



Laser leveling control



## OPERATING MANUAL

Model 305

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### Power Up the system

Push the **SELECT** key; you will see a 3 digit software code followed by flashing 00.00



### Center Switch

Holding down the **center** switch increases the numbers on the + side, and changes the sensor center accordingly. The panel reads 00.10 when the center on the receiver is down .10 from the center. Each time the laser beam hits the receiver at that location, the green center will light on the panel.



### Capture Range

Center offset settings on the 361 receiver is .25 above or below the receiver center. Total reception is + - .34



## Select Button

The **SELECT** key is used to power up the unit and scroll through the operating modes.

**SET AUTOMAST**  
**ACTIVATE AUTOMAST**  
**POWER OFF**



## Set Automast

Push the **SELECT** key until the light next to **SET AUTOMAST** is lit. Push the + key until 00.10 shows in the LED window. Again, push the select key until the light next to **ACTIVATE AUTOMAST** is lit.



## Activate Automast

Each time the + key is pushed the sensor will travel .10, push + again and .20 will display. The – key brings the numbers down .10. The maximum range will be .20 above or below center.



## Menu Section

To enter the menu section, push and hold the **SELECT** key then push the **AUTOBLABE** key

The LED display will show a flashing number on the left and a solid number on the right. The number on the left is the menu number. The number on the right is the menu value. When the number is flashing, each push of the + key changes the menu item number. The – key brings the numbers down.

To change the menu values, push the **SELECT** key until the numbers on the right flash. Again, you will use the + key to change the menu values. + runs the numbers up – runs the numbers down.



## Menu Settings

To test near center valve speed, enter menu section (Hold down the select button and push the auto blade button) Push up and down on the blade toggle. If the blade is too fast in either direction lower the number settings. If too slow raise the numeric settings, menu item 1 & 2

Near center speed should be about half the fast up / down (outside menu setting)

**0** = Center width refers to the center channel width. 0-20 is the range, 20 would be a maximum width, approximately 1/100.

**1**= Minimum Valve speed down and refers to starting speed near center. The range is 0 to 20.

**2**= Minimum Valve speed up 0 to 20, 20 is the fastest. Valve speed up is usually set a little faster. The operator can determine the speed with the installer.

**3**= Blade error speed. This is the blade speed control. 0-40 is the range. The higher the number, the faster the blade moves out of center. As a general rule, this will be the only menu item changed after initial setting have been established.

**4**= Elevation units. 01 inch, 02 feet, 03 meters

**5**= Valve type. 00 standard, 01 proportional

**6**= Survey type. 00 manual, 01 automatic, 02 continues. Because of the capture range on the sensor, this feature would be used on rare occasions.

**7**= Slow down speed close to center

**8**= Max down speed close to center

**9**= Not used

Menu items 0,1,2,4,5,6,7and 8 are set by the installer to the satisfaction of the operator; they rarely change once set. Menu item number 3 is blade speed, and would be most often changed by the operator. To save the changes and exit the menu section, push the **AUTOBLADE** button. Changes have been saved. You should now be in standard mode, no lights under the + key.

## Grading

Set your blade on a grade hub and, move the sensor to center; the green light on panel will light. Hit the **AUTOBLADE** button, the light above will illuminate, and the hydraulics will take over blade control.



The operator can use the tractor blade controls to raise the blade even when the system is in **AUTOBLADE**. The receiver will continue to track once he lowers the blade to grade.



If the blade is not reacting to the operators satisfaction, enter the menu section by pushing and holding **SELECT** key then push **AUTOBLADE** key. The numbers on the left should be flashing. Push the + key; until you see a flashing 3. Push the select key; numbers on the right flash. Now use the + key to change the value. The higher the number the faster the blade moves.



### **Trouble shooting**

#### **RPM on laser should be set at max**

There are a number of variables while grading; speed, terrain, other lasers on site, all of which can affect the performance of the system, If the blade has a lot of vertical movement, the sensor will continually try to stay on grade. A rapid up could cause the blade to plunge.

Another laser on the job could cause the sensor to track that laser. Laser reflecting off a mirrored surface could create a signal the laser receiver would track.



**MENU REVISION HAVE BEEN MADE AND MAY NOT  
MATCH PREVIUOSLY MANUFACTURED PANELS**