

9 | IMU Installation and Configuration

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9.1 | TARS-B IMU (T3H-E003)

Applicable to:
Systems where the GNSS receiver does not provide terrain compensation and/or Cross-slope control is required.

⚠ **IMPORTANT:** Some GNSS receivers DO NOT possess an internal IMU for terrain compensation purposes. If the receiver doesn't have terrain compensation, we highly recommend running a Cross-slope IMU on the implement in this situation so that Level **COMMAND** can apply the necessary terrain compensation to maintain accuracy with drain batters and other steeper slopes.

ⓘ **IMPORTANT:** The TARS-B IMU must be sourced from T3RRA (SKU: **T3H-E003**). These are supplied by T3RRA with the correct firmware and configuration to function with **COMMAND**.

The TARS-B IMU is used for systems where the GNSS receiver does not contain an integrated terrain compensation functionality, in addition to enabling Cross-slope control using **COMMAND**. The TARS-B IMU provides pitch and roll angle measurements to the **COMMAND** ECU for control of the implement's Cross-slope angle.

Required Parts

The IMU connects via the implement receiver harnessing.

- Front Extension harness
- TARS-B Mounting Kit (3 x M6 + Washer + Nut)
- **T3H-E003** - COMMAND Inclination Sensor – TARS-B
- **T3H-S001** - COMMAND Impl Adapter – Stub Junction

Mounting & Orientation

The TARS-B IMU should be mounted pointing toward the front of the machine, similar to an arrow or triangle pointing forwards. Mount the TARS-B IMU to the implement securely, preferably using a suitable bracket. If suitable bracketing isn't available, neodymium magnets are also suitable, but must have enough pull-strength that there is minimal danger of the IMU being knocked out of position.



Connection Process

1. Connect the **T3H-S001** adapter to the Front Extension Harness.
2. Connect the **T3H-E003** to the **T3H-S001** stub junction using the 4-way AMPSEAL connection.
3. Check that **COMMAND** is receiving Cross-slope angle input data - for more information please refer to the **Level COMMAND** manual.

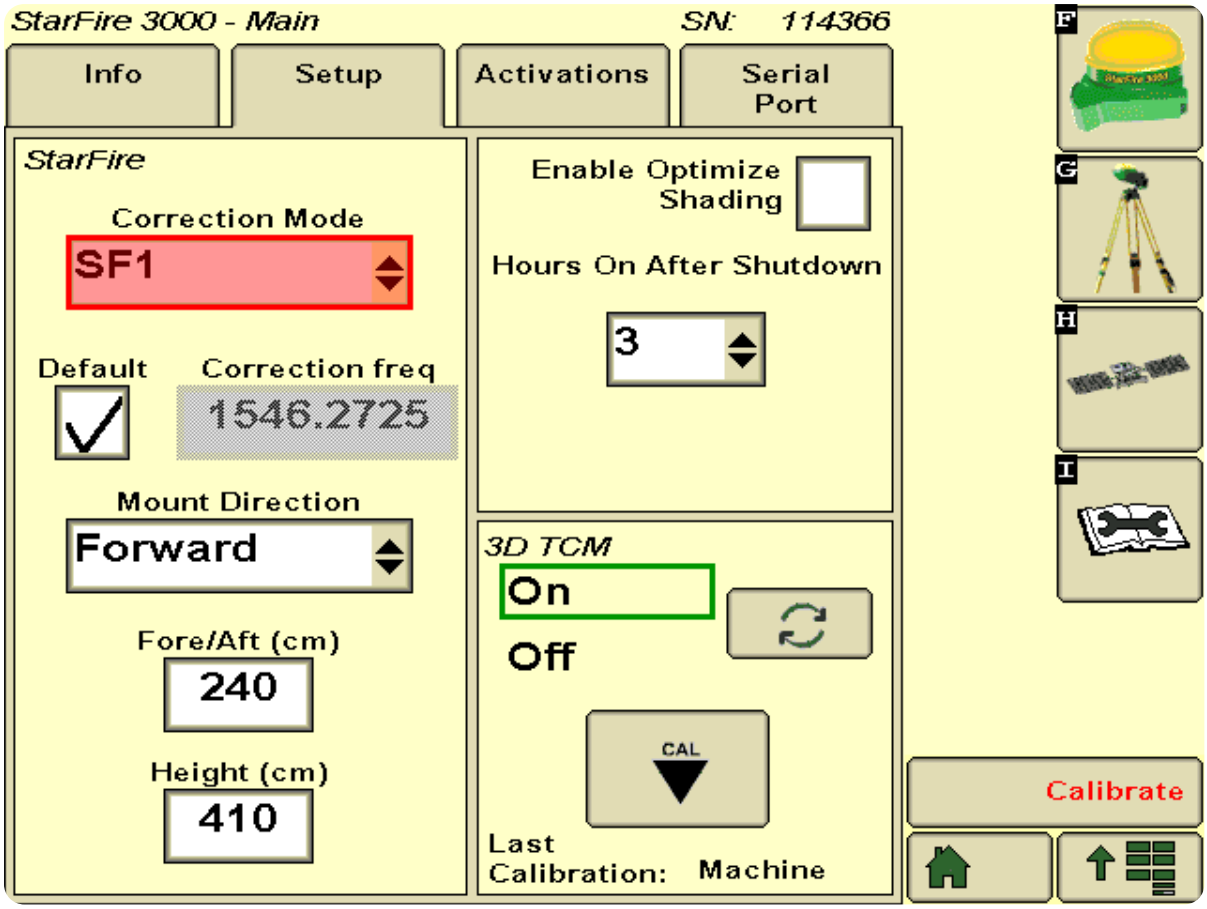
Verify:
- IMU is securely aligned, mounted and connected.

9.2 | John Deere StarFire TCM (3000, 6000, 7000, 7500)

Applicable to:
John Deere StarFire 3000, 6000, 7000 & 7500 receivers with integrated Terrain Compensation Module (TCM).

StarFire TCM Overview

Modern John Deere StarFire GNSS Receivers contain an integrated Terrain Compensation Module (TCM) that measures pitch/roll angle position of the receiver, and calculates adjustments to GNSS position based on the angle of the receiver to provide the true ground point position, provided that receiver offsets have been entered correctly.



Configuration Overview

1. Enable the 3D TCM setting in the StarFire receiver.
2. Enter correct receiver offsets (fore/aft and height).
3. Perform TCM calibration as per John Deere guidelines.
4. Verify TCM status is active.

For more guidance on best practices and setting up the StarFire TCM, please refer to John Deere's Starfire Operator Manual.