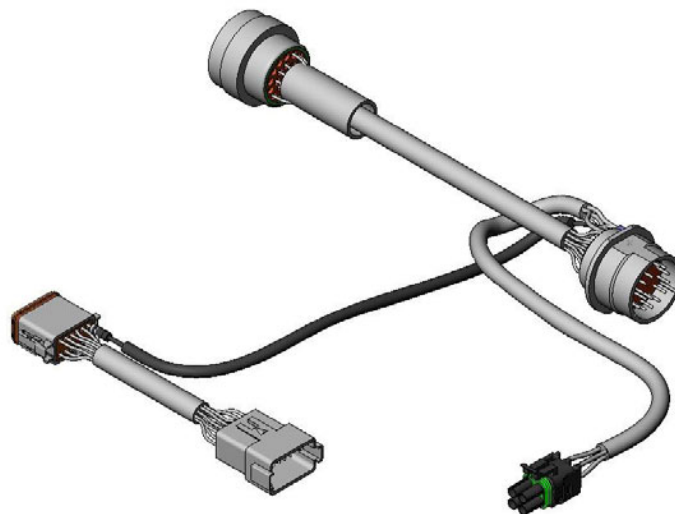




CASE AFX
Reel Height Controller Installation



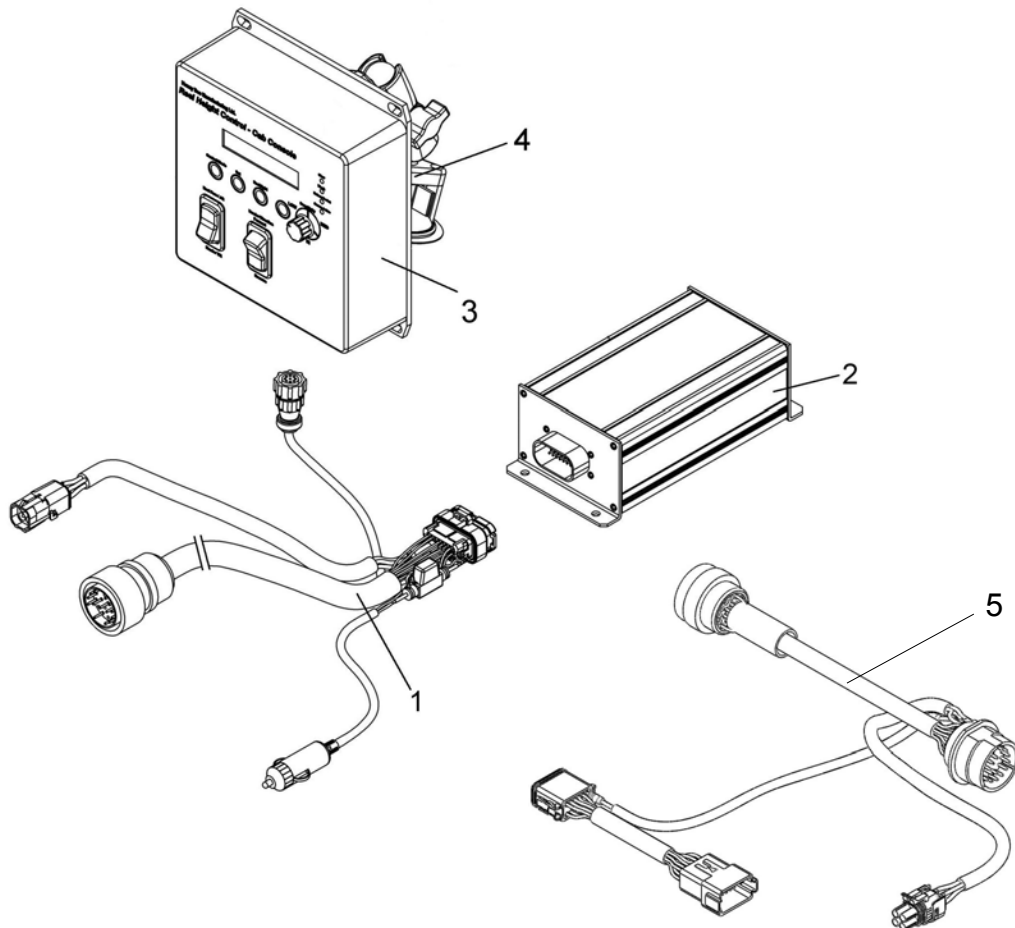


Preparation

Unpack the unit, and check the parts supplied against the packing list enclosed.
Organize the components, and plan the best locations for the readout, and control box

Parts

1. Wire Harness
2. Controller
3. Readout
4. Suction Arm
5. Interrupt Harness





This Page Is Intentionally Left Blank

Assembly

1. For simplicity, the lead lengths shown here do not represent the actual harness lengths, but the appearance of the plugs is accurate.

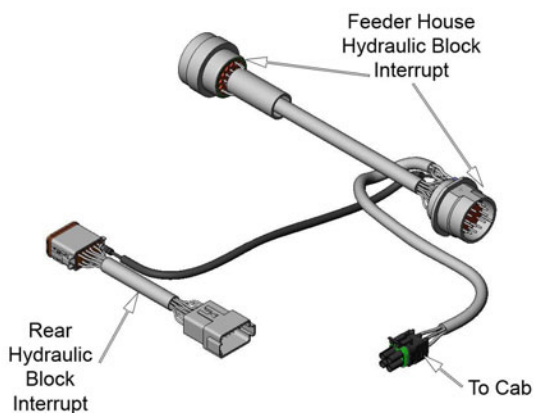


Illustration 1: Interrupt Harness - Plan View

2. Remove the safety panel from the left side of the feeder house to expose the main hydraulic control block.

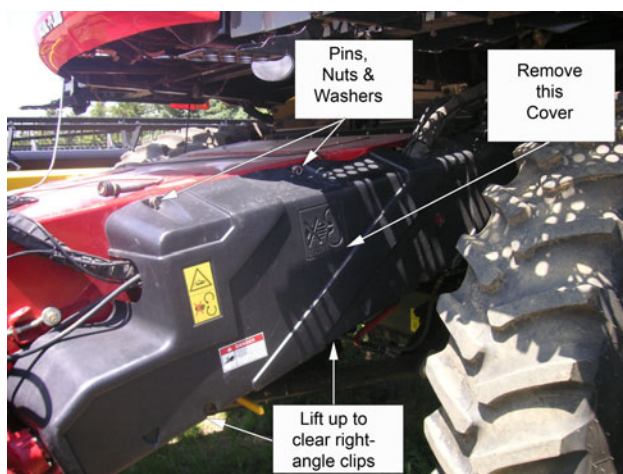


Illustration 2: Main Hydraulic Block Access Panels

3. The forward hydraulic control block is located toward the rear of the feeder house, and above the drive shaft. Locate the two control solenoids, and their connector plugs, at the rear of this block.

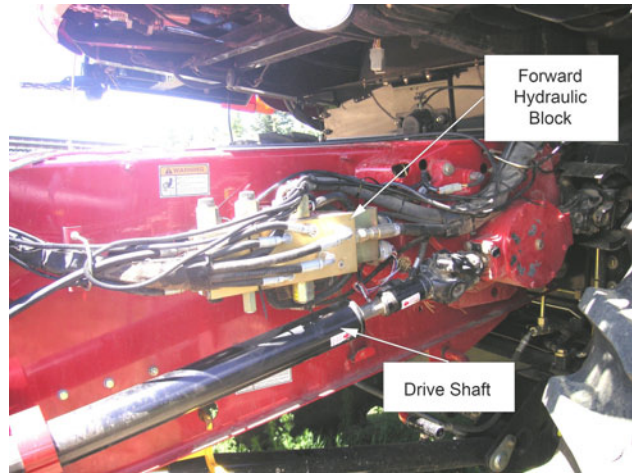


Illustration 3: Forward Hydraulic Block

4. Turn the lock collar counter-clockwise, and disconnect the combine harness plug from the bottom receptacle. Attach the Interrupt harness as shown, one end to the receptacle in the hydraulic block, the other to the plug you disconnected previously.
5. The plugs will not fit if you accidentally attempt a reverse connection. You must match, and align the plug to the socket correctly for it to connect. Turn the collar clockwise to lock the connection. Tie the cable back securely with zip-ties to prevent it from contacting the drive shaft.

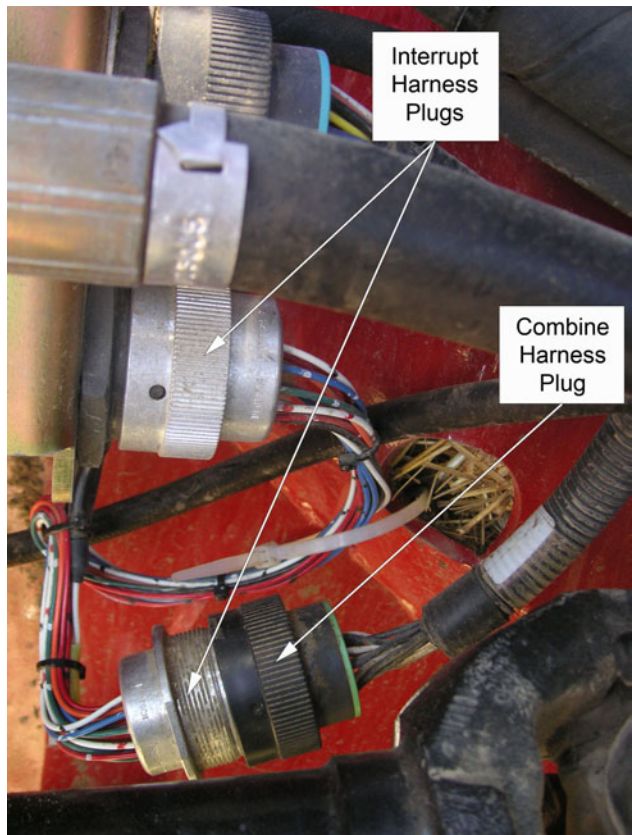


Illustration 4: Locations of Interrupt Plugs

6. Feed the smaller diameter cable with 2 rectangular plugs toward the rear of the combine, and the heavier lead with one square plug to the cab.
7. Begin by routing the wiring harness to the cab. Run the lead underneath the cab to the right-hand side, and secure to existing harness or to cross members with zip-ties. A simple means of accessing the cab with this cable is to open the right-hand door and feed the cable in at a corner. This method avoids drilling holes in the cab floor.
8. Route the smaller cable along the left side of the combine, toward the rear, and the rear hydraulic control block, attaching it to cross members or other hoses and wiring as required. Ensure the wire cannot become entangled in any moving parts.

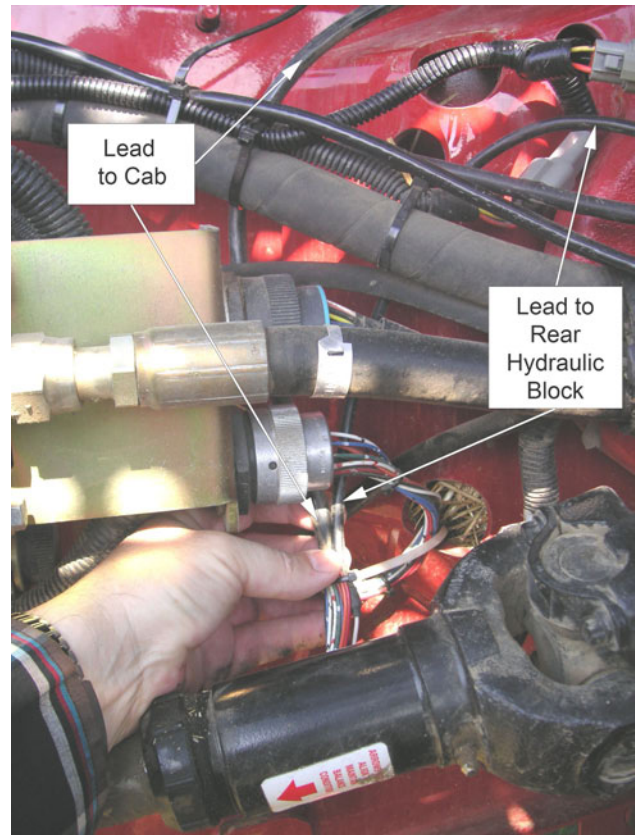
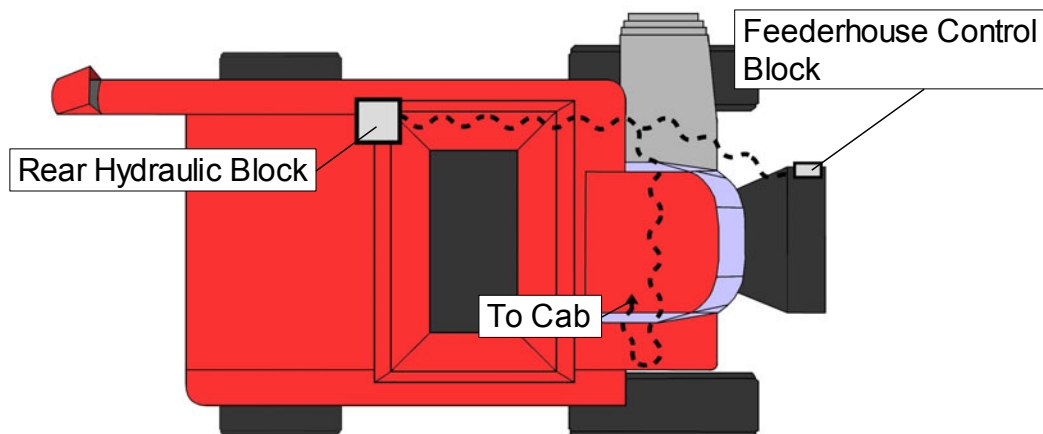


Illustration 5: Leads from Feeder House Interrupt



9. Locate the rear hydraulic control block on the left side, behind the rear panel door, above the batteries. Finish routing the rear interrupt cabling to the bottom of this control block.

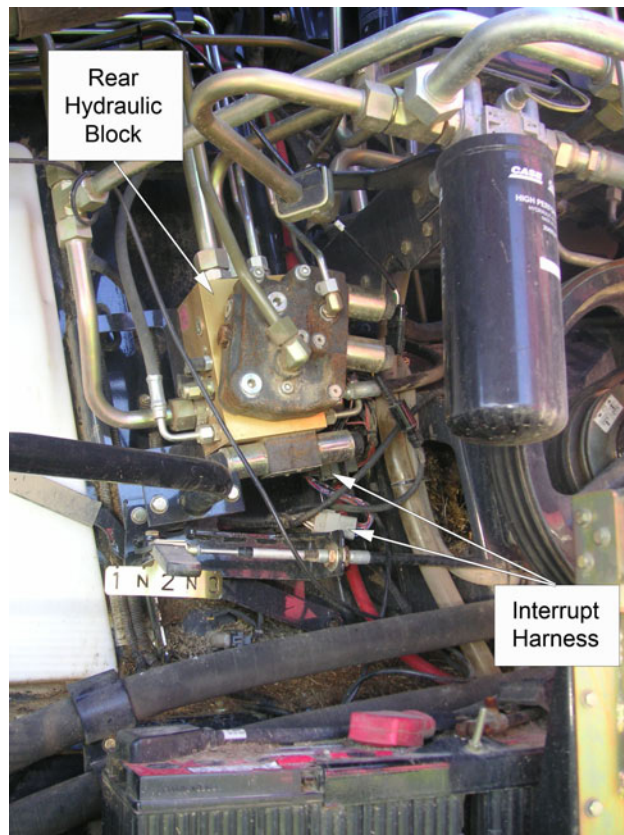


Illustration 6: Rear Hydraulic Control Block

10. Lift the snap tabs, and disconnect the rectangular combine harness plug, located on the lower right side of the rear hydraulic control block, and connect one end of the interrupt harness to this plug.

11. Connect the other end of the interrupt harness to the receptacle where you previously removed the combine harness plug.

12. These connections must lock in place with the snap tabs.

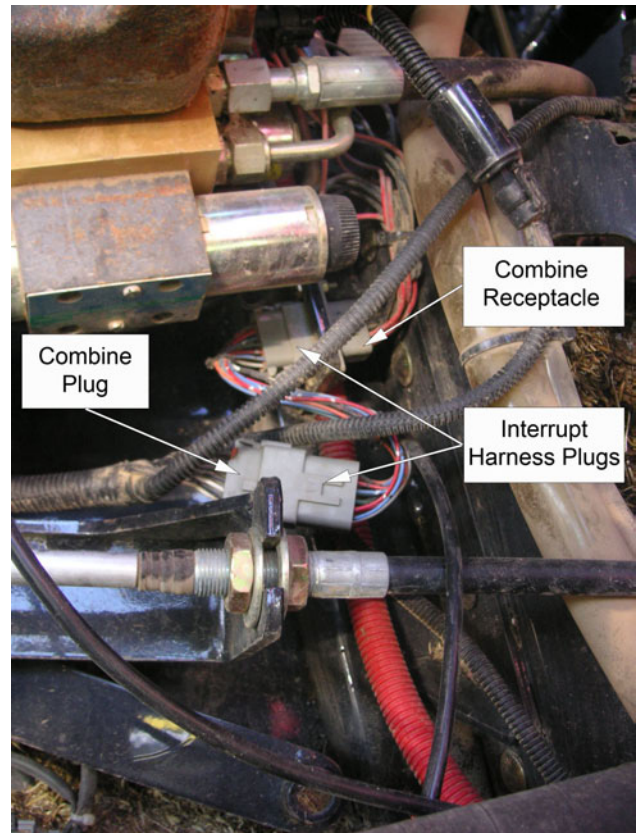


Illustration 7: Rear Interrupt Harness Connection

13. Run the remaining interrupt harness wire up into the cab, following a route that keeps it away from any moving parts that may damage the wire. Use zip ties to secure.

14. Mount the readout and controller in the cab in safe locations.

15. Complete the connections in the cab, taking care to align the plugs correctly. The plugs are designed to fit in only one way. With some care in aligning them, they should connect easily, and snap, or lock into position with a slight turn.

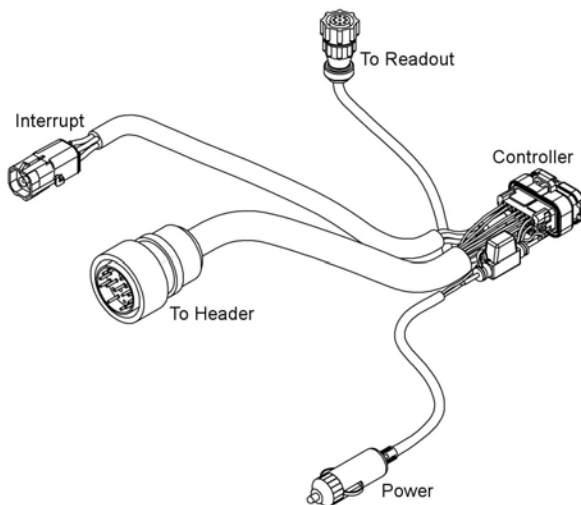


Illustration 8: Readout Mounted in Cab

16. Connect the “cigarette lighter” style plug to the power-point located at the right-rear of the cabin, just below, and to the right of the ignition key.

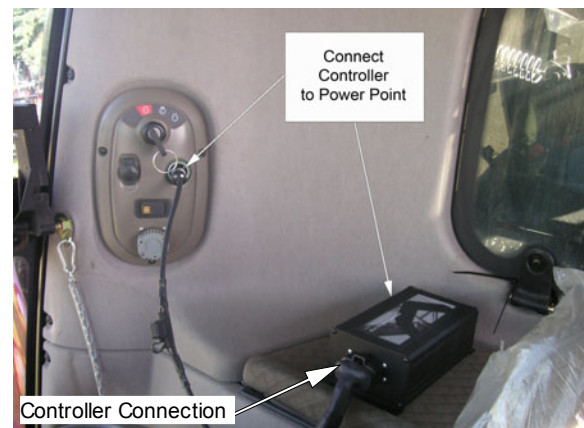


Illustration 9: Controller Mounted in Cab

17. Connect the lead from the cable you brought up into the cab from the feeder house to the second line out from the power supply.

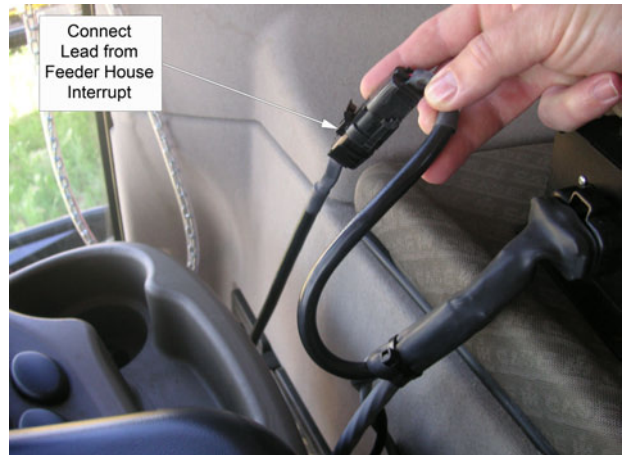


Illustration 10: Connecting the Feeder House Lead

18. Run the Header connector up to the multi coupler on the header. Ensure that you run the wire in such a way that it is not situated in an area where it may become damaged.

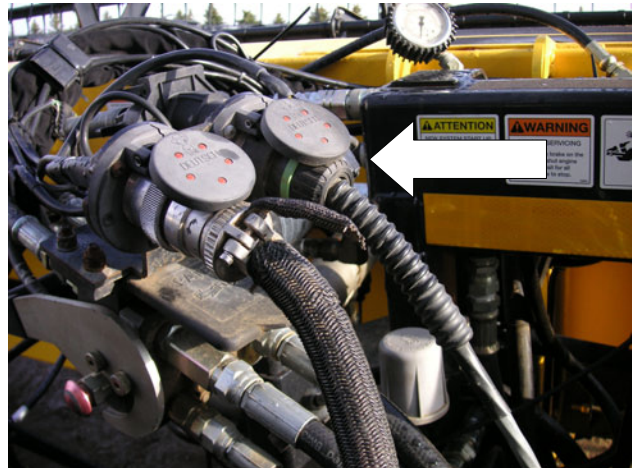


Illustration 11: Header Connection

Configuring Reel Height Control

After the interrupt harness, readout and controller are properly installed:

1. Start the combine and turn on the reel height controller.
2. The display on the readout should say “HoldAuto”. Press the “Control Mode” button so the display reads “Manual”.
3. Lift/Lower the table to regular cutting height, and lift the reel to your safety point (operating height).
4. Press and hold “Set” until “Set Point Stored” is displayed on the readout.
5. Press “Control Mode” once more so the display reverts back to “HoldAuto”.
6. The light labeled “block” should be on at this time, raise the reel slightly and it will turn off.



The “block” light indicates that the auto reel height sensors are tripped.

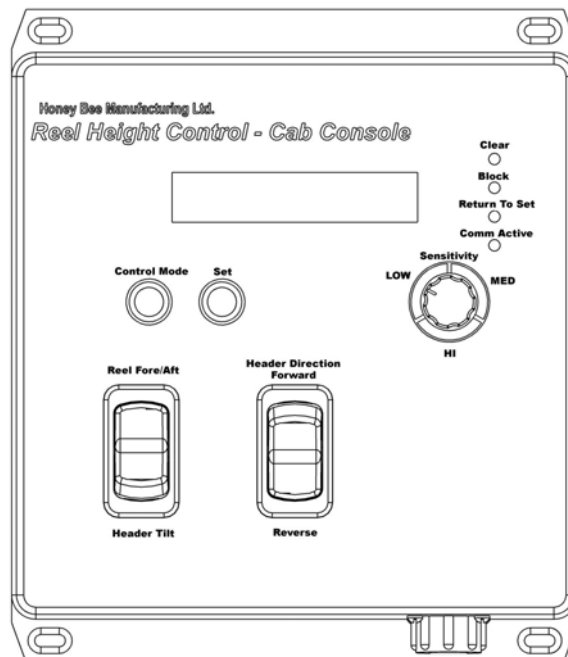


Illustration 12: Automatic Reel Height Control Readout



Operation

If the cutter bar lifts above the set height, the reel should automatically raise up to avoid touching the cutting system. **For this reason, the cutter bar must not be locked in a stationary position and must be 'floating' for the automatic reel height control to function.** The closer the reel is to the cutter bar, the higher the sensitivity should be set on the readout.

Note:

Always turn off the controller when the combine is not in use, as it will be using power from the battery even if the combine is turned off.

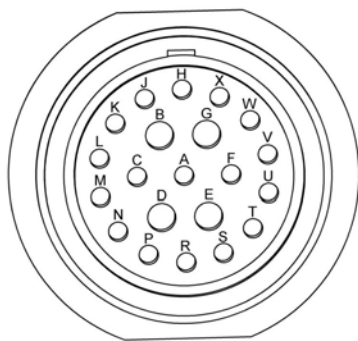
The Automatic Reel Height Control will not function until the knife drive is running at a minimum of 20 rpm. This is to ensure that it does not trigger when someone is working on the unit.

Testing

Start the unit, and calibrate the sensor as detailed in the Header Operator's Manual. Test, and accustom yourself to, the operation of the controls. If any problems arise, proceed to the troubleshooting section on the following pages.

Diagnostics

Refer to the following pin-out diagram for testing of specific circuits:



Electrical Plug Pin Layout
(Female End)

- A - Signal From LH Sensor (LH Green)
- C - Signal From RH Sensor (RH Green)
- P - Positive (White LH & RH)
- S - Negative (Black LH & RH)

NOTE: The Pin layout on the male plug is a mirror image of the female plug.

Illustration 13: Main Connector Pin Usage

Troubleshooting

Reel Not Moving Far Enough and/or Moving Too Far

If the reel is not moving far enough when the sensors are activated, loosen the adjuster bolt and slide the link arm along the central arm towards the front of the header. Then re-tighten the bolt. This will increase the motion of the reel.

If the reel is moving too far, then loosen the adjuster bolt, slide the link arm back towards the rear of the header and re-tighten the bolt. This will decrease the motion of the reel.

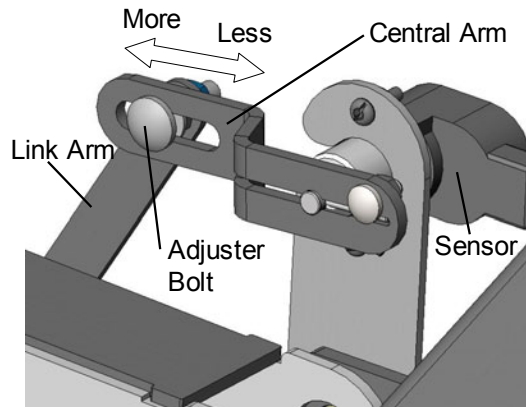


Illustration 14: Reel Arm Sensor

Reel Will Not Raise and/or Lower

Examining the Readout & Electrical Connections

The first thing you should troubleshoot is the electrical connections. The easiest way to do this is to monitor the Reel Height Control Readout.

When the **Reel Raise** controls are activated you should see the **up arrow** (▲) displayed for both the input and the output.

When the **Reel Lower** controls are activated you should see the **down arrow** (▼) displayed for both the input and the output.

If the arrows do not match, or if only one arrow is shown then there is a problem with the electrical connections. Inspect all electrical connections to ensure they are properly installed. Refer to *Illustration 13: Main Connector Pin Usage* if necessary.

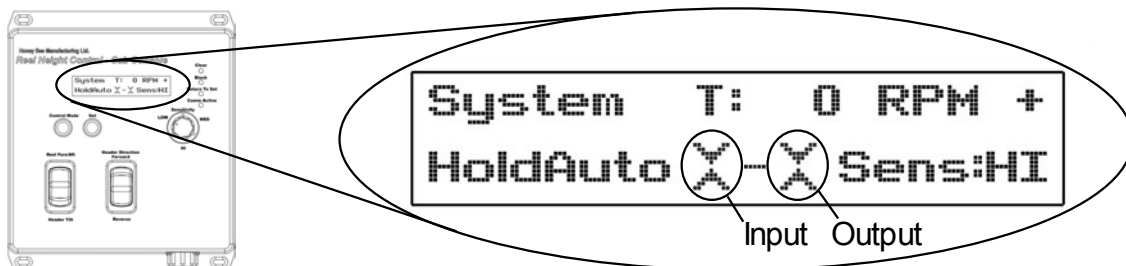


Illustration 15: Readout Input and Output Locations

Adjusting the Springs and Sensor Rollers

1. Ensure that the automatic reel height control sensor rollers are lightly pressing down on the cover plates on the cutter bar.
2. If the rollers are not touching the cover plates, remove the feather plates, keeping track of the nuts, bolts and washers.
3. Check and make sure that the springs on the Sensor Roller Assembly are properly oriented, so that they are causing the sensor rollers to press down on the cutter bar.
4. If the spring is properly oriented, but the rollers are still not in the correct position, loosen the U-bolt holding each roller in place and reposition so they are touching the cover plates. Re-tighten the the U-bolt.

