



New Holland TR Series

All models are included in this document, please note the yield sensor location may vary, and use only the measurement for your Model of Combine.

Ground Speed

If your system has GPS installed the Speed will be available from the GPS receiver, installing this sensor will create a back up incase the GPS experiences any problem. Right hand Side of machine, Picture taken looking up at the final drive axle.





New Holland TR Series

Header Switch:

The header Switch performs an important function and must be installed such that adjustment of the chain can be made for varying crops and headers.

Below is a typical installation where very little of the chain has been used to connect the switch to the feeder house. Use the following general rules when installing the header Switch:

1. The chain must pull on the switch as straight as possible.
2. When attaching the chain to the feeder house, make sure a location is picked that will not be damaged by crop residue building up around the chain and sensor.





New Holland TR Series

Yield Sensor:

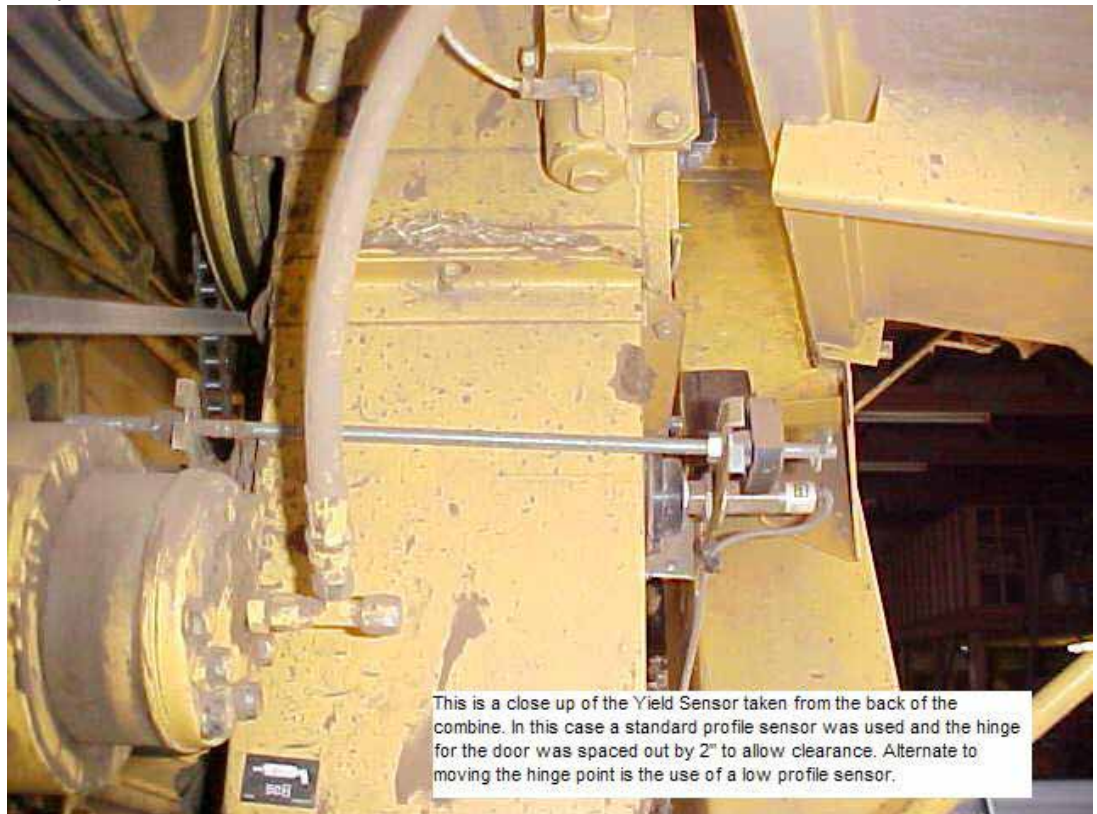
The Yield Sensor is the most critical part of the system. Plan the installation of this sensor carefully prior to drilling any holes.

Preparing for the installation:

Below you will see 1 combine with a standard profile sensor and 1 combine with a "low profile" sensor. The combine with the low profile sensor did not require modification to the cover door hinge to allow for clearance to the sensor housing. The combine with the longer sensor did require a modification to the hinge to allow of clearance.

1. Tools Required:

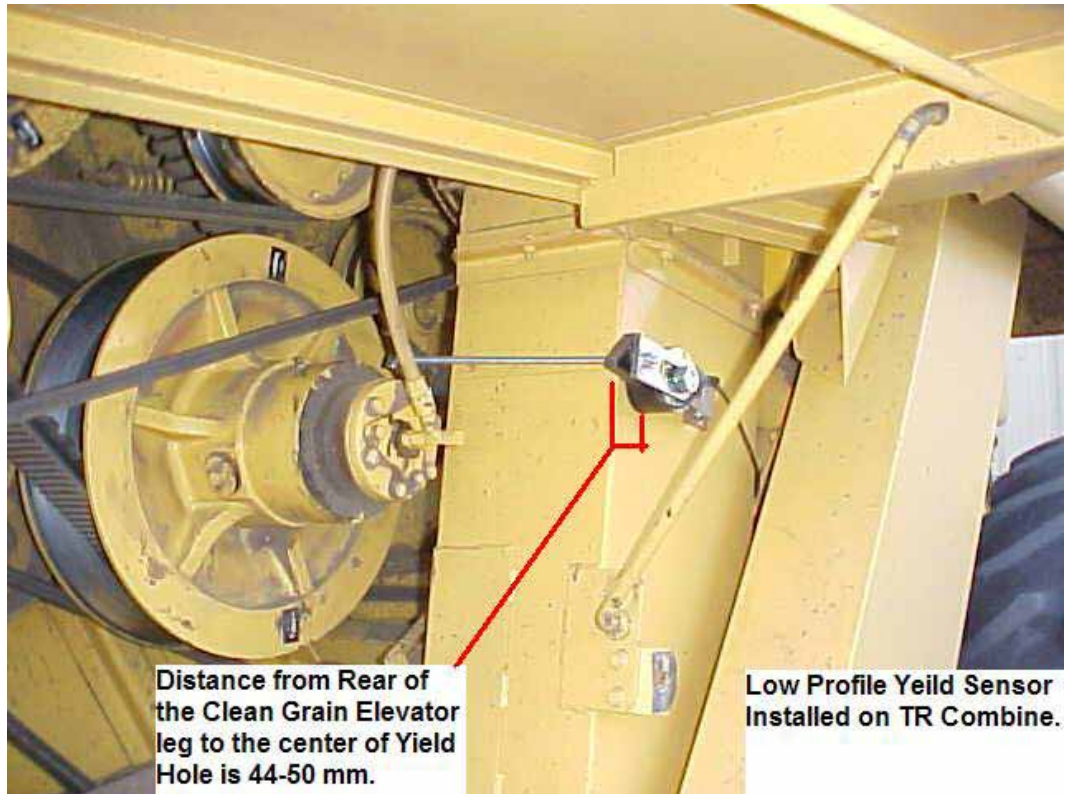
For installing this sensor, a Step/progressive bit is highly recommended, these can be purchased at most tool and hardware stores, one capable of drilling a 7/8" hole will be required.



This is a close up of the Yield Sensor taken from the back of the combine. In this case a standard profile sensor was used and the hinge for the door was spaced out by 2" to allow clearance. Alternate to moving the hinge point is the use of a low profile sensor.



New Holland TR Series



Distance from Rear of the Clean Grain Elevator leg to the center of Yield Hole is 44-50 mm.

Low Profile Yield Sensor Installed on TR Combine.

Mark the location as shown above, drill a pilot hole for the yield sensor. If there is room on the other side of the leg, drill a pilot hole on the other side directly across from this hole. Enlarge both sides to $\frac{3}{4}$ to $\frac{7}{8}$ " using either a progressive bit or standard bits.

Paddle Bracket

Modification (Locate the Bag of 20 Weld Plates)

The supplied brackets will need to be welded to the paddle mounting bracket on the chain. This only need to be done on one side only. This will make sure the sensor will see the same thing every time and ensure good accuracy.



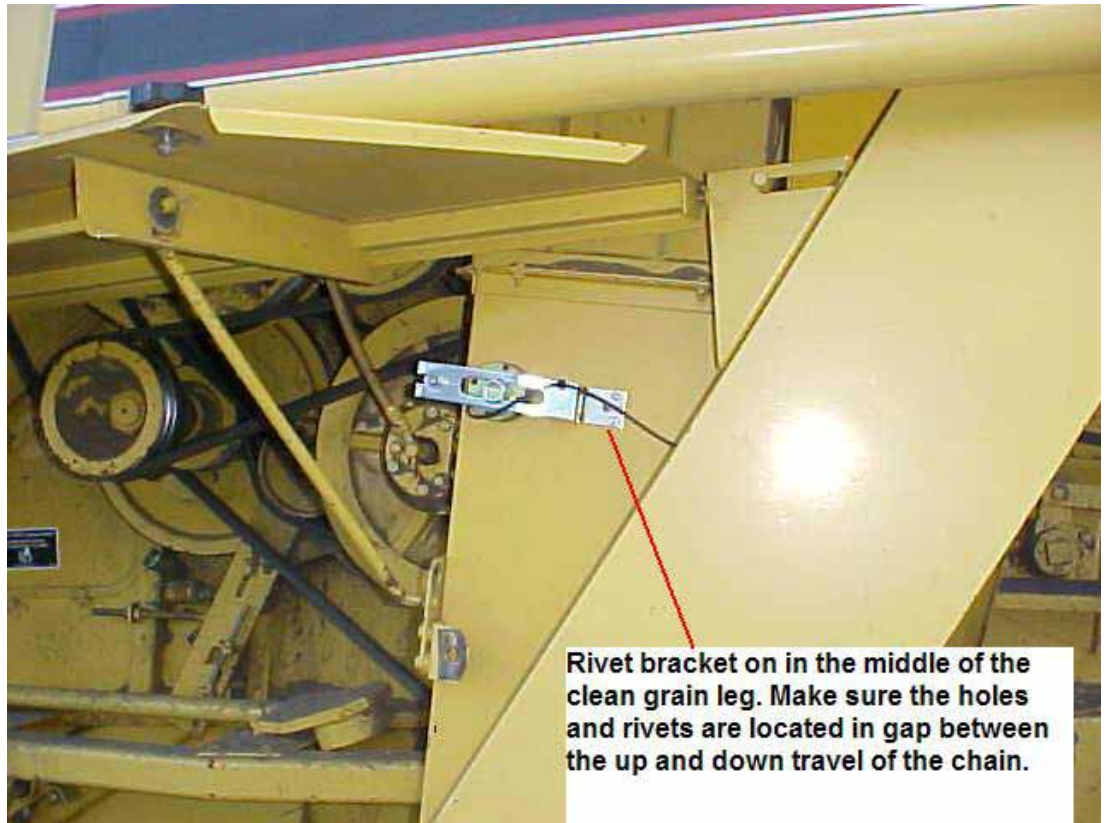
Fill gap between the paddle and the bracket with black RTV silicone.



New Holland TR Series

Yield Bracket Rivets

As you can see the Yield Sensor bracket can be riveted to the leg. The holes and rivets need to be between the up and down sections of the chain.



FG Moisture Sensor Installation

For Combine models with the short cross auger in the tank the FG Sensor mounting location is in the trap door on the bottom of the Clean Grain Elevator as shown.

Cut a 3.25" hole not directly on the bottom locate the sensor towards the loaded paddle side of the elevator typically the rear of the machine.





New Holland TR Series

Check sensor fit to the door if needed grind the outer lip of the bracket to allow the sensor to fit the door.



Two $\frac{1}{4}$ " holes were drilled in-line with the center of the hole and out $\frac{3}{8}$ " from the hole edge to the center of the $\frac{1}{4}$ " hole.

The Bolts used were $\frac{1}{4}$ " x $1 \frac{1}{2}$ " counter sunk head. The holes were countersunk to allow the inside to be smooth.



JB Weld Putty was used on the leading and trailing edge of the sensor to seal the sensor housing to the trap door to prevent grain leakage.

The sensor is held in place with two small brackets made from 1 " x $\frac{1}{8}$ " Flat iron and fastened with lock nuts.

Route the cable up the back side of the clean grain elevator and to the front of the combine and follow the instructions for hook up in the Manual provided.





New Holland TR Series

Console Mounting

Please refer to Manual:

PS8000i Ceres Yield Monitor

Installation
Section: 2.2
Page: 8

A typical mounting for the TR Series Combine is the right hand B post of the cab.

To mount to this location, remove the instrument panel from the B post. Use the instrument panel to support the yield monitor. Use a metal backing plate about 2" in length for the bolts, this will assure that the plastic of the instrument panel, will support the Yield Monitor Console.





New Holland TR Series

Junction Box Installation and Wiring

The Junction Box will be mounted on the right hand side of the cab near the existing bulkhead connectors.



(Image for location purposes only)

For instruction on mounting and accessing the Junction Box, please refer to Manual:

PS8000i Ceres Yield Monitor

Installation
Section: 2.0
Pages: 5-6

Important Note: For all wiring except the moisture sensor and power, please refer to Manual:

PS8000i Ceres Yield Monitor

Installation
Section: 2.1.3-2.1.4
Pages: 6-7



Moisture Sensor and Power Wiring Configuration is on the following pages.



New Holland TR Series

Sensor Wiring Configuration

This setup is using the Gray cable supplied from the FG Moisture Sensor.

The following connections must be made at the Junction Box to obtain correct readings from the FG Moisture Sensor.



Locate the Moisture Sensor Connections on the Junction Box.

The Moisture Sensor Cable enters the junction box as shown in the illustration above.

Connect the Black wire to the 0V Terminal at Moisture Sensor Location on board.

Connect the Red wire to the +12V Terminal at Moisture Sensor Location on board.

Note: The Other 3 Terminals on the junction box will not be used.

Connect the Green wire from the moisture sensor to the Gray wire from the Head Unit.

Connect the Clear wire from the moisture sensor to the White wire from the head unit.

Power Supply

Please refer to Manual:

PS8000i Ceres Yield Monitor

Installation

Section: 2.7

Page: 15



New Holland TR Series

Software Configuration for the FG Moisture Sensor

From the main operate screen. Press the setup button and you will see the setup screen to the right.

Select number 2 Technician.



Enter the Pin (1234) then press the enter button to see the screen at right.

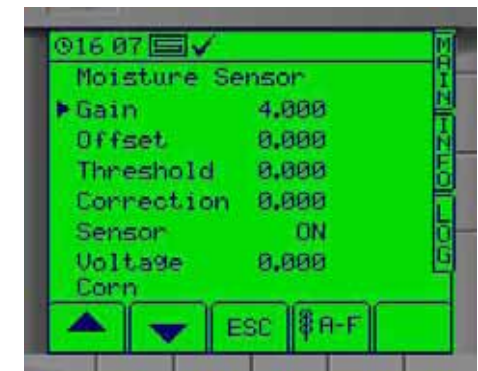


Select number 4 Temp Sensor.
Input the correct temperature in Degrees C. The conversion for temperature is:
Degrees F – 32 x .555 = Degrees C.
Press Enter Button to accept changes.
Press the Esc. Button to exit the temperature settings.



Select number 2 Moisture Sensor and change the Gain and offset as shown in chart below:
(Use the A-F button to change between crops)

Crop	Gain	Offset
Corn	4.0	0.0
Wheat	3.6	2.4
Soybeans	3.37	0.0
Canola	1.0	9.5
Oats	2.975	3.0
Barley	1.9	9.3



If you have any questions, call Loup Electronics.