FG MOISTURE MONITOR
Installation & Operation Manual

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Contents

Service and Technical Support

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Installation:

Moisture Sensor Installation:

Remove Clean Out Door from the bottom of the clean grain elevator.

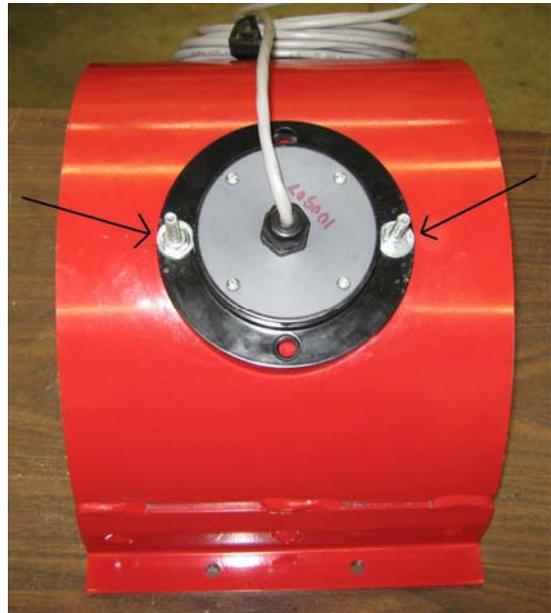**Cut a 3.25" hole <u>not</u> directly on the bottom. Locate the sensor towards the loaded paddle side of the elevator, towards the rear of the machine (about a 30-45 degree angle).**

Check sensor fit to the door. If needed grind the outer lip of the moisture sensor to allow a close to flush fit the door. Proper fit requires that ceramic sensor surface is flush with the inside of the elevator door on the door. The outer ring should hold the sensor assembly from rocking on the mounting surface.

Drill Two 5/16" diameter holes 4 1/8" apart. Centered on the 3.25 diameter hole. Use the sensor housing to mark the location. 1/4" X 1" Carriage Bolts are used to hold the sensor in place.

Use JB Weld Putty to blend the leading and trailing edge of the sensor to seal the sensor housing to the trap door to prevent grain leakage.
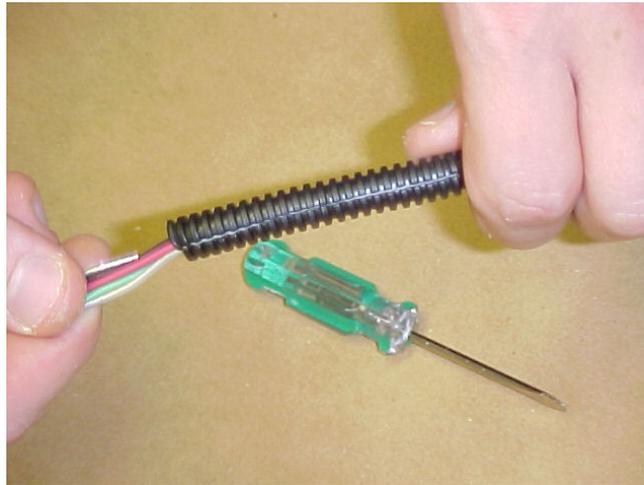
Route the cable up the back side of the clean grain elevator and to the front of the combine.
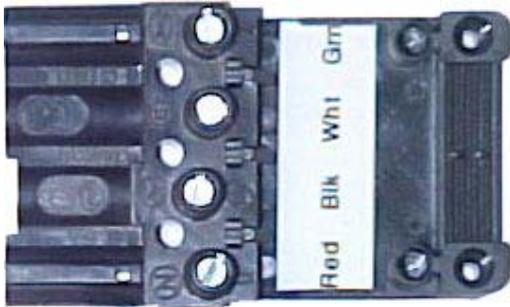
Sensor Connector:

As you have noticed the wires on the sensor come without the connector attached. This was done so that when you route the wires into the cab a smaller hole may be used rather than making a large hole.

When connecting the wires to the enclosed connector use caution to put the wire in the appropriate place. The label on the connector will indicate where each wire is to be connected.

The first step in putting the connector on is to slide the supplied piece of split loom on the end of the wire as shown below. This helps to hold the wire firmly in the connector when the connector cap is pressed on.

Each wire is held in place by tightening the set screw within the connector as shown in the picture below. Again be careful to get the wire into the proper terminal as labeled on the connector.

Once all wires are secured, press the cap onto the connector and plug into the mate on the monitor.

Monitor Power:

The FG Moisture Monitor has been designed to be wired directly to the ignition of you combine. Use the supplied power cable to connect the monitor up to the ignition switch. The Red wire with the fuse is to be connected to +12V and the Black wire connected to the Ground.

Having the monitor connected to the ignition means that each time the ignition is turned on the monitor will also turn on. Upon power up the display will revert to the last crop selection made prior to turning the combine off and illuminate the proper LED on the front panel. The monitor is now in the Operate Mode.

Operation:

Moisture Correction:

During normal operation pressing the ⬆ or ⬇ keys will allow you to adjust the moisture reading. The moisture correction sequence is as follows:

While in normal operate mode, the display will be reading moisture (for example 16.0).

If the operator presses the ⬆ or ⬇ Key, the display will show the correction in percent (XX.X) that has been made to this crop in the past and is stored the display memory. If no correction has been made to this crop, this correction would be 00.0.

Pressing and holding either of these keys will display the stored correction for 3 seconds. After 3 seconds the display will begin to increment by .1

Example: The ⬆ key is pressed and held. 0.00 is displayed indicating that no prior correction had been made. Continuing to hold the ⬆ key will display 0.00 for 3 seconds after which it will increment to 0.1, 0.2 and so on. Conversely holding the ⬇ key will cause the display to read 00.0 for 3 seconds and then increment to -00.1, -00.2 and so on.

Crop Selection:

To change the selected crop, press the [OPER SEL] key one time. Pressing the [▲] or [▼] keys now will change the selected crop. This is indicated by the corresponding LED's on the front panel will light in sequence.

Example: If Corn is the current selection, pressing the [OPER SEL] key once will allow the operator switch to Beans by pressing the [▼] key one time. Note that the light by Beans is now illuminated.

To select and save the current crop selection; Press the [OPER SEL] key one time. The monitor is now in the Operate Mode.

Temperature Reading:

When in the crop selection mode the Temperature from the temp. sensor will be displayed between the Crop Selection **Other** and the crop selection **Corn**. The temperature from the temp sensor will be displayed.

This sequence is as follows: While in the crop select mode and the **Other** is selected, press the [▼] once. The temperature reading is now displayed as XX degree Fahrenheit and no LED lights are illuminated. Press the [▼] again and **Corn** is now selected as indicated by corresponding LED illuminating.

Note: Using the [▲] key will reverse this sequence.

Average Moisture:

Your moisture monitor will accumulate a Long Term Moisture Average for each crop. The average moisture will continue to be logged until reset by the operator.

To View the Logged Average Moisture:

First select the desired crop and return to the Operate Mode. (See section titled Crop Selection)

Now with the desired crop selected and in the Operate Mode, press and hold the ⬆️, ⬇️, and OPER/SEL keys simultaneously. When the crop indicator begins to flash, release the buttons.

The average moisture reading will be displayed for the selected crop. Upon release of the buttons the Logged Moisture will be displayed for 14 seconds then return to the Operate mode.

Resetting the Average Moisture:

Each time the monitor is turned off the Long Term Moisture Average will be reset to 0.

Low Moisture Limit:

The Low Moisture Limit is a programmable feature within the monitor that allows you to adjust the condition of when the monitor will store the moisture readings to the Average and when it will not. The default number in the monitor is 0. This means that anytime the sensor sees a moisture reading above 0 it will use these readings to determine the Average.

To adjust the Low Moisture Limit, first access the Average moisture reading by pressing and holding the ⬆️, ⬇️, and OPER/SEL keys simultaneously.

The crop indicator light will begin to flash and the Average Moisture is displayed.

Pressing either the ⬆️ or ⬇️ keys will cause the display to change. The monitor now is displaying to the Low Moisture Limit.

If the operator holds the ⬆️ or ⬇️ Key, the Low Moisture Limit will change in increments of .1 accordingly. While an adjustment is being made the crop indicator light will not flash.

Once the desired adjustment has been made, release the button. The crop indicator light will begin to flash and Low Moisture limit will be displayed for 15 seconds then return to the normal operate mode.