



## Row-Pro Down Pressure Control

# INSTALLATION INSTRUCTIONS

---





## ROW-PRO DOWN PRESSURE SETUP

The IntelliAg system monitors and adjusts down pressure to ensure the same amount of force is applied to each row unit to maintain consistent seed depth placement. The operator sets the desired down pressure into the IntelliAg virtual terminal and then sets the spring pressure above the target down pressure.

**NOTE:** *Row-Pro Down Pressure is a limited automatic adjustment that works in conjunction with the down pressure springs. It does not independently control the full range of down pressure.*

Down pressure setup can only be accessed in User Level 2 or Level 3 mode.

### REQUIREMENTS

The Down Pressure feature is an option available for use with the IntelliAg system and requires the following components to operate:

- Down Pressure Module that interfaces with 2 load cells
- A maximum of 3 load cell modules can be connected
- Down pressure module harness

### SETUP

Down Pressure setup is configured at the Module Configuration screen.

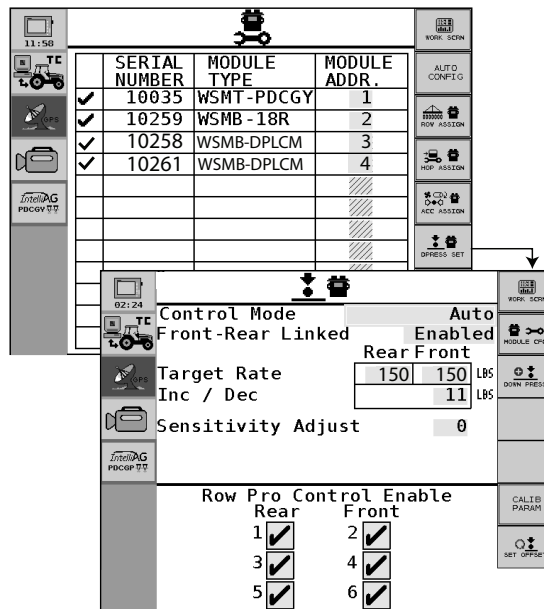
1. At the Main Work screen, press the **Next Page** button.
2. Press the **Module Cfg** button.
3. At the Module Configuration screen, press the **DPress Set** button.
4. At the Down Pressure Set screen, enter desired constants.

**NOTE:** *The Row-Pro system is only compatible with Great Plains planters.*



**Figure 1**

**Down Pressure Setup**





## CONTROL MODE

Down pressure has two control modes:

- Automatic
- Manual

### Automatic

When control mode is set to Automatic, down pressure adjusts automatically during operation based on feedback sensor readings.

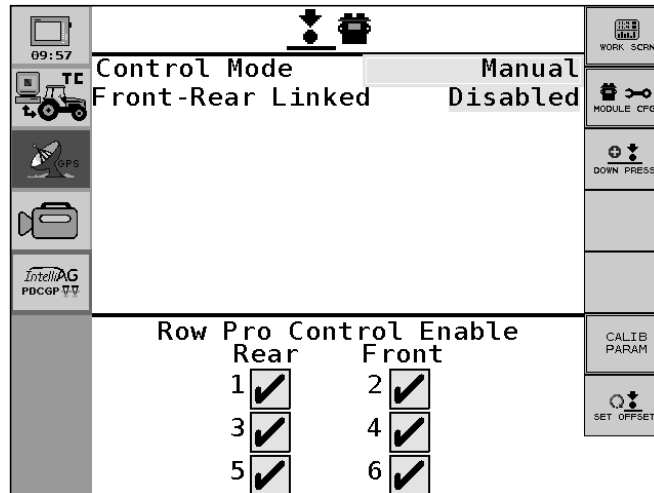
### Manual

When control mode is set to Manual, down pressure operates at the set pressure setting and will only change when pressure is adjusted by the operator on the Main Work screen using the **Increase/Decrease** buttons.

Figure 2



Manual Control Mode





## FRONT- REAR LINKED

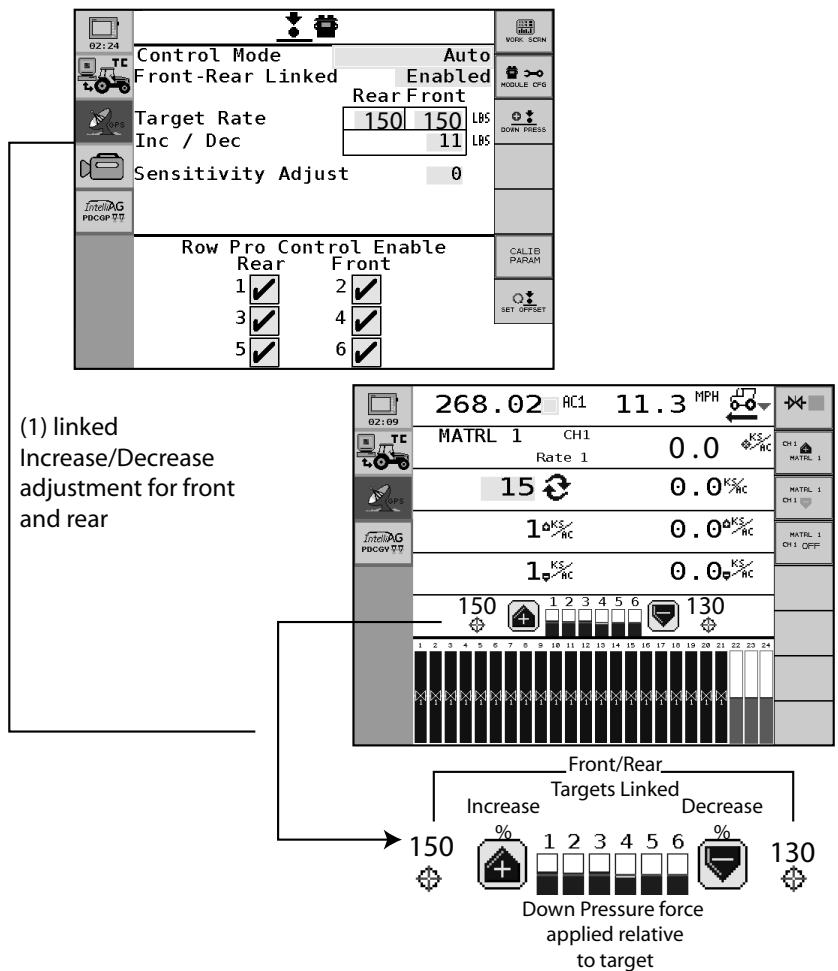
### Enabled

Links the front and rear row units so that the same pressure increase/decrease set at this screen is applied to front/rear row units. When enabled only one increase/decrease value is entered.

Bar graph indicators on the Main Work screen identify the amount of force applied in relation to the target set. In this mode, only one set of **Increase/Decrease** buttons appear on the Main Work screen that will adjust the percentage for both front and rear.

Figure 3

Front-Rear Linkage Enabled



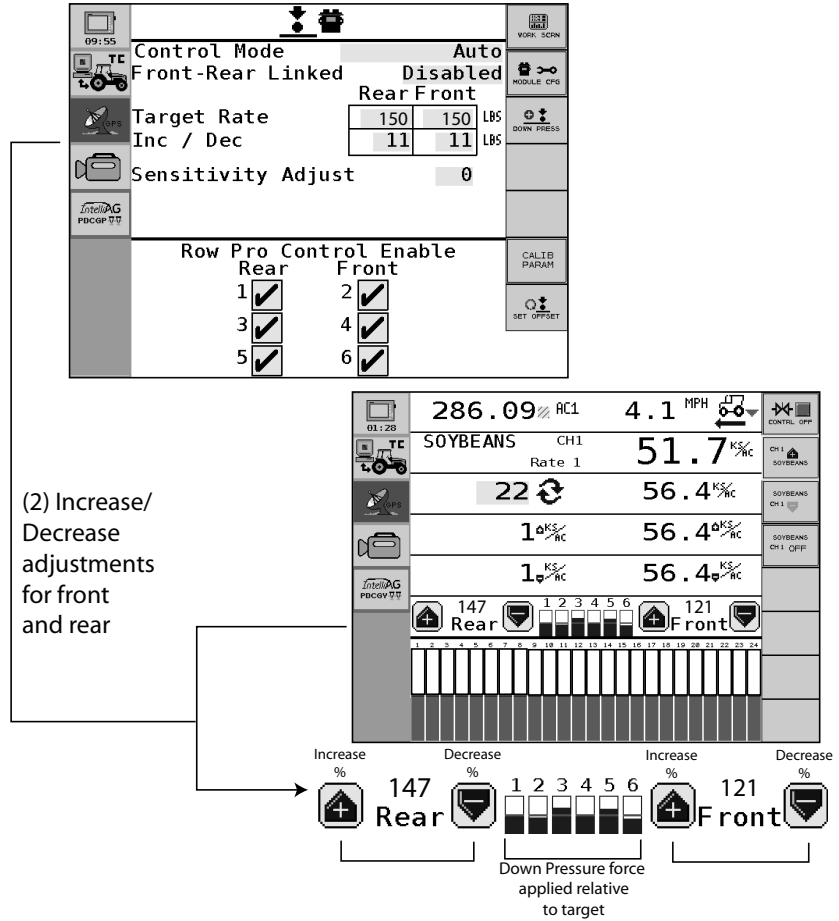


**Disabled**

The increase/decrease rate for front and rear row units is not linked and two values must be entered at this screen. When disabled, two sets of **Increase/Decrease** buttons appear on the Main Work screen that allows adjustment of front and rear rates independently.

**Figure 4**

**Front-Rear Linkage Disabled**



**TARGET RATE**

Target rate is the desired amount of down pressure (lbs). The system will monitor and adjust pressure to meet the defined rate set at this screen.

**INCREASE/DECREASE RATE**

The increase/decrease rate establishes a set amount of pressure change for each increase/decrease. This value is applied to the target rate while on the Main Work screen. Refer to Front-Rear Linked description for linking front/rear row units.



### SENSITIVITY ADJUST

Sensitivity Adjust sets the response time of the control channel. Increasing the adjustment above zero provides a quicker response time; decreasing the adjustment to a negative number provides a slower response time.

### CAUTION

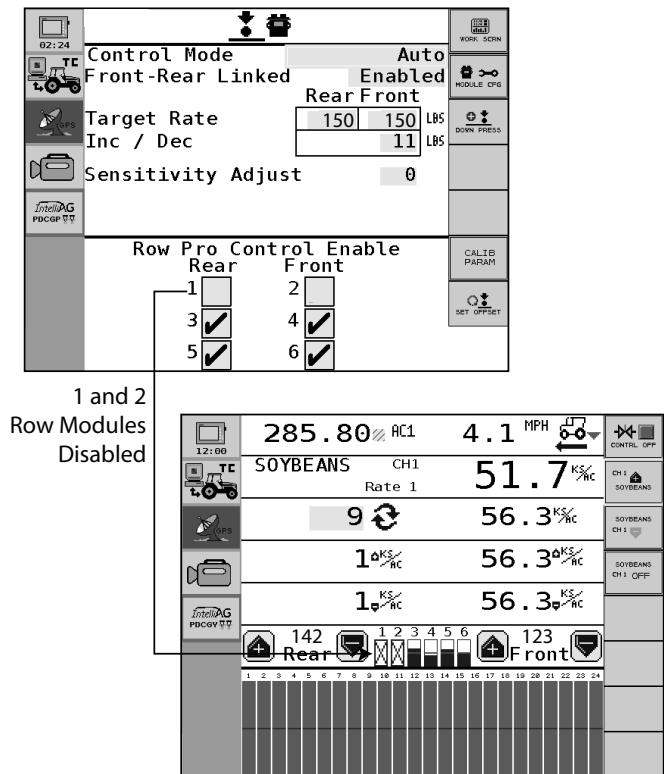
Use caution when selecting a sensitivity adjustment. A rate set too high could potentially cause equipment damage.

### DISABLE DOWN PRESSURE MODULES

Modules interfacing with feedback sensors can be independently disabled so that down pressure from disabled sensors do not display or are used in adjustment calculations. Modules disabled are ignored by the system and will not report down pressure data or react to soil conditions.

Figure 5

Down Pressure Modules





## RESET OFFSET VALUE

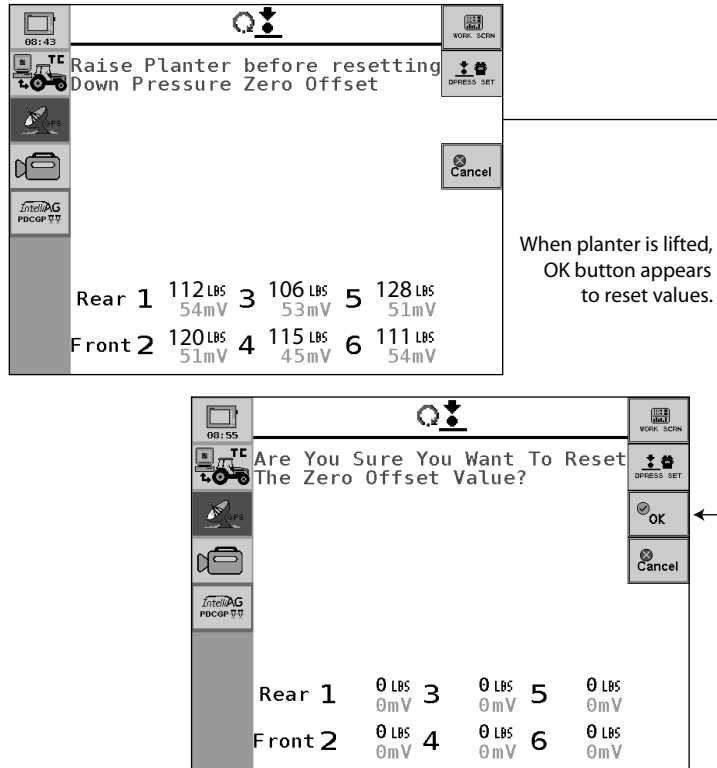
Resetting Offset Values clears previous down pressure readings and resets values to zero.

### Reset Offset Values:

1. At the Main Work screen, press the **Next Page** button.
2. Press the **Module Cfg** button.
3. At the Module Configuration screen, press the **Dpress Set** button.
4. At the Down Pressure Setting screen, press the **OK** button to clear values.

**IMPORTANT:** The implement must be lifted and the implement lift switch in the up state before the OK button appears and values can be cleared.

**Figure 6**  
**Reset Offset Values**



**NOTE:** Verify that side depth wheels are not stuck in a position to leave a residual pressure on the load cell.



## ENABLE DOWN PRESSURE ON WORK SCREEN

To view down pressure functionality on the Main Work screen, the Down Pressure data item must be selected on the Work Configuration screen.

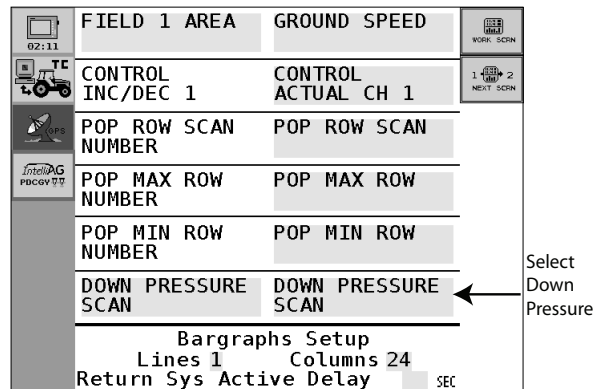
### To select Down Pressure:

1. At the Main Work screen, press the **Next Page** button and select the **Screen Config** button.
2. Press a highlighted box and scroll through Data Items until Down Pressure Scan appears.
3. Press the **Checkmark** button to select.
4. Press the **Work Screen** button to return to the Main Work screen.



**Figure 7**

### Work Screen Configuration



## DOWN PRESSURE DIAGNOSTICS

The Down Pressure Diagnostics screen is informational only and used for troubleshooting purposes.

Screen displays:

- Load cell voltage/weight of 6 inputs
- Rear/front average
- Bar graphs displaying real-time monitoring of 6 inputs

### To view Down Pressure Diagnostics:

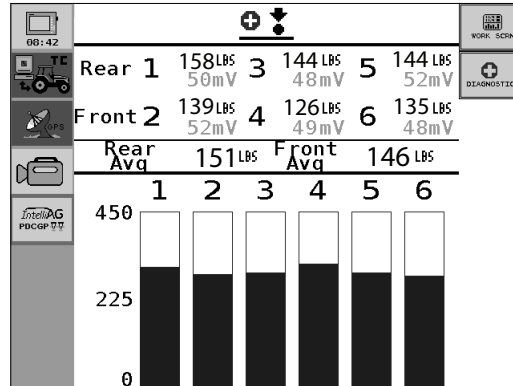
1. At the Main Work screen, press the **Module Cfg** button.
2. At the Module Configuration screen, press the **DPress Set** button.
3. At the Down Pressure Setting screen, press the **Down Press** button.





Figure 8

Down Pressure Diagnostics Screen





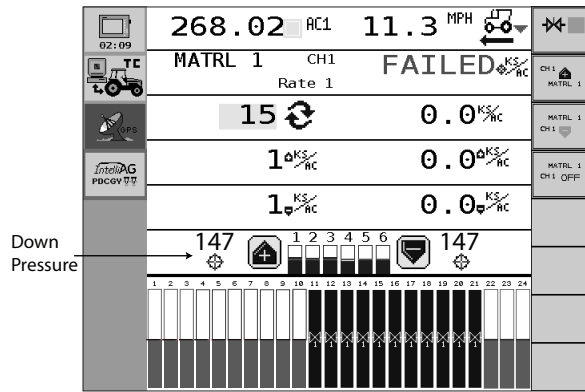
## OPERATION

Constants defined at the Down Pressure Setup screen will monitor and control down pressure and display on the Main Work screen when the master switch is turned ON.

**NOTE:** *Row-Pro Down Pressure is a limited automatic adjustment that works in conjunction with the down pressure springs. It does not independently control the full range of down pressure .*

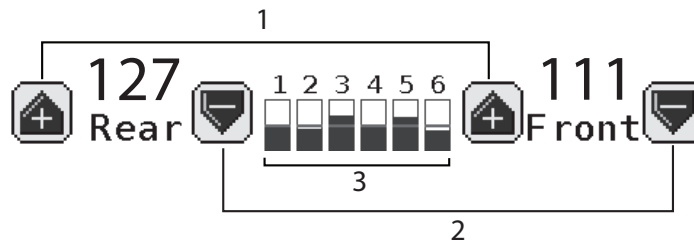
The Down Pressure data item has to be selected in the Work Screen Configuration before appearing on the Main Work screen. Refer to Viewing Down Pressure on Work Screen.

**Figure 9**  
**Main Work Screen with Down Pressure Enabled**



- 1) Press the increase (+) button on the Main Work screen to increase the target rate. The rate will change based on the increase setting defined at the Setup screen.
- 2) Press the decrease (-) button on the Main Work screen to decrease the target rate. The rate will change based on the decrease setting defined at the Setup screen.
- 3) Down pressure bar graph indicators display the amount of force being applied relative to the target rate defined at the Setup screen. Number of bar graphs shown is based on the number of modules installed and inputs enabled.

**Figure 10**  
**Down Pressure**







## TROUBLESHOOTING

Alarms will display on the Virtual Terminal with an audible alarm. The alarm can be silenced by pressing the **Alarm Cancel** or **ESC** button. Detailed descriptions of the alarm can be viewed by pressing the **Alarm Detail** button. Some alarm conditions display instructions to aid in troubleshooting the situation. Each alarm type has an associated alarm number for reference.

### DOWN PRESSURE UNABLE TO CONTROL

#### Alarm 265

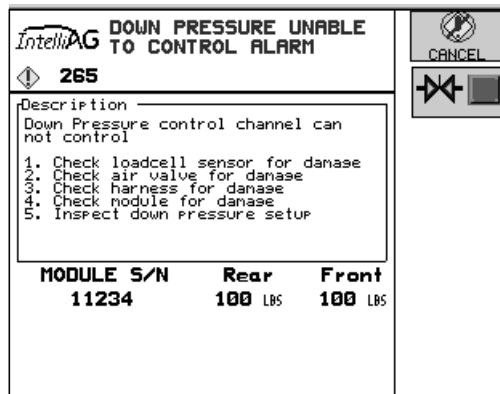
The system is unable to monitor or control down pressure. Full screen alarm identifies the module unable to control.

#### Corrective Action

- Check for sufficient tank pressure.
- Check load cell sensor for damage.
- Check air valve for damage.
- Inspect module and module harness for damage.
- Verify constants entered at the Down Pressure Setup screen are correct.

**Figure 11**

**Down Pressure Unable to Control Alarm**



Contact DICKEY-john Technical Support Group at 1-800-637-3302 for troubleshooting assistance or questions.



*Dealers have the responsibility of calling to the attention of their customers the following warranty prior to acceptance of an order from their customer for any DICKEY-john product.*

## **DICKEY-john® WARRANTY**

DICKEY-john warrants to the original purchaser for use that, if any part of the product proves to be defective in material or workmanship within one year from date of original installation, and is returned to DICKEY-john within 30 days after such defect is discovered, DICKEY-john will (at our option) either replace or repair said part. This warranty does not apply to damage resulting from misuse, neglect, accident, or improper installation or maintenance; any expenses or liability for repairs made by outside parties without DICKEY-john's written consent; damage to any associated equipment; or lost profits or special damages. Said part will not be considered defective if it substantially fulfills the performance expectations. THE FOREGOING WARRANTY IS EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES OF MERCHANTABILITY, FITNESS FOR PURPOSE, AND OF ANY OTHER TYPE, WHETHER EXPRESS OR IMPLIED. DICKEY-john neither assumes nor authorizes anyone to assume for it any other obligation or liability in connection with said part and will not be liable for consequential damages. Purchaser accepts these terms and warranty limitations unless the product is returned within fifteen days for full refund of purchase price.

**For DICKEY-john Service Department, call  
1-800-637-3302 in either the U.S.A. or Canada**



**Headquarters:**

5200 Dickey-john Road, Auburn, IL USA 62615  
TEL: 217 438 3371, FAX: 217 438 6012, WEB: [www.dickey-john.com](http://www.dickey-john.com)

**Europe:**

DICKEY-john Europe S.A.S, 165, boulevard de Valmy, 92706 – Colombes – France  
TEL: 33 (0) 1 41 19 21 80, FAX: 33 (0) 1 47 86 00 07 WEB: [www.dickey-john.eu](http://www.dickey-john.eu)