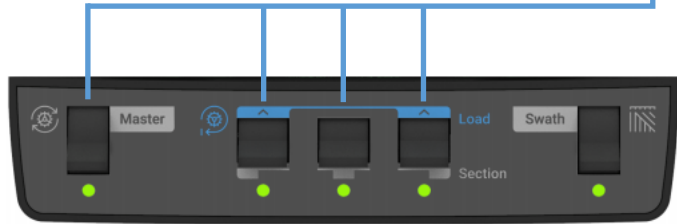


# 20|20 GEN 3—SPEEDTUBE CONTROL SCREEN



**SpeedTubes** will operate anytime the **Master Plant** or a single **Section Plant** switch is active on the **Cab Control Module**. If the planter is not moving (either lifted or lowered, unless **SpeedTube Stop When Lifted** is **Enabled** in **SpeedTube** settings ), **SpeedTubes** will operate at a minimum belt speed. To deactivate **SpeedTube** operation, the **Master Plant** and all three **Section Plant** switches must be off.

**Ride Quality** is of limited significance when **SpeedTube** is installed across the whole planter. As long as other planting metrics (**SRI**, **Ground Contact**, etc.) are acceptable, "poor" **Ride Quality** will not impact performance. Operators should not limit speed based solely on **Ride Quality**. The "**Smooth Ride Limit**" can be adjusted as needed by going to **Setup>Crops >Limit> Adjustments**.

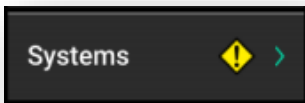


Increased **Vacuum** is sometimes necessary when operating **SpeedTube** at higher speeds. This will help limit seeds from dropping off the disk (due to increased rough ride) before reaching the feeder wheels.

## Start Here

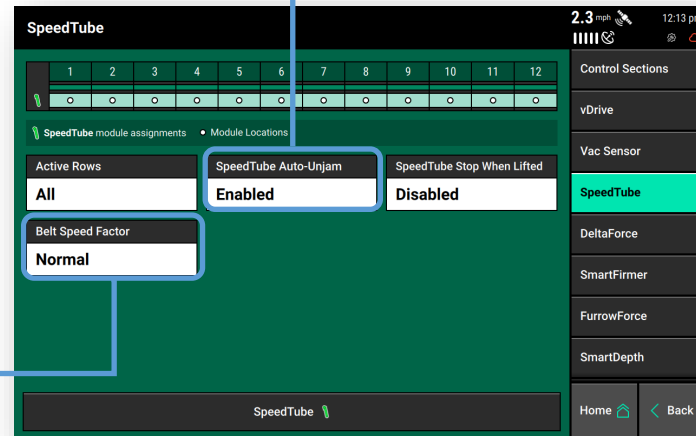


The available settings for **SpeedTube** are found on the **System>Speedtube** setup screen.



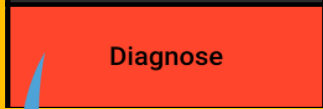
The default setting for **Auto-Unjam** is "**Enabled**". When enabled, **SpeedTubes** will automatically reverse belt direction to clear a detected jam/obstruction.

The default setting for "**Belt Speed Factor**" is "**Normal**". This value should not be changed unless directed by Product Support.



# 20|20 GEN 3—SPEEDTUBE DIAGNOSE

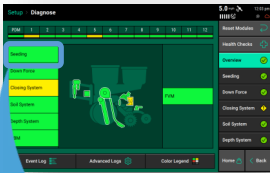
**START HERE**



Button Press

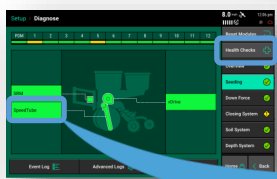
Press **Diagnose** button on **Home Screen** to access **Diagnose Page** Or navigate to **Setup> Diagnose**.

## Main Diagnose Page



Button Press

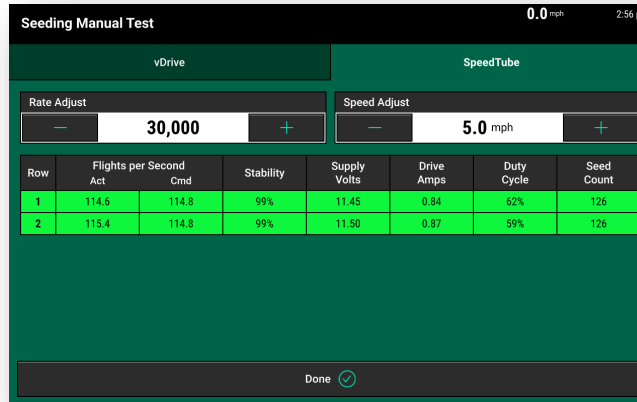
## Seeding Diagnose Page



Button Press

## HEALTH CHECK

The **Seeding Manual Test**, accessed through the **Health Checks** button on the main or seeding diagnose page, select the **Speedtube** tab to perform a test at user defined **Rate** and **Speed**.



The following are the failure thresholds for the health check:

<b>Voltage</b> —	<b>Duty Cycle</b> —
<10 Volts	30 FPS: >30%
<b>Amperage</b> —	80 FPS: >95%
30 FPS: >0.5 A	<b>Stability</b> —
80 FPS: >4.0 A	30 FPS: +/-6%
	80 FPS: +/-3.5%

In the event of a failed **Seeding Manual Test** reference the instructions listed below:

- **Voltage Failure:** There is low supply voltage. Check harnessing for damage and ensure alternator is operating.
- **Amperage Failure:** Ensure voltage is within range. Check for obstructions or misaligned parts in **SpeedTube**.
- **Duty Cycle Failure:** Check for obstructions or misaligned parts in **SpeedTube**.

**FPS Actual** – Measure of SpeedTube belt speed and is the number of belt flights per second as detected by seed sensors.

**FPS Commanded** – SpeedTube belt speed or flights per second as commanded.

**Stability** – Displays stability of SpeedTube mo-

**Supply Volts** – Voltage at SpeedTube Module

**Drive Amps** – SpeedTube current draw in

**Duty Cycle** – Displays SpeedTube motor output over the operating range.

**Seed Count**– Seeds detected on each row.

