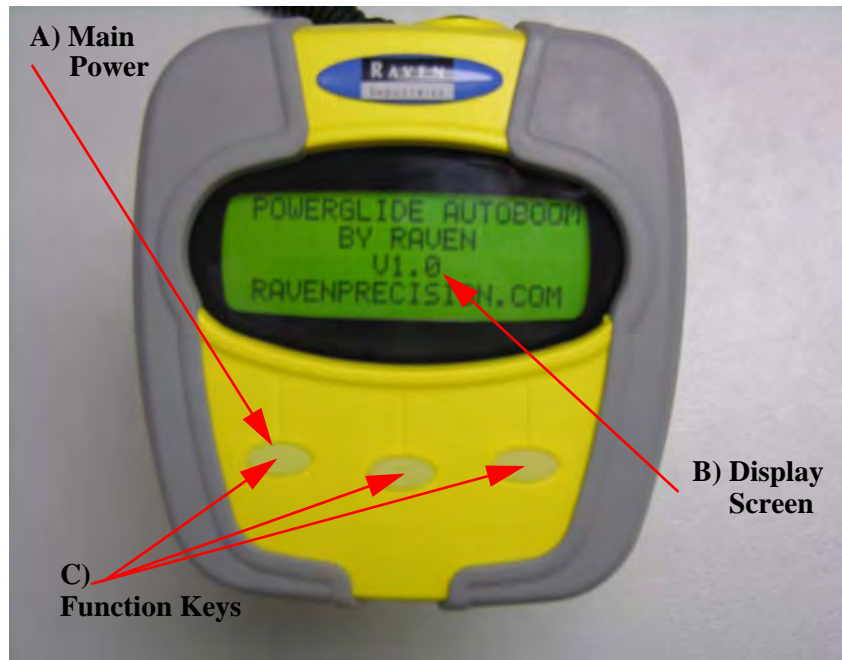
The following instructions are designed to assist you in the proper calibration of your PowerGlide system. Installation should be complete before calibrating the system. If you have any questions regarding the installation of the system, see the Autoboom Installation Manual for the specific machine you are using.



Important: For open center hydraulic models, all calibration procedures should be done at full engine RPM.

Controller Description

- A) **Main Power Switch** - Turns power on and off
- B) **Display Screen**
- C) **Function Keys**
- D) **Power connection**
- E) **Interface connection**



CHAPTER

2

CALIBRATION

Calibrating a System

Use this procedure if this is the first time you are calibrating the system.



Important: Before beginning calibration, ensure that:

- the hydraulic installation has been completed
- the wheels are attached to the boom and are on the ground
- the system hydraulics are warmed to normal operating temperatures
- the engine RPMs are adjusted to a level that allows full hydraulic capacity
- Pull type sprayers need to have the tractor hydraulics running in a continuous flow mode.

1. Unfold the booms and lower them until the boom mounted wheels are resting on the ground.

2. Power up the controller. A boot screen appears for about 5 seconds and then proceeds to the operators screen.

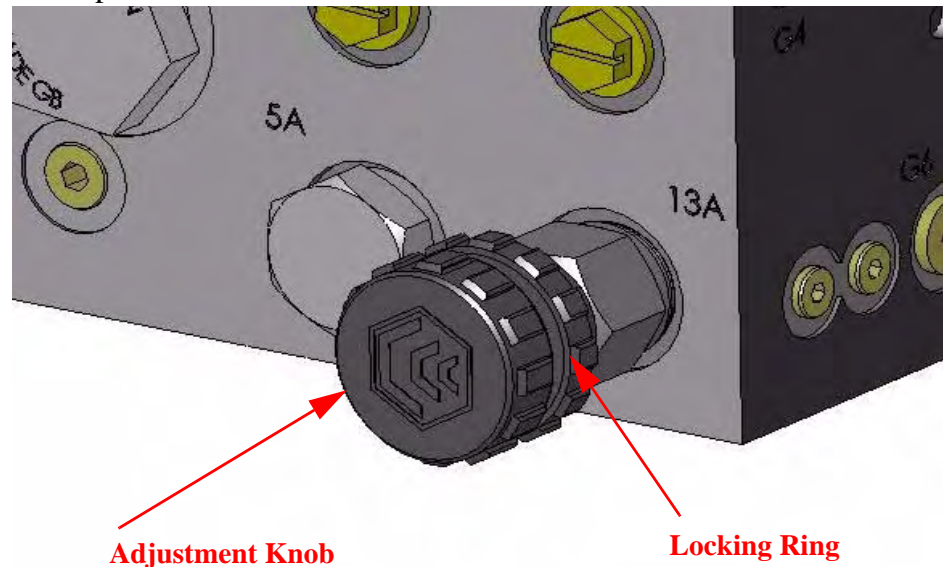


3. Enable the left and right booms with the controller by pressing the middle button for the left boom and the far right button for the right boom.



4. Go to the Autoboom valve.

5. If the booms did not start to rise, turn the adjustment knob clockwise until the booms begin to rise. If the booms did rise initially, go to step #6.



6. Turn the Autoboom valve counter-clockwise until the booms begin to fall.
7. Once the booms are on the ground grab the tip of the boom and lift it into the air. The effort to lift each boom should be minimal. The lift weight should be approximately 50 to 90lbs. If the booms are too heavy turn the cartridge valve adjustment knob clockwise until the boom tip lift weight is in the proper range.

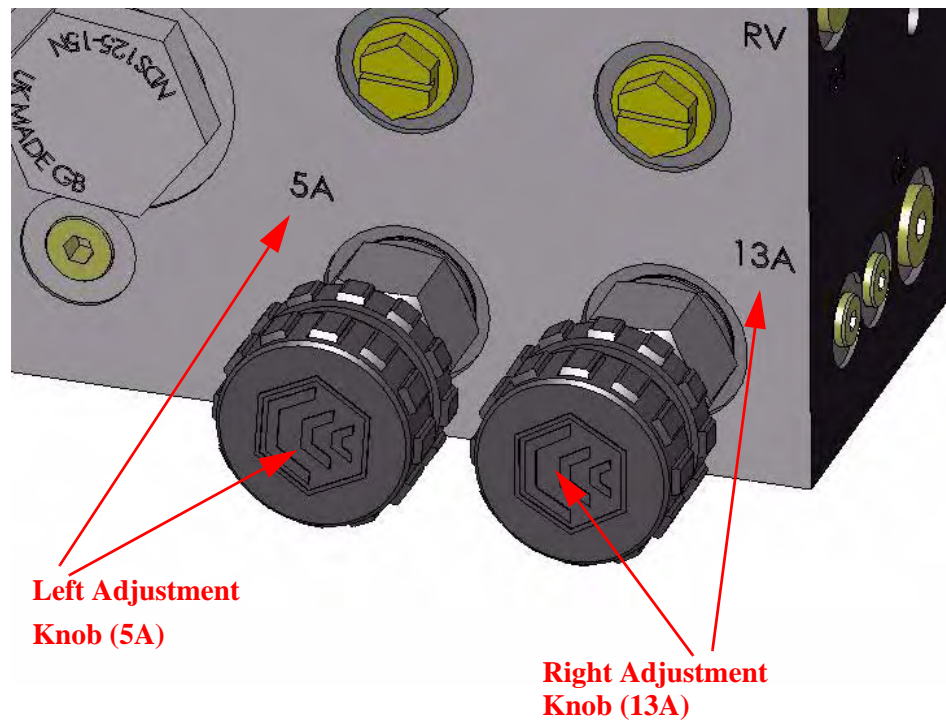


Remember: When performing this step, one boom will go down before the other.

8. The cartridge valve adjustment is now complete. Tighten the locking ring.



Helpful Hint: On some systems, a second cartridge may be used to allow for individual adjustment of the left and right booms. For systems with two adjustment cartridges, repeat step 3 through 8 for the Left and Right boom cartridge.



This completes the calibration of the PowerGlide system. Continue to the System Operation section for additional information.

C H A P T E R

3

SYSTEM OPERATION

Operation of the PowerGlide Autoboom system is very simple. Assuming that the previous chapters' instructions were followed and that the Autoboom is installed and operational, only a few basic operations are necessary for the system.

Enabling Autoboom



Important: Always have the wheels on the ground when initially activating the PowerGlide Autoboom system.

To Enable:

1. Press the Disable/Enable switch for the left and right side individually. These switches will enable the booms independently, which will allow an operator to run a boom manually along a fence line, grove, etc. and allow the opposite boom to be in automatic operation.
2. Tap the down function on the joystick. Holding the down function is not necessary. If down is held for more than half a second, the boom will only go down for as long as it was held until the switch was released.

To Disable (There are TWO ways of disabling PowerGlide Autoboom system):

1. Press the Disable/Enable switch for the left and right side individually. These switches will disable the booms independently.

OR

2. Press the “Up” functions on the sprayer boom control.

Notes:

CHAPTER

4

TROUBLESHOOTING

**Question/
Answer**

1. *How do I keep my wheel from pivoting on the ground when I turn around?*

Answer: On ground that has been worked, it is recommended that the operator lift the inside boom, when making turns on the ends of the field. Nothing is being hurt if this isn't done, but the wheel may dig when pivoting.

2. *My boom is too heavy. How do I adjust this?*

Answer: Refer to the Calibration chapter in this manual. Turning the cartridge adjustment knob on the valve will set how much weight is on the wheel. Clockwise will make them lighter and counterclockwise will make them heavier. Note the locking ring must be loosened before making any adjustments and tightened when complete.

3. *Why do I not see the enable indication come on when I press the boom down switch on my sprayer joystick?*

Answer: Some sprayers are not equipped with "Down Coils". In these cases, depress the enable function on the controller for the left and right booms to enable the system.

4. *How heavy should my booms be?*

Answer: During the calibration process, a test should be done to verify that the booms are no heavier than 100 lbs. A simple way of checking this is to enable the Autoboom system and lift each boom tip to ensure the lift weight is in the proper range. If too heavy, see question 2 on this page.

5. *How do I disable Autoboom?*

Answer: Either activate the left and right boom up switches on the sprayer joystick to disable the PowerGlide Autoboom system or press the left and right disable function keys on the controller.

RAVEN

RAVEN INDUSTRIES

Limited Warranty

What Does this Warranty Cover?

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

How Long is the Coverage Period?

Raven Applied Technology 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.

R A V E N

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