

Mar 27, 2023 · Knowledge

Title

SureDrive FAQ

Summary

Answers and details pertaining to some questions Ag Leader receives on how SureDrives function, compatibility, and general setup and use.

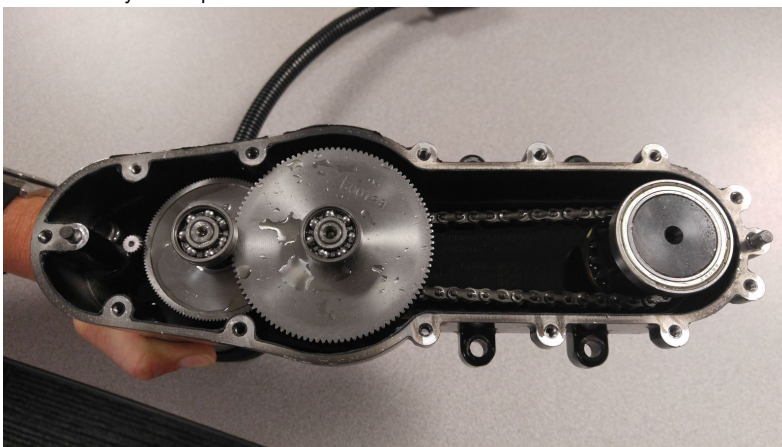
Details

1. Which displays will be compatible with SureDrive electric drives?

- A. SureDrive electric drives are only compatible with the InCommand 1200 display. Individual Row Hydraulic Down Force is also only compatible with the InCommand 1200 display.

2. What are some of the SureDrive features?

- Capable of operating at 2-90 RPM (performance degrades below 2 RPM)
- Bidirectional drive
- Maintenance free
- 51:1 gear ratio
- 4 steel gears and chain driven in a full synthetic bath
- 12 volt system
- Installs directly on the planter meter



3. What does the new module architecture consist of?

- A. A single Planter Control Module (PCM) per planter and one Row Control Module (RCM) per planter row.

4. Is a generator required to operate with SureDrive electric drives?

- A. See article 1842 - Power Requirement for SureDrives

5. What are the hydraulic requirements for the generators?

- A. The 200A generator requires approximately 6 GPM while the 130A generator requires 7 GPM.

Note - It is NOT recommended to tie the generator hydraulic supply/return hoses into any bulk fill or vacuum fan hydraulic source. The generator tank hose can tie into fan

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case drain lines.

6. How many amps are the generator capable of producing?

A. The generator can produce ≈200 amps. This is dependent on alternator RPM and temperature.

- 3000 RPM ≈ 185 amps @ 25 C (77 F)
- 3000 RPM ≈ 155 amps @ 80 C (176 F)
- 4000 RPM ≈ 200 amps @ 25 C (77 F)
- 4000 RPM ≈ 165 amps @ 80 C (176 F)

7. What is the maximum amperage for a single SureDrive electric drive?

A. One drive is capable of approximately 7 amps.

8. Is the SureDrive system ISOBUS compatible?

A. No. The SureDrive system is proprietary (only works with an Ag Leader display). However, it communicates on CAN-B using an IBBC connection.

9. Will the Multi-Product unlock be required to operate with SureDrive electric drives?

A. No. Unless you want to control independent seed rates or you want to map multiple seed varieties.

10. Will SureDrive electric drives be capable of per-row population control?

A. No. At release for the spring of 2017, the SureDrives can be configured up to 3 independent rate sections. (An independent rate section may be single rows with the **Seed Rows** feature)

11. **Can SureDrive be used with RCM and RCMII modules?**

- While SureDrives are supported with either RCM or RCMII they cannot both be used on the same bus. RCM and RCMII cannot be mixed and matched on the same PCMI bus due to the modules communicating at different baud rates.

12. **When would a CAN repeater module be needed with SureDrives?**

- When using the RCM2 architecture a CAN repeater is needed on systems 36rows and larger.
- When using the original RCM architecture a CAN repeater is needed on systems 24rows and larger.

13. Which CAN A or "SeedCommand Generation 1" modules are compatible with the Planter Control Module (PCM) and Row Control Module I (RCMI) setup?

- These are NOT compatible with RCM1s:
 - Seed Tube Monitor Module
 - 2-Channel Downforce
 - Clutch Control Module
 - Planter Monitor Module (PMM)
 - 3rd Party ISOBUS controllers
Compatibility with these controllers is currently under investigation. Further testing is required to identify if other ISOBUS controllers can be operated on the same BUS.
- These ARE compatible with RCM1s if SureDrives are not used:
 - Hydraulic Seed Rate Module
 - Stepper Seed Rate Module

14. Can the ISOBUS Liquid Control System and/or ISO Hydraulic Down Force be operated on the same implement harness as the SureDrive system?

A. Yes. A separate harness is not required.

15. Can an OEM planter ISOBUS harness be used to connect to the SureDrive system in lieu of an Ag Leader planter harness?

A. No. The Ag Leader planter harness is required.

16. Does the display log vacuum pressure?

A. No. It is only monitored.

17. Does the display log SureDrive motor RPM?

A. No. Actual rate is logged, which is calculated using motor RPM.

18. What does the SureDrive system do if there is a jam in the meter and it can't turn?

A. The SureDrive will stop and trigger a "Motor Stall" alarm on the display that indicates which row has stopped. The operator will need to fix the jam/obstruction, and then cycle the master switch to begin normal operation.

19. What are the requirements for the InCommand 1200 to use turn compensation rate control with the SureDrive electric drives?

A. A valid GPS source is required, but there is no limitation based on GPS quality. 5Hz minimum; 10Hz recommended

20. How is turn compensation rate control achieved?

A. Via the InCommand 1200 on-screen display vehicle/implement modeling.

21. How many vacuum pressure sensors are supported?

A. Up to 3 vacuum sensors are supported.

22. Does the Row Control Module (RCM) have enough power to run a WaveVision seed tube sensor?

A. Yes.

23. Are split rows controlled individually for AutoSwath control?

A. Yes. Split rows are independent from the standard rows for AutoSwath control.

24. If the split rows are offset from the standard rows, does the InCommand 1200 account for this for AutoSwath control?

A. Yes. Independent hitch-to-application point offsets can be setup for the split and standard rows.

25. How will other 3rd party ISOBUS controllers work in conjunction with SureDrives?

A. Currently other 3rd party ISOBUS controllers will need to be connected to a separate display, communicating on its own ISOBUS cabling.

26. Will the SureDrive work with the Precision Planting finger meters?

A. Yes. The Precision Planting finger meter is a direct replacement of an OEM finger meter. If Ag Leader supports the OEM finger meter for SureDrives, then the Precision Planting finger meter replacement is therefore supported. If Ag Leader does not support a certain OEM finger meter, then the Precision Planting version is not supported.

27. What size are the hydraulic hoses going to the generator?

A. Pressure - 1/2" Return - 1/2" Tank - 1/2"

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Yes

No