



Front-Fold Planters All Makes & Models

SureDrive™ Master Kit
Installation Instructions
PN: 2006441-ENG REV. B

Introduction

Important Information

This guide provides the basic information needed to install the Ag Leader SureDrive system on a planter. It is intended to be used by Ag Leader dealers who are trained and knowledgeable about the installation of such systems.

It is important to read this guide prior to beginning the installation. This guide contains warnings of potential hazards, and a collection of best practices that will help your installation go smoothly, safely and be successful.

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Technical Support

Contact your Ag Leader Dealer or Ag Leader Technology for technical support.

- **Telephone:** (515) 735-7000
- **Email:** support@agleader.com

Legal Disclaimer

- * Read and follow all instructions in this manual carefully before installing or operating the SureDrive system.
- * Take careful note of safety information in this manual and additional safety messages provided throughout this and any other supplemental manuals provided.
- * Ag Leader Technology disclaims any liability for damage or injury that results from failure to follow instructions, cautions and warnings communicated in this guide.

SureDrive Master Kit Installation

Row Unit Components

Required Items:

| Part Number | QTY * | Description |
|-----------------------|--------|---|
| 4004758 | 1 | SUREDRIVE GEAR MOTOR |
| Row Unit Specific | 1 | SUREDRIVE INSTALLATION KIT |
| 4004426 | 1 | ROW CONTROL MODULE (RCM) |
| Row Unit Specific | 1 | RCM INSTALLATION KIT |
| 4004085 or 4005014 | 1 1 | ROW ACCESSORY CABLE (DF, VAC, SEED SENSOR, AUX ON/OFF) ROW ACCESSORY CABLE (SEED SENSOR, AUX ON/OFF) |
| Row Unit Specific | 1 | IMPLEMENT SWITCH KIT (1-2 per planter) |
| 4101335 | 1 | PRESSURE SENSOR KIT FOR SEED METER (1-3 per planter) |

* QUANTITIES LISTED ARE PER ROW UNIT

Installation Procedure:

NOTE

The Ag Leader SureDrive system is not compatible with every option available for planter row units. Ag Leader advises fully equipping a single row unit before proceeding with all row units to ensure compatibility – in particular with non-Ag Leader aftermarket parts that may be installed.

1. SureDrive Gear Motor (each row)

- Instructions provided in SureDrive installation kit.

2. RCM (Row Control Module) (each row)

- Instructions provided in RCM installation kit.

3. Implement Switch (at least one row, two rows recommended)

- Instructions provided in Implement Switch kit

4. Seed Delivery Pressure Sensor (for vacuum or air pressure meters)

- Instructions provided in Seed Meter Pressure Sensor kit.

Planter Frame & Tractor Components

Required Items:

| Part Number | QTY * | Description |
|--|--------|--|
| 4101396 | 1 | GENERATOR KIT |
| 4101337 | 1 | PCM KIT |
| 4101370 | 1 | PRESSURE SENSOR KIT FOR BULK FILL SEED DELIVERY |
| 4002911 | 2 | IMPLEMENT SWITCH MODULE |
| 4002658 | 2 | IMPLEMENT SWITCH CABLE |
| See Table 1 | N/A | POWER DISTRIBUTION CABLES (See Table 1 page 7 for additional clarification.) |
| 4004876-2 | 2 | LOCAL CANBUS EXTENSION - 2 FT (FOR FLEX JOINTS IN TOOLBAR) |
| 4004876-9 | 2 | LOCAL CANBUS EXTENSION - 9 FT (FOR FRAME FOLDING) |
| 4004110-XX | 1 | IMPLEMENT HARNESS |
| 2003131-XXX OR 4004076 | 1 1 | HYDRAULIC HOSE KIT (TO TRACTOR) - 25-65 FT HYDRAULIC HOSE KIT (TO TRACTOR) - 12 FT |
| 4101313 | 1 | ISOBUS RETROFIT KIT |
| 4002584-XX | 1 | ISOBUS RETROFIT BATTERY CABLE |
| 4100879 | 1 | SWITCH CONSOLE KIT |
| * QUANTITIES LISTED ARE PER PLANTER | | |
| ** QUANTITIES VARY BASED ON PLANTER CONFIGURATION AND PREFERENCE | | |

Installation Procedure:

5. Generator

- Instructions provided in Generator kit.


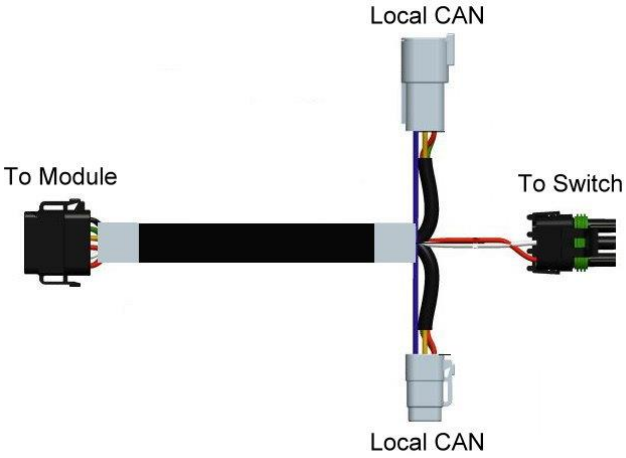
6. PCM (Planter Control Module).

- Instructions provided in PCM kit.

7. Seed Delivery Pressure Sensor (for bulk-fill planters)

- Instructions provided in Bulk-Fill Pressure Sensor kit.

Installation Procedure:

| | |
|---|---|
| <p>8. Install an implement switch module on toolbar in front of each row unit that is equipped with an implement switch.</p> <ul style="list-style-type: none">■ NOTE: Module can be secured loosely for now until local CAN Bus is routed and ideal location is determined. |  |
| <p>9. Connect CAN implement switch cable to implement switch module that was mounted on toolbar in previous step.</p> <p>10. Connect integral cable of implement switch to mating connector of CAN implement switch cable. A 42 in. extension cable is provided if required.</p> <ul style="list-style-type: none">■ NOTE: Local CAN connectors of implement switch cable will be connected when local CAN Bus is installed in a following step. |  |

Cables

- **NOTE:** The following steps detail how to properly install the Local CANBUS and power distribution cables. Refer to the line art drawing and table on the following two pages to aid in this process.
- **NOTE:** The line art on the following page illustrates what the electrical components of a narrow front-folding planter should look like. 12 rows are shown, but the same concept applies when there are more (or fewer) rows units and 6 rows across the back instead of 4.

Figure 1: Cable Routing Diagram

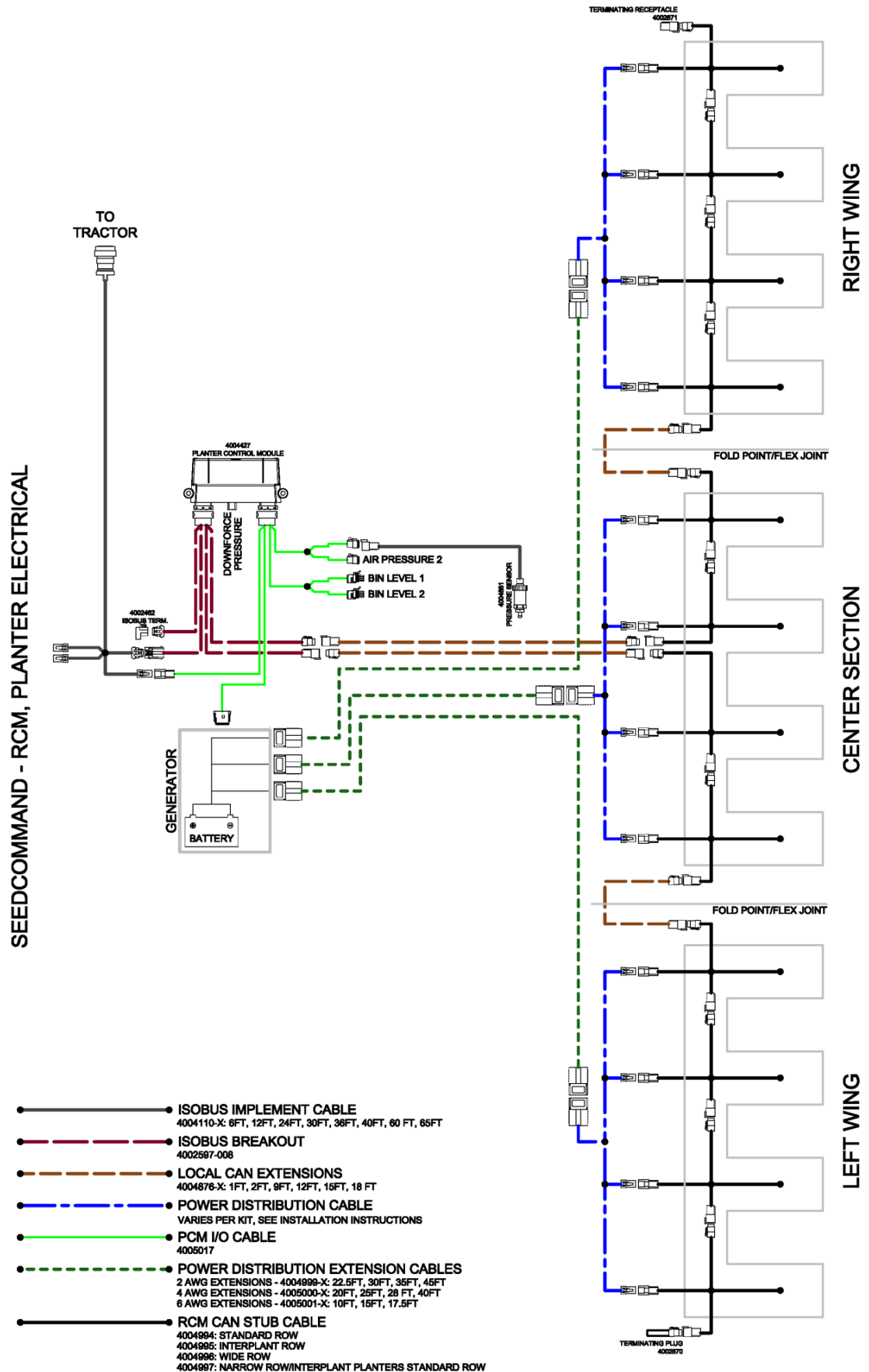


Table 1: Power and Distribution Cables

| Front-Fold Planters (6 Rows Across the Rear when Folded) | | | | |
|--|-------|-------|-------|-------|
| Cable P/N with Description | 12R | 16R | 24R | 36R |
| P/N: 4005011 – 3 Row Power Distribution | 2 | - | - | - |
| P/N: 4004975 – 4 Row Power Distribution | - | - | 2 | - |
| P/N: 4004976 – 6 Row Power Distribution | 1 | 3 | 3 | 1 |
| P/N: 4004977 – 8 Row Power Distribution | - | - | - | 4 |
| P/N: 4005001-10 – 6 ga. Power Ext (CENTER SECTION) | 1 | 1 | 1 | 1 |
| P/N: 4005000-20 – 4 ga. Power Ext (WING SECTIONS CLOSEST TO CENTER) | 2 | - | - | - |
| P/N: 4005000-25 – 4 ga. Power Ext (WING SECTIONS CLOSEST TO CENTER) | - | 2 | - | - |
| P/N: 4005000-28 – 4 ga. Power Ext (WING SECTIONS CLOSEST TO CENTER) | - | - | - | 2 |
| P/N: 4004999-23 – 2 ga. Power Ext (WING SECTIONS CLOSEST TO CENTER) | - | - | 2 | - |
| P/N: 4004999-35 – 2 ga. Power Ext (OUTER WING SECTIONS) | - | - | 2 | - |
| P/N: 4004999-45 – 2 ga. Power Ext (OUTER WING SECTIONS) | - | - | - | 2 |
| Narrow Front-Fold Planters (4 Rows Across the Rear when Folded) | | | | |
| Cable P/N with Description | 12R | 16R | 24R | 36R |
| P/N: 4004975 – 4 Row Power Distribution | 3 | 1 | 3 | - |
| P/N: 4004976 – 6 Row Power Distribution | - | 2 | 2 | - |
| P/N: 4005001-10 – 6 ga. Power Ext (CENTER SECTION) | 1 | 1 | 1 | - |
| P/N: 4005000-20 – 4 ga. Power Ext (WING SECTIONS CLOSEST TO CENTER) | 2 | - | - | - |
| P/N: 4004999-23 – 2 ga. Power Ext (WING SECTIONS CLOSEST TO CENTER) | - | 2 | 2 | - |
| P/N: 4004999-35 – 2 ga. Power Ext (OUTER WING SECTIONS) | - | - | 2 | - |
| Front-Fold Interplant Planters | | | | |
| Cable P/N with Description | 12/23 | 12/24 | 16/31 | 16/32 |
| P/N: 4005027 – 6-Row Power Distribution (Narrow Row / Interplant) | - | - | 4 | - |
| P/N: 4005030 – 9-Row Power Distribution (Narrow Row / Interplant) | - | - | 1 | - |
| P/N: 4005001-10 – 6 ga. Power Ext (CENTER SECTION) | - | - | 1 | - |
| P/N: 4005000-20 – 4 ga. Power Ext (WING SECTIONS CLOSEST TO CENTER) | - | - | 2 | - |
| P/N: 4005000-28 – 4 ga. Power Ext (WING SECTIONS CLOSEST TO CENTER) | - | - | 2 | - |

11. Connect power extension cables to generator.

- Shortest extension is for center section connectors.
- Longer extensions are for outer wing connectors.

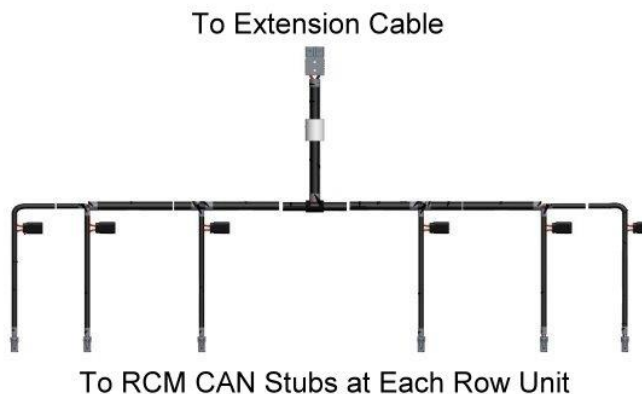
See [Table 1](#) page 7 for additional clarification.

- **NOTE:** Power connectors on generator do not technically need to correspond to certain planter sections, but doing so is recommended for logical reasons.



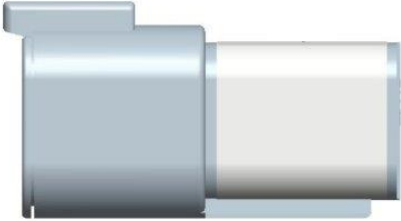
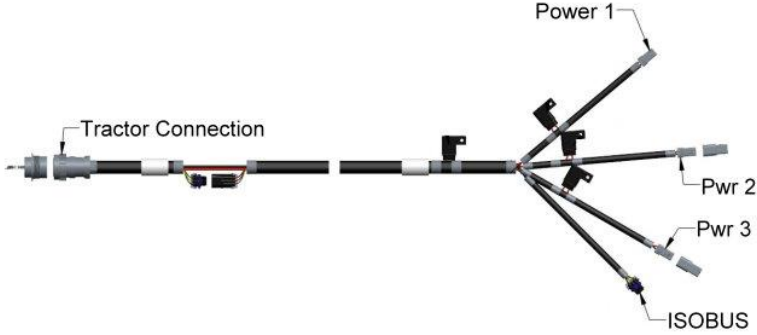
12. Connect power distribution cables to extension cables installed in previous step. See [Table 1](#) page 7 for additional clarification.

- **NOTE:** Distribution cable shown is for 6 rows. Cables may have 4 or 8 drops, depending on planter configuration.



13. Connect terminating plug to mating connector of RCM CAN stub at left-most row unit. It is important to use the correct terminator so the display will know that the left-most row unit is row #1. See [Figure 1](#) on page 6 for additional clarification.



| | |
|--|---|
| <p>14. Connect terminating receptacle to mating connector of RCM CAN stub at right-most row unit.</p> <ul style="list-style-type: none"> ■ Connect each row unit RCM CAN stub to its adjacent row units so all row units are connected across planter. ■ Connect PCM to local CANBUS at middle of planter using 9 ft CAN extensions. ■ 2 ft CAN extensions are provided to go between row units where toolbar flex joints are present. ■ 9 ft CAN extensions are provided to go around toolbar fold joints. |  |
| <p>15. Install implement harness on planter frame near PCM and connect to PCM as follows:</p> <ol style="list-style-type: none"> a. Power 1 connector of implement cable mates with “ground” receptacle of PCM I/O cable. b. ISOBUS plug of implement cable mates with receptacle of PCM ISOBUS breakout cable. <p>16. Install terminator (PCM kit) on remaining ISOBUS connector of PCM ISOBUS breakout cable.</p> |  |
| <p>17. Route opposite end of implement cable to tractor. Implement cable extensions are available if required.</p> <p>18. Connect implement cable to IBBC connector of ISOBUS Power/Control assembly at rear of tractor. If an ISOBUS retrofit kit has not been installed, that must be done before this final step can be completed. Detailed installation instructions are provided in ISOBUS retrofit kit.</p> <p>See Lineart for additional clarification.</p> | |

Post-Installation Checklist

- All cable ends and terminations are connected.
- All cables are secured with cable ties.
- Verify planter can fold and unfold without cable damage.
- Verify CAN terminators are on correct ends of planter.