

CERAMIC MOISTURE SENSOR INSTALLATION MANUAL

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CERAMIC MOISTURE SENSOR INSTALLATION

The Moisture Sensor extends the Yield Monitor System to provide live and average grain moisture readings at harvest. The sensor installs at the base of the clean grain elevator on the lower door and takes capacitance readings from grain as it moves through the elevator. Moisture readings display through the Harvest Mobile App and will be uploaded to the Web Application for processing into moisture maps upon data sync.

Selection of installation location on the lower door is important but varies somewhat from harvester to harvester. The key is to install close to where grain exits the cross auger and near the lowest point of the door, just ahead of where significant wear is visible from grain flow. The images in the sections below will help guide you. If you are still unsure on placement, send us photos at support@farmtrx.com for assistance.

COMPONENTS OVERVIEW

- 1. Moisture Sensor
 - Moisture Sensor enclosure lid
 - Stainless steel flange
- 2. Paper Cutting Template
- 3. Mounting hardware
 - 6-32 Flat head screw (6)
 - 6-32 Locknut with spring-lock washer (6)
 - 6-32 Nylon-insert locknut (6)
 - #6 washers (6)

TOOLS REQUIRED

- Paper Cutting Template (included)
- Center punch

- Phillips screwdriver
- 5/16" socket
- 2-9/16" (65mm) Hole-Saw (option to purchase on FarmTRX.com)
- Angle Grinder with Cut-off Wheel Blade

Please take the following into consideration when selecting an installation location on your clean grain elevator lower door:

• The sensor should be slightly off from the center-line of the lower door (approximately centered between the 6:00 – 6:30 clock position).



• Note, the below placement is optimal for most harvesters however if harvesting primarily soybeans consider placing the sensor further right to avoid mud buildup.



• The sensor should be installed in a location where it is less susceptible to wear from flowing grain. For example, the below installation location was selected to ensure the sensor is not installed where there are obvious wear-patterns on the door (note difference in paint).



- Every hatch door will show different wear patterns. The goal is to place the sensor close to the exit of the drag auger so that a continuous layer of grain will be pushed onto the surface of the sensor. Choose a position that will minimize both accumulation of crop debris and excessive wear on the sensor surface. For most, you will be able to distinguish the transition point between where grain may stick to the door and where metal wear starts to occur.
- Orient the Moisture Sensor to ensure the Wiring Harness will not impact the opening of the lower door. The Moisture Sensor wiring should trail towards the back of the combine.

• The orientation of the grain elevator in your harvester should also be taken into consideration. For example, if your clean grain elevator is angled significantly, you may shift the installation location to place it nearer the lowest part of the base of the elevator (while still observing the guidance in the previous paragraphs) to ensure coverage by grain exiting the cross auger.



Below is another example showing optimal sensor installation location at the transition between debris accumulation and wear.



Again, if harvesting primarily soybeans consider placing the sensor higher up the hatch door to adjust for mud buildup.

INSTALLATION STEPS

- 1. Remove the lower door for easier handling. After carefully positioning the Moisture Sensor Cutter Template based on the guidance given in the preceding paragraphs, clean the door surface and tape the included template to the door.
- 2. Use a center punch to mark the cross hairs of the two hole-saw drilling locations.



- 3. Drill a pilot hole with a 1/8" drill bit for the hole-saw cuts.
- 4. Use a 2-9/16" hole-saw to drill out two hole-saw circles.



5. Option here to use a plasma cutter to clear the opening. If using an angle grinder cut-off wheel blade, remove the triangular pieces between the two hole-saw cuts to create a clean opening.



6. Place the Moisture Sensor against the cut opening, holding it from outside of the hatch door. Place the stainless steel flange against the opening from the inside of the hatch door, align the bolt holes.



7. Use the supplied 6-32 Flat Head Screws and 6-32 Locknut with Spring-Lock Washers to secure the Moisture Sensor and stainless steel flange into place.



9. With the stainless steel flange and Moisture Sensor mounted in the door, place the enclosure on the outside of the door and secure it with the Nyloc nuts and washers. Tighten using a 5/16" socket. Avoid over-tightening.



- 10. Ensure a tight seal is made between the Moisture Sensor and hatch door.
- 11. Plug the Moisture Sensor Wiring Harness into the Yield Monitor Sensor Interconnect Wiring Harness.



Installation of the Moisture Sensor is now complete. For guidance on use, please consult the FarmTRX Harvest App Guide or Quickstart Guide included in your kit.

For further support, questions or concerns regarding Moisture Sensor installation do not hesitate to reach us at support@farmtrx.com or by calling 1-800-991-5136.