



FarmTRXTM

Moisture Sensor

Installation Guide



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Safety

Always follow the instructions that accompany a Warning or Caution. These notices are provided to help prevent injury, death, and equipment damage during installation or maintenance.

- **WARNING** – Indicates a potentially hazardous situation that, if not avoided, could result in serious injury or death.
- **CAUTION** – Indicates a potentially hazardous situation that, if not avoided, may result in minor or moderate injury.

Note:

The absence of a warning doesn't mean the task is risk-free. Always stay alert and follow safe work practices.

Warnings

- **WARNING – Feeder house/Header Drop Hazard**
The feeder house or other hydraulically supported components can drop unexpectedly if hydraulic pressure is lost. Always lower the feeder house completely to the ground or install mechanical locks or rated support stands before working underneath.
- **WARNING – Unexpected Machine Start-Up**
If the combine is started while you are working on it, serious or fatal injuries may occur. Always remove the ignition key and disconnect the battery before working.
- **WARNING – Electrical Fire or System Damage Risk**
Improper wiring can result in short circuits, overheating, or fire—especially in agricultural environments with dust and debris. Use only approved

components and follow the installation wiring diagrams and specifications provided with this system. Do not modify the harnesses or connectors unless instructed.

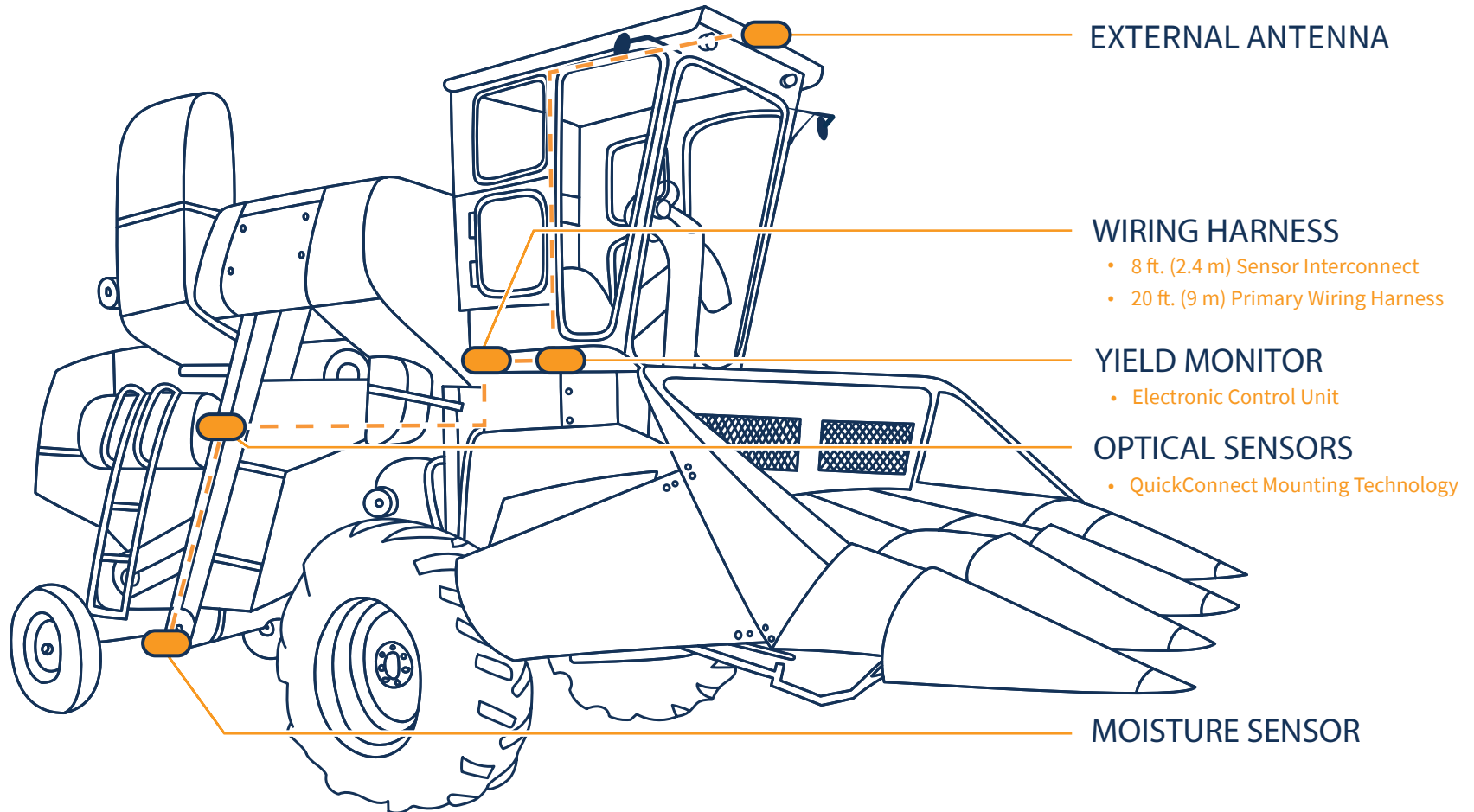
- **WARNING – Unstable Working Conditions**

Always park the machine on firm, level ground before performing any installation or maintenance. Uneven or sloped surfaces increase the risk of unexpected movement, tipping, or falling components, which may lead to equipment damage or personal injury. Engage the parking brake and chock wheels if necessary.

Cautions

- **CAUTION – Routing of Cables**
Ensure electrical wiring is routed away from heat sources, sharp edges, and moving parts. Improper routing can lead to abrasion or short circuits.
- **CAUTION – Electrical Short Hazard**
While working on the machine's electrical system, disconnect the battery to avoid short circuits and damaging electrical components.
- **CAUTION – Battery Safety**
Battery terminals may contain lead. Wash hands after contact. Prevent accidental short circuits by keeping tools and terminals clear of conductive materials.
- **CAUTION – Do Not Pressure Wash Sensitive Components**
Avoid spraying high-pressure water or air at electrical connectors, hydraulic seals, control units, or sensors. Moisture or debris can cause malfunctions or corrosion.

System Overview



How It Works

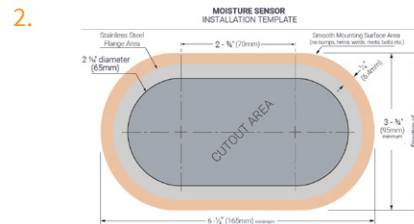
The Moisture Sensor expands the FarmTRX Yield Monitoring system to provide live and average grain moisture readings during harvest. The sensor installs at the base of the clean grain elevator on the lower door.

Moisture content is calculated by taking capacitance readings from grain as it moves through the elevator. Results display in the FarmTRX Mobile App and data is uploaded to the Web App for processing upon data sync.

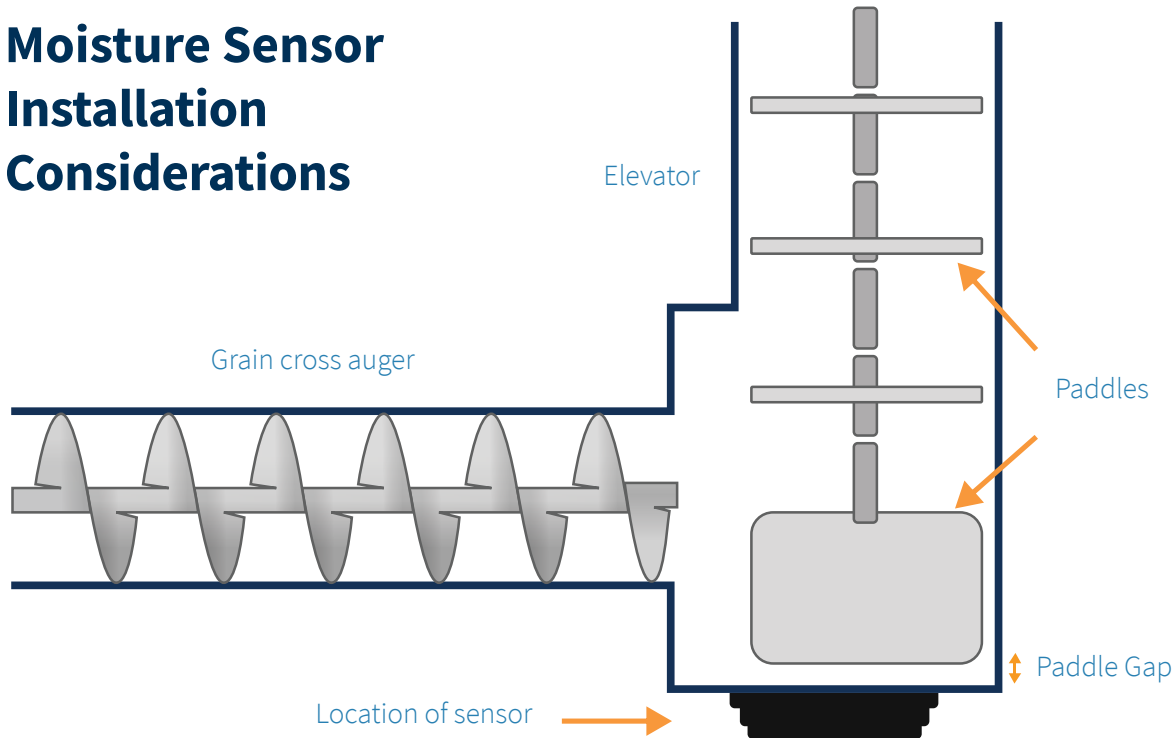
Selecting the installation location of the Moisture Sensor on the elevator lower door varies from harvester to harvester. This guide will detail how to select installation location for the Moisture Sensor.

Components Overview

1. Moisture Sensor
 - Sensor
 - Stainless Steel Flange
 - Enclosure
2. Paper Cutting Template
3. 65 mm (2-9/16") Hole-Saw
4. 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)



Moisture Sensor Installation Considerations



The ideal installation location for the Moisture Sensor on the grain elevator clean-out door depends in large part on the gap between the paddle edges and the inside of the grain elevator. This “paddle gap” is measured with a paddle in its lowest position, pointing towards 6 o’clock.

The larger the gap, the more debris and fines will accumulate at the bottom of your grain elevator.

Over time, this debris can accumulate and get stuck in a hardened cake that could cover the moisture sensor, preventing the sensor from getting a good reading. It’s therefore important to install the sensor away from where most of the debris accumulates, while still close enough to the auger to get a constant flow of grain across the sensor face.

Note:

The suggested sensor placements are ideal for most crops. However, if you are harvesting primarily soybeans, consider placing the sensor further up on the elevator hatch to avoid the often substantial buildup of mud, debris, and fines.

If the plumb line represents 6 o'clock, the suggested install position for the moisture sensor in a combine with a moderate paddle gap is approximately 7 o'clock, for both upright and angled grain elevators. (See Diagrams 1 and 2)

The suggested install position for the moisture sensor in a combine with a wider paddle gap, and more debris build-up, is approximately 8:00–8:30 o'clock. (See Diagram 3)

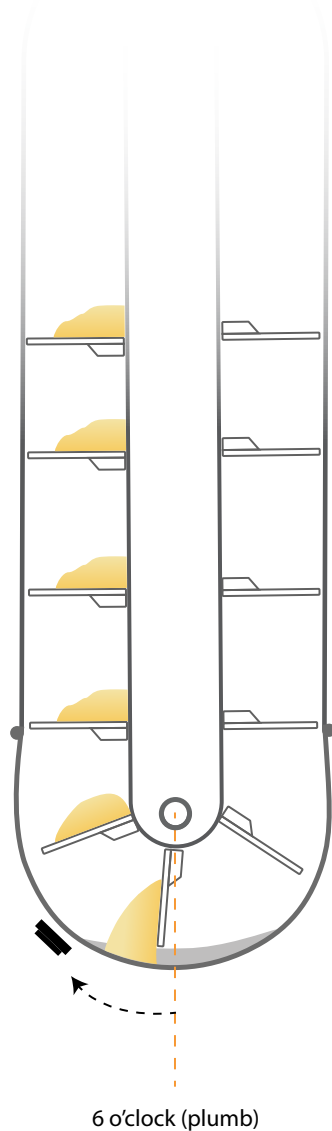


Diagram 1

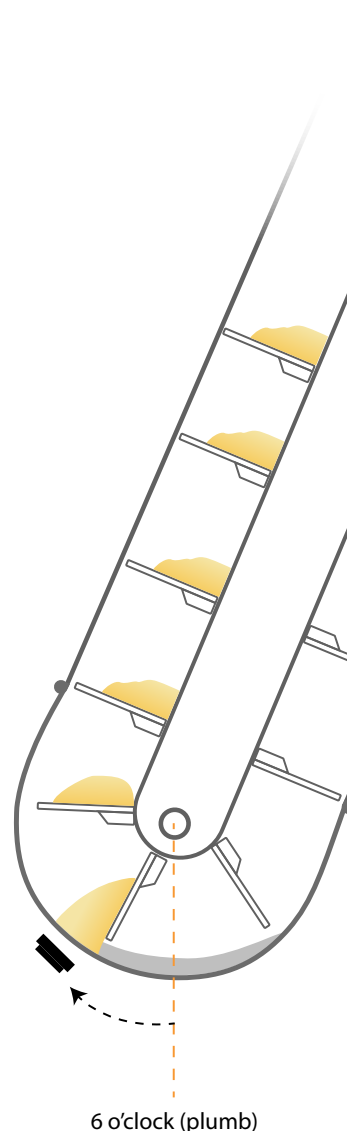


Diagram 2

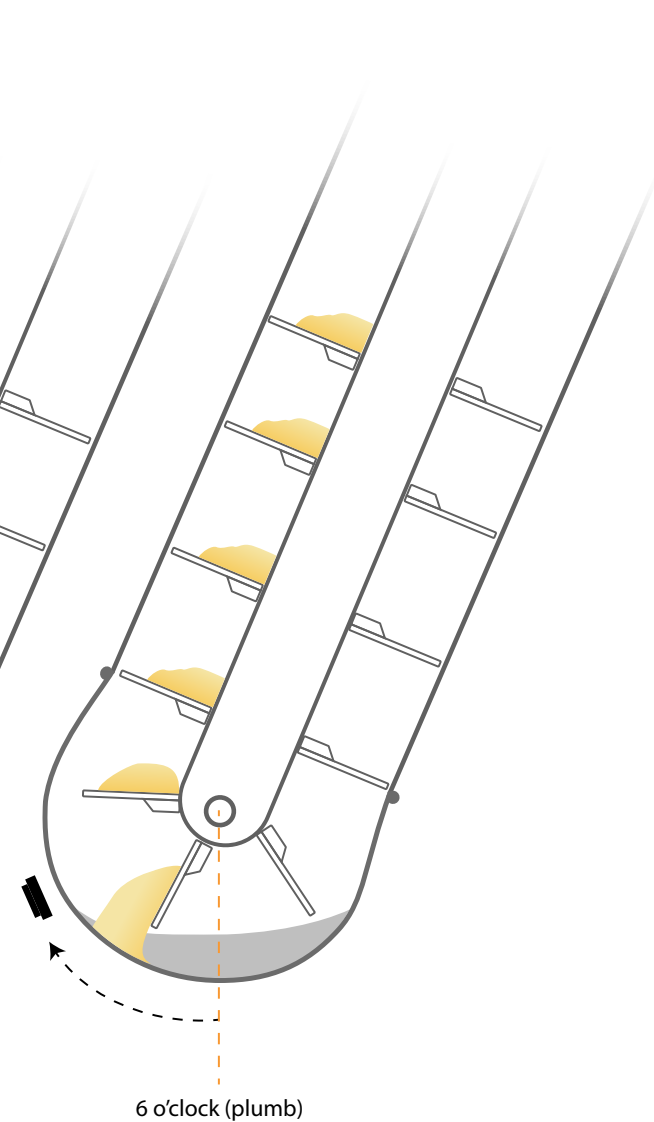
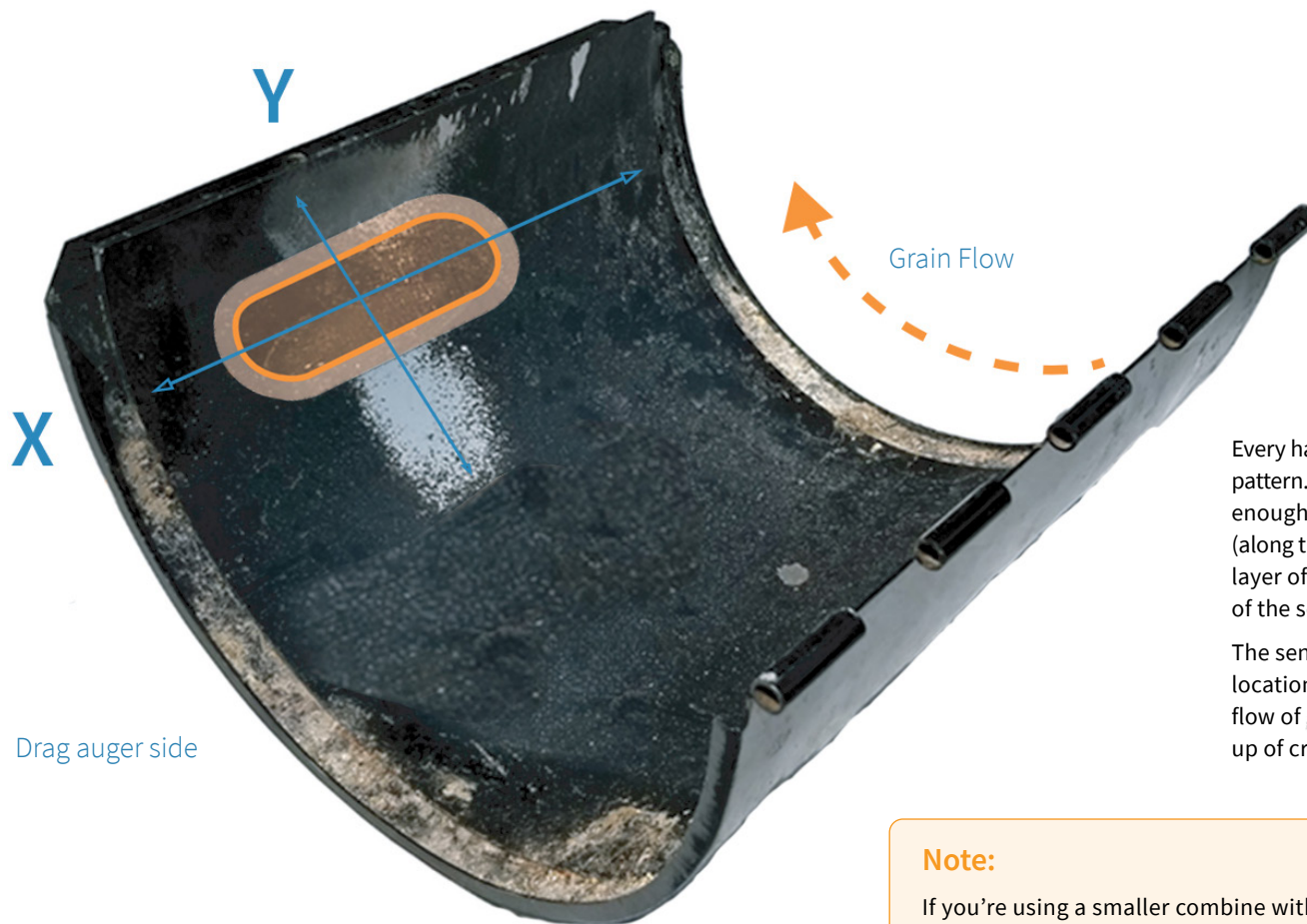


Diagram 3



Every hatch door will show a different wear pattern. The goal is to place the sensor close enough to the exit of the drag auger (along the X-axis) to ensure a continuous layer of grain is pushed onto the surface of the sensor.

The sensor should also be installed in a location where it will still receive a steady flow of grain flow, while avoiding the build-up of crop debris (along the Y-axis.)

Note:

If you're using a smaller combine with a narrow hatch door and the Moisture Sensor won't fit without pinching the steel flanges, scan this QR code for tips on alternative mounting locations.

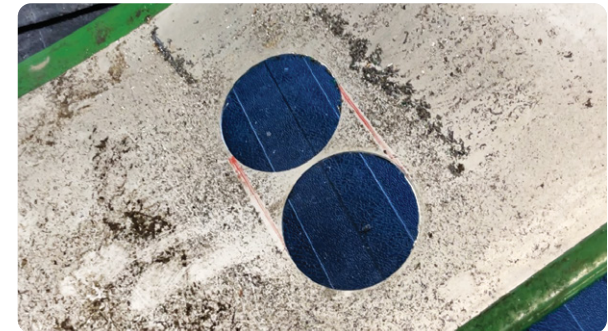


Tools Required

- Paper Cutting Template (Included)
- Center Punch
- 65 mm (2-9/16") Hole-Saw
- 8 mm (5/16") Socket
- Angle Grinder with Cut-Off Wheel Blade
- Phillips Screwdriver

Installation Steps

1. Remove the lower door for easier handling. After carefully positioning the Moisture Sensor Cutting 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 the provided pilot hole drill bit.
4. Use the provided hole-saw to drill out two hole-saw circles.
5. At this step the installer has the option 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 the outside of the hatch door. Place the stainless steel flange against the opening from the inside of the hatch door, align the bolt holes.

Note:

Avoid over-tightening. Only use hand tools for tightening nuts. Do not use power tools.



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.
8. 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 an 8 mm (5/16") socket.
9. Ensure the Moisture Sensor is securely installed.



10. Plug the Moisture Sensor Wiring Harness into the Yield Monitor Sensor Interconnect Wiring Harness.

Support and Next Steps

Congratulations, installation of the Moisture Sensor is now complete. For guidance on use, please consult the FarmTRX Mobile App Guide or Quick Start Guide included in your kit.

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