



# AGRICULTURAL

## 2024 Parts Catalog



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## IntelliAg™: WSMTII

## Components



**Topcon X35**



**Working Set Master Module**



**Working Set Member Module**



**Tractor ECU**



**Master Switch**

**Don't forget to select a:**

- Seed Sensor
- Application Rate Sensor
- Implement Lift Switch
- Ground Speed Sensor
- Boom Switch Module
- Accessory Module

IntelliAg™ is a control and monitoring system for planters, sprayers, spreaders, and anhydrous applications. The system is designed to the ISO 11783 guideline to operate with any manufacturer's equipment. Modules can be added and configured to fit a variety of needs.

The system is designed to work with any ISO Universal Terminal that interfaces with specific application control modules referred to as a Working Set Master (WSMT) and Working Set Members (WSMB). The WSMT controls the application of material by interfacing with proportional hydraulic valves and feedback sensors. Optional WSMB's control inputs from sensors, valves, rows monitoring, seed singulation, and spacing quality.

**Application specific versions of the WSMT are available for use with:**

- Sprayers (WSMT2)
- Fertilizer spreaders
- Anhydrous bars (WSMT2)
- Planters/grain drills
- Air carts

**The minimum requirements to operate an IntelliAg™ system include a:**

- Virtual Terminal
- Master Switch
- Working Set Master (WSMT)
- Harnesses
- Tractor ECU
- CAN Terminators
- Implement Lift Switch

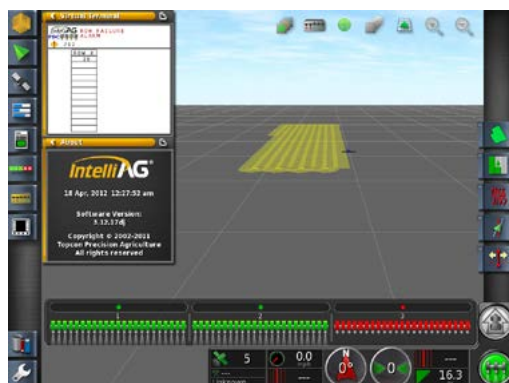
**Optional components include:**

- Working Set Member Module
- Boom Switch Module with Planter Output Module
- Remote Test Switch

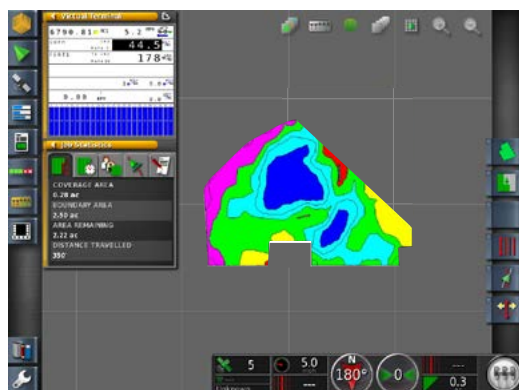
**Features/Benefits:**

- ISO 11783 conformance allows for one terminal for quick retrofit to tractors and implements
- Standard electrical connector at hitch for convenient plug and play installation
- Full screen alarms identify abnormal or failed operations
- Retains information when power failure occurs
- Logs 'As Applied' data
- Variable rate application capable

## 12" Virtual Terminal



**Topcon X35 Guidance Screen**



**Imported Variable Rate Map**

### Don't forget to select a:

- Seed Sensor
- Application Rate Sensor
- Implement Lift Switch
- Ground Speed Sensor
- Row/Boom Switch Module
- Accessory Module

## Topcon X35

The Topcon X35 virtual terminal display is the main user interface with the IntelliAg™ system and provides an all-in-one control for planting, spraying, and spreading applications. A dedicated IntelliAg™ button allows quick viewing access to the IntelliAg™ display and can also remain open in a mini view window on the guidance screen for viewing both applications simultaneously.

An As Applied job can be started quickly to record as applied data. Several features are available when creating an As Applied job including:

- Creating a field boundary
- Creating exclusion zones
- Creating flag points to mark field obstacles
- Creating headlands
- Using boundary offsets
- Exporting job as a .pdf to a job report

Variable rate control job data is created using a farm management software tool and is imported to the terminal via a USB memory device. Automatic rate adjustment occurs when entering different zones in the prescription map.

### Key terminal features:

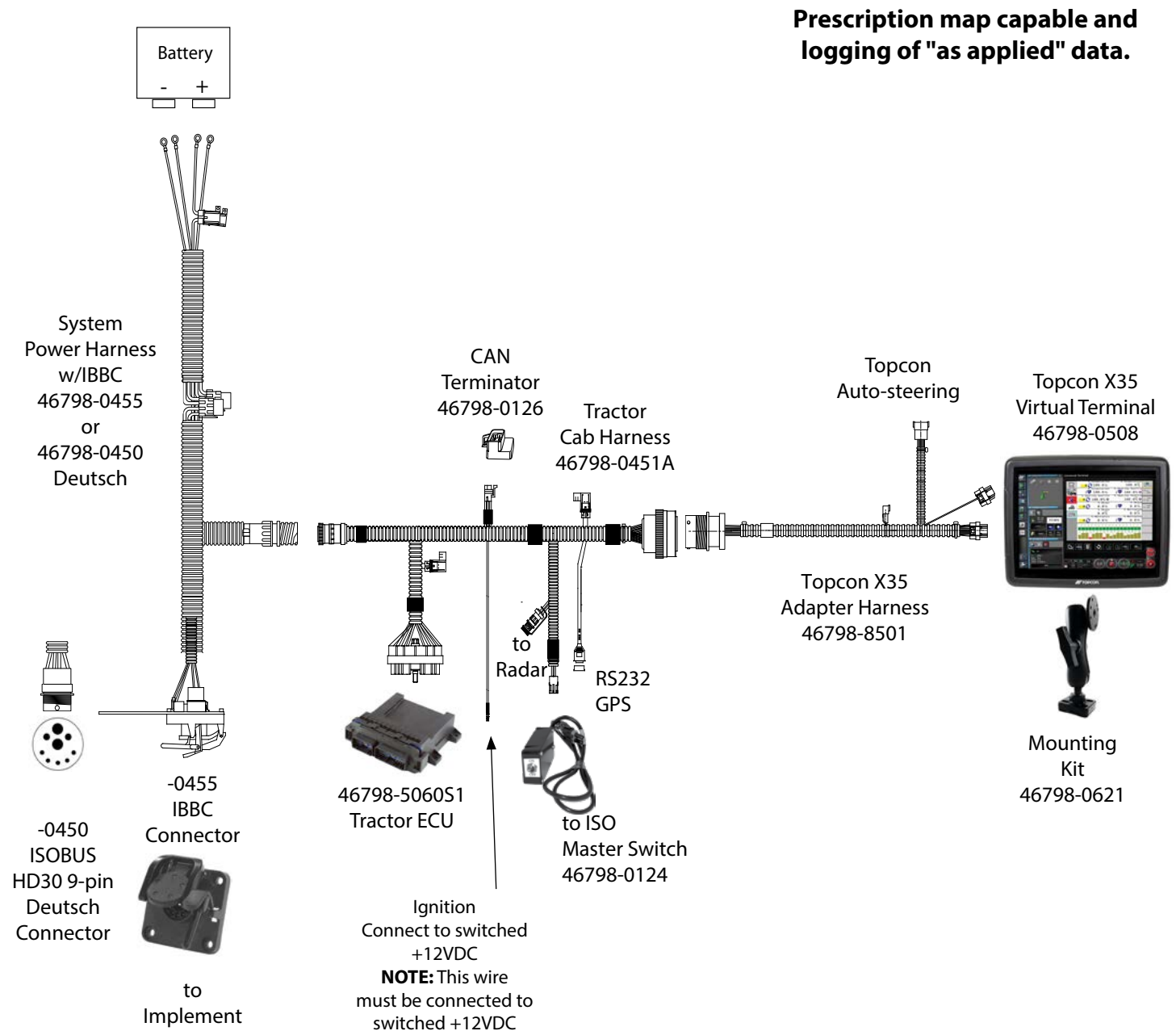
- Integrated auto section control
- Mini-view windows with drag-and-drop positioning
- Interaction keypads with expandable menus
- Icon-based user interface
- Dashboard readouts provide constant, convenient basic data
- Full-screen views for detailed information

*Not compatible with Trimble Autopilot systems*

| 12" Virtual Terminal Kit                                             |                                          |
|----------------------------------------------------------------------|------------------------------------------|
| Part Number                                                          | Description                              |
| <b>X35CABKIT</b>                                                     |                                          |
| Kits contain one each of the below components (excluding 46798-0450) |                                          |
| 46798-0508                                                           | Display Console, X35                     |
| 46798-0621                                                           | Terminal Mounting Bracket and Hardware   |
| 46798-0126                                                           | Mini CAN Terminator                      |
| 11011-6416                                                           | Ty-Wrap Bundle 64-7 in. and 16-14 in.    |
| 46798-0455                                                           | System Power Harness with IBBC Connector |
| 46798-0451A                                                          | Tractor Harness                          |
| 46798-8501                                                           | Topcon X35 to X30 Adapter Harness        |
| 46798-5060S1                                                         | Tractor Electronic Control Unit (TECU)   |

Topcon X35 Virtual Terminal

Harness Diagram



## IntelliAg™

## Camera and Accessories



An optional camera can be installed on the rear of the tractor or on the implement and connected to the Topcon X35, AI-100, and AI-50 terminal. Video displays on the terminal and provides the added benefits of:

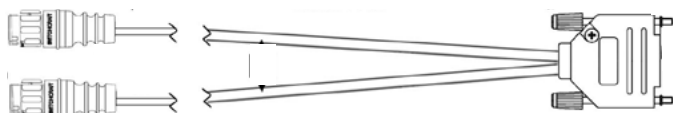
- Viewing blind spots
- Backing up to implement
- View of implement activity while operating
- Safety pre-caution to reduce accidental equipment damage or bodily injury

### Features:

- 100% waterproof
- Anodized solid aluminum housing
- Auto infrared night vision
- Heavy-duty mounting magnet
- Made in the USA



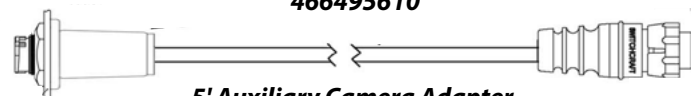
**Topcon X35 Monitor Adapter**  
**466459645**



**AI-100 Monitor Adapter**  
**466495640**



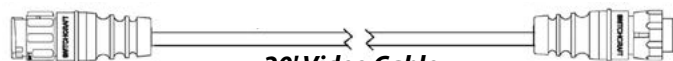
**AI-70 Monitor Adapter**  
**466495610**



**5' Auxiliary Camera Adapter**  
**456495650**



**10' Video Cable**  
**456495655**



**20' Video Cable**  
**456495620**



**40' Video Cable**  
**456495660**



**50' Video Cable**  
**456495665**



**Cable Assembly 90° Angled Pigtail**  
**456495670**

| Camera and Accessories |                                                    |
|------------------------|----------------------------------------------------|
| Part Number            | Description                                        |
| 46649-5600             | Camera; 4.3 Lens                                   |
| 46649-5645             | Topcon X35 Monitor Adapter                         |
| 46649-5640             | AI-100 Monitor Adapter                             |
| 46649-5610             | AI-70 Monitor Adapter                              |
| 46649-5650             | Camera Cable Assembly, 5' auxiliary camera adapter |
| 46649-5655             | Camera Cable Assembly, 10' shielded video cable    |
| 46649-5620             | Camera Cable Assembly, 20' shielded video cable    |
| 46649-5660             | Camera Cable Assembly, 40' shielded video cable    |
| 46649-5665             | Camera Cable Assembly, 50' shielded video cable    |
| 46649-5670             | Camera Cable Assembly, 90° angled camera pigtail   |

IntelliAg™

ISO<sub>6</sub>

| ISO <sub>6</sub> Master Modules |                        |
|---------------------------------|------------------------|
| FEATURE KEY LEGEND              |                        |
| ADV                             | Advanced Seed Data     |
| TRM                             | Tramline               |
| VS                              | Virtual Switches       |
| FLD                             | Frame Fold             |
| IRC                             | Individual Row Control |
| Part Number                     | Feature Keys           |
| <b>2 Channels</b>               |                        |
| 46798-7413S1                    |                        |
| 46798-7409S1                    | ADV                    |
| 46798-7410S1                    | ADV, TRM               |
| 46798-7414S1                    | TRM                    |
| 46798-7415S1                    | VS, TRM                |
| 46798-7416S1                    | ADV, VS                |
| 46798-7417S1                    | VS                     |
| 46798-7430S1                    | ADV, VS, IRC           |
| <b>3 Channels</b>               |                        |
| 467987418S1                     |                        |
| 467987419S1                     | ADV                    |
| 467987432S1                     | TRM                    |
| 467987433S1                     | ADV, VS                |
| 467987420S1                     | ADV, VS, FLD           |
| <b>4 Channels</b>               |                        |
| 467987423S1                     |                        |
| 467987408S1                     | ADV                    |
| 467987411S1                     | ADV, TRM               |
| 467987422S1                     | TRM                    |
| 467987434S1                     | ADV, VS                |
| 467987421S1                     | VS                     |
| 467987441S1                     | TRM, FLD               |
| 467987440S1                     | ADV, VS, IRC           |
| <b>5 Channels</b>               |                        |
| 467987424S1                     | ADV                    |
| <b>6 Channels</b>               |                        |
| 467987425S1                     |                        |
| 467987427S1                     | VS, TRM                |
| 467987426S1                     | ADV, VS                |
| 467987428S1                     | ADV, VS, TL            |
| 467987412S1                     | ADV, VS, FLD, TRM      |
| 467987429S1                     | ADV, FLD               |
| 467987431S1                     | ADV, FLD, IRC          |
| <b>7 Channels</b>               |                        |
| 467987470S1                     |                        |
| 467987471S1                     | ADV, VS, FLD, TRM      |
| <b>8 Channels</b>               |                        |
| 467987480S1                     |                        |
| 467987481S1                     | ADV, VS, FLD, TRM      |
| 467987482S1                     | ADV, VS, FLD, TRM, IRC |



TOPCON



JOHN DEERE



CNH

The IntelliAg™ ISO<sub>6</sub> is an intelligent agricultural implement control and monitoring system. Based on the ISO 11783 standard, this system provides up to eight channels of control for multiple material types such as seeding, granular, and liquid applications from one module.

The integration continues as ISO<sub>6</sub> provides advanced seed monitoring for row crop planting. Seed singulation and spacing quality are now provided as standard features, eliminating installation inconvenience and additional module and harnessing expense. These features, when combined with the Hy Rate™ Plus Seed Sensor, provide the most accurate planting data available at high seeding rates.

Designed for rapid utilization, the ISO<sub>6</sub> provides flexible feature sets that can easily be customized to meet specific needs. Implement fold sequencing is one example where those needs can be identified and incorporated with minimal effort. The result is the elimination of a switch module that would otherwise be required.

This same approach provides section shutoff capabilities without a switch module given the utilization of a universal terminal with virtual switches and task controller functionality.

- The ISO<sub>6</sub> platform provides an intuitive and user-friendly system setup and operation menu for all technological skill levels.
- Setup icons can be removed or restricted based on user levels for added system integrity.
- The main working screen interface is customizable and provides both a numerical and graphical representation of work that is being done.
- The size and location of instruments, such as a seeding rate gauge, can be altered for personal preference.
- The ISO<sub>6</sub> interface provides multiple page customization of differing information to provide more options for analysis of system performance.
- A major advantage of ISO<sub>6</sub> is a producer can use his existing ISOBUS Virtual Terminal, please see ISO<sub>6</sub> Technical Data Sheet for most updated list of tested compatible virtual terminals.

## SECONDARY MODULES

| Type                     | Part Number | Description                  |
|--------------------------|-------------|------------------------------|
| <b>MEMBER MODULES</b>    |             |                              |
| WSMB                     | 467981100S1 | 18 ROWS SENSOR INPUT (BASIC) |
| WSMB2                    | 467988320S1 | 18 ROWS ADVANCED SEED DATA   |
| <b>OUTPUT MODULES</b>    |             |                              |
| POM                      | 467982001S1 | PLANTER OUTPUT MODULE        |
| BOM                      | 467982001S1 | BOOM OUTPUT MODULE           |
| TROM                     | 467982002S1 | TRAMLINE OUTPUT MODULE       |
| <b>FOLD MODULE</b>       |             |                              |
| FCOM                     | 467982050S1 | FOLD OUTPUT MODULE           |
| FPOM                     | 467982051S1 | FOLD/CLUTCH OUTPUT MODULE    |
| <b>SWITCH MODULES</b>    |             |                              |
| RSM                      | 467984264S1 | ROW SWITCH MODULE (6)        |
| BSM                      | 467984030S1 | BOOM SWITCH MODULE (6)       |
| ESM                      | 467984040S1 | EXTENDED SWITCH MODULE (6)   |
| <b>ACCESSORY MODULES</b> |             |                              |
| ACC Module               | 467981105S1 | ACCESSORY INPUT MODULE       |
|                          | 467988335S1 | WSMB2 ACC MODULE             |
| <b>IRC MODULES</b>       |             |                              |
|                          | 452950061S1 | IRC GENERIC MODULE DOGA      |
| <b>TCECU</b>             |             |                              |
|                          | 467985060S1 | TRACTOR ECU                  |

## HARNESSING

\* HIGH CURRENT POWER CONNECTOR SUPPORT ONLY

| Type                   | Part Number | Description                                      |
|------------------------|-------------|--------------------------------------------------|
| <b>MAIN T HARNESS</b>  | 467980850   | 37-PIN CPC PM STYLE W/ OUT APER                  |
|                        | 467980851   | DEUTSCH 12-PIN SE STYLE W/ OUT APER              |
|                        | 467980852   | 37-PIN CPC PM STYLE W/APER                       |
|                        | 467980858   | 37-PIN CPC PM STYLE W/OUT APER 6 CHANNEL SUPPORT |
|                        | 467980859*  | HIGH CURRENT HARNESS, MOLEX CONNECTORS ONLY      |
| <b>CONTROL HARNESS</b> | 467980160   | 4 CH, 4 PWM, 2 SERVO, RPM, HOPPER W/O APER       |
|                        | 467980161   | 4 CH, 4 PWM, 2 SERVO, RPM, HOPPER W/APER         |
|                        | 467980164   | 4 CH, 4 PWM, 2 SERVO, HOPPER, RPM OR AIR         |
|                        | 467980162   | 2 CH, 2 PWM, 1 RPM, 1 HOPPER                     |
|                        | 467980165   | 1 RPM, 1 HOPPER                                  |
|                        | 467980166   | 6 CH, 4 PWM, 2 SERVO, RPM, HOPPER W/OUT APER     |
|                        | 467980168*  | PWM/SERVO CONTROL HARNESS                        |
|                        | 467980191*  | FEEDBACK/SWITCH HARNESS                          |
|                        | 467980177*  | 4 PWM, 2 LINEAR ACTUATOR                         |

## HARNESSING CONTD.

| Type                           | Part Number | Description                                            |
|--------------------------------|-------------|--------------------------------------------------------|
| <b>ACCESSORY HARNESS (CPC)</b> | 467980201   | ACCESSORY HARNESS 4 AIR, 2 RPM, 3 HOPPER               |
|                                | 467980861   | ACCESSORY 5 BOOM INPUTS 2 RPM, 2 HOPPER, 4 GATE HEIGHT |
| <b>CAN/POWER EXTENSIONS</b>    | 467980142   | 5' CAN/POWER Extension                                 |
|                                | 467980141   | 10' CAN/POWER Extension                                |
|                                | 467980140   | 20' CAN/POWER Extension                                |
|                                | 467980143   | 25' CAN/POWER Extension                                |
|                                | 467980144   | 40' CAN/POWER Extension                                |
|                                | 467980146   | 45' CAN/POWER Extension                                |
| <b>WSMB/WSMB T HARNESS</b>     | 467981200   | 37-PIN CPC AMP                                         |
|                                | 467981201A  | DEUTSCH CONNECTORS                                     |
|                                | 467981806*  | HIGH CURRENT HARNESS                                   |
| <b>WSMB OUTPUT HARNESS</b>     | 467983505   | TRU COUNT CLUTCH HARNESS 8 OUTPUTS                     |
|                                | 467983100   | 6 LIQUID BOOM OUTPUT HARNESS (3-WIRE SHUTOFFS)         |
|                                | 467983101   | 6 LIQUID BOOM OUTPUT HARNESS (2-WIRE SHUTOFFS TO BOM)  |
|                                | 467982100   | HARNESS 12 ROW SHUT OFF                                |
|                                | 467983508   | STANDARD POM HARNESS 6 OUTPUTS                         |
| <b>FCOM HARNESSES</b>          | 467983509   | FCOM 8 OUTPUTS 4 INPUTS                                |
| <b>DRIVER HARNESSES</b>        | 464820521*  | DRIVER HARNESS FOR PWM 5-8                             |
|                                | 464820510S1 | DRIVER HARNESS FOR CLUTCHES >2 AMPS                    |
| <b>TROM HARNESSES</b>          | 467983510*  | TROM OUTPUT HARNESS                                    |
|                                | 467983511*  | TROM LINEAR ACTUATOR OUPUT HARNESS                     |
| <b>POWER ADAPTERS</b>          | 467980483*  | M POWELL TO F DEUTSCH ADAPTER                          |
|                                | 467980484*  | F POWELL TO M DEUTSCH ADAPTER                          |
| <b>DROP SPREADER</b>           | 467980178*  | DROP SPREADER HARNESS                                  |

## IntelliAg™ WSMT2

### Base System - Planter

- IntelliAg™ Virtual Terminal Topcon X35
- Tractor harness for use virtual terminal
- System power harness with ISO hitch connector
- ISO master switch to control on/off
- Hitch extension harness
- PDC - WSMT2
- WSMT2 T harness
- Control harness for connection to valves and feedback sensors

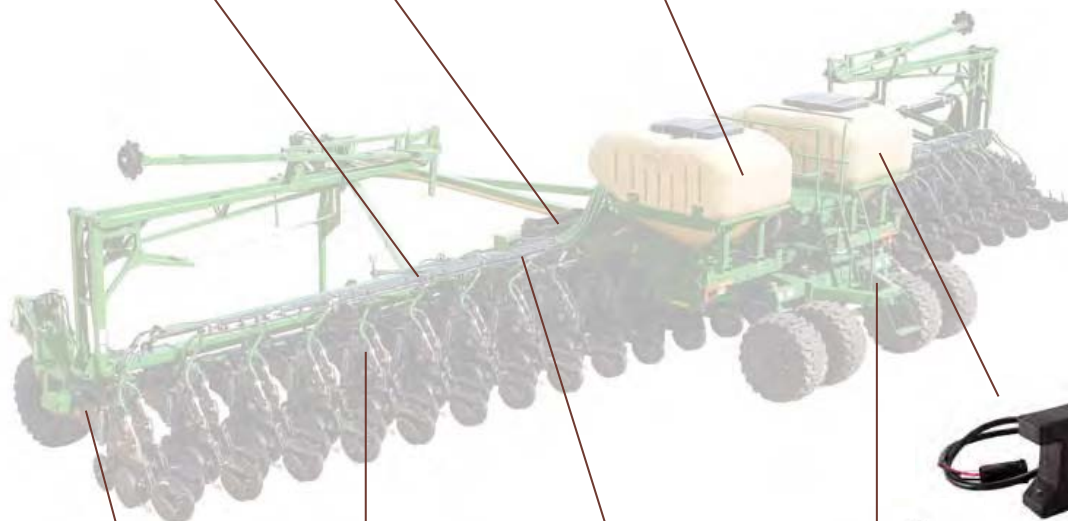
WSMB



WSMTII-PDC



Air Pressure  
Sensor



Application  
Rate Sensor



Hy Rate™  
Seed Sensor



HD 4180™  
Hydraulic  
Motor/Control Valve



Lift Switch



Hopper Level  
Sensor



## Monitor and Control

### Module WSMB



An accessory module is required for planters larger than 16 rows. Capable of processing 18 seed sensor inputs for communication to control module.

### Module WSMB2



Seed singulation and spacing quality are available when using the WSMB2 module.

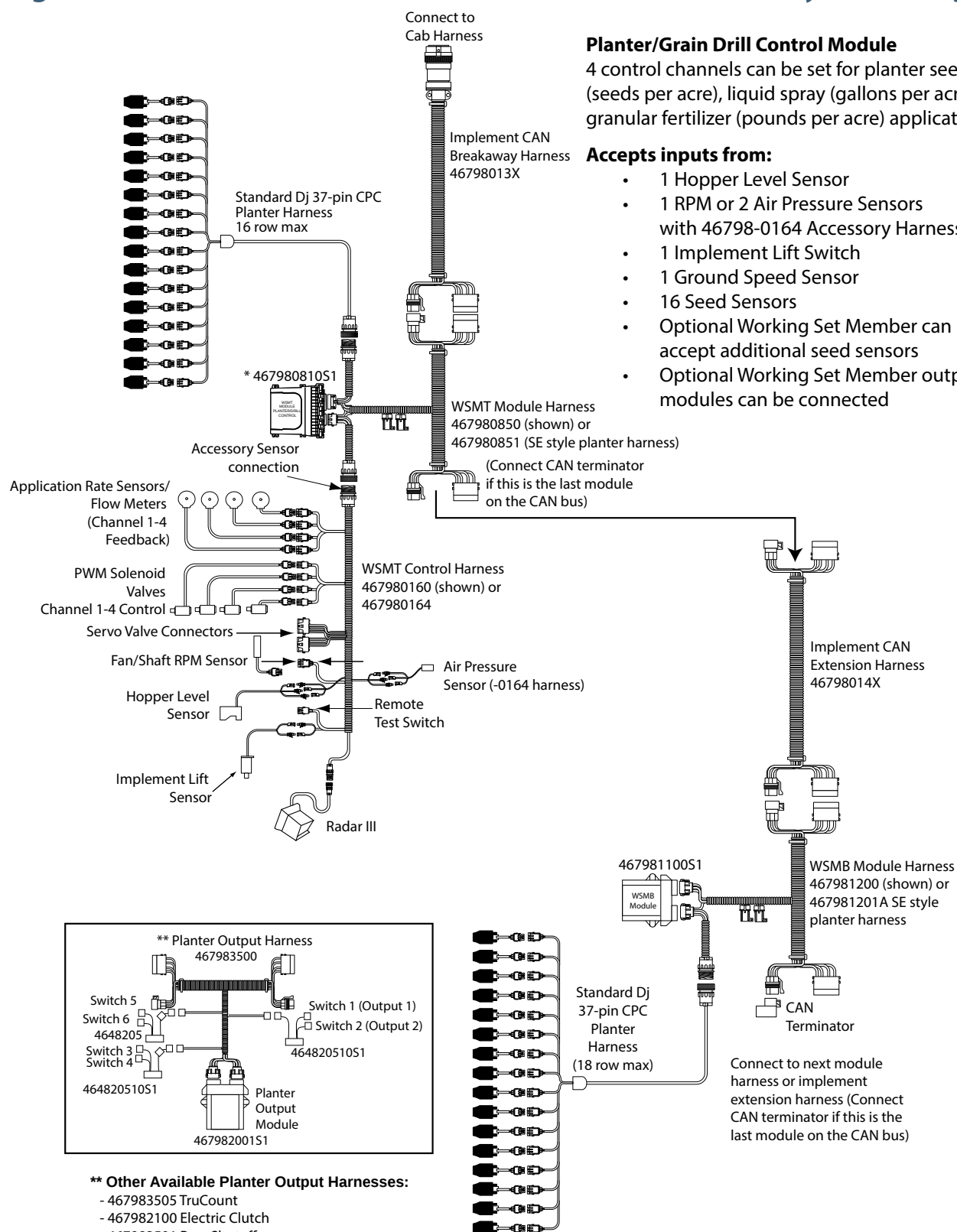
### Accessory Module WSMB



Accessory module connects to the accessory harness to add up to 2 hopper, 2 air, and 2 RPM sensors.

## IntelliAg™ WSMT2

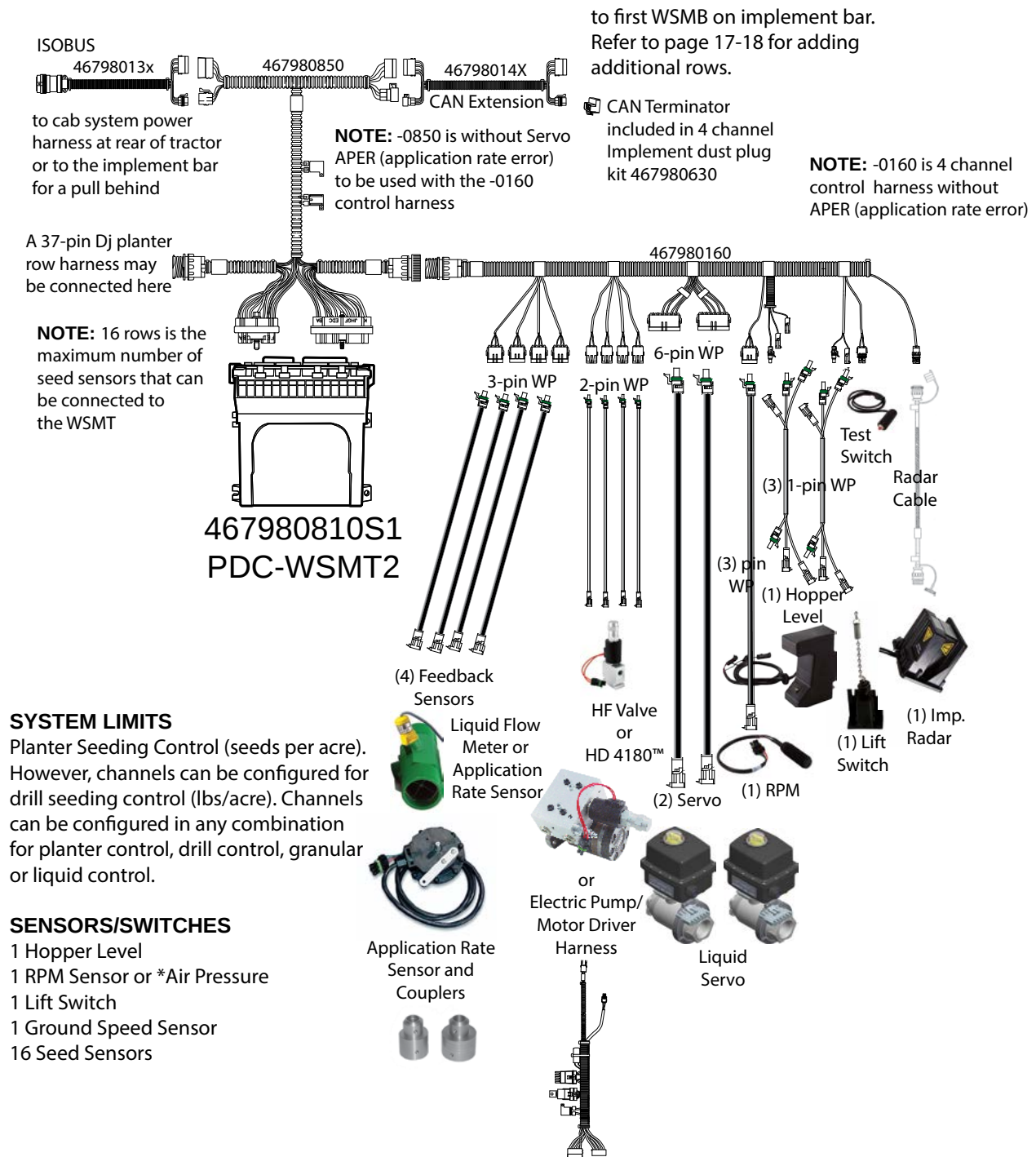
## System Diagram



\* Harnessing for WSMT2 4 channel control

# IntelliAg™ WSMT2

## -0850 WSMT Harness without Servo APER (-0160 4 channel control harness without APER)



## IntelliAg™ WSMT2

### HITCH EXTENSIONS

| Part Number | Description                          |
|-------------|--------------------------------------|
| 467980134   | Hitch Extension 6'                   |
| 467980132   | Hitch Extension 10'                  |
| 467980136   | Hitch Extension 15'                  |
| 467980131   | Hitch Extension 20'                  |
| 467980133   | Hitch Extension 30'                  |
| 467980130   | Hitch Extension 40'                  |
| 467980810S1 | WSMT                                 |
| 467980850   | WSMT Harness                         |
| 467980142   | CAN Extension 5'                     |
| 467980141   | CAN Extension 10'                    |
| 467980140   | CAN Extension 20'                    |
| 467980143   | CAN Extension 25'                    |
| 467980144   | CAN Extension 40'                    |
| 467980146   | CAN Extension 45'                    |
| 467980630   | 4 Ch. Imp. Dust Plug Kit w/CAN Term. |
| 110110099   | Ty Wrap Bundle 100 14"               |
| 110011485   | PDC User Manual                      |
| 467980160   | Control Harness                      |

### HOPPER LEVEL 1

| Part Number | Description                         |
|-------------|-------------------------------------|
| 466820720S3 | Hopper Level Sensor                 |
| 466820721S1 | Hopper Level Sensor w/ 1/2" Bushing |
| 466820713   | 3-1Pin WP Ext. Cable 5'             |
| 466820712S1 | 3-1Pin WP Ext. Cable 10'            |
| 466820714   | 3-1Pin WP Ext. Cable 15'            |
| 466820710S3 | 3-1Pin WP Ext. Cable 20'            |

### RPM SENSOR 1

| Part Number | Description                       |
|-------------|-----------------------------------|
| 463500030S1 | Hall Effect Sensor RPM (Smooth)   |
| 466970014S1 | Hall Effect Sensor RPM (Threaded) |
| 459680922   | HES Ext. Cable 3Pin WP 15'        |

### APPLICATION RATE SENSOR

| Part Number | Description                          |
|-------------|--------------------------------------|
| 464360178S1 | Application Rate Sensor 360 1' Cable |
| 464360176S1 | AR Sensor 5' Cable                   |
| 464360179S1 | AR Sensor 6' Cable                   |
| 464360170S1 | AR Sensor 10' Cable                  |
| 464360171S1 | AR Sensor 15' Cable                  |
| 464360177S1 | AR Sensor 22' Cable                  |
| 464360172S1 | AR Sensor 30' Cable                  |
| 457141810   | App. Rate 1" Coupler                 |
| 457141850   | App. Rate 1.25" Coupler              |
| 467092218   | HD4180 to AR Sensor Coupler & Hrdwre |
| 467092221   | HD4180 to AR Sensor Coupler          |
| 457901810   | 3Pin WP Ext. Cable 15'               |
| 457901811   | 3Pin WP Ext. Cable 30'               |
| 457901812   | 3Pin WP Ext. Cable 45'               |

### LIFT SWITCH AND RADAR

| Part Number | Description                       |
|-------------|-----------------------------------|
| 463720150S1 | Implement Lift Switch             |
| 464820520S1 | Lift Switch - Whisker Type        |
| 466820713   | 3-1Pin WP Ext. Cable 5'           |
| 466820712S1 | 3-1Pin WP Ext. Cable 10'          |
| 466820714   | 3-1Pin WP Ext. Cable 15'          |
| 466820710S3 | 3-1Pin WP Ext. Cable 20'          |
| 467831000S9 | Radar III w/ 14' Cable & Mtg Brkt |
| 439400024   | Radar Extension 10'               |
| 439400065   | Radar Extension 15'               |
| 439400064   | Radar Extension 25'               |
| 464210515S1 | Test Switch                       |

## System Parts List

### FLOW METERS

| Part Number  | Description            |
|--------------|------------------------|
| 466491170S1  | Flow Meter 1/2"        |
| PM00370023S1 | Flow Meter 3/4"        |
| PM00370030S1 | Flow Meter 1"          |
| PM00370040S1 | Flow Meter 1.5"        |
| PM00370048S1 | Flow Meter 2"          |
| PM00370068S1 | Flow Meter 3"          |
| PM00370088S1 | Flow Meter 4"          |
| PMNPT70116S1 | SS Flow Meter 1/2"     |
| PMNPT70121S1 | SS Flow Meter 3/4"     |
| PMNPT70126S1 | SS Flow Meter 1"       |
| PMNPT70136S1 | SS Flow Meter 1-1/2"   |
| PMNPT70146S1 | SS Flow Meter 2"       |
| 457901810    | 3Pin WP Ext. Cable 15' |
| 457901811    | 3Pin WP Ext. Cable 30' |
| 457901812    | 3Pin WP Ext. Cable 45' |

### LIQUID VALVE AND ACTUATOR (LIQUID FLOW CONTROL)

| Part Number | Description                                         |
|-------------|-----------------------------------------------------|
| 467095010   | Valve & Actuator Assy. 3/8" 2-Way Stainless Steel   |
| 467095220   | Valve & Actuator Assy. 3/8" 3-Way Stainless Steel   |
| 467095020   | Valve & Actuator Assy. 1/2" 2-Way Stainless Steel   |
| 467095030   | Valve & Actuator Assy. 3/4" 2-Way Poly              |
| 467095280   | Valve & Actuator Assy. 1" 2-Way Poly                |
| 467095290   | Valve & Actuator Assy. 1" 2-Way Stainless Steel     |
| 467095050   | Valve & Actuator Assy. 1-1/2" 3-Way Poly            |
| 467095140   | Valve & Actuator Assy. 1-1/2" 3-Way Stainless Steel |
| 467095150   | Valve & Actuator Assy. 2" 2-Way Stainless Steel     |
| 467095160   | Valve & Actuator Assy. 2" 3-Way Stainless Steel     |
| 467095170   | Valve & Actuator Assy. 3" 2-Way Stainless Steel     |
| 457901820   | 6Pin WP Extension Cable 15'                         |
| 457901821   | 6Pin WP Extension Cable 30'                         |

### ELECTRIC MOTOR DRIVER

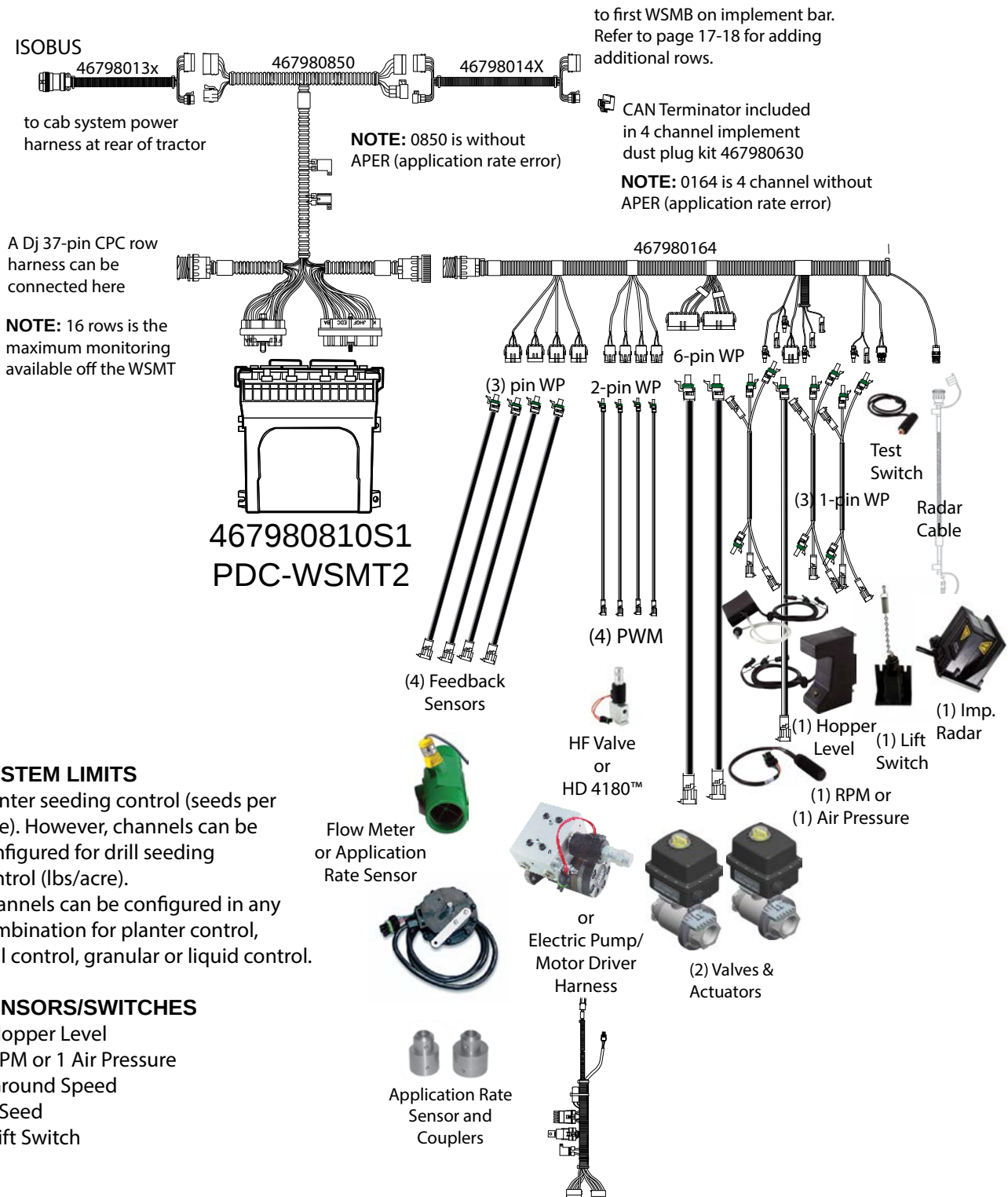
| Part Number | Description                            |
|-------------|----------------------------------------|
| 467980490   | High Current Electric Motor Harness    |
| 467980390   | Power Harness (high current < 10 Amps) |

### PULSE-WIDTH MODULATION CONTROLS 1-4

| Part Number | Description                          |
|-------------|--------------------------------------|
| 467092004S1 | Hydraulic Valve HydraForce 4 GPM     |
| 467092008S1 | Hydraulic Valve HydraForce 8 GPM     |
| 467092050S1 | Hydraulic Valve HydraForce 25 GPM    |
| 467092200S1 | HD4180 w/Integrated Valve            |
| 467092219   | HD4180 Mounting Bracket              |
| 467092219S1 | HD4180 Pltr Mtg Brckt & Hardware Kit |
| 467980470   | 12 Ga. 2Pin WP Ext. Cable 15'        |
| 467980471   | 12 Ga. 2Pin WP Ext. Cable 20'        |
| 467980473   | 12 Ga. 2Pin WP Ext. Cable 30'        |
| 467980472   | 12 Ga. 2Pin WP Ext. Cable 40'        |

# IntelliAg™ WSMT2

## -0850 WSMT Harness without APER (-0164 4 channel control harness without APER)



### SYSTEM LIMITS

Planter seeding control (seeds per acre). However, channels can be configured for drill seeding control (lbs/acre). Channels can be configured in any combination for planter control, drill control, granular or liquid control.

### SENSORS/SWITCHES

- 1 Hopper Level
- 1 RPM or 1 Air Pressure
- 1 Ground Speed
- 16 Seed
- 1 Lift Switch

## IntelliAg™ WSMT2

### HITCH EXTENSIONS

| Part Number | Description                          |
|-------------|--------------------------------------|
| 467980134   | Hitch Extension 6'                   |
| 467980132   | Hitch Extension 10'                  |
| 467980136   | Hitch Extension 15'                  |
| 467980131   | Hitch Extension 20'                  |
| 467980133   | Hitch Extension 30'                  |
| 467980130   | Hitch Extension 40'                  |
| 467980135   | Hitch Extension 50'                  |
| 467980810S1 | WSMT                                 |
| 467980850   | WSMT Harness                         |
| 467980142   | CAN Extension 5'                     |
| 467980141   | CAN Extension 10'                    |
| 467980140   | CAN Extension 20'                    |
| 467980143   | CAN Extension 25'                    |
| 467980144   | CAN Extension 40'                    |
| 467980146   | CAN Extension 45'                    |
| 467980630   | 4 Ch. Imp. Dust Plug Kit w/CAN Term. |
| 110110099   | Ty Wrap Bundle 100 14"               |
| 110011485   | PDC User Manual                      |
| 467980164   | Control Harness                      |

### HOPPER LEVEL 1

| Part Number | Description                         |
|-------------|-------------------------------------|
| 466820720S3 | Hopper Level Sensor                 |
| 466820721S1 | Hopper Level Sensor w/ 1/2" Bushing |
| 466820713   | 3-1Pin WP Ext. Cable 5'             |
| 466820712S1 | 3-1Pin WP Ext. Cable 10'            |
| 466820714   | 3-1Pin WP Ext. Cable 15'            |
| 466820710S3 | 3-1Pin WP Ext. Cable 20'            |

### RPM SENSOR 1

| Part Number | Description                       |
|-------------|-----------------------------------|
| 463500030S1 | Hall Effect Sensor RPM (Smooth)   |
| 466970014S1 | Hall Effect Sensor RPM (Threaded) |
| 459680922   | HES Ext. Cable 3Pin WP 15'        |

### APPLICATION RATE SENSOR

| Part Number | Description                          |
|-------------|--------------------------------------|
| 464360178S1 | Application Rate Sensor 360 1' Cable |
| 464360176S1 | AR Sensor 5' Cable                   |
| 464360179S1 | AR Sensor 6' Cable                   |
| 464360170S1 | AR Sensor 10' Cable                  |
| 464360171S1 | AR Sensor 15' Cable                  |
| 464360177S1 | AR Sensor 22' Cable                  |
| 464360172S1 | AR Sensor 30' Cable                  |
| 457141810   | App. Rate 1" Coupler                 |
| 457141850   | App. Rate 1.25" Coupler              |
| 467092221   | HD4180 to AR Sensor Coupler          |
| 457901810   | 3Pin WP Ext. Cable 15'               |
| 457901811   | 3Pin WP Ext. Cable 30'               |
| 457901812   | 3Pin WP Ext. Cable 45'               |

### LIFT SWITCH AND RADAR

| Part Number | Description                       |
|-------------|-----------------------------------|
| 463720150S1 | Implement Lift Switch             |
| 464820520S1 | Lift Switch - Whisker Type        |
| 466820713   | 3-1Pin WP Ext. Cable 5'           |
| 466820712S1 | 3-1Pin WP Ext. Cable 10'          |
| 466820714   | 3-1Pin WP Ext. Cable 15'          |
| 466820710S3 | 3-1Pin WP Ext. Cable 20'          |
| 467831000S9 | Radar III w/ 14' Cable & Mtg Brkt |
| 439400024   | Radar Extension 10'               |
| 439400064   | Radar Extension 25'               |
| 464210515S1 | Test Switch                       |

## System Parts List

### AIR PRESSURE 1-4

| Part Number | Description                         |
|-------------|-------------------------------------|
| 466820920S1 | Air Pressure Sensor                 |
| 466820922S1 | Air Pressure Sensor w/ 1/2" Bushing |
| 466820713   | 3-1Pin WP Ext. Cable 5'             |
| 466820712S1 | 3-1Pin WP Ext. Cable 10'            |
| 466820714   | 3-1Pin WP Ext. Cable 15'            |
| 466820710S3 | 3-1Pin WP Ext. Cable 20'            |

### PULSE-WIDTH MODULATION CONTROLS 1-4

| Part Number | Description                          |
|-------------|--------------------------------------|
| 467092004S1 | Hydraulic Valve HydraForce 4 GPM     |
| 467092008S1 | Hydraulic Valve HydraForce 8 GPM     |
| 467092050S1 | Hydraulic Valve HydraForce 25 GPM    |
| 467092200S1 | HD4180 w/Integrated Valve            |
| 467092219   | HD4180 Mounting Bracket              |
| 467092219S1 | HD4180 Pltr Mtg Brckt & Hardware Kit |
| 467980470   | 12 Ga. 2Pin WP Ext. Cable 15'        |
| 467980471   | 12 Ga. 2Pin WP Ext. Cable 20'        |
| 467980473   | 12 Ga. 2Pin WP Ext. Cable 30'        |
| 467980472   | 12 Ga. 2Pin WP Ext. Cable 40'        |

### FLOW METERS

| Part Number  | Description            |
|--------------|------------------------|
| PM00370018S1 | Flow Meter 1/2"        |
| PM00370023S1 | Flow Meter 3/4"        |
| PM00370030S1 | Flow Meter 1"          |
| PM00370040S1 | Flow Meter 1.5"        |
| PM00370048S1 | Flow Meter 2"          |
| PM00370068S1 | Flow Meter 3"          |
| PM00370088S1 | Flow Meter 4"          |
| PMNPT70116S1 | SS Flow Meter 1/2"     |
| PMNPT70121S1 | SS Flow Meter 3/4"     |
| PMNPT70126S1 | SS Flow Meter 1"       |
| PMNPT70136S1 | SS Flow Meter 1-1/2"   |
| PMNPT70146S1 | SS Flow Meter 2"       |
| 457901810    | 3Pin WP Ext. Cable 15' |
| 457901811    | 3Pin WP Ext. Cable 30' |
| 457901812    | 3Pin WP Ext. Cable 45' |

### LIQUID VALVE AND ACTUATOR (LIQUID FLOW CONTROL)

| Part Number | Description                                         |
|-------------|-----------------------------------------------------|
| 467095010   | Valve & Actuator Assy. 3/8" 2-Way Stainless Steel   |
| 467095220   | Valve & Actuator Assy. 3/8" 3-Way Stainless Steel   |
| 467095020   | Valve & Actuator Assy. 1/2" 2-Way Stainless Steel   |
| 467095030   | Valve & Actuator Assy. 3/4" 2-Way Poly              |
| 467095280   | Valve & Actuator Assy. 1" 2-Way Poly                |
| 467095290   | Valve & Actuator Assy. 1" 2-Way Stainless Steel     |
| 467095050   | Valve & Actuator Assy. 1-1/2" 3-Way Poly            |
| 467095140   | Valve & Actuator Assy. 1-1/2" 3-Way Stainless Steel |
| 467095150   | Valve & Actuator Assy. 2" 2-Way Stainless Steel     |
| 467095160   | Valve & Actuator Assy. 2" 3-Way Stainless Steel     |
| 467095170   | Valve & Actuator Assy. 3" 2-Way Stainless Steel     |
| 457901820   | 6Pin WP Extension Cable 15'                         |
| 457901821   | 6Pin WP Extension Cable 30'                         |

### ELECTRIC MOTOR DRIVER

| Part Number | Description                            |
|-------------|----------------------------------------|
| 467980490   | High Current Electric Motor Harness    |
| 467980390   | Power Harness (high current < 10 Amps) |

### ISO6 SPECIFIC HARNESSES

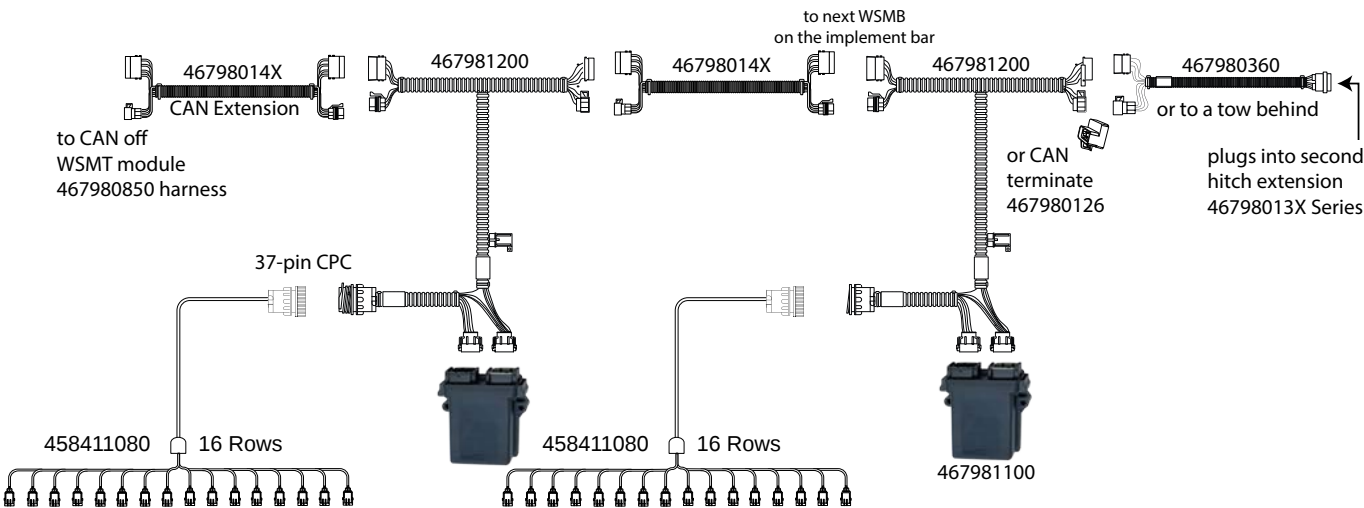
| Part Number | Description               |
|-------------|---------------------------|
| 467980858   | WSMT ISO6 T Harness       |
| 467980166   | 6 Channel Control Harness |
| 467983509   | Frame Fold Harness        |

IntelliAg™ WSMT2

Row Harnesses

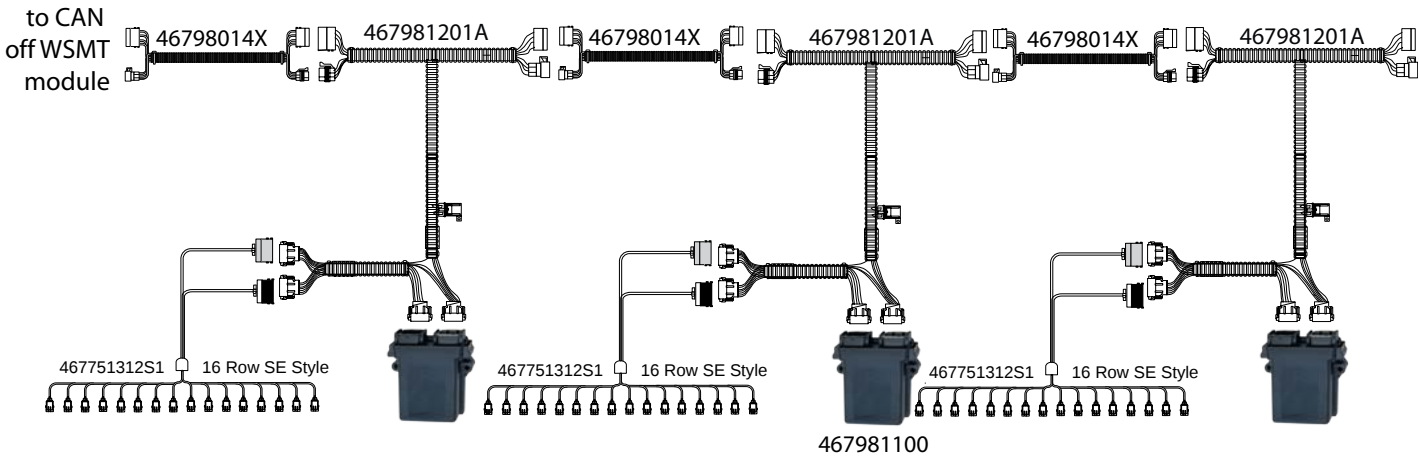
Add Additional Rows

37-pin CPC WSMB Harness



**SYSTEM LIMITS**  
18 Seed Rows per WSMB  
12 WSMB modules per ACC WSMT  
10 WSMB modules per PDC WSMT

SE Style WSMB Harness



## IntelliAg™ WSMT2

## System Parts List

### HITCH EXTENSIONS

| Part Number | Description         |
|-------------|---------------------|
| 467980134   | Hitch Extension 6'  |
| 467980132   | Hitch Extension 10' |
| 467980136   | Hitch Extension 15' |
| 467980131   | Hitch Extension 20' |
| 467980133   | Hitch Extension 30' |
| 467980130   | Hitch Extension 40' |
| 467980135   | Hitch Extension 50' |
| 467981100S1 | WSMB                |
| 467981201   | WSMB Harness        |
| 467980142   | CAN Extension 5'    |
| 467980141   | CAN Extension 10'   |
| 467980140   | CAN Extension 20'   |
| 467980143   | CAN Extension 25'   |
| 467980144   | CAN Extension 40'   |
| 467980146   | CAN Extension 45'   |
| 467980126   | CAN Terminator      |

### CAN TO HITCH CONNECTOR HARNESS

THIS HARNESS ACCOMMODATES DISCONNECTION OF A TOW BEHIND.

| Part Number | Description                           |
|-------------|---------------------------------------|
| 467980360   | Rear Implement Hitch Harness 3'       |
| 467980361   | Rear Implement Hitch Harness IBBC 6'  |
| 467980362   | Rear Implement Hitch Harness IBBC 20' |
| 467980363   | Rear Implement Hitch Harness IBBC 25' |

### ROW HARNESS (37-PIN CPC)

| Part Number | Description                            |
|-------------|----------------------------------------|
| 458410530   | 4 Row Planter Harness                  |
| 458410550   | 6 Row Planter Harness                  |
| 458410570   | 8 Row Planter Harness                  |
| 458410590   | 12 Row Planter Harness                 |
| 458411080   | 16 Row Planter Harness (in diagram)    |
| 459680960   | 12 Row Y Cable to use 2-6 Row Pltr Hrn |
| 459680950   | 16 Row Y Cable to use 2-8 Row Pltr Hrn |
| 458410600   | 16 Row 2-8 Row Pltr Hrn w/16 Row Y     |
| 459680940   | 24 Row Y Cable to use 2-12 Row Hrn     |
| 467980445   | JD 32 Row Reverse Y Harness            |
| 467980446   | 32 Row Reverse Y Harness               |

#### CASE IH

|           |                         |
|-----------|-------------------------|
| 458410860 | 12 Row Horz. Fold       |
| 459680321 | REQUIRES 30' Extensions |
| 458410610 | 16 Row Horz. Fold       |
| 459680321 | REQUIRES 30' Extensions |

#### KINZE

|           |                                |
|-----------|--------------------------------|
| 458410570 | 8 Row Econo Fold               |
| 458410810 | REQUIRES 6' Extension (16 row) |
| 458410610 | 12 Row Econo Fold              |
| 458410810 | REQUIRES 30' Extension         |

#### STACKER BAR

|           |                  |
|-----------|------------------|
| 458410980 | 2 Row Tri-Cable  |
| 458411010 | 12 Row Tri-Cable |

### ROW HARNESS EXTENSIONS

| Part Number | Description               |
|-------------|---------------------------|
| 458410810   | 6 ft. Extension (16 row)  |
| 459680320   | 15 ft. Extension (16 row) |
| 459680321   | 30 ft. Extension (16 row) |
| 458410820   | 15 ft. Extension (32 row) |
| 458410790   | 30 ft. Extension (32 row) |

### ROW HARNESS (SE STYLE)

| Part Number                      | Description              |
|----------------------------------|--------------------------|
| <b>Used In This Example:</b>     |                          |
| 467980280                        | 18 Row SE style Air Cart |
| <b>Other SE style Harnesses:</b> |                          |
| 467751300S1                      | 12 Row 7.5"              |
| 467751301S1                      | 12 Row 15"               |
| 467751302S1                      | 12 Row 30"               |
| 467751310S1                      | 16 Row 7.5"              |
| 467751311S1                      | 16 Row 15"               |
| 467751312S1                      | 16 Row 30"               |
| 467751320S1                      | 12 Row Air Cart          |
| 467751330S1                      | 16 Row Air Cart          |
| 467980280                        | 18 Row Air Cart          |

### SEED SENSOR EXTENSIONS

| Part Number | Description                  |
|-------------|------------------------------|
| 459680920   | 3' Sensor Extension 3Pin WP  |
| 459680923S1 | 4' Sensor Extension 3Pin WP  |
| 459680921   | 6' Sensor Extension 3Pin WP  |
| 459680922   | 15' Sensor Extension 3Pin WP |

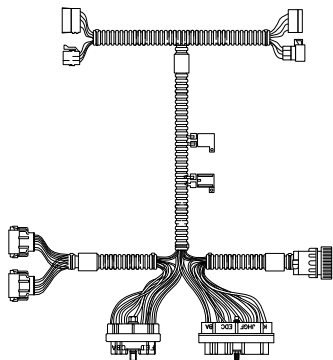
### SEED AND BLOCKAGE SENSORS

| Part Number | Description                       |
|-------------|-----------------------------------|
| 151350008   | Small Tube A25925                 |
| 452440881A  | Small Grain CT w/Hi Rate (Vacuum) |
| 452440971   | Small Grain Curved Tube w/Hi Rate |
| 452440980   | Monosem Chute w/Hi Rate NG        |
| 452441010S3 | AGCO White 6100 Hi-Rate           |
| 453520350S1 | Nodet Sensor Only                 |
| 453520360S1 | Nodet Chute & Sensor              |
| 453520370S1 | Nodet Planter II                  |
| 454650271   | Monosem PBC PNU                   |
| 454650330S1 | Monosem NG                        |
| 454910750S1 | Case ASM Hi-Rate                  |
| 461530420S1 | Small Tube Vacuum Planter         |
| 461642230S3 | Cyclo Air 400/500/800/900         |
| 461700030S1 | Landoll                           |
| 467120030S3 | AGCO White 5100 & 7500            |
| 461800060   | Buffalo Plateless Planter         |
| 465260010S1 | Hi-Rate Grain Drill               |
| 465790010S3 | Jeantill                          |
| 467420010S1 | Recon Material Flow               |
| 467420100S1 | Recon Flow with 2' Harness        |
| 467420701S1 | Vigilense 25 mm                   |
| 467420702S1 | Vigilense 25 mm with SS Insert    |
| 467420711S1 | Vigilense 32 mm                   |
| 467420712S1 | Vigilense 32 mm with SS Insert    |
| 467420730S1 | Vigilense 32 mm with SS Outlet    |
| 467420720S1 | Vigilense 45 mm                   |
| 467420721S1 | Vigilense 45 mm with SS Insert    |
| 467700090S1 | Monosem Mecca 2000                |
| 467700100S1 | Monosem MS Vegetable              |
| 467700220S1 | Stanhay Dart II                   |
| 467760010S1 | Case ASM Hi-Rate Sensor Only      |

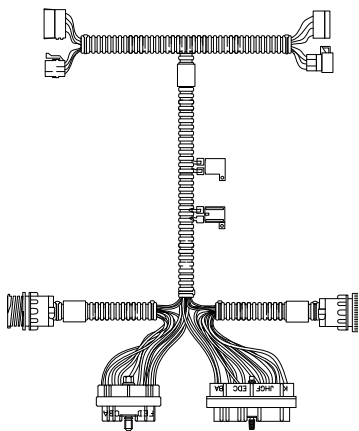
IntelliAg™ WSMT2



WSMT2 Module



WSMT Harness 46798-0851



WSMT Harness 46798-0850 and -0852



Cab to Implement Harness Hitch Extension  
46798013X

Working Set Master Module

The Working Set Master Module (WSMT2) houses the system's primary interface device. All system parameters, constants, and memory are stored in the WSMT and controls the application of material by interfacing with proportional hydraulic valves and feedback sensors. Several WSMT modules are available for a variety of applications.

| Working Set Master Module |                                                    |
|---------------------------|----------------------------------------------------|
| Part Number               | Description                                        |
| 46798-0810S1              | Module, PDC-WSMT2 (Planter/Drill Control)          |
| 46798-0630                | 4 Channel Implement Dust Plug Kit with Terminators |
| 11011-0099                | Ty Wrap Bundle 100 14 in.                          |

Working Set Master Harness

| WSMT Harnessing |                                                          |
|-----------------|----------------------------------------------------------|
| Part Number     | Description                                              |
| 46798-0850      | WSMT Harness 37-pin CPC without APER (PDC)               |
| 46798-0851      | WSMT Harness Seed Manager SE style without APER (PDC)    |
| 46798-0852      | WSMT Harness 37-pin CPC with APER (Material Application) |

**NOTE:** SE style harnesses have 1 gray and 1 black 12-pin Deutsch DT connector.

Cab to WSMT Harness Hitch Extension

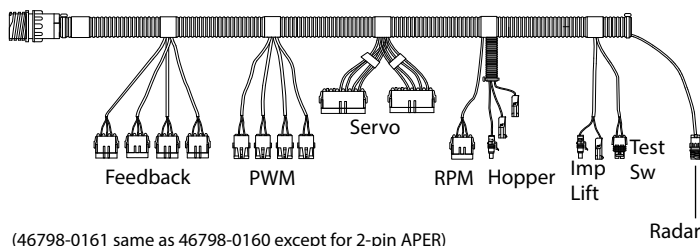
| Tractor Cab to Implement Harness Hitch Extensions |                                       |
|---------------------------------------------------|---------------------------------------|
| Part Number                                       | Description                           |
| 46798-0134                                        | 6 ft. Hitch Extension ISO system CAN  |
| 46798-0132                                        | 10 ft. Hitch Extension ISO system CAN |
| 46798-0136                                        | 15 ft. Hitch Extension ISO system CAN |
| 46798-0131                                        | 20 ft. Hitch Extension ISO system CAN |
| 46798-0133                                        | 30 ft. Hitch Extension ISO system CAN |
| 46798-0130                                        | 40 ft. Hitch Extension ISO system CAN |
| 46798-0135                                        | 50 ft. Hitch Extension                |
| 46798-0457                                        | 40 ft. Hitch to Hitch Extension       |

Implement Kit

| IAPDCIMPKIT Planter/Drill Control Implement Kit consists of the following |                                                    |
|---------------------------------------------------------------------------|----------------------------------------------------|
| Part Number                                                               | Description                                        |
| 46798-0810S1                                                              | Module, PDC-WSMT2 (Planter/Drill Control)          |
| 46798-0850                                                                | WSMT Harness 37-pin CPC without APER (PDC)         |
| 46798-0160                                                                | Control Harness                                    |
| 46798-0630                                                                | 4 Channel Implement Dust Plug Kit with Terminators |
| 11001-1509A                                                               | Operator's Manual User Level 2                     |
| 11001-1510                                                                | Operator's Manual User Level 1                     |

## IntelliAg™ WSMT2

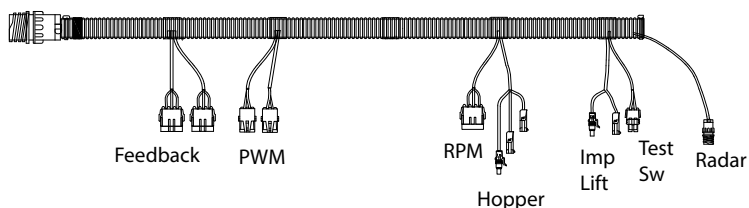
## WSMT Harnesses (Control Channel/Accessory Inputs)



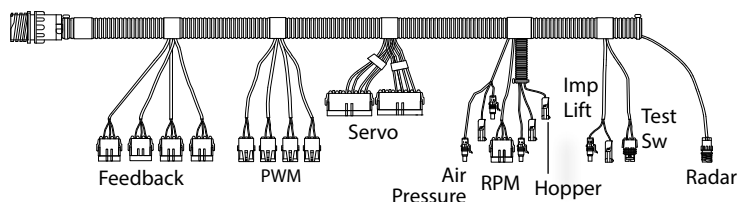
(46798-0161 same as 46798-0160 except for 2-pin APER)

**4 Channel Control Harness PDC 46798-0160**

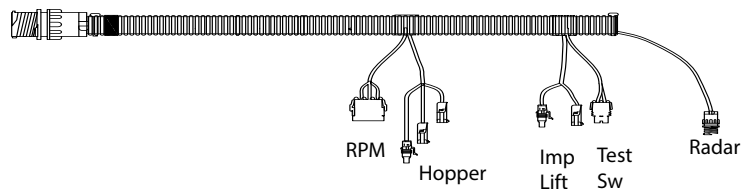
| 37-pin CPC Control Harnesses |                                                                               |
|------------------------------|-------------------------------------------------------------------------------|
| Part Number                  | Description                                                                   |
| 46798-0160                   | WSMT Planter Drill Control 4 Ch Control Harness without APER (app error rate) |
| 46798-0161                   | WSMT Material Application 4 Ch Control Harness with APER (app error rate)     |
| 46798-0162                   | WSMT Planter Drill Control 2 Ch Control/Sensor Harness                        |
| 46798-0164                   | WSMT 4 Ch Control Harness with RPM/ Air Pressure                              |
| 46798-0165                   | Monitor Only Harness                                                          |



**Harness PDC 46798-0162**



**Pressure Harness with RPM/Air Pressure  
46798-0164**



**Monitor Only Harness (PDC)  
46798-0165**

IntelliAg™ WSMT2

Row Monitoring/Seed Singulation/Accessories



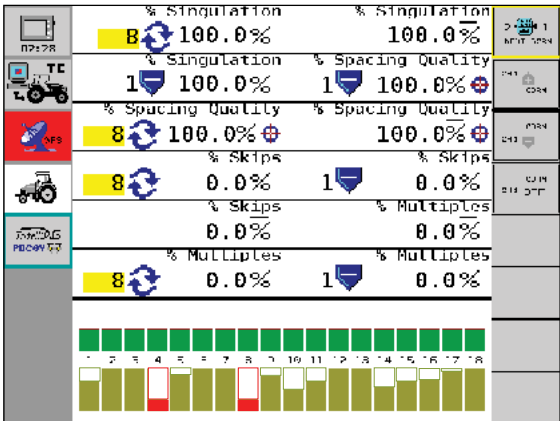
WSMB



WSMB2  
Seed Singulation



Accessory Module



IntelliAg™ Work Screen displaying Seed Singulation  
%, Spacing Quality, Skips, and Multiples

Working Set Member Module

The Working Set Member Module (WSMB) is an auxiliary to the Working Set Master Module (WSMT). Each WSMB can accept up to 18 rows of seed sensors and passes information direct to the WSMT. Up to 10 WSMB's can be installed to monitor up to 196 rows. The flexible design allows for installation virtually any where on the implement.

Seed Singulation (WSMB2)

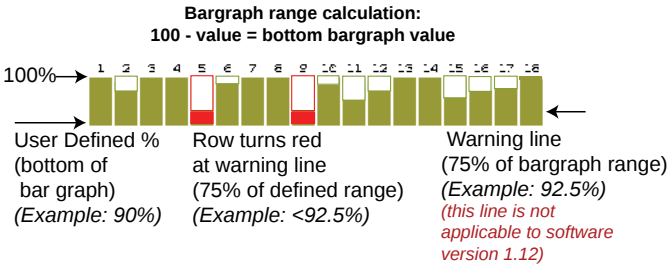
Seed singulation and spacing quality are features available when adding a Working Set Member 2 (WSMB2) module to the IntelliAg™ system that displays how seeds are planted within each seed row.

Singulation displays a percentage of seeds counted versus seeds expected. Spacing quality reflects how much spacing is occurring between each seed while planting and provides a comparison of row-to-row meter performance.

Accessory Module

Accessory module allows the addition of 2 hopper, 2 air, and 2 RPM sensors. Accessory module connects to the Accessory harness 46798-0205.

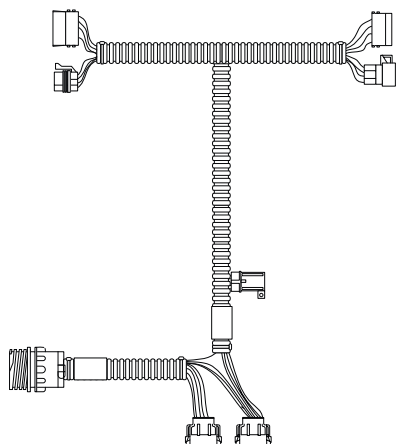
| Working Set Member Modules |                                                     |
|----------------------------|-----------------------------------------------------|
| Part Number                | Description                                         |
| 46798-1100S1               | WSMB Module (18 seed rows)                          |
| 46798-1105S1               | WSMB Accessory Module (2 hopper, 2 air, 2 RPM)      |
| 46798-8320S1               | WSMB2 Module (Seed Singulation and Spacing Quality) |
| 46798-8335S1               | WSMB2 ACC Module                                    |



## IntelliAg™ WSMT2

## WSMB Harnessing

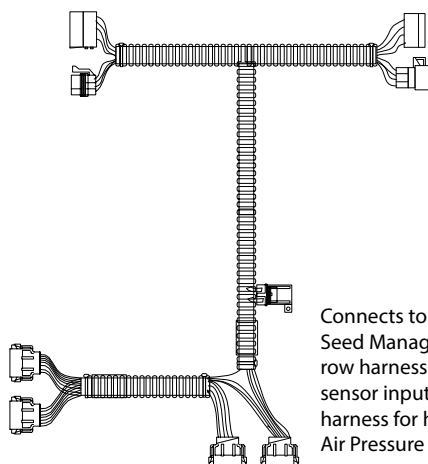
### WSMB Harness



**46798-1200 WSMB Harness**  
 Connects to 37-pin CPC Row Planter Harness

| WSMB Harnesses |                                                                           |
|----------------|---------------------------------------------------------------------------|
| Part Number    | Description                                                               |
| 46798-1200     | WSMB Harness to 37-pin CPC Planter Row Harness (connects to 46798-1100S1) |
| 46798-1201A    | WSMB Harness Accessory T Harness (connects to 46798-1105S1)               |
| 46798-0205     | WSMB Accessory Harness                                                    |

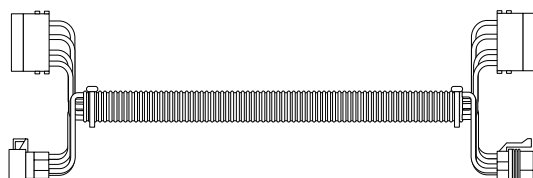
### WSMB CAN Extension Harness



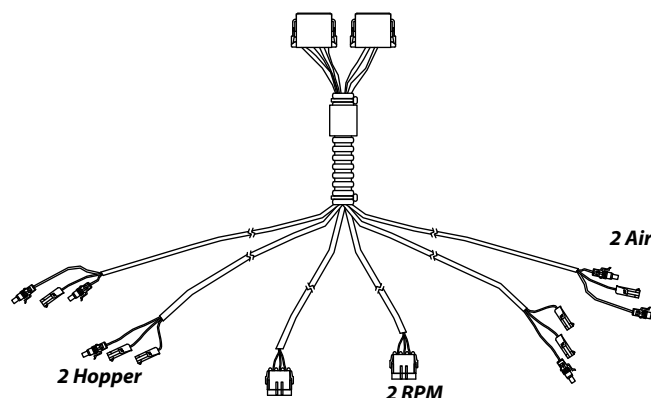
**46798-1201A WSMB Harness SE Style**  
 WSMB Harness SE style row connection has 1 gray and 1 black, 12-pin Deutsch DT connector

Connects to Seed Manager™ SE planter row harness for seed sensor inputs or Accessory harness for hopper and Air Pressure inputs.

| WSMB Harnesses |                       |
|----------------|-----------------------|
| Part Number    | Description           |
| 46798-0142     | WSMB Extension 5 ft.  |
| 46798-0141     | WSMB Extension 10 ft. |
| 46798-0140     | WSMB Extension 20 ft. |
| 46798-0143     | WSMB Extension 25 ft. |
| 46798-0144     | WSMB Extension 40 ft. |
| 46798-0146     | WSMB Extension 45 ft. |

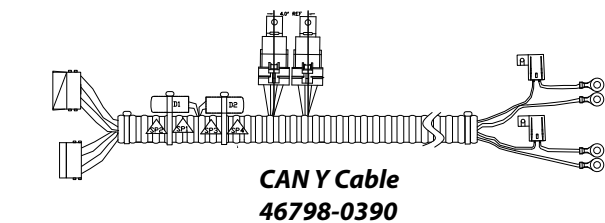
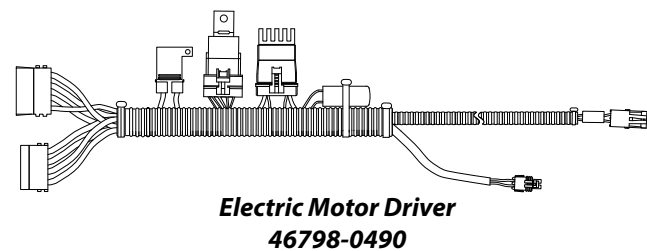
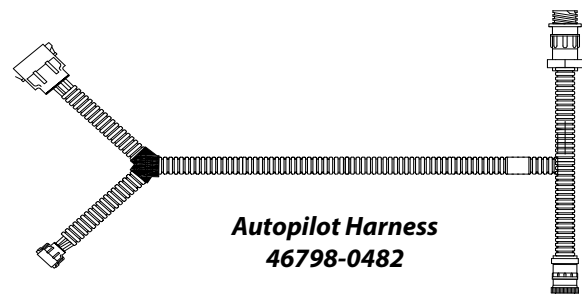


**46798-014X WSMB Extension Harness**



**WSMB Accessory Harness**  
**467980205**

IntelliAg™ WSMT2



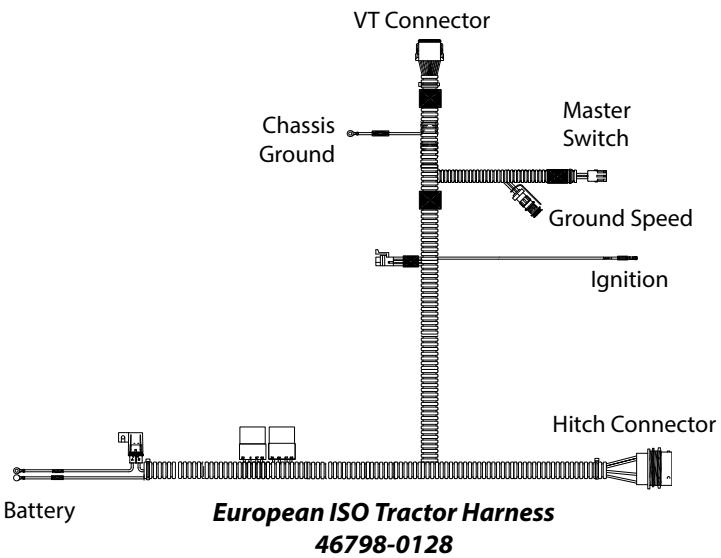
CAN to Hitch Connector Harnesses

Harness accommodates disconnection between implement and tow-behind air-cart to second hitch extension.

| Rear Implement Hitch Harness |                                                                      |
|------------------------------|----------------------------------------------------------------------|
| Part Number                  | Description                                                          |
| 46798-0360                   | Rear Implement Hitch Harness with Deutsch 9-pin (CAN to Hitch) 3 ft. |
| 46798-0361                   | Rear Implement Hitch Harness with IBBC 9-pin (CAN to Hitch) 6 ft.    |
| 46798-0362                   | Rear Implement Hitch Harness with IBBC 9-pin 20 ft.                  |
| 46798-0363                   | Rear Implement Hitch Harness with IBBC 9-pin 25 ft.                  |

Adapter Harnesses

| Adapter Harness |                                                                                    |
|-----------------|------------------------------------------------------------------------------------|
| Part Number     | Description                                                                        |
| 46798-0482      | Autopilot Interface Harness to IntelliAg                                           |
| 46798-0490      | Electric Motor Driver (solenoid relay cable for high current electric motor drive) |
| 46798-0330      | Case Tractor Cab Harness to Dj Boom Switch Module (CAN to CAN Extension)           |
| 46798-0335      | CFM to JD GS2 Cab Harness                                                          |
| 46798-0128      | European ISO Tractor Harness (short) without IBBC connector                        |
| 46798-0390      | ADX Power Harness                                                                  |



## IntelliAg™ WSMT2

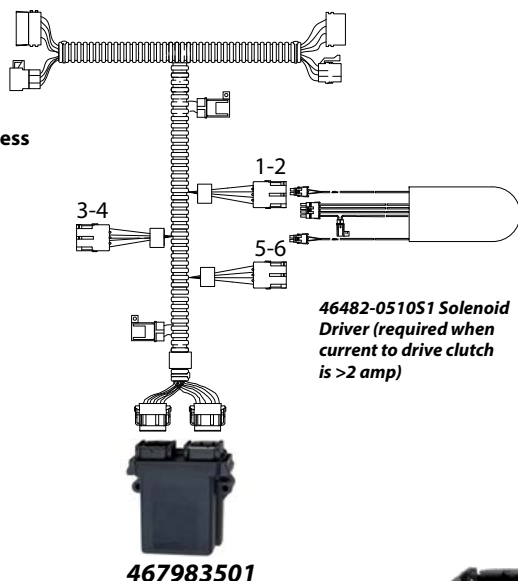
## WSMB Output Module

A WSMB Output Module communicates with the Row and Boom Switch Module for section on/off control.

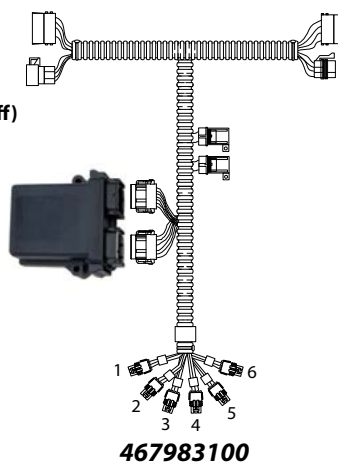
| Row Shutoff Parts |                                                                                                          |
|-------------------|----------------------------------------------------------------------------------------------------------|
| Part Number       | Description                                                                                              |
| 46798-2001S1      | Planter Output Module (POM)                                                                              |
| 46798-3501        | Row Shutoff Planter Output Module Harness (disengage)                                                    |
| 46798-3504        | Planter Output Module Harness for Electric Clutches (engage)                                             |
| 46798-3505        | Tru Count Clutch Module Harness                                                                          |
| 46798-3508        | Planter POM Harness                                                                                      |
| 46798-3100        | Liquid Boom Shutoff Harness (6 Boom/3-Wire Shutoff)                                                      |
| 46798-3101        | Liquid Boom Shutoff Harness (6 Boom/2-Wire Shutoff)<br>(used with non-DICKEY-john® Valves and 464820510) |
| 46798-2100        | Row Shutoff (RSO) Harness (12 solenoid)                                                                  |
| 46482-0510S1      | Solenoid Driver (plugs into 46798-3501 and -3101 for current >2 Amp)                                     |

**Planter POM  
Generic Harness**

Switch  
On = 12 V  
Off = 0 V

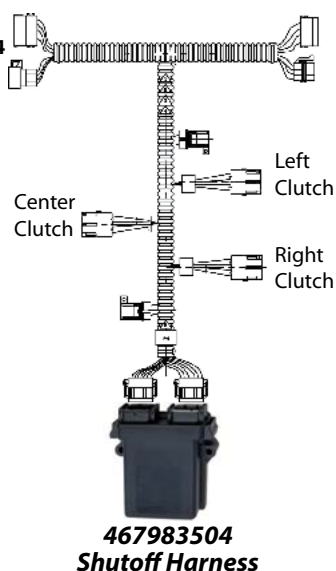


**Liquid  
BOM Harness  
(3-Wire Shutoff)**



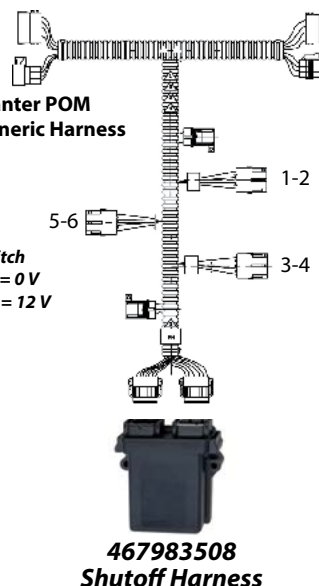
**6 Solenoid YP24  
Great Plains  
Output Clutch  
Harness**

Switch  
On = 12 V  
Off = 0 V



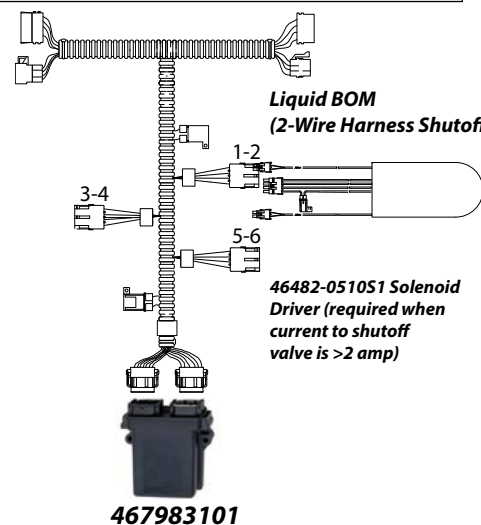
**Planter POM  
Generic Harness**

Switch  
On = 0 V  
Off = 12 V



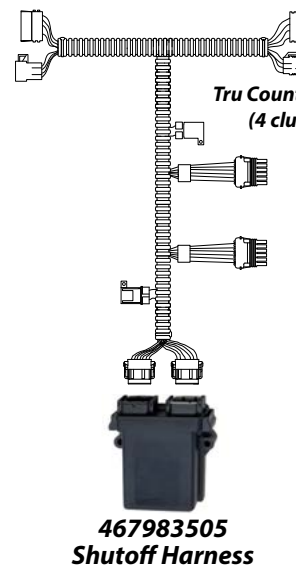
**467982001S1  
Output Shutoff Module**

**Liquid BOM  
(2-Wire Harness Shutoff)**



**Tru Count Solenoid Module  
(4 clutches per module)**

Switch  
On = 0 V  
Off = 12 V



## IntelliAg™ WSMT2

## System Parts List

### CAN EXTENSION HARNESSES

| Part Number | Description       |
|-------------|-------------------|
| 467980142   | CAN Extension 5'  |
| 467980141   | CAN Extension 10' |
| 467980140   | CAN Extension 20' |
| 467980143   | CAN Extension 25' |
| 467980144   | CAN Extension 40' |
| 467980146   | CAN Extension 45' |
| 467980126   | CAN Terminator    |

### ROW SHUT OFF HARNESSES

| Part Number | Description                   |
|-------------|-------------------------------|
| 467983501   | Planter Output Module Harness |
| 467983505   | Tru Count Clutch w/8 Output   |

### OUTPUT MODULE

| Part Number | Description                      |
|-------------|----------------------------------|
| 467982001S1 | Working Set Member Module (WSMB) |

### REQUIRED DRIVERS

| Part Number | Description     |
|-------------|-----------------|
| 46482010S1  | Solenoid Driver |

### WEATHER PAK EXTENSIONS

| Part Number | Description                   |
|-------------|-------------------------------|
| 467980470   | 12 Ga. 2Pin WP Ext. Cable 15' |
| 467980471   | 12 Ga. 2Pin WP Ext. Cable 20' |
| 467980473   | 12 Ga. 2Pin WP Ext. Cable 30' |
| 467980472   | 12 Ga. 2Pin WP Ext. Cable 40' |
| 457901810   | 3Pin WP Ext. Cable 15'        |
| 457901811   | 3Pin WP Ext. Cable 30'        |
| 457901812   | 3Pin WP Ext. Cable 45'        |
| 457901820   | 6Pin WP Ext. Cable 15'        |
| 457901821   | 6Pin WP Ext. Cable 30'        |

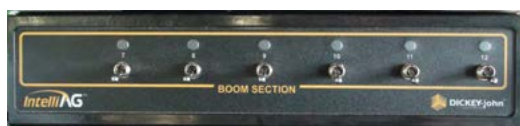
### ROW SHUT OFF MODULES

| Part Number | Description                                                                                                        |
|-------------|--------------------------------------------------------------------------------------------------------------------|
| 467984264S1 | Module with Master & 1-6 Row/Section switches                                                                      |
| 467984040S1 | Extender Module (this part includes face labels for<br>Row/Section 7-12<br>Row/Section 13/18<br>Row/Section 19-24) |

## IntelliAg™ WSMT2



**Boom Switch Module**  
**467984030S1**



**Extended Shutoff Module**  
**467984040S1**



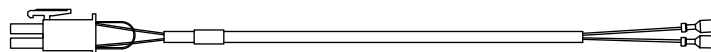
**Planter Row Switch Module**  
**467984264S1**



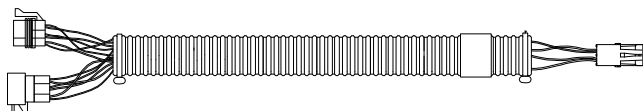
**BSM Harness 24"**  
**467980330**



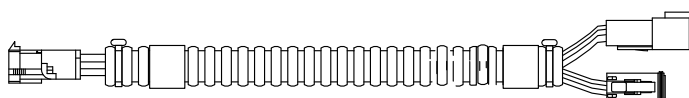
**BSM CAN Harness Extension 60"**  
**467980340**



**ESM Foot Switch Cable 96"**  
**467984180**



**Case Tractor Cab Harness**



**CFM to JD GS2 Cab Harness**  
**467980335**

## Row/Boom Switch Module

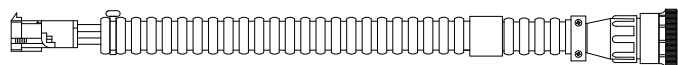
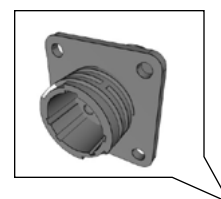
Row/Boom Switch Module with (3) extended modules controls up to 24 boom on/off shutoff valves.

Row Switch Module with (3) extended modules controls up to 24 row shutoff clutches.

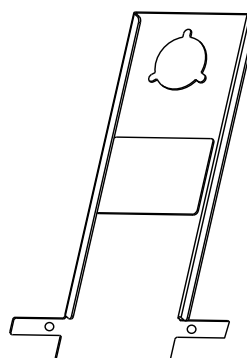
Switch modules placed in the cab allow each row/section to be controlled or use the master switch for all row/section on or off.

| Row/Boom Switch Module Parts |                                                                                 |
|------------------------------|---------------------------------------------------------------------------------|
| Part Number                  | Description                                                                     |
| 46798-4030S1                 | Row/Boom Switch Module (RSM/BSM) (1-6 row)                                      |
| 46798-4040S1                 | Extended Shut Off Module (ESM) (7-24 row)                                       |
| 46798-4264S1                 | Planter Row Switch Module                                                       |
| 46798-0330                   | BSM Harness to Tractor Harness                                                  |
| 46798-0340                   | BSM Harness 60" CAN Extension                                                   |
| 46798-4180S1                 | ESM Foot Switch Cable (Liquid)                                                  |
| 46798-0335                   | CFM to JD GS2 Cab Harness                                                       |
| 46798-0339                   | RSM Harness to ISOBUS 9-pin in-cab Connector                                    |
| 46798-0626                   | BSM/ESM Mounting Bracket for use with 12" Virtual Terminal (Topcon X35)         |
| 46798-4160                   | BSM/ESM U-Mount Bracket (accommodates mounting 46798-4030S1 Boom Switch Module) |

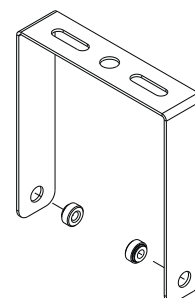
**In-cab 9-pin ISOBUS**  
**mating connector**



**RSM Harness to ISOBUS 9-pin in-cab Connector**  
**467980339**



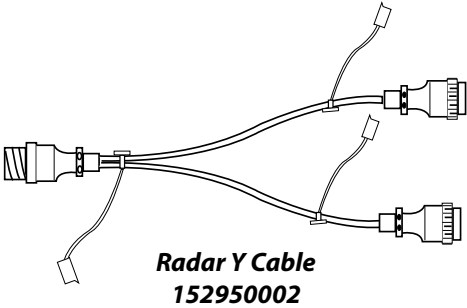
**BSM/ESM Mounting Bracket**  
**(Topcon X35) 467980626**



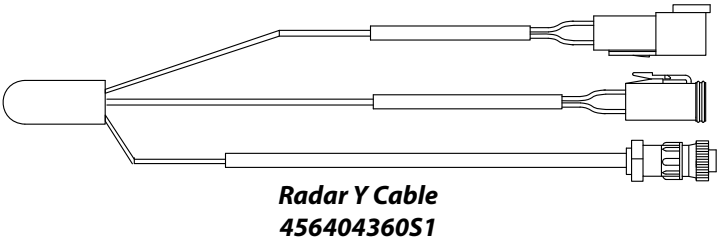
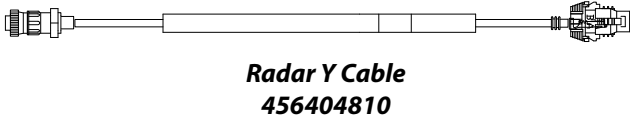
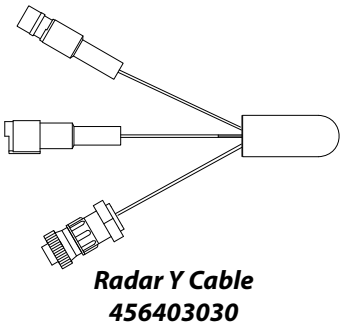
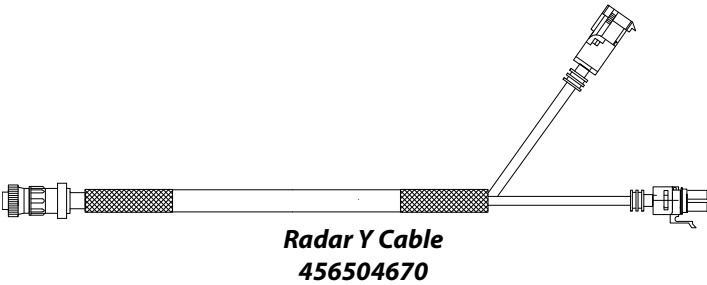
**BSM U Mount Bracket**  
**467984160**

IntelliAg™ WSMT2

Radar Y Harnesses



| Adapter Harness |                                                                                                                       |
|-----------------|-----------------------------------------------------------------------------------------------------------------------|
| Part Number     | Description                                                                                                           |
| 15295-0002      | Radar Y Cable Generic                                                                                                 |
| 45640-4670      | Radar Y Cable for Case Maxum 5110-5240, MX90-170 Series, Steiger 9110-9390, 9210-9390 Series, Case STX 275-450 Series |
| 45640-3030      | Radar Y Cable for Caterpillar 65A, 65B, 75B Series                                                                    |
| 45640-4360S1    | Radar Y Cable for 35, 45, 55, C, D, E Series                                                                          |
| 45640-2520S3    | Radar Y Cable for John Deere 4xxx, 7xxx, 80xx Series                                                                  |
| 45640-2530S3    | Radar Y Cable for John Deere 7600-8010T                                                                               |
| 45640-4810      | Radar Y Cable for John Deere 8300 and 9400 Series                                                                     |



## IntelliAg™ WSMT2

## Monitor and Control

### Base System - Air Cart

- IntelliAg™ Virtual Terminal Topcon X35
- Tractor harness for use with 12" Virtual Terminal
- System power harness with ISO hitch connector
- ISO master switch to control on/off
- Hitch extension harness
- ACC - WSMT2
- WSMT2 T harness
- Control harness for connection to valves and feedback sensors

### Accessory Module WSMB



An accessory module connects to the Accessory Harness 467980205 to add up to 2 hopper, 2 air, and 2 RPM sensors.

### ALTERNATIVE Daisy Chain Blockage Sensor System



Monitors seed and fertilizer flow on air seeder applications for blockage. Uses the Daisy Chain 2-way communication sensor for advanced diagnostics. Refer to page 38.

### Vigilense® Sensor



### Hopper Level Sensor



### WSMTII-ACC



### Air Pressure Sensor



Continental



WSMB used with Vigilense® Sensor



Lift Switch



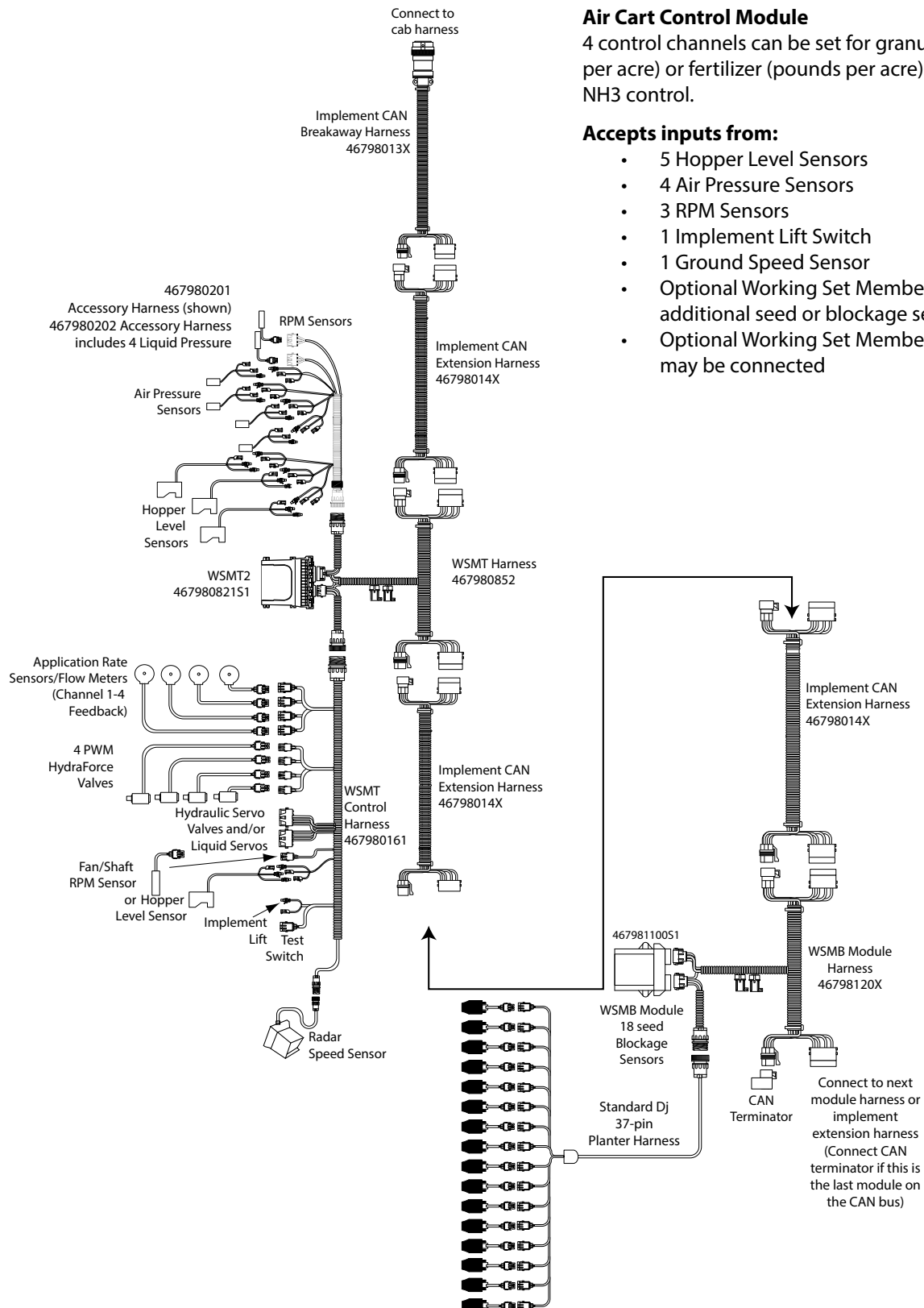
Application Rate Sensor



Fan RPM Sensor

## IntelliAg™ WSMT2

## Air Cart System Diagram



## Air Cart Control Module

4 control channels can be set for granular seeding (pounds per acre) or fertilizer (pounds per acre) application plus NH3 control.

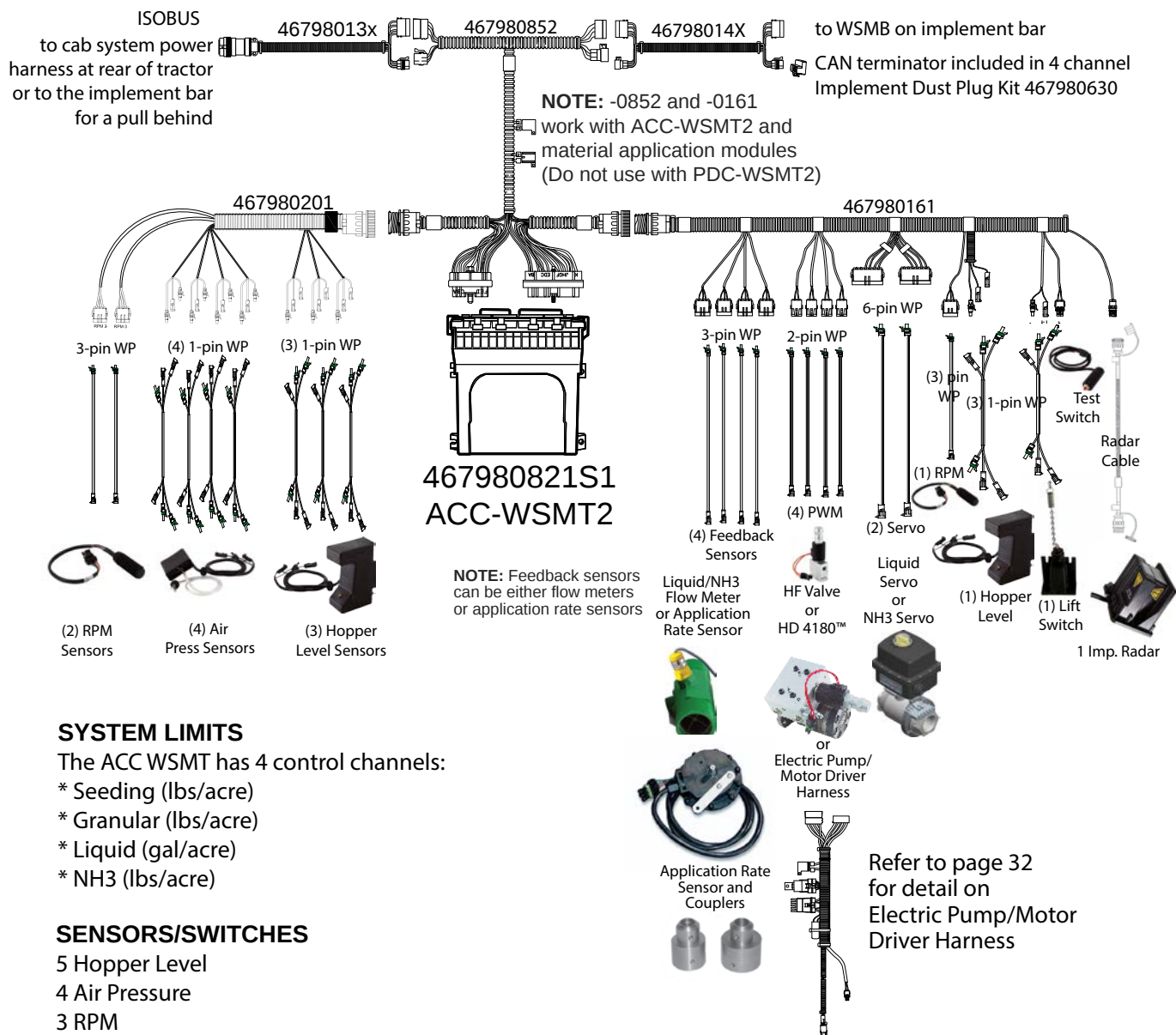
**Accepts inputs from:**

- 5 Hopper Level Sensors
- 4 Air Pressure Sensors
- 3 RPM Sensors
- 1 Implement Lift Switch
- 1 Ground Speed Sensor
- Optional Working Set Member can accept additional seed or blockage sensor inputs
- Optional Working Set Member output modules may be connected

## IntelliAg™ WSMT2

*-0161 Control Harness/-0852 WSMT Harness/  
-0201 Accessory Cable*

*-0852/-0161 use with ACC-WSMT2 and Material  
Application Modules only*



### SYSTEM LIMITS

The ACC WSMT has 4 control channels:

- \* Seeding (lbs/acre)
- \* Granular (lbs/acre)
- \* Liquid (gal/acre)
- \* NH3 (lbs/acre)

### SENSORS/SWITCHES

- 5 Hopper Level
- 4 Air Pressure
- 3 RPM
- 1 Ground Speed
- 1 Lift Switch

\* ACC WSMT will not accept inputs directly from seed blockage sensors.  
A WSMB module is required accepting 18 rows per module.

## IntelliAg™ WSMT2

## System Parts List

### HITCH EXTENSIONS

| Part Number | Description         |
|-------------|---------------------|
| 467980134   | Hitch Extension 6'  |
| 467980132   | Hitch Extension 10' |
| 467980136   | Hitch Extension 15' |
| 467980131   | Hitch Extension 20' |
| 467980133   | Hitch Extension 30' |
| 467980130   | Hitch Extension 40' |
| 467980135   | Hitch Extension 50' |

### IMPLEMENT HARNESS

| Part Number | Description                           |
|-------------|---------------------------------------|
| 467980821S1 | WSMT                                  |
| 467980852   | WSMT Harness                          |
| 467980142   | CAN Extension 5'                      |
| 467980141   | CAN Extension 10'                     |
| 467980140   | CAN Extension 20'                     |
| 467980143   | CAN Extension 25'                     |
| 467980144   | CAN Extension 40'                     |
| 467980146   | CAN Extension 45'                     |
| 467980630   | 4 Ch. Imp. Dust Plug Kit w/CAN Term.  |
| 110110099   | Ty Wrap Bundle 100 14"                |
| 110011463   | ACC User Manual                       |
| 467980161   | Control Harness                       |
| 467980201   | Accessory Input Harness               |
| 467980202   | Accessory Input Harness +4 Liquid psi |

### APPLICATION RATE SENSOR

| Part Number | Description                 |
|-------------|-----------------------------|
| 464360178S1 | AR Sensor 360 1' Cable      |
| 464360176S1 | AR Sensor 360 5' Cable      |
| 457141810   | App. Rate 1" Coupler        |
| 457141850   | App. Rate 1.25" Coupler     |
| 467092221   | HD4180 to AR Sensor Coupler |
| 457901810   | 3Pin WP Ext. Cable 15'      |
| 457901811   | 3Pin WP Ext. Cable 30'      |
| 457901812   | 3Pin WP Ext. Cable 45'      |

### PULSE-WIDTH MODULATION CONTROLS 1-4

| Part Number | Description                       |
|-------------|-----------------------------------|
| 467092004S1 | Hydraulic Valve HydraForce 4 GPM  |
| 467092008S1 | Hydraulic Valve HydraForce 8 GPM  |
| 467092050S1 | Hydraulic Valve HydraForce 25 GPM |
| 467092200S1 | HD4180 w/Integrated Valve         |
| 467980470   | 12 Ga. 2Pin WP Ext. Cable 15'     |
| 467980471   | 12 Ga. 2Pin WP Ext. Cable 20'     |
| 467980473   | 12 Ga. 2Pin WP Ext. Cable 30'     |
| 467980472   | 12 Ga. 2Pin WP Ext. Cable 40'     |

### LIFT SWITCH AND RADAR

| Part Number | Description                      |
|-------------|----------------------------------|
| 463720150S1 | Implement Lift Switch            |
| 464820520S1 | Lift Switch - Whisker Type       |
| 466820713   | 3-1Pin WP Ext. Cable 5'          |
| 466820712S1 | 3-1Pin WP Ext. Cable 10'         |
| 466820714   | 3-1Pin WP Ext. Cable 15'         |
| 466820710S3 | 3-1Pin WP Ext. Cable 20'         |
| 467831000S9 | Radar III w/14' Cable & Mtg Brkt |
| 439400024   | Radar Extension 10'              |
| 439400065   | Radar Extension 15'              |
| 439400064   | Radar Extension 25'              |
| 464210515S1 | Test Switch                      |

### HOPPER LEVEL SENSORS

| Part Number | Description                         |
|-------------|-------------------------------------|
| 466820720S3 | Hopper Level Sensor                 |
| 466820721S1 | Hopper Level Sensor w/ 1/2" Bushing |
| 466820713   | 3-1Pin WP Ext. Cable 5'             |
| 466820712S1 | 3-1Pin WP Ext. Cable 10'            |
| 466820714   | 3-1Pin WP Ext. Cable 15'            |
| 466820710S3 | 3-1Pin WP Ext. Cable 20'            |

### AIR PRESSURE 1-4

| Part Number | Description                         |
|-------------|-------------------------------------|
| 466820920S1 | Air Pressure Sensor                 |
| 466820922S1 | Air Pressure Sensor w/ 1/2" Bushing |
| 466820713   | 3-1Pin WP Ext. Cable 5'             |
| 466820712S1 | 3-1Pin WP Ext. Cable 10'            |
| 466820714   | 3-1Pin WP Ext. Cable 15'            |
| 466820710S3 | 3-1Pin WP Ext. Cable 20'            |

### RPM SENSORS

| Part Number | Description                       |
|-------------|-----------------------------------|
| 463500030S1 | Hall Effect Sensor RPM (Smooth)   |
| 466970014S1 | Hall Effect Sensor RPM (Threaded) |
| 459680922   | Extension Cable 3Pin WP 15'       |

### FLOW METERS

| Part Number  | Description            |
|--------------|------------------------|
| PM00370018S1 | Flow Meter 1/2"        |
| PM00370023S1 | Flow Meter 3/4"        |
| PM00370030S1 | Flow Meter 1"          |
| PM00370040S1 | Flow Meter 1.5"        |
| PM00370048S1 | Flow Meter 2"          |
| PM00370068S1 | Flow Meter 3"          |
| PM00370088S1 | Flow Meter 4"          |
| PMNPT70116S1 | SS Flow Meter 1/2"     |
| PMNPT70121S1 | SS Flow Meter 3/4"     |
| PMNPT70126S1 | SS Flow Meter 1"       |
| PMNPT70136S1 | SS Flow Meter 1-1/2"   |
| PMNPT70146S1 | SS Flow Meter 2"       |
| 457901810    | 3Pin WP Ext. Cable 15' |
| 457901811    | 3Pin WP Ext. Cable 30' |
| 457901812    | 3Pin WP Ext. Cable 45' |

### LIQUID VALVE AND ACTUATOR (LIQUID FLOW CONTROL)

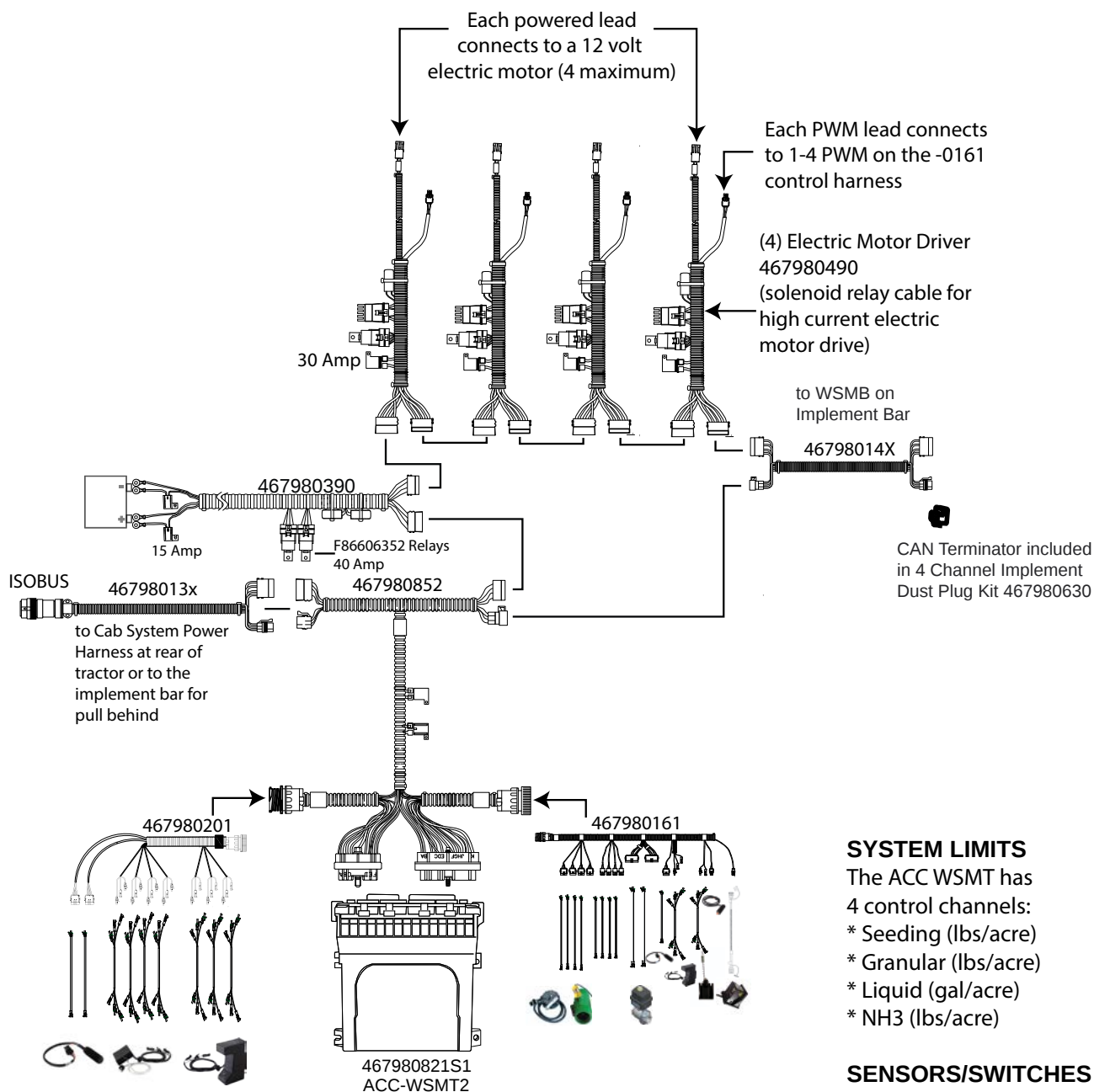
| Part Number | Description                                         |
|-------------|-----------------------------------------------------|
| 467095010   | Valve & Actuator Assy. 3/8" 2-Way Stainless Steel   |
| 467095220   | Valve & Actuator Assy. 3/8" 3-Way Stainless Steel   |
| 467095020   | Valve & Actuator Assy. 1/2" 2-Way Stainless Steel   |
| 467095030   | Valve & Actuator Assy. 3/4" 2-Way Poly              |
| 467095280   | Valve & Actuator Assy. 1" 2-Way Poly                |
| 467095290   | Valve & Actuator Assy. 1" 2-Way Stainless Steel     |
| 467095050   | Valve & Actuator Assy. 1-1/2" 3-Way Poly            |
| 467095140   | Valve & Actuator Assy. 1-1/2" 3-Way Stainless Steel |
| 467095150   | Valve & Actuator Assy. 2" 2-Way Stainless Steel     |
| 467095160   | Valve & Actuator Assy. 2" 3-Way Stainless Steel     |
| 467095170   | Valve & Actuator Assy. 3" 2-Way Stainless Steel     |
| 457901820   | 6Pin WP Extension Cable 15'                         |
| 457901821   | 6Pin WP Extension Cable 30'                         |

### ELECTRIC MOTOR DRIVER

| Part Number | Description                              |
|-------------|------------------------------------------|
| 467980490   | High Current Electric Motor Harness      |
| 467980390   | Power Harness (High current > than 10 A) |

*IntelliAg™ WSMT2*

*-0160 Control Harness and -0490  
Electric Motor Drive Cable*



**NOTE:** Feedback sensors can be either flow meters or application rate sensors

**SYSTEM LIMITS**

The ACC WSMT has 4 control channels:  
\* Seeding (lbs/acre)  
\* Granular (lbs/acre)  
\* Liquid (gal/acre)  
\* NH3 (lbs/acre)

**SENSORS/SWITCHES**

5 Hopper Level  
4 Air Pressure  
3 RPM  
1 Ground Speed  
1 Lift Switch

ACC WSMT will not accept inputs directly from seed sensors. A WSMB module is required accepting 18 rows per module.

## IntelliAg™ WSMT2

## System Parts List

### APPLICATION RATE SENSORS

| Part Number | Description             |
|-------------|-------------------------|
| 464360178S1 | AR Sensor 360 1' Cable  |
| 464360176S1 | AR Sensor 360 5' Cable  |
| 457141810   | App. Rate 1" Coupler    |
| 457141850   | App. Rate 1.25" Coupler |
| 457901810   | 3Pin WP Ext. Cable 15'  |
| 457901811   | 3Pin WP Ext. Cable 30'  |
| 457901812   | 3Pin WP Ext. Cable 45'  |

### PULSE WIDTH MODULATION CONTROLS

| Part Number | Description                   |
|-------------|-------------------------------|
| 467980390   | ADX Power Harness             |
| 467980490   | Electric Motor Driver Harness |
| 467980470   | 12 Ga. 2Pin WP Ext. Cable 15' |
| 467980471   | 12 Ga. 2Pin WP Ext. Cable 20' |
| 467980473   | 12 Ga. 2Pin WP Ext. Cable 30' |
| 467980472   | 12 Ga. 2Pin WP Ext. Cable 40' |

### OPTIONAL SENSORS

| Part Number | Description                         |
|-------------|-------------------------------------|
| 463720150S1 | Implement Lift Switch               |
| 464820520S1 | Lift Switch - Whisker Type          |
| 466820720S3 | Hopper Level Sensor                 |
| 466820721S1 | Hopper Level Sensor w/ 1/2" Bushing |
| 466820920S1 | Air Pressure Sensor                 |
| 466820922S1 | Air Pressure Sensor w/ 1/2" Bushing |
| 466820713   | 3-1Pin WP Ext. Cable 5'             |
| 466820712S1 | 3-1Pin WP Ext. Cable 10'            |
| 466820714   | 3-1Pin WP Ext. Cable 15'            |
| 466820710S3 | 3-1Pin WP Ext. Cable 20'            |
| 467831000S9 | Radar III w/14' Cable & Mtg Brkt    |
| 439400024   | Radar Extension 10'                 |
| 439400064   | Radar Extension 25'                 |
| 464210515S1 | Test Switch                         |

### RPM SENSORS

| Part Number | Description                 |
|-------------|-----------------------------|
| 463500030S1 | RPM (Smooth)                |
| 466970014S1 | RPM (Threaded)              |
| 459680922   | Extension Cable 3Pin WP 15' |

### FLOW METERS

| Part Number  | Description            |
|--------------|------------------------|
| PM00370018S1 | Flow Meter 1/2"        |
| PM00370023S1 | Flow Meter 3/4"        |
| PM00370030S1 | Flow Meter 1"          |
| PM00370040S1 | Flow Meter 1.5"        |
| PM00370048S1 | Flow Meter 2"          |
| PM00370068S1 | Flow Meter 3"          |
| PM00370088S1 | Flow Meter 4"          |
| PMNPT70116S1 | SS Flow Meter 1/2"     |
| PMNPT70121S1 | SS Flow Meter 3/4"     |
| PMNPT70126S1 | SS Flow Meter 1"       |
| PMNPT70136S1 | SS Flow Meter 1-1/2"   |
| PMNPT70146S1 | SS Flow Meter 2"       |
| 457901810    | 3Pin WP Ext. Cable 15' |
| 457901811    | 3Pin WP Ext. Cable 30' |
| 457901812    | 3Pin WP Ext. Cable 45' |

### LIQUID VALVE AND ACTUATOR

| Part Number | Description                                         |
|-------------|-----------------------------------------------------|
| 467095010   | Valve & Actuator Assy. 3/8" 2-Way Stainless Steel   |
| 467095220   | Valve & Actuator Assy. 3/8" 3-Way Stainless Steel   |
| 467095020   | Valve & Actuator Assy. 1/2" 2-Way Stainless Steel   |
| 467095030   | Valve & Actuator Assy. 3/4" 2-Way Poly              |
| 467095280   | Valve & Actuator Assy. 1" 2-Way Poly                |
| 467095290   | Valve & Actuator Assy. 1" 2-Way Stainless Steel     |
| 467095050   | Valve & Actuator Assy. 1-1/2" 3-Way Poly            |
| 467095140   | Valve & Actuator Assy. 1-1/2" 3-Way Stainless Steel |
| 467095150   | Valve & Actuator Assy. 2" 2-Way Stainless Steel     |
| 467095160   | Valve & Actuator Assy. 2" 3-Way Stainless Steel     |
| 467095170   | Valve & Actuator Assy. 3" 2-Way Stainless Steel     |
| 457901820   | 6Pin WP Extension Cable 15'                         |
| 457901821   | 6Pin WP Extension Cable 30'                         |

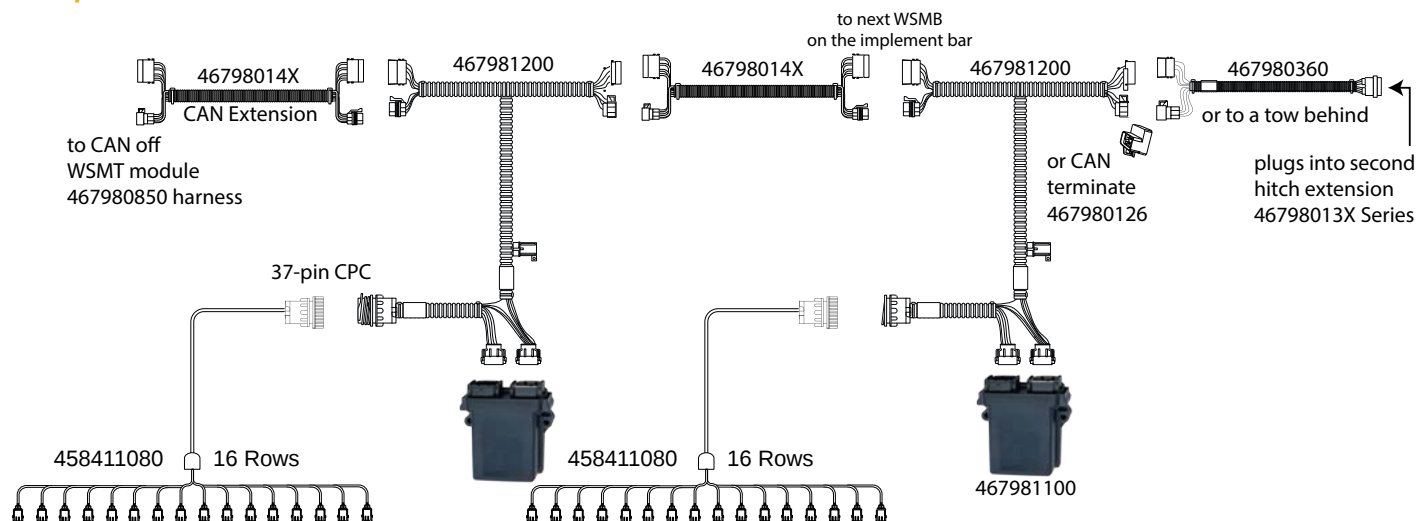
### ELECTRIC MOTOR DRIVER

| Part Number | Description                              |
|-------------|------------------------------------------|
| 467980490   | High Current Electric Motor Harness      |
| 467980390   | Power Harness (High current > than 10 A) |

## IntelliAg™ WSMT2

## Row Harnesses Add Additional Rows

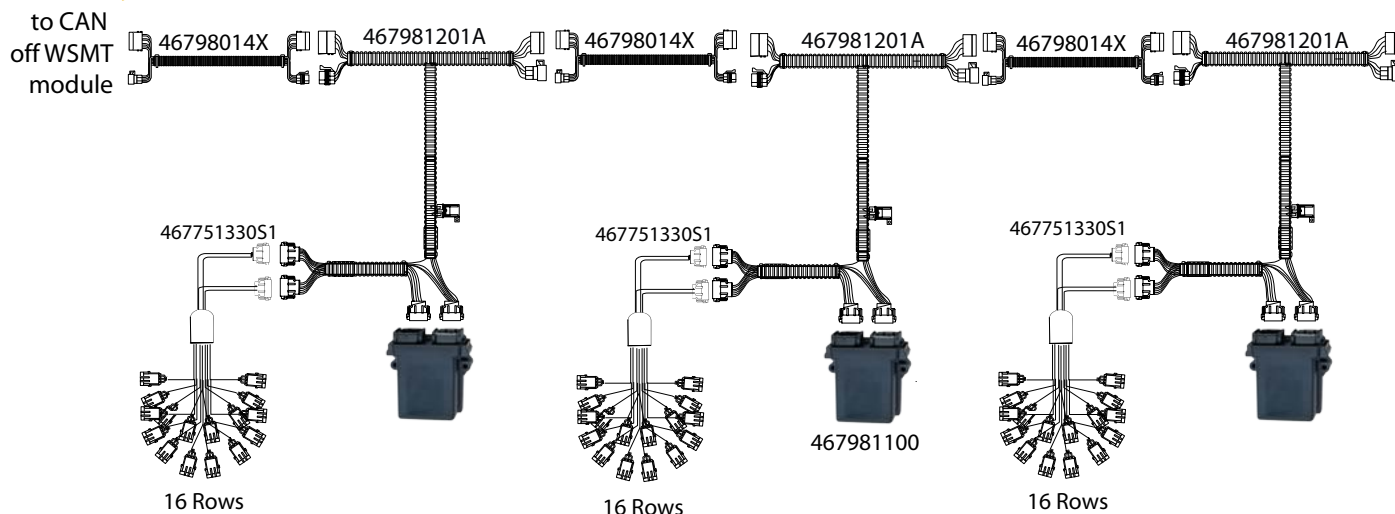
### 37-pin CPC WSMB Harness



#### SYSTEM LIMITS

- 18 Seed Rows per WSMB
- 12 WSMB modules per ACC WSMT
- 10 WSMB modules per PDC WSMT

### SE Style WSMB Harness



## IntelliAg™ WSMT2

## System Parts List

### HITCH EXTENSIONS

| Part Number | Description         |
|-------------|---------------------|
| 467980134   | Hitch Extension 6'  |
| 467980132   | Hitch Extension 10' |
| 467980136   | Hitch Extension 15' |
| 467980131   | Hitch Extension 20' |
| 467980133   | Hitch Extension 30' |
| 467980130   | Hitch Extension 40' |
| 467980135   | Hitch Extension 50' |

### IMPLEMENT HARNESSING

| Part Number | Description       |
|-------------|-------------------|
| 467981100S1 | WSMB              |
| 467981201   | WSMB Harness      |
| 467980142   | CAN Extension 5'  |
| 467980141   | CAN Extension 10' |
| 467980140   | CAN Extension 20' |
| 467980143   | CAN Extension 25' |
| 467980144   | CAN Extension 40' |
| 467980146   | CAN Extension 45' |
| 467980126   | CAN Terminator    |

### CAN TO HITCH CONNECTOR HARNESS

THIS HARNESS ACCOMMODATES DISCONNECTION OF A TOW BEHIND.

| Part Number | Description                           |
|-------------|---------------------------------------|
| 467980360   | Rear Implement Hitch Harness 3'       |
| 467980361   | Rear Implement Hitch Harness IBBC 6'  |
| 467980362   | Rear Implement Hitch Harness IBBC 20' |
| 467980363   | Rear Implement Hitch Harness IBBC 25' |

### ROW HARNESS (37-PIN CPC)

| Part Number | Description                            |
|-------------|----------------------------------------|
| 458410530   | 4 Row Planter Harness                  |
| 458410550   | 6 Row Planter Harness                  |
| 458410570   | 8 Row Planter Harness                  |
| 458410590   | 12 Row Planter Harness                 |
| 458411080   | 16 Row Planter Harness (in diagram)    |
| 459680960   | 12 Row Y Cable to use 2-6 Row Pltr Hrn |
| 459680950   | 16 Row Y Cable to use 2-8 Row Pltr Hrn |
| 458410600   | 16 Row 2-8 Row Pltr Hrn w/16 Row Y     |
| 459680940   | 24 Row Y Cable to use 2-12 Row Hrn     |
| 467980445   | JD 32 Row Reverse Y Harness            |
| 467980446   | 32 Row Reverse Y Harness               |

### ROW HARNESS EXTENSIONS

| Part Number | Description               |
|-------------|---------------------------|
| 458410810   | 6 ft. Extension (16 row)  |
| 459680320   | 15 ft. Extension (16 row) |
| 459680321   | 30 ft. Extension (16 row) |
| 458410820   | 15 ft. Extension (32 row) |
| 458410790   | 30 ft. Extension (32 row) |

### ROW HARNESS (SE STYLE)

| Part Number                      | Description              |
|----------------------------------|--------------------------|
| <b>Used In This Example:</b>     |                          |
| 467980280                        | 18 Row SE style Air Cart |
| <b>Other SE style Harnesses:</b> |                          |
| 467751300S1                      | 12 Row 7.5"              |
| 467751301S1                      | 12 Row 15"               |
| 467751302S1                      | 12 Row 30"               |
| 467751310S1                      | 16 Row 7.5"              |
| 467751311S1                      | 16 Row 15"               |
| 467751312S1                      | 16 Row 30"               |
| 467751320S1                      | 12 Row Air Cart Tower    |
| 467751330S1                      | 16 Row Air Cart Tower    |
| 467980280                        | 18 Row Air Cart Tower    |

### SEED SENSOR EXTENSIONS

| Part Number | Description                  |
|-------------|------------------------------|
| 459680920   | 3' Sensor Extension 3Pin WP  |
| 459680923S1 | 4' Sensor Extension 3Pin WP  |
| 459680921   | 6' Sensor Extension 3Pin WP  |
| 459680922   | 15' Sensor Extension 3Pin WP |

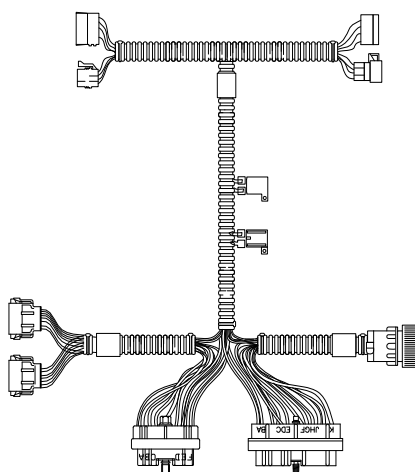
### SEED AND BLOCKAGE SENSORS

| Part Number | Description                    |
|-------------|--------------------------------|
| 467420701S1 | Vigilense 25 mm                |
| 467420702S1 | Vigilense 25 mm with SS Insert |
| 467420711S1 | Vigilense 32 mm                |
| 467420712S1 | Vigilense 32 mm with SS Insert |
| 467420720S1 | Vigilense 45 mm                |
| 467420721S1 | Vigilense 45 mm with SS Insert |
| 467700090S1 | Monosem Mecca 2000             |
| 467700100S1 | Monosem MS Vegetable           |
| 467700220S1 | Stanhay Dart II                |
| 467760010S1 | Case ASM Hi-Rate Sensor Only   |

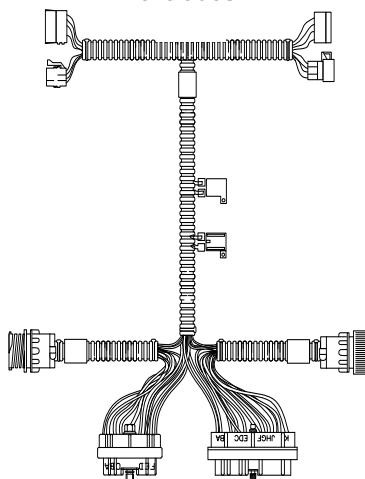
## IntelliAg™ WSMT2



**WSMT2  
Module**



**WSMT Harness  
467980851**



**WSMT Harness  
467980850 and -0852**



**Cab to Implement Harness Hitch Extension  
46798013X**

## Working Set Master Module (WSMT2)

The Working Set Master Module (WSMT2) houses the system's primary interface device. All system parameters, constants, and memory are stored in the WSMT and controls the application of material by interfacing with proportional hydraulic valves and feedback sensors. Several WSMT modules are available for a variety of applications.

| Working Set Master Module |                                                    |
|---------------------------|----------------------------------------------------|
| Part Number               | Description                                        |
| 46798-0821S1              | Module, ACC-WSMT2 (Aircart Control)                |
| 46798-0630                | 4 Channel Implement Dust Plug Kit with Terminators |
| 11011-0099                | Ty Wrap Bundle 100 14 in.                          |

## Working Set Master Harness

| WSMT Harnessing |                                                               |
|-----------------|---------------------------------------------------------------|
| Part Number     | Description                                                   |
| 46798-0851      | WSMT Harness Seed Manager SE style without APER (PDC)         |
| 46798-0852      | WSMT Harness with 37-pin CPC with APER (Material Application) |

**NOTE:** SE style harnesses have 1 gray and 1 black 12-pin Deutsch DT connector.

## Cab to Implement Harness Hitch Extension

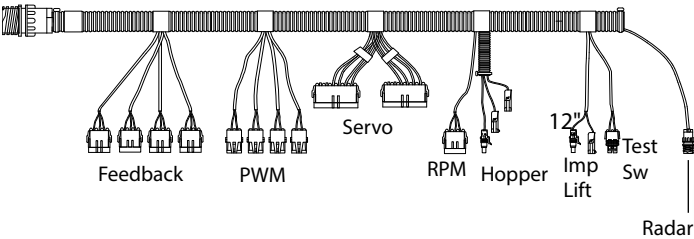
| Tractor Cab to Implement Harness Hitch Extensions |                                       |
|---------------------------------------------------|---------------------------------------|
| Part Number                                       | Description                           |
| 46798-0134                                        | 6 ft. Hitch Extension ISO system CAN  |
| 46798-0132                                        | 10 ft. Hitch Extension ISO system CAN |
| 46798-0136                                        | 15 ft. Hitch Extension ISO system CAN |
| 46798-0131                                        | 20 ft. Hitch Extension ISO system CAN |
| 46798-0133                                        | 30 ft. Hitch Extension ISO system CAN |
| 46798-0130                                        | 40 ft. Hitch Extension ISO system CAN |
| 46798-0135                                        | 50 ft. Hitch Extension                |
| 46798-0457                                        | 40 ft. Hitch to Hitch Extension       |

## Implement Kit

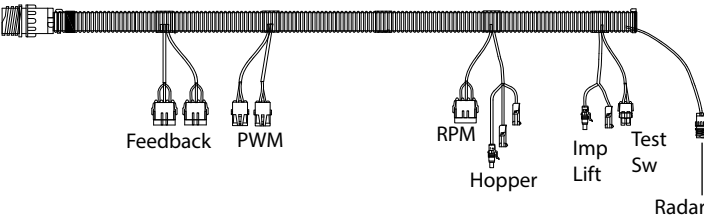
| IAACCIMPKIT Air Cart Control Implement Kit consists of the following |                                                               |
|----------------------------------------------------------------------|---------------------------------------------------------------|
| Part Number                                                          | Description                                                   |
| 46798-0821S1                                                         | Module, ACC-WSMT2 (Aircart Control)                           |
| 46798-0852                                                           | WSMT Harness with 37-pin CPC with APER (Material Application) |
| 46798-0161                                                           | Control Harness                                               |
| 46798-0630                                                           | 4 Channel Implement Dust Plug Kit with Terminators            |
| 11001-1514                                                           | Operator's Manual User Level 2                                |
| 11001-1515                                                           | Operator's Manual User Level 1                                |

IntelliAg™ WSMT2

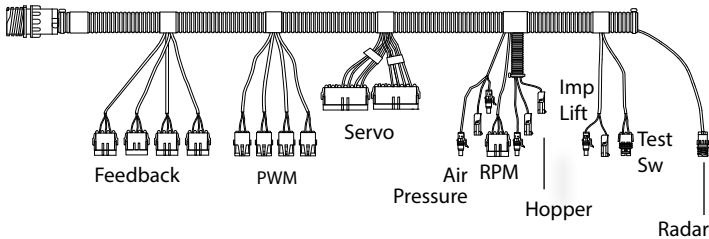
WSMT2 Harnesses (Control Channels/  
Accessory Inputs)



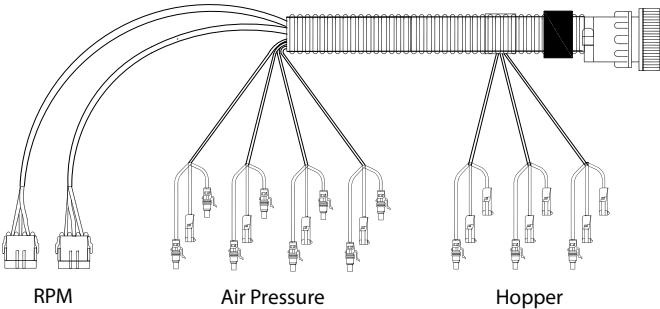
**Harness 4 Channel**  
**467980161**



**Harness 2 Channel**  
**467980162**

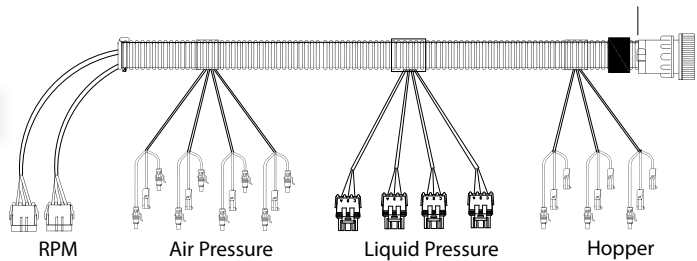


**Harness with RPM/Air Pressure**  
**467980164**



**Harness with RPM/Air Pressure/Hopper**  
**467980201**

| PM Style Control Harnesses |                                                                                       |
|----------------------------|---------------------------------------------------------------------------------------|
| Part Number                | Description                                                                           |
| 46798-0161                 | WSMT Material Application 4 Ch Actuator Harness with APER (app error rate)            |
| 46798-0162                 | WSMT Air Cart Control 2 Ch Actuator/Sensor Harness                                    |
| 46798-0164                 | WSMT 4 Ch Actuator Harness with RPM or Air Pressure                                   |
| 46798-0201                 | Air Cart Control WSMT Input Harness (2 RPM, 4 Air Pressure, 3 Hopper Level)           |
| 46798-0202                 | Air Cart Control WSMT Input Harness (2 RPM, 4 Air Pressure, 4 Liquid, 3 Hopper Level) |

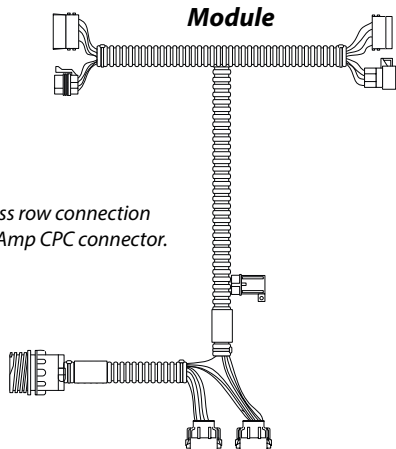


**Harness with RPM/Air Pressure/Liquid/Hopper**  
**467980202**

## IntelliAg™ WSMT2

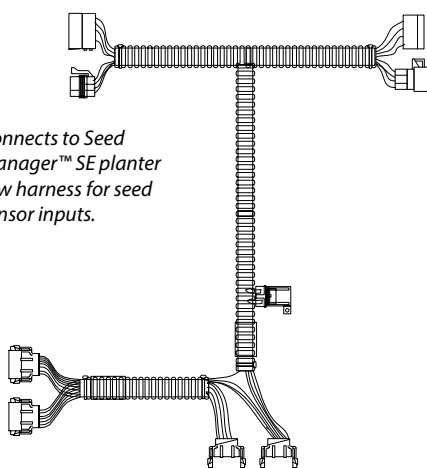


**WSMB  
Module**



*WSMB Harness row connection  
has a 37-pin Amp CPC connector.*

**WSMB Harness  
467981200**



*Connects to Seed  
Manager™ SE planter  
row harness for seed  
sensor inputs.*

**WSMB Harness SE Style  
467981201A**



**WSMB Extension Harness  
46798014X**

## Working Set Member Module

The Working Set Member Module (WSMB) is an auxiliary to the Working Set Master Module (WSMT). Each WSMB can accept up to 18 rows of seed sensors and passes information direct to the WSMT. Up to 11 WSMB's can be installed to monitor up to 214 rows. The flexible design allows for installation virtually anywhere on the implement.

| Working Set Member Module (WSMB) |                            |
|----------------------------------|----------------------------|
| Part Number                      | Description                |
| 46798-1100S1                     | WSMB Module (18 seed rows) |

## WSMB Harness

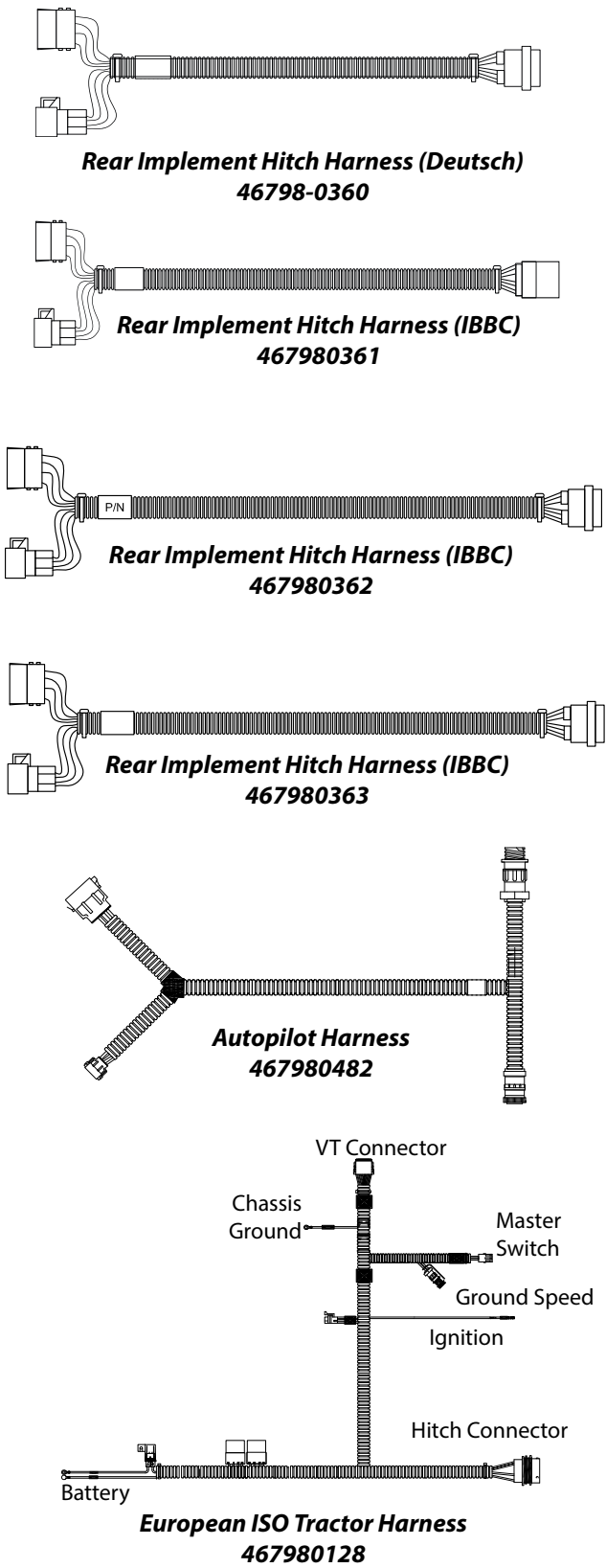
| WSMB Harnesses |                                                                           |
|----------------|---------------------------------------------------------------------------|
| Part Number    | Description                                                               |
| 46798-1200     | WSMB Harness to 37-pin CPC Planter Row Harness (connects to 46798-1100S1) |
| 46798-1201A    | WSMB Harness Accessory T Harness (connects to 46798-1100S1)               |

**NOTE:** WSMB Harness SE style row connection has 1 gray and 1 black, 12-pin Deutsch DT connector.

## WSMB CAN Extension Harness

| WSMB Harnesses |                       |
|----------------|-----------------------|
| Part Number    | Description           |
| 46798-0142     | WSMB Extension 5 ft.  |
| 46798-0141     | WSMB Extension 10 ft. |
| 46798-0140     | WSMB Extension 20 ft. |
| 46798-0143     | WSMB Extension 25 ft. |
| 46798-0144     | WSMB Extension 40 ft. |
| 46798-0146     | WSMB Extension 45 ft. |

IntelliAg™ WSMT2



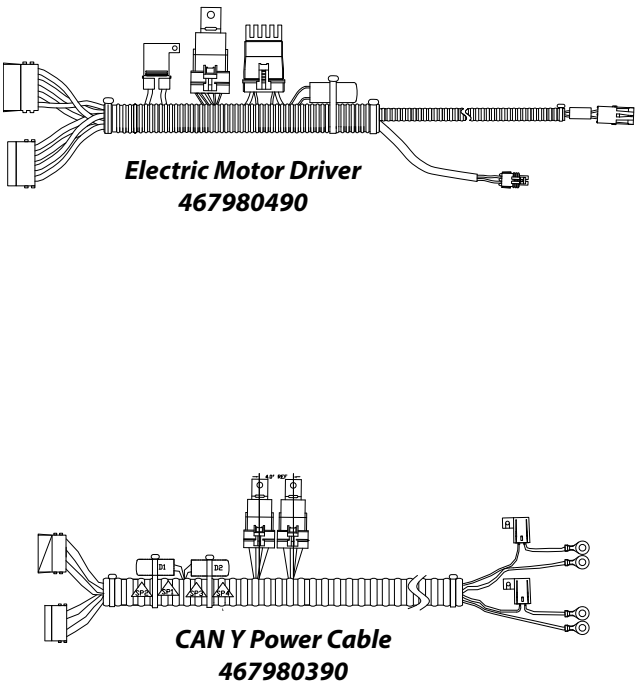
CAN to Hitch Connector Harnesses

Harness accommodates disconnection between implement and tow-behind aircart to second hitch extension.

| Rear Implement Hitch Harness |                                                                      |
|------------------------------|----------------------------------------------------------------------|
| Part Number                  | Description                                                          |
| 46798-0360                   | Rear Implement Hitch Harness with Deutsch 9-pin (CAN to Hitch) 3 ft. |
| 46798-0361                   | Rear Implement Hitch Harness with IBBC 9-pin (CAN to Hitch) 6 ft.    |
| 46798-0362                   | Rear Implement Hitch Harness with IBBC 9-pin 20 ft.                  |
| 46798-0363                   | Rear Implement Hitch Harness with IBBC 9-pin 25 ft.                  |

Adapter Harnesses

| Adapter Harness |                                                                                    |
|-----------------|------------------------------------------------------------------------------------|
| Part Number     | Description                                                                        |
| 46798-0490      | Electric Motor Driver (solenoid relay cable for high current electric motor drive) |
| 46798-0128      | European ISO Tractor Harness (short)                                               |
| 46798-0390      | CAN Power Y Cable (used with 46798-0490)                                           |



## IntelliAg™ WSMT2

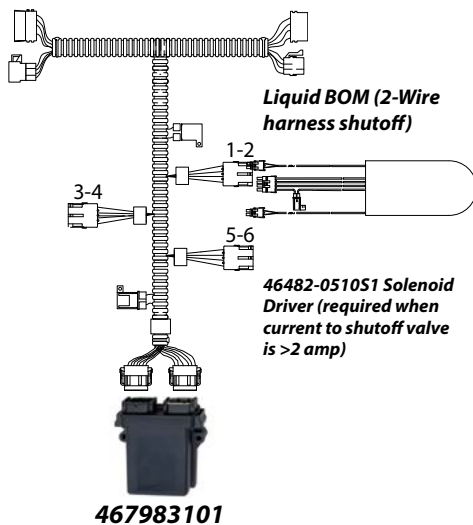
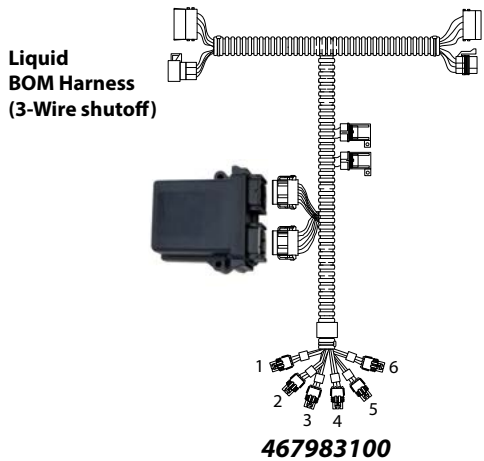
## WSMB Output Module



**Output Shutoff Module**  
**467982001S1**

A WSMB Output Module communicates with the Row and Boom Switch Module for section on/off control.

| Row Shutoff Parts |                                                                                                          |
|-------------------|----------------------------------------------------------------------------------------------------------|
| Part Number       | Description                                                                                              |
| 46798-2001S1      | Output Shutoff Module                                                                                    |
| 46798-3100        | Liquid Boom Shutoff Harness (6 Boom/3-Wire Shutoff)                                                      |
| 46798-3101        | Liquid Boom Shutoff Harness (6 Boom/2-Wire Shutoff)<br>(used with non-DICKEY-john® Valves and 464820510) |
| 46482-0510S1      | Solenoid Driver (plugs into 46798-3501 and -3101 for current >2 Amp)                                     |



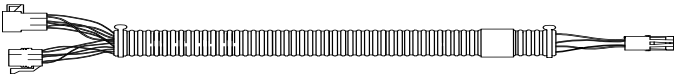
IntelliAg™ WSMT2



Boom Switch Module



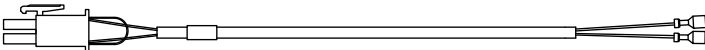
Extended Shutoff Module



BSM Harness 24"  
467980330



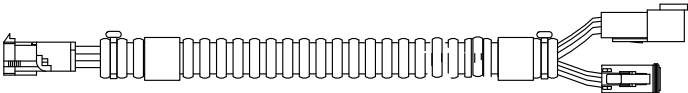
BSM CAN Harness Extension 60"  
467980340



ESM Foot Switch Cable 96"  
467984180



Case Tractor Cab Harness 24"  
467980330



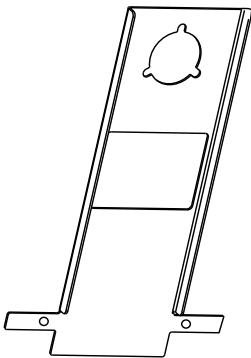
CFM to JD GS2 Cab Harness  
467980335

Boom Switch Module

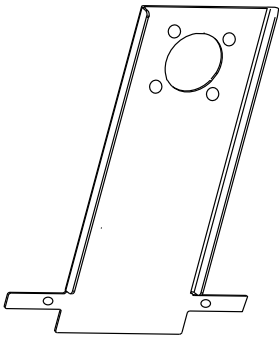
Boom Switch Module controls up to 24 boom on/off shutoff valves.

Switch modules placed in the cab allow each row/section to be controlled or use the master switch for all row/section on or off.

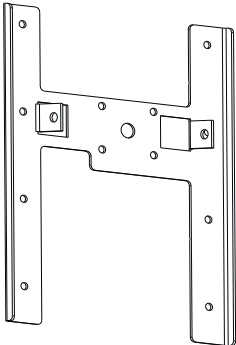
| Boom Switch Module Parts |                                                                                    |
|--------------------------|------------------------------------------------------------------------------------|
| Part Number              | Description                                                                        |
| 46798-4030S1             | Boom Switch Module (BSM) (1-6 row)                                                 |
| 46798-4040S1             | Extended Shut Off Module (ESM) (7-24 row)                                          |
| 46798-4150               | BSM/ESM Mounting Bracket (mounts 4 total) for use with 5" virtual terminal (AI-50) |
| 46798-4160               | BSM/ESM U-Mount Bracket (accommodates mounting 46798-4030S1 Boom Switch Module)    |
| 46798-0330               | BSM Harness to Tractor Harness                                                     |
| 46798-0340               | BSM Harness 60" CAN Extension                                                      |
| 46798-4180S1             | ESM Foot Switch Cable (Liquid)                                                     |
| 46798-0625S1             | BSM/ESM Mounting Bracket for use with 10" Virtual Terminal (AI-100)                |
| 46798-0626S1             | BSM/ESM Mounting Bracket for use with 12" Virtual Terminal (Topcon X35)            |



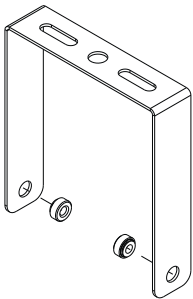
BSM/ESM Mounting Bracket  
(Topcon X35) 467980626



BSM/ESM Mounting Bracket  
(AI-100) 467980625



BSM/ESM Mounting Bracket  
467984150



BSM U Mount Bracket  
467984160

## Daisy Chain Blockage Detection System



**Daisy Chain Sensor**

The Daisy Chain blockage detection system monitors seed and fertilizer flow on air seeder applications to determine if distribution hoses are open or blocked. Sensors are connected to each other in a serial chain layout contained within the loop.

The system is designed with redundant communication between sensors so that any defective sensor within the system does not shutdown the entire blockage system. Blockage full screen alarms quickly pinpoint exact sensor blockage, communication, or wiring issues to remove guesswork from troubleshooting.

One module can connect to 1 or 2 loops. A maximum of 4 modules and 8 loops connect to sensors that communicate blockage and system status for display on the virtual terminal.

The tramline feature alerts the daisy chain module to ignore sensors if blockage is found on any sensors that are configured as tramline.

The blockage system is compatible with any ISO virtual terminal including DICKY-john®, Case, John Deere, and AGCO terminals.



**Daisy Chain Module**

### Features:

- Monitors up to 4 modules and a total of 8 loops
- Each module can interface with a maximum of 2 sensor loops
- Maximum number of sensors per loop is 54 for a total of 432 sensors
- Tramline monitoring of seed or fertilizer with up to 192 sensors assigned to tramlining
- Full screen alarms pinpoint blockage or system issues for quick resolution
- Bi-directional communication lines between sensors and modules
- System can continue to monitor sensor blockage with 1 line failure
- Three system tests (communication, power, and sensor provide immediate feedback of system status)
- Additional rows and blockage sensors can be added later with minimal harnessing changes

| Daisy Chain Blockage Detection System |                                               |
|---------------------------------------|-----------------------------------------------|
| Part Number                           | Description                                   |
| 46798-8670S1                          | Daisy Chain Sensor 32 mm                      |
| 46798-8840S1                          | Daisy Chain Sensor 50 mm                      |
| 46798-8865S1                          | Daisy Chain Sensor 45 mm                      |
| 46798-8885S1                          | Daisy Chain Sensor 25 mm                      |
| 46798-8690S1                          | Sensor Module                                 |
| 11001-1620B                           | Daisy Chain Blockage System Operator's Manual |

Daisy Chain Blockage Detection System



Loop A/B Harness



Module Harness ISO 1 Loop



Module Harness ISO 2 Loop



Module Extension Harness 6m or 10m



CAN Bus Adapter Harness

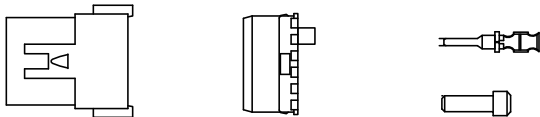


46798-8751 Packard connectors

| Daisy Chain Blockage Detection System |                                                                                                                                      |
|---------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|
| Part Number                           | Description                                                                                                                          |
| 46798-8749                            | Loop A/B Harness                                                                                                                     |
| 46798-8720                            | Module Harness ISO 1 Loop                                                                                                            |
| 46798-8730                            | Module Harness ISO 2 Loop                                                                                                            |
| 46798-8741                            | Module Extension Harness 6 Meter                                                                                                     |
| 46798-8740                            | Module Extension Harness 10 Meter                                                                                                    |
| 46798-8761                            | Terminator                                                                                                                           |
| 46798-8759                            | Lift Switch/Tramline Connector Kit (includes 1 Deutsch connector, 1 Deutsch wedge, 5 Deutsch terminals, and 10 Deutsch cavity plugs) |
| 46798-8751                            | CAN Bus Adapter Harness with Packard connectors                                                                                      |
| 46798-8752                            | CAN Bus Adapter Harness with fly wire leads                                                                                          |



Terminator

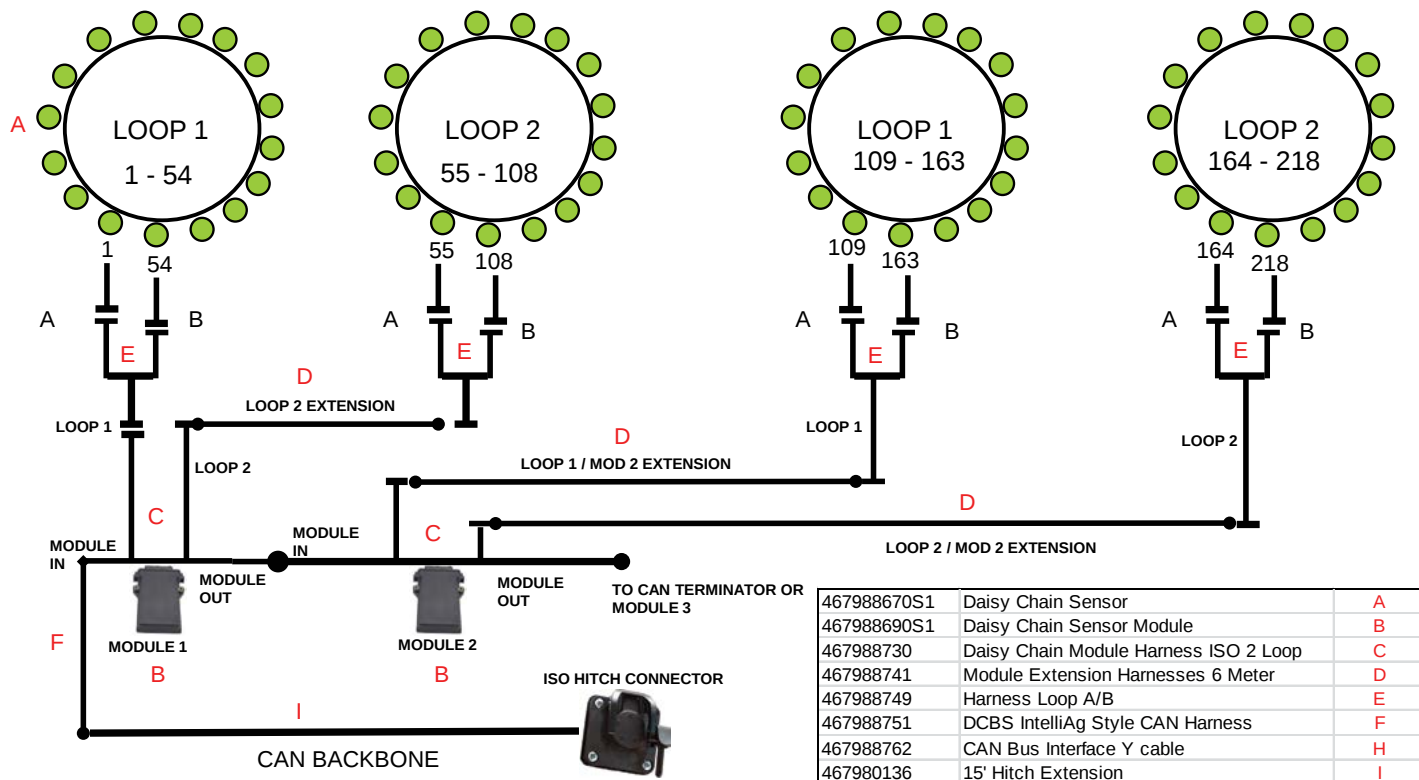


Lift Switch/Tramline Connector Kit

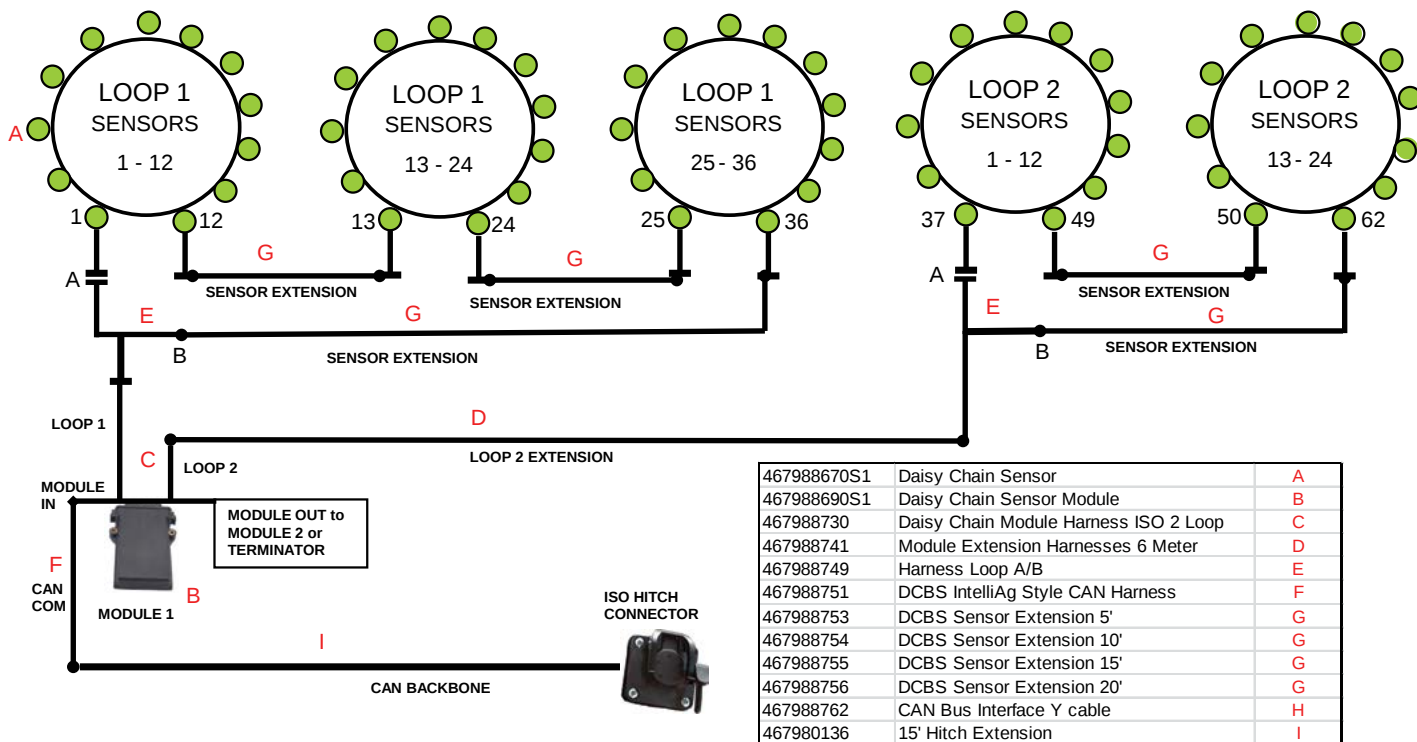
| Lift Switch/Tramline Connector Kit Pinout |                      |
|-------------------------------------------|----------------------|
| 1                                         | 12V Power            |
| 2                                         | 12V Accessory        |
| 3                                         | Accessory Ground Out |
| 4                                         | Accessory Ground     |
| 5                                         | Input 5              |
| 6                                         | Input 7 Lift Switch  |
| 7                                         | Input 3              |
| 8                                         | Input 1              |
| 9                                         | Ground Speed         |
| 10                                        | Input 2              |
| 11                                        | Input 4              |
| 12                                        | Input 6              |

## Typical Installation

## Daisy Chain Blockage Detection System

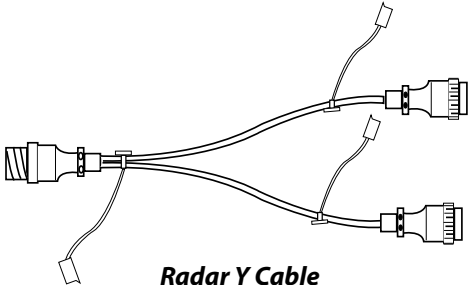


## Alternate Installation



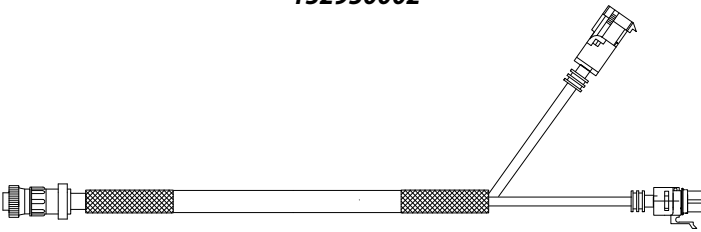
IntelliAg™ WSMT2

Radar Y Harnesses



**Radar Y Cable**  
**152950002**

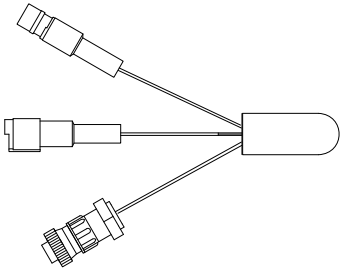
| Adapter Harness |                                                                                                                       |
|-----------------|-----------------------------------------------------------------------------------------------------------------------|
| Part Number     | Description                                                                                                           |
| 15295-0002      | Radar Y Cable for Case Magnum 7110-8950 Series                                                                        |
| 45640-4670      | Radar Y Cable for Case Maxum 5110-5240, MX90-170 Series, Steiger 9110-9390, 9210-9390 Series, Case STX 275-450 Series |
| 45640-3030      | Radar Y Cable for Caterpillar 65A, 65B, 75B Series                                                                    |
| 45640-4360S1    | Radar Y Cable for 35, 45, 55, C, D, E Series                                                                          |
| 45640-2520S3    | Radar Y Cable for John Deere 4xxx, 7xxx, 80xx Series                                                                  |
| 45640-2530S3    | Radar Y Cable for John Deere 7600-8010T                                                                               |
| 45640-4810      | Radar Y Cable for John Deere 8300 and 9400 Series                                                                     |



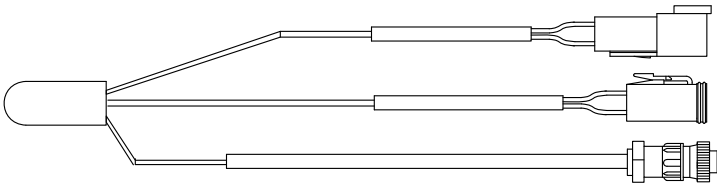
**Radar Y Cable**  
**456504670**



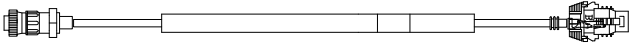
**Radar Y Cable**  
**456402530S3**



**Radar Y Cable**  
**456403030**



**Radar Y Cable**  
**456404360S1**



**Radar Y Cable**  
**456504810**



**Radar Y Cable**  
**456402520S3**

## IntelliAg™ WSMT2

## Monitor and Control

### Base System - Granular

- IntelliAg Virtual Terminal Topcon X35
- Tractor harness for use with virtual terminal
- System power harness with ISO hitch connector
- ISO master switch to control on/off
- Hitch extension harness
- WSMT2 SPDR module
- WSMT2 T harness
- Control harness for connection to valves and feedback sensors

### Boom Output Module

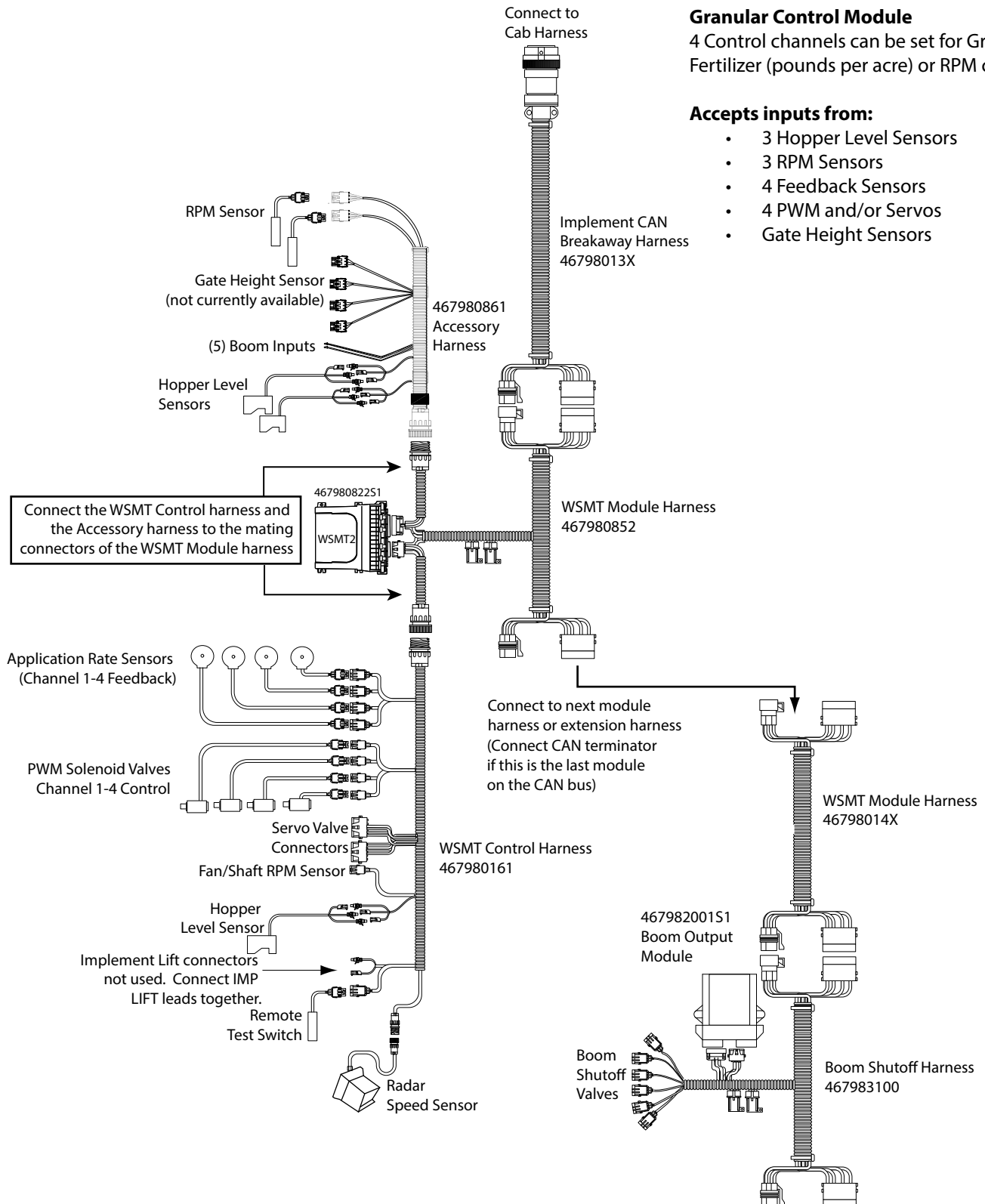


Controls boom shutoff section valves.



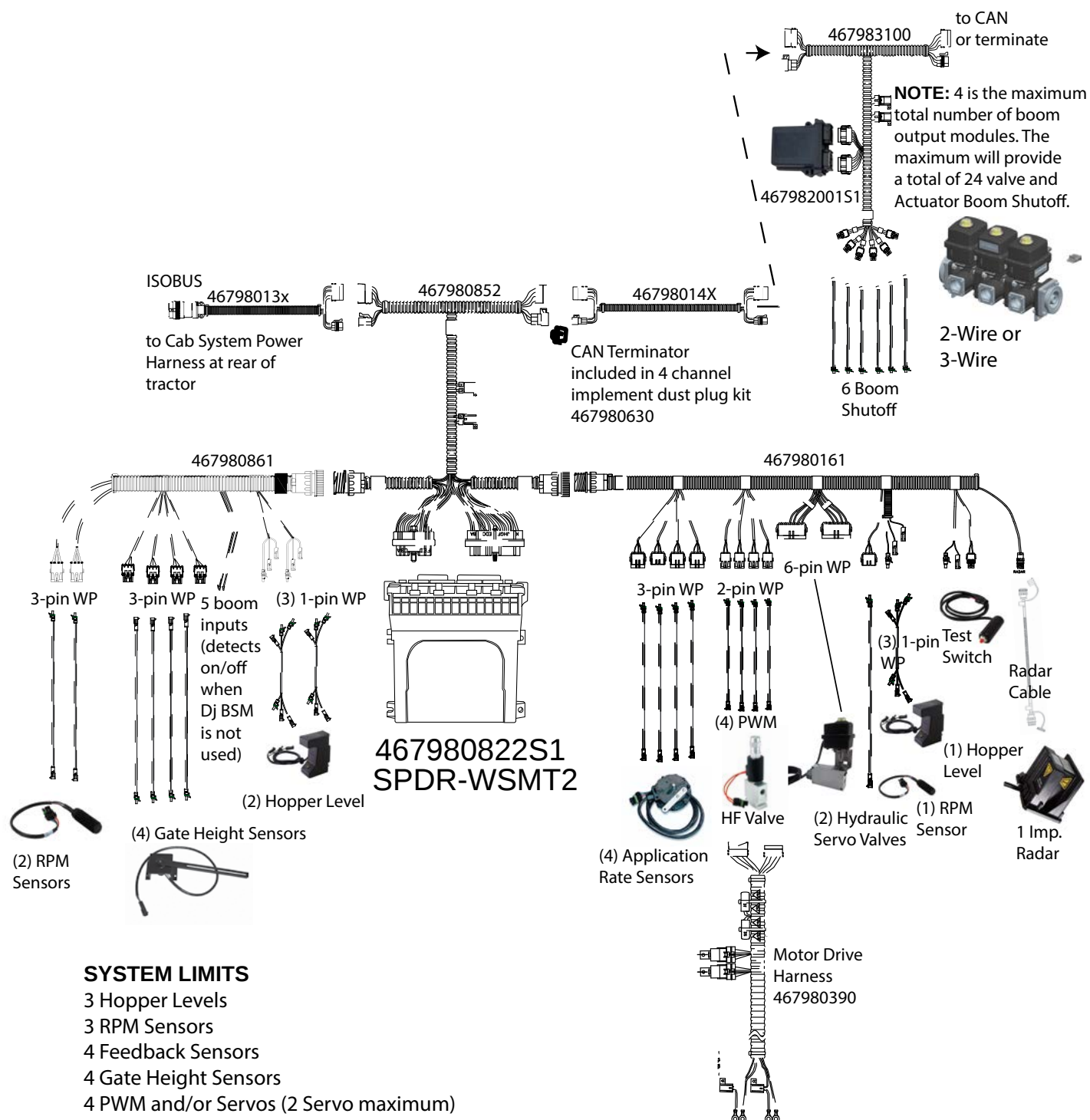
IntelliAg™ WSMT2

Spreader Control System Diagram



# IntelliAg™ WSMT2

## -0161 Control Harness



## IntelliAg™ WSMT2

## System Parts List

### HITCH EXTENSIONS

| Part Number | Description                          |
|-------------|--------------------------------------|
| 467980134   | Hitch Extension 6'                   |
| 467980132   | Hitch Extension 10'                  |
| 467980136   | Hitch Extension 15'                  |
| 467980131   | Hitch Extension 20'                  |
| 467980133   | Hitch Extension 30'                  |
| 467980130   | Hitch Extension 40'                  |
| 467980135   | Hitch Extension 50'                  |
| 467980142   | CAN Extension 5'                     |
| 467980141   | CAN Extension 10'                    |
| 467980140   | CAN Extension 20'                    |
| 467980143   | CAN Extension 25'                    |
| 467980144   | CAN Extension 40'                    |
| 467980146   | CAN Extension 45'                    |
| 467980822S1 | WSMT2 SPDR Spreader Module           |
| 467980852   | WSMT Harness                         |
| 467980630   | 4 Ch. Imp. Dust Plug Kit w/CAN Term. |
| 110110099   | Ty Wrap Bundle 100 14"               |
| 467980161   | Control Harness                      |
| 467980861   | Accessory Input Harness              |

### RADAR

| Part Number | Description                       |
|-------------|-----------------------------------|
| 467831000S9 | Radar III w/ 14' Cable & Mtg Brkt |
| 439400024   | Radar Extension Cable 10'         |
| 439400065   | Radar Extension Cable 15'         |
| 439400064   | Radar Extension Cable 25'         |
| 464210515S1 | Test Switch                       |

### RPM

| Part Number | Description                 |
|-------------|-----------------------------|
|             | Hall Effect Sensor RPM      |
| 463500030S1 | (Smooth)                    |
| 466970014S1 | (Threaded)                  |
| 459680922   | Extension Cable 3Pin WP 15' |

### GATE HEIGHT 1-4

| Part Number | Description            |
|-------------|------------------------|
| 466492370S1 | Gate Height Sensor     |
| 457901810   | 3Pin WP Ext. Cable 15' |
| 457901811   | 3Pin WP Ext. Cable 30' |
| 457901812   | 3Pin WP Ext. Cable 45' |

### HOPPER LEVEL 1-3

| Part Number | Description              |
|-------------|--------------------------|
| 466820720S3 | Hopper Level Sensor      |
| 466820713   | 3-1Pin WP Ext. Cable 5'  |
| 466820712S1 | 3-1Pin WP Ext. Cable 10' |
| 466820714   | 3-1Pin WP Ext. Cable 15' |
| 466820710S3 | 3-1Pin WP Ext. Cable 20' |

### PULSE-WIDTH MODULATION

| Part Number | Description                       |
|-------------|-----------------------------------|
| 467092004S1 | Hydraulic Valve HydraForce 4 GPM  |
| 467092008S1 | Hydraulic Valve HydraForce 8 GPM  |
| 467092050S1 | Hydraulic Valve HydraForce 25 GPM |
| 467980470   | 12 Ga. 2Pin WP Ext. Cable 15'     |
| 467980471   | 12 Ga. 2Pin WP Ext. Cable 20'     |
| 467980473   | 12 Ga. 2Pin WP Ext. Cable 30'     |
| 467980472   | 12 Ga. 2Pin WP Ext. Cable 40'     |

### SERVO VALVES (HYDRAULIC)

| Part Number             | Description                                   |
|-------------------------|-----------------------------------------------|
| 155570006               | Hydraulic Valve and Actuator 5 GPM 20' cable  |
| 155570003               | Hydraulic Valve and Actuator 9 GPM 20' cable  |
| 155570018               | Hydraulic Valve and Actuator 10 GPM 11' cable |
| 155570021               | Hydraulic Valve and Actuator 11 GPM 20' cable |
| 155570011               | Hydraulic Valve and Actuator 13 GPM 20' cable |
| 155570013               | Hydraulic Valve and Actuator 16 GPM 20' cable |
| 155570004               | Hydraulic Valve and Actuator 18 GPM 20' cable |
| 155570016               | Hydraulic Valve and Actuator 20 GPM 20' cable |
| 155570002               | Hydraulic Valve and Actuator 23 GPM 10' cable |
| 155570015               | Hydraulic Valve and Actuator 25 GPM 20' cable |
| 155570009               | Hydraulic Valve and Actuator 28 GPM 20' cable |
| 155570007               | Hydraulic Valve and Actuator 30 GPM 10' cable |
| 155570001               | Hydraulic Valve and Actuator 30 GPM 20' cable |
| 155570017               | Hydraulic Valve and Actuator 30 GPM 30' cable |
| 155570022               | Hydraulic Valve and Actuator 58 GPM 20' cable |
| <b>REQUIRED DRIVERS</b> |                                               |
| 439400026               | Valve Driver Extension 10'                    |

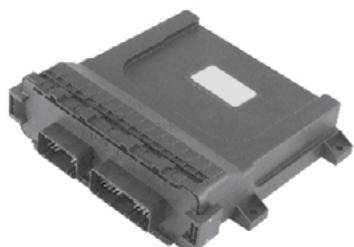
### FEEDBACK SENSORS 1-4

| Part Number | Description             |
|-------------|-------------------------|
| 464360178S1 | AR Sensor 360 1' Cable  |
| 464360176S1 | AR Sensor 360 5' Cable  |
| 464360179S1 | AR Sensor 360 6' Cable  |
| 464360170S1 | AR Sensor 360 10' Cable |
| 464360171S1 | AR Sensor 360 15' Cable |
| 464360177S1 | AR Sensor 360 22' Cable |
| 464360172S1 | AR Sensor 360 30' Cable |
| 457141810   | App. Rate 1" Coupler    |
| 457141850   | App. Rate 1.25" Coupler |
| 457901810   | 3Pin WP Ext. Cable 15'  |
| 457901811   | 3Pin WP Ext. Cable 30'  |
| 457901812   | 3Pin WP Ext. Cable 45'  |

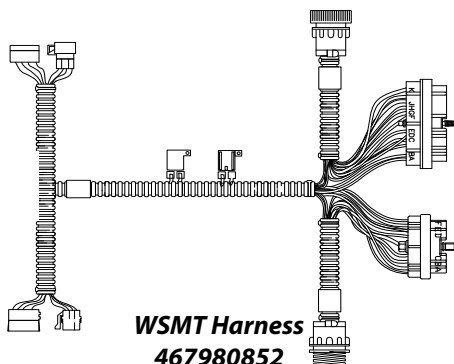
### ELECTRIC MOTOR DRIVER

| Part Number | Description                              |
|-------------|------------------------------------------|
| 467980490   | High Current Electric Motor Harness      |
| 467980390   | Power Harness (High current > than 10 A) |

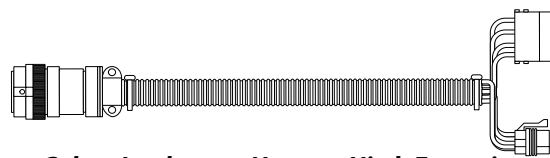
## IntelliAg™ WSMT2



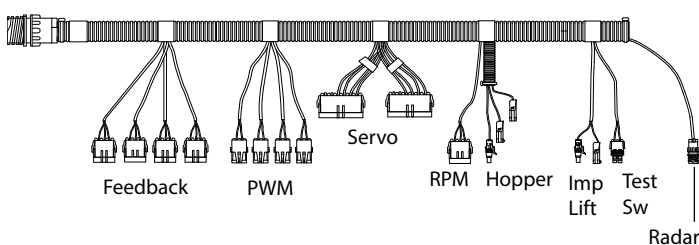
**WSMT2  
Module**



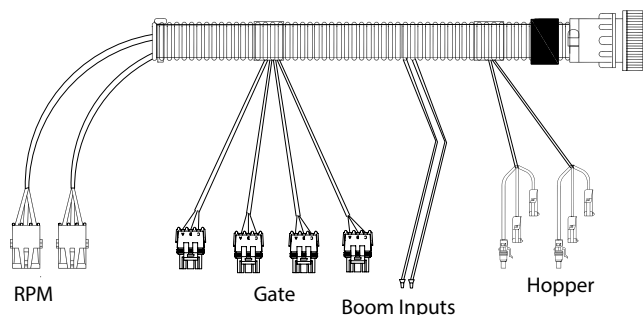
**WSMT Harness  
467980852**



**Cab to Implement Harness Hitch Extension  
46798013X**



**4 Channel Harness with Accessory Inputs  
467980161**



**Granular Spreader Accessory Input Harness  
467980861**

## Working Set Master Module (WSMT2)

The Working Set Master Module (WSMT2) houses the system's primary interface device. All system parameters, constants, and memory are stored in the WSMT and controls the application of material by interfacing with proportional hydraulic valves and feedback sensors. Several WSMT modules are available for a variety of applications.

| Working Set Master Module |                                                    |
|---------------------------|----------------------------------------------------|
| Part Number               | Description                                        |
| 46798-0822S1              | Module, SPDR-WSMT2 (Spreader Control)              |
| 46798-0630                | 4 Channel Implement Dust Plug Kit with Terminators |
| 11011-0099                | Ty Wrap Bundle 100 14 in.                          |

## Working Set Master Harness

| WSMT Harnessing |                                                          |
|-----------------|----------------------------------------------------------|
| Part Number     | Description                                              |
| 46798-0852      | WSMT Harness 37-pin CPC with APER (Material Application) |

**NOTE:** SE style harnesses have 1 gray and 1 black 12-pin Deutsch DT connector.

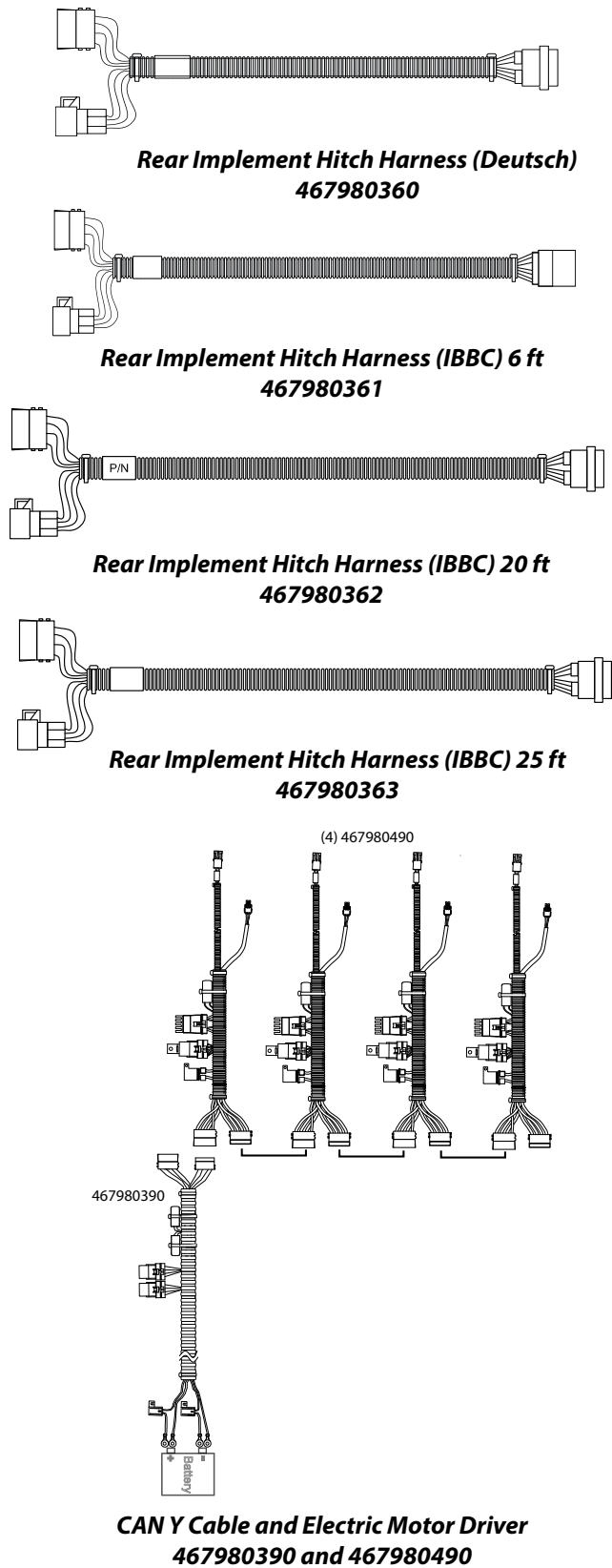
## Cab to Implement Harness Hitch Extension

| Tractor Cab to Implement Harness Hitch Extensions |                                       |
|---------------------------------------------------|---------------------------------------|
| Part Number                                       | Description                           |
| 46798-0134                                        | 6 ft. Hitch Extension ISO system CAN  |
| 46798-0132                                        | 10 ft. Hitch Extension ISO system CAN |
| 46798-0136                                        | 15 ft. Hitch Extension ISO system CAN |
| 46798-0131                                        | 20 ft. Hitch Extension ISO system CAN |
| 46798-0133                                        | 30 ft. Hitch Extension ISO system CAN |
| 46798-0130                                        | 40 ft. Hitch Extension ISO system CAN |
| 46798-0135                                        | 50 ft. Hitch Extension ISO system CAN |
| 46798-0457                                        | 40 ft. Hitch to Hitch Extension       |

## WSMT2 Harnesses (Control Channel/Accessory Inputs)

| 37-pin CPC Control Harnesses |                                                                                           |
|------------------------------|-------------------------------------------------------------------------------------------|
| Part Number                  | Description                                                                               |
| 46798-0161                   | WSMT Material Application 4 Ch Actuator Harness with APER (application error rate)        |
| 46798-0861                   | Granular Spreader Accessory Harness (2 RPM, 4 Gate Height, 5 Boom Inputs, 2 Hopper Level) |

IntelliAg™ WSMT2



CAN to Hitch Connector Harnesses

Harness accommodates disconnection between implement and tow-behind aircart to second hitch extension.

| Rear Implement Hitch Harness |                                                                      |
|------------------------------|----------------------------------------------------------------------|
| Part Number                  | Description                                                          |
| 46798-0360                   | Rear Implement Hitch Harness with Deutsch 9-pin (CAN to Hitch) 3 ft. |
| 46798-0361                   | Rear Implement Hitch Harness with IBBC 9-pin (CAN to Hitch) 6 ft.    |
| 46798-0362                   | Rear Implement Hitch Harness with IBBC 9-pin 20 ft.                  |
| 46798-0363                   | Rear Implement Hitch Harness with IBBC 9-pin 25 ft.                  |

Adapter Harnesses

| Adapter Harness |                                                                                    |
|-----------------|------------------------------------------------------------------------------------|
| Part Number     | Description                                                                        |
| 46798-0390      | CAN Y Cable (DICKEY-john®, Case) (used with 46798-0490)                            |
| 46798-0490      | Electric Motor Driver (solenoid relay cable for high current electric motor drive) |

Implement Kit

| IAGRANULARIMPKIT Granular Implement Kit consists of the following |                            |
|-------------------------------------------------------------------|----------------------------|
| Part Number                                                       | Description                |
| 46798-0136                                                        | 15' Hitch Harness          |
| 46798-0852                                                        | WSMT2 Harness              |
| 46798-0822S1                                                      | WSMT2 SPDR Spreader Module |
| 11001-1474                                                        | Operator's Manual          |

## IntelliAg™ WSMT2

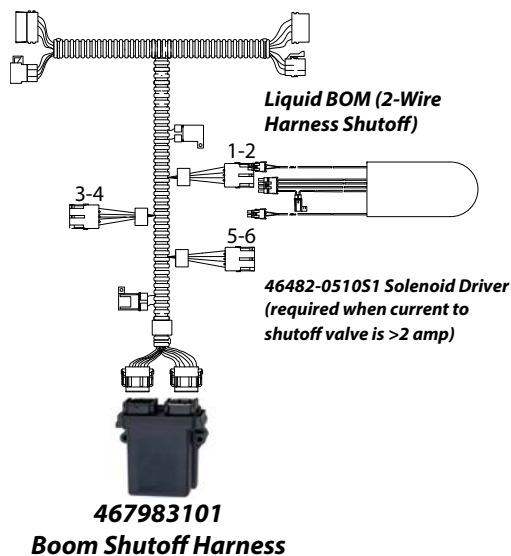
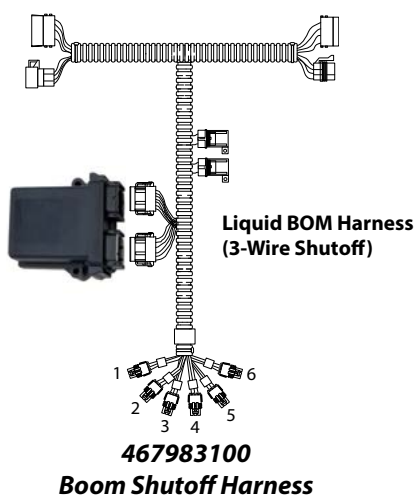
## WSMB Output Module Driver



**Output Shutoff Module**

A WSMB Output Module Driver communicates with the Boom Switch Module for section on/off control.

| Row Shutoff Parts |                                                                                                |
|-------------------|------------------------------------------------------------------------------------------------|
| Part Number       | Description                                                                                    |
| 46798-2001S1      | Output Shutoff Module                                                                          |
| 46798-3100        | Boom Shutoff Harness (6 Boom/3-Wire Shutoff)                                                   |
| 46798-3101        | Boom Shutoff Harness (6 Boom/2-Wire Shutoff) (used with non-DICKEY-john® Valves and 464820510) |
| 46798-2100        | Row Shutoff (RSO) Harness (12 solenoid)                                                        |
| 46482-0510S1      | Solenoid Driver (plugs into 46798-3501 and -3101 for current >2 Amp)                           |



IntelliAg™ WSMT2

Boom Switch Module



Boom Switch Module



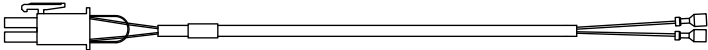
Extended Shut Off Module



BSM Harness 24"  
467980330



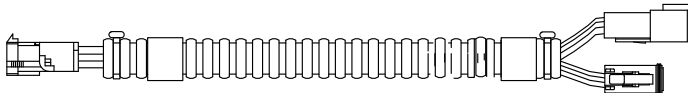
BSM CAN Harness Extension 60"  
467980340



ESM Foot Switch Cable 96"  
467984180



Case Tractor Cab Harness 24"  
467980330

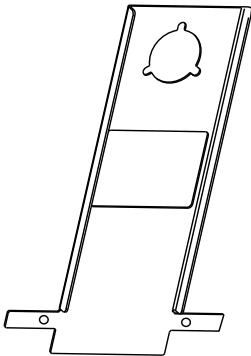


CFM to JD GS2 Cab Harness  
467980335

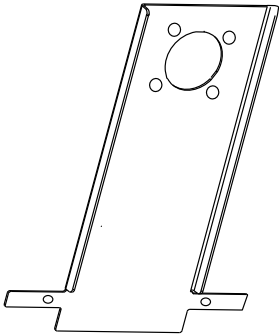
Boom Switch Module controls up to 24 boom on/off shutoff valves.

Switch modules placed in the cab allow each row/section to be controlled or use the master switch for all row/section on or off.

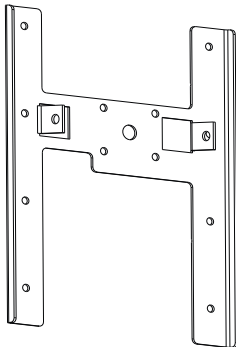
| Boom Switch Module Parts |                                                                             |
|--------------------------|-----------------------------------------------------------------------------|
| Part Number              | Description                                                                 |
| 46798-4030S1             | Boom Switch Module (BSM) (1-6 sections)                                     |
| 46798-4040S1             | Extended Shut Off Module (ESM) (7-24 row)                                   |
| 46798-4150               | BSM/ESM Mounting Bracket (4 total) for use with 5" Virtual Terminal (AI-50) |
| 46798-4160               | BSM/ESM U-Mount Bracket (accommodates mounting 46798-4030S1)                |
| 46798-0330               | BSM Harness to Tractor Harness                                              |
| 46798-0335               | CFM to JD GS2 Cab Harness                                                   |
| 46798-0340               | BSM Harness 60 in. CAN Extension                                            |
| 46798-4180S1             | ESM Foot Switch Cable (Liquid)                                              |
| 46798-0625               | BSM/ESM Mounting Bracket for use with 10" Virtual Terminal (AI-100)         |
| 46798-0626               | BSM/ESM Mounting Bracket for use with 12" Virtual Terminal (Topcon X35)     |



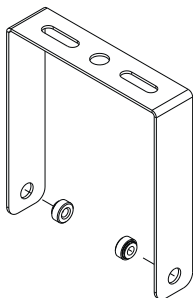
BSM/ESM Mounting Bracket  
(Topcon X35) 467980626



BSM/ESM Mounting Bracket  
(AI-100) 467980625



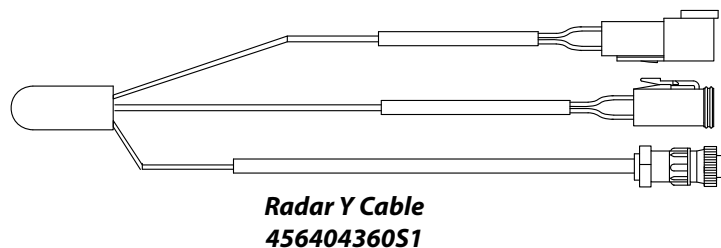
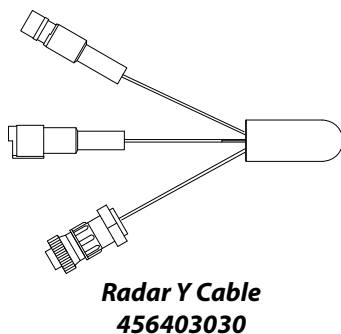
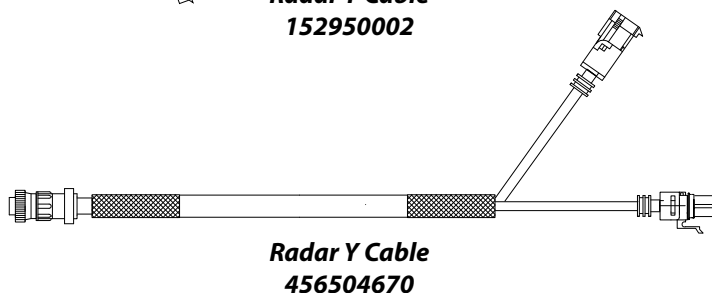
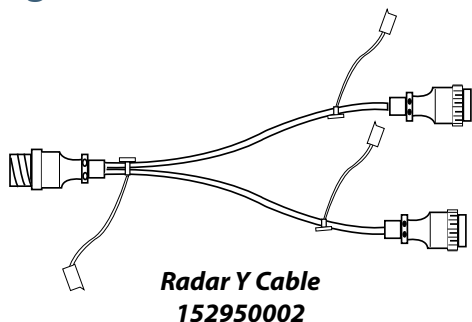
BSM/ESM Mounting Bracket  
467984150



BSM U Mount Bracket  
467984160

## IntelliAg™ WSMT2

## Radar Y Harnesses



| Adapter Harness |                                                                                                                       |
|-----------------|-----------------------------------------------------------------------------------------------------------------------|
| Part Number     | Description                                                                                                           |
| 15295-0002      | Radar Y Cable for Case Magnum 7110-8950 Series                                                                        |
| 45640-4670      | Radar Y Cable for Case Maxum 5110-5240, MX90-170 Series, Steiger 9110-9390, 9210-9390 Series, Case STX 275-450 Series |
| 45640-3030      | Radar Y Cable for Caterpillar 65A, 65B, 75B Series                                                                    |
| 45640-4360S1    | Radar Y Cable for 35, 45, 55, C, D, E Series                                                                          |
| 45640-2520S3    | Radar Y Cable for John Deere 4xxx, 7xxx, 80xx Series                                                                  |
| 45640-2530S3    | Radar Y Cable for John Deere 7600-8010T                                                                               |
| 45640-4810      | Radar Y Cable for John Deere 8300 and 9400 Series                                                                     |



## IntelliAg™ WSMT2

### Base System - Sprayer

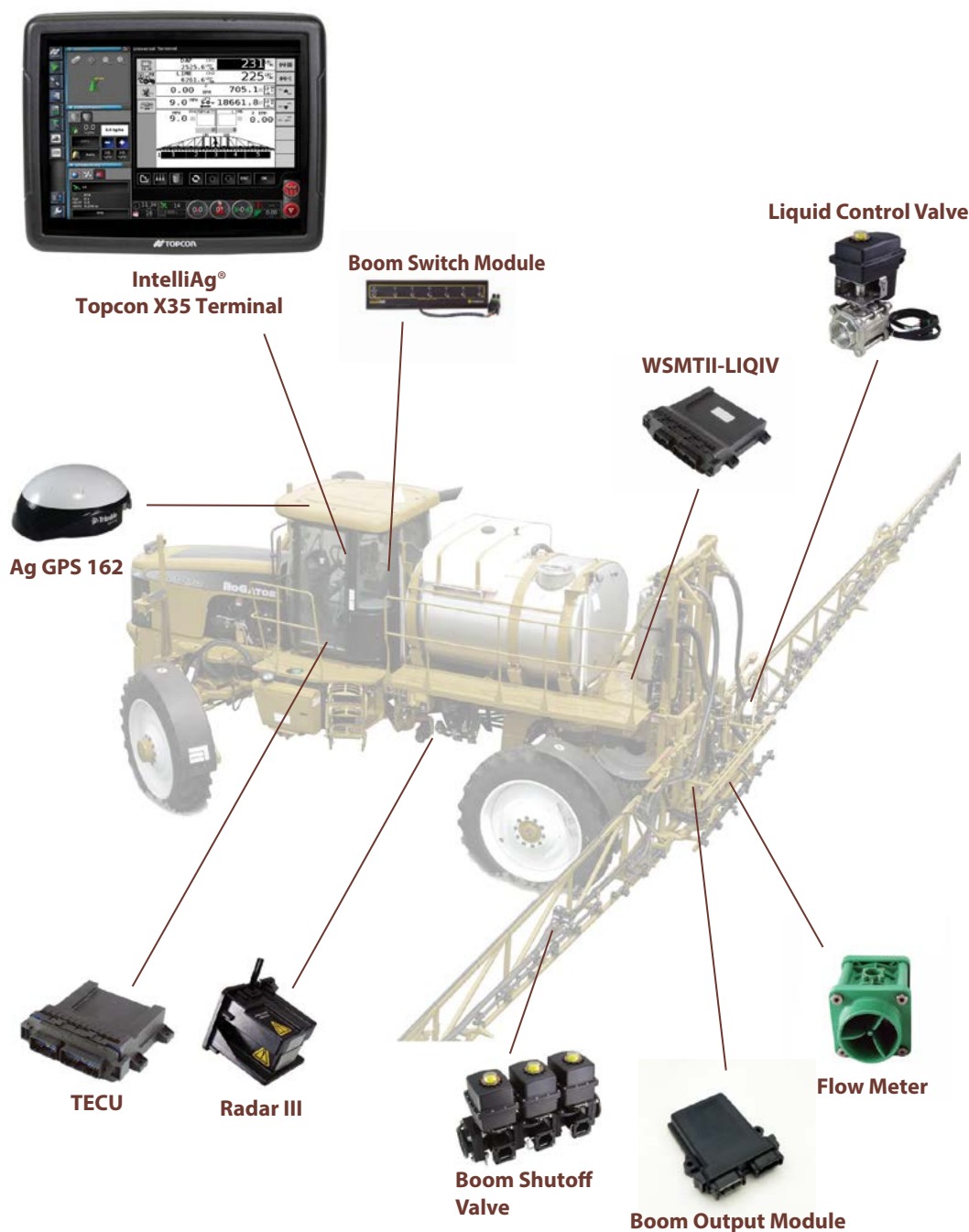
- IntelliAg™ Virtual Terminal Topcon X35
- Tractor harness for use with Virtual Terminal
- System power harness with ISO hitch connector
- ISO master switch to control on/off
- Hitch extension harness
- LIQIV - WSMT2
- WSMT2 T harness
- Control harness for connection to valves and feedback sensors

## Monitor and Control

### Boom Output Module

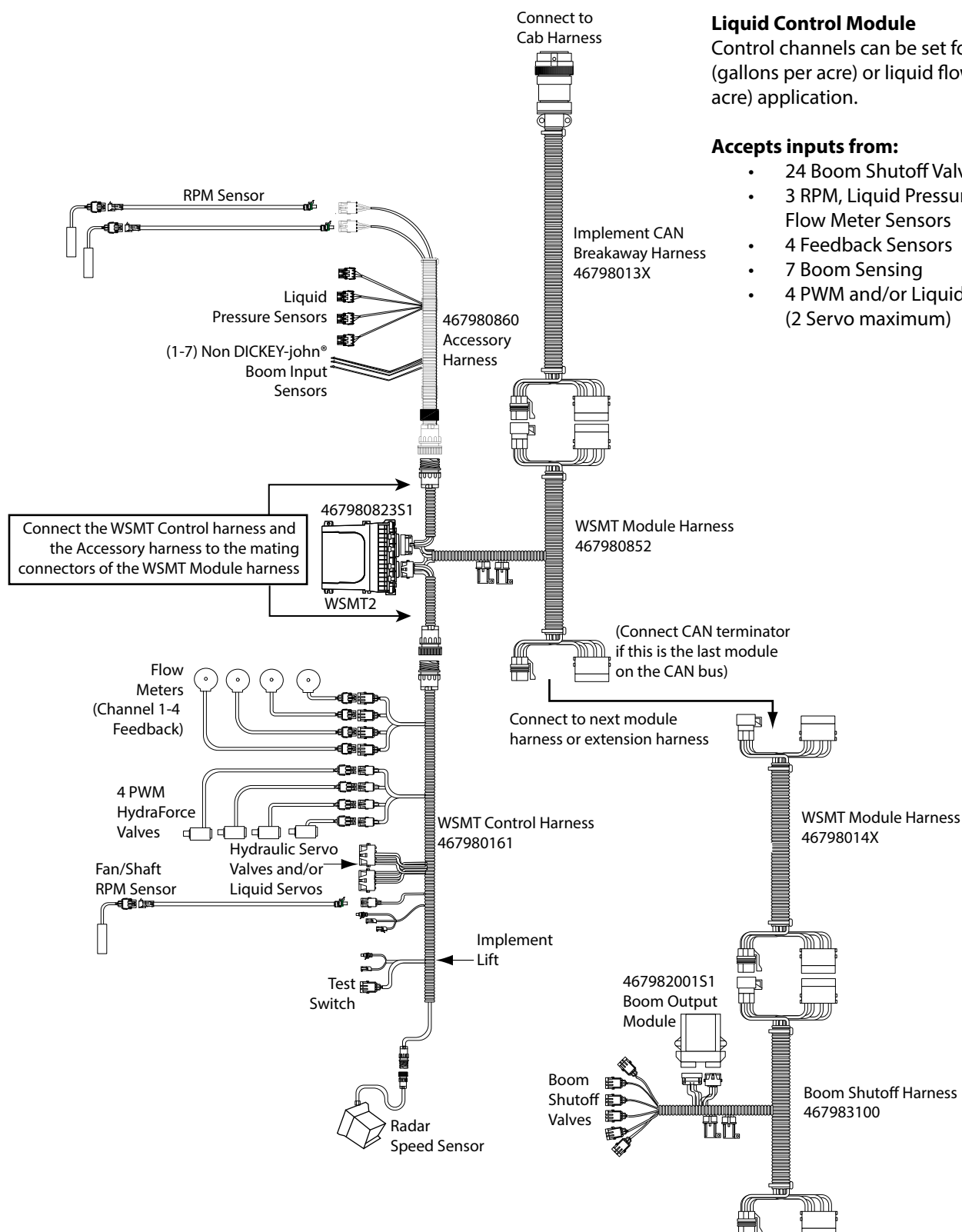


Controls boom shutoff section valves.



## IntelliAg™ WSMT2

## Sprayer Control System Diagram



### Liquid Control Module

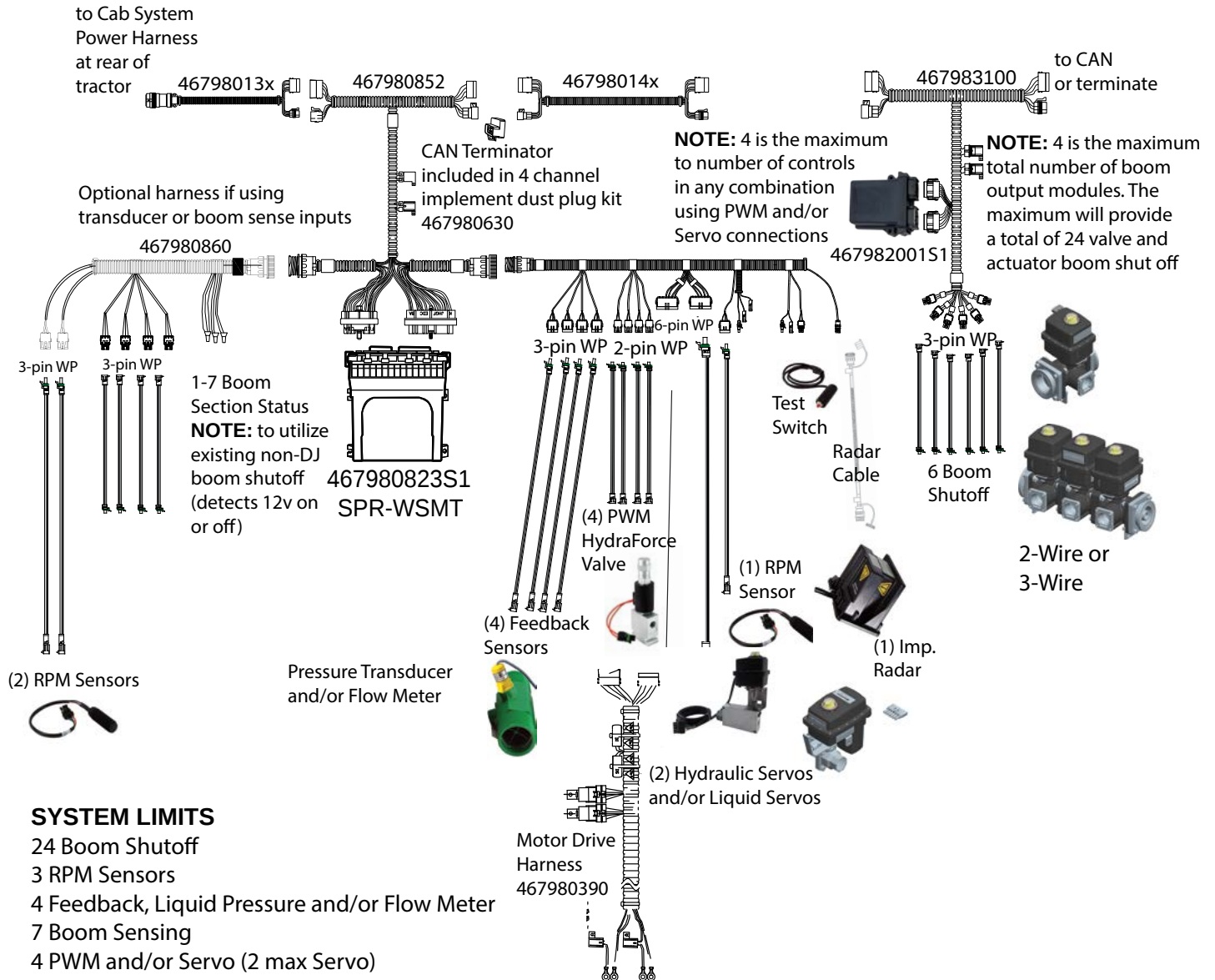
Control channels can be set for liquid pressure (gallons per acre) or liquid flow (gallons per acre) application.

### Accepts inputs from:

- 24 Boom Shutoff Valves
- 3 RPM, Liquid Pressure, and/or Flow Meter Sensors
- 4 Feedback Sensors
- 7 Boom Sensing
- 4 PWM and/or Liquid Servos (2 Servo maximum)

IntelliAg™ WSMT2

-0161 Control Harness



\*Refer to page 63 for details on Electric Pump/Motor Driver harness

## IntelliAg™ WSMT2

### HITCH EXTENSIONS

| Part Number | Description                          |
|-------------|--------------------------------------|
| 467980134   | Hitch Extension 6'                   |
| 467980132   | Hitch Extension 10'                  |
| 467980136   | Hitch Extension 15'                  |
| 467980131   | Hitch Extension 20'                  |
| 467980133   | Hitch Extension 30'                  |
| 467980130   | Hitch Extension 40'                  |
| 467980135   | Hitch Extension 50'                  |
| 467980142   | CAN Extension 5'                     |
| 467980141   | CAN Extension 10'                    |
| 467980140   | CAN Extension 20'                    |
| 467980143   | CAN Extension 25'                    |
| 467980144   | CAN Extension 40'                    |
| 467980146   | CAN Extension 45'                    |
| 467980823S1 | WSMT4 Sprayer Module                 |
| 467980852   | WSMT Harness                         |
| 467980161   | Control Harness                      |
| 467980860   | Liquid Accessory Input Harness       |
| 467980630   | 4 Ch. Imp. Dust Plug Kit w/CAN Term. |
| 110110099   | Ty Wrap Bundle 100 14"               |

### RADAR

| Part Number | Description                       |
|-------------|-----------------------------------|
| 467831000S9 | Radar III w/ 14' Cable & Mtg Brkt |
| 439400024   | Radar Extension 10'               |
| 439400065   | Radar Extension 15'               |
| 439400064   | Radar Extension 25'               |
| 464210515S1 | Test Switch                       |

### RPM

| Part Number | Description                |
|-------------|----------------------------|
|             | Hall Effect Sensor RPM     |
| 463500030S1 | (Smooth)                   |
| 466970014S1 | (Threaded)                 |
| 459680922   | HES Ext. Cable 3Pin WP 15' |

### PULSE-WIDTH MODULATION

| Part Number | Description                       |
|-------------|-----------------------------------|
| 467092004S1 | Hydraulic Valve HydraForce 4 GPM  |
| 467092008S1 | Hydraulic Valve HydraForce 8 GPM  |
| 467092050S1 | Hydraulic Valve HydraForce 25 GPM |
| 467980470   | 12 Ga. 2Pin WP Ext. Cable 15'     |
| 467980471   | 12 Ga. 2Pin WP Ext. Cable 20'     |

### SERVO VALVES (HYDRAULIC)

| Part Number | Description                                   |
|-------------|-----------------------------------------------|
| 155570006   | Hydraulic Valve and Actuator 5 GPM 20' cable  |
| 155570003   | Hydraulic Valve and Actuator 9 GPM 20' cable  |
| 155570018   | Hydraulic Valve and Actuator 10 GPM 11' cable |
| 155570021   | Hydraulic Valve and Actuator 11 GPM 20' cable |
| 155570011   | Hydraulic Valve and Actuator 13 GPM 20' cable |
| 155570013   | Hydraulic Valve and Actuator 16 GPM 20' cable |
| 155570004   | Hydraulic Valve and Actuator 18 GPM 20' cable |
| 155570016   | Hydraulic Valve and Actuator 20 GPM 20' cable |
| 155570002   | Hydraulic Valve and Actuator 23 GPM 10' cable |
| 155570015   | Hydraulic Valve and Actuator 25 GPM 20' cable |
| 155570009   | Hydraulic Valve and Actuator 28 GPM 20' cable |
| 155570007   | Hydraulic Valve and Actuator 30 GPM 10' cable |
| 155570001   | Hydraulic Valve and Actuator 30 GPM 20' cable |
| 155570017   | Hydraulic Valve and Actuator 30 GPM 30' cable |
| 155570022   | Hydraulic Valve and Actuator 58 GPM 20' cable |

#### REQUIRED DRIVER

|           |                            |
|-----------|----------------------------|
| 439400026 | Valve Driver Extension 10' |
|-----------|----------------------------|

## System Parts List

### FLOW METERS

| Part Number  | Description            |
|--------------|------------------------|
| 466491170S1  | Flow Meter 1/2"        |
| PM00370023S1 | Flow Meter 3/4"        |
| PM00370030S1 | Flow Meter 1"          |
| PM00370040S1 | Flow Meter 1.5"        |
| PM00370048S1 | Flow Meter 2"          |
| PM00370068S1 | Flow Meter 3"          |
| PM00370088S1 | Flow Meter 4"          |
| PMNPT70116S1 | SS Flow Meter 1/2"     |
| PMNPT70121S1 | SS Flow Meter 3/4"     |
| PMNPT70126S1 | SS Flow Meter 1"       |
| PMNPT70136S1 | SS Flow Meter 1-1/2"   |
| PMNPT70146S1 | SS Flow Meter 2"       |
| 457901810    | 3Pin WP Ext. Cable 15' |
| 457901811    | 3Pin WP Ext. Cable 30' |
| 457901812    | 3Pin WP Ext. Cable 45' |

### WORKING SET MEMBER

| Part Number | Description              |
|-------------|--------------------------|
| 467982000S1 | BOM (Boom Output Module) |
| 467983100   | BOM Harness              |

### LIQUID VALVE AND ACTUATOR (LIQUID FLOW CONTROL)

| Part Number | Description                                         |
|-------------|-----------------------------------------------------|
| 467095010   | Valve & Actuator Assy. 3/8" 2-Way Stainless Steel   |
| 467095220   | Valve & Actuator Assy. 3/8" 3-Way Stainless Steel   |
| 467095020   | Valve & Actuator Assy. 1/2" 2-Way Stainless Steel   |
| 467095030   | Valve & Actuator Assy. 3/4" 2-Way Poly              |
| 467095280   | Valve & Actuator Assy. 1" 2-Way Poly                |
| 467095290   | Valve & Actuator Assy. 1" 2-Way Stainless Steel     |
| 467095050   | Valve & Actuator Assy. 1-1/2" 3-Way Poly            |
| 467095140   | Valve & Actuator Assy. 1-1/2" 3-Way Stainless Steel |
| 467095150   | Valve & Actuator Assy. 2" 2-Way Stainless Steel     |
| 467095160   | Valve & Actuator Assy. 2" 3-Way Stainless Steel     |
| 467095170   | Valve & Actuator Assy. 3" 2-Way Stainless Steel     |
| 457901820   | 6Pin WP Extension Cable 15'                         |
| 457901821   | 6Pin WP Extension Cable 30'                         |

### BOOM "BANK" SHUT OFF VALVES

| Part Number | Description                  |
|-------------|------------------------------|
| 467096000   | Valve & Actuator 3/4"        |
| 467096010   | Valve & Actuator 3/4" 3 Bank |
| 467096020   | Valve & Actuator 3/4" 5 Bank |
| 467095130   | Valve & Actuator 1" Single   |
| 457901810   | 3Pin WP Ext. Cable 15'       |
| 457901811   | 3Pin WP Ext. Cable 30'       |
| 457901812   | 3Pin WP Ext. Cable 45'       |

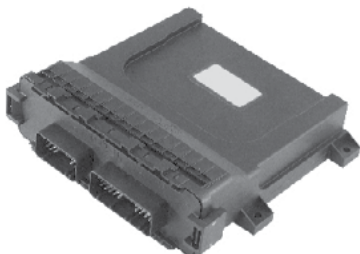
### ELECTRIC MOTOR DRIVER

| Part Number | Description                              |
|-------------|------------------------------------------|
| 467980490   | High Current Electric Motor Harness      |
| 467980390   | Power Harness (High current > than 10 A) |

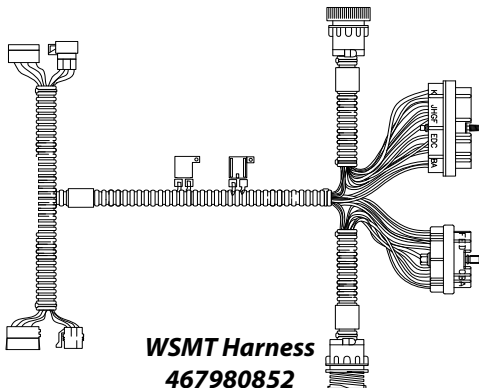
### RAVEN FAST VALVE ADAPTER HARNESS

| Part Number | Description                      |
|-------------|----------------------------------|
| 466980100   | Raven Fast Valve Adapter Harness |

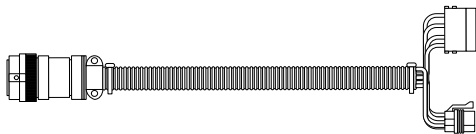
IntelliAg™ WSMT2



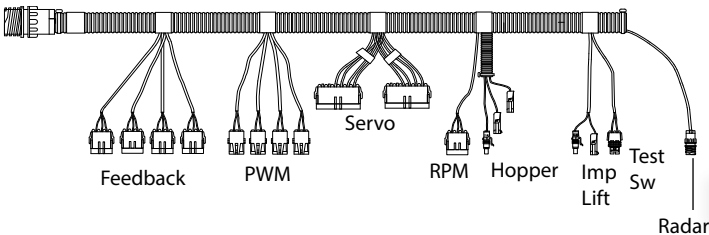
WSMT2  
Module



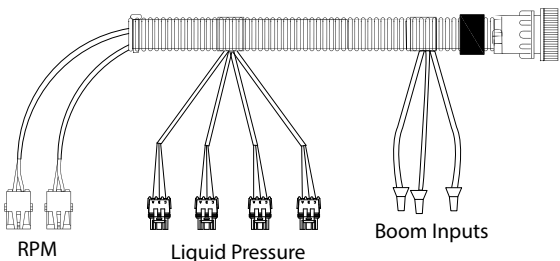
WSMT Harness  
467980852



Cab to Implement Harness Hitch Extension  
46798013X



Material Application Accessory Harness  
467980161



Sprayer Accessory Harness  
467980860

Working Set Master Module (WSMT2)

The Working Set Master Module (WSMT2) houses the system's primary interface device. All system parameters, constants, and memory are stored in the WSMT and controls the application of material by interfacing with proportional hydraulic valves and feedback sensors. Several WSMT modules are available for a variety of applications.

| Working Set Master Module |                                                    |
|---------------------------|----------------------------------------------------|
| Part Number               | Description                                        |
| 46798-082351              | Module, SPR-WSMT2 (Sprayer Control)                |
| 46798-0630                | 4 Channel Implement Dust Plug Kit with Terminators |
| 11011-0099                | Ty Wrap Bundle 100 14 in.                          |

Working Set Master Harness

| WSMT Harnessing |                                               |
|-----------------|-----------------------------------------------|
| Part Number     | Description                                   |
| 46798-0852      | WSMT Harness with APER (Material Application) |

**NOTE:** SE style harnesses have 1 gray and 1 black 12-pin Deutsch DT connector.

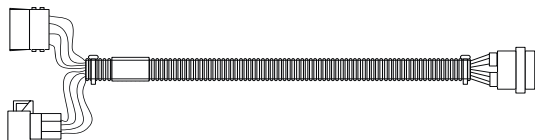
Cab to Implement Harness  
Hitch Extension

| Tractor Cab to Implement Harness Hitch Extensions |                                       |
|---------------------------------------------------|---------------------------------------|
| Part Number                                       | Description                           |
| 46798-0134                                        | 6 ft. Hitch Extension ISO system CAN  |
| 46798-0132                                        | 10 ft. Hitch Extension ISO system CAN |
| 46798-0136                                        | 15 ft. Hitch Extension ISO system CAN |
| 46798-0131                                        | 20 ft. Hitch Extension ISO system CAN |
| 46798-0133                                        | 30 ft. Hitch Extension ISO system CAN |
| 46798-0130                                        | 40 ft. Hitch Extension ISO system CAN |
| 46798-0135                                        | 50 ft. Hitch Extension                |
| 46798-0457                                        | 40 ft. Hitch to Hitch Extension       |

WSMT2 Harnesses  
(Control Channels/Accessory Inputs)

| 37-pin CPC Style Control Harnesses |                                                                                    |
|------------------------------------|------------------------------------------------------------------------------------|
| Part Number                        | Description                                                                        |
| 46798-0161                         | WSMT Material Application 4 Ch Actuator Harness with APER (application error rate) |
| 46798-0860                         | Liquid Sprayer Accessory Harness (2 RPM, 4 Liquid, 7 Boom Inputs)                  |

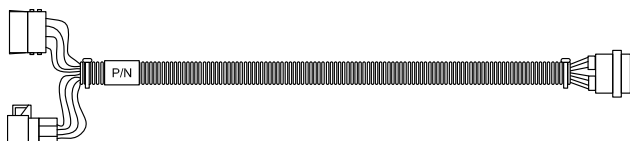
## IntelliAg™ WSMT2



**Rear Implement Hitch Harness (Deutsch) 3 ft**  
**467980360**



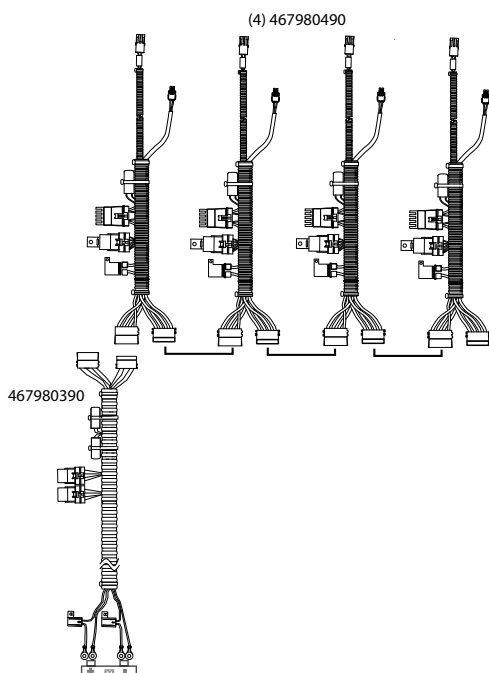
**Rear Implement Hitch Harness (IBBC) 6 ft**  
**467980361**



**Rear Implement Hitch Harness (IBBC) 20 ft**  
**467980362**



**Rear Implement Hitch Harness (IBBC) 25 ft**  
**467980363**



**CAN Y Cable and Electric Motor Driver**  
**467980390 and 467980490**

## CAN to Hitch Connector Harnesses

Harness accommodates disconnection between implement and tow-behind aircart to second hitch extension.

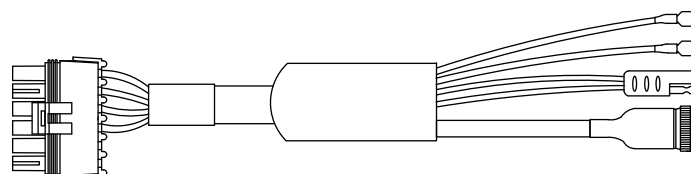
| Rear Implement Hitch Harness |                                                                      |
|------------------------------|----------------------------------------------------------------------|
| Part Number                  | Description                                                          |
| 46798-0360                   | Rear Implement Hitch Harness with Deutsch 9-pin (CAN to Hitch) 3 ft. |
| 46798-0361                   | Rear Implement Hitch Harness with IBBC 9-pin (CAN to Hitch) 6 ft.    |
| 46798-0362                   | Rear Implement Hitch Harness with IBBC 9-pin 20 ft.                  |
| 46798-0363                   | Rear Implement Hitch Harness with IBBC 9-pin 25 ft.                  |

## Adapter Harnesses

| Adapter Harness |                                                                                    |
|-----------------|------------------------------------------------------------------------------------|
| Part Number     | Description                                                                        |
| 46798-0490      | Electric Motor Driver (solenoid relay cable for high current electric motor drive) |
| 46798-0390      | CAN Y Cable (used with 46798-0490)                                                 |

## Raven Fast Valve Adapter Harness

| Adapter Harness |                                  |
|-----------------|----------------------------------|
| Part Number     | Description                      |
| 46698-0100      | Raven Fast Valve Adapter Harness |
| 46698-0040S1    | Raven Flow Meter Adapter Cable   |



**Raven Fast Valve Adapter Harness**  
**466980100**

IntelliAg™ WSMT2

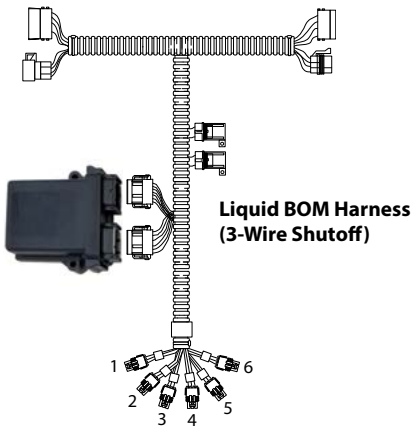


Output Shutoff Module

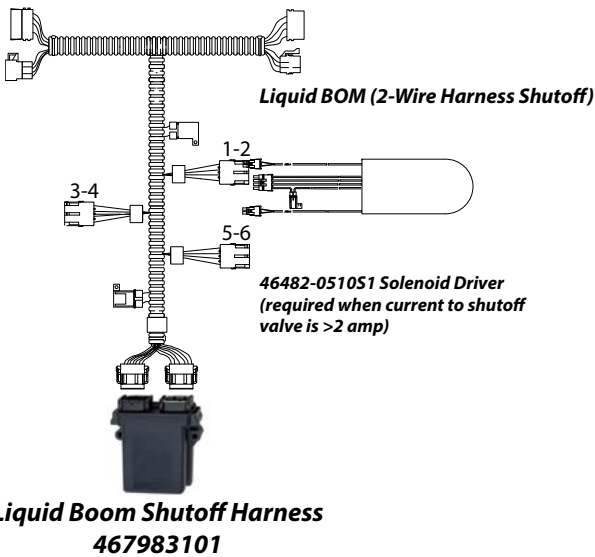
WSMB Output Module Driver

A WSMB Output Module communicates with the Boom Switch Module for application on/off control.

| Row Shutoff Parts |                                                                                                       |
|-------------------|-------------------------------------------------------------------------------------------------------|
| Part Number       | Description                                                                                           |
| 46798-2001S1      | Output Shutoff Module                                                                                 |
| 46798-3100        | Liquid Boom Shutoff Harness (6 Boom/3-Wire Shutoff)                                                   |
| 46798-3101        | Liquid Boom Shutoff Harness (6 Boom/2-Wire Shutoff) (used with non-DICKEY-john® Valves and 464820510) |
| 46798-2100        | Row Shutoff (RSO) Harness (12 solenoid)                                                               |
| 46482-0510S1      | Solenoid Driver (plugs into 46798-3501 and -3101 for current >2 Amp)                                  |



Liquid Boom Shutoff Harness  
467983100



Liquid Boom Shutoff Harness  
467983101

## IntelliAg™ WSMT2

## Boom Switch Module



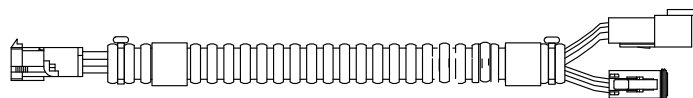
**Boom Switch Module**



**Extended Shutoff Module**



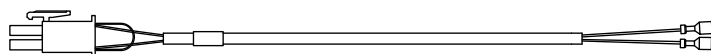
**BSM Harness 24"**  
**467980330**



**CFM to JD GS2 Cab Harness**  
**467980335**



**BSM CAN Harness Extension 60"**  
**467980340**

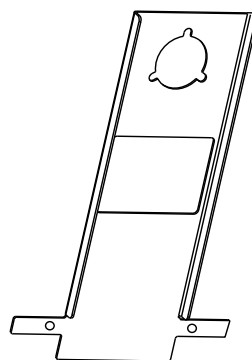


**ESM Foot Switch Cable 96"**  
**467984180**

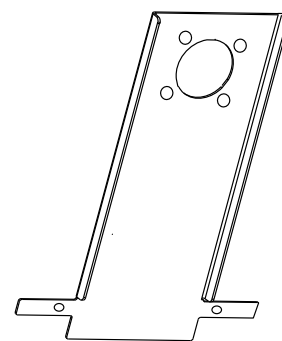
Boom Switch Module controls up to 24 boom on/off shutoff valves.

Switch modules placed in the cab allow each row/section to be controlled or use the master switch for all row/section on or off.

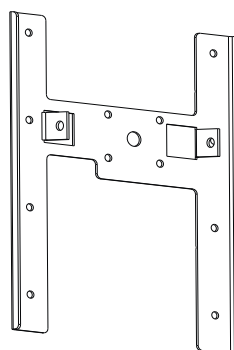
| Boom Switch Module Parts |                                                                             |
|--------------------------|-----------------------------------------------------------------------------|
| Part Number              | Description                                                                 |
| 46798-4030S1             | Boom Switch Module (BSM) (1-6 sections)                                     |
| 46798-4040S1             | Extended Shut Off Module (ESM) (7-24 rows)                                  |
| 46798-4150               | BSM/ESM Mounting Bracket (4 total) for use with 5" Virtual Terminal (AI-50) |
| 46798-4160               | BSM/ESM U-Mount Bracket (accommodates mounting 46798-4030S1)                |
| 46798-0330               | BSM Harness to Tractor Harness (DICKY-john®, Case)                          |
| 46798-0335               | CFM to JD GS2 Cab Harness                                                   |
| 46798-0340               | BSM Harness 60 in. CAN Extension                                            |
| 46798-4180S1             | BSM Foot Switch Cable (Liquid)                                              |
| 46798-0625               | BSM/ESM Mounting Bracket for use with 10" Virtual Terminal (AI-100)         |
| 46798-0626               | BSM/ESM Mounting Bracket for use with 12" Virtual Terminal (Topcon X35)     |



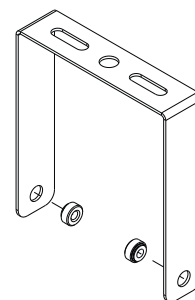
**BSM/ESM Mounting Bracket**  
**(Topcon X35) 467980626**



**BSM/ESM Mounting Bracket**  
**(AI-100) 467980625**



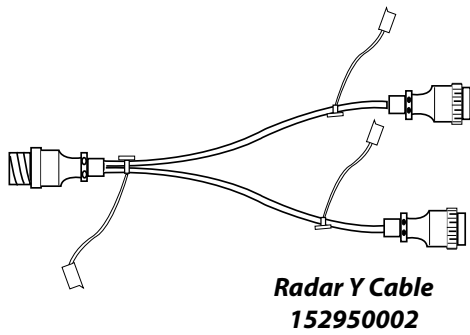
**BSM/ESM Mounting Bracket**  
**467984150**



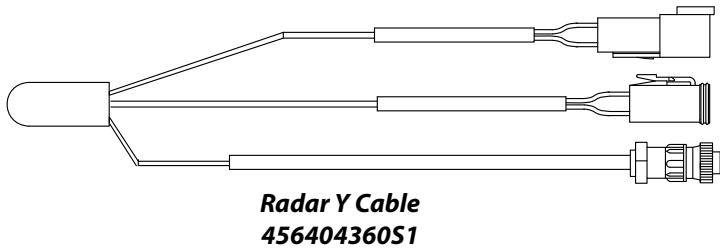
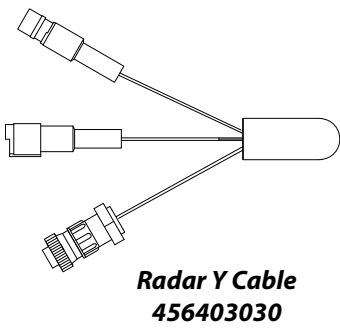
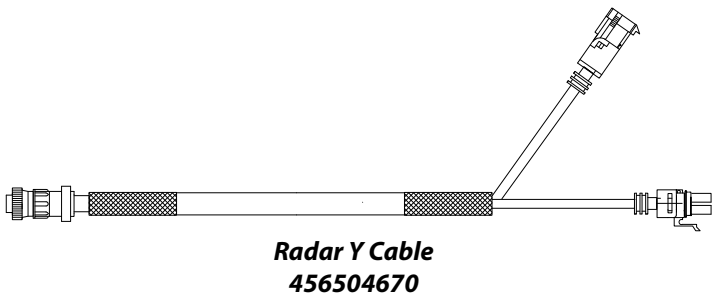
**BSM U Mount Bracket**  
**467984160**

IntelliAg™ WSMT2

Radar Y Harnesses



| Adapter Harness |                                                                                                                       |
|-----------------|-----------------------------------------------------------------------------------------------------------------------|
| Part Number     | Description                                                                                                           |
| 15295-0002      | Radar Y Cable for Case Magnum 7110-8950 Series                                                                        |
| 45640-4670      | Radar Y Cable for Case Maxum 5110-5240, MX90-170 Series, Steiger 9110-9390, 9210-9390 Series, Case STX 275-450 Series |
| 45640-3030      | Radar Y Cable for Caterpillar 65A, 65B, 75B Series                                                                    |
| 45640-4360S1    | Radar Y Cable for 35, 45, 55, C, D, E Series                                                                          |
| 45640-2520S3    | Radar Y Cable for John Deere 4xxx, 7xxx, 80xx Series                                                                  |
| 45640-2530S3    | Radar Y Cable for John Deere 7600-8010T                                                                               |
| 45640-4810      | Radar Y Cable for John Deere 8300 and 9400 Series                                                                     |

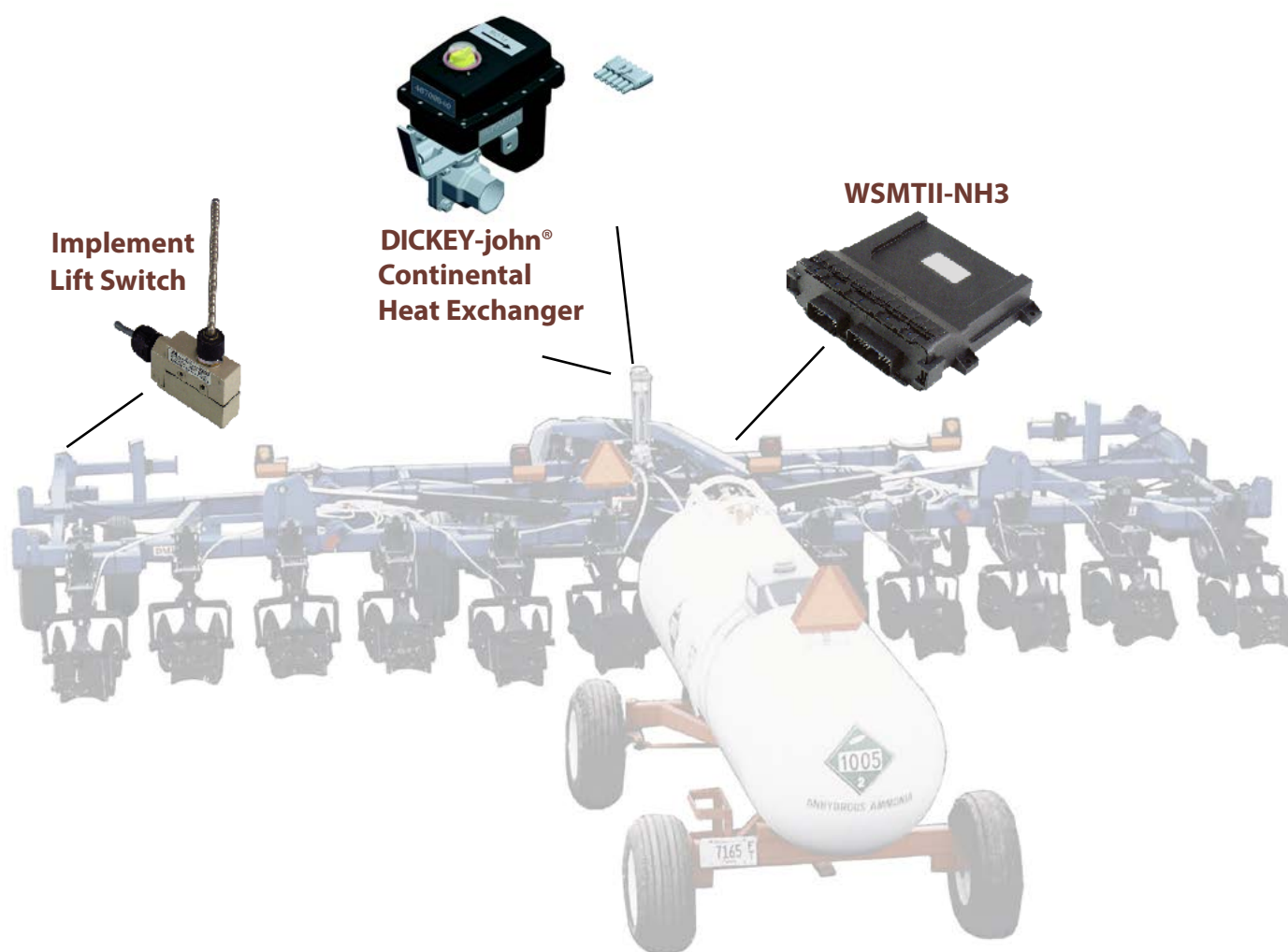


## IntelliAg™ WSMT2

## Monitor and Control

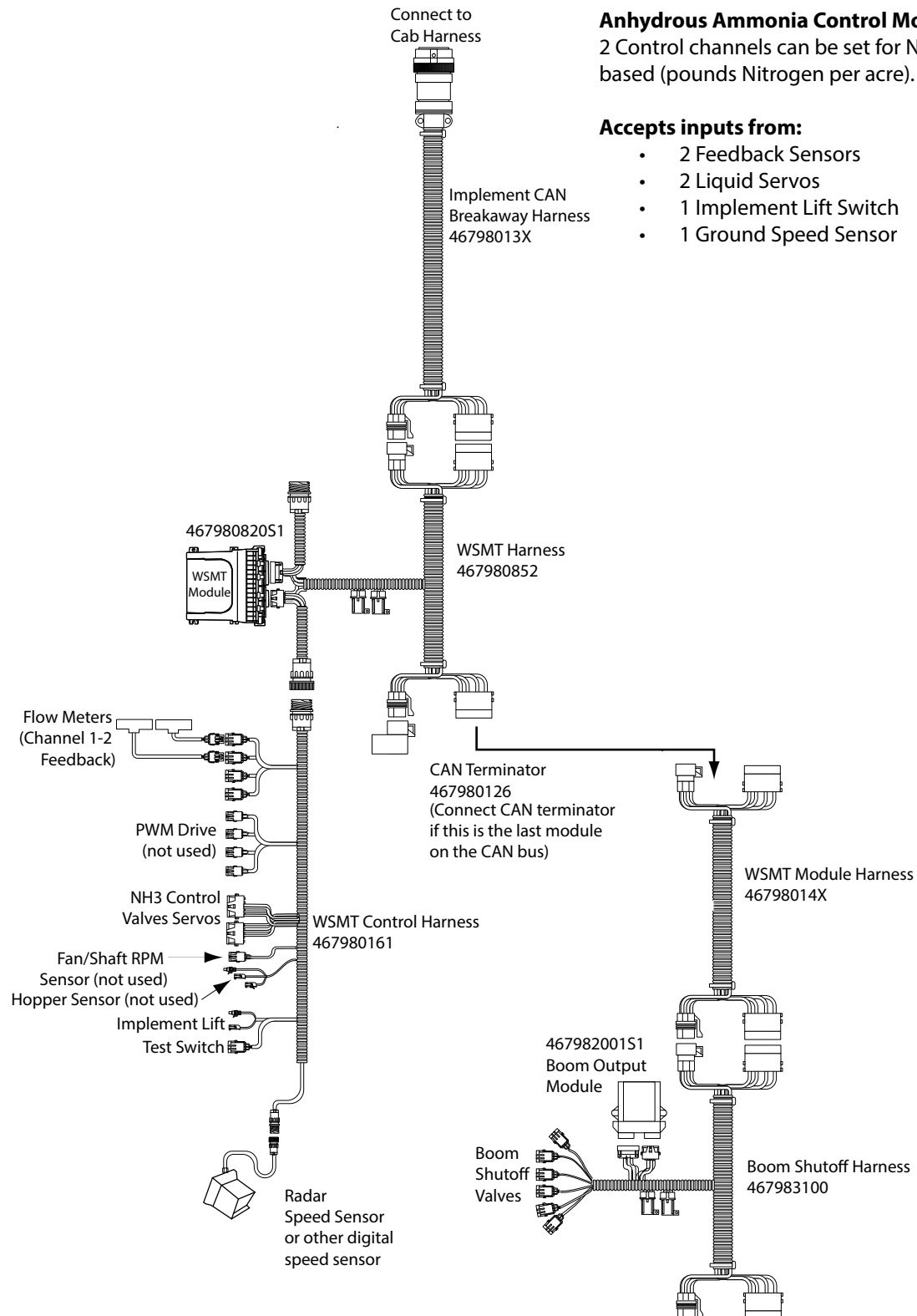
### Base System - Anhydrous

- IntelliAg™ Virtual Terminal Topcon X35
- Tractor harness for use with Virtual Terminal
- System power harness with ISO hitch connector
- ISO master switch to control on/off
- Hitch extension harness
- NH3- WSMT2
- WSMT2 T harness
- Control harness for connection to valves and feedback sensors



IntelliAg™ WSMT2

Anhydrous System Diagram



**Anhydrous Ammonia Control Module**

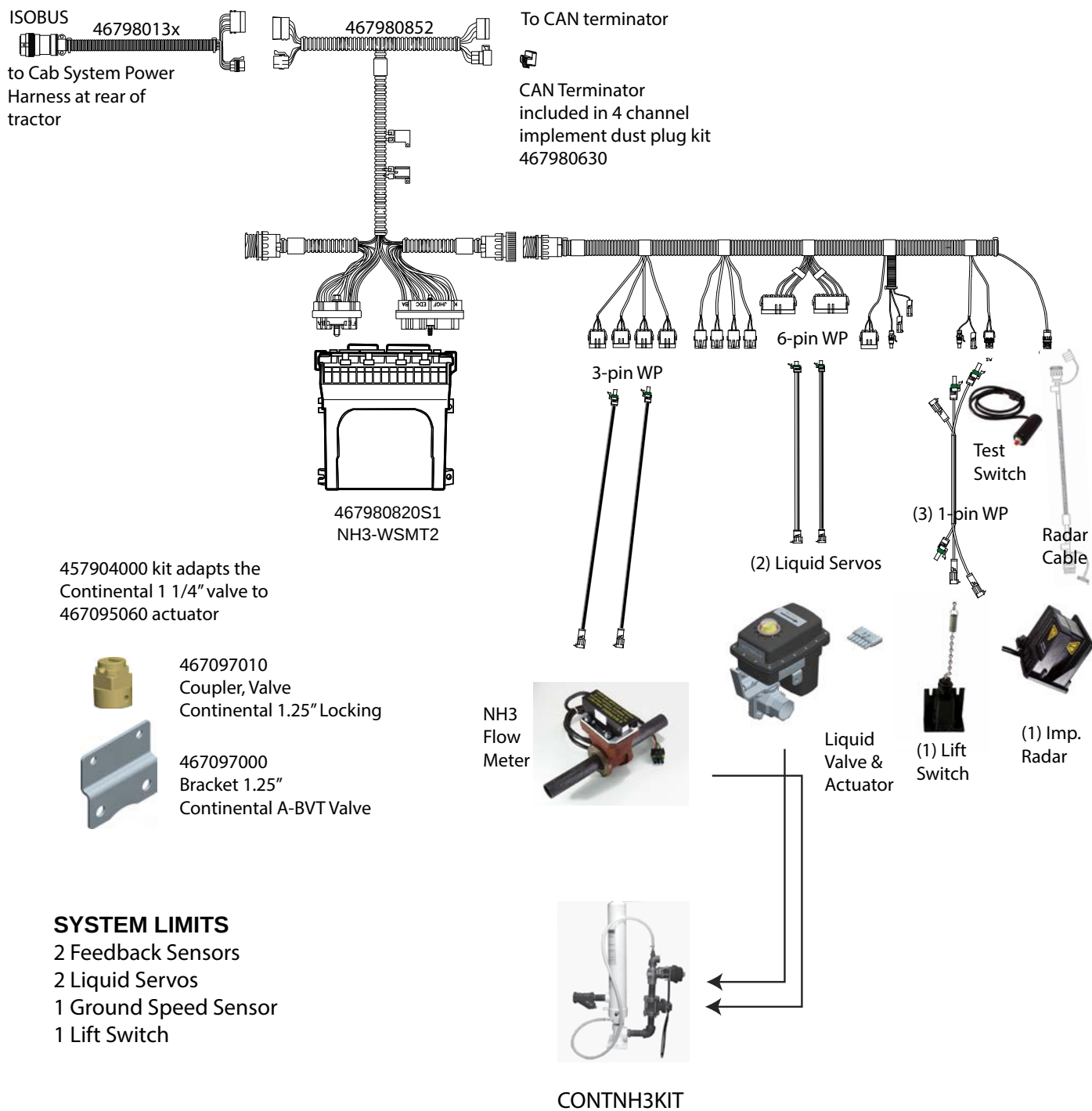
2 Control channels can be set for NH3 control/flow based (pounds Nitrogen per acre).

**Accepts inputs from:**

- 2 Feedback Sensors
- 2 Liquid Servos
- 1 Implement Lift Switch
- 1 Ground Speed Sensor

## IntelliAg™ WSMT2

## -0161 Control Harness



IntelliAg™ WSMT2

System Parts List

**HITCH EXTENSIONS**

| Part Number | Description                           |
|-------------|---------------------------------------|
| 467980134   | Hitch Extension 6'                    |
| 467980132   | Hitch Extension 10'                   |
| 467980136   | Hitch Extension 15'                   |
| 467980131   | Hitch Extension 20'                   |
| 467980133   | Hitch Extension 30'                   |
| 467980130   | Hitch Extension 40'                   |
| 467980135   | Hitch Extension 50'                   |
| 467980142   | CAN Extension 5'                      |
| 467980141   | CAN Extension 10'                     |
| 467980140   | CAN Extension 20'                     |
| 467980143   | CAN Extension 25'                     |
| 467980144   | CAN Extension 40'                     |
| 467980146   | CAN Extension 45'                     |
| 467980820S1 | WSMT                                  |
| 467980852   | WSMT Harness                          |
| 467980630   | 4 Ch. Imp. Dust Plug Kit w/Terminator |
| 1100110099  | Ty Wrap Bundle 100 14"                |
| 110011466   | Anhydrous Ammonia Ctrl User Manual    |
| 467980161   | Control Harness                       |

**LIFT SWITCH AND RADAR**

| Part Number | Description                       |
|-------------|-----------------------------------|
| 463720150S1 | Implement Lift Switch             |
| 464820520S1 | Lift Switch - Whisker Type        |
| 466820713   | 3-1Pin WP Ext. Cable 5'           |
| 466820712S1 | 3-1Pin WP Ext. Cable 10'          |
| 466820714   | 3-1Pin WP Ext. Cable 15'          |
| 466820710S3 | 3-1Pin WP Ext. Cable 20'          |
| 467831000S9 | Radar III w/ 14' Cable & Mtg Brkt |
| 439400024   | Radar Extension 10'               |
| 439400065   | Radar Extension 15'               |
| 439400064   | Radar Extension 25'               |
| 464210515S1 | Test Switch                       |

**ANHYDROUS KITS**

| Part Number | Description                              |
|-------------|------------------------------------------|
| CONTNH3KIT  | NH3 Kit Continental 1-1/4" (9600 lbs/hr) |
| 457904000   | Continental 1-1/4" Actuator Adapter Kit  |

**FLOW METER EXTENSIONS**

| Part Number | Description            |
|-------------|------------------------|
| 457901810   | 3Pin WP Ext. Cable 15' |
| 457901811   | 3Pin WP Ext. Cable 30' |
| 457901812   | 3Pin WP Ext. Cable 45' |

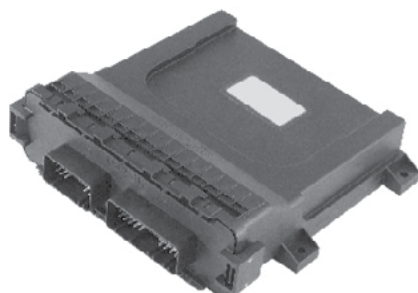
**RAVEN FLOW METER ADAPTER**

| Part Number  | Description           |
|--------------|-----------------------|
| 46698-0040S1 | Raven FlowMTR Adapter |

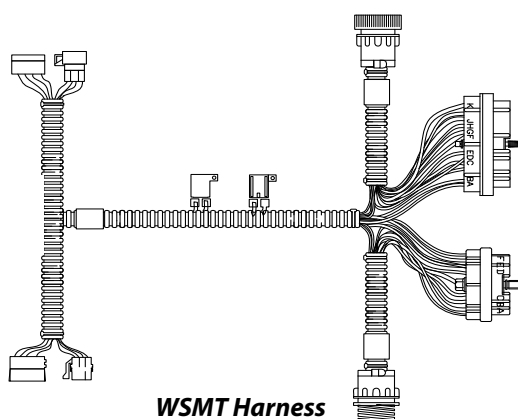
**ACTUATOR EXTENSIONS**

| Part Number | Description                 |
|-------------|-----------------------------|
| 457901820   | 6Pin WP Extension Cable 15' |
| 457901821   | 6Pin WP Extension Cable 30' |

## IntelliAg™ WSMT2



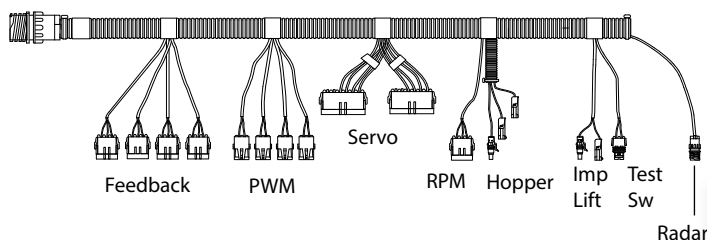
**WSMT2**



**WSMT Harness  
467980852**



**Cab to Implement Harness Hitch Extension  
46798013X**



**Control Harness  
467980161**

## Working Set Master Module (WSMT2)

The Working Set Master Module (WSMT2) houses the system's primary interface device. All system parameters, constants, and memory are stored in the WSMT and controls the application of material by interfacing with proportional hydraulic valves and feedback sensors.

| Working Set Master Module |                                                    |
|---------------------------|----------------------------------------------------|
| Part Number               | Description                                        |
| 46798-0820S1              | Module, NH3-WSMT2 (Anhydrous Ammonia Control)      |
| 46798-0630                | 4 Channel Implement Dust Plug Kit with Terminators |
| 11011-0099                | Ty Wrap Bundle 100 14 in.                          |

## Working Set Master Harness

| WSMT Harnessing |                                             |
|-----------------|---------------------------------------------|
| Part Number     | Description                                 |
| 46798-0852      | WSMT Harness 37-pin CPC connector with APER |

## Cab to Implement Harness Hitch Extension

| Tractor Cab to Implement Harness Hitch Extensions |                                       |
|---------------------------------------------------|---------------------------------------|
| Part Number                                       | Description                           |
| 46798-0134                                        | 6 ft. Hitch Extension ISO system CAN  |
| 46798-0132                                        | 10 ft. Hitch Extension ISO system CAN |
| 46798-0136                                        | 15 ft. Hitch Extension ISO system CAN |
| 46798-0131                                        | 20 ft. Hitch Extension ISO system CAN |
| 46798-0133                                        | 30 ft. Hitch Extension ISO system CAN |
| 46798-0130                                        | 40 ft. Hitch Extension ISO system CAN |
| 46798-0135                                        | 50 ft. Hitch Extension                |
| 46798-0457                                        | 40 ft. Hitch to Hitch Extension       |

## WSMT2 Harnesses (Control Channel/Accessory Inputs)

| 37-pin CPC Control Harnesses |                                                                                    |
|------------------------------|------------------------------------------------------------------------------------|
| Part Number                  | Description                                                                        |
| 46798-0161                   | WSMT Material Application 4 Ch Actuator Harness with APER (application error rate) |

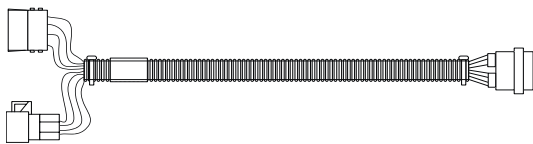
## Implement Kit

| IANH3IMPKIT Anhydrous Ammonia Control Implement Kit Includes |                                                                    |
|--------------------------------------------------------------|--------------------------------------------------------------------|
| Part Number                                                  | Description                                                        |
| 46798-0820S1                                                 | Module, NH3-WSMT2 (Anhydrous Ammonia Control)                      |
| 46798-0852                                                   | WSMT Harness 37-pin CPC connector with APER (Material Application) |
| 46798-0161                                                   | Control Harness                                                    |
| 46798-0630                                                   | 4 Channel Implement Dust Plug Kit with Terminators                 |
| 11001-1466A                                                  | Operator's Manual                                                  |

IntelliAg™ WSMT2

CAN to Hitch Harnessing

Harness accommodates disconnection between implement and tow-behind aircart to second hitch extension.

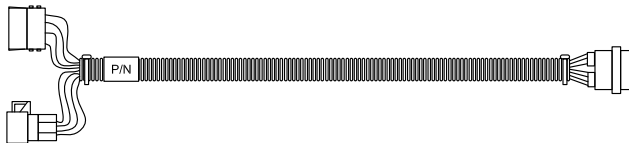


**Rear Implement Hitch Harness (Deutsch)**  
**467980360**

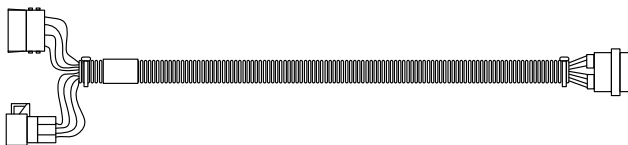
| Rear Implement Hitch Harness |                                                                      |
|------------------------------|----------------------------------------------------------------------|
| Part Number                  | Description                                                          |
| 46798-0360                   | Rear Implement Hitch Harness with Deutsch 9-pin (CAN to Hitch) 3 ft. |
| 46798-0361                   | Rear Implement Hitch Harness with IBBC 9-pin (CAN to Hitch) 6 ft.    |
| 46798-0362                   | Rear Implement Hitch Harness with IBBC 9-pin 20 ft.                  |
| 46798-0363                   | Rear Implement Hitch Harness with IBBC 9-pin 25 ft.                  |



**Rear Implement Hitch Harness (IBBC)**  
**467980361**



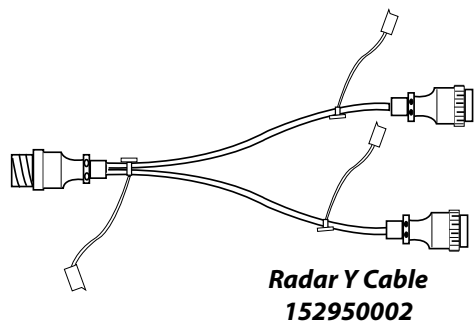
**Rear Implement Hitch Harness (IBBC)**  
**467980362**



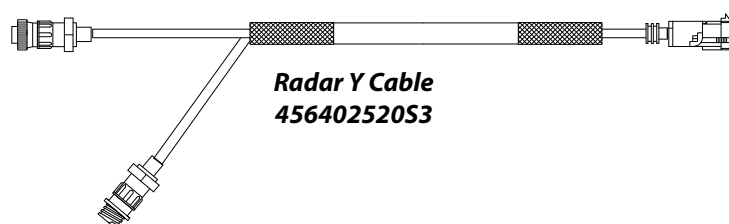
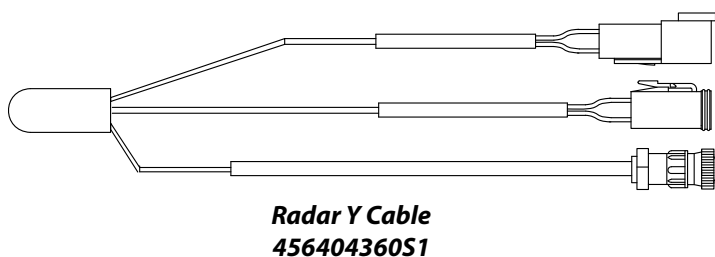
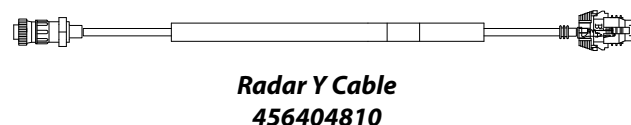
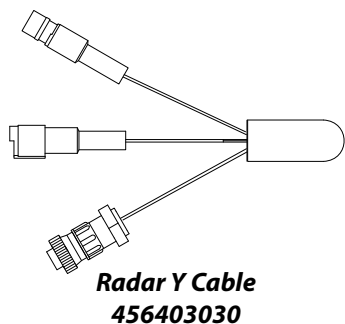
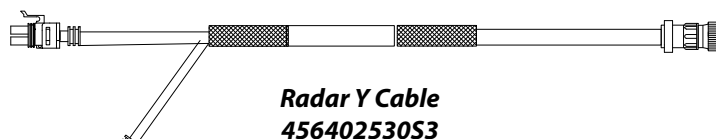
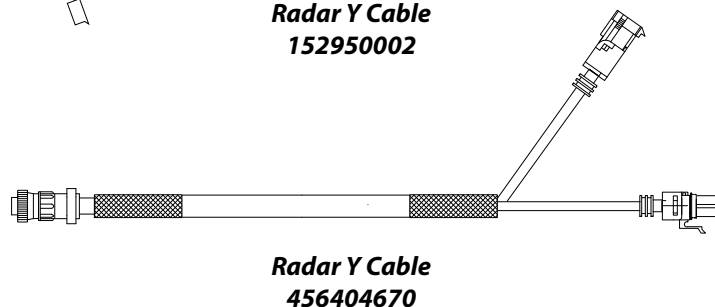
**Rear Implement Hitch Harness (IBBC)**  
**467980363**

## IntelliAg™ WSMT2

## Radar Y Harnessing



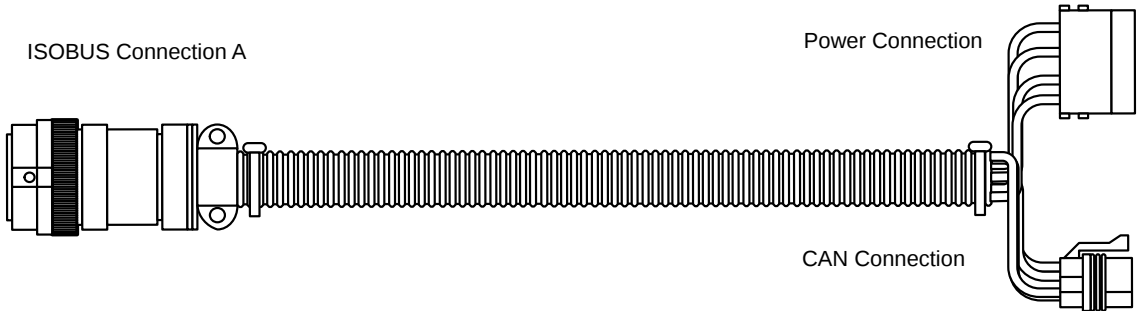
| Adapter Harness |                                                                                                                       |
|-----------------|-----------------------------------------------------------------------------------------------------------------------|
| Part Number     | Description                                                                                                           |
| 15295-0002      | Radar Y Cable for Case Magnum 7110-8950 Series                                                                        |
| 45640-4670      | Radar Y Cable for Case Maxum 5110-5240, MX90-170 Series, Steiger 9110-9390, 9210-9390 Series, Case STX 275-450 Series |
| 45640-3030      | Radar Y Cable for Caterpillar 65A, 65B, 75B Series                                                                    |
| 45640-4360S1    | Radar Y Cable for 35, 45, 55, C, D, E Series                                                                          |
| 45640-2520S3    | Radar Y Cable for John Deere 4xxx, 7xxx, 80xx Series                                                                  |
| 45640-2530S3    | Radar Y Cable for John Deere 7600-8010T                                                                               |
| 45640-4810      | Radar Y Cable for John Deere 8300 and 9400 Series                                                                     |



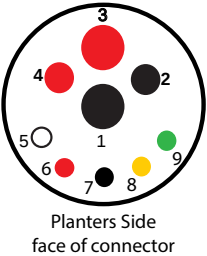
IntelliAg™ WSMT2

Hitch and CAN Harness  
P/N 46798013X, 46798014X, 46798036X

Hitch and CAN  
46798013x, 46798014x & 46798036x



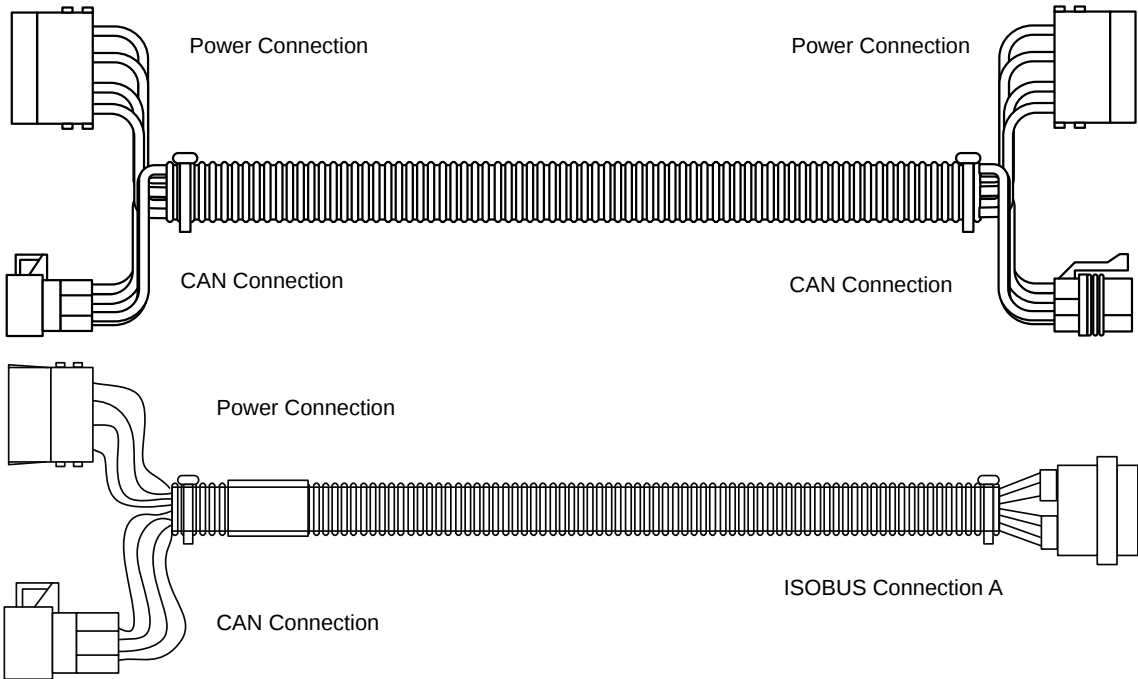
ISOBUS Connection A



| Pin | Function CONN A    |
|-----|--------------------|
| 1   | Sol Ground         |
| 2   | Ground             |
| 3   | Sol Power +12V     |
| 4   | Power +12V         |
| 5   |                    |
| 6   | CAN Power +12V     |
| 7   | CAN Ground         |
| 8   | Signal High ~+2.6v |
| 9   | Signal Low ~+2.6v  |

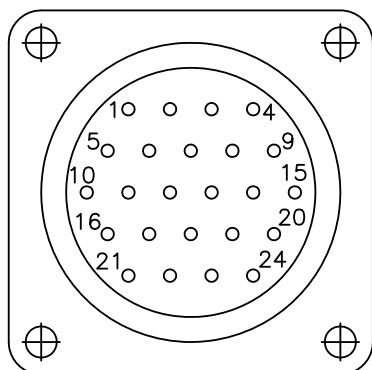
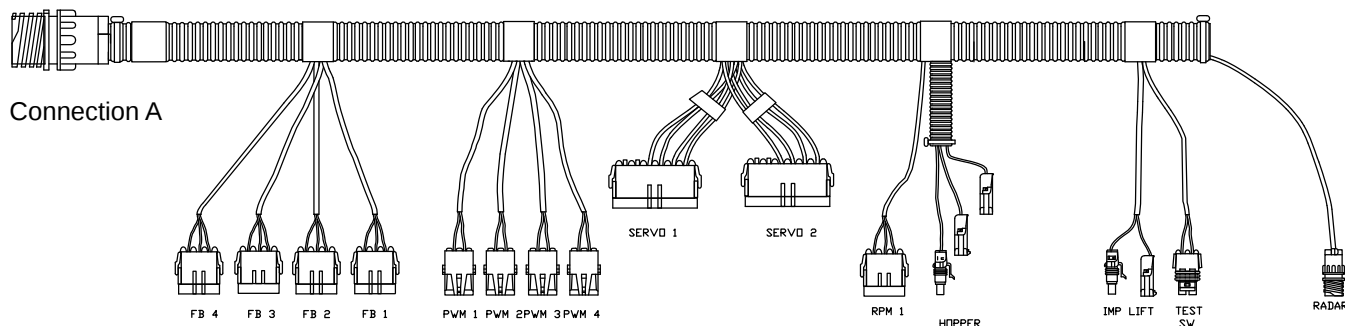
| Pin | Function PWR CONN |
|-----|-------------------|
| A   | Sol Power +12V    |
| B   | Sol Ground        |
| C   | Power +12V        |
| D   | Ground            |

| Pin | Function CAN CONN  |
|-----|--------------------|
| A   |                    |
| B   | CAN Power +12V     |
| C   |                    |
| D   | CAN Ground         |
| E   | Signal High ~+2.6v |
| F   | Signal Low ~+2.6v  |



## IntelliAg™ WSMT2

## Control Harness P/N 467980160



MATING SIDE VIEW

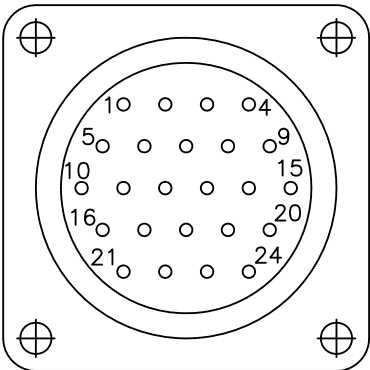
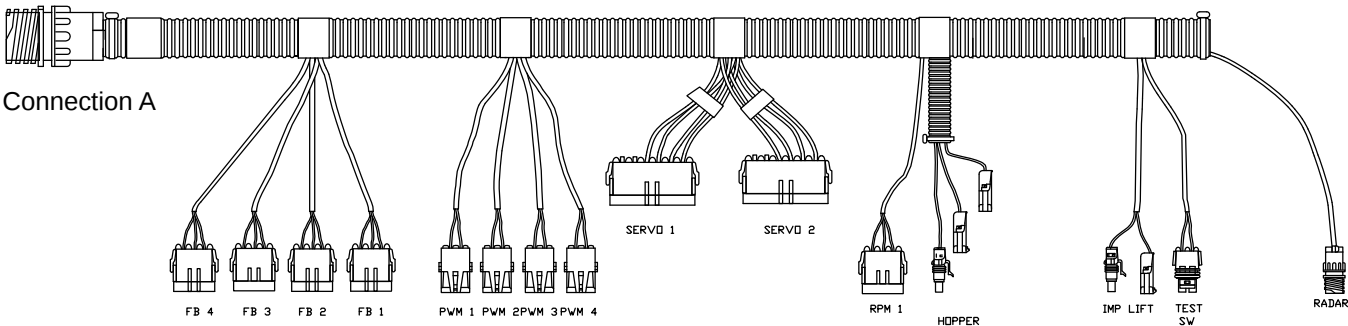
| Pin | Function CONN A     |
|-----|---------------------|
| 1   | Sol Ground          |
| 2   | Sol Power+12V       |
| 3   | +8V Supply          |
| 4   | PWM 1               |
| 5   | PWM 2               |
| 6   | PWM 3               |
| 7   | Servo 1 (relay 1)   |
| 8   | Servo 1 (relay 2)   |
| 9   | Servo 2 (relay 3)   |
| 10  | Servo 2 (relay 4)   |
| 11  | PWM 4               |
| 12  | Feedback 1 Signal   |
| 13  | Feedback 2 Signal   |
| 14  | Feedback 3 Signal   |
| 15  | RPM 1 Signal        |
| 16  | Hopper 1 Signal     |
| 17  | Ground Speed Signal |
| 18  | Feedback 4 Signal   |
| 19  | ECU Power +12V      |
| 20  | ECU Ground          |
| 21  | Implement Lift      |
| 22  |                     |
| 23  |                     |
| 24  |                     |

| Pin | Function SERVO 1  |
|-----|-------------------|
| A   | Sol Power+12V     |
| B   | Sol Ground        |
| C   | Servo 1 (relay 1) |
| D   | Servo 1 (relay 2) |
| E   |                   |
| F   |                   |

| Pin | Function SERVO 2  |
|-----|-------------------|
| A   | Sol Power+12V     |
| B   | Sol Ground        |
| C   | Servo 2 (relay 3) |
| D   | Servo 2 (relay 4) |
| E   |                   |
| F   |                   |

IntelliAg™ WSMT2

Control Harness  
P/N 467980161



MATING SIDE VIEW

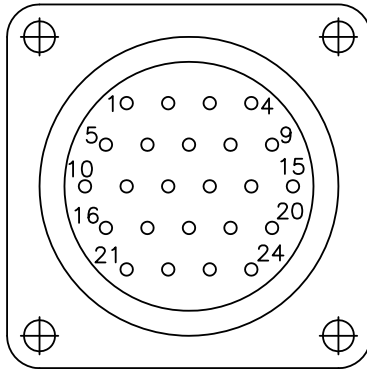
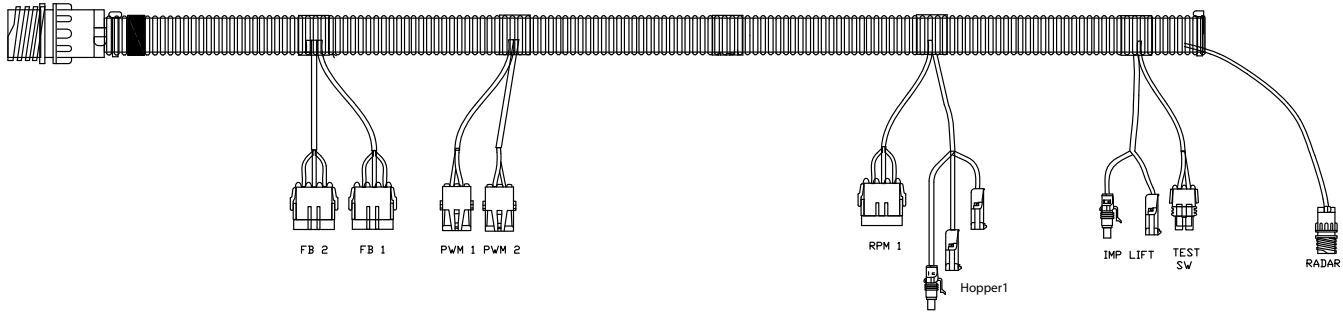
| Pin | Function CONN A      |
|-----|----------------------|
| 1   | Sol Ground           |
| 2   | Sol Power+12V        |
| 3   | +8V Supply           |
| 4   | PWM 1                |
| 5   | PWM 2                |
| 6   | PWM 3                |
| 7   | Servo 1 (relay 1)    |
| 8   | Servo 1 (relay 2)    |
| 9   | Servo 2 (relay 3)    |
| 10  | Servo 2 (relay 4)    |
| 11  | PWM 4                |
| 12  | Feedback 1 Signal    |
| 13  | Feedback 2 Signal    |
| 14  | Feedback 3 Signal    |
| 15  | RPM 1 Signal         |
| 16  | Hopper 1 Signal      |
| 17  | Ground Speed Signal  |
| 18  | Feedback 4 Signal    |
| 19  | ECU Power +12V       |
| 20  | ECU Ground           |
| 21  | Implement Lift       |
| 22  | Servo 1 (DIG IN #11) |
| 23  | Servo 2 (DIG IN #16) |
| 24  |                      |

| Pin | Function SERVO 1     |
|-----|----------------------|
| A   | Sol Power+12V        |
| B   | Sol Ground           |
| C   | Servo 1 (relay 1)    |
| D   | Servo 1 (relay 2)    |
| E   | Servo 1 (DIG IN #11) |
| F   |                      |

| Pin | Function SERVO 2     |
|-----|----------------------|
| A   | Sol Power+12V        |
| B   | Sol Ground           |
| C   | Servo 2 (relay 3)    |
| D   | Servo 2 (relay 4)    |
| E   | Servo 2 (DIG IN #16) |
| F   |                      |

## IntelliAg™ WSMT2

## Control Harness 2 Ch P/N 467980162

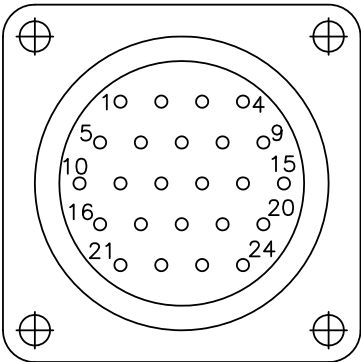
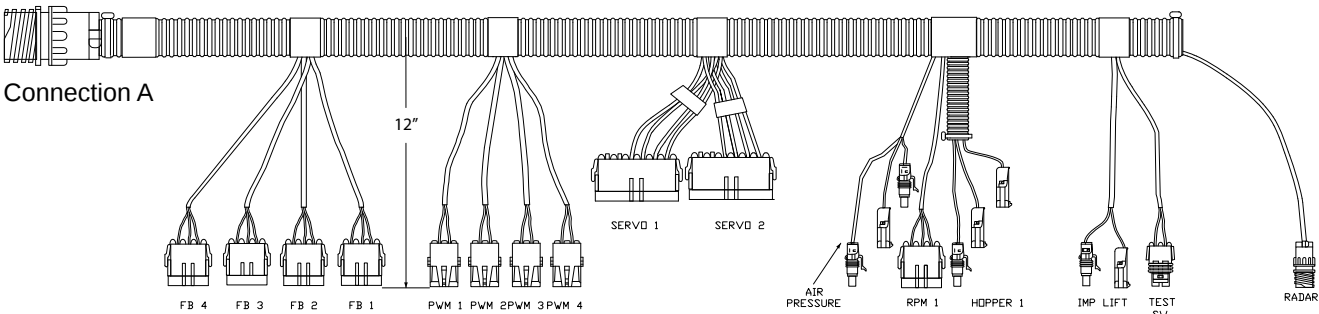


MATING SIDE VIEW

| Pin | Function CONN A     |
|-----|---------------------|
| 1   |                     |
| 2   | Power+12V PWM       |
| 3   | +8V Supply          |
| 4   | PWM 1               |
| 5   | PWM 2               |
| 6   |                     |
| 7   |                     |
| 8   |                     |
| 9   |                     |
| 10  |                     |
| 11  |                     |
| 12  | Feedback 1 Signal   |
| 13  | Feedback 2 Signal   |
| 14  |                     |
| 15  | RPM                 |
| 16  | Hopper 1 Signal     |
| 17  | Ground Speed Signal |
| 18  |                     |
| 19  | Power +12V          |
| 20  | Ground              |
| 21  | Implement Lift      |
| 22  |                     |
| 23  |                     |
| 24  |                     |

IntelliAg™ WSMT2

Control Harness 4 ch  
P/N 467980164



MATING SIDE VIEW

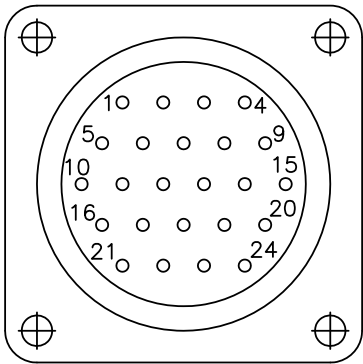
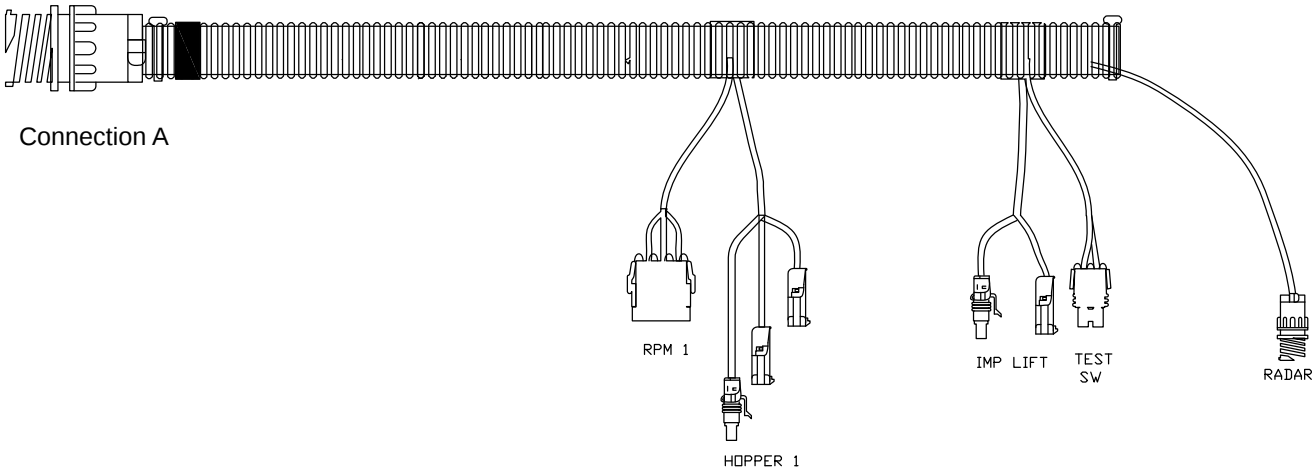
| Pin | Function CONN A         |
|-----|-------------------------|
| 1   | Sol Ground              |
| 2   | Sol Power+12V           |
| 3   | +8V Supply              |
| 4   | PWM 1                   |
| 5   | PWM 2                   |
| 6   | PWM 3                   |
| 7   | Servo 1 (OPEN)          |
| 8   | Servo 1 (CLOSE)         |
| 9   | Servo 2 (OPEN)          |
| 10  | Servo 2 (CLOSE)         |
| 11  | PWM 4                   |
| 12  | Feedback 1 Signal       |
| 13  | Feedback 2 Signal       |
| 14  | Feedback 3 Signal       |
| 15  | RPM / Pressure Signal 1 |
| 16  | Hopper 1 Signal         |
| 17  | Ground Speed Signal     |
| 18  | Feedback 4 Signal       |
| 19  | ECU Power +12V          |
| 20  | ECU Ground              |
| 21  | Implement Lift          |
| 22  | APER 1                  |
| 23  | APER 2                  |
| 24  |                         |

| Pin | Function SERVO 1  |
|-----|-------------------|
| A   | Sol Power+12V     |
| B   | Sol Ground        |
| C   | Servo 1 (relay 1) |
| D   | Servo 1 (relay 2) |
| E   | APER 1            |
| F   |                   |

| Pin | Function SERVO 2  |
|-----|-------------------|
| A   | Sol Power+12V     |
| B   | Sol Ground        |
| C   | Servo 2 (relay 3) |
| D   | Servo 2 (relay 4) |
| E   | APER 2            |
| F   |                   |

## IntelliAg™ WSMT2

## Control Harness (Monitor Only) P/N 467980165

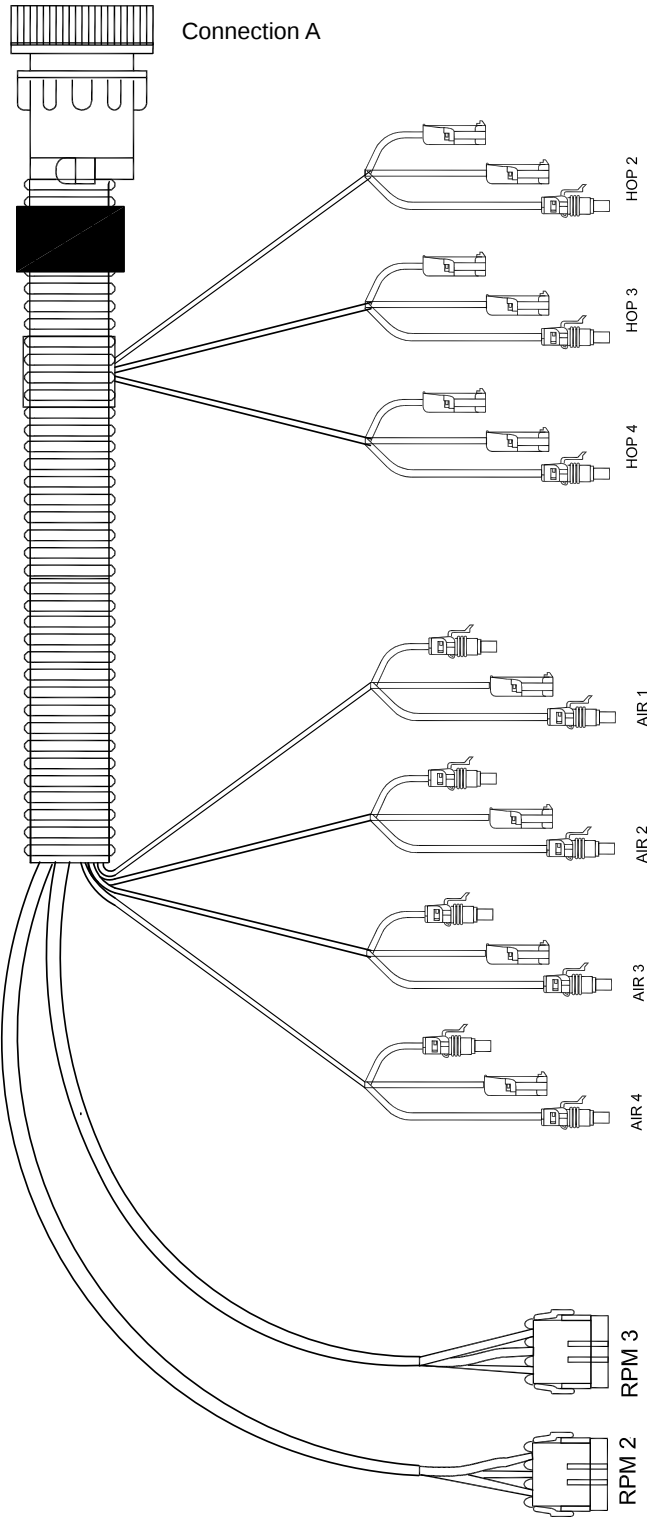


MATING SIDE VIEW

| Pin | Function CONN A     |
|-----|---------------------|
| 1   |                     |
| 2   |                     |
| 3   | +8V Supply          |
| 4   |                     |
| 5   |                     |
| 6   |                     |
| 7   |                     |
| 8   |                     |
| 9   |                     |
| 10  |                     |
| 11  |                     |
| 12  |                     |
| 13  |                     |
| 14  |                     |
| 15  | RPM Signal          |
| 16  | Hopper 1 Signal     |
| 17  | Ground Speed Signal |
| 18  |                     |
| 19  | Power +12V          |
| 20  | Ground              |
| 21  | Implement Lift      |
| 22  |                     |
| 23  |                     |
| 24  |                     |

IntelliAg™ WSMT2

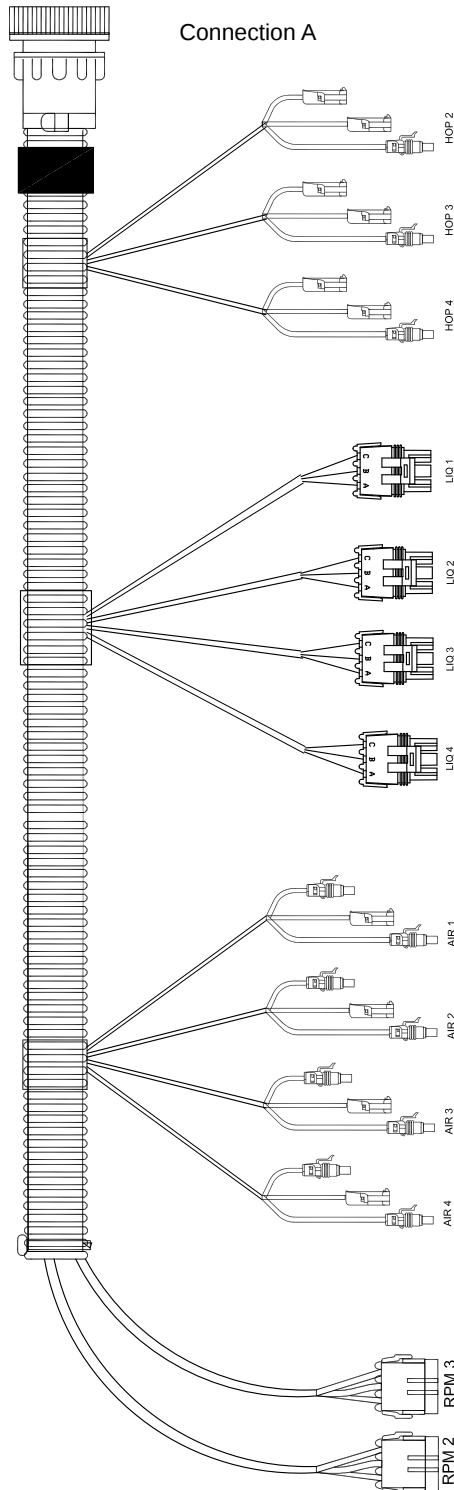
Accessory Harness  
P/N 467980201



| Pin | Function CONN A      |
|-----|----------------------|
| 1   | RPM 2                |
| 2   | RPM 3                |
| 3   | Hopper 2             |
| 4   | Hopper 3             |
| 5   | Hopper 4             |
| 6   |                      |
| 7   | Air Pressure 1       |
| 8   | Air Pressure 2       |
| 9   | Air Pressure 3       |
| 10  | Air Pressure 4       |
| 11  |                      |
| 12  |                      |
| 13  |                      |
| 14  |                      |
| 15  |                      |
| 16  |                      |
| 17  |                      |
| 18  |                      |
| 19  |                      |
| 20  |                      |
| 21  |                      |
| 22  |                      |
| 23  |                      |
| 24  | Power Air 1-4 +12V   |
| 25  | Power Hopper 2-4 +8V |
| 26  | Ground Air & RPM     |
| 27  | Ground Hopper 2-4    |
| 28  |                      |
| 29  |                      |
| 30  |                      |
| 31  |                      |
| 32  |                      |
| 33  |                      |
| 34  | Power RPM +12V       |
| 35  |                      |
| 36  |                      |
| 37  |                      |

## IntelliAg™ WSMT2

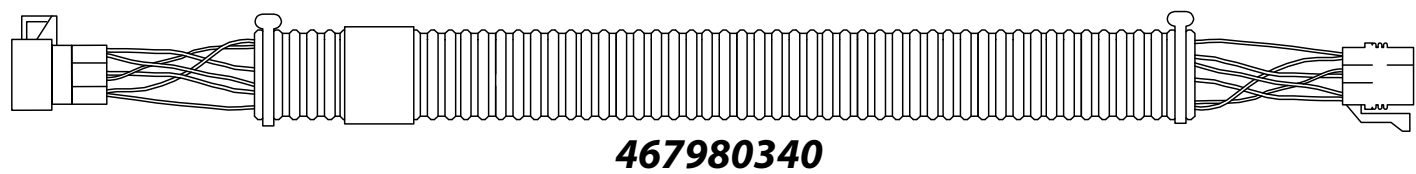
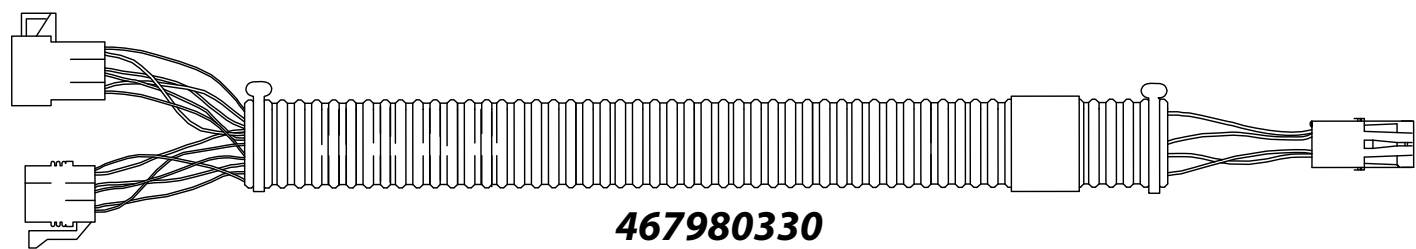
## Accessory Harness P/N 467980202



| Pin | Function CONN A         |
|-----|-------------------------|
| 1   | RPM 2                   |
| 2   | RPM 3                   |
| 3   | Hopper 2                |
| 4   | Hopper 3                |
| 5   | Hopper 4                |
| 6   |                         |
| 7   | Air Pressure 1          |
| 8   | Air Pressure 2          |
| 9   | Air Pressure 3          |
| 10  | Air Pressure 4          |
| 11  |                         |
| 12  |                         |
| 13  | Liquid 1                |
| 14  | Liquid 2                |
| 15  | Liquid 3                |
| 16  | Liquid 4                |
| 17  |                         |
| 18  |                         |
| 19  |                         |
| 20  |                         |
| 21  |                         |
| 22  |                         |
| 23  |                         |
| 24  | Power Air 1-4 +12V      |
| 25  | Power Hopper 2-4 +8V    |
| 26  | Ground Air & RPM        |
| 27  | Ground Hopper & Liquid  |
| 28  |                         |
| 29  |                         |
| 30  |                         |
| 31  |                         |
| 32  |                         |
| 33  |                         |
| 34  | Power Liquid & RPM +12V |
| 35  |                         |
| 36  |                         |
| 37  |                         |

IntelliAg™ WSMT2

BSM/ESM Harness  
P/N 467980330, 467980340



| Color  | Function           |
|--------|--------------------|
| Red    | Power+12V          |
| Black  | Ground             |
| Yellow | Signal High ~+2.6v |
| Green  | Signal Low ~+2.6v  |

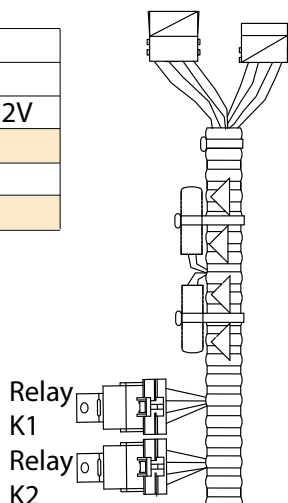
## IntelliAg™ WSMT2

## Electric Motor Driver Power Harness P/N 467980390

Connection A    Connection B

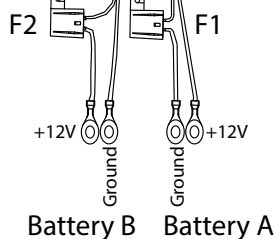
| Connection A |       |                |
|--------------|-------|----------------|
| Pin          | Color | Function       |
| A            | Red   | Sol Power +12V |
| B            | Black | Sol Ground     |
| C            | Red   | Power +12V     |
| D            | Black | Ground         |

| Connection A |       |                |
|--------------|-------|----------------|
| Pin          | Color | Function       |
| A            | Red   | Sol Power +12V |
| B            | Black | Sol Ground     |
| C            | Red   | Power +12V     |
| D            | Black | Ground         |



| K1 Relay |                    |         |
|----------|--------------------|---------|
| Pin      | Function           | Contact |
| A        | Connector A +12V   | 85      |
| B        | Connector A ground | 86      |
|          | Battery Pwr A +12V | 30      |
| A        | Connector B        | 87      |

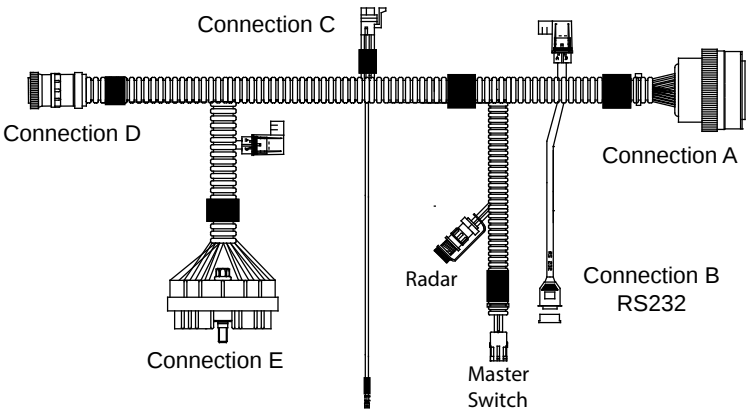
| K2 Relay |                    |         |
|----------|--------------------|---------|
| Pin      | Function           | Contact |
| C        | Connector A +12V   | 85      |
| D        | Connector A Ground | 86      |
|          | Battery Pwr B +12V | 30      |
| C        | Connector B        | 87      |



IntelliAg™ WSMT2

Cab Harness  
P/N 467980451A

| Pin | Function CONN C |
|-----|-----------------|
| A   | ECU Power       |
| B   | CAN Power       |
| C   | ECU Ground      |
| D   | CAN Ground      |
| E   | CAN High        |
| F   | CAN Low         |



| Pin | Function CONN E  |
|-----|------------------|
| A1  | ECU Power        |
| A2  | Solenoid Power   |
| A3  |                  |
| B1  | Solenoid Ground  |
| B2  | ECU Ground       |
| B3  | ECU Ground       |
| C1  | Master Switch    |
| C2  |                  |
| C3  | ECU Relay        |
| D1  | Solenoid Relay   |
| D2  | Radar Signal     |
| D3  |                  |
| E1  |                  |
| E2  |                  |
| E3  |                  |
| F1  |                  |
| F2  |                  |
| F3  |                  |
| G1  |                  |
| G2  |                  |
| G3  | CAN Signal High  |
| H1  | CAN Signal Low   |
| H2  |                  |
| H3  |                  |
| J1  |                  |
| J2  |                  |
| J3  |                  |
| K1  | Continuous Power |
| K2  |                  |
| K3  | Ignition         |

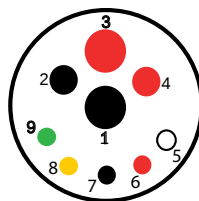
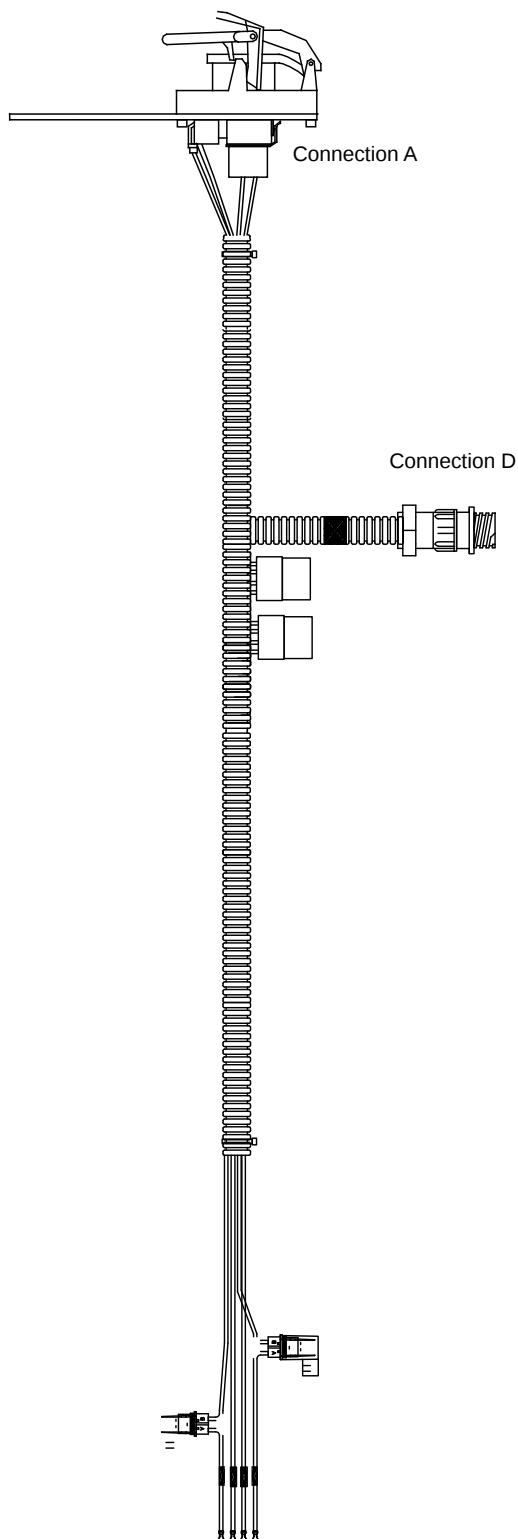
| Pin | Function CONN B      |
|-----|----------------------|
| 1   |                      |
| 2   | TXD Transmitted Data |
| 3   | RXD Received Data    |
| 4   |                      |
| 5   | Signal Ground        |
| 6   |                      |
| 7   | CTS Clear to Send    |
| 8   | RTS Request to Send  |
| 9   |                      |

| Pin | Function CONN D       |
|-----|-----------------------|
| 1   | ECU Relay             |
| 2   | ECU Power             |
| 3   | Continuous Power      |
| 4   | Solenoid Relay        |
| 5   | ECU Ground            |
| 6   | Boom Control Power    |
| 7   | Boom Control Ground   |
| 8   | CAN High              |
| 9   | CAN Low               |
| 10  | ECU Power Sense       |
| 11  | Solenoid Power Sense  |
| 12  | Solenoid Ground Sense |
| 13  |                       |
| 14  |                       |
| 15  |                       |
| 16  |                       |

| Pin | Function CONN A      |
|-----|----------------------|
| 1   | Signal Ground        |
| 2   |                      |
| 3   |                      |
| 4   |                      |
| 5   | ECU Ground           |
| 6   |                      |
| 7   | TXD Transmitted Data |
| 8   |                      |
| 9   | Ignition Power       |
| 10  | RXD Received Data    |
| 11  | CTS Clear to Send    |
| 12  |                      |
| 13  |                      |
| 14  |                      |
| 15  |                      |
| 16  |                      |
| 17  | CAN High             |
| 18  |                      |
| 19  |                      |
| 20  | Continuous Power     |
| 21  |                      |
| 22  |                      |
| 23  |                      |
| 24  |                      |
| 25  |                      |
| 26  |                      |
| 27  |                      |
| 28  | CAN Low              |
| 29  |                      |
| 30  | RTS Request to Send  |
| 31  |                      |

*IntelliAg™ WSMT2*

*Power Harness  
P/N 467980455*



| Pin | Function CONN A    |
|-----|--------------------|
| 1   | Sol Ground         |
| 2   | Ground             |
| 3   | Sol Power +12V     |
| 4   | Power              |
| 5   |                    |
| 6   | CAN Power +12V     |
| 7   | CAN Ground         |
| 8   | Signal High ~+2.6v |
| 9   | Signal Low ~+2.6v  |

| Pin | Function CONN D       |
|-----|-----------------------|
| 1   | ECU Relay             |
| 2   | ECU Power             |
| 3   | Continuous Power      |
| 4   | Solenoid Relay        |
| 5   | ECU Ground            |
| 6   | CAN Power             |
| 7   | CAN Ground            |
| 8   | CAN High              |
| 9   | CAN Low               |
| 10  | ECU Power Sense       |
| 11  | Solenoid Power Sense  |
| 12  | Solenoid Ground Sense |
| 13  |                       |
| 14  |                       |
| 15  |                       |
| 16  |                       |

IntelliAg™ WSMT2

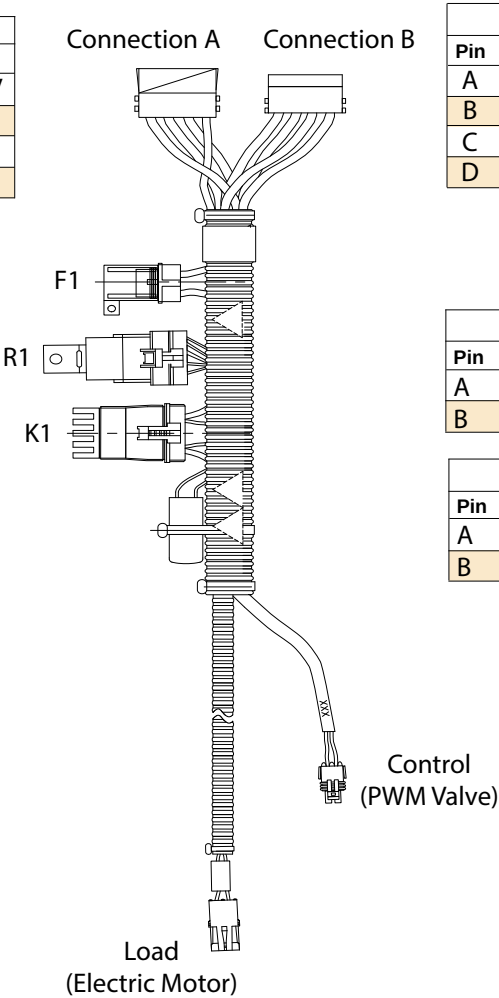
Electric Motor Driver Harness  
P/N 467980490

| Connection A |       |                 |
|--------------|-------|-----------------|
| Pin          | Color | Function        |
| A            | Red   | Sol Power + 12V |
| B            | Black | Sol Ground      |
| C            | Red   | Power + 12V     |
| D            | Black | Ground          |

| R1  |                        |         |
|-----|------------------------|---------|
| Pin | Function               | Contact |
| A   | Connection A Sol Power | 30      |
| A   | Control                | 85      |
| B   | Connection A/B         | 86      |
| B   | Load                   | 86      |
| 30  | K1                     | 87      |

| K1  |                  |         |
|-----|------------------|---------|
| Pin | Function         | Contact |
| 87  | R1               | 30      |
| B   | Connection A/B   | 85      |
| B   | Control (ground) | 86      |
| A   | Load             | 87      |

| F1             |
|----------------|
| F1 Fuse Holder |
| Solenoid Power |



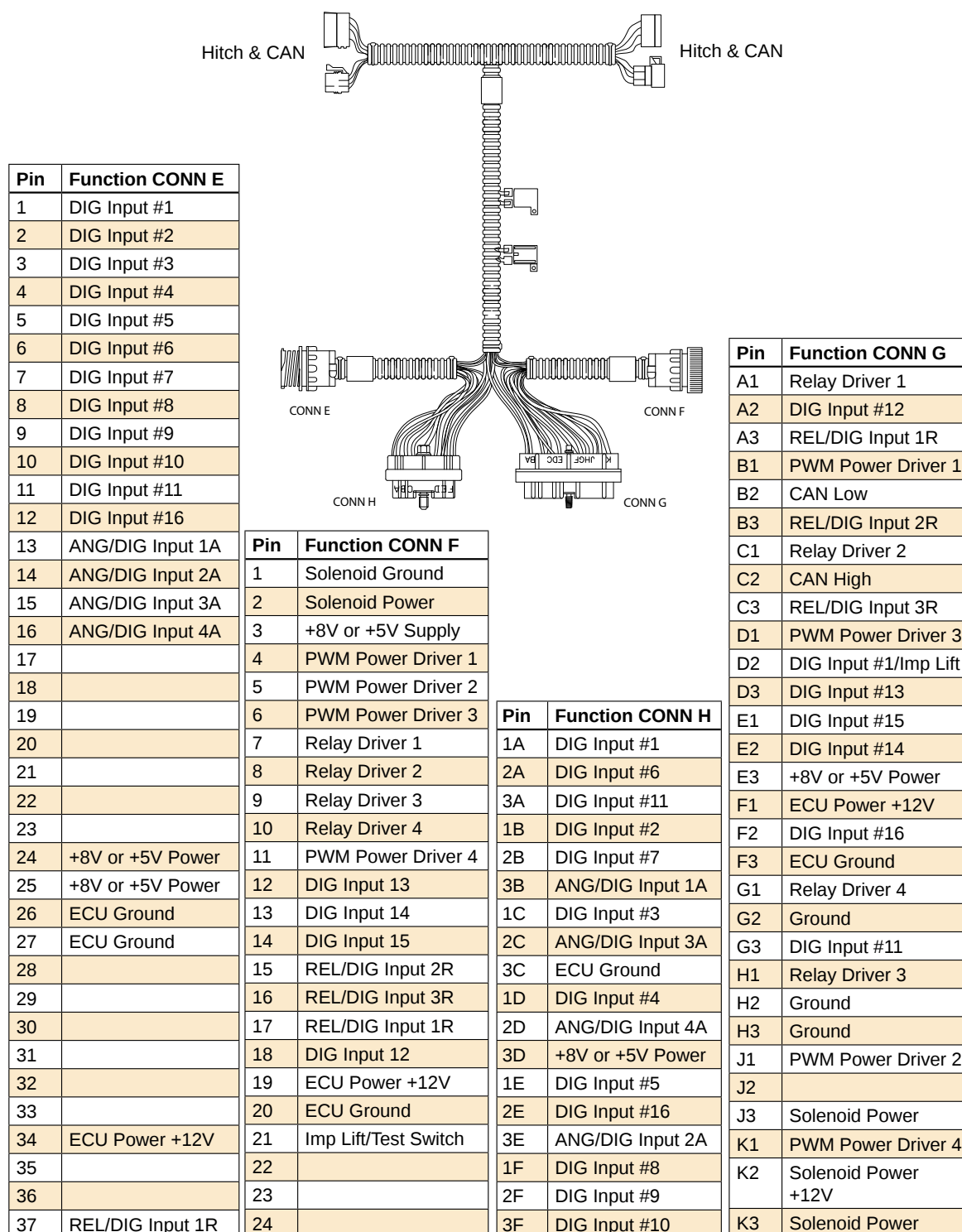
| Connection B |       |                 |
|--------------|-------|-----------------|
| Pin          | Color | Function        |
| A            | Red   | Sol Power + 12V |
| B            | Black | Sol Ground      |
| C            | Red   | Power + 12V     |
| D            | Black | Ground          |

| Load |       |          |
|------|-------|----------|
| Pin  | Color | Function |
| A    | Red   | Power    |
| B    | Black | Ground   |

| Control |       |          |
|---------|-------|----------|
| Pin     | Color | Function |
| A       | Red   | Power    |
| B       | Black | Ground   |

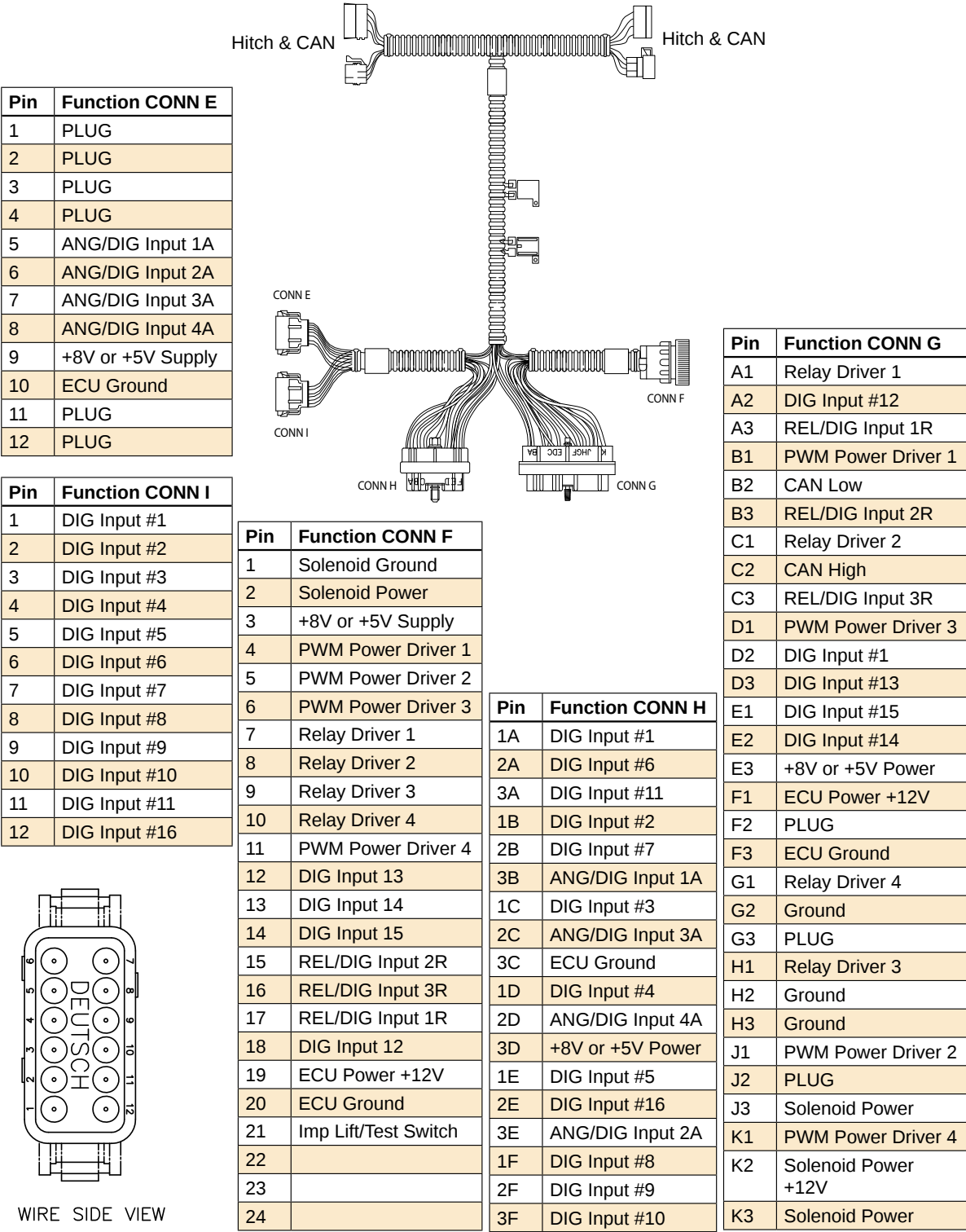
## IntelliAg™ WSMT2

## WSMT 'T' Harness P/N 467980850



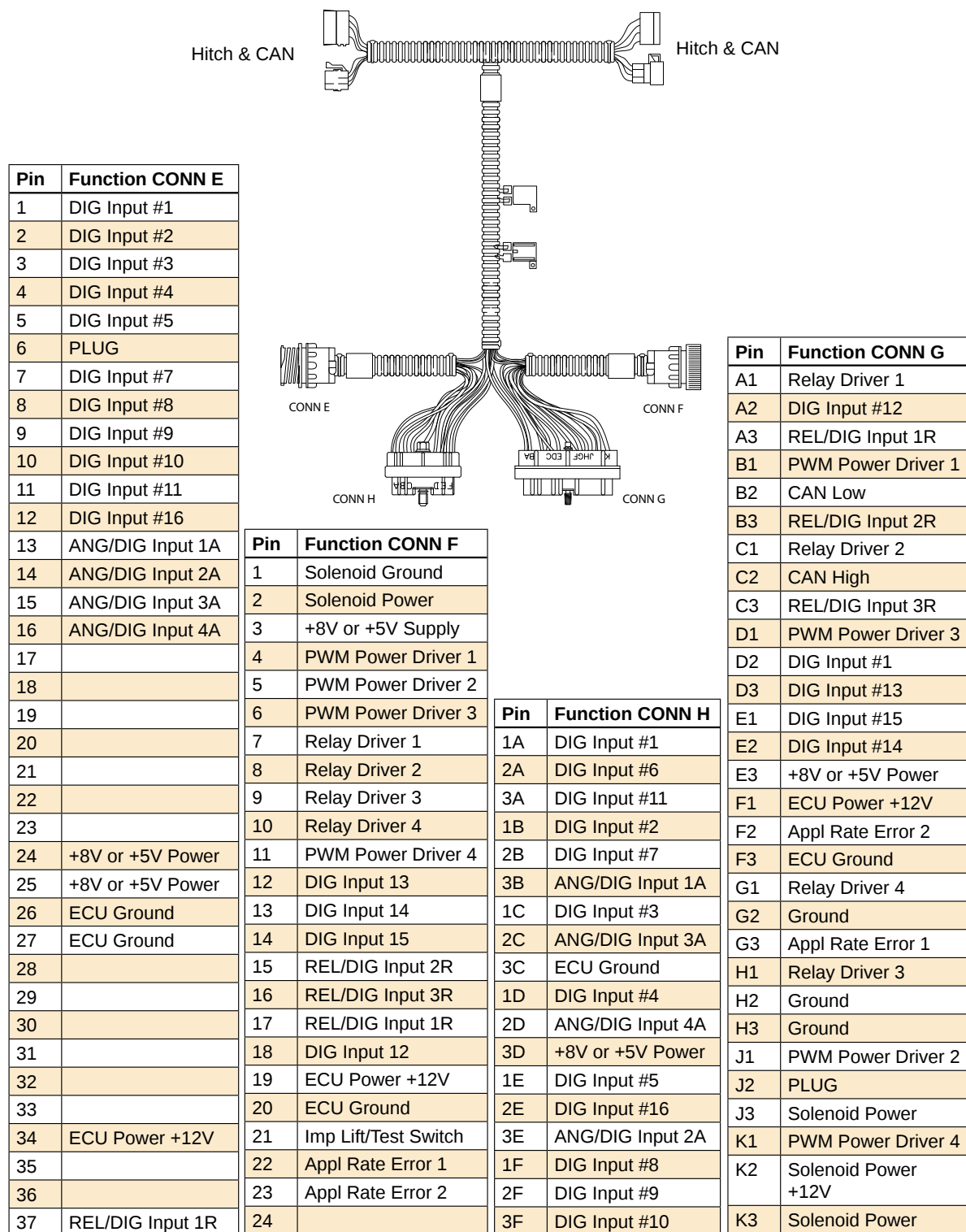
IntelliAg™ WSMT2

WSMT 'T' Harness  
P/N 467980851



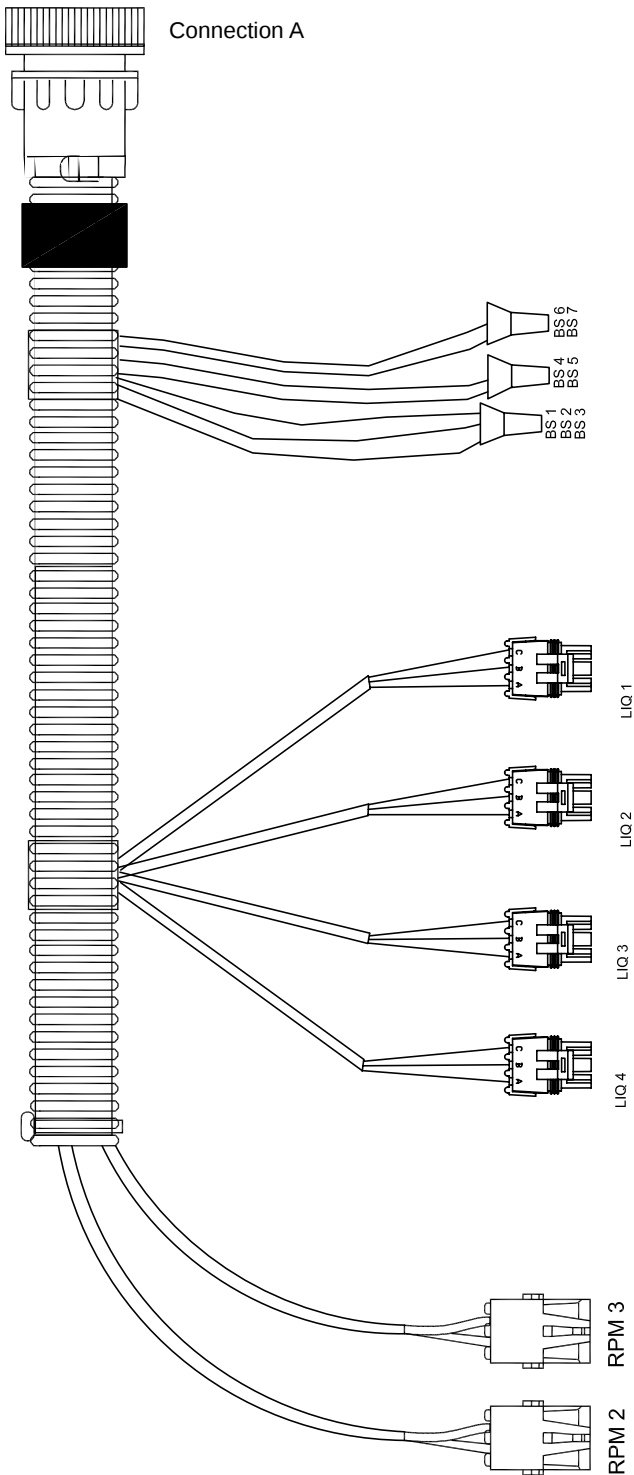
## IntelliAg™ WSMT2

## WSMT 'T' Harness P/N 467980852



IntelliAg™ WSMT2

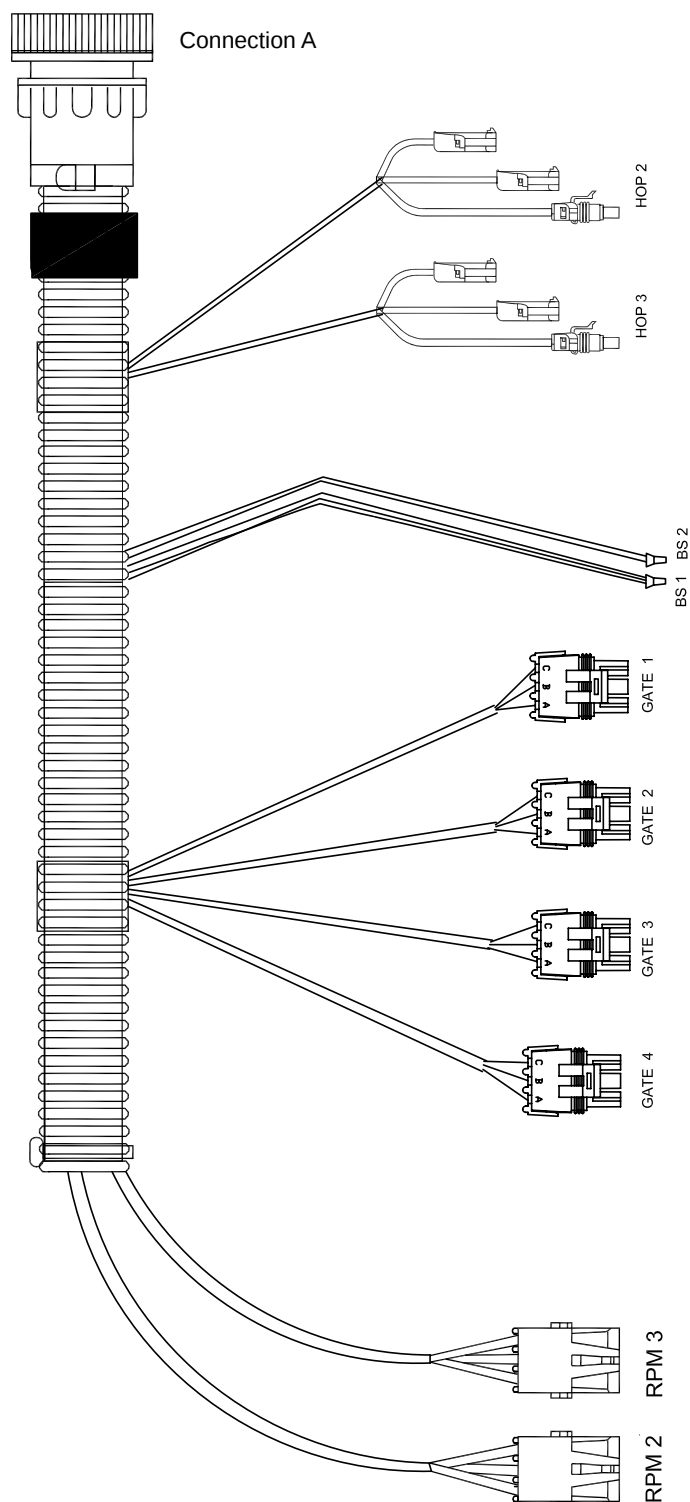
Accessory Harness  
P/N 467980860



| Pin | Function CONN A |
|-----|-----------------|
| 1   | RPM Signal 2    |
| 2   | RPM Signal 3    |
| 3   | Boom Sense 6    |
| 4   | Boom Sense 7    |
| 5   | Boom Sense 1    |
| 6   |                 |
| 7   | Boom Sense 2    |
| 8   | Boom Sense 3    |
| 9   | Boom Sense 4    |
| 10  | Boom Sense 5    |
| 11  |                 |
| 12  |                 |
| 13  | Liquid Signal 1 |
| 14  | Liquid Signal 2 |
| 15  | Liquid Signal 3 |
| 16  | Liquid Signal 4 |
| 17  |                 |
| 18  |                 |
| 19  |                 |
| 20  |                 |
| 21  |                 |
| 22  |                 |
| 23  |                 |
| 24  |                 |
| 25  |                 |
| 26  | Ground          |
| 27  |                 |
| 28  |                 |
| 29  |                 |
| 30  |                 |
| 31  |                 |
| 32  |                 |
| 33  |                 |
| 34  | Power +12V      |
| 35  |                 |
| 36  |                 |
| 37  |                 |

## IntelliAg™ WSMT2

## Accessory Harness P/N 467980861

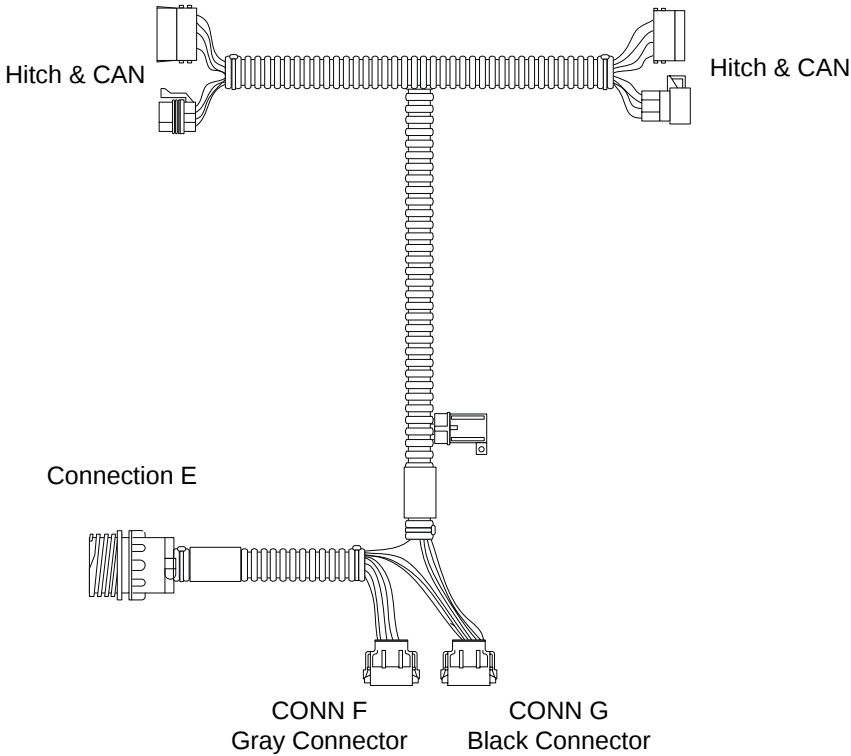


| Pin | Function CONN A       |
|-----|-----------------------|
| 1   | RPM Signal 2          |
| 2   | RPM Signal 3          |
| 3   | Hopper Signal 2       |
| 4   | Hopper Signal 3       |
| 5   | Boom Sense 1          |
| 6   |                       |
| 7   | Boom Sense 2          |
| 8   | Boom Sense 3          |
| 9   | Boom Sense 4          |
| 10  | Boom Sense 5          |
| 11  |                       |
| 12  |                       |
| 13  | Gate Signal 1         |
| 14  | Gate Signal 2         |
| 15  | Gate Signal 3         |
| 16  | Gate Signal 4         |
| 17  |                       |
| 18  |                       |
| 19  |                       |
| 20  |                       |
| 21  |                       |
| 22  |                       |
| 23  |                       |
| 24  |                       |
| 25  | Hopper Power          |
| 26  | Gate & RPM Ground     |
| 27  | Hopper Ground         |
| 28  |                       |
| 29  |                       |
| 30  |                       |
| 31  |                       |
| 32  |                       |
| 33  |                       |
| 34  | Power Gate & RPM +12V |
| 35  |                       |
| 36  |                       |
| 37  |                       |

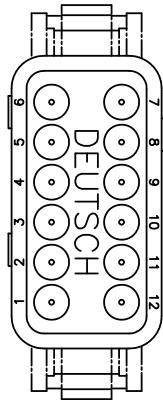
IntelliAg™ WSMT2

Working Set Member Harness  
P/N 467981200

| Pin | Function CONN E  |
|-----|------------------|
| 1   | DIG Input #1     |
| 2   | DIG Input #2     |
| 3   | DIG Input #3     |
| 4   | DIG Input #4     |
| 5   | DIG Input #5     |
| 6   | DIG Input #6     |
| 7   | DIG Input #7     |
| 8   | DIG Input #8     |
| 9   | DIG Input #9     |
| 10  | DIG Input #10    |
| 11  | DIG Input #11    |
| 12  | DIG Input #12    |
| 13  | DIG Input #13    |
| 14  | DIG Input #14    |
| 15  | DIG Input #15    |
| 16  | DIG Input #16    |
| 17  | DIG Input #17    |
| 18  | DIG Input #18    |
| 19  |                  |
| 20  |                  |
| 21  |                  |
| 22  |                  |
| 23  |                  |
| 24  | +8V or +5V Power |
| 25  | +8V or +5V Power |
| 26  | ECU Ground       |
| 27  | ECU Ground       |
| 28  |                  |
| 29  |                  |
| 30  |                  |
| 31  |                  |
| 32  |                  |
| 33  |                  |
| 34  |                  |
| 35  |                  |
| 36  |                  |
| 37  |                  |



| Pin | Function CONN F<br>Gray Connector |
|-----|-----------------------------------|
| 1   | DIG Input #1                      |
| 2   | DIG Input #2                      |
| 3   | DIG Input #3                      |
| 4   | DIG Input #4                      |
| 5   | DIG Input #5                      |
| 6   | DIG Input #6                      |
| 7   | DIG Input #7                      |
| 8   | DIG Input #8                      |
| 9   | DIG Input #9                      |
| 10  | DIG Input #10                     |
| 11  | DIG Input #11                     |
| 12  | DIG Input #12                     |



WIRE SIDE VIEW

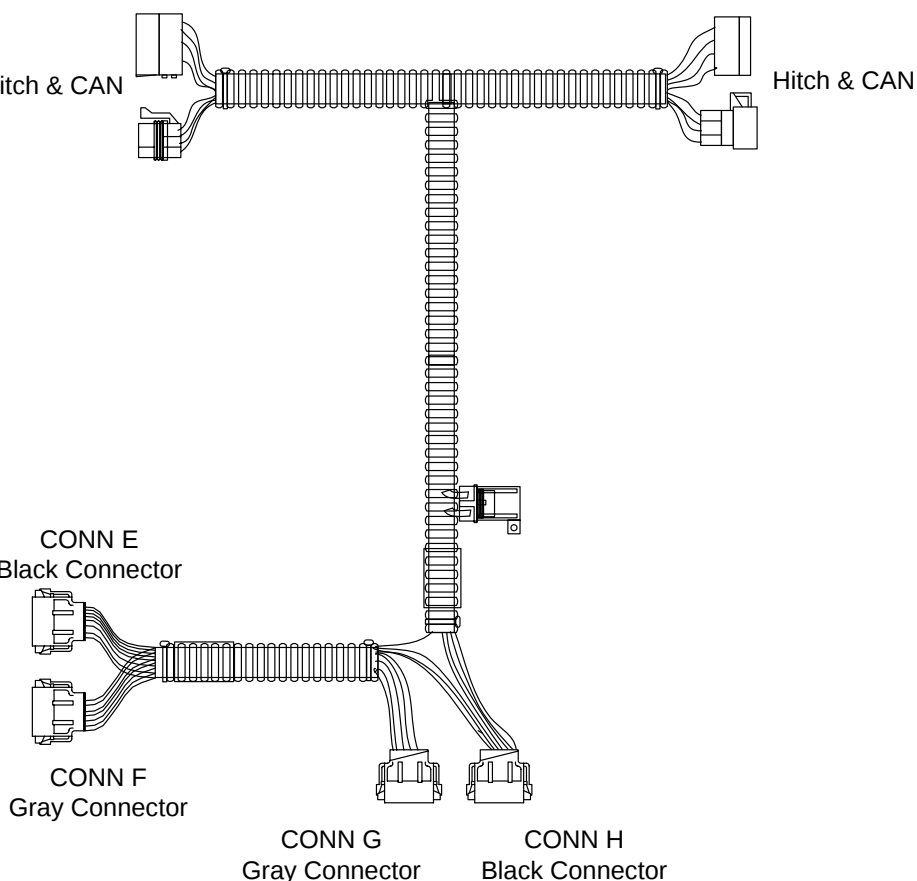
| Pin | Function CONN G<br>Black Connector |
|-----|------------------------------------|
| 1   | DIG Input #13                      |
| 2   | DIG Input #14                      |
| 3   | DIG Input #15                      |
| 4   | DIG Input #16                      |
| 5   | DIG Input #17                      |
| 6   | DIG Input #18                      |
| 7   | CAN High                           |
| 8   | CAN Low                            |
| 9   | +8V or +5V Power                   |
| 10  | ECU Ground                         |
| 11  | ECU Power                          |
| 12  | ECU Ground                         |

## IntelliAg™ WSMT2

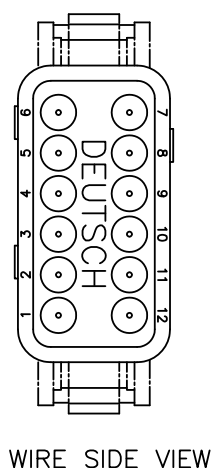
## Working Set Member Harness P/N 467981201

| Pin | Function CONN E<br>Black Connector |
|-----|------------------------------------|
| 1   | DIG Input #17                      |
| 2   | DIG Input #18                      |
| 3   | PLUG                               |
| 4   | PLUG                               |
| 5   | DIG Input #13                      |
| 6   | DIG Input #14                      |
| 7   | DIG Input #15                      |
| 8   | DIG Input #16                      |
| 9   | Power                              |
| 10  | Ground                             |
| 11  | PLUG                               |
| 12  | PLUG                               |

| Pin | Function CONN F<br>Gray Connector |
|-----|-----------------------------------|
| 1   | DIG Input #1                      |
| 2   | DIG Input #2                      |
| 3   | DIG Input #3                      |
| 4   | DIG Input #4                      |
| 5   | DIG Input #5                      |
| 6   | DIG Input #6                      |
| 7   | DIG Input #7                      |
| 8   | DIG Input #8                      |
| 9   | DIG Input #9                      |
| 10  | DIG Input #10                     |
| 11  | DIG Input #11                     |
| 12  | DIG Input #12                     |



| Pin | Function CONN G<br>Gray Connector |
|-----|-----------------------------------|
| 1   | DIG Input #1                      |
| 2   | DIG Input #2                      |
| 3   | DIG Input #3                      |
| 4   | DIG Input #4                      |
| 5   | DIG Input #5                      |
| 6   | DIG Input #6                      |
| 7   | DIG Input #7                      |
| 8   | DIG Input #8                      |
| 9   | DIG Input #9                      |
| 10  | DIG Input #10                     |
| 11  | DIG Input #11                     |
| 12  | DIG Input #12                     |

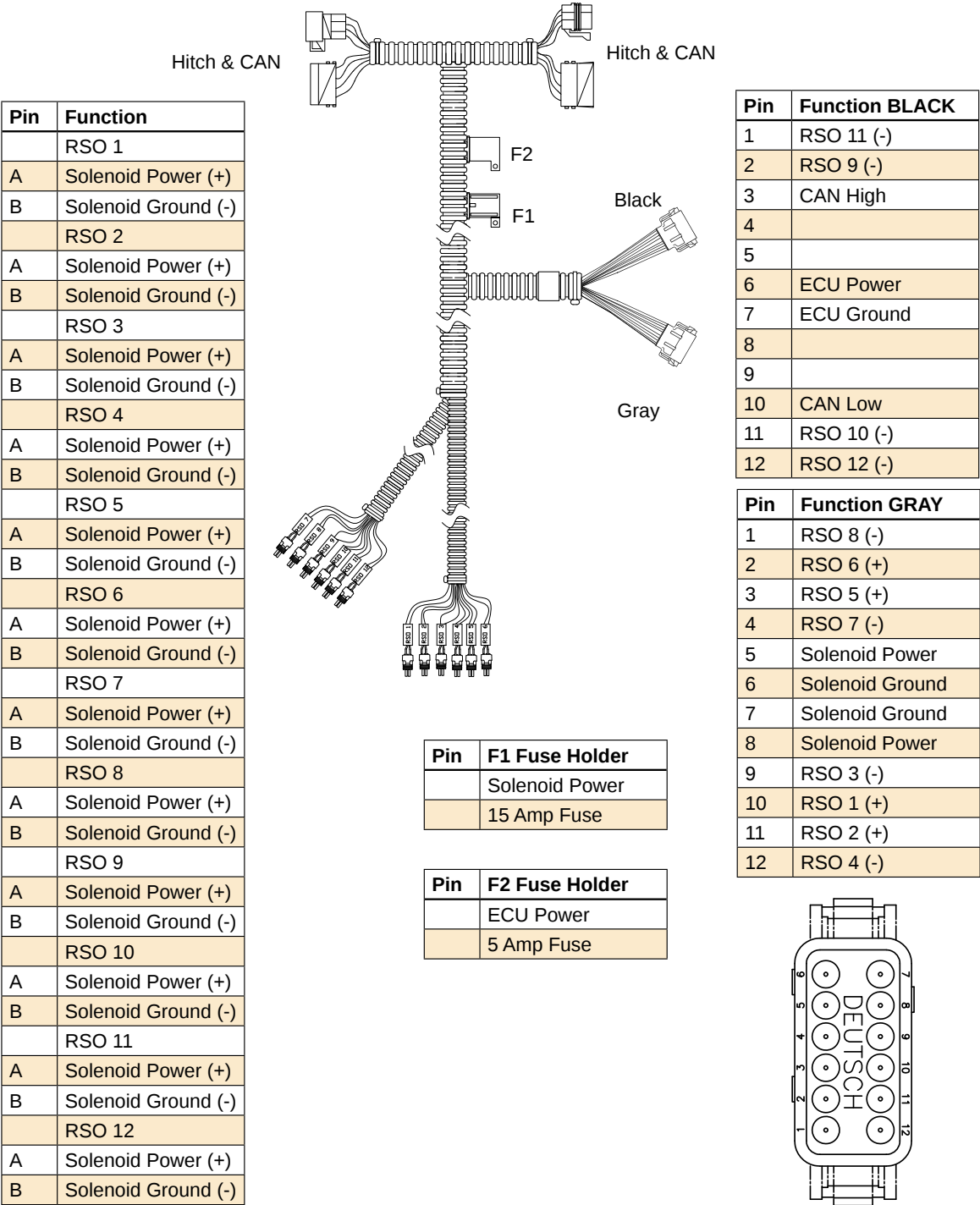


WIRE SIDE VIEW

| Pin | Function CONN H<br>Black Connector |
|-----|------------------------------------|
| 1   | DIG Input #13                      |
| 2   | DIG Input #14                      |
| 3   | DIG Input #15                      |
| 4   | DIG Input #16                      |
| 5   | DIG Input #17                      |
| 6   | DIG Input #18                      |
| 7   | CAN High                           |
| 8   | CAN Low                            |
| 9   | +8V or +5V Power                   |
| 10  | ECU Ground                         |
| 11  | ECU Power                          |
| 12  | ECU Ground                         |

IntelliAg™ WSMT2

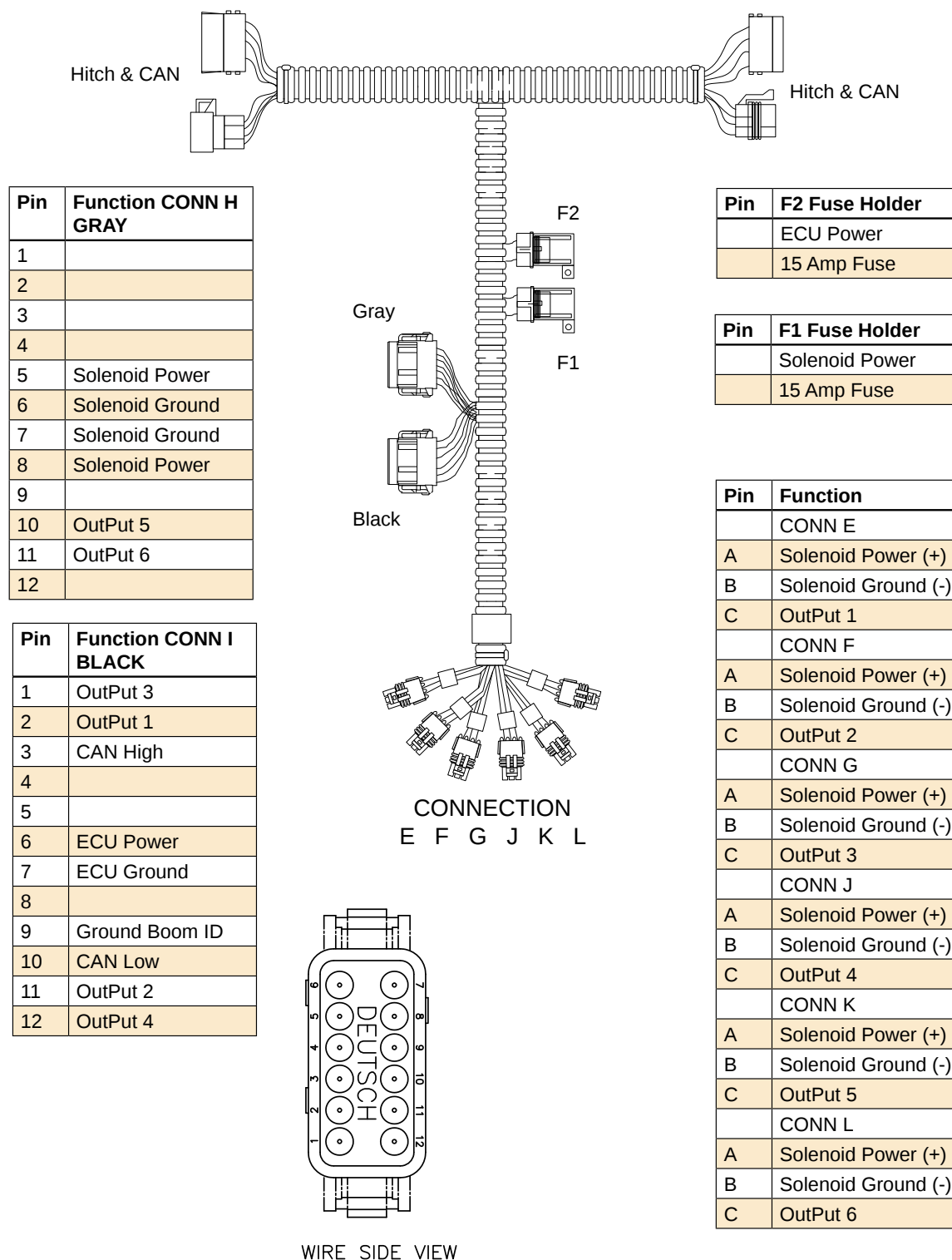
12 Row Shutoff Control Harness  
P/N 467982100



## IntelliAg™ WSMT2

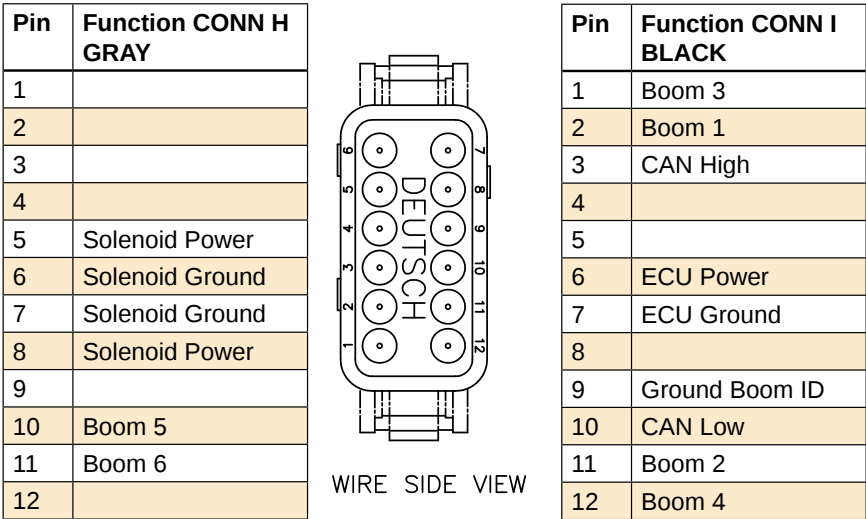
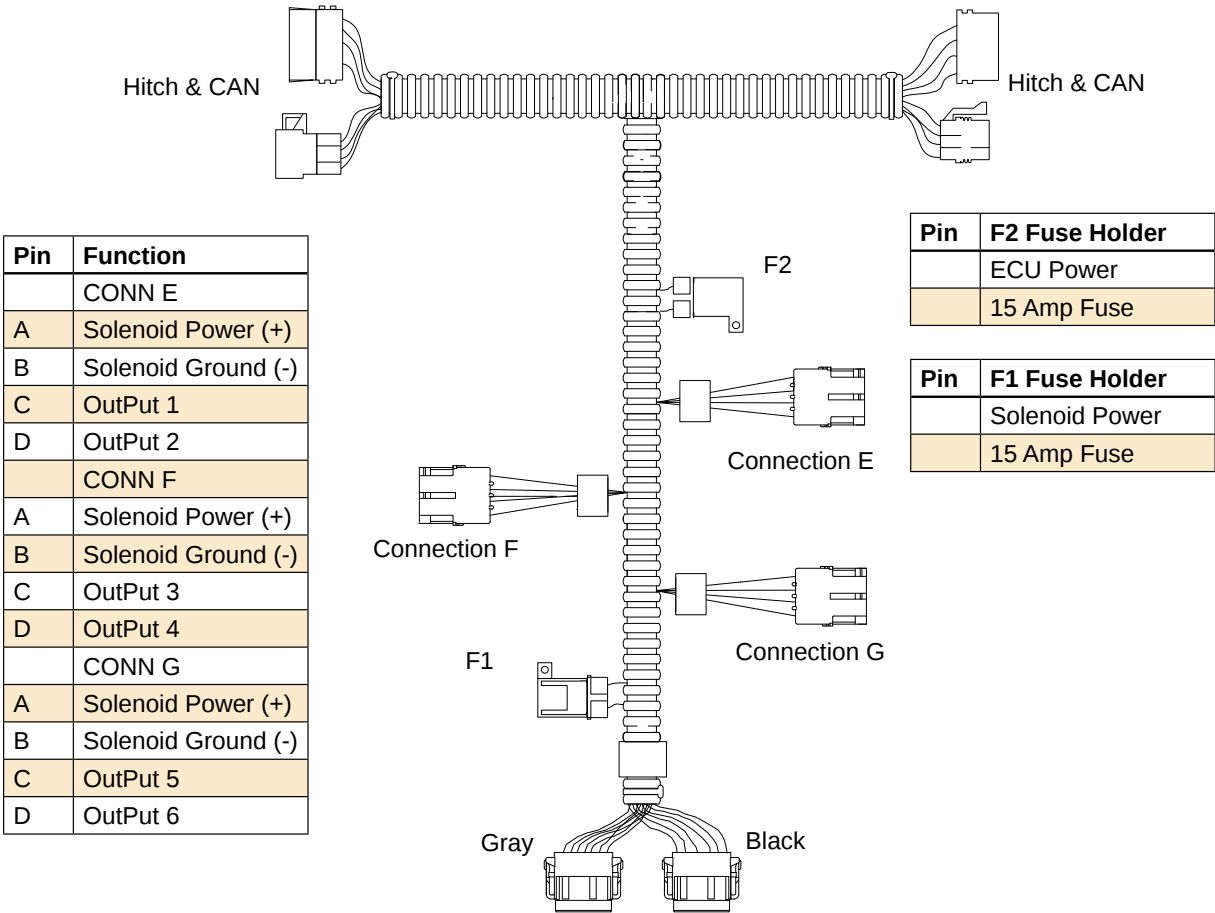
## 3-Wire Boom Control Harness

P/N 467983100



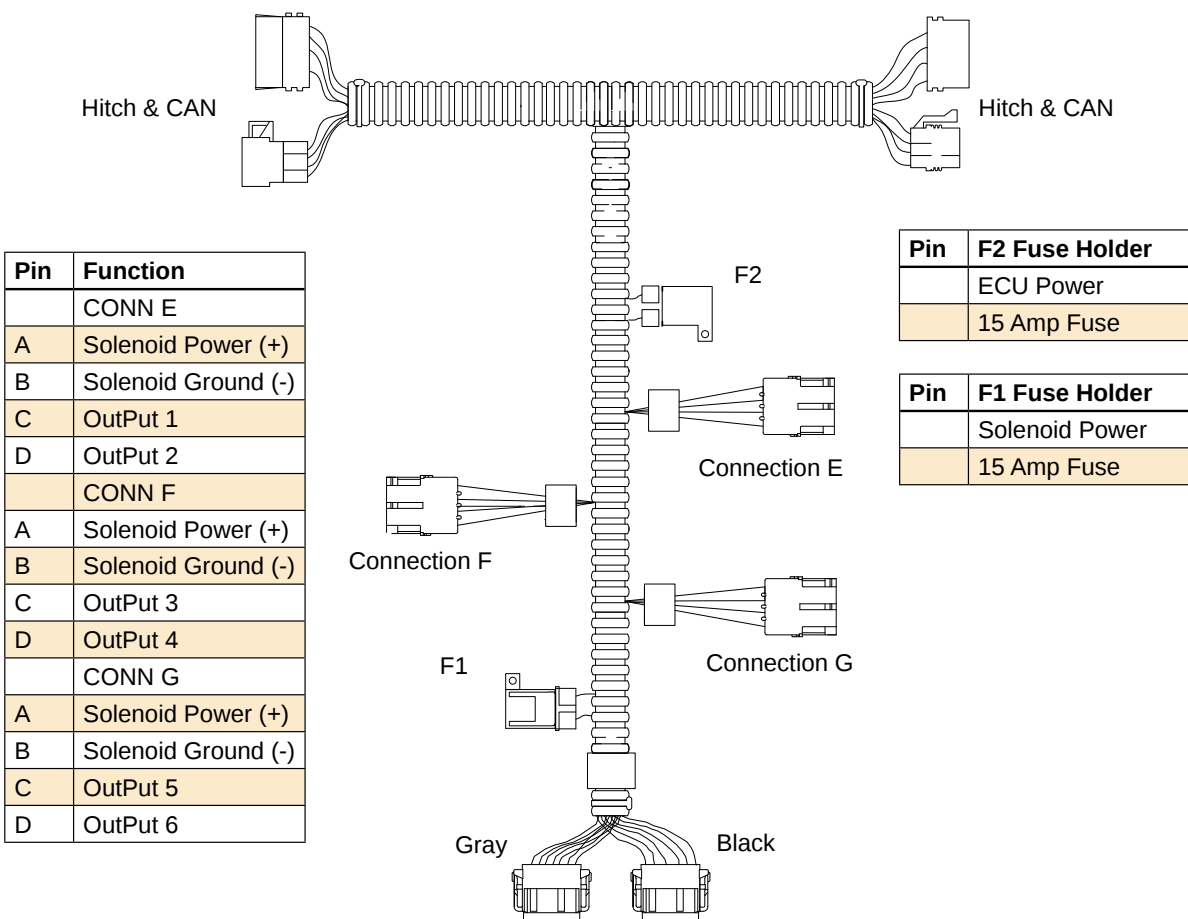
IntelliAg™ WSMT2

2-Wire Boom Control Harness  
P/N 467983101

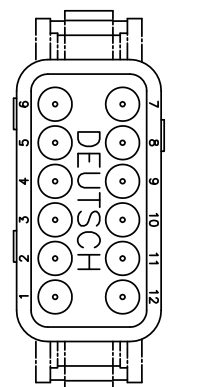


IntelliAg™ WSMT2

2-Wire High Current Row Control Harness P/N  
467983501



| Pin | Function CONN H GRAY |
|-----|----------------------|
| 1   |                      |
| 2   |                      |
| 3   |                      |
| 4   |                      |
| 5   | Solenoid Power       |
| 6   | Solenoid Ground      |
| 7   | Solenoid Ground      |
| 8   | Solenoid Power       |
| 9   |                      |
| 10  | Row 5                |
| 11  | Row 6                |
| 12  |                      |

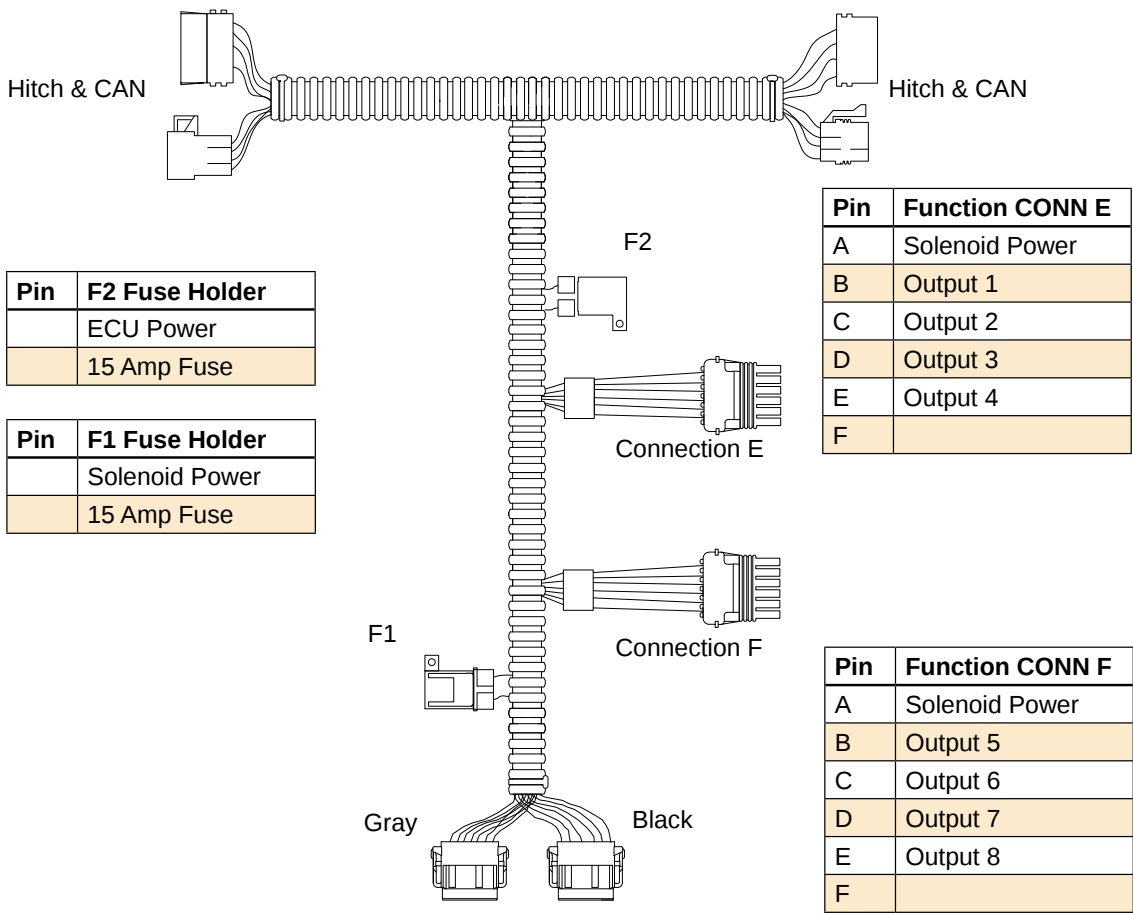


WIRE SIDE VIEW

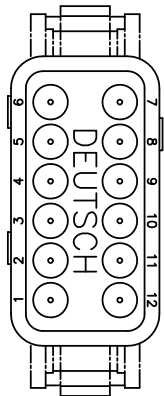
| Pin | Function CONN I BLACK |
|-----|-----------------------|
| 1   | Row 3                 |
| 2   | Row 1                 |
| 3   | CAN High              |
| 4   | Ground Clutch ID      |
| 5   |                       |
| 6   | ECU Power (+12V)      |
| 7   | ECU Ground            |
| 8   |                       |
| 9   |                       |
| 10  | CAN Low               |
| 11  | Row 2                 |
| 12  | Row 4                 |

IntelliAg™ WSMT2

TruCount Air Clutch Row Control Harness P/N  
467983505



| Pin | Function CONN H GRAY |
|-----|----------------------|
| 1   |                      |
| 2   | Output 8             |
| 3   | Output 7             |
| 4   |                      |
| 5   | Solenoid Power       |
| 6   | Solenoid Ground      |
| 7   | Solenoid Ground      |
| 8   | Solenoid Power       |
| 9   |                      |
| 10  | Output 5             |
| 11  | Output 6             |
| 12  |                      |

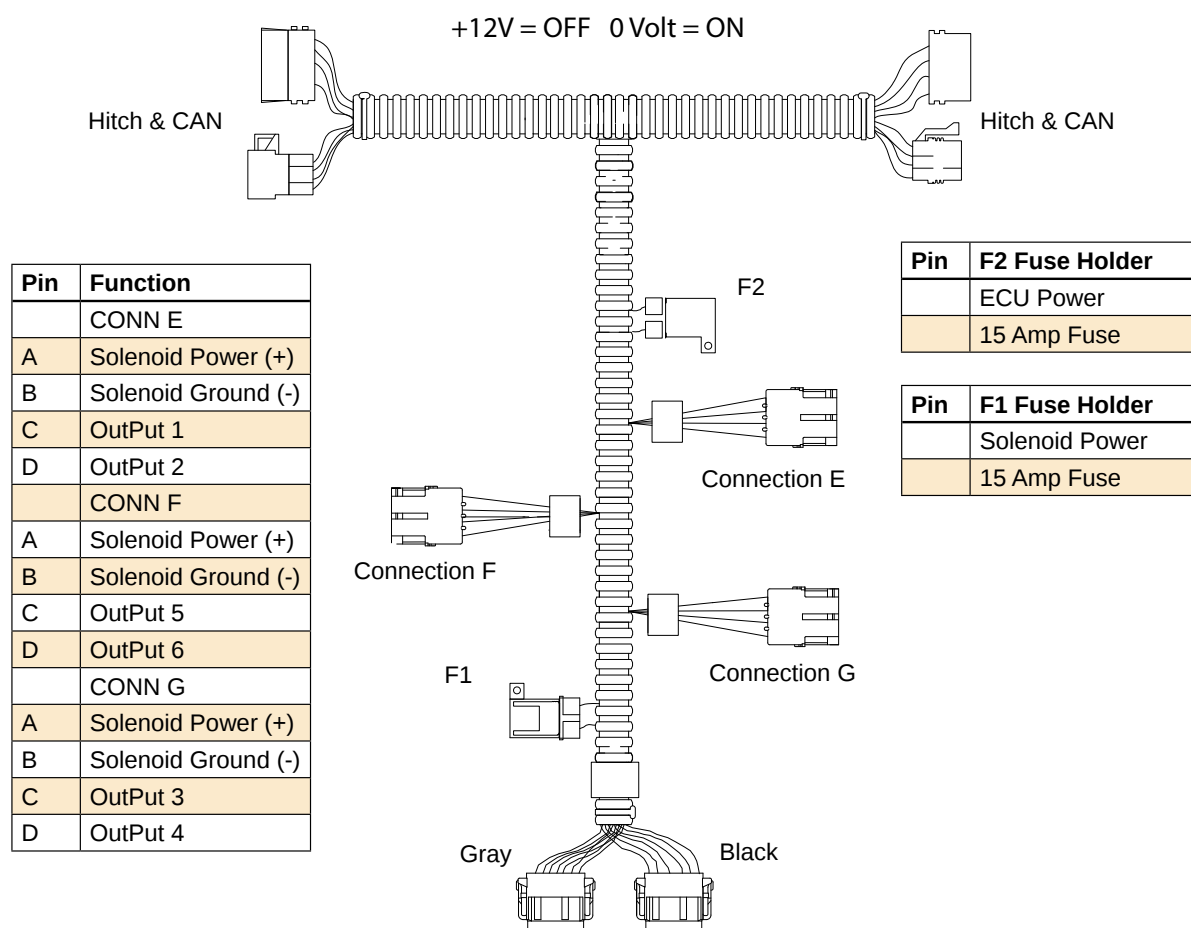


WIRE SIDE VIEW

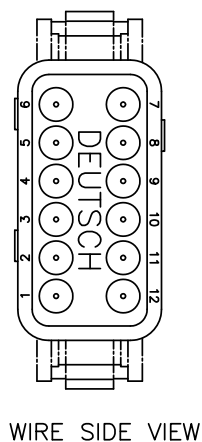
| Pin | Function CONN I BLACK |
|-----|-----------------------|
| 1   | Output 3              |
| 2   | Output 1              |
| 3   | CAN High              |
| 4   | Ground Tru ID         |
| 5   |                       |
| 6   | ECU Power (+12V)      |
| 7   | ECU Ground            |
| 8   |                       |
| 9   | Ground Boom ID        |
| 10  | CAN Low               |
| 11  | Output 2              |
| 12  | Output 4              |

IntelliAg™ WSMT2

2-Wire High Current Row Control Harness P/N  
467983508



| Pin | Function CONN H GRAY |
|-----|----------------------|
| 1   |                      |
| 2   |                      |
| 3   |                      |
| 4   |                      |
| 5   | Solenoid Power       |
| 6   | Solenoid Ground      |
| 7   | Solenoid Ground      |
| 8   | Solenoid Power       |
| 9   |                      |
| 10  | Row 5                |
| 11  | Row 6                |
| 12  |                      |



| Pin | Function CONN I BLACK |
|-----|-----------------------|
| 1   | Row 3                 |
| 2   | Row 1                 |
| 3   | CAN High              |
| 4   | Ground Clutch ID      |
| 5   |                       |
| 6   | ECU Power (+12V)      |
| 7   | ECU Ground            |
| 8   |                       |
| 9   | Aux 4in               |
| 10  | CAN Low               |
| 11  | Row 2                 |
| 12  | Row 4                 |

Air Pressure



Air Pressure Sensor

| Connector Pin Numbers |       |                  |
|-----------------------|-------|------------------|
| Pin No.               | Color | Function/Voltage |
| A                     | Red   | +8V              |
| A                     | Black | Ground (0V)      |
| A                     | Green | Signal           |

- Measures air pressure in seed hopper
- 8 Volts DC

| Air Pressure |                                          |
|--------------|------------------------------------------|
| Part Number  | Description                              |
| 46682-0920S1 | Air Pressure Sensor                      |
| 46682-0922S1 | Air Pressure Sensor with 1/2 in. Bushing |



Hall-Effect Sensor

| Connector Pin Numbers |       |                   |
|-----------------------|-------|-------------------|
| Pin No.               | Color | Function/Voltage  |
| A                     | Red   | +12V              |
| B                     | Black | Ground (0V)       |
| C                     | Green | Signal (Sq. Wave) |

- Measures rotational shaft speed and ground speed
- Available in threaded or smooth surfaces for convenient mounting
- 12 volt sensor with square-wave signal output
- Detects teeth of sprocket, magnets, lug nuts, etc.

Hall-Effect

| Hall Effect  |                                                        |
|--------------|--------------------------------------------------------|
| Part Number  | Description                                            |
| 46350-0030S1 | Hall-Effect Sensor (smooth)                            |
| 46697-0014S1 | Hall-Effect Sensor (threaded)                          |
| 46350-0120   | Hall-Effect Sensor to Radar Extension 15.5 ft.         |
| 20040-0089   | Jam Nut for threaded Hall-Effect Sensor (2 per sensor) |
| 45968-0922   | Hall-Effect Extension Cable 15 ft.                     |
| 45910-0190   | Magnet Kit                                             |



**Hopper Level Sensor**

## Hopper Level

- Mounts inside planter, drill, or air cart
- Alerts when seed or granular material reaches low level
- 8 Volts DC

| WP Connector Pin Numbers ID |       |                  |
|-----------------------------|-------|------------------|
| Pin No.                     | Color | Function/Voltage |
| A                           | Red   | +8V              |
| B                           | Black | Ground           |
| C                           | Green | Signal (0V/12V)  |
| D                           | N.C.  |                  |

| Part Number  | Description                                           | Connector         | Voltage |
|--------------|-------------------------------------------------------|-------------------|---------|
| 46682-0720S3 | Hopper Level Sensor (Intelliag, PM)                   | WP, Individual(3) | 8V      |
| 46682-0721S1 | Hopper Level Sensor (Intelliag, PM) w/ 1/2 in Bushing | WP, Individual(3) | 8V      |
| 46421-2001S1 | Hopper Level Sensor 18" Cable                         | WP, 4 Pin Square  | 12V     |
| 46421-0870S1 | Hopper Level Sensor 36" Cable (ICS2000)               | WP, 4 Pin Square  | 12V     |
| 46421-0518S1 | Hopper Level Sensor w/mounting plate (ICS2000)        | WP, 4 Pin Square  | 12V     |
| 46421-2012S1 | Hopper Level Sensor (Raven Only)                      | WP, 4 Pin Square  | 12V     |
| 46436-0550S1 | Hopper Level Sensor (Land Manager)                    | WP, 3 Pin Flat    | 12V     |

| Part Number  | Description                   | Connector         |
|--------------|-------------------------------|-------------------|
| 46682-0713   | 5' HOPPER LEVEL HARNESS EXT.  | WP, Individual(3) |
| 46682-0712S1 | 10' HOPPER LEVEL HARNESS EXT. | WP, Individual(3) |
| 46682-0714   | 15' HOPPER LEVEL HARNESS EXT. | WP, Individual(3) |
| 46682-0710S3 | 20' HOPPER LEVEL HARNESS EXT. | WP, Individual(3) |

Application Rate



Application Rate Sensor



Couplers

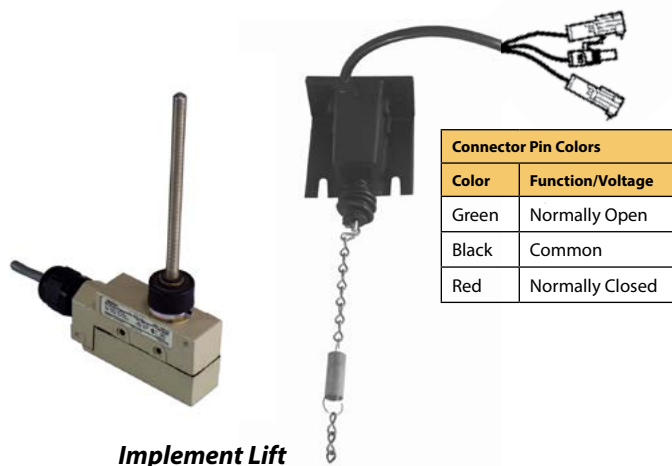
See Test Equipment section for an Application Rate Sensor Tester.

- Measures shaft rotation speed
- Outputs at 360 pulses per revolution for increased accuracy
- RPM range 2 - 2,500
- Easily adapts to 1 and 1 1/4 in. diameter shafts
- 12 volt sensor with square-wave signal output

| Application Rate |                                                                             |
|------------------|-----------------------------------------------------------------------------|
| Part Number      | Description                                                                 |
| 46436-0178S1     | Application Rate Sensor, 1 ft. Cable (360 pulse per rev)                    |
| 46436-1500S1     | Application Rate Sensor, 1.5 ft. Cable (180 pulse per rev)                  |
| 46436-0176S1     | Application Rate Sensor, 5 ft. Cable (360 pulse per rev)                    |
| 46436-0170S1     | Application Rate Sensor, 10 ft. Cable (360 pulse per rev)                   |
| 46436-0171S1     | Application Rate Sensor, 15 ft. Cable (360 pulse per rev)                   |
| 46436-0177S1     | Application Rate Sensor, 22 ft. Cable (360 pulse per rev)                   |
| 46436-0172S1     | Application Rate Sensor, 30 ft. Cable (360 pulse per rev)                   |
| 46436-1510S1     | Application Rate Sensor, 30 ft. Cable (180 pulse per rev) Conxall connector |
| 45714-1810       | Application Rate Sensor Mounting Hardware (includes 1 in. Coupler)          |
| 45714-1850       | Application Rate Sensor Mounting Hardware (includes 1 1/4 in. Coupler)      |
| 21016-0009       | Shaft Coupler 1 in.                                                         |
| 46421-1210S1     | White Motor Sensor Adapter Cable                                            |
| 45790-1810       | Application Rate Sensor Extension Harness, 15 ft.                           |
| 45790-1811       | Application Rate Sensor Extension Harness, 30 ft.                           |
| 45790-1812       | Application Rate Sensor Extension Harness, 45 ft.                           |
| 46709-2218       | Application Rate Sensor to HD4180 Mounting Kit                              |

## Implement Sensors

### Implement Lift



| Connector Pin Colors |                  |
|----------------------|------------------|
| Color                | Function/Voltage |
| Green                | Normally Open    |
| Black                | Common           |
| Red                  | Normally Closed  |

- Enables or disables implement function
- Attaches to three-point hitch or lift cylinder
- Ties to planter monitors and control systems

| Part Number  | Description                             |
|--------------|-----------------------------------------|
| 46372-0150S1 | Lift Switch with Weather-Pack Connector |
| 45632-1070   | Lift Switch with Mate-N-Loc Connector   |
| 10842-0001   | Lift Switch Extension 30 ft.            |
| 46482-0520S1 | Lift Switch Whisker Type                |

### Gate Height



- Measures gate height setting in inches
- Automatically adjusts conveyor speed to compensate for gate height changes and maintain application rate
- Accuracy  $\pm 0.1$  in. of actual gate setting
- Operates with battery supply voltage of +9 to +16 VDC
- Provides +0 to +5 VDC analog signal output
- Potentiometer with working range of 110 degrees of rotation
- Can be mounted on left or right side of gate
- Pre-assembled, stainless-steel hardware and powder-coated mild steel mounting brackets

| Part Number  | Description        |
|--------------|--------------------|
| 46649-2370S1 | Gate Height Sensor |

**Extension Cable for Hopper Level Sensor,  
Air Pressure Sensor, Implement Lift Switch**



**Extension Cable for Flow Meter, Application Rate  
Sensor, Liquid Pressure Sensor**



### Extension Cable

| Part Number  | Description                                                    |
|--------------|----------------------------------------------------------------|
| 46682-0713   | Extension Cable 5 ft. (Hopper, Air Pressure, Implement Lift)   |
| 46682-0712S1 | Extension Cable 10 ft. (Hopper, Air Pressure, Implement Lift)  |
| 46682-0714   | Extension Cable 15 ft. (Hopper, Air Pressure, Implement Lift)  |
| 46682-0710S3 | Extension Cable 20 ft. (Hopper, Air Pressure, Implement Lift)  |
| 46682-0711S3 | Extension Cable 40 ft. (Hopper, Air Pressure, Implement Lift)  |
| 45790-1810   | Extension Cable 15 ft. (Flow Meter, App Rate, Liquid Pressure) |
| 45790-1811   | Extension Cable 30 ft. (Flow Meter, App Rate, Liquid Pressure) |
| 45790-1812   | Extension Cable 45 ft. (Flow Meter, App Rate, Liquid Pressure) |

Liquid



2-way Stainless Steel Valve with 467095075 Actuator 3/8", 1/2"



2-way Stainless Steel Valve with 467095060 Actuator 1", 3/4", 2"



2-way Stainless Steel Valve with 467095250 Actuator 3"



2-way Poly Valve with 467095070 Actuator 3/4", 1"



2-way Stainless Steel Valve with 467084070 Actuator 1/4"



Liquid Servo Valve Extension



2-way Carbon Steel Valve with 467095060 Actuator 1"

Two-way regulating control valves, stainless steel, available in 3/8 in., 1/2 in., 3/4 in., 1 in., 2 in., and 3 in.

| Valve Parts |                     |                  |                                                       |
|-------------|---------------------|------------------|-------------------------------------------------------|
| Part Number | Valve Size (Inches) | CV Flow Rate GPM | Description                                           |
| 46709-5010  | 3/8                 | 7.2              | Stainless Steel Valve, 2-way with 46709-5075 Actuator |
| 46709-5020  | 1/2                 | 30               | Stainless Steel Valve, 2-way with 46709-5075 Actuator |
| 46709-5290  | 1                   | 68               | Stainless Steel Valve, 2-way with 46709-5060 Actuator |
| 46709-5150  | 2                   | 376              | Stainless Steel Valve, 2-way with 46709-5060 Actuator |
| 46709-5170  | 3                   | 720              | Stainless Steel Valve, 2-way with 46709-5250 Actuator |
| 46709-5320  | 1/4                 | 8.4              | Stainless Steel Valve, 2-way with 46709-5070 Actuator |

Two-way Poly regulating control valves available in 3/4 in., 1 in.

| Valve Parts |                     |               |                                            |
|-------------|---------------------|---------------|--------------------------------------------|
| Part Number | Valve Size (Inches) | Flow Rate GPM | Description                                |
| 46709-5030  | 3/4                 | 51            | Poly Valve, 2-way with 46709-5070 Actuator |
| 46709-5280  | 1                   | 68            | Poly Valve, 2-way with 46709-5070 Actuator |

Two-way regulating control valve, carbon steel, available in 1 in.

| Valve Parts |                     |               |                                                    |
|-------------|---------------------|---------------|----------------------------------------------------|
| Part Number | Valve Size (Inches) | Flow Rate GPM | Description                                        |
| 46709-5040  | 1                   | 43            | Carbon Steel Valve, 2-way with 46709-5065 Actuator |

Liquid Servo Valve Extensions

| Part Number | Description                     |
|-------------|---------------------------------|
| 45790-1820  | Extension Cable 15 ft. 6-pin WP |
| 45790-1821  | Extension Cable 30 ft. 6-pin WP |

| Connector Pin Numbers ID |       |                  |
|--------------------------|-------|------------------|
| Pin No.                  | Color | Function/Voltage |
| A                        | Red   | +12V             |
| B                        | Black | Ground (0V)      |
| C                        | White | Open (0-12V)     |
| D                        | Green | Close (0-12V)    |
| E                        | Blue  | APER (0-12V)     |
| F                        | N.C.  |                  |

## Liquid



**3-way Poly or Stainless Steel Valve with  
467095370 Actuator 1 1/2"**

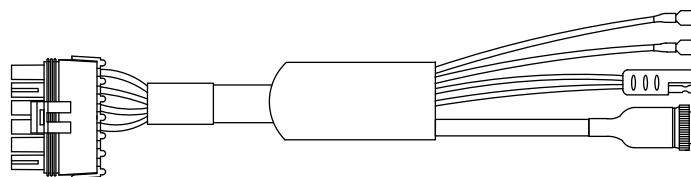
Three-way regulating control valve assemblies available in 1.5 in. and 2 in.

| Valve Parts |                     |               |                                                       |
|-------------|---------------------|---------------|-------------------------------------------------------|
| Part Number | Valve Size (Inches) | Flow Rate GPM | Description                                           |
| 46709-5050  | 1 1/2               | 47            | Poly Valve, 3-way Poly with 46709-5370 Actuator       |
| 46709-5140  | 1 1/2               | 103           | Stainless Steel Valve, 3-way with 46709-5370 Actuator |
| 46709-5160  | 2                   | 143           | Stainless Steel Valve, 3-way with 46709-5250 Actuator |



**3-way Stainless Steel Valve with  
467095250 Actuator 2"**

| Connector Pin Numbers ID |       |                  |
|--------------------------|-------|------------------|
| Pin No.                  | Color | Function/Voltage |
| A                        | Red   | +12V             |
| B                        | Black | Ground (0V)      |
| C                        | White | Open (0-12V)     |
| D                        | Green | Close (0-12V)    |
| E                        | Blue  | APER (0-12V)     |
| F                        | N.C.  |                  |



**Raven Fast Valve Adapter Harness  
466980100**

## Raven Fast Valve Adapter Harness

| Adapter Harness |                                  |
|-----------------|----------------------------------|
| Part Number     | Description                      |
| 46698-0100      | Raven Fast Valve Harness Adapter |
| 46698-004051    | Raven Flow Meter Adapter Harness |



Single Liquid Shutoff Valve  
467096000 3/4"



3 Bank Shutoff Valve  
467096010 3/4"



5 Bank Shutoff Valve  
467096020 3/4"



Single Shutoff Valve  
467096040 3/4"



Single Shutoff Valve  
467095130 1"

Liquid Boom Shutoff

Liquid Boom Shutoff Valves (on/off)

| Actuators Only |                                        |                                    |
|----------------|----------------------------------------|------------------------------------|
| Part Number    | Used With                              | Description                        |
| 46709-6030     | 46709-6000<br>46709-6010<br>46709-6020 | Actuator Assembly EH5 On/Off 3/4"  |
| 46709-5260     | 46709-5130                             | Actuator Assembly Shutoff Valve 1" |
| 46709-6060     | 46709-6040                             | Actuator Assembly EH22 3/4"        |

Liquid Shutoff Valves

| Valve Assemblies |                     |               |                                   |
|------------------|---------------------|---------------|-----------------------------------|
| Part Number      | Valve Size (Inches) | Flow Rate GPM | Description                       |
| 46709-6000       | 3/4                 | 40            | Single Shutoff Valve and Actuator |
| 46709-6010       | 3/4                 | 38            | 3 Bank Shutoff Valve and Actuator |
| 46709-6020       | 3/4                 | 38            | 5 Bank Shutoff Valve and Actuator |

| Boom Shutoff Valve Fittings |                    |                                        |
|-----------------------------|--------------------|----------------------------------------|
| Part Number                 | Hose Size (Inches) | Description                            |
| 46709-7020                  | 1/2                | Boom Shutoff Valve Fitting, straight   |
| 46709-7030                  | 1/2                | Boom Shutoff Valve Fitting, 90 degree  |
| 46709-7040                  | 3/4                | Boom Shutoff Valve Fitting, straight   |
| 46709-7050                  | 3/4                | Boom Shutoff Valve Fitting, 90 degree  |
| 46709-7060                  | 3/4                | Boom Shutoff Valve Fitting, female NPT |
| 46709-7070                  | 1                  | Boom Shutoff Valve Fitting, straight   |
| 46709-7080                  | 1                  | Boom Shutoff Valve Fitting, 90 degree  |
| 46709-7090                  | 1                  | Boom Shutoff Valve Fitting, male NPT   |



467097020



467097030



467097040



467097050



467097060



467097070



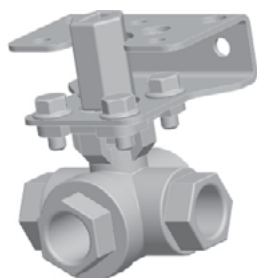
467097080



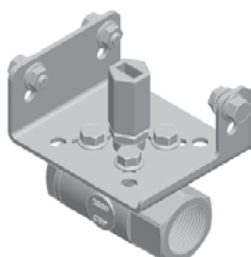
467097090

## Valve Body w/o Actuator

Valve body without actuator available in 3/8 in., 1/2 in., 3/4 in., 1 in., 1.5 in., 2 in., and 3 in.



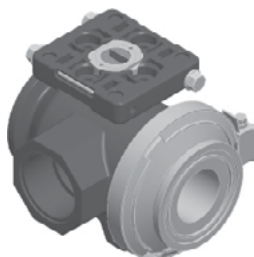
**3-way Stainless Steel Valve 3/8"**



**2-way Stainless Steel Valve  
3/8", 1/2", 3/4", 1"**



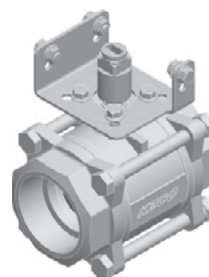
**2-way Poly Valve 3/4", 1"**



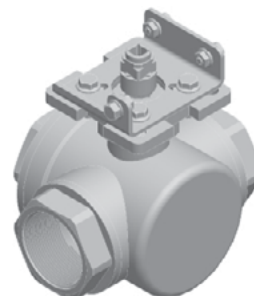
**3-way Poly Valve 1.5"**



**2-way Carbon Steel 1"**



**2-way Stainless Steel Valve 2", 3"**



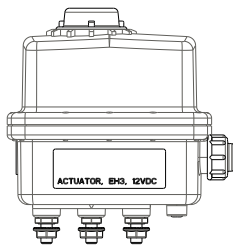
**3-way Stainless Steel Valve 1.5", 2"**



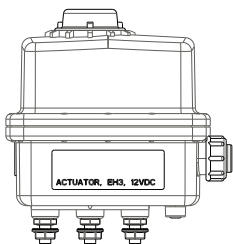
**Ball Valve (NH3) 1.25"**

| Valve Parts |                     |                              |
|-------------|---------------------|------------------------------|
| Part Number | Valve Size (Inches) | Description                  |
| 46709-5080  | 3/8                 | Stainless Steel Valve, 2-way |
| 46709-5230  | 3/8                 | Stainless Steel Valve, 3-way |
| 46709-5090  | 1/2                 | Stainless Steel Valve, 2-way |
| 46709-5310  | 3/4                 | Stainless Steel Valve, 2-way |
| 46709-5100  | 3/4                 | Poly Valve, 2-way            |
| 46709-5110  | 1                   | Carbon Steel Valve, 2-way    |
| 46709-5180  | 1                   | Poly Valve, 2-way            |
| 46709-5120  | 1.5                 | Poly Valve, 3-way            |
| 46709-5190  | 1.5                 | Stainless Steel Valve, 3-way |
| 46709-5200  | 2                   | Stainless Steel Valve, 2-way |
| 46709-5210  | 2                   | Stainless Steel Valve, 3-way |
| 46709-5240  | 3                   | Stainless Steel Valve, 2-way |
| 45790-3380  | 1 1/4               | Ball Valve (NH3)             |

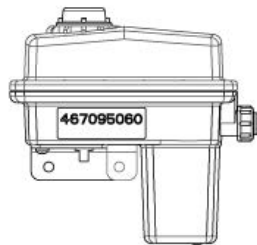
Actuator Assemblies



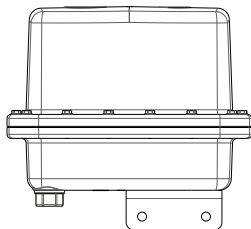
Actuator Assembly  
467095070



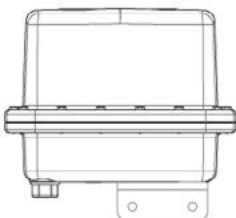
Actuator Assembly  
467095075



Actuator Assembly  
467095060



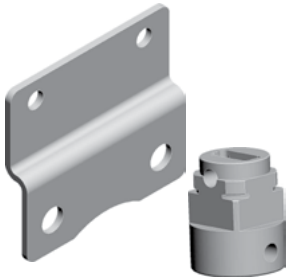
Actuator Assembly  
467095250



Actuator Assembly (Shutoff Valve)  
467095260

| Actuators   |                                                      |                                                                                    |
|-------------|------------------------------------------------------|------------------------------------------------------------------------------------|
| Part Number | Used With Valve                                      | Description                                                                        |
| 46709-5060  | 46709-5110<br>46709-5120<br>46709-5190<br>46709-5200 | Actuator Assembly EH2<br>(used with Continental 1.25 in. NH3 Valve p/n 45790-3380) |
| 46709-5070  | 46709-5100<br>46709-5180<br>46709-5330               | Actuator Assembly EH3                                                              |
| 46709-5075  | 46709-5080<br>46709-5230<br>46709-5090               | Actuator Assembly EH3                                                              |
| 46709-5250  | 46709-5210<br>46709-5240                             | Actuator Assembly EH5                                                              |
| 46709-5260  | 46709-6000<br>46709-6010<br>46709-6020               | Actuator Assembly EH5 On/Off                                                       |
| 46709-6030  | 46709-5130                                           | Actuator Assembly Shutoff Valve                                                    |
| 46709-5065  | 46709-5110<br>46709-5310                             | Actuator Assembly EH22                                                             |
| 46709-5370  | 46709-5120<br>46709-5190                             | Actuator EH2                                                                       |

| Adapter Bracket and Coupler (for use with Continental 1.25 in. NH3 Valve) |                                                                                                 |
|---------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|
| Part Number                                                               | Description                                                                                     |
| 46709-7000                                                                | EH2 Actuator to Continental NH3 Valve Bracket<br>(used to mount EH2 actuator on 1.25 in. Valve) |
| 46709-7010                                                                | EH2 Actuator to Continental NH3 Valve Coupler<br>(used to mount EH2 actuator on 1.25 in. Valve) |
| 45790-4000                                                                | Adapter Bracket and Coupler Kit (includes 46709-7000 and 46709-7010)                            |



Adapter Bracket and Coupler

## Proportional Hydraulic Flow



**Dual Flow**



**P4, P8, and P24**

**Port 1**    **Supply/In**  
**Port 2**    **Bypass (Tank)**  
**Port 3**    **Regulated**

## Dual Flow

The Dual Flow Spreader Control Valve provides proportional control of the spinner and conveyor/auger motor and can be mounted outside the cab. The valve is a direct replacement for the Fluid Control 2FLL1 2 or equivalent spreader valve and can operate with either a fixed displacement or variable displacement (load sense) pump. Can also run continuously with the spinner circuit shutoff.

### SPECIFICATIONS:

- **Operating Pressure:** Inlet 4,000 psi
- **Regulated Flow Rate:** 0-17 GPM or 0-34 GPM auger/conveyor  
0-10 GPM Spinner
- **Internal Leakage:** 50 cc/min. max at 2,000 psi
- **Coil Voltage:** 12 VDC
- **Max Control Current:** 1,400 ± 100 mA

| Part Number | Description                                                                          |
|-------------|--------------------------------------------------------------------------------------|
| 46709-2100  | Dual Hydraulic Valve (HydraForce) 17 GPM conveyor/10 GPM spinner, fixed displacement |
| 46709-2101  | Dual Hydraulic Valve (HydraForce) 17 GPM conveyor/10 GPM spinner, load sense         |
| 46709-2110  | Dual Hydraulic Valve (HydraForce) 34 GPM conveyor/10 GPM spinner, fixed displacement |
| 46709-2111  | Dual Hydraulic Valve with load sense (HydraForce) 34 GPM conveyor/10 GPM spinner     |
| 46709-0421  | Replacement Cartridge                                                                |
| 46709-0360  | Replacement Coil                                                                     |

## P4 & P8

P4 and P8 Proportional Flow Control Valves are electrical-variable two-way, pressure-compensated spool valves and can be used with either open or closed-center hydraulics by plugging port 2 of the valve body.

### SPECIFICATIONS:

- **Operating Pressure:** Inlet 3,500 psi (240 bar)
- **Regulated Flow Rate:** 0-4 GPM (0-15 LPM) p/n 46709-2004S1  
0-8 GPM (0-30 LPM) p/n 46709-2008S1
- **Reverse Free Flow**
- **Cracking Pressure:** 15-20 psi (1-1.4 bar)
- **Internal Leakage:** 0.10 GPM (0.38 LPM) at zero current
- **Coil Voltage:** 12 VDC
- **Max Control Current:** 1,500 ± 100 mA
- **Solenoid operated**
- **Normally closed when d-energized**
- **Three port**

| Part Number  | Description                       |
|--------------|-----------------------------------|
| 46709-2050S1 | Valve Assembly 24 GPM             |
| 46709-2004S1 | P4 Valve Assembly 4 GPM           |
| 46709-2008   | P8 Valve Assembly 8 GPM           |
| 46709-0360   | Replacement Coil 4 or 8 GPM Valve |
| 46709-0380   | Replacement Cartridge 4 GPM       |
| 46709-0370   | Replacement Cartridge 8 GPM       |

HD 4180™



HD 4180™ is a combination hydraulic motor and proportional hydraulic valve used in conjunction with a ground speed control system. It is used on planters and air seeders to rotate the seeding shafts instead of using ground-driven gear boxes. Utilizing hydraulic and ground speed systems allow for manual or variable rate adjustments to the seeding population per acre while moving through the field.

Features:

- 0 - 4 GPM hydraulic flow delivers 4 - 180 RPM at 1,400 inch pounds of torque
- Eliminates ground-drive systems to rotate seeding shafts
- Install up to four units in series to control multiple planter sections or fertilizer application
- Interface with a ground speed control system for variable rate control of planter and fertilizer application in the field
- Manual override of hydraulic flow in the event of electrical failure

| HD 4180™     |                                                                                                                                                                                                                                                             |
|--------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Part Number  | Description                                                                                                                                                                                                                                                 |
| 46709-2200S1 | HD4180 HydraDrive                                                                                                                                                                                                                                           |
| 46709-2219S1 | HD4180 Mounting Bracket with Hardware                                                                                                                                                                                                                       |
| 46709-2218   | HD4180 ARS Mounting Hardware Kit only                                                                                                                                                                                                                       |
| 46709-2219   | Mounting Bracket only                                                                                                                                                                                                                                       |
| 46709-2221   | ARS to Motor Coupler only                                                                                                                                                                                                                                   |
| 46798-0470   | Extension Cable 15 ft.                                                                                                                                                                                                                                      |
| 46798-0471   | Extension Cable 20 ft.                                                                                                                                                                                                                                      |
| 46798-0473   | Extension Cable 30 ft.                                                                                                                                                                                                                                      |
| 46798-0472   | Extension Cable 40 ft.                                                                                                                                                                                                                                      |
| 46709-0360   | Replacement Coil                                                                                                                                                                                                                                            |
| 46709-0380   | Replacement Cartridge                                                                                                                                                                                                                                       |
| 46709-2200   | Replacement Motor                                                                                                                                                                                                                                           |
| 46709-2219S1 | Mounting Bracket with Hardware includes:<br>* 18 tooth HydraDrive Motor Sprocket<br>* HydraDrive 14 Tooth Idler Sprocket<br>* HydraDrive Spacer<br>* 7x7 Square U-Bolt<br>* ARS Hardware Kit for 467092219S1<br>* Mounting Bracket for 467982200 (Planters) |
| 46709-2214   |                                                                                                                                                                                                                                                             |
| 46709-2215   |                                                                                                                                                                                                                                                             |
| 46709-2216   |                                                                                                                                                                                                                                                             |
| 46709-2217   |                                                                                                                                                                                                                                                             |
| 46709-2218   |                                                                                                                                                                                                                                                             |
| 46709-2219   |                                                                                                                                                                                                                                                             |

### CALCULATING FLOW RATE REQUIREMENTS

#### Granular Spreading/Drill and Air Seeders

##### (Hydraulic Oil Flow)

To calculate the hydraulic oil flow requirements to select the optimal hydraulic control valve used with a hydraulic motor, use the below formula:

Hydraulic Oil Flow Rate Formula (assumes 1:1 gear ratio): **(Hydraulic motor in3/rev x Motor RPM required divided by 231)**

| IN3/REV<br>Motor Spec | Max Motor RPM<br>Required for<br>Application | Constant IN3 in<br>1 Gallon | Oil GPM<br>Required |
|-----------------------|----------------------------------------------|-----------------------------|---------------------|
| 41.2                  | 120                                          | /231                        | 21                  |

##### (Hydraulic Motor RPM)

To calculate the motor RPM required to achieve maximum application rate, enter value for pounds per 1 revolution, maximum application rate, ground speed, and spread width (assumes 1:1 gear ratio).

| Pounds discharged from Vbox<br>spreader per 1 Rev. of the<br>conveyor belt drive shaft | Max. Application<br>Rate (lbs/acre) | Ground<br>Speed<br>(MPH) | Spread Width<br>in Feet | Max. Motor RPM Required<br>for Application (B / A) |
|----------------------------------------------------------------------------------------|-------------------------------------|--------------------------|-------------------------|----------------------------------------------------|
| 10                                                                                     | 1200                                | 10                       | 40                      | 97                                                 |

#### CONSTANT VALUES USED IN FORMULA (DO NOT CHANGE)

Square Feet in 1 Acre ..... 43560

1 Mile ..... 5280

Distance (feet) traveled per minute at ground speed stated in table above .....  $880 = (\text{MPH} \times 5280) / 60$

A - Time required to apply material on 1 acre at ground speed stated in table above .....  $1.2375 = 43560 / (\text{dist travel} \times \text{spread width})$

B - Conveyor shaft revolutions required to apply maximum application rate .....  $120 = \text{max. application rate} / \text{pounds discharged}$

#### Row Crop Planter

##### (Hydraulic Oil Flow)

To calculate the hydraulic oil flow requirements to select the optimal hydraulic control valve for use with a hydraulic motor, use the below formula:

Hydraulic Oil Flow Rate Formula (assumes 1:1 gear ratio): **(Hydraulic motor in3/rev x Motor RPM required divided by 231)**

| IN3/REV<br>Motor Spec | Max Motor RPM<br>Required for<br>Application | Constant IN3 in<br>1 Gallon | Oil GPM<br>Required |
|-----------------------|----------------------------------------------|-----------------------------|---------------------|
| 5                     | 82                                           | 231                         | 1.8                 |

##### (Hydraulic Motor RPM)

To calculate the motor RPM required to achieve maximum application rate, enter values for seeds dropped per 1 rev. of planter row unit, max. application rate, ground speed, and row spacing.

| Seeds dropped per 1 Rev. of the<br>planter row unit (seeds) | Max. Seeding Rate<br>(seeds/acre) | Ground<br>Speed<br>(MPH) | Spread Width<br>in Feet | Max. Motor RPM Required<br>for Application (B / A) |
|-------------------------------------------------------------|-----------------------------------|--------------------------|-------------------------|----------------------------------------------------|
| 60                                                          | 120,000                           | 8                        | 3                       | 97                                                 |

#### CONSTANT VALUES USED IN FORMULA (DO NOT CHANGE)

Square Feet in 1 Acre ..... 43560

1 Mile ..... 5280

Distance (feet) traveled per minute at ground speed stated in table above .....  $704 = (\text{MPH} \times 5280) / 60$

A - Time required to apply material on 1 acre at ground speed stated in table above .....  $20.625 = 43560 / (\text{dist travel} \times \text{spread width})$

B - Planter shaft revolutions required to apply maximum application rate .....  $2000 = \text{max. seed rate} / \text{seeds dropped per rev.}$

Hydraulic Servo Valve



The system must be in operation to make adjustments. Both adjustments are located under the center plate.

**CAUTION: Be cautious to not overspeed the hydraulic motor.**

- Adjustment 1 (To eliminate creep)**
- 1. Loosen the Allen head screw (large) in the coupling collar.
  - 2. Using pliers, rotate the valve stem until creep stops to establish a closed position.
  - 3. Re-tighten the collar.
- Adjustment 2 (Adjust maximum flow rate GPM)**
- 1. Loosen the small Allen head screw in the orifice adjustment collar.
  - 2. Using pliers, turn the orifice adjustment collar counterclockwise to increase flow; clockwise to decrease flow.
  - 3. Re-tighten orifice collar screw.

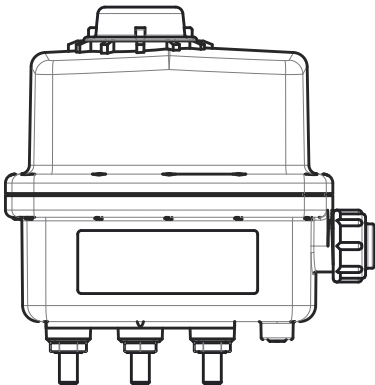
**This actuator does not require the hydraulic valve driver as on older style actuators.**

Servo Hydraulic Flow Control Valves are used for precise oil flow to hydraulic-driven conveyors and liquid pumps.

- Features:**
- Close to open in 1.5 seconds
  - Environmentally sealed
  - Drives 3/8 to 1 in. liquid

| Part Number | Description                                                                  |
|-------------|------------------------------------------------------------------------------|
| 15557-0001  | Servo Valve 30 GPM 20 ft. cable 6-pin Weather Pack                           |
| 15557-0004  | Servo Valve 18 GPM 20 ft. cable 6-pin Weather Pack                           |
| 15557-0011  | Servo Valve 13 GPM 20 ft. cable 6-pin Weather Pack                           |
| 15557-0013  | Servo Valve 16 GPM 20 ft. cable 6-pin Weather Pack                           |
| 15557-0015  | Servo Valve 25 GPM 20 ft. cable 6-pin Weather Pack                           |
| 15557-0016  | Servo Valve 20 GPM 20 ft. cable 6-pin Weather Pack                           |
| 15557-0021  | Servo Valve 11 GPM 20 ft. cable 6-pin Weather Pack                           |
| 15557-0022  | Servo Valve 58 GPM 20 ft. cable 6-pin Weather Pack                           |
| 15557-0023  | Servo Valve 18 GPM (Ag Chem) 3-pin Metri Pack                                |
| 15557-0024  | Servo Valve 13 GPM (Ag Chem) 3-pin Metri Pack                                |
| 15557-0025  | Servo Valve 30 GPM (Ag Chem) 3-pin Metri Pack                                |
| 15557-0026  | Servo Valve 58 GPM (Ag Chem) 3-pin Metri Pack                                |
| 46709-5360  | Actuator only used on 15557-0001 to -0022. Requires hardware kit 46709-8040. |
| 46709-8040  | Hardware Mounting Kit                                                        |
| 46709-5350  | Actuator only used on 15557-0023 to -0026. Requires hardware kit 46709-8040. |

| Actuator                 |       |                  | Harness |
|--------------------------|-------|------------------|---------|
| Connector Pin Numbers ID |       |                  | Color   |
| Pin                      | Color | Function         |         |
| A                        | Red   | +12V             | Red     |
| B                        | Black | Ground           | Black   |
| C                        | White | Signal to open   | Brown   |
| D                        | Green | Signal to close  | White   |
| E                        | Blue  | Feedback at open | Gray    |
| F                        | N.C.  |                  | N.C.    |



Actuator 46709-5350

## Hydraulic Valve Driver Module



**Hydraulic Valve Driver 46436-0030A**

| 6-pin WP Connector Pin Numbers ID |       |                  |
|-----------------------------------|-------|------------------|
| Pin No.                           | Color | Function/Voltage |
| A                                 | Red   | +12V             |
| B                                 | Black | Ground (0V)      |
| C                                 | Brown | Open (0-12V)     |
| D                                 | White | Close (0-12V)    |
| E                                 | Gray  | APER (0-12V)     |
| F                                 | N.C.  |                  |

| Amp CPC Connector Pin Numbers ID |        |                      |
|----------------------------------|--------|----------------------|
| Pin No.                          | Color  | Function/Voltage     |
| 1                                | Yellow | Signal (0-12V) Close |
| 2                                | N.C.   |                      |
| 3                                | Orange | Signal (0-12V) Open  |
| 4                                | Gray   | APER Alarm           |

Servo Hydraulic Flow Control Valves are used for precise oil flow to hydraulic-driven conveyors and liquid pumps.

**Features:**

- Close to open in 1.5 seconds
- Environmentally sealed

| Hydraulic Servo Flow Control |                                  |
|------------------------------|----------------------------------|
| Part Number                  | Description                      |
| 46436-0030A                  | Hydraulic Servo Valve Driver     |
| 43940-0026                   | Hydraulic Valve Extension 10 ft. |
| 46421-0431S1                 | PWM Hydraulic Valve Driver       |



**PWM Hydraulic Valve Driver 46421-0431S1**



**Linear Valve Driver 46490-0010S1**

| 6-pin WP Connector Pin (2 Sets) Numbers ID |       |                  |
|--------------------------------------------|-------|------------------|
| Pin No.                                    | Color | Function/Voltage |
| <b>Channel 1 Connector</b>                 |       |                  |
| A                                          | Red   | +12V             |
| B                                          | Black | Ground           |
| C                                          | White | ACTR1 (PWM)      |
| <b>Channel 2 Connector</b>                 |       |                  |
| D                                          | Brown | ACTR2 (PWM)      |
| E                                          |       |                  |
| F                                          | N.C.  |                  |

| 2-pin WP Connector Pin (2 Sets) Numbers ID |       |                      |
|--------------------------------------------|-------|----------------------|
| Pin No.                                    | Color | Function/Voltage     |
| A                                          | White | ACTR1/ACTR2 (PWM) BN |
| B                                          | Gray  | Ground               |
| A                                          | Brown | ACTR2                |
| B                                          | Black | Ground               |

| 6-pin WP Connector Pin Numbers ID |       |                  |
|-----------------------------------|-------|------------------|
| Pin No.                           | Color | Function/Voltage |
| B                                 | Black | Ground           |
| C                                 | Brown | ACTR1 (PWM)      |
| D                                 | N.C.  |                  |
| E                                 | N.C.  |                  |
| F                                 | N.C.  |                  |

| Amp CPC Connector Pin Numbers ID |       |                  |
|----------------------------------|-------|------------------|
| Pin No.                          | Color | Function/Voltage |
| 1                                | Green | Signal (0-12V)   |
| 2                                | Black | Ground           |
| 3                                | N.C.  |                  |

Daisy Chain Blockage Detection System



Daisy Chain Sensor



Daisy Chain Module

The Daisy Chain blockage detection system monitors seed and fertilizer flow on air seeder applications to determine if distribution hoses are open or blocked. Sensors are connected to each other in a serial chain layout contained within the loop.

The system is designed with redundant communication between sensors so that any defective sensor within the system does not shutdown the entire blockage system. Blockage full screen alarms quickly pinpoint exact sensor blockage, communication, or wiring issues to remove guesswork from troubleshooting.

One module can connect to 1 or 2 loops. A maximum of 4 modules and 8 loops connect to sensors that communicate blockage and system status for display on the virtual terminal.

The blockage system is compatible with any ISO virtual terminal including DICKEY-john®, Case, John Deere, and AGCO terminals.

Features:

- Monitors up to 4 modules and a total of 8 loops
- Each module can interface with a maximum of 2 sensor loops
- Maximum number of sensors per loop is 54 for a total of 432 sensors
- Tramline monitoring of seed or fertilizer with up to 192 sensors assigned to tramlining
- Full screen alarms pinpoint blockage or system issues for quick resolution
- Bi-directional communication lines between sensors and modules
- System can continue to monitor sensor blockage with 1 line failure
- Three system tests (communication, power, and sensor) provide immediate feedback of system status)
- Additional rows and blockage sensors can be added later with minimal harnessing changes

| Daisy Chain Blockage Detection System |               |
|---------------------------------------|---------------|
| Part Number                           | Description   |
| 46798-8670S1                          | Sensor 32mm   |
| 46798-8840S1                          | Sensor 50 mm  |
| 46798-8865S1                          | Sensor 45 mm  |
| 46798-8885S1                          | Sensor 25mm   |
| 46798-8690S1                          | Sensor Module |

## Daisy Chain Blockage Detection System



**DCBS IntelliAg™ Adapter**



**Module Harness ISO 1 Loop**



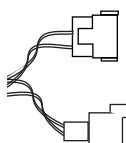
**Module Harness ISO 2 Loop**



**Module Extension Harness 6m or 10m**



**CAN Bus Adapter Harness**

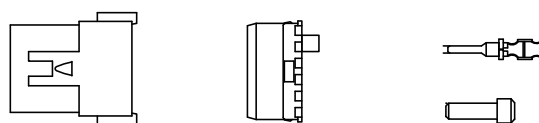


**46798-8751** Packard connectors

| Daisy Chain Blockage Detection System |                                                                                                                                      |
|---------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|
| Part Number                           | Description                                                                                                                          |
| 46798-8749                            | DCBS IntelliAg Adapter                                                                                                               |
| 46798-8720                            | Module Harness ISO 1 Loop                                                                                                            |
| 46798-8730                            | Module Harness ISO 2 Loop                                                                                                            |
| 46798-8741                            | Module Extension Harness 6 Meter                                                                                                     |
| 46798-8740                            | Module Extension Harness 10 Meter                                                                                                    |
| 46798-8761                            | Terminator                                                                                                                           |
| 46798-8759                            | Lift Switch/Tramline Connector Kit (includes 1 Deutsch connector, 1 Deutsch wedge, 5 Deutsch terminals, and 10 Deutsch cavity plugs) |
| 46798-8751                            | CAN Bus Adapter Harness with Packard connectors                                                                                      |
| 46798-8752                            | CAN Bus Adapter Harness with fly wire leads                                                                                          |
| 11001-1620B                           | Daisy Chain Operator's Manual                                                                                                        |



**Terminator**

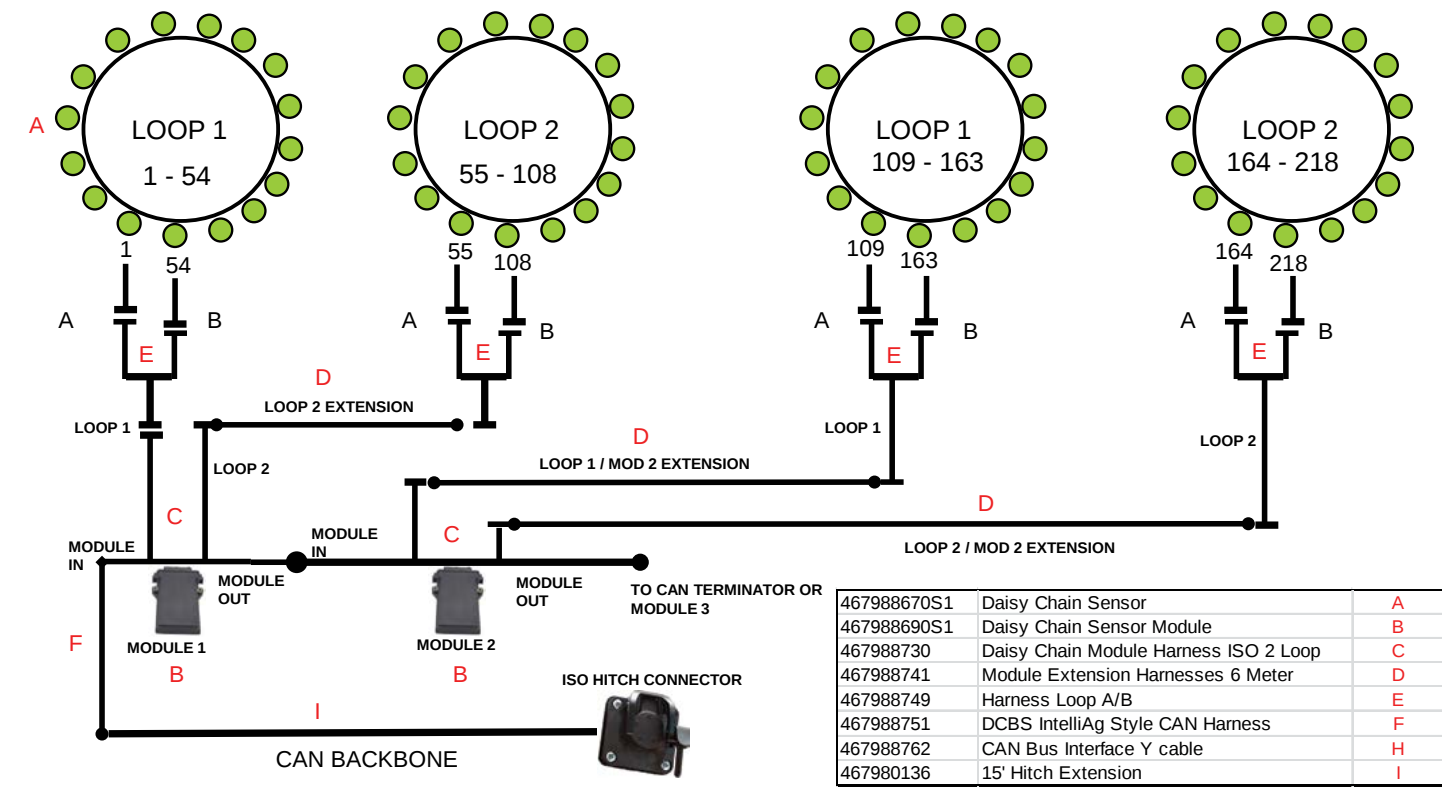


**Lift Switch/Tramline Connector Kit**

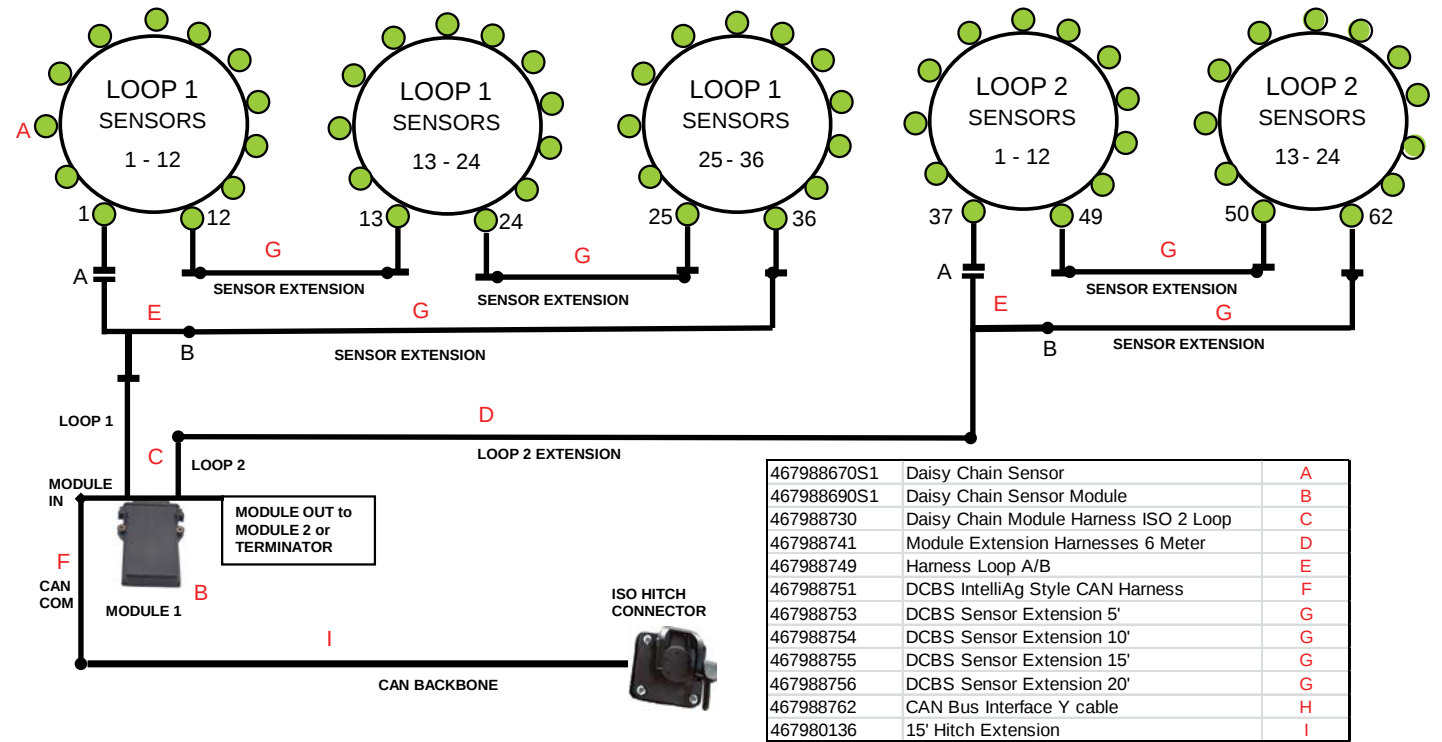
| Lift Switch/Tramline Connector Kit Pinout |                      |
|-------------------------------------------|----------------------|
| 1                                         | 12V Power            |
| 2                                         | 12V Accessory        |
| 3                                         | Accessory Ground Out |
| 4                                         | Accessory Ground     |
| 5                                         | Input 5              |
| 6                                         | Input 7 Lift Switch  |
| 7                                         | Input 3              |
| 8                                         | Input 1              |
| 9                                         | Ground Speed         |
| 10                                        | Input 2              |
| 11                                        | Input 4              |
| 12                                        | Input 6              |

Typical Installation

Daisy Chain Blockage Detection System



Alternate Installation



## ASM™ II Air Seeder

The ASM™ II Air Seeder Monitor alerts when the seeding rate falls below a programmable seeds per second threshold. The system monitors blockage up to 128 rows or 120 rows and 8 Hopper Level Sensors.



**ASM™ II**

### Features:

- Input from 16 sensors or 15 sensors and one Hopper Level Sensor
- Internal audible alarm
- LED dimming for day or night use
- Planting indicator
- Alarm recognition override
- Implement Lift Switch input
- Module and sensor self test



**16 Row Module**

### Don't forget to select a:

- Seed Sensor
- Ground Speed Sensor
- Hopper Level Sensor
- Hall-Effect Sensor
- Flow Meter
- Implement Lift Switch

| Part Number                  | Description                  |
|------------------------------|------------------------------|
| <b>Console and Module</b>    |                              |
| 46794-2002S1                 | Console and Harness          |
| 46794-2057S1                 | Input Module, 16 row         |
| 46794-2058S1                 | Hopper Input Module, 15 row  |
| <b>Module Harness</b>        |                              |
| 46775-1300S1                 | Harness, 12 row, 7.5 in.     |
| 46775-1301S1                 | Harness, 12 row, 15 in.      |
| 46775-1302S1                 | Harness, 12 row, 30 in.      |
| 46775-1320S1                 | Tower Harness, 12 row        |
| 46775-1310S1                 | Harness, 16 row, 7.5 in.     |
| 46775-1311S1                 | Harness, 16 row, 15 in.      |
| 46775-1312S1                 | Harness, 16 row, 30 in.      |
| 46775-1330S1                 | Tower Harness, 16 row        |
| <b>485 Module Extensions</b> |                              |
| 46775-1200S1                 | 485 Module Extension, 4 ft.  |
| 46775-1201S1                 | 485 Module Extension, 6 ft.  |
| 46775-1202S1                 | 485 Module Extension, 10 ft. |
| 46775-1203S1                 | 485 Module Extension, 15 ft. |
| 46775-1204S1                 | 485 Module Extension, 20 ft. |
| 46775-1205S1                 | 485 Module Extension, 25 ft. |
| 46775-1206S1                 | 485 Module Extension, 30 ft. |
| 46775-1207S1                 | 485 Module Extension, 40 ft. |
| 46775-1208S1                 | 485 Module Extension, 45 ft. |
| 46775-1209S1                 | 485 Module Extension, 50 ft. |

### NOTES:

- P1 modules address from end to middle; P2 modules address from middle to end.
- Lift Switch is optional.
- Power is not switched through the console due to worst case voltage drop on 128-row system.
- P2 is not required for systems with 4 modules or less (64 rows or less). P1 can drive 4 modules.

## Air Drill/Box Drill/Fertilizer Sensors

### Vigilense™

- Can replace existing sensors that sense material detection via a drilled hole or a flow-thru style
- Easy installation
- Detects all sizes of seeds, granular fertilizers, and pesticides
- Use with air seeders and grain drills
- Optical technology eliminates disturbance of seed flow
- Choose either a standard sensor for seed detection or an added stainless steel insert for fertilizer
- Mounting clamps included

| Part Number  | Description                                       |
|--------------|---------------------------------------------------|
| 46742-0701S1 | Sensor 25 mm                                      |
| 46742-0702S1 | Sensor 25 mm with Stainless Steel Insert          |
| 46742-0711S1 | Sensor 32 mm                                      |
| 46742-0712S1 | Sensor 32 mm with Stainless Steel Insert          |
| 46742-0730S1 | Sensor 32 mm with Stainless Steel Outlet Coupling |
| 46742-0720S1 | Sensor 45 mm                                      |
| 46742-0721S1 | Sensor 45 mm with Stainless Steel Insert          |



**Vigilense™**



**Vigilense™ with Stainless Steel Outlet Coupling**



**Hy Rate™ Grain Drill Sensor  
465260010S1**

### Hy Rate™ Grain Drill Sensor

- Delivers improved population counts
- Detects small seeds such as milo, beets, and cotton
- Compatible with many grain drill brands

| Part Number  | Description                |
|--------------|----------------------------|
| 46526-0010S1 | Hy Rate Grain Drill Sensor |



**Recon Flow**

### Recon Flow

- Cost-effective blockage detection
- Monitors seed and granular fertilizers and pesticides
- Use with air carts and grain drills

| Part Number  | Description       |
|--------------|-------------------|
| 46742-0010S1 | Recon Flow Sensor |

| Sensor Connector Pin Functions |       |           |
|--------------------------------|-------|-----------|
| Pin                            | Color | Function  |
| A                              | Green | Signal    |
| B                              | Black | Ground    |
| C                              | Red   | Power +8V |

### Adapters

| Part Number                 | Description                                                   |
|-----------------------------|---------------------------------------------------------------|
| <b>Sensor Tube Adapters</b> |                                                               |
| 46526-0040                  | JD 750 Sensor Adapter Kit, Rubber Tube Adapters for 4 Sensors |
| 46205-0860S1                | Recon Sensor Adapter to 1 1/4 in. Tube                        |
| 46205-0861                  | Gray Rubber Sensor Adapter - Recon Sensor                     |

## PM Series

### The PM Series of Planter Monitors offer:

- Row and ground speed monitoring
- Area and population count
- High and low population warning alarms
- Speed and area modes for quick field assessments
- Data retained in power losses
- Pre-set parameters for out-of-the-box operation
- Customizable features for advanced operation
- Multiple seed flow display options

### PM100/PM100E

- Monitors 16 rows
- Automatic sensor to detect seed flow
- LED row indicators
- Multiple row failure indicator options



**PM100**

| Part Number  | Description     |
|--------------|-----------------|
| 46794-0112S1 | PM100E (8 rows) |
| 46794-0111S1 | PM100 (16 rows) |



**PM300**

### PM300/300E/332E

- Monitors 16 rows (PM300) or 32 rows (PM332)
- Monitors ground speed, two hopper level sensors, one accessory input (fan, shaft, or flow)
- Pre-programmed planter configurations for easy setup
- Stores 3 planter configurations for split row planters or multiple planters and seeders
- Adjustable target population
- Lift switch input

| Part Number  | Description                                                                                              |
|--------------|----------------------------------------------------------------------------------------------------------|
| 46799-0200S1 | PM300 Monitor (16 rows)                                                                                  |
| 46799-0201S1 | PM300E Monitor (16 rows) Metric                                                                          |
| 46799-0380S1 | PM332E Monitor (32 rows) Metric                                                                          |
| 46799-1060   | PM300/400 Accessory Adapter                                                                              |
| 46799-1240   | PM300/400 Accessory Adapter 2 hopper and 1 frequency (shaft, fan, or RPM)<br>REQUIRES 46799-1060 harness |
| 467990370S1  | PM332 32 row w/ACC cable                                                                                 |

## PM Series

### PM400



PM400

- Monitors 36 rows
- Monitors ground speed, two hopper level sensors, one accessory input (shaft RPM, liquid flow meter rate, or fan RPM)
- Pre-programmed planter configurations for easy setup
- Stores 3 planter configurations for split row planters or multiple planters and seeders
- Adjustable target population
- Lift switch input

| PM400        |                                                                                                 |
|--------------|-------------------------------------------------------------------------------------------------|
| Part Number  | Description                                                                                     |
| 46799-0300S1 | PM400 Monitor                                                                                   |
| 46799-1060   | PM300/400 Accessory Adapter                                                                     |
| 46799-1240   | PM300/400 Accessory Adapter 2 hopper, 1 frequency (shaft, fan, RPM) REQUIRES 46799-1060 HARNESS |

### PM500



PM500

- Monitors 12 rows
- 12 row tramline (four rows simultaneously)
- Monitors ground speed, 2 hopper level sensors, 3 accessory inputs (shaft RPM, liquid flow meter rate, and fan RPM)
- Right and left marker input
- CAN-based external row shutoff module

| PM500        |               |
|--------------|---------------|
| Part Number  | Description   |
| 46799-0501S1 | PM500 Monitor |

#### Don't forget to select a:

- Seed Sensor
- Ground Speed Sensor
- Hopper Level Sensor
- Hall-Effect Sensor
- Flow Meter
- Implement Lift Switch

## Mounting Bracket

| PM300, PM400, PM500 |                  |
|---------------------|------------------|
| Part Number         | Description      |
| 46799-0150          | Pedestal bracket |
| 46799-0151          | Flat bracket     |

## Accessories

### Row Shutoff (PM500)



**Row Shutoff Module**

| Row Shutoff Module/Harnesses (PM500) |                              |
|--------------------------------------|------------------------------|
| Part Number                          | Description                  |
| 46799-0400S1                         | Row Shutoff Module           |
| 46799-1140                           | Row Shutoff Harness (12 row) |
| 46799-1100                           | Row Shutoff Harness (4 row)  |
| 46799-1110                           | Row Shutoff Harness (6 row)  |
| 46799-1120                           | Row Shutoff Harness (8 row)  |
| 46799-1130                           | Row Shutoff Harness (10 row) |

### Miscellaneous Tubes & Planter Sensors

| Planter Sensors |                                              |
|-----------------|----------------------------------------------|
| Part Number     | Description                                  |
| 45244-1450S1    | Sure Rate small grain curved tube and sensor |
| 45244-0971S1    | Great Plains Hi Rate tube and sensor         |
| 46579-0010S3    | Jeantill Plasem tube and sensor              |
| 45244-0971      | SLC Hi Rate tube and sensor                  |

### Sensor Adapters

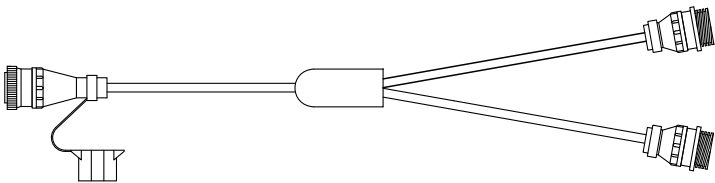
| Sensor Adapters |                                             |
|-----------------|---------------------------------------------|
| Part Number     | Description                                 |
| 45960-0220S2    | Sensor Adapter (old harness to new harness) |
| 45960-0170S1    | Sensor Adapter (new harness to old harness) |
| 45968-1140      | Sensor Adapter (CT harness to new harness)  |

### Console Adapters

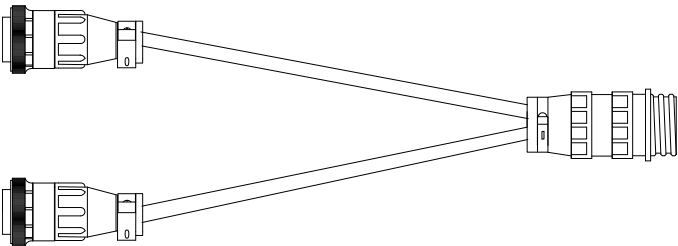
| Console Adapters |                                                           |
|------------------|-----------------------------------------------------------|
| Part Number      | Description                                               |
| 45841-1270       | John Deere Harness to DICKY-john® Console Adapter Harness |

Accessories

Harnesses

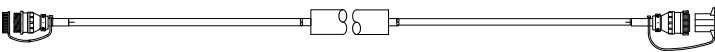


Y Cable



32 Row Reverse Y Harness

Use with single 32 row planter harness splitting rows 1-16 to a PDC-WSMT module and rows 17-32 to a WSMB module.



37-pin Harness Extension

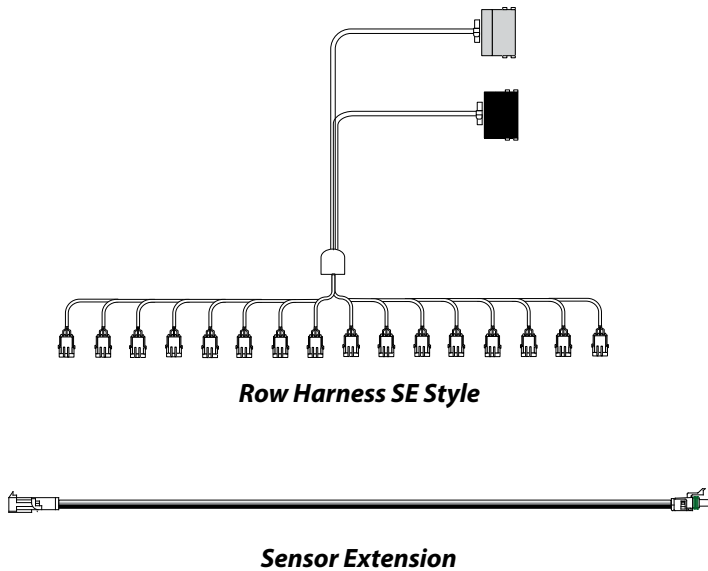


Sensor Extension

| Single Row Harnesses 37-pin CPC |      |                                               |
|---------------------------------|------|-----------------------------------------------|
| Part Number                     | Rows | Description                                   |
| 45841-0530                      | 4    | Planter Harness                               |
| 45841-0550                      | 6    | Planter Harness                               |
| 45841-0570                      | 8    | Planter Harness                               |
| 45841-0590                      | 12   | Planter Harness                               |
| 45841-1080                      | 16   | Planter Harness                               |
| 45968-0610                      | 8    | Y Cable to use 2-4 Row Planter Harnesses      |
| 45968-0960S1                    | 12   | Y Cable to use 2-6 Row Planter Harnesses      |
| 45968-0950S1                    | 16   | Y Cable to use 2-8 Row Planter Harnesses      |
| 45841-0600                      | 16   | 2-8 Row Planter Harness with 1-16 Row Y Cable |
| 45968-0940S1                    | 24   | Y Cable to use 2-12 Row Planter Harnesses     |
| 45841-0900S1                    | 32   | Y Cable to use 2-16 Row Planter Harnesses     |
| 46798-0445                      | 32   | John Deere Reverse Y Harness                  |
| 46798-0446                      | 32   | Reverse Y Harness                             |
| Row Harness Kits 37-pin CPC     |      |                                               |
| CASE IH                         |      |                                               |
| 45841-0860                      | 12   | Horizontal Fold                               |
| 45968-0321                      |      | Harness Extension 30 ft.                      |
| 45841-0610                      | 16   | Horizontal Fold                               |
| Kinze                           |      |                                               |
| 45841-0570                      | 8    | Econo Fold (6 ft. Extension required)         |
| 45841-0810                      | 16   | Harness Extension 6 ft.                       |
| 45841-0590                      | 12   | Econo Fold (6 ft. Extension required)         |
| Stacker Bar                     |      |                                               |
| 45841-1010                      | 12   | Tri-Cable                                     |
| 37-pin Harness Extensions       |      |                                               |
| 45841-0810                      | 16   | Harness Extension 6 ft.                       |
| 45968-0320                      | 16   | Harness Extension 15 ft.                      |
| 45968-0321                      | 16   | Harness Extension 30 ft.                      |
| 45841-0820S1                    | 32   | Harness Extension 15 ft.                      |
| 45841-0790S1                    | 32   | Harness Extension 30 ft.                      |
| Sensor Extensions               |      |                                               |
| 45968-0920                      |      | Sensor Extension 3 ft.                        |
| 45968-0923S1                    |      | Sensor Extension 4 ft.                        |
| 45968-0921                      |      | Sensor Extension 6 ft.                        |
| 45968-0922                      |      | Sensor Extension 15 ft.                       |

## Accessories

### Harnesses



| Row Harnesses SE Style RS485 Bus |      |                         |
|----------------------------------|------|-------------------------|
| Part Number                      | Rows | Description             |
| 46775-1300S1                     | 12   | Harness 7.5 in.         |
| 46775-1301S1                     | 12   | Harness 15 in.          |
| 46775-1302S1                     | 12   | Harness 30 in.          |
| 46775-1310S1                     | 16   | Harness 7.5 in.         |
| 46775-1311S1                     | 16   | Harness 15 in.          |
| 46775-1312S1                     | 16   | Harness 30 in.          |
| 46775-1320S1                     | 12   | Air Cart Harness        |
| 46775-1330S1                     | 16   | Air Cart Harness        |
| Sensor Extensions                |      |                         |
| 45968-0920                       |      | Sensor Extension 3 ft.  |
| 45968-0923S1                     |      | Sensor Extension 4 ft.  |
| 45968-0921                       |      | Sensor Extension 6 ft.  |
| 45968-0922                       |      | Sensor Extension 15 ft. |

### Tubes



| Part Number | Description                                                     | Compatible With            |
|-------------|-----------------------------------------------------------------|----------------------------|
| 46514-0040  | Small, curved tube; Hi-Rate Sensor                              | Deere, Kinze, Great Plains |
| 46514-0042  | Small, curved tube; blank tube                                  | Deere, Kinze, Great Plains |
| 46153-0522  | Small, curved vacuum tube; Hi-Rate Sensor, replaces 46153-0042A | Deere                      |
| 46153-0062A | Small, straight vacuum tube; Hi-Rate Sensor                     | Deere                      |
| 46514-0030C | Small, curved tube uses Hi-Rate Sensor                          | AGCO White                 |
| 46514-0041  | Small, curved tube uses Standard Rate Sensor (1/2" hole)        | John Deere 7000 Series     |

| Sensor Connector Pin Functions |       |           |
|--------------------------------|-------|-----------|
| Pin                            | Color | Function  |
| A                              | Green | Signal    |
| B                              | Black | Ground    |
| C                              | Red   | Power +8V |

### Connectors/Tools

| Connectors & Tools |                                                  |
|--------------------|--------------------------------------------------|
| Part Number        | Description                                      |
| 11059-0005         | CPC Connector Kit, 37-pin, (harness)             |
| 11059-0006         | CPC Connector Kit, 37-pin, (console)             |
| 11020-0010S1       | Pin Extractor, CPC                               |
| 11020-0013         | Pin Extractor, Packard                           |
| 11020-0002         | Crimping Tool, CPC                               |
| 42259-0003         | Dust Plug (CPC Harness Connector) 37-pin Planter |
| 42147-0003         | Dust Cap 37-pin Console                          |

Planter Chutes/Sensors/Population

Population (Counting) Sensors

Hy Rate™ Plus Sensors

- Accurately monitors seeding rates between 1 - 135 seeds per second across multiple seed types
- Utilizes a uniform 10-LED light field with virtually zero dead zones in the seed tube
- Ability to distinguish double, triple, and quad seed drops
- Reduces wind and dust effects on accurate seed counting by learning the seed type being planted

| Part Number  | Description                                                                                                                                                                                  |
|--------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 46283-3000S1 | AGCO, Monosem NG Plus                                                                                                                                                                        |
| 46283-3003S1 | John Deere "Flush Face" Seed Tubes. For use only in Cast Iron iron style shank found in XP series row units. Does not fit within stamped steel shank for Max Emerge, Max Emerge Plus or Pro. |
| 46283-3002S1 | Great Plains "Red" Seed Tube Air Pro (817827C)                                                                                                                                               |
| 46283-3001S1 | Horsch Seed Tube                                                                                                                                                                             |



Hy Rate™ Plus Sensor  
462833000S1



Hy Rate™ Sensor  
452440891AS1



UniRate™ Seed Sensor  
467701002S1



Sure Rate Sensor  
452441280S1

Hy Rate™ Sensor

- Detects small seeds like milo, beets, and cotton
- Use with many planter brands

| Part Number   | Description                                         |
|---------------|-----------------------------------------------------|
| 45244-0891AS1 | Hy Rate Sensor (used on seed tubes with 3/4" holes) |

Sure Rate/UniRate™ Sensors

| Part Number  | Description                                           |
|--------------|-------------------------------------------------------|
| 45244-1280S1 | Sure Rate Sensor (used on seed tubes with 3/4" holes) |
| 46770-1002S1 | UniRate Sensor (used on planters without seed tubes)  |

| Sensor Connector Pin Functions |       |           |
|--------------------------------|-------|-----------|
| Pin                            | Color | Function  |
| A                              | Green | Signal    |
| B                              | Black | Ground    |
| C                              | Red   | Power +8V |

## Miscellaneous Tubes and Sensors



**Small Grain Curved Tube  
with Hy Rate™ Sensor  
452440971S1**



**Small Grain Curved Tube for  
Hy Rate™ Sensor  
452440881A**



**Cyclo Sensor  
461642230S3**



**Hy Rate™ Cyclo Sensor  
454910750S1**



**Hy Rate™ for ASM™ Planter  
467760010S1**

| Planter Chutes                          |                                                           |
|-----------------------------------------|-----------------------------------------------------------|
| Part Number                             | Description                                               |
| <b>John Deere 1700 Series</b>           |                                                           |
| 45244-0971S1                            | Small Grain Curved Tube Hy Rate                           |
| 45244-0881A                             | Small Grain Curved Tube (vacuum) Hy Rate                  |
| <b>John Deere 7000/7100/7200 Series</b> |                                                           |
| 45244-0971S1                            | Small Grain Curved Tube Hyrate                            |
| 15135-0008                              | Small Tube A25925                                         |
| 45244-0881A                             | Small Grain Curved Tube (vacuum) Hy Rate chute and sensor |
| <b>Case IH</b>                          |                                                           |
| 46164-2230S3                            | 400/500/800/900 Cyclo Air                                 |
| 45491-0750S1                            | 800/900 Cyclo Air Hy Rate                                 |
| 46776-0010S1                            | Case ASM Hy Rate (sensor only) fits ASM tube              |
| <b>AGCO White</b>                       |                                                           |
| 45244-1010S3                            | 6100 Hy Rate                                              |
| <b>Kinze</b>                            |                                                           |
| 45244-0971S1                            | Hy Rate (all models)                                      |

Miscellaneous Tubes and Sensors



**PNU Sensor**  
**454650271**

**NG Plus Hy Rate™**  
**452440980**

**MS Vegetable**  
**467700100S1**

**Nodet Sensor**  
**453520360S1**

| Planter Chutes                |                                                 |
|-------------------------------|-------------------------------------------------|
| Part Number                   | Description                                     |
| Monosem Planter Compatibility |                                                 |
| 45244-0980                    | NG Plus Hy Rate                                 |
| 46770-0100S1                  | MS Vegetable (requires modified shoe)           |
| 46770-0090S1                  | Mecca 2000                                      |
| 46770-0351S1                  | NG Metermount Sensor                            |
| Nodet                         |                                                 |
| 45352-0370S1                  | Planter II                                      |
| 45352-0360S1                  | Nodet Chute and Sensor (Weather Pack connector) |
| 45352-0350S1                  | Nodet Sensor only (Weather Pack connector)      |
| Stanhay                       |                                                 |
| 46770-0220S1                  | Stanhay Dart II                                 |

## Poly/Stainless Steel/Nylon

Available in poly or stainless steel for spraying applications.



**Flow Meters**



**1/2" Low Flow Meter**



**Nylon Flow Meter**



**Reluctance Sensor Adapter**

### Features:

0.75-2 in. poly Flow Meter assemblies include:

- Flow Meter body with turbine, axle, and bearings
- Hall-Effect Sensor with 3-pin Weather Pack connector
- Hose barbs for inlet and outlet
- Viton o-rings
- Coupling nuts

3-4 in. poly Flow Meter assemblies include:

- Flow Meter body with turbine, axle, and bearings
- Hall-Effect Sensor with 3-pin Weather Pack connector
- Flanges with Viton o-rings for inlet and outlet
- Flat flanges (no o-rings)

| Flow Meters (Stainless Steel) |                                                                                         |                                      |
|-------------------------------|-----------------------------------------------------------------------------------------|--------------------------------------|
| Part Number                   | Description                                                                             | Flow Rate (GPM)                      |
| PMNPT70116S1                  | Flow Meter NPT Threads 0.5 in.                                                          | .79 - 7.9                            |
| PMNPT70121S1                  | Flow Meter NPT Threads 0.75 in.                                                         | 1.85 - 18.5                          |
| PMNPT70126S1                  | Flow Meter NPT Threads 2 in.                                                            | 19.00 - 198                          |
| PMNPT70136S1                  | Flow Meter NPT Threads 1.5 in.                                                          | 9.25 - 92.5                          |
| PMNPT70146S1                  | Flow Meter NPT Threads 2 in.                                                            | 19.00 - 198                          |
| Flow Meters (Nylon)           |                                                                                         |                                      |
| 46649-1170S1                  | GEM Flow Meter with insertable orifice 0.5 in. (output rate of 2,000 pulses per gallon) | 0.3-3 w/orifice<br>0.5-5 w/o orifice |
| PM00370023S1                  | Flow Meter Assembly 0.75 in. with 46788-1000S1 Sensors                                  | 1.85 - 18.5                          |
| PM00370030S1                  | Flow Meter Assembly 1 in. with 46788-1000S1 Sensor                                      | 2.64 - 26.4                          |
| PM00370040S1                  | Flow Meter Assembly 1.5 in. with 46788-1000S1 Sensor                                    | 9.25 - 92.5                          |
| PM00370048S1                  | Flow Meter Assembly 2 in. with 46788-1000S1 Sensor                                      | 19.00 - 198                          |
| PM00370048S2                  | Flow Meter Assembly 2 in. with 1.5 in. Hose Barbs                                       | 19.00 - 198                          |
| PM00370068                    | Flow Meter only 3 in. (no Sensor or Flanges)                                            | 39.6 - 396                           |
| PM00370068S1                  | Flow Meter Assembly 3 in. with Flanges and Sensor with 46788-1000S1 Sensor              | 39.6 - 396                           |
| PM00370088                    | Flow Meter only 4 in. (no Sensor or Flanges)                                            | 79.0 - 790                           |
| PM00370088S1                  | Flow Meter Assembly 4 in. with Flanges and Sensor                                       | 79.0 - 790                           |

## Reluctance Sensor Adapter

| Reluctance Sensor Adapter |                                               |
|---------------------------|-----------------------------------------------|
| Part Number               | Description                                   |
| 46788-1000S1              | Reluctance Sensor Adapter 3-pin Weather Pack  |
| 46788-1100S1              | Reluctance Sensor Adapter- Rapid Check        |
| 46788-1110S1              | Reluctance Sensor Adapter, 0.5 in. Flow Meter |

## Velocity Sensors



**Radar III**

| Connector Pin Numbers ID |       |                   |
|--------------------------|-------|-------------------|
| Pin No.                  | Color | Function/Voltage  |
| 1                        | Black | Ground            |
| 2                        | Green | Signal (Sq. Wave) |
| 3                        | Red   | +12V              |
| 4                        | Red   | Status            |



**Radar II**



**4 to 1 Adapter**



**Universal Speed Sensor and Magnet Kit**

| Connector Pin Numbers ID |       |                   |
|--------------------------|-------|-------------------|
| Pin No.                  | Color | Function/Voltage  |
| 1                        | Black | Ground            |
| 2                        | Green | Signal (Sq. Wave) |
| 3                        | Red   | +12V              |
| 4                        |       | N.C.              |

## Radar III

The Radar III Velocity sensor views ground surface for accurate ground speed detection.

**Features:**

- Compact
- Weighs only 1 lb.
- Velocity errors of less than or equal to 1-3% (vehicle speed dependent) after infield system calibration
- Can be mounted to view forward or backward from vehicle
- Replacement for Radar II

| Part Number  | Description                                                             |
|--------------|-------------------------------------------------------------------------|
| 46783-1000S9 | Radar III with Mounting Bracket and Hardware                            |
| 46783-3000S1 | Radar III Ground Speed Sensor and Damper Kit                            |
| 46783-0760   | Radar Mounting Plate with Hardware RVSIII                               |
| 45640-2100   | Radar Pipe Mounting Bracket                                             |
| 43940-0024   | Radar Extension 10 ft.                                                  |
| 43940-0064   | Radar Extension 25 ft.                                                  |
| 46787-0010S1 | 4-to-1 Radar Signal Adapter (runs 4 electronic consoles from 1 RVS III) |
| 46783-0780   | Vibration Isolation Hardware                                            |
| 46783-0811   | MDL 24V Step-DN 4.0M cbl w/fast-on term                                 |

## Radar II

| Part Number  | Description                            |
|--------------|----------------------------------------|
| 45640-1912S9 | Radar II with Mounting Brackets        |
| 45640-1912   | Radar II with Ground Speed Sensor only |
| 45640-2090   | Flat Radar Mounting Kit                |
| 45640-2100   | Radar Pipe Mounting Bracket            |
| 43940-0024   | 10 ft. Ground Speed Sensor Extension   |
| 46787-0010S1 | 4 to 1 Radar Signal Adapter            |

## Universal Speed Sensor

An economical, magnetic ground speed sensor kit.

**Features:**

- Magnets capture wheel rotation speed
- Easy attachment to vehicle axle and wheel
- No sprockets required or alignment with lug nuts

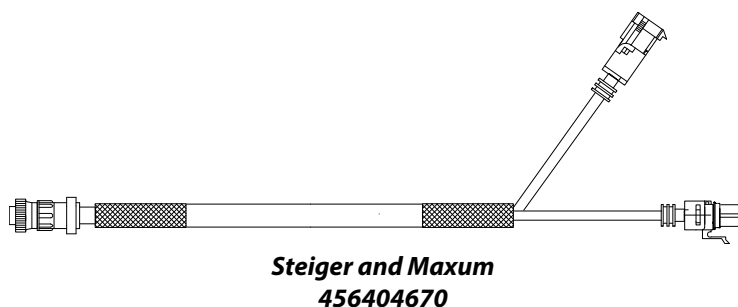
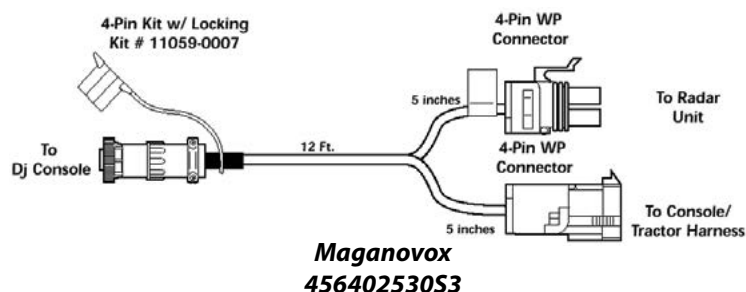
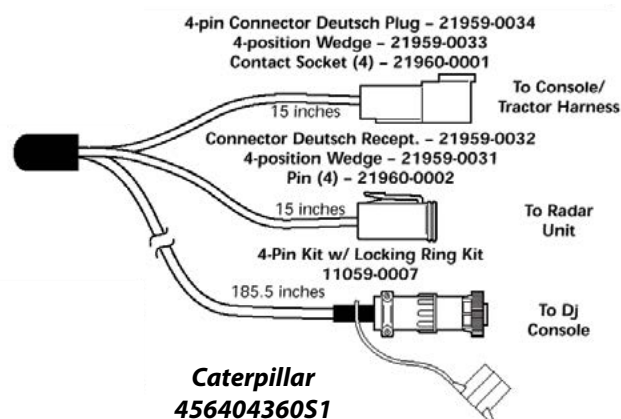
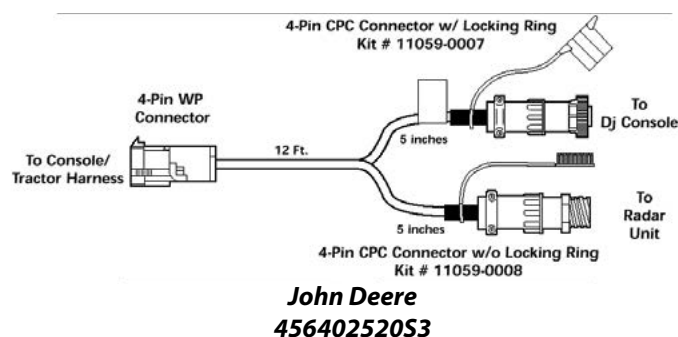
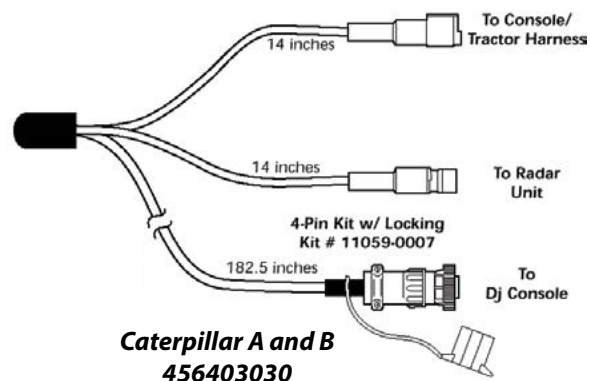
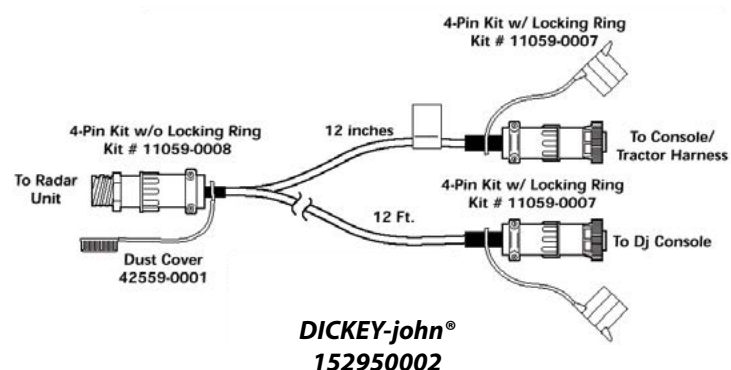
| Part Number | Description                                                     |
|-------------|-----------------------------------------------------------------|
| 45910-0150  | Universal Speed Sensor Kit (sensor, 60 magnets, muffler clamps) |
| 45910-0190  | Magnet Kit (60 magnets)                                         |
| 43940-0024  | 10 ft. Ground Speed Sensor Extension                            |

## iSpeed

| Part Number  | Description      |
|--------------|------------------|
| 46783-2020S1 | iSpeed (EU Only) |

## Sensor Cables

## Radar Y



Refer to Radar Y Cross Reference.

Sensor Cables

Radar Y Cross Reference

**Case IH**

| Model #     | Y-Cable Part# | Model #      | Y-Cable Part # | Model #      | Y-Cable Part # |
|-------------|---------------|--------------|----------------|--------------|----------------|
| 7110 Magnum | 15295-0002    | 5210 Maxum   | 45640-4670     | 9210 Steiger | 45640-4670     |
| 7120 Magnum | 15295-0002    | 5220 Maxum   | 45640-4670     | 9230 Steiger | 45640-4670     |
| 7130 Magnum | 15295-0002    | 5230 Maxum   | 45640-4670     | 9240 Steiger | 45640-4670     |
| 7140 Magnum | 15295-0002    | 5240 Maxum   | 45640-4670     | 9250 Steiger | 45640-4670     |
| 7150 Magnum | 15295-0002    | MX80         | 45640-4670     | 9270 Steiger | 45640-4670     |
| 7210 Magnum | 15295-0002    | MX90         | 45640-4670     | 9280 Steiger | 45640-4670     |
| 7220 Magnum | 15295-0002    | MX100        | 45640-4670     | 9310         | 45640-4670     |
| 7230 Magnum | 15295-0002    | MX110        | 45640-4670     | 9330         | 45640-4670     |
| 7240 Magnum | 15295-0002    | MX120        | 45640-4670     | 9350         | 45640-4670     |
| 7250 Magnum | 15295-0002    | MX130        | 45640-4670     | 9370         | 45640-4670     |
| 8910 Magnum | 15295-0002    | MX150        | 45640-4670     | 9380         | 45640-4670     |
| 8920 Magnum | 15295-0002    | MX170        | 45640-4670     | 9390         | 45640-4670     |
| 8930 Magnum | 15295-0002    | 9110 Steiger | 45640-4670     | STX275       | 45640-4670     |
| 8940 Magnum | 15295-0002    | 9130 Steiger | 45640-4670     | STX325       | 45640-4670     |
| 8950 Magnum | 15295-0002    | 9150 Steiger | 45640-4670     | STX375       | 45640-4670     |
| 5110 Maxum  | 45640-4670    | 9170 Steiger | 45640-4670     | STX425       | 45640-4670     |
| 5120 Maxum  | 45640-4670    | 9180 Steiger | 45640-4670     | STX440       | 45640-4670     |
| 5130 Maxum  | 45640-4670    | 9190 Steiger | 45640-4670     | STX450       | 45640-4670     |
| 5140 Maxum  | 45640-4670    |              |                |              |                |

**Caterpillar**

| Model # | Y-Cable Part # | Model # | Y-Cable Part # | Model # | Y-Cable Part # |
|---------|----------------|---------|----------------|---------|----------------|
| 65A     | 45640-3030     | 65C     | 45640-4360S1   | 85D     | 45640-4360S1   |
| 65B     | 45640-3030     | 75C     | 45640-4360S1   | 65E     | 45640-4360S1   |
| 75B     | 45640-3030     | 85C     | 45640-4360S1   | 75E     | 45640-4360S1   |
| 35      | 45640-4360S1   | 65D     | 45640-4360S1   | 85E     | 45640-4360S1   |
| 45      | 45640-4360S1   | 75D     | 45640-4360S1   | 95E     | 45640-4360S1   |
| 55      | 45640-4360S1   |         |                |         |                |

**John Deere**

| Model # | Y-Cable Part # | Model # | Y-Cable Part # | Model #      | Y-Cable Part # |
|---------|----------------|---------|----------------|--------------|----------------|
| 4455    | 45640-2520S3   | 7400    | 45640-2520S3   | 7810         | 45640-2530S3   |
| 4555    | 45640-2520S3   | 7600    | 45640-2530S3   | 8000         | 45640-2530S3   |
| 4755    | 45640-2520S3   | 7700    | 45640-2530S3   | 8000T        | 45640-2530S3   |
| 4955    | 45640-2520S3   | 7800    | 45640-2530S3   | 8010         | 45640-2530S3   |
| 4560    | 45640-2520S3   | 7210    | 45640-2530S3   | 8010T        | 45640-2530S3   |
| 4760    | 45640-2520S3   | 7410    | 45640-2530S3   | 8300 Series* | 45640-4810     |
| 4960    | 45640-2520S3   | 7610    | 45640-2530S3   | 9400 Series* | 45640-4810     |
| 7200    | 45640-2520S3   | 7710    | 45640-2530S3   |              |                |

\*Note: In-Cab 2 Pin Convenience Plug

## GAC™ 2500



### GAC™ 2500-INTL Languages:

|                      |            |
|----------------------|------------|
| Brazilian Portuguese | Italian    |
| Chinese              | Latvian    |
| Czech                | Lithuanian |
| Croatian             | Polish     |
| Danish               | Portuguese |
| Dutch                | Romanian   |
| English              | Russian    |
| Estonian             | Serbian    |
| French               | Slovak     |
| German               | Spanish    |
| Hungarian            | Swedish    |

## INTL

The GAC™ 2500 is a commercial-use grain moisture analyzer that uses 149 MHz analysis technology. 149 MHz technology provides accurate analysis at extreme grain temperatures. This analyzer quickly tests grain and automatically calculates moisture content, temperature, and test weight (density) of the sample.

Software updates, calibrations, and new products can be imported to unit using a USB memory device. Calibrations for specialty crops are available such as Nuts, Sorghum, Popcorn, Flax, and Canola.

A complete list of calibrations can be found at the DICKY-john® calibration web page: <http://cal.dickey-john.com/calibrations.aspx>

**Models available :** GAC 2500-INTL

### GAC™ 2500-INTL Features

- -4 degrees F to +113 degrees F on grain moisture up to 18%
- Automatic temperature compensation
- Moisture Range 5 to 45% (grain dependent)
- Long-term storage of grain tests
- Easy-to-use color touch screen
- Large internal memory capacity
- USB and RS232 serial port connections and Ethernet
- External device compatible (keyboard, mouse, printer)
- Optional password protection
- Equipped with 22 languages that displays user screens in the language selected
- Security switch to lock certain screens as required by the local governing agency

| GAC™ 2500       |                                           |
|-----------------|-------------------------------------------|
| Part Number     | Description                               |
| GAC2500INTLR    | Grain Moisture Analyzer with 22 languages |
| Accessories     |                                           |
| 46807-1541      | Standard Drawer                           |
| DRAWEROPGAC2500 | Bottomless Drawer                         |
| 46807-1325      | Drawer Sensor                             |
| 20315-0005      | 220V Power Cord                           |
| 20315-0002      | 110V Power Cord                           |
| 20641-0003      | Cleaning Brush                            |
| 1100111655A     | GAC 2500 INTL Operator's Manual (English) |

GAC™ 2700



AGRI

The GAC™ 2700-AGRI is an affordable moisture tester that uses the newest analysis technology to provide repeatable results, just like the instruments at the elevator.

Features:

- Utilizes 149 MHz technology to provide elevator-like results
- Easy-to-use, intuitive color touch screen eliminates operator training
- Accurate temperature-sensing capabilities to measure frozen and hot grain
- Stores up to 8 grain calibrations
- Memory storage for up to 3,000 measurements
- Multiple USB ports on the back of the unit for software upgrades, USB devices, and peripherals
- Additional USB ports located on the front of unit for easy calibration imports, as well as keyboard and mouse plug-ins for inputting set-up data
- Operating temperature: 36 to 113 degrees F (2 to 45 degrees C)
- Grain temperature: -4 degrees F to +113 degrees F (-20 degrees to +45 degrees C) depending on grain calibrations
- Storage/transit temperature: -4 to +140 degrees F (-20 to +60 degrees C)
- Moisture range: 5 to 45% (grain dependent)

| GAC™ 2700       |                                 |
|-----------------|---------------------------------|
| Part Number     | Description                     |
| GAC2700AGRI     | Grain Moisture Analyzer         |
| Accessories     |                                 |
| 46807-1541      | Standard Drawer                 |
| DRAWEROPGAC2500 | Bottomless Drawer               |
| 46807-1325      | Drawer Sensor                   |
| 20315-0005      | 220V Power Cord                 |
| 20315-0002      | 110V Power Cord                 |
| 20641-0003      | Cleaning Brush                  |
| 6015940         | GAC 2700-AGRI Operator's Manual |

## GAC™ 2700



## UGMA

Building on the success of the GAC™ 2500, the GAC™ 2700 provides NTEP and FGIS certified results to ensure that you are receiving the accurate information you need in order to achieve optimum profitability for your operation.

Grain moisture, temperature and test weight are provided for both stand alone instrument or integrated system software solutions.

**Models available :** GAC 2700-UGMA

### GAC™ 2700-UGMA Features

- -4 degrees F to +113 degrees F on grain moisture up to 18%
- Automatic temperature compensation
- Moisture Range 5 to 45% (grain dependent)
- Long-term storage of grain tests
- Easy-to-use color touch screen
- Large internal memory capacity
- USB and RS232 serial port connections and Ethernet
- External device compatible (keyboard, mouse, printer)
- Optional password protection
- Equipped with 22 languages that displays user screens in the language selected
- Security switch to lock certain screens as required by the local governing agency

| GAC™ 2700       |                                           |
|-----------------|-------------------------------------------|
| Part Number     | Description                               |
| GAC2700UGMAR    | Grain Moisture Analyzer                   |
| Accessories     |                                           |
| 46807-1541      | Standard Drawer                           |
| DRAWEROPGAC2500 | Bottomless Drawer                         |
| 46807-1325      | Drawer Sensor                             |
| 20315-0005      | 220V Power Cord                           |
| 20315-0002      | 110V Power Cord                           |
| 20641-0003      | Cleaning Brush                            |
| 6015530         | GAC 2700 UGMA Operator's Manual (English) |

GAC™ 2700



LF

The GAC™ 2700-LF is a state-of-the-art instrument measuring moisture for raw, processed, or roasted nuts, ensuring precise readings across almonds, pistachios, peanuts, and more nut types.

Features:

- Utilizes 149 MHz technology, developed by the USDA
- Measurement results in less than 20 seconds
- Memory storage for up to 5,000 measurements
- Bar code scanner capability to expedite processing time
- Large 7" touch screen display for greater visibility and responsiveness
- Integrated software solution capabilities
- Modern, intuitive operator interface simplifies training and daily operation
- Multiple USB ports on the front and back for software upgrades, USB devices, printer and peripherals
- Advanced instrument security protects the GAC™ 2700-LF from tampering, adding layers of protection to commercial transactions
- Custom calibration development available. Please contact DICKEY-john® for more information.

| GAC™ 2700       |                               |
|-----------------|-------------------------------|
| Part Number     | Description                   |
| GAC2700LF       | Grain Moisture Analyzer       |
| Accessories     |                               |
| 46807-1541      | Standard Drawer               |
| DRAWEROPGAC2500 | Bottomless Drawer             |
| 46807-1325      | Drawer Sensor                 |
| 20315-0005      | 220V Power Cord               |
| 20315-0002      | 110V Power Cord               |
| 20641-0003      | Cleaning Brush                |
| 6017233         | GAC 2700-LF Operator's Manual |

## GAC™ 2100 Series

The GAC™ 2100 Series delivers accurate and reliable moisture, temperature, and test weight results quickly and consistently for applications including cereals, oil seeds, grass seeds, vegetable seeds, and beans.

### Features:

- Measurement through capacitance, conductance, weight
- Testing for a moisture range of at least 5 to 45% grain dependent
- Automatic temperature compensation
- Moisture repeatability of  $\pm 0.1\%$  (depending on application)
- Standard RS232 output
- Power supply of 85-264 VAC, 48-62 Hz at 20 VA consumption
- 110/220 VAC



**GAC™ 2100 G Series**



**GAC™ 2100 Agri Series**



**GAC™ 2100 Drawer**

| GAC™ 2100      |                       |                              |               |
|----------------|-----------------------|------------------------------|---------------|
| Part Number    | Description           | Maximum # Grain Calibrations | Country       |
| GAC2100AGZS9   | Grain Moisture Tester | 8                            | U.S.          |
| GAC2100AGIARS9 | Grain Moisture Tester | 8                            | International |
| GAC2100GIARS9  | Grain Moisture Tester | 16                           | International |
| GAC2100GZS9    | Grain Moisture Tester | 16                           | U.S.          |
| Accessories    |                       |                              |               |
| 46422-0420BS1  | Drawer                |                              |               |

GAC™ 500XT Series



The GAC™ 500XT is a compact, cost-effective unit to analyze grain moisture, temperature, and test weight anywhere on the farm with elevator-quality accuracy.

Features:

- Sixteen grain calibration memory
- Grain testing results in 25 seconds
- Automatic moisture and temperature reading
- Approximate test weight reading
- Updatable calibrations
- Semi portable
- ±0.2 moisture repeatability
- More than 450 calibrations available for download
- 110/220 volt, DC converter, or cigarette lighter power sources
- Pre-loaded with 10 languages (others available)
- Printer port
- Easily transport unit from field to field
- RS232 serial output to printer or data



Power Cord & Adapter  
46795-0155

| GAC™ 500XT  |                         |
|-------------|-------------------------|
| Part Number | Description             |
| GAC500XTR   | Grain Moisture Analyzer |
| Accessories |                         |
| 46795-0155  | Power Cord and Adapter  |
| 46795-0480  | Drawer                  |
| 46795-0190  | 6V Power Adapter        |



6V Power Adapter  
46795-0190

## mini GAC™ / mini GAC™ Plus



**mini GAC™**

| <b>mini GAC™ with Language Group 1</b><br><b>Languages:</b> English US, English UK, English AU, French, German, Italian, Spanish, Portuguese, Dutch, Danish, Polish |                                                        |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------|
| Part Number                                                                                                                                                         | Description                                            |
| MINIGAC1R                                                                                                                                                           | mini GAC with a lithium battery                        |
| MINIGAC1RA                                                                                                                                                          | mini GAC without a battery                             |
| MINIGAC1ER                                                                                                                                                          | mini GAC with a lithium battery with operator's manual |
| MINIGAC1ERA                                                                                                                                                         | mini GAC with operator's manual without a battery      |
| MINIGAC1EAPR                                                                                                                                                        | mini GAC with a lithium battery with accessory pack    |
| MINIGAC1EAPRA                                                                                                                                                       | mini GAC with accessory pack without a battery         |

| <b>mini GAC™ with Language Group 2</b><br><b>Languages:</b> English US, Turkish, Romanian, Finnish, Serbian, Croatian, Hungarian, Czech, Slovak, Afrikaans |                                                     |
|------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------|
| Part Number                                                                                                                                                | Description                                         |
| MINIGAC2R                                                                                                                                                  | mini GAC with a lithium battery                     |
| MINIGAC2RA                                                                                                                                                 | mini GAC without a battery                          |
| MINIGAC2APR                                                                                                                                                | mini GAC with a lithium battery with accessory pack |
| MINIGAC2APRA                                                                                                                                               | mini GAC with accessory pack without a battery      |

| Part Number | Description                     |
|-------------|---------------------------------|
| MINIGAC3R   | mini GAC with a lithium battery |
| MINIGAC3RA  | mini GAC without a battery      |

## Portable Moisture Testers

The handheld mini GAC™ provides precision, portable moisture testing right in the field delivering "grain-trade" accuracy.

### Features:

- Stores up to 20 grain calibrations with more than 450 calibrations available
- Moisture range 5 - 45% (depending on grain type)
- 0.2% moisture repeatability (depending on grain type)
- Internal scale - no pre-weighing
- USB compatibility for calibration loading
- Test grain hot or cold (32-122° F)
- Menu-driven operating system
- Automatic temperature compensation

### Certain models are equipped with:

- Carry case
- Belt clip

### mini GAC™ / mini GAC™ Plus Pre-programmed Calibrations for English U.S.

- |             |                 |
|-------------|-----------------|
| • Barley 2R | • Rye           |
| • Barley 6R | • Safflower     |
| • Corn      | • Sorghum       |
| • Corn Hi   | • Soybeans      |
| • Durum     | • Sunflower Oil |
| • Millet    | • Wheat HRS     |
| • Oats      | • Wheat HRW     |
| • Rapeseed  | • Wheat SRW     |

(other languages may have a different calibration set than listed above)

**mini GAC™:** Model measures moisture only and comes shipped in a cardboard box.

mini GAC™ Plus

**mini GAC™ Plus:** Tester measures moisture and test weight. Includes carry case and belt clip.



**mini GAC™ Plus**  
(Carry Case and Belt Clip included with some models)



Portable Moisture Testers

| mini GAC™ Plus with Language Group 1                                                                               |                                      |
|--------------------------------------------------------------------------------------------------------------------|--------------------------------------|
| Languages: English US, English UK, English AU, French, German, Italian, Spanish, Portuguese, Dutch, Danish, Polish |                                      |
| Part Number                                                                                                        | Description                          |
| MINIGAC1PR                                                                                                         | mini GAC Plus with a lithium battery |
| MINIGAC1PRA                                                                                                        | mini GAC Plus without a battery      |

| mini GAC™ Plus with Language Group 2                                                                      |                                      |
|-----------------------------------------------------------------------------------------------------------|--------------------------------------|
| Languages: English US, Turkish, Romanian, Finnish, Serbian, Croatian, Hungarian, Czech, Slovak, Afrikaans |                                      |
| Part Number                                                                                               | Description                          |
| MINIGAC2PR                                                                                                | mini GAC Plus with a lithium battery |
| MINIGAC2PRA                                                                                               | mini GAC Plus without a battery      |

| mini GAC™ Plus with Language Group 3      |                                      |
|-------------------------------------------|--------------------------------------|
| Languages: English US, Russian, Bulgarian |                                      |
| Part Number                               | Description                          |
| MINIGAC3PR                                | mini GAC Plus with a lithium battery |
| MINIGAC3PRA                               | mini GAC Plus without a battery      |

| Accessories  |                       |
|--------------|-----------------------|
| Part Number  | Description           |
| 46789-1160   | Carry Case            |
| 46789-0950   | Belt Clip             |
| 46789-0860S1 | Funnel Scoop Assembly |

## mini GAC™ 2500

The most accurate handheld moisture tester that provides fast and easy results. Now with 149 MHz - UGMA technology to match the new moisture testers at the elevator.

### Features:

- Simplifies operation with menu-driven interface
- Eliminates pre-weighing with an internal scale
- Avoids cumbersome screw caps that can cause grain damage and oily residue
- Easily loads calibrations through a USB port
- Tests hot or cold grain between 32 and 150°F (0 - 66°C), grain and moisture dependent (check the Dj website for specific calibration parameters)
- Receives accurate measurements in a variety of conditions with automatic temperature compensation



**mini GAC™ 2500**



## Portable Moisture Testers

| <b>mini GAC™ 2500 for the Americas</b><br><b>Languages:</b> English (US), French (Canadian), Spanish, Portuguese |                                             |
|------------------------------------------------------------------------------------------------------------------|---------------------------------------------|
| Part Number                                                                                                      | Description                                 |
| MINIGAC2500NBT                                                                                                   | Non-Bluetooth tester with a lithium battery |
| MINIGAC2500NBTA                                                                                                  | Non-Bluetooth tester without a battery      |

| <b>mini GAC™ 2500 for Eastern Europe</b><br><b>Languages:</b> English (US), Serbian, Hungarian, Romanian, Czech, Slovak, Polish |                                             |
|---------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|
| Part Number                                                                                                                     | Description                                 |
| MINIGAC2500NBT2                                                                                                                 | Non-Bluetooth tester with a lithium battery |
| MINIGAC2500NBTA2                                                                                                                | Non-Bluetooth tester without a battery      |

| <b>mini GAC™ 2500 for the Baltic Countries</b><br><b>Languages:</b> English (US), Lithuanian, Latvian, Estonian |                                             |
|-----------------------------------------------------------------------------------------------------------------|---------------------------------------------|
| Part Number                                                                                                     | Description                                 |
| MINIGAC2500NBT4                                                                                                 | Non-Bluetooth tester with a lithium battery |
| MINIGAC2500NBTA4                                                                                                | Non-Bluetooth tester without a battery      |

| <b>mini GAC™ 2500 for the remainder of Europe</b><br><b>Languages:</b> English (US), Turkish, Finnish, Danish |                                             |
|---------------------------------------------------------------------------------------------------------------|---------------------------------------------|
| Part Number                                                                                                   | Description                                 |
| MINIGAC2500NBT3                                                                                               | Non-Bluetooth tester with a lithium battery |
| MINIGAC2500NBTA3                                                                                              | Non-Bluetooth tester without a battery      |

| <b>mini GAC™ 2500 for Africa</b><br><b>Languages:</b> English (US), Afrikaans, French, Dutch, Portuguese |                                             |
|----------------------------------------------------------------------------------------------------------|---------------------------------------------|
| Part Number                                                                                              | Description                                 |
| MINIGAC2500NBT5                                                                                          | Non-Bluetooth tester with a lithium battery |
| MINIGAC2500NBTA5                                                                                         | Non-Bluetooth tester without a battery      |

M3G™/M20P™



M3G™/M20P™



Lid/Cup

**Note:** M3G™/M20P™ is not available in EU Countries due to not being RoHS Compliant

46789-0500S1

- Barley 2R
- Barley 6R
- Corn
- Dactyle
- Durum
- Horsebean
- Lupine
- Oats
- Peas
- Rapeseeds
- Ray Grass
- Rice
- Rye
- Soybeans
- Sunflower
- Tritical
- Wheat (Soft)

46789-0502S1 (US Version)

- Barley 2R
- Barley 6R
- Corn
- Dactyle
- Durum
- Horsebean
- Lupine
- Milo
- Oats
- Peas
- Rapeseeds
- Ray Grass
- Rice
- Rye
- Soybeans
- Sunflower
- Tritical
- Wheat (HRWW)

Portable Moisture Testers

The M3G™/M20P™ portable moisture testers provide high-speed, repeatable moisture testing in a lightweight unit.

- Moisture readings and averages can be stored for up to 10 individual samples
- ±0.5% repeatability with normal stored grain
- Scoop or catch sample
- Density compensation without weighing or compressing samples
- Lid/cup for storage only

M3G Features:

- Basic moisture testing
- Test up to 3 grains
- Pre-programmed calibrations for Corn, Soybeans, and Wheat (Additional calibrations are found in the M3G™ Product Support page on our website)

M20P Features:

- Basic moisture testing
- Test up to 20 grains
- Pre-programmed calibrations for Corn, Soybeans, Wheat, Rice, Oats, Sunflowers, Peas, Durum, Tritical, Rye, English Ray Grass, Horsbean, Dactyle, Rapeseed, Barley, Lupine, Milho Alta and Baixa (Portugal), Milo (US), Soja (Portugal), Trigo (Portugal). Additional calibrations are found in the M20P Product Support page on our website.

| M3G          |                                              |
|--------------|----------------------------------------------|
| Part Number  | Description                                  |
| 46789-0010S1 | M3G Moisture Tester                          |
| 46789-0014S1 | M3G Moisture Tester; pecan calibration only. |
| 46789-0140   | Lid/Cup                                      |

| M20P         |                                   |
|--------------|-----------------------------------|
| Part Number  | Description                       |
| 46789-0500S1 | M20P Moisture Tester              |
| 46789-0502S1 | M20P Moisture Tester (US Version) |
| 46789-0140   | Lid/Cup                           |

## Instalab™ 700 NIR Product Analyzer

The Instalab™ 700 (IL700) is a self-contained optical reflectance instrument designed to quickly and accurately measure the percent of constituent concentration (moisture, protein, oil, starch, fiber, ash, etc.) in a wide range of commodities common to the grain, feed, and food industries. Near Infrared reflectance (NIR) technology within the unit analyzes numerous solid, semi-solid, and liquid materials and is an alternative to wet chemistry. With sufficient calibration data, the Instalab provides accuracy comparable to laboratory results.



### Features:

- 110/220 VAC
- Automatic and manual gain selection adjusts the gain for low-reflectance samples
- Thermo-electrically-cooled detector that maximizes sensitivity and dynamic range
- A completely sealed and thermally isolated optics chamber
- An integrated, computerized self-test mode to continuously monitor instrument performance and pinpoint errors
- Non-volatile flash memory stores calibrations and other system parameters

### Applications:

- Grain processing
- Feed processing
- Meat processing
- Textile manufacturing
- Flour milling
- Ethanol production
- Vegetable oil processing
- Dairy product processing

### Languages:

- |                     |              |
|---------------------|--------------|
| • English (default) | • Polish     |
| • Czech             | • Portuguese |
| • French            | • Romanian   |
| • German            | • Russian    |
| • Hindi             | • Serbian    |
| • Hungarian         | • Spanish    |
| • Italian           | • Ukrainian  |
| • Japanese          |              |

| Instalab™ 700 Series |                                          |                                                                                                                                                                              |
|----------------------|------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Part Number          | Application                              | Description                                                                                                                                                                  |
| IL710R               | Custom                                   | 6 filters, 4 customer-selected filters, more than 50 wavelengths available for special applications                                                                          |
| IL710EPR             | Ethanol                                  | Special configuration for the DDG market                                                                                                                                     |
| IL710FGR             | Flour milling                            | 10 filters, 650 NM optical filter for color measurement, fiber and cellulose determination                                                                                   |
| IL710FMR             | General purpose dry milling grain/feed   | 10 filters, dry milling grain/feeds, 650 NM optical filter                                                                                                                   |
| IL710GLR             | Glucose                                  | Glucosinolates                                                                                                                                                               |
| IL710MCR             | Dairy                                    | 10 filters, Food ingredients and grain such as meat, cheese, dairy, poultry, fishmeal, and bonemeal products                                                                 |
| IL710SBR             | Protein/oil in soybeans/wet corn milling | 10 filters                                                                                                                                                                   |
| IL704R               | Moisture/Protein                         | For wheat, flour, barley, milo, oats type products                                                                                                                           |
| IL706R               | Moisture/Protein/Fat/Oil                 | 6 filters, moisture, protein, oil/fat, starch, fiber, ash, and other constituents in products such as Wheat, Corn, Soybean, Sunflower, Rapeseed, Barley, Milo, Oats, Alfalfa |
| IL707FMR             | General/ Dry Milling                     | 7 filters, 650 NM optical filter for color measurement, fiber and cellulose determination, dry milling of grain and animal feeds                                             |
| IL707R               | Grain                                    | Moisture, protein, oil/fat, starch, fiber, ash, and other constituents in products such as Wheat, Corn, and Soybean                                                          |

Instalab™ 700 Accessories

IL700 offers numerous cup styles for a variety of applications. The unit is shipped with the standard cup and tool accessory kit. All other cups are optional.

- Standard cup
- Liquid stainless steel cup for liquid/ethanol material
- Open sample cup for semi-solid (pastes and slurries) and solids (meats and cheeses)
- Large open cup for whole sample-type grain



IL700 Standard Sample Cup



IL700 Liquid Sample Cup



IL700 Open Sample Cup/Holder



IL700 Large Open Sample Cup/Holder



IL700 Sample Tool Accessory Kit

| Instalab™ 700 Accessories |                                                                  |
|---------------------------|------------------------------------------------------------------|
| Part Number               | Description                                                      |
| 46811-1330S1              | Air Filter/Cover/Guard (housing) Assembly                        |
| 46811-1330S2              | 5-Pack of Air Filters (w/o housing)                              |
| 11021-0002                | Standard Sample Cup                                              |
| 45592-1650                | Open Sample Cup (tray/3 cups)                                    |
| 46803-0100                | Liquid Sample Cup Cover (liquid/ethanol)                         |
| 46803-0110                | Liquid Sample Cup Base (liquid/ethanol)                          |
| 46811-1211                | Large Open Sample Cup 4" Holder                                  |
| 46811-1410                | Large Open Sample Cup 4"                                         |
| 46811-1440                | Sample Tool Accessory Kit (scoopula, handle, 2 brushes, spatula) |
| 20845-0003                | Scoopula and Scoopula Handle                                     |
| 21114-0001                | #54 Brush 1"                                                     |
| 21114-0002                | #9501 Brush 3/8"                                                 |
| 11021-0005                | Spatula                                                          |
| 11001-1574                | IL 700 Operator's Manual                                         |

## Printer and Accessories



**Strip Printer**



**RS232 Cable (9-pin Female to 9-pin Male)**



**RS232 Cable (25-pin Male to 25-pin Male)**



**USB Type A to B Cable**



**Gender Changer**



**Null Modem Adapter**

| Printer     |                      |
|-------------|----------------------|
| Part Number | Description          |
| 466780011   | RS232 Printer (Gray) |
| 466780012   | USB Printer (Gray)   |

| Printer Accessories |                                                   |
|---------------------|---------------------------------------------------|
| Part Number         | Description                                       |
| 220120002           | Printer Cable 25M to 25M (GAC 2100, 500XT)        |
| 220120003           | RS232 Cable 9-pin F to 9-pin M (GAC 2500, IL700)  |
| 220490001           | DB9 Null Modem Adapter 9-pin                      |
| 220490002           | Gender Changer 9-pin                              |
| 220490003           | Null Modem Adapter 25-pin                         |
| 220120004           | USB Type A to B Cable (GAC 2500, mini GAC, IL700) |

Tester

A Soil Compaction Tester is used by pushing into the ground at different locations to find problem areas that can inhibit root growth and reduce yields.

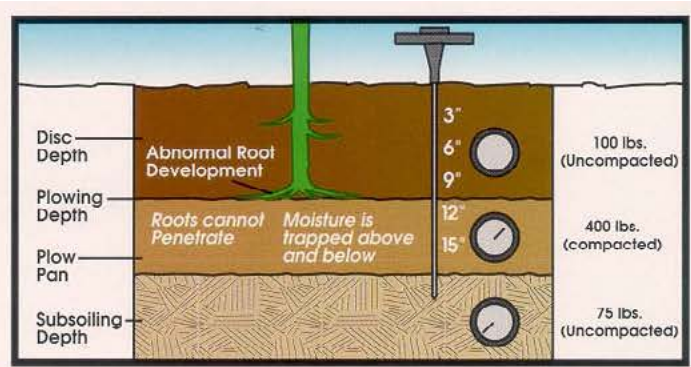
Features:

- Rugged, molded housing and handle
- Color-coded stainless steel dial, liquid filled to reduce shock
- Stainless steel rod with marks at regular intervals



| Soil Compaction Tester |                                   |
|------------------------|-----------------------------------|
| Part Number            | Description                       |
| 15585-0003AS1          | Soil Compaction Tester (Imperial) |
| 15585-0015S1           | Soil Compaction Tester (Metric)   |
| 46347-0040             | Replacement Tip 1/2 in.           |
| 46347-0010             | Replacement Tip 3/4 in.           |

Typical Compaction Situation





**Application Rate Sensor**

## Application Rate Sensor Tester

An Application Rate Sensor Tester quickly tests sensors installed on a vehicle. The tester provides an audible alarm with each degree of rotation from the application rate sensor.

**Features:**

- Battery operated
- No external power source required

| Part Number | Description                    |
|-------------|--------------------------------|
| 45007-0066  | Application Rate Sensor Tester |



**Seed Tester 90**

## Seed Tester 90

Seed Tester 90 accurately verifies sensor operation.

**Features:**

- Battery operated
- No external power source required

| Part Number  | Description    |
|--------------|----------------|
| 45007-006553 | Seed Tester 90 |



**Seed Simulator**

## Seed Simulator

Simulates seed sensor and radar ground speed signals on planters up to 36 rows. Can demonstrate functionality of most Dickey-john® planter monitors (PM100, 200, 300, 400, 500, 600, 1000, 3000, Seed Manager™ SE and ASM™ II). An adapter cable is required to connect to the appropriate planter monitor.

**Features:**

- Replicates one or all row failure
- Reproduces two seeding rates for both Corn and Soybeans
- Checks the planter monitor +8 volt supply to the seed sensors and +12 volt supply to radar

| Part Number  | Description    |
|--------------|----------------|
| 46790-1000S1 | Seed Simulator |



**Vehicle Ground Speed Simulator 200**

## Vehicle Ground Speed Simulator

Simulates speed signal input from Radar II and III ground speed sensor ensuring that cabling and console are accepting inputs.

| Part Number  | Description                              |
|--------------|------------------------------------------|
| 45640-4511S1 | Vehicle Ground Speed Simulator (VGSS200) |

Adapters

An adapter cable is required to connect the planter monitor to the simulator/tester.



PM100 Adapter Cable



PM300 Adapter Cable



PM400 Adapter Cable



PM500 Adapter Cable

| Adapters    |                                        |
|-------------|----------------------------------------|
| Part Number | Description                            |
| 46790-1010  | PM100 Adapter                          |
| 46790-1020  | PM300 Adapter                          |
| 46790-1030  | PM400 Adapter                          |
| 46790-1040  | PM500 Adapter                          |
| 46790-1050  | ASMI/Seed Manager SE Console Adapter   |
| 46790-1060  | ASMI/Seed Manager SE Simulator Adapter |



ASM™ II/Seed Manager™ Simulator Adapter Cable



ASM™ II/Seed Manager™ Console Adapter Cable

**Service parts are available in limited quantities.  
Contact the technical support team for  
availability at 1-800-637-3302.**

**Products contained in the Service Parts  
section include:**

- AI-50 and AI-100 Virtual Terminals  
(*AI-100 no longer available*)
- MVT
- Land Manager™ Models I, II, and SE
- Single Thermal Transfer Unit Components
- Hydraulic Servo Valve
- Flow Meter Nylon Parts
- Connectors and Kits
  - Weather Pack
  - Amp, ITT Cannon
  - Deutsch

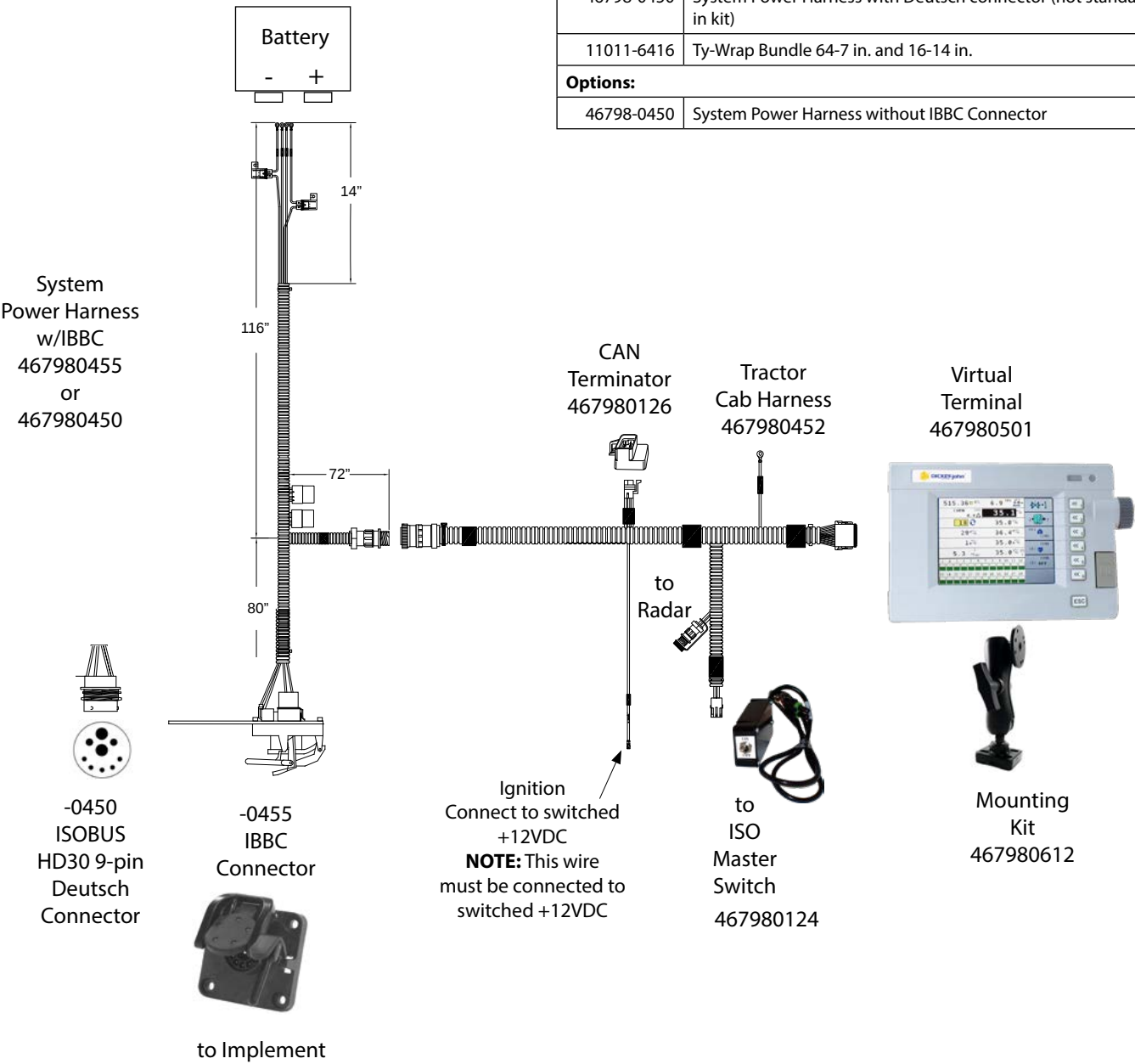
AI-50 Virtual Terminals

The AI-50 Virtual Terminals are discontinued products; however, some harnessing is still available as service parts.



AI-50 Virtual Terminal-discontinued

| 5" Virtual Terminal |                                                                   |
|---------------------|-------------------------------------------------------------------|
| Part Number         | Description                                                       |
| Service Parts       |                                                                   |
| 46798-0452          | Tractor CAN Harness                                               |
| 46798-0455          | System Power Harness with IBBC connector                          |
| 46798-0450          | System Power Harness with Deutsch connector (not standard in kit) |
| 11011-6416          | Ty-Wrap Bundle 64-7 in. and 16-14 in.                             |
| Options:            |                                                                   |
| 46798-0450          | System Power Harness without IBBC Connector                       |



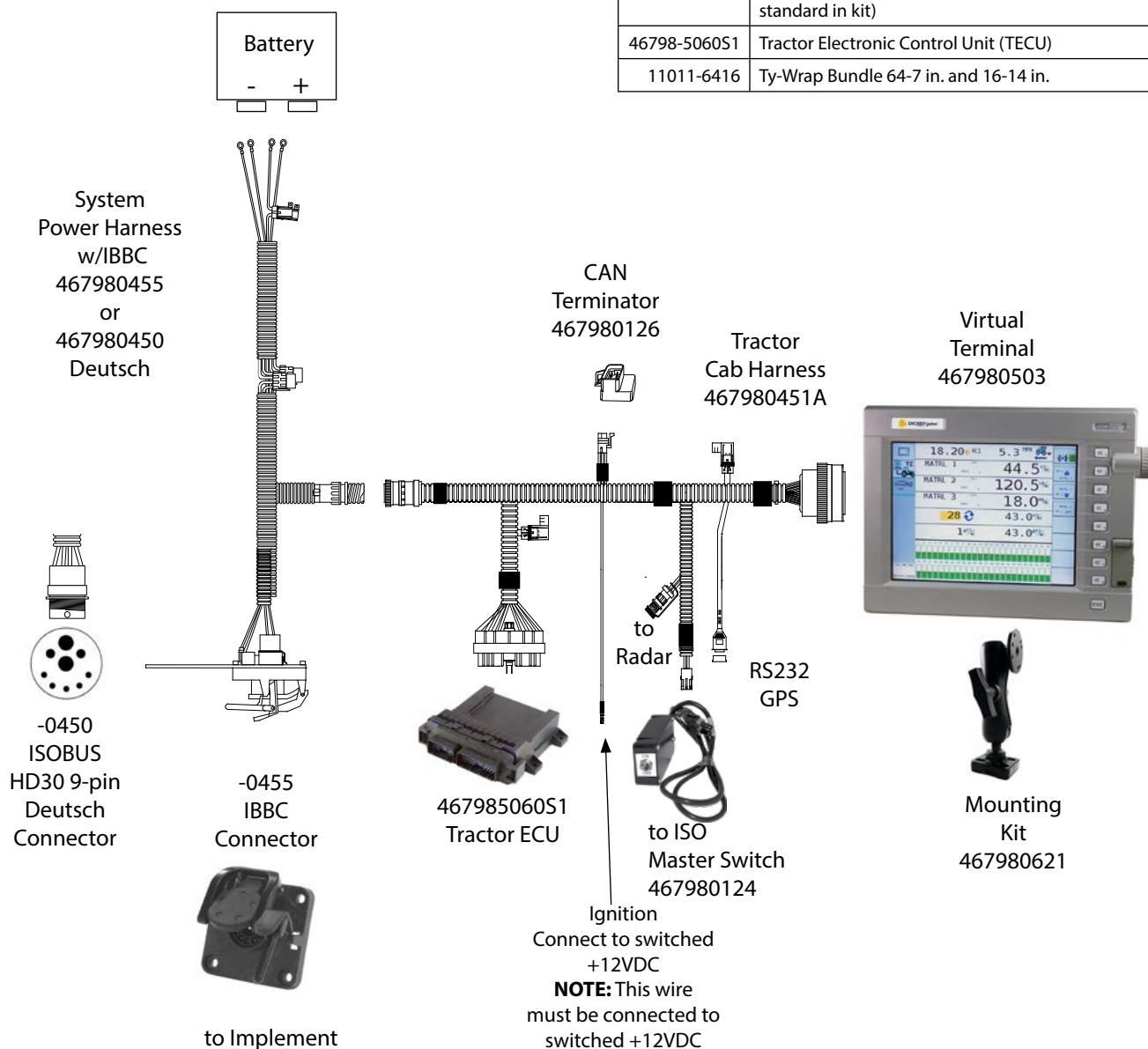
## AI-100 10" Virtual Terminal



**AI-100 Virtual Terminal-discontinued**

The AI-100 Virtual Terminals are discontinued products; however, some harnessing is still available as service parts.

| 10" Virtual Terminal |                                                                    |
|----------------------|--------------------------------------------------------------------|
| Part Number          | Description                                                        |
| <b>Service Parts</b> |                                                                    |
| 46798-0451A          | Tractor Harness                                                    |
| 46798-0455           | System Power Harness w IBBC Connector                              |
| 46798-0450           | System Power Harness 9-pin Deutsch Connector (not standard in kit) |
| 46798-5060S1         | Tractor Electronic Control Unit (TECU)                             |
| 11011-6416           | Ty-Wrap Bundle 64-7 in. and 16-14 in.                              |





**Seed Manager™ SE**



**Module**

**Don't forget to select a:**

- Seed Sensor
- Ground Speed Sensor
- Hopper Level Sensor
- Hall-Effect Sensor
- Flow Meter
- Implement Lift Switch

## Seed Manager™ SE

The Seed Manager™ SE monitors material flow or population up to a total of 96 rows for planter, drills, and air carts. Any combination of modules can be used up to a maximum of 7 modules.

**Three available modules:**

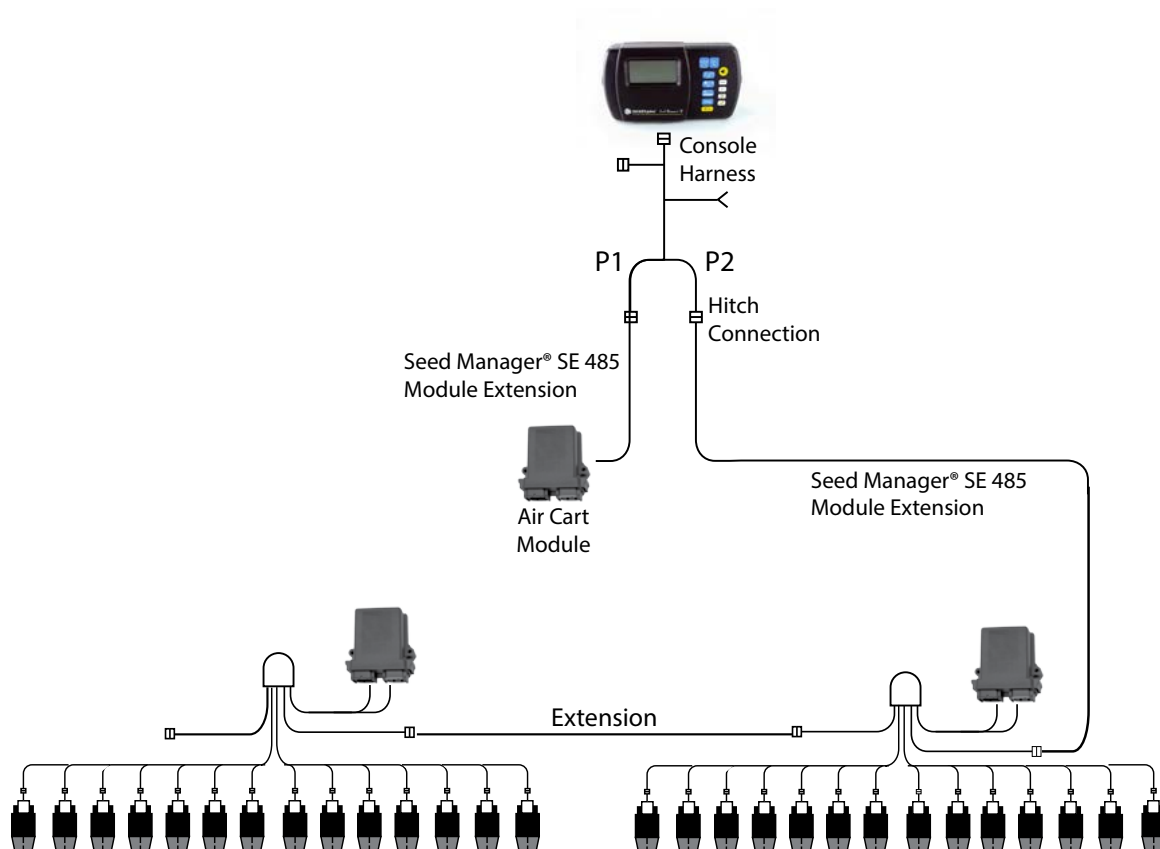
- Material flow with hopper level (12 rows with 2 hopper level inputs)
- Material flow without hopper level (16 rows)
- Air cart (2 fan speed, 3 shaft speed, 2 pressure, 2 hopper inputs)

**Features:**

- Population count for all rows
- Population for the first row in each module and material flow for all other rows
- Acre count
- Population monitoring
- Ground speed monitoring
- Seed spacing monitoring
- Seed count
- RS485 communication modules

| Part Number                 | Description                                                |
|-----------------------------|------------------------------------------------------------|
| <b>Console</b>              |                                                            |
| 46682-2000S1                | Seed Manager SE Console (obsolete and no longer available) |
| 46682-0133S1                | Seed Manager SE Console Cab Harness (short)                |
| 46682-0134S1                | Seed Manager SE Console Cab Harness (long)                 |
| <b>Module</b>               |                                                            |
| 46775-1120S1                | 2 Hopper Module, 12 row                                    |
| 46775-1130S1                | Module, 16 row                                             |
| 46775-2020S1                | Air-cart Monitoring Module                                 |
| <b>Implement Harness</b>    |                                                            |
| 46775-1300S1                | Harness, SMSE, 7.5 in., 12 row                             |
| 46775-1301S1                | Harness, SMSE, 15 in., 12 row                              |
| 46775-1302S1                | Harness, SMSE, 30 in., 12 row                              |
| 46775-1320S1                | Tower Harness, SMSE, 12 row                                |
| 46775-1310S1                | Harness, SMSE, 7.5 in., 16 row                             |
| 46775-1311S1                | Harness, SMSE, 15 in., 16 row                              |
| 46775-1312S1                | Harness, SMSE, 30 in., 16 row                              |
| 46775-1330S1                | Tower Harness, SMSE, 16 row                                |
| 46775-2041S1                | Air-cart Module Harness                                    |
| <b>485 Module Extension</b> |                                                            |
| 46775-1200S1                | Module Extension 4 ft.                                     |
| 46775-1201S1                | Module Extension 6 ft.                                     |
| 46775-1202S1                | Module Extension 10 ft.                                    |
| 46775-1203S1                | Module Extension 15 ft.                                    |
| 46775-1204S1                | Module Extension 20 ft.                                    |
| 46775-1205S1                | Module Extension 25 ft.                                    |
| 46775-1206S1                | Module Extension 30 ft.                                    |
| 46775-1207S1                | Module Extension 40 ft.                                    |
| 46775-1208S1                | Module Extension 45 ft.                                    |
| 46775-1209S1                | Module Extension 55 ft.                                    |

## *Seed Manager™ SE Implement Layout*



## IntelliAg™ MVT

## MVT



**IntelliAg™ MVT 40 Color Display**



**IntelliAg™ MVT 70 Color Display**

### MVT 40 Virtual Terminal Features:

- High definition 4.3" color display console
- Eight hard keys and rotary dial for operation and setup

### MVT 70 Virtual Terminal Features:

- High definition 7" color display console
- Touch Screen with soft keys for menu navigation

### Planter Control Module provides:

- Maximum of two closed loop control channels
- Outputs to control valves (2 PWM and 2 Servo)
- Accessory sensor inputs (3 Hopper Level, 3 Air Pressure, 2 RPM, Implement Lift)
- 12 population/blockage sensors and addition of a WSMB or WSMB2 to monitor a maximum of 84 rows
- Optional shutoff drivers (output modules) for manual section control



**Planter Control Module**  
**472940230S1**



**WSMB Module**  
**467981100S1**

IntelliAg™ MVT is a two-channel control system for row crop planters that allows for application of 2 separate products or sections of the planter while simultaneously monitoring up to 84 seed sensors for individual row performance and population. In addition, the system offers optional manual individual 24-row section control. The IntelliAg™ MVT can also be used as a planter population monitor only. Options available for in-cab operations including programming, material selection, rate change, and general operation.

### The IntelliAg MVT system includes the following required components:

- Virtual terminal
- (1) Planter Control Module (PCM)
- (2) CAN terminators
- Cab and implement harnessing

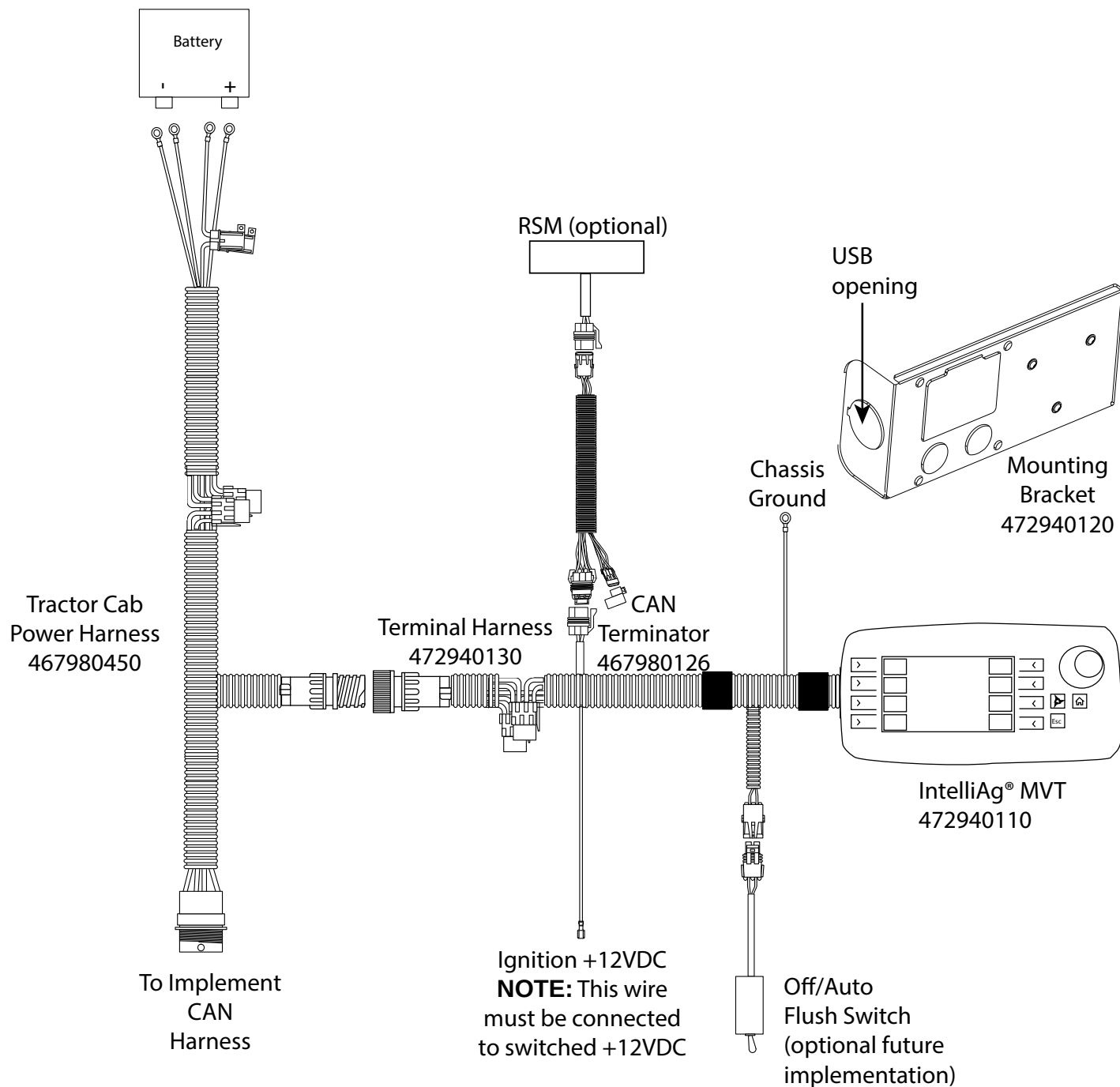
### Optional components include:

- Working Set Member Modules (WSMB) Up to 5 Working Set Member Modules (monitors up to a total of 84 rows of seed input)
- Implement Lift
- Clutch/Switch Module and Planter Output Module
- Remote Test Switch (required for Continuous Test and 5 Rev Test)
- Compatible with all DICKEY-john® sensors

| IntelliAg™ MVT System Components |                                                                                   |
|----------------------------------|-----------------------------------------------------------------------------------|
| Part Number                      | Description                                                                       |
| 472940115                        | MVT 7" Terminal                                                                   |
| 472940255                        | MVT 7" Mounting Bracket Kit                                                       |
| 472940110                        | MVT 4.3" Terminal                                                                 |
| 472940120                        | MVT 4.3" Mounting Bracket Kit                                                     |
| 467980612                        | RAM Mount                                                                         |
| 467980450                        | System Power Harness                                                              |
| 472940130                        | IntelliAg MVT Terminal Harness (MVT40 and MVT70)                                  |
| 467980131                        | 20' Hitch Extension                                                               |
| 472940230S1                      | PCM WSMT2 MVT only                                                                |
| 472940200                        | WSMT Planter Control/Monitoring Harness with 37-pin CPC Planter Harness Connector |
| 472940150                        | WSMT Planter Control/Monitoring Harness with Deutsch Planter Harness Connector    |
| 472940140                        | WSMT Planter Monitoring Only Harness with Deutsch Planter Harness Connector       |
| 472940180                        | WSMT Planter Monitoring Only Harness with 37-pin CPC Planter Harness Connector    |
| 467981100S1                      | WSMB Module (18 seed rows)                                                        |
| 467988320S1                      | WSMBII Module (18 seed rows with singulation, seeding quality, skips and doubles) |
| 467981200                        | WSMB Harness to PM Style Harness 37-pin CPC                                       |
| 467981201A                       | WSMB Harness to SE Style Harness Deutsch connector                                |

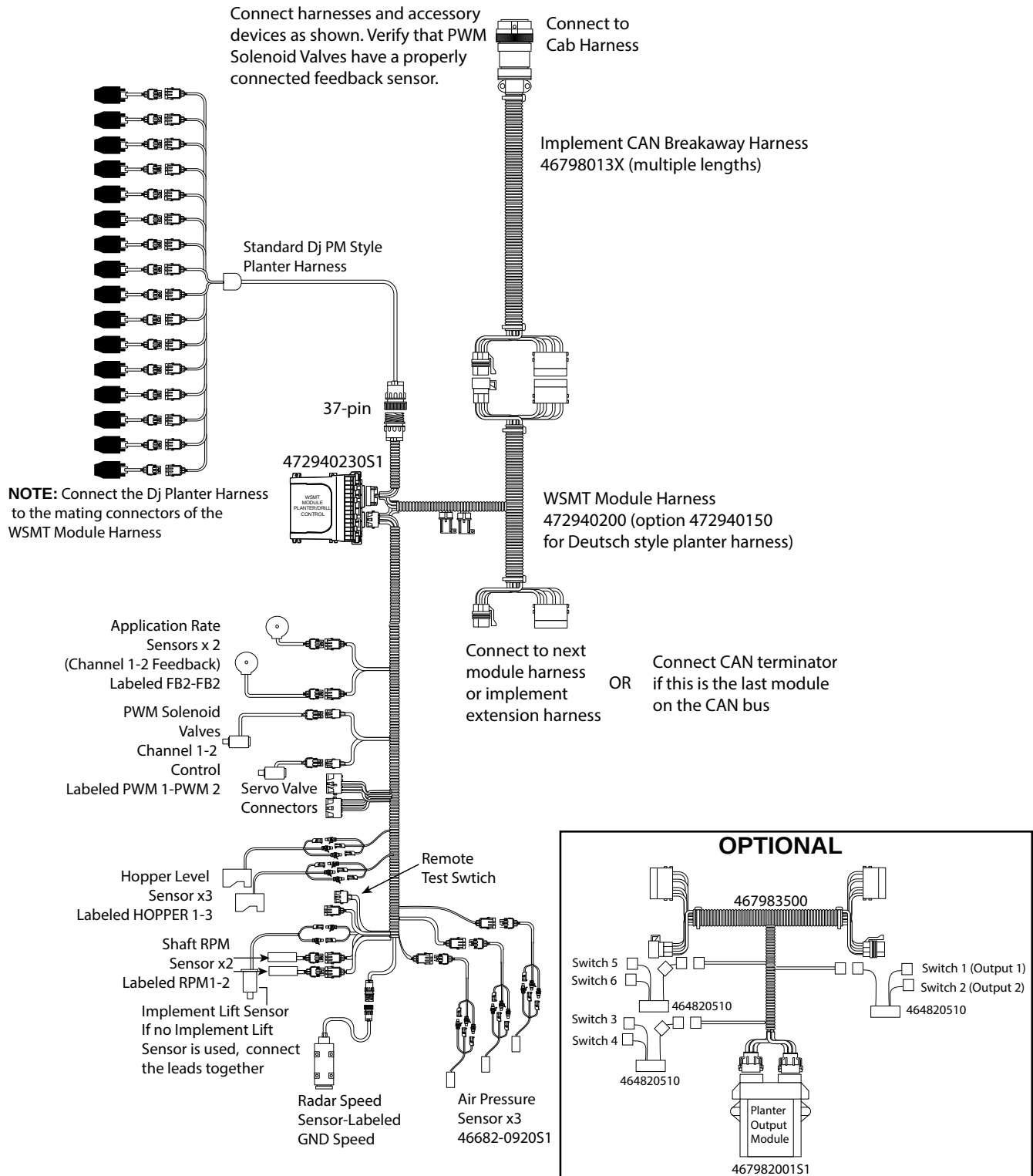
*IntelliAg™ MVT*

*Cab Harnessing*



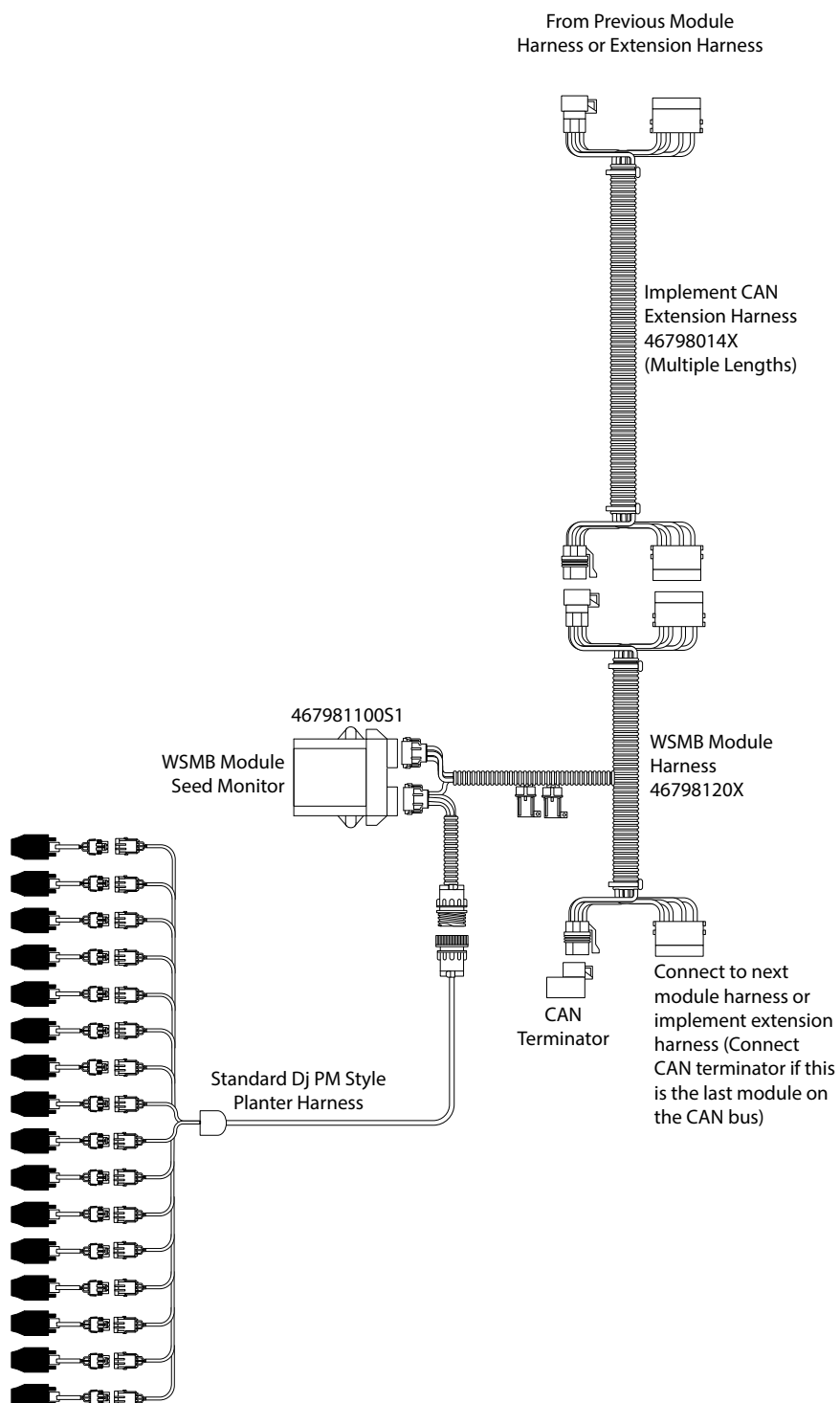
IntelliAg™ MVT

Implement Harnessing



*IntelliAg™ MVT*

*Implement Harnessing*



## Controller

## Land Manager™ Models I, II, and SE



**Land Manager™ I**



**Land Manager™ II**



**Land Manager™ SE**

**Land Manager™ controllers are used to control fertilizer and chemical applications including:**

- Liquid Flow
- Liquid Pressure
- Granular
- Anhydrous Ammonia

**Three Land Manager consoles are available:**

Land Manager™ I

Land Manager™ II

Land Manager™ SE

**Land Manager™ I & II controls:**

- Liquid
- Granular
- NH3 liquid flow
- Pressure-based, 2 digital accessories (fan RPM, hopper level, 1 analog accessory) or,
- One analog accessory (pressure sensor, temperature sensor standard RS232 port for GPS or printer)
- 10 boom section inputs

**Land Manager™ I & II Features:**

- Variable rate application control
- Application library stores up to 10 configurations
- Creates and logs up to 10 individual reports
- Standard RS232 interface link for easy field software upgrades and upload/download of formal report information
- Records tank fill (with optional flow meter)
- Automatic pump shutoff
- Auto gain tunes responsiveness to application

**Land Manager™ II Features only:**

- Dual channel
- Spray and spread with one console

**Land Manager™ SE controls:**

- Liquid
- Granular
- NH3 liquid flow
- Pressure-based, 1 digital accessory (fan RPM, hopper level, vapor detector)
- 6 boom section inputs

**Land Manager™ SE Features:**

- One button setup

**Don't forget to select a:**

- Radar Speed Sensor
- Ground Speed Sensor
- Universal Distance (magnetic) Sensor
- Radar Y Cable
- Control System Kit

## Controller

## Land Manager™ Systems

**A complete DICKY-john® Land Manager™ system consists of six components:**

- Display console
- Master switch module
- Ground speed sensor
- Feedback device to monitor application rate
- Actuator device to regulate the application rate
- Harness system

### Part Number Codes

LM1 One channel Land Manager  
 LM2 Two channel Land Manager  
 LMSE Land Manager SE version  
 T Truck Harness  
 PS Pull Type Short Harnessing  
 PL Pull Type Long Harnessing  
 R Radar  
 U Universal Distance Sensor  
 Y Radar "Y" Cable

### Nylon Liquid Flow Meter Ratings

| Flow Meter | Flow Rate     |
|------------|---------------|
| 1/2"       | .3 - 5 GPM    |
| 3/4"       | 1.85-18.5 GPM |
| 1"         | 2.64-26.4 GPM |
| 1.5"       | 9.25-92.5 GPM |
| 2"         | 19.00-198 GPM |
| 3"         | 39.6-396 GPM  |
| 4"         | 79.0-790 GPM  |

### To calculate liquid flow rates (GPM):

Width x Speed x Application Rate (GPA) x .00202  
 60 ft. x 15 mph x 20 gpa x .00202 = 36.36 GPM

### To calculate NH3 or granular flow rates (lbs/hr):

Width x Speed x Application Rate (GPA) x .1212  
 42.5 ft. x 6 mph x 200 lbs NH3 x .1212 = 6181 lbs/hr

Maximum flow on pressure kits is based on 100 psi.  
 Maximum flow rate for NH3 is based on 110 psi tank pressure. Ensure these pressures are accounted for when selecting systems.

| Land Manager™ (1 channel/LM1) |                                             |
|-------------------------------|---------------------------------------------|
| Part Number                   | Description                                 |
| LM1/CCS Retro                 | Land Manager Console with CCS Retro Harness |
| LM1E                          | European LM System Sprayer Harness          |
| LM1PL                         | LM1 System with Pull Type Long Harness      |
| LM1PS                         | LM1 System with Pull Type Short Harness     |
| LM1T                          | LM1 System with Truck Harness               |

| Land Manager™ (2 channel/LM2) |                                         |
|-------------------------------|-----------------------------------------|
| Part Number                   | Description                             |
| LM2PL                         | LM2 System with Pull Type Long Harness  |
| LM2PS                         | LM2 System with Pull Type Short Harness |
| LM2T                          | LM2 System with Truck Harness           |

| Land Manager™ SE System |                                        |
|-------------------------|----------------------------------------|
| Part Number             | Description                            |
| LMSEP                   | Land Manager SE with Pull Type Harness |
| LMSET                   | Land Manager SE with Truck Harness     |

| Pressure    |                                         |                     |                   |
|-------------|-----------------------------------------|---------------------|-------------------|
| Part Number | Description                             | Valve Size (Inches) | Maximum Flow Rate |
| L2P         | Valve with 100 psi Transducer           | 2                   | 220 GPM           |
| L3P         | Valve with 100 psi Transducer           | 3                   | 600 GPM           |
| LSP         | Hydraulic Valve with 100 psi Transducer | Specify             |                   |
| Nylon Flow  |                                         |                     |                   |
| L2POLYF     | Ball Valve with 2 in. Flow Meter        | 2                   | 19-198 GPM        |
| NH3         |                                         |                     |                   |
| CCSNH3KIT   | CCS NH3 System                          | 3/4                 | 4200 LBS/HR       |

| Radar Y Cables<br>(Complete listing on pages 125-126) |                                                                  |
|-------------------------------------------------------|------------------------------------------------------------------|
| Part Number                                           | Description                                                      |
| 15295-0002                                            | Radar Y (DICKY-john® Radar to 2 console)                         |
| 45640-2520S3                                          | Radar Y (DICKY-john® Radar to John Deere Dash and Console)       |
| 45640-2530S3                                          | Radar Y (John Deere Magnavox Radar to Dash and Console)          |
| 45640-3030                                            | Radar Y (Challenger A or B Series Cat Radar to Dash and Console) |
| 45640-4360S1                                          | Radar Y (Challenger C Series Cat Radar to Dash and Console)      |
| 45640-4670                                            | Radar Y (Steiger and Maxum Radar to Dash and Console)            |
| 45640-4810                                            | Radar Y (John Deere in-cab Radar Convenience Plug Adapter)       |

LM1 and LM2 Kits

LM1 Kits

**LM1E**

| Component   | Item Description                      | Qty |
|-------------|---------------------------------------|-----|
| LM1CSLOPT1  | CSL, LAND MANAGER, PICK TO ORDER      | 1   |
| 466390910S1 | MTG BRACKET KIT LM                    | 1   |
| 466050030   | MASTER SW MODULE ASY                  | 1   |
| 110112820   | TY WRAP BUNDLE                        | 1   |
| 466391090S1 | HARN ASSY, J2                         | 1   |
| 466391120S1 | HARNESS ASSY., CAB HARNESS 1CH J1 A/S | 1   |
| 466391130S1 | HARNESS ASSY., SPRAYER HARN. 1CH A/S  | 1   |
| 110011351   | LAND MANGER OPERATORS MANUAL I/II     | 1   |
| 110011090   | INST INSTR LAND MAN                   | 1   |

**LM1PL**

| Component   | Item Description                  | Qty |
|-------------|-----------------------------------|-----|
| 466390025S1 | CSL[CE] LAND MANAGER              | 1   |
| 466390910S1 | MTG BRACKET KIT LM                | 1   |
| 466050030   | MASTER SW MODULE ASY              | 1   |
| 110112820   | TY WRAP BUNDLE                    | 1   |
| 466391090S1 | HARN ASSY, J2                     | 1   |
| 466391003S1 | CAB HARN J1 LONG                  | 1   |
| 466391030S1 | IMP HARN 1 CHANNEL                | 1   |
| 110011351   | LAND MANGER OPERATORS MANUAL I/II | 1   |
| 110011090   | INST INSTR LAND MAN               | 1   |

**LM1PS**

| Component   | Item Description                  | Qty |
|-------------|-----------------------------------|-----|
| 466390025S1 | CSL[CE] LAND MANAGER              | 1   |
| 466390910S1 | MTG BRACKET KIT LM                | 1   |
| 466050030   | MASTER SW MODULE ASY              | 1   |
| 110112820   | TY WRAP BUNDLE                    | 1   |
| 466391090S1 | HARN ASSY, J2                     | 1   |
| 466391000S1 | CAB HARN J1                       | 1   |
| 466391030S1 | IMP HARN 1 CHANNEL                | 1   |
| 110011351   | LAND MANGER OPERATORS MANUAL I/II | 1   |
| 110011090   | INST INSTR LAND MAN               | 1   |

**LM1T**

| Component   | Item Description                  | Qty |
|-------------|-----------------------------------|-----|
| 466390025S1 | CSL[CE]LAND MANAGER               | 1   |
| 466390910S1 | MTG BRACKET KIT LM                | 1   |
| 466050030   | MASTER SW MODULE ASY              | 1   |
| 110112820   | TY WRAP BUNDLE                    | 1   |
| 466391090S1 | HARN ASSY, J2                     | 1   |
| 466391081S1 | HARN ASY CNTL SYS J1              | 1   |
| 110011351   | LAND MANGER OPERATORS MANUAL I/II | 1   |
| 110011090   | INST INSTR LAND MAN               | 1   |

LM2 Kits

**LM2PL**

| Component   | Item Description                  | Qty |
|-------------|-----------------------------------|-----|
| 466390026S1 | CSL[CE] LAND MAN II               | 1   |
| 466390910S1 | MTG BRACKET KIT LM                | 1   |
| 466050030   | MASTER SW MODULE ASY              | 1   |
| 110112820   | TY WRAP BUNDLE                    | 1   |
| 466391090S1 | HARN ASSY, J2                     | 1   |
| 466391003S1 | CAB HARN J1 LONG                  | 1   |
| 466391031S1 | IMP HARN 2 CHANNEL                | 1   |
| 110011351   | LAND MANGER OPERATORS MANUAL I/II | 1   |
| 110011090   | INST INSTR LAND MAN               | 1   |

**LM2PS**

| Component   | Item Description                  | Qty |
|-------------|-----------------------------------|-----|
| 466390026S1 | CSL[CE] LAND MAN II               | 1   |
| 466390910S1 | MTG BRACKET KIT LM                | 1   |
| 466050030   | MASTER SW MODULE ASY              | 1   |
| 110112820   | TY WRAP BUNDLE                    | 1   |
| 466391090S1 | HARN ASSY, J2                     | 1   |
| 466391000S1 | CAB HARN J1                       | 1   |
| 466391031S1 | IMP HARN 2 CHANNEL                | 1   |
| 110011351   | LAND MANGER OPERATORS MANUAL I/II | 1   |
| 110011090   | INST INSTR LAND MAN               | 1   |

**LM2T**

| Component   | Item Description                  | Qty |
|-------------|-----------------------------------|-----|
| 466390026S1 | CSL[CE] LAND MAN II               | 1   |
| 466390910S1 | MTG BRACKET KIT LM                | 1   |
| 466050030   | MASTER SW MODULE ASY              | 1   |
| 110112820   | TY WRAP BUNDLE                    | 1   |
| 466391090S1 | HARN ASSY, J2                     | 1   |
| 466391210S1 | HARN ASY CNTL SYS J1              | 1   |
| 466391051S1 | HARNESS,POWER                     | 1   |
| 110011351   | LAND MANGER OPERATORS MANUAL I/II | 1   |
| 110011090   | INST INSTR LAND MAN               | 1   |

**LM1/CCS RETRO**

| Component   | Item Description         | Qty |
|-------------|--------------------------|-----|
| 466390025S1 | CONSOLE LM1              | 1   |
| 466391101S1 | RETRO HARNESS            | 1   |
| 466050030   | SWITCH MODULE            | 1   |
| 466390910S1 | MOUNTING BRACKET         | 1   |
| 466390150S1 | ACT POWER HARNESS        | 1   |
| 110011090   | INSTALLATION INSTRUCTION | 1   |
| 110011351A  | MANUAL                   | 1   |

## LMSE/Press/Flow/NH3 Kits

### LMSE

#### LMSEP

| Component   | Item Description                    | Qty |
|-------------|-------------------------------------|-----|
| 466390029S1 | CSL[CE] LAND MANAGER SE             | 1   |
| 466390910S1 | MTG BRACKET KIT LM                  | 1   |
| 466050030   | MASTER SW MODULE ASY                | 1   |
| 110112820   | TY WRAP BUNDLE                      | 1   |
| 466391260S1 | HARNESS ASSY ADAPT, LAND MANAGER SE | 1   |
| 457901892   | HARNESS, MAIN, CCS100               | 1   |
| 457901891S1 | HARNESS, IMPLEMENT                  | 1   |
| 466391050S1 | HARN, ACT PWR                       | 1   |
| 110011248   | LAND MANAGER SE VERS. 1.5SW MANUAL  | 1   |
| 110011197   | INSTALLATION INSTR LAND MANAGER SE  | 1   |

#### LMSET

| Component   | Item Description                    | Qty |
|-------------|-------------------------------------|-----|
| 466390029S1 | CSL[CE] LAND MANAGER SE             | 1   |
| 466390910S1 | MTG BRACKET KIT LM                  | 1   |
| 466050030   | MASTER SW MODULE ASY                | 1   |
| 110112820   | TY WRAP BUNDLE                      | 1   |
| 466391260S1 | HARNESS ASSY ADAPT, LAND MANAGER SE | 1   |
| 464360210A  | HARN CCS MAIN TRUCK                 | 1   |
| 110011248   | LAND MANAGER SE VERS. 1.5SW MANUAL  | 1   |
| 110011197   | INSTALLATION INSTR LAND MANAGER SE  | 1   |

### FLOW

#### L2POLYF

| Component    | Item Description                  | Qty |
|--------------|-----------------------------------|-----|
| PM00370048S1 | FLOW METER/SNSR, 2", 19.0-198 GPM | 1   |
| 467095150    | VALVE & ACTUATOR 2"               | 1   |

### NH3

#### CONTNH3KIT

| Component   | Item Description           | Qty |
|-------------|----------------------------|-----|
| 457903320B  | SUPER FLOW ASSY            | 1   |
| 457903380   | BALL VALVE, CONTROL        | 1   |
| 457903390   | BRACKET, ACTUATOR MOUNT    | 1   |
| 457901610S1 | FLOW METER, CCS100         | 1   |
| 457903310S1 | HARDWARE KIT CONT          | 1   |
| 110011362A  | MANUAL, NH3 OPERATING      | 1   |
| 110011326   | CONT. INSTALL INSTRUCTIONS | 1   |
| 457904000   | COUPLER KIT TO 1 1/4 VALVE | 1   |

### PRESSURE

#### L2P

| Component | Item Description    | Qty |
|-----------|---------------------|-----|
| 467095150 | VALVE & ACTUATOR 2" | 1   |
| 465700010 | XDUCER, 100 PSI CCS | 1   |
| 110040228 | HARDWARE PKG-DJSC   | 1   |

#### L3P

| Component | Item Description    | Qty |
|-----------|---------------------|-----|
| 467095170 | VALVE & ACTUATOR 3" | 1   |
| 465700010 | XDUCER, 100 PSI CCS | 1   |

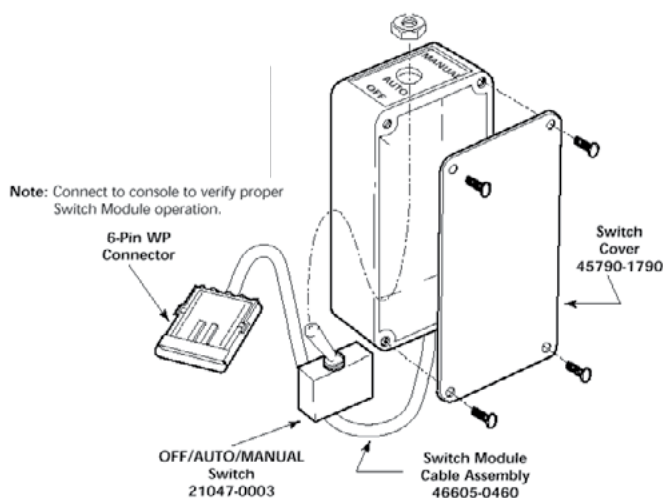
#### LSP

| Component  | Item Description                        | Qty |
|------------|-----------------------------------------|-----|
| HV0PT1     | HYDRAUL. VALVE OPTION SET, GRAN. VALVES | 1   |
| 464360030A | VALVE ACTUATOR DRIVER                   | 1   |
| 465700010  | XDUCER, 100 PSI CCS                     | 1   |

## Land Manager™ Parts & Accessories



**Land Manager™ Switch Module**



| Connector Pin Numbers |       |                  |
|-----------------------|-------|------------------|
| Pin No.               | Color | Function/Voltage |
| A                     | Black | Ground (0V)      |
| B                     | White | Manual (0-12V)   |
| C                     | Red   | -12V             |
| D                     | Green | Auto (0-12V)     |

| Console                     |                                                |
|-----------------------------|------------------------------------------------|
| Part Number                 | Description                                    |
| 46639-0025S1                | Land Manager I Console                         |
| 46639-0026S1                | Land Manager II Console                        |
| 46639-0029S1                | Land Manager SE Console                        |
| Harness, Adapters, Hardware |                                                |
| 43940-0024                  | Ground Speed Sensor Extension 10 ft.           |
| 45790-1810                  | Sensor Extension 15 ft.                        |
| 45790-1811                  | Sensor Extension 30 ft.                        |
| 45790-1820                  | Valve Extension 15 ft.                         |
| 45790-1891S1                | LMSE Implement Harness                         |
| 45790-1892                  | LMSE Main Harness (requires 46639-1260S1)      |
| 45790-2770S1                | LMSE Main Harness Extension 20 ft.             |
| 46350-0090                  | Hall Effect Extension (Fan RPM) 20 ft.         |
| 46350-0120                  | Hall Effect to Radar Extension 15.5 ft.        |
| 46436-0210A                 | LM Truck Harness (required 46639-1260S1)       |
| 46605-0030                  | Land Manager Switch Module                     |
| 46639-0970S1                | Land Manager Switch Module Bracket             |
| 46639-0910S1                | Land Manager Mounting Bracket                  |
| 46639-1000S1                | Land Manager Main Harness, short (1 channel)   |
| 46639-1003S1                | Land Manager Main Harness, long (1 channel)    |
| 46639-1030S1                | Land Manager Implement Harness (1 channel)     |
| 46639-1031S1                | Land Manager Implement Harness (2 channel)     |
| 46639-1050S1                | Actuator Power Harness                         |
| 46639-1051S1                | Actuator Power Harness (2 channel)             |
| 46639-1081S1                | Truck Harness (1 channel)                      |
| 46639-1090S1                | Land Manager Power Harness (RS232)             |
| 46639-1101S1                | LM to CCS Adapter Harness                      |
| 46639-1120S1                | LM European J1 Cab Harness                     |
| 46639-1130S1                | LM European Sprayer Implement Harness          |
| 46639-1140S1                | LM European Planter/Granular Implement Harness |
| 46639-1150S1                | LM European Speed & Area Implement Harness     |
| 46639-1210S1                | Truck Harness (2 channel)                      |
| 46639-1220S1                | Main Harness Extension 25 ft.                  |
| 46639-1260S1                | LMSE to CCS Adapter Harness                    |
| Switch Module               |                                                |
| 46605-0030                  | LM Switch Module                               |
| 46639-0970S1                | LM Switch Module Bracket                       |

## Single Thermal Transfer Unit

The Single Thermal Transfer Unit is discontinued; however some of the component parts are available.

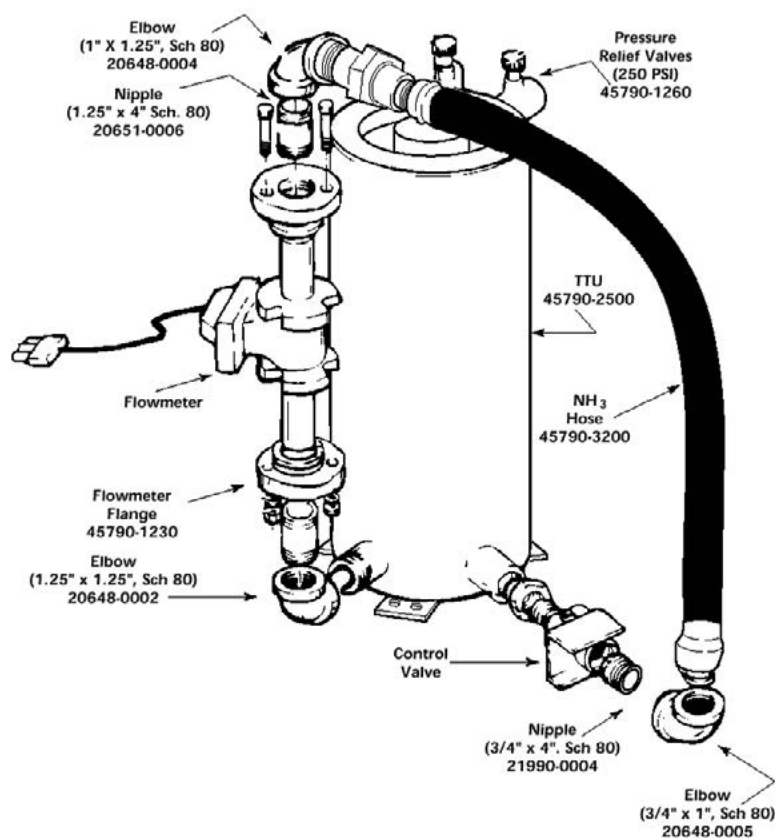
To ensure the highest possible flow rates, applicator plumbing must be sized properly.

| LBS/HR    | Plumbing Size                     |
|-----------|-----------------------------------|
| 0-3600    | 1 in. feed line and breakaway     |
| 3600-6800 | 1 1/4 in. feed line and breakaway |
| 6800-up   | 1 1/2 in. feed line and breakaway |



**Single Thermal Transfer Unit-Discontinued**

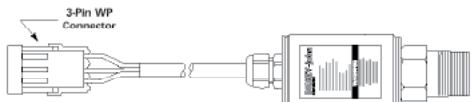
| Part Number | Description                     |
|-------------|---------------------------------|
| 20648-0004  | Elbow 1" x 1.25", Sch 80        |
| 20651-0006  | Nipple 1.25" x 4" Sch 80        |
| 45790-1230  | Flow Meter Flange               |
| 20648-0002  | Elbow 1.25" x 1.25", Sch 80     |
| 21990-0004  | Nipple 3/4" x 4", Sch 80        |
| 20648-0005  | Elbow 3/4" x 1" Sch 80          |
| 45790-3200  | NH3 Hose                        |
| 45790-2500  | TTU                             |
| 45790-1260  | Pressure Relieve Valves 250 psi |



Liquid Pressure



| Connector Pin Numbers ID |       |                   |
|--------------------------|-------|-------------------|
| Pin No.                  | Color | Function/Voltage  |
| A                        | Red   | +12V              |
| B                        | Black | Ground            |
| C                        | Green | (Pq) Signal (0-5) |



Liquid Pressure

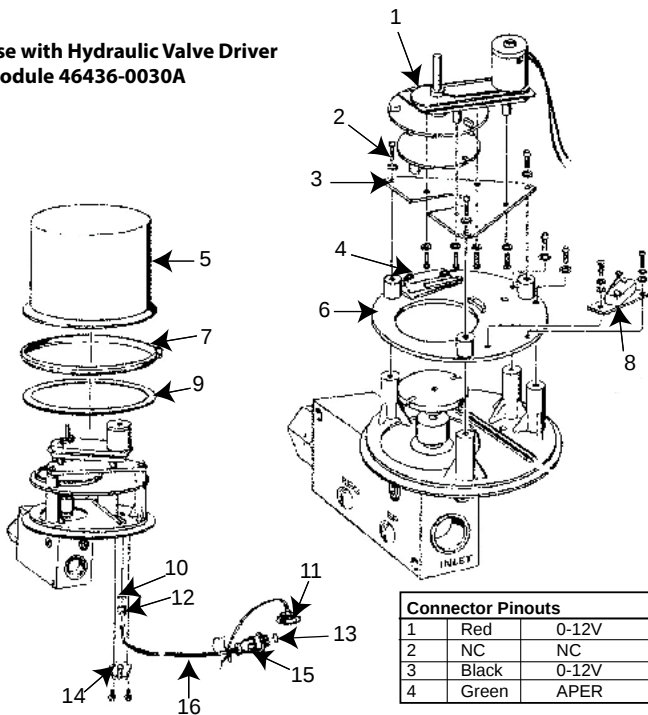
- Measures 0-650 psi liquid pressure
- Can be used as alternative to Flow Meter in Land Manager™ Liquid Sprayer Control Systems
- Reads liquid pressure at nozzle on spray bar
- Prevents over-application caused by single nozzle clogs

| Part Number | Description               |
|-------------|---------------------------|
| 46570-0010  | Pressure Sensor 0-100 psi |
| 46570-0020  | Pressure Sensor 0-650 psi |
| 46570-0040  | Pressure Sensor 0-225 psi |
| 46570-0070  | Pressure Sensor 0-300 psi |

Hydraulic Servo



Use with Hydraulic Valve Driver Module 46436-0030A



| Connector Pinouts |       |       |
|-------------------|-------|-------|
| 1                 | Red   | 0-12V |
| 2                 | NC    | NC    |
| 3                 | Black | 0-12V |
| 4                 | Green | APER  |

Single Flow Servo

| Item | Part Number | Description                        |
|------|-------------|------------------------------------|
| 1    | 44506-0001  | Motor and Coupling (NOT AVAILABLE) |
| 2    | 45714-0170  | Center Coupling                    |
| 3    | 45714-0180  | Mounting Plate                     |
| 4    | 45675-4023  | Switch Assembly (black)            |
| 5    | 42282-0002  | Valve Cover                        |
| 6    | 45714-0120  | Center Plate                       |
| 7    | 21034-0002  | Clamp                              |
| 8    | 45675-4022  | Switch Assembly (red)              |
| 9    | 42148-0004  | Seal                               |
| 10   | 21028-0023  | O-ring                             |
| 11   | 42147-0001  | Dust Cover                         |
| 12   | 44313-0001  | Retainer                           |
| 13   | 21093-0001  | Seal Ring                          |
| 14   | 44316-0001  | Clamp                              |
| 15   | 11059-0008  | Connector Kit                      |
| 16   | 43940-0021  | Cable complete 10 ft.              |
|      | 43940-0022  | Cable complete 20 ft.              |
|      | 43940-0023  | Cable complete 30 ft.              |

Complete motor/actuator assembly for hydraulic servo valve use replacement parts:

- 46709-5360 Actuator only (Plugs into the harness direct with 6-pin connector. Old valve driver not required).
- 46709-8040 Hardware Mounting Kit

The system must be in operation to make adjustments. Both adjustments are located under the center plate.

CAUTION: Be cautious to not overspeed the hydraulic motor. Adjustment 1 (To eliminate creep)

1. Loosen the Allen head screw (large) in the coupling collar.
2. Using pliers, rotate the valve stem until creep stops to establish a closed position.
3. Re-tighten the collar.

Adjustment 2 (Adjust maximum flow rate GPM)

1. Loosen the small Allen head screw in the orifice adjustment collar.
2. Using pliers, turn the orifice adjustment collar counterclockwise to increase flow; clockwise to decrease flow.
3. Re-tighten orifice collar screw.

*Continental*



**Continental Superflow**

**Limited availability**  
**Please call to verify if in-stock**

**Features:**

- Allows faster runs at lower tank pressures
- Attain flow rates up to 9,600 lb./hr.
- Standard 1 1/4 in. plumbing
- Compatible with N-Serve nitrogen stabilizer
- Interchangeable orificed hose barbs for constant 2% or less vapor bleed off

**To determine exchanger kit and valve size use the following formula:**

Applicator width X speed X application rate (gpa) X 0.1212

**Example:**

42.5 ft. X 6 mph X 200 lbs. NH<sub>3</sub> X 0.1212 = 6,181 lbs./hr.

**NH<sub>3</sub> Kit Anhydrous Ammonia Flow Rate Chart**

Heat Exchanger Kit

Maximum Flow Rate

Valve Size

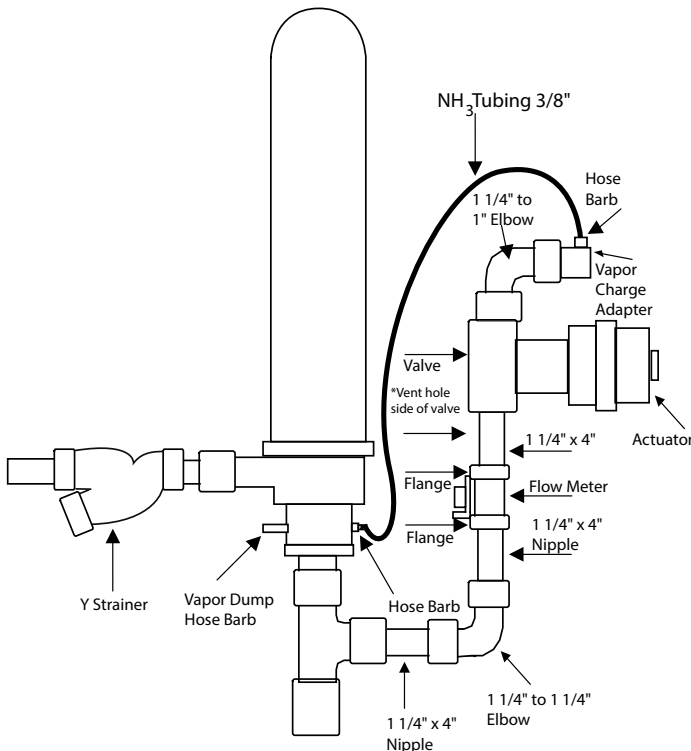
Continental Superflow

9,600 lbs./hr.

1 1/4 in.

**Selecting a NH<sub>3</sub> Heat Exchanger Kit requires:**

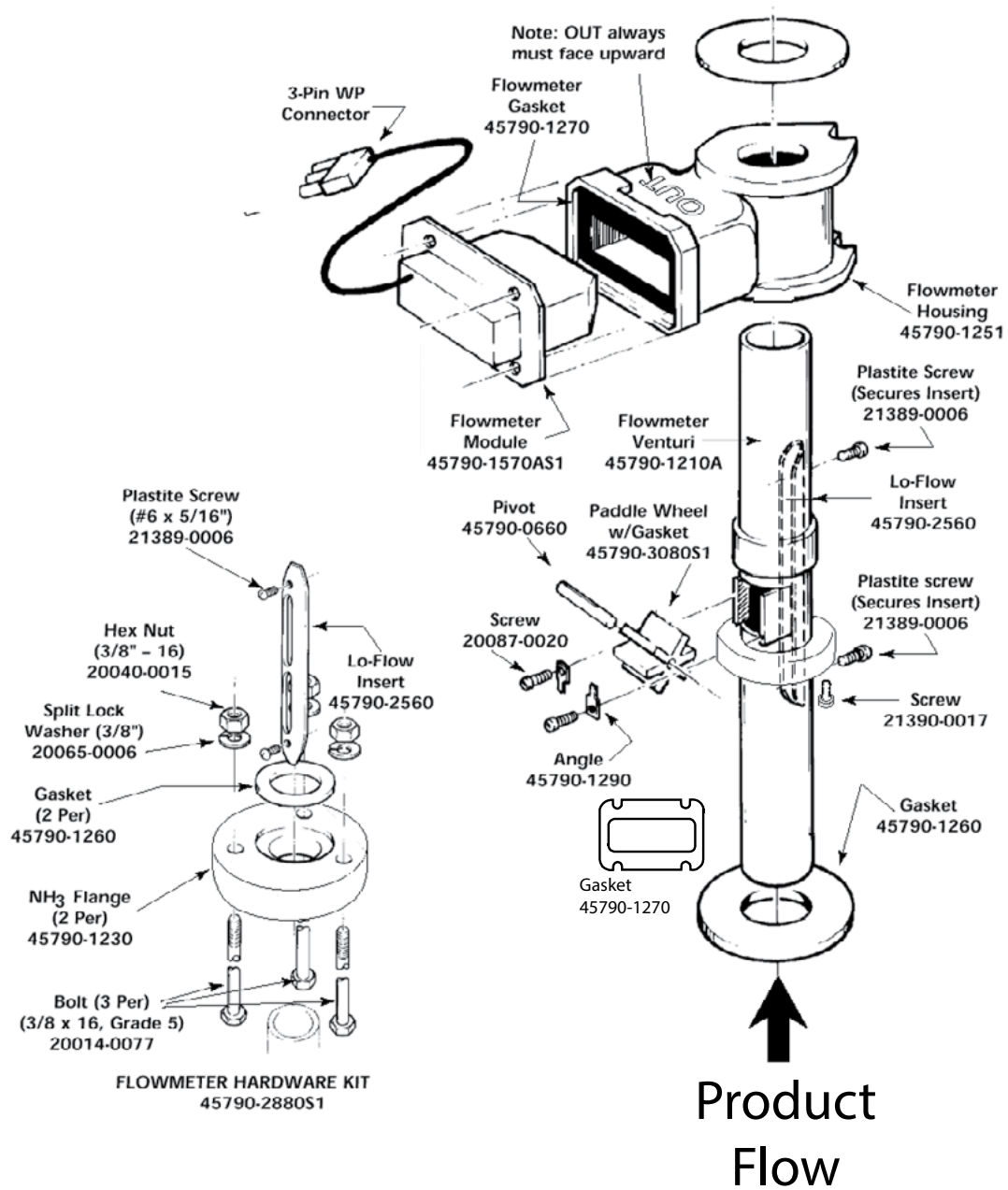
- Width in feet of the anhydrous tool bar
- Maximum ground speed (mph) the tractor will pull the tool bar
- Maximum application rate of NH<sub>3</sub> per acre to be applied



| Part Number  | Description                                                                                              |
|--------------|----------------------------------------------------------------------------------------------------------|
| CONTNH3KIT   | NH <sub>3</sub> Kit Continental with 457903380 1 1/4 in. Ball Valve and 467095060 Actuator (9600 lbs/hr) |
| 46709-5060   | Actuator 1 1/4 in. (requires 45790-4000)                                                                 |
| 45790-4000   | Hardware Kit Mounting Bracket and Coupler                                                                |
| 45790-1610S1 | Liquid Flow Meter (Paddle Wheel)                                                                         |

# Liquid Flow Meter (Paddle Wheel) Diagram

## 45790-1610S1



## Poly Flow Meters

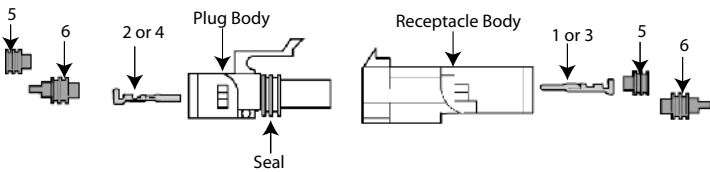
## Nylon Parts

| Flow Meter Parts (Nylon) |                                                     |
|--------------------------|-----------------------------------------------------|
| Part Number              | Description                                         |
| PM20005432               | Coupling Nut 1.5 in.                                |
| PM29300725S1             | Turbine 0.5 in.                                     |
| PM29301899S1             | Axle and Bearings 0.5 in.                           |
| PM30005132               | Coupling Nut 2 in.                                  |
| PM30301125S1             | Turbine .75 in.                                     |
| PM30304999S1             | Sensor only (Poly Flow Meter)                       |
| PM30305099S1             | Axle and Bearing .75 in.                            |
| PM31300925S1             | Turbine 1 in.                                       |
| PM31303199S1             | Axle and Bearing 1 in.                              |
| PM32300825S1             | Turbine 2 in.                                       |
| PM32302099S1             | Axle and Bearings 1.5 in. and 2 in.                 |
| PM32302099S1             | Axle and Bearings 2 in. and 1.5 in.                 |
| PM33302632               | Flange with o-ring 3 in.                            |
| PM33302732               | Flange without o-ring 3 in.                         |
| PM34300325S1             | Turbine 1.5 in.                                     |
| PM35300532               | Flange with o-ring 4 in.                            |
| PM35300632               | Flange without o-ring 4 in.                         |
| PM65401732               | Coupling Nut 0.5 in. (also fit .75 in flow meter)   |
| PM65403132               | Hose Barb 0.5 in. (also fits .75 in. flow meter)    |
| PM67401332               | Coupling Nut 1 in.                                  |
| PM67402432               | Hose Barb 1 in.                                     |
| PM80001432               | O-ring Viton 0.5 in. (also fits .75 in. flow meter) |
| PM80002232               | O-ring Viton 2 in.                                  |
| PM80004832               | O-ring Viton 1.5 in.                                |
| PM80005432               | O-ring Viton 1 in.                                  |
| PM82406532               | Hose Barb 2 in.                                     |
| PM82416432               | Hose Barb 1.5 in.                                   |

Connectors

Weather Pack

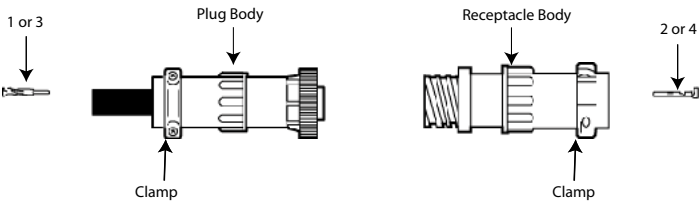
Socket contacts, pin contacts, and seals are the same part numbers for all Weather Pack plugs and receptacles. Weather Pack connector kits and accessories page 156.



| Item | Part Number | Description                                     |
|------|-------------|-------------------------------------------------|
| 1    | 21896-0001  | Pin Contact 18-20 ga.                           |
| 2    | 21896-0002  | Socket Contact 18-20 ga.                        |
| 3    | 21896-0003  | Pin Contact 14-16 ga.                           |
| 4    | 21896-0004  | Socket Contact 14-16 ga.                        |
| 5    | 21897-0001  | Seal (hole through center) (sealed around wire) |
| 6    | 21897-0002  | Seal (solid center) (seals unused hole)         |
|      | 21897-0004  | Green Plug                                      |

AMP

Socket contacts and pin contacts are the same part numbers for all AMP CPC plugs and receptacles. AMP connector kits and accessories page 158.



| Item | Part Number | Description                |
|------|-------------|----------------------------|
| 1    | 21089-0001  | Pin Contact (20-24 ga.)    |
| 2    | 21088-0001  | Socket Contact (20-24 ga.) |
| 3    | 21089-0002  | Pin Contact (14-18 ga.)    |
| 4    | 21088-0002  | Socket Contact (14-18 ga.) |



21894-0007



21894-0008



21894-0009



21895-0007

Metri-Pack

| Part Number | Description                                    |
|-------------|------------------------------------------------|
| 21894-0007  | 2 cavity, Metri Pack, Sealed, Female Connector |
| 21894-0008  | 2 cavity, Metri Pack, Sealed, Male Connector   |
| 21894-0009  | 2 cavity, Metri Pack, Sealed, Female Connector |
| 21895-0007  | 2 cavity, Receptacle Body                      |

## Connectors & Kits

| Part Number         | Description                |
|---------------------|----------------------------|
| <b>46682-0770S1</b> | <b>1-pin Connector Kit</b> |
| 21894-0001          | Plug Body (male)           |
| 21896-0002          | Socket Contact (18-20 ga.) |
| 21896-0004          | Socket Contact (14-16 ga.) |
| 21897-0001          | Seal, hole (18-20 ga.)     |
| 21897-0002          | Seal, hole (14-16 ga.)     |



| Part Number       | Description                |
|-------------------|----------------------------|
| <b>46627-0250</b> | <b>2-pin Connector Kit</b> |
| 21894-0002        | Plug Body (male)           |
| 21896-0002        | Socket Contact (18-20 ga.) |
| 21896-0004        | Socket Contact (14-16 ga.) |
| 21897-0001        | Seal, hole (18-20 ga.)     |
| 21897-0002        | Seal, hole (14-16 ga.)     |



| Part Number       | Description                |
|-------------------|----------------------------|
| <b>46627-0270</b> | <b>3-pin Connector Kit</b> |
| 21894-0003        | Plug Body (male)           |
| 21896-0002        | Socket Contact (18-20 ga.) |
| 21896-0004        | Socket Contact (14-16 ga.) |
| 21897-0001        | Seal, hole (18-20 ga.)     |
| 21897-0002        | Seal, hole (14-16 ga.)     |



| Part Number       | Description                    |
|-------------------|--------------------------------|
| <b>46627-0710</b> | <b>4-pin Connect Kit, Flat</b> |
| 21894-0004        | Plug Body (male)               |
| 21896-0002        | Socket Contact (18-20 ga.)     |
| 21896-0004        | Socket Contact (14-16 ga.)     |
| 21897-0001        | Seal, hole (18-20 ga.)         |
| 21897-0002        | Seal, hole (14-16 ga.)         |



| Part Number       | Description                        |
|-------------------|------------------------------------|
| <b>46627-0290</b> | <b>4-pin Connector Kit, Square</b> |
| 21894-0005        | Plug Body (male)                   |
| 21896-0002        | Socket Contact (18-20 ga.)         |
| 21896-0004        | Socket Contact (14-16 ga.)         |
| 21897-0001        | Seal, hole (18-20 ga.)             |
| 21897-0002        | Seal, hole (14-16 ga.)             |



| Part Number       | Description                      |
|-------------------|----------------------------------|
| <b>46627-0730</b> | <b>6-pin Connector Kit, Slat</b> |
| 21894-0006        | Plug Body (male)                 |
| 21896-0002        | Socket Contact (18-20 ga.)       |
| 21896-0004        | Socket Contact (14-16 ga.)       |
| 21897-0001        | Seal, hole (18-20 ga.)           |
| 21897-0002        | Seal, hole (14-16 ga.)           |



## Weather Pack

| Part Number         | Description                 |
|---------------------|-----------------------------|
| <b>46682-0770S1</b> | <b>1-pin Receptacle Kit</b> |
| 21895-0001          | Receptacle Body (female)    |
| 21896-0001          | Pin Contact (18-20 ga.)     |
| 21896-0003          | Pin Contact (14-16 ga.)     |
| 21897-0001          | Seal, hole (18-20 ga.)      |
| 21897-0002          | Seal, hole (14-16 ga.)      |

| Part Number       | Description                 |
|-------------------|-----------------------------|
| <b>46627-0240</b> | <b>2-pin Receptacle Kit</b> |
| 21895-0002        | Receptacle Body (female)    |
| 21896-0001        | Pin Contact (18-20 ga.)     |
| 21896-0003        | Pin Contact (14-16 ga.)     |
| 21897-0001        | Seal, hole (18-20 ga.)      |
| 21897-0002        | Seal, hole (14-16 ga.)      |

| Part Number       | Description                 |
|-------------------|-----------------------------|
| <b>46627-0260</b> | <b>3-pin Receptacle Kit</b> |
| 21895-0003        | Receptacle Body (female)    |
| 21896-0001        | Pin Contact (18-20 ga.)     |
| 21896-0003        | Pin Contact (14-16 ga.)     |
| 21897-0001        | Seal, hole (18-20 ga.)      |
| 21897-0002        | Seal, hole (14-16 ga.)      |

| Part Number       | Description                       |
|-------------------|-----------------------------------|
| <b>46627-0720</b> | <b>4-pin Receptacle Kit, Flat</b> |
| 21895-0004        | Receptacle Body (female)          |
| 21896-0001        | Pin Contact (18-20 ga.)           |
| 21896-0003        | Pin Contact (14-16 ga.)           |
| 21897-0001        | Seal, hole (18-20 ga.)            |
| 21897-0002        | Seal, hole (14-16 ga.)            |

| Part Number       | Description                         |
|-------------------|-------------------------------------|
| <b>46627-0280</b> | <b>4-pin Receptacle Kit, Square</b> |
| 21895-0005        | Receptacle Body (female)            |
| 21896-0001        | Pin Contact (18-20 ga.)             |
| 21896-0003        | Pin Contact (14-16 ga.)             |
| 21897-0001        | Seal, hole (18-20 ga.)              |
| 21897-0002        | Seal, hole (14-16 ga.)              |

| Part Number       | Description                       |
|-------------------|-----------------------------------|
| <b>46627-0740</b> | <b>6-pin Receptacle Kit, Flat</b> |
| 21895-0006        | Receptacle Body (female)          |
| 21896-0001        | Pin Contact (18-20 ga.)           |
| 21896-0003        | Pin Contact (14-16 ga.)           |
| 21897-0001        | Seal, hole (18-20 ga.)            |
| 21897-0002        | Seal, hole (14-16 ga.)            |

## *Dust Cap Plugs & Receptacles*

## *Weather Pack*



**45790-2860**  
**1-pin Dust Cap Plug**



**46695-0490**  
**1-pin Dust Cap Receptacle**



**46421-1320**  
**2-pin Dust Cap Plug**



**46421-1330**  
**2-pin Dust Cap Receptacle**



**46421-1090**  
**3-pin Dust Cap Plug**



**46421-1100**  
**3-pin Dust Cap Receptacle**



**46421-1110**  
**4-pin Square Dust Cap Plug**



**46421-1120**  
**4-pin Square Dust Cap Receptacle**



**46421-1610**  
**4-pin Straight Dust Cap Plug**



**46421-1600**  
**4-pin Straight Dust Cap Receptacle**



**46421-1340**  
**6-pin Dust Cap Plug**



**46421-1590**  
**6-pin Dust Cap Receptacle**

## Connectors & Kits

*AMP*

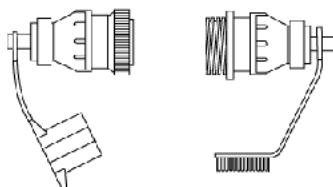
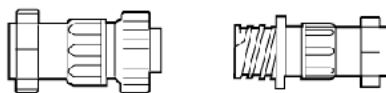
| Part Number       | Description                     |
|-------------------|---------------------------------|
| <b>11059-0007</b> | <b>4-pin w/Locking Ring Kit</b> |
| 21090-0001        | Plug Body                       |
| 21090-0004        | Connector Body                  |
| 21088-0001        | Socket Contact (20-24 ga.)      |
| 21088-0002        | Socket Contact (14-18 ga.)      |
| 21089-0001        | Pin Contact (20-24 ga.)         |
| 21089-0002        | Pin Contact (14-18 ga.)         |
| 21092-0001        | Clamp                           |

| Part Number       | Description                        |
|-------------------|------------------------------------|
| <b>11059-0009</b> | <b>9-pin with Locking Ring Kit</b> |
| 21090-0006        | Connector Body                     |
| 21088-0001        | Socket Contact (20-24 ga.)         |
| 21088-0002        | Socket Contact (14-18 ga.)         |
| 21092-0004        | Clamp                              |

| Part Number       | Description                         |
|-------------------|-------------------------------------|
| <b>11059-0011</b> | <b>14-pin with Locking Ring Kit</b> |
| 21090-0003        | Connector Body                      |
| 21088-0001        | Socket Contact (20-24 ga.)          |
| 21088-0002        | Socket Contact (14-18 ga.)          |
| 21092-0007        | Clamp                               |

| Part Number       | Description                         |
|-------------------|-------------------------------------|
| <b>11059-0013</b> | <b>16-pin with Locking Ring Kit</b> |
| 21090-0002        | Connector Body                      |
| 21088-0001        | Socket Contact (20-24 ga.)          |
| 21088-0002        | Socket Contact (14-18 ga.)          |
| 21092-0007        | Clamp                               |

| Part Number       | Description                         |
|-------------------|-------------------------------------|
| <b>11059-0005</b> | <b>37-pin with Locking Ring Kit</b> |
| 21090-0005        | Connector Body                      |
| 21088-0001        | Socket Contact (20-24 ga.)          |
| 21088-0002        | Socket Contact (14-18 ga.)          |
| 21092-0003        | Clamp                               |



| Part Number       | Description                           |
|-------------------|---------------------------------------|
| <b>11059-0008</b> | <b>4-pin without Locking Ring Kit</b> |
| 21091-0001        | Connector Body                        |
| 21091-0003        | Connector Body                        |
| 21088-0001        | Socket Contact (20-24 ga.)            |
| 21088-0002        | Socket Contact (14-18 ga.)            |
| 21089-0001        | Pin Contact (20-24 ga.)               |
| 21089-0002        | Pin Contact (14-18 ga.)               |
| 21092-0001        | Clamp                                 |

| Part Number       | Description                           |
|-------------------|---------------------------------------|
| <b>11059-0010</b> | <b>6-pin without Locking Ring Kit</b> |
| 21091-0006        | Connector Body                        |
| 21089-0001        | Pin Contact (20-24 ga.)               |
| 21089-0002        | Pin Contact (14-18 ga.)               |
| 21092-0004        | Clamp                                 |

| Part Number       | Description                            |
|-------------------|----------------------------------------|
| <b>11059-0012</b> | <b>14-pin without Locking Ring Kit</b> |
| 21091-0004        | Connector Body                         |
| 21089-0001        | Pin Contact (20-24 ga.)                |
| 21089-0002        | Pin Contact (14-18 ga.)                |
| 21092-0007        | Clamp                                  |

| Part Number       | Description                            |
|-------------------|----------------------------------------|
| <b>11059-0014</b> | <b>16-pin without Locking Ring Kit</b> |
| 21091-0002        | Connector Body                         |
| 21089-0001        | Pin Contact (20-24 ga.)                |
| 21089-0002        | Pin Contact (14-18 ga.)                |
| 21092-0007        | Clamp                                  |

| Part Number       | Description                            |
|-------------------|----------------------------------------|
| <b>11059-0016</b> | <b>37-pin without Locking Ring Kit</b> |
| 21101-0005        | Connector Body                         |
| 21089-0001        | Pin Contact (20-24 ga.)                |
| 21089-0002        | Pin Contact (14-18 ga.)                |
| 21092-0003        | Clamp                                  |

***Specifications subject to change without notice.***

**DICKEY-john®**

*5200 Dickey John Road*

*Auburn, IL 62615 USA*

***Toll Free:*** +1-800-637-3302

***Phone:*** +1-217-438-3371

***E-Mail:*** [info@dickey-john.com](mailto:info@dickey-john.com)

[www.dickey-john.com](http://www.dickey-john.com)

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