

IntelliAG[®]

CONTROL SYSTEMS FOR PRECISION FARMING



IntelliAg[®] puts the future of application control in your cab providing state-of-the-art communication between implement and tractor.

 **DICKEY-john[®]**
CORPORATION

INTELLIAG® CONTROL SYSTEMS

Compatible with a variety of implements, the DICKEY-john IntelliAg® Precision Farming System monitors and controls with just one terminal, eliminating the need for multiple controllers.

Because IntelliAg is designed for the ISO 11783 standard, it is interchangeable with other manufacturers' compatible equipment including:

- John Deere®
- AGCO
- Case IH

Benefits of IntelliAg

- ISO 11783 conformance allows for a common installation to interface with and operate multiple 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
- Provides variable rate application capability, as-applied mapping, and auto section

IntelliAg AI Virtual Terminals

The AI Virtual Terminals (VT) are mounted inside the tractor cab and are the main user interface with the IntelliAg system.

All AI Virtual Terminals Feature

- Graphic-defined keys for navigation
- Escape key
- Backlit graphics display for night-time use
- Backlight intensity adjustment
- English or metric measurements
- SD card slot to support VT reprogramming

AI 120 & AI 100 Virtual Terminal

- 4-channel variable-rate prescription
- Compatible with GPS receiver/NMEA
- ISO compliant
- Video display (connects to 2 optional cameras)
- SD card slot (for saving configuration files, as applied data, and prescription application)
- Terminal generates as-covered maps
- Supports multiple languages
- 10" color screen (AI 100)
- 12" color screen (AI 120)
- AI 120 has integrated auto section control and is compatible with Topcon auto steering

AI 50 Virtual Terminal

- A 240 pixel X 240 pixel color graphics display
- Integrated Tractor ECU
- Economical
- 5" color screen



The IntelliAg Control System starts with a base of required components and is customizable to your specific application with a variety of additional optional components.

Required Components

- Virtual Terminal
- Master Switch
- Working Set Master (WSMT2)
- Harnesses
- CAN Terminators
- Tractor Electronic Control Unit (TECU)

Optional Components

- Working Set Member Module (WSMB)
- Row Switch Module with Planter
- Output Module
- Remote Test Switch
- Implement Lift Switch

WSMT2

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

WSMT2 modules are available for different implement applications, including sprayers, fertilizer spreaders, anhydrous bars, planters/grain drills, and air carts.

TECU

The Tractor Electronic Control Unit (TECU) manages the power on the CAN BUS and accessory sensor inputs connected to the tractor cab harness, such as ground speed.

WSMB

The Working Set Member Module (WSMB) is an auxiliary to the Working Set Master Module (WSMT2) and provides inputs from seed sensors for additional row monitoring. Each WSMB can accept up to 18 rows of seed sensors and passes information directly to the WSMT2. Up to 10 WSMB's can be installed virtually anywhere on the implement to monitor up to 196 rows.



PLANTING

The IntelliAg Planter/Drill System (PDC) provides planter monitoring and control of seeds being placed in soil by each row unit, including counting seeds planted per acre, inches between seeds and average population.

The system provides:

- Planter monitor functionality (max. 196 rows)
- 4 independent control channels for:
 - Row crop planter seeding (seeds/acre)
 - Grain drill seeding (lbs./acre)
 - Liquid spraying (gal./acre)
 - Granular fertilizer (lbs./acre)
- Control over the number of seeds planted per acre and ease of use to set the desired target material rate and go
- Prescription variable rate flexibility to increase or decrease the population as you drive through the field
- Manual population rate changes from the cab or by using prescription application rates loaded into the IntelliAg from your computer
- Monitoring of 16 seed sensors along with accessory implement sensors including 2 hopper level, 2 air pressure, 2 shaft RPM, 1 ground speed sensor, and 1 lift switch
- Auto-row shutoff control that utilizes Tru Count Clutches (24 rows)

The IntelliAg Planter/Drill System can be connected with an ISO-compliant virtual terminal already in your tractor.



Row Shutoff Module

Row Shutoff Module is used to provide physical in-cab switching for manual on/off control of row section 1-6.

Air Pressure Sensor

Air Pressure Sensor measures air pressure in the seed hopper.

Hopper Level Sensor

Hopper Level Sensor alerts when seed or granular material reaches a low level in the hopper.

Planter Base System

- IntelliAg Virtual Terminal A1 PLUS, 10" color touch screen w/SD card slot
- Tractor harness for use with 10" Virtual Terminal
- System power harness with ISO hitch connector
- ISO master switch to control on/off
- Hitch extension harness
- WSMT2-PDC
- WSMT2 T harness

Working Set Member Module 2 (WSMB2)

Seed singulation and spacing quality are features available when adding a Working Set Member 2 (WSMB2) module 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.



Application Rate Sensor

Application Rate Sensors measure shaft rotation speed.



WSMB

WSMB processes up to 18 seed sensor inputs and communicates them to the control module. An accessory module is required for planters larger than 16 rows.



WSMT2-PDC

WSMT2-PDC processes sensor inputs and communicates them to the control unit in the tractor cab.

High Rate Seed Sensor

High Rate Seed Sensor delivers improved population counts and is capable of detecting small seeds like milo, beets and cotton.



HD 4180 Hydraulic Motor/Control Valve

Automatically adjusts planter and fertilizer rates while moving.



Implement Lift Switch

Implement Lift Switch enables or disables implement function and attaches to 3-point hitch or lift cylinder.



Row	% Singulation	% Singulation	% Spacing Quality	% Spacing Quality	% Skips	% Skips	% Multiples	% Multiples
8	100.0%	100.0%	100.0%	100.0%	0.0%	0.0%	0.0%	0.0%
1	100.0%	100.0%	100.0%	100.0%	0.0%	0.0%	0.0%	0.0%
8	100.0%	100.0%	100.0%	100.0%	0.0%	0.0%	0.0%	0.0%
8	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
8	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

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

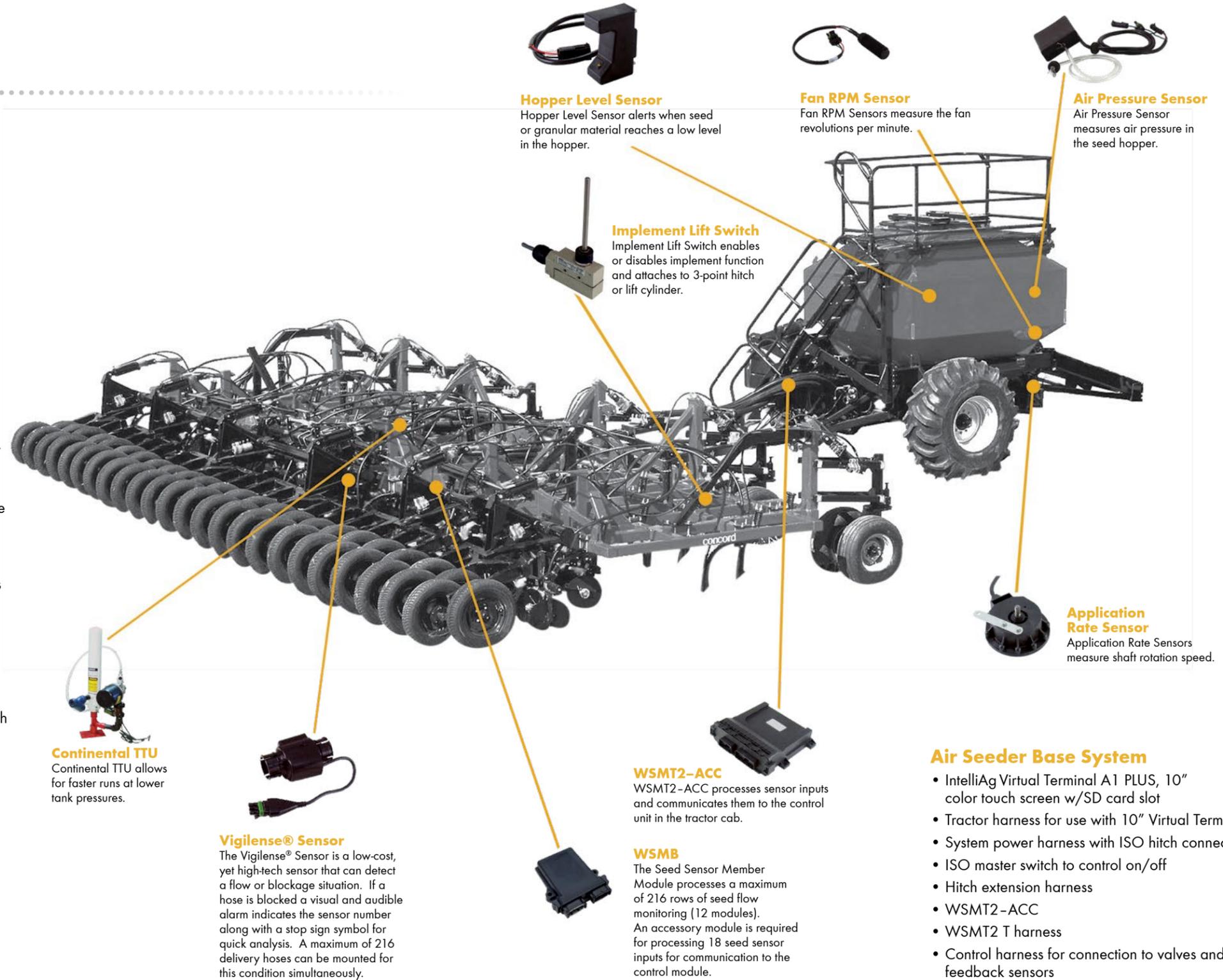
AIR SEEDING

The IntelliAg Air Cart Control (ACC) System allows for full utilization of a 1 to 4 bin air cart. The system monitors seed or fertilizer traveling through the air system to ensure the material is getting to the soil and is not being trapped in a hose.

The system provides:

- Planter monitor functionality (max. 216 rows)
- 5 independent control channels for:
 - Air cart seeding (lbs./acre)
 - Grain drill seeding (lbs./acre)
 - Liquid spraying (gal./acre)
 - Granular fertilizer (lbs./acre)
 - Anhydrous ammonia (lbs./acre)
- Control over the pounds of seed, fertilizer or NH₃ that are applied per acre by each air cart bin independently to set a desired target material rate and go
- Prescription variable rate flexibility to increase or decrease the rate of each bin as you drive through the field
- Manual population rate changes from the cab or by using prescription application rates loaded into the IntelliAg from a prescription farming VRT map
- Monitoring of accessory implement sensors including 5 hopper level, 4 air pressure, 4 shaft RPM, 1 ground speed sensor, and 1 lift switch
- Control of fertilizer in strip till applications with air carts

The IntelliAg Air Cart Control System can be connected with an ISO-compliant virtual terminal already in your tractor.



Air Seeder Base System

- IntelliAg Virtual Terminal A1 PLUS, 10" color touch screen w/SD card slot
- Tractor harness for use with 10" Virtual Terminal
- System power harness with ISO hitch connector
- ISO master switch to control on/off
- Hitch extension harness
- WSMT2-ACC
- WSMT2 T harness
- Control harness for connection to valves and feedback sensors

ANHYDROUS

The IntelliAg Anhydrous (NH₃) Control System provides automatic ground speed control for the application of anhydrous ammonia only.

The system provides:

- Up to 2 independent channels of anhydrous ammonia control and allows large tool bars to be split in half and vary the rate of each section while traveling through a field.
- Control of the pounds per acre of anhydrous ammonia applied when a DICKEY-john anhydrous cooling system is paired with an anhydrous tool bar
- Flexibility to increase or decrease the rates of each material being applied on the go by setting a desired target material rate
- Manual rate changes from the cab or using automatic prescription application rates loaded into the IntelliAg from a prescription farming VRT map
- Capable of six sections of auto swath control
- Visual readout and display of important application information such as pounds per hour, flow rate of anhydrous, total pounds of NH₃ applied, current NH₃ tank level, along with field area covered
- The capability to log as-applied data and generate an as-covered map

The IntelliAg Anhydrous Control System can be connected with an ISO-compliant virtual Terminal already in your tractor.



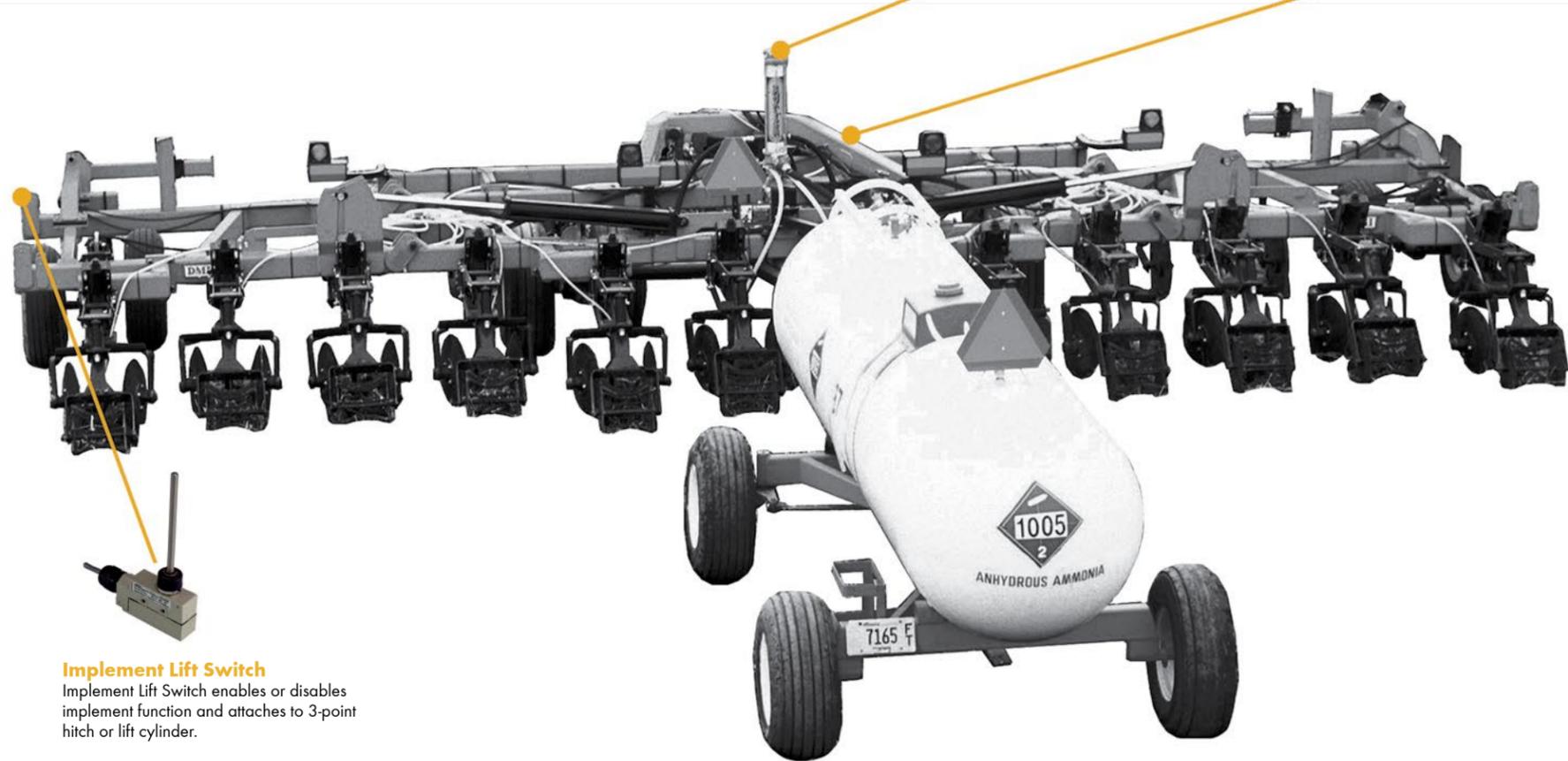
Boom Shutoff Module
Boom Shutoff Module is used to provide physical in-cab switching for manual on/off control of boom sections 1-6.



Continental TTU
Continental TTU allows for faster runs at lower tank pressures.



WSMT2-NH₃
WSMT2-NH₃ processes sensor inputs and communicates them to the control unit in the tractor cab.



Implement Lift Switch
Implement Lift Switch enables or disables implement function and attaches to 3-point hitch or lift cylinder.

Anhydrous Base System

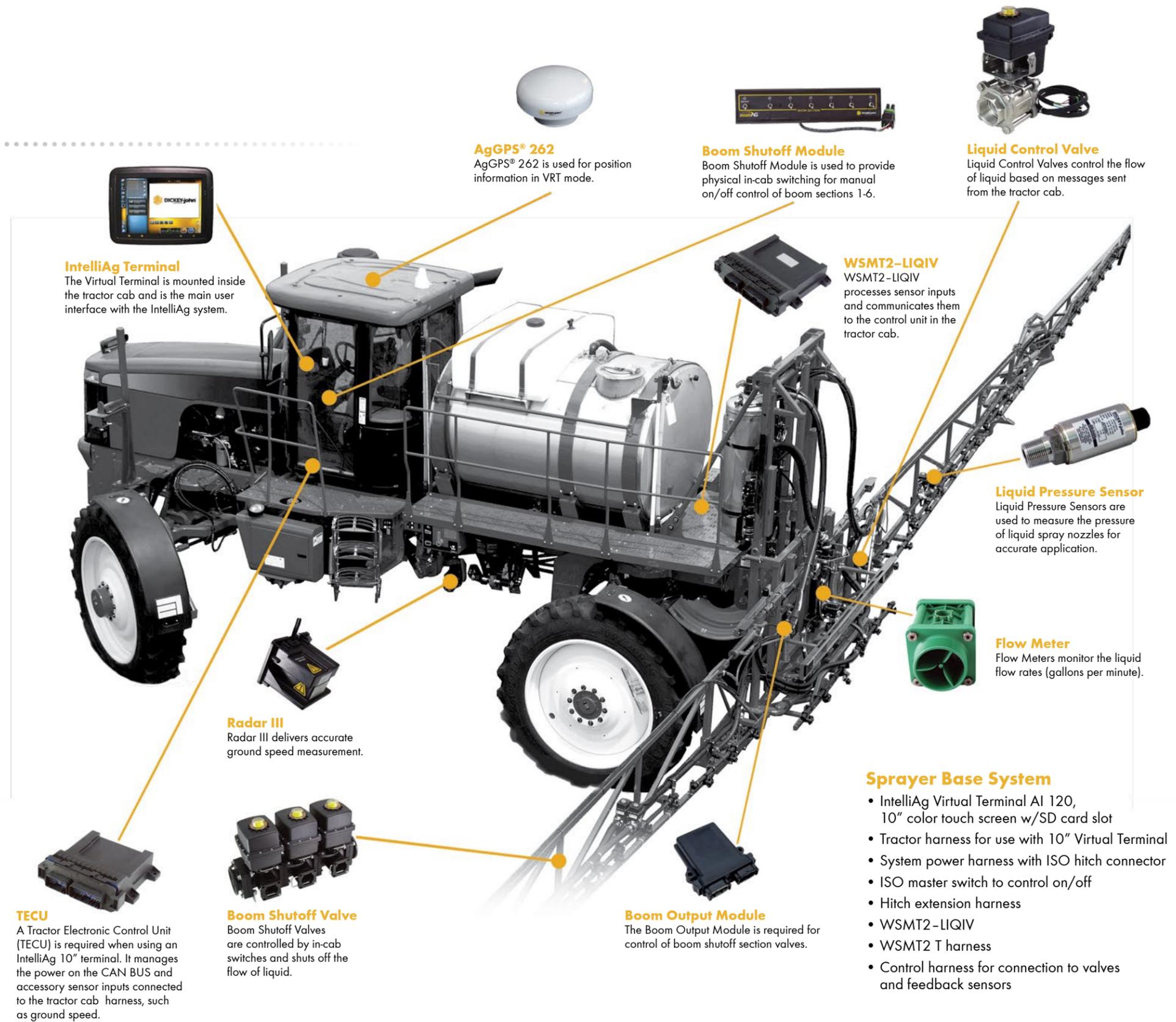
- IntelliAg Virtual Terminal AI 120, 10" color touch screen w/SD card slot
- Tractor harness for use with 10" Virtual Terminal
- System power harness with ISO hitch connector
- ISO master switch to control on/off
- Hitch extension harness
- WSMT2-NH₃
- WSMT2 T harness
- Control harness for connection to valves and feedback sensors

SPRAYING

The IntelliAg Sprayer Control System (LIQIV) is designed with features tailored specifically for self-propelled and pull-behind liquid sprayers.

The system provides:

- 4 independent liquid control channels and inputs for auxiliary sensors such as liquid pressure, shaft RPM and 7 boom shutoff inputs
- Monitor up to 7 boom shutoff inputs, 2 shaft RPM sensors and 4 liquid pressure sensors
- Flexibility to use either pressure sensor or flow meter feedback of liquid flow rate
- Compatible with a wide range of liquid servo control valves or hydraulic control valves, and electric driven pumps.
- Simply set the desired target material rate and go
- Capable of six sections of auto section control
- Prescription variable rate flexibility to automatically increase or decrease the rates of each material being applied as you drive through the field
- Manual rate changes from the cab or by using prescription application rates loaded into the IntelliAg from a prescription farming VRT map
- The capability to log as-applied data and generate an as-covered map



AgGPS® 262
AgGPS® 262 is used for position information in VRT mode.

Boom Shutoff Module
Boom Shutoff Module is used to provide physical in-cab switching for manual on/off control of boom sections 1-6.

Liquid Control Valve
Liquid Control Valves control the flow of liquid based on messages sent from the tractor cab.

IntelliAg Terminal
The Virtual Terminal is mounted inside the tractor cab and is the main user interface with the IntelliAg system.

WSMT2-LIQIV
WSMT2-LIQIV processes sensor inputs and communicates them to the control unit in the tractor cab.

Liquid Pressure Sensor
Liquid Pressure Sensors are used to measure the pressure of liquid spray nozzles for accurate application.

Flow Meter
Flow Meters monitor the liquid flow rates (gallons per minute).

Radar III
Radar III delivers accurate ground speed measurement.

TECU
A Tractor Electronic Control Unit (TECU) is required when using an IntelliAg 10" terminal. It manages the power on the CAN BUS and accessory sensor inputs connected to the tractor cab harness, such as ground speed.

Boom Shutoff Valve
Boom Shutoff Valves are controlled by in-cab switches and shuts off the flow of liquid.

Boom Output Module
The Boom Output Module is required for control of boom shutoff section valves.

Sprayer Base System

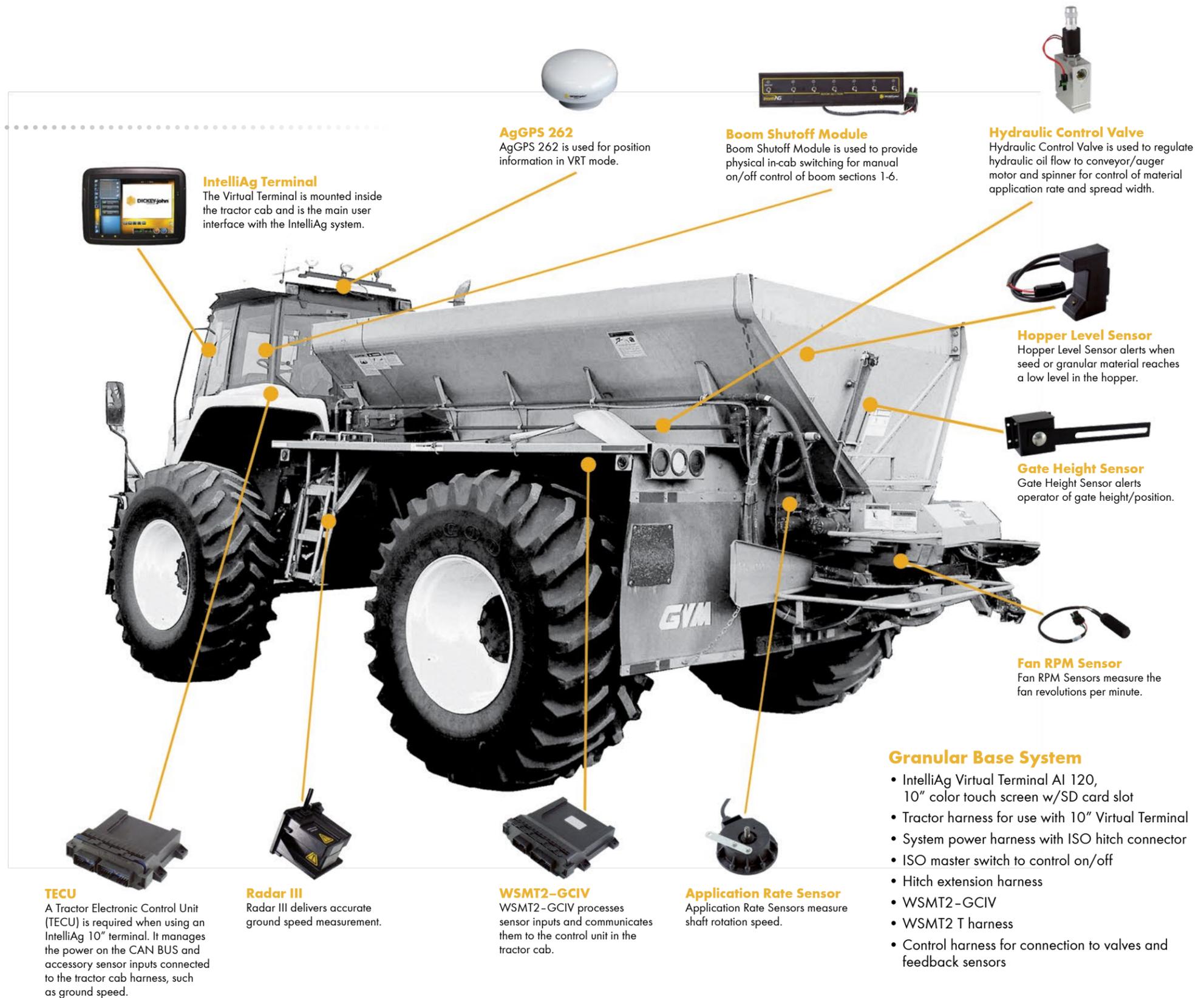
- IntelliAg Virtual Terminal AI 120, 10" color touch screen w/SD card slot
- Tractor harness for use with 10" Virtual Terminal
- System power harness with ISO hitch connector
- ISO master switch to control on/off
- Hitch extension harness
- WSMT2-LIQIV
- WSMT2 T harness
- Control harness for connection to valves and feedback sensors

GRANULAR

The IntelliAg Granular Spreader Control System (GCIV) is designed with features tailored specifically for self-propelled and pull-behind granular spreaders.

The system provides:

- 4 channels of granular control and inputs for auxiliary sensors such as hopper level, shaft RPM, gate height, and 5 air boom shutoff inputs
- Monitoring of a 360° pulse-per-revolution feedback sensor; this mounts on the shaft of the granular material delivery system to provide accurate information relative to the granular material being applied
- Pulse-width-modulated, servo-drive hydraulic control valves, and electric motor drives are controlled by the granular controller to maintain the desired application rate.
- Simply set the desired target material rate and go
- Prescription variable rate flexibility to increase or decrease the rates of each material being applied as you drive through the field
- Manual rate changes from the cab or by using prescription application rates loaded into the IntelliAg from a prescription farming VRT map
- A spinner or spread control feature to allow adjustment of the spread width from the cab for conventional V-Box spreaders
- The capability to log as-applied data and generate an as-covered map
- Monitoring of up to 5 boom shutoff inputs, 2 shaft RPM sensors, 2 bin level sensors, and 4 gate height sensors



IntelliAg Terminal
The Virtual Terminal is mounted inside the tractor cab and is the main user interface with the IntelliAg system.

AgGPS 262
AgGPS 262 is used for position information in VRT mode.

Boom Shutoff Module
Boom Shutoff Module is used to provide physical in-cab switching for manual on/off control of boom sections 1-6.

Hydraulic Control Valve
Hydraulic Control Valve is used to regulate hydraulic oil flow to conveyor/auger motor and spinner for control of material application rate and spread width.

Hopper Level Sensor
Hopper Level Sensor alerts when seed or granular material reaches a low level in the hopper.

Gate Height Sensor
Gate Height Sensor alerts operator of gate height/position.

Fan RPM Sensor
Fan RPM Sensors measure the fan revolutions per minute.

TECU
A Tractor Electronic Control Unit (TECU) is required when using an IntelliAg 10" terminal. It manages the power on the CAN BUS and accessory sensor inputs connected to the tractor cab harness, such as ground speed.

Radar III
Radar III delivers accurate ground speed measurement.

WSMT2-GCIV
WSMT2-GCIV processes sensor inputs and communicates them to the control unit in the tractor cab.

Application Rate Sensor
Application Rate Sensors measure shaft rotation speed.

Granular Base System

- IntelliAg Virtual Terminal AI 120, 10" color touch screen w/SD card slot
- Tractor harness for use with 10" Virtual Terminal
- System power harness with ISO hitch connector
- ISO master switch to control on/off
- Hitch extension harness
- WSMT2-GCIV
- WSMT2 T harness
- Control harness for connection to valves and feedback sensors

AS APPLIED

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

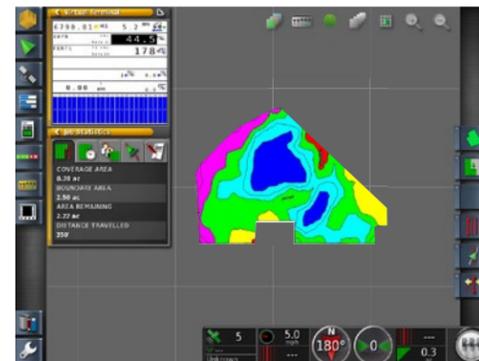
Features include:

- 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.



AI 120 Guidance Screen



Imported Variable Rate Map

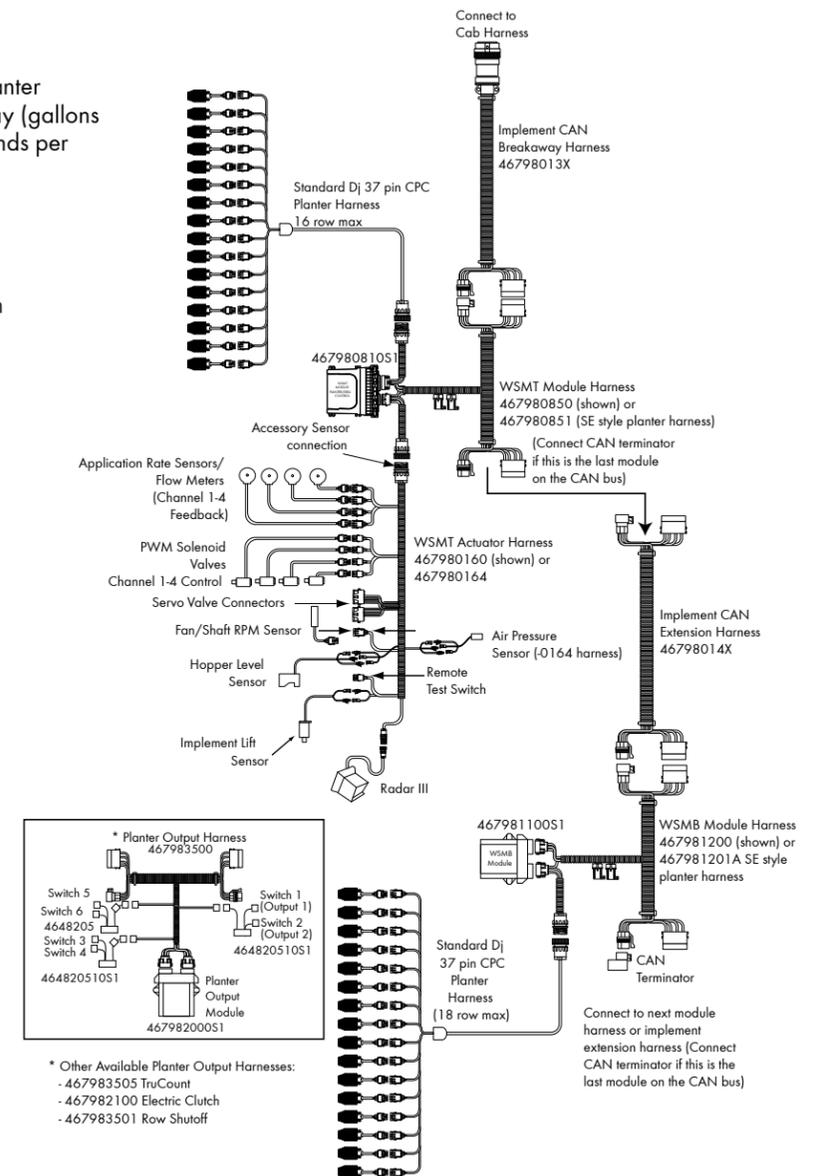
SYSTEM DIAGRAM

Planter/Grain Drill Control Module

4 control channels can be set for planter seeding (seeds per acre), liquid spray (gallons per acre), or granular fertilizer (pounds per acre) application.

Accepts inputs from:

- 1 Hopper level sensor
- 1 RPM or 2 air pressure sensors with 11001-0164 accessory harness
- 1 implement lift switch
- 1 Ground speed sensor
- 16 Seed sensors
- Optional Working Set Member can accept additional seed sensors
- Optional Working Set Member output modules can be connected



WORLD LEADER

AGRICULTURE PRECISION

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When you take a need, add inspired ingenuity and develop the result with unsurpassed quality, you get market-leading technology in the Agriculture Industry

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Market-Leading Technology:

- DICKEY-john developed the ag industry's first successful planter monitor
- DICKEY-john was one of the industry's first to be ISO 9001: 2008 quality certified
- DICKEY-john was the first to offer a complete precision agriculture package with IntelliAg and Trimble AgGPS AutoSteering
- DICKEY-john offers the award-winning handheld moisture tester mini GAC® - that uses the same technology as the U.S. federal standard

Customers on six continents depend on our precision products to perform in the most rugged environments. In-house manufacturing and an on-site engineering team help us maintain that DICKEY-john standard of quality.

When you buy DICKEY-john, you're making an investment in the future of your operation. Because DICKEY-john products solve not only today's needs but also tomorrow's challenges.

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IntelliAg AI Virtual Terminals

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All AI Virtual Terminals Feature

- Graphic-defined keys for navigation
- Escape key
- Backlit graphics display for night-time use
- Backlight intensity adjustment
- English or metric measurements
- SD card slot to support VT reprogramming

AI 120 & AI 100 Virtual Terminal

- 4-channel variable-rate prescription
- Compatible with GPS receiver/NMEA
- ISO compliant
- Video display (connects to 2 optional cameras)
- SD card slot (for saving configuration files, as applied data, and prescription application)
- Terminal generates as-covered maps
- Supports multiple languages
- 10" color screen (AI 100)
- 12" color screen (AI 120)
- AI 120 has integrated auto section control and is compatible with Topcon auto steering

AI 50 Virtual Terminal

- A 240 pixel X 240 pixel color graphics display
- Integrated Tractor ECU
- Economical
- 5" color screen

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Required Components

- Virtual Terminal
- Master Switch
- Working Set Master (WSMT2)
- Harnesses
- CAN Terminators
- Tractor Electronic Control Unit (TECU)

Optional Components

- Working Set Member Module (WSMB)
- Row Switch Module with Planter
- Output Module
- Remote Test Switch
- Implement Lift Switch

WSMT2

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

WSMT2 modules are available for different implement applications, including sprayers, fertilizer spreaders, anhydrous bars, planters/grain drills, and air carts.

TECU

The Tractor Electronic Control Unit (TECU) manages the power on the CAN BUS and accessory sensor inputs connected to the tractor cab harness, such as ground speed.

WSMB

The Working Set Member Module (WSMB) is an auxiliary to the Working Set Master Module (WSMT2) and provides inputs from seed sensors for additional row monitoring. Each WSMB can accept up to 18 rows of seed sensors and passes information directly to the WSMT2. Up to 10 WSMB's can be installed virtually anywhere on the implement to monitor up to 196 rows.



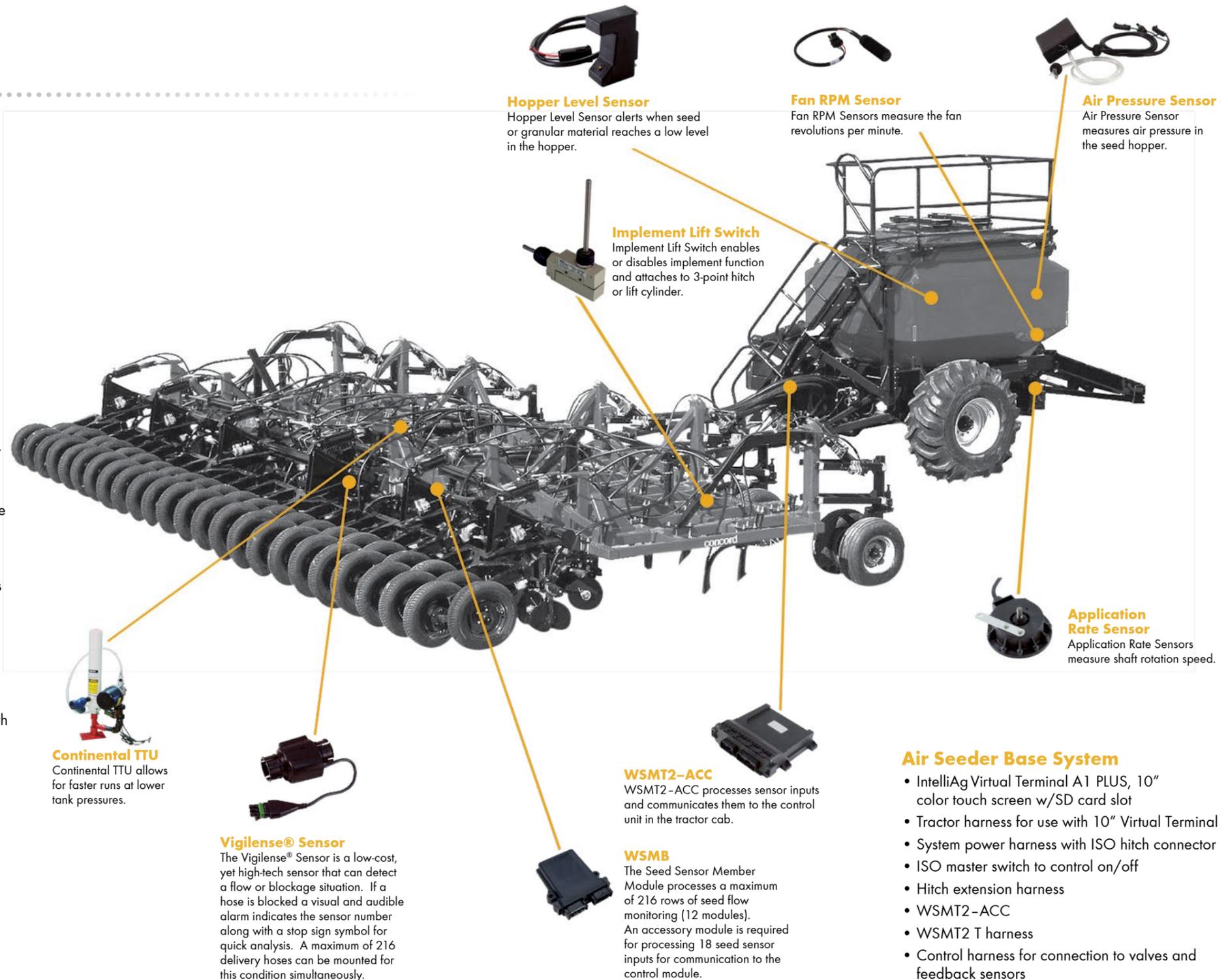
AIR SEEDING

The IntelliAg Air Cart Control (ACC) System allows for full utilization of a 1 to 4 bin air cart. The system monitors seed or fertilizer traveling through the air system to ensure the material is getting to the soil and is not being trapped in a hose.

The system provides:

- Planter monitor functionality (max. 216 rows)
- 5 independent control channels for:
 - Air cart seeding (lbs./acre)
 - Grain drill seeding (lbs./acre)
 - Liquid spraying (gal./acre)
 - Granular fertilizer (lbs./acre)
 - Anhydrous ammonia (lbs./acre)
- Control over the pounds of seed, fertilizer or NH₃ that are applied per acre by each air cart bin independently to set a desired target material rate and go
- Prescription variable rate flexibility to increase or decrease the rate of each bin as you drive through the field
- Manual population rate changes from the cab or by using prescription application rates loaded into the IntelliAg from a prescription farming VRT map
- Monitoring of accessory implement sensors including 5 hopper level, 4 air pressure, 4 shaft RPM, 1 ground speed sensor, and 1 lift switch
- Control of fertilizer in strip till applications with air carts

The IntelliAg Air Cart Control System can be connected with an ISO-compliant virtual terminal already in your tractor.



Hopper Level Sensor
Hopper Level Sensor alerts when seed or granular material reaches a low level in the hopper.

Fan RPM Sensor
Fan RPM Sensors measure the fan revolutions per minute.

Air Pressure Sensor
Air Pressure Sensor measures air pressure in the seed hopper.

Implement Lift Switch
Implement Lift Switch enables or disables implement function and attaches to 3-point hitch or lift cylinder.

Application Rate Sensor
Application Rate Sensors measure shaft rotation speed.

Continental TTU
Continental TTU allows for faster runs at lower tank pressures.

Vigilense® Sensor
The Vigilense® Sensor is a low-cost, yet high-tech sensor that can detect a flow or blockage situation. If a hose is blocked a visual and audible alarm indicates the sensor number along with a stop sign symbol for quick analysis. A maximum of 216 delivery hoses can be mounted for this condition simultaneously.

WSMT2-ACC
WSMT2-ACC processes sensor inputs and communicates them to the control unit in the tractor cab.

WSMB
The Seed Sensor Member Module processes a maximum of 216 rows of seed flow monitoring (12 modules). An accessory module is required for processing 18 seed sensor inputs for communication to the control module.

Air Seeder Base System

- IntelliAg Virtual Terminal A1 PLUS, 10" color touch screen w/SD card slot
- Tractor harness for use with 10" Virtual Terminal
- System power harness with ISO hitch connector
- ISO master switch to control on/off
- Hitch extension harness
- WSMT2-ACC
- WSMT2 T harness
- Control harness for connection to valves and feedback sensors

ANHYDROUS

The IntelliAg Anhydrous (NH₃) Control System provides automatic ground speed control for the application of anhydrous ammonia only.

The system provides:

- Up to 2 independent channels of anhydrous ammonia control and allows large tool bars to be split in half and vary the rate of each section while traveling through a field.
- Control of the pounds per acre of anhydrous ammonia applied when a DICKEY-john anhydrous cooling system is paired with an anhydrous tool bar
- Flexibility to increase or decrease the rates of each material being applied on the go by setting a desired target material rate
- Manual rate changes from the cab or using automatic prescription application rates loaded into the IntelliAg from a prescription farming VRT map
- Capable of six sections of auto swath control
- Visual readout and display of important application information such as pounds per hour, flow rate of anhydrous, total pounds of NH₃ applied, current NH₃ tank level, along with field area covered
- The capability to log as-applied data and generate an as-covered map

The IntelliAg Anhydrous Control System can be connected with an ISO-compliant virtual Terminal already in your tractor.



Boom Shutoff Module

Boom Shutoff Module is used to provide physical in-cab switching for manual on/off control of boom sections 1-6.



Continental TTU

Continental TTU allows for faster runs at lower tank pressures.



WSMT2-NH₃

WSMT2-NH₃ processes sensor inputs and communicates them to the control unit in the tractor cab.



Implement Lift Switch

Implement Lift Switch enables or disables implement function and attaches to 3-point hitch or lift cylinder.

Anhydrous Base System

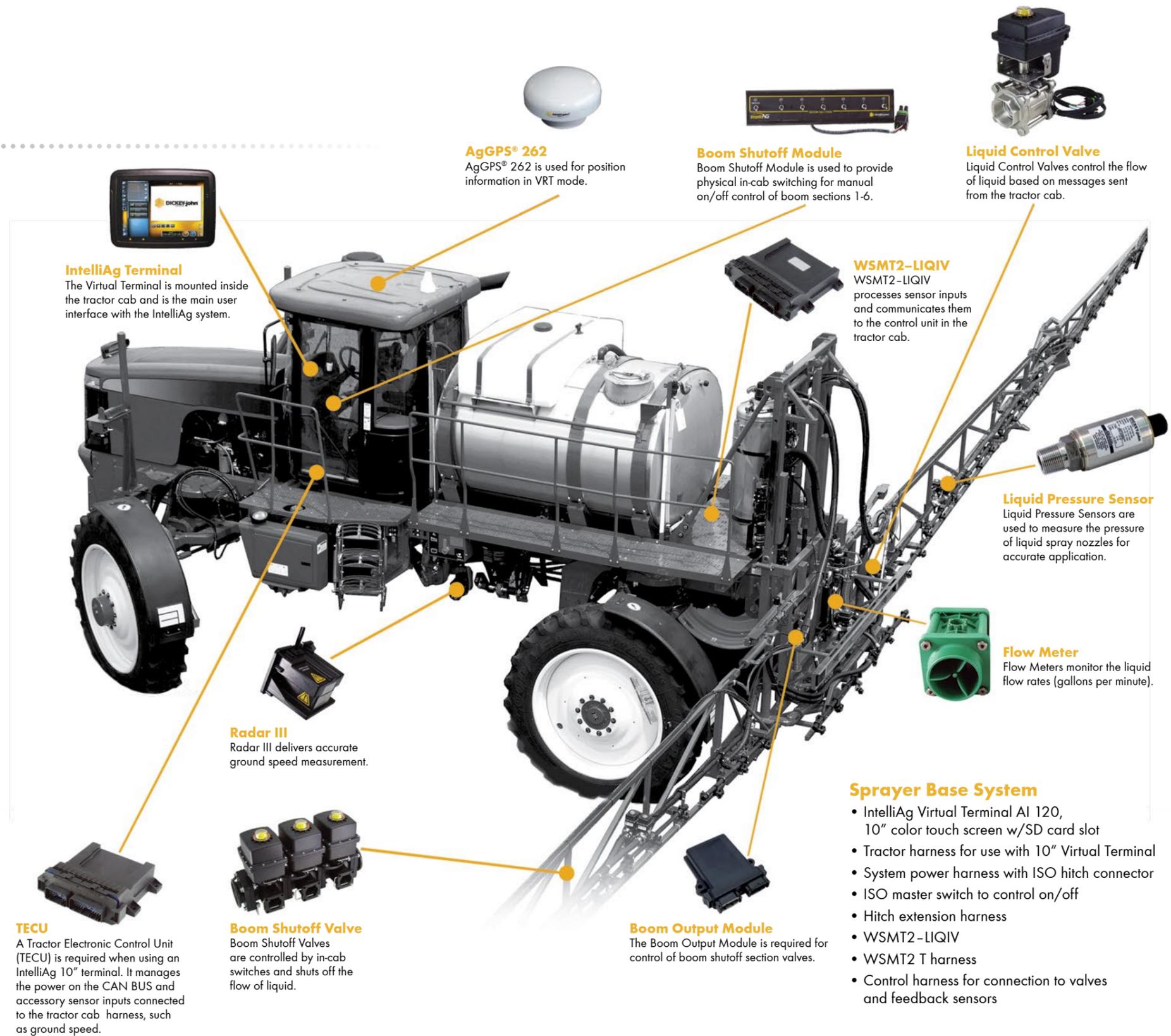
- IntelliAg Virtual Terminal AI 120, 10" color touch screen w/SD card slot
- Tractor harness for use with 10" Virtual Terminal
- System power harness with ISO hitch connector
- ISO master switch to control on/off
- Hitch extension harness
- WSMT2-NH₃
- WSMT2 T harness
- Control harness for connection to valves and feedback sensors

SPRAYING

The IntelliAg Sprayer Control System (LIQIV) is designed with features tailored specifically for self-propelled and pull-behind liquid sprayers.

The system provides:

- 4 independent liquid control channels and inputs for auxiliary sensors such as liquid pressure, shaft RPM and 7 boom shutoff inputs
- Monitor up to 7 boom shutoff inputs, 2 shaft RPM sensors and 4 liquid pressure sensors
- Flexibility to use either pressure sensor or flow meter feedback of liquid flow rate
- Compatible with a wide range of liquid servo control valves or hydraulic control valves, and electric driven pumps.
- Simply set the desired target material rate and go
- Capable of six sections of auto section control
- Prescription variable rate flexibility to automatically increase or decrease the rates of each material being applied as you drive through the field
- Manual rate changes from the cab or by using prescription application rates loaded into the IntelliAg from a prescription farming VRT map
- The capability to log as-applied data and generate an as-covered map



IntelliAg Terminal
The Virtual Terminal is mounted inside the tractor cab and is the main user interface with the IntelliAg system.

AgGPS® 262
AgGPS® 262 is used for position information in VRT mode.

Boom Shutoff Module
Boom Shutoff Module is used to provide physical in-cab switching for manual on/off control of boom sections 1-6.

Liquid Control Valve
Liquid Control Valves control the flow of liquid based on messages sent from the tractor cab.

WSMT2-LIQIV
WSMT2-LIQIV processes sensor inputs and communicates them to the control unit in the tractor cab.

Liquid Pressure Sensor
Liquid Pressure Sensors are used to measure the pressure of liquid spray nozzles for accurate application.

Flow Meter
Flow Meters monitor the liquid flow rates (gallons per minute).

Radar III
Radar III delivers accurate ground speed measurement.

TECU
A Tractor Electronic Control Unit (TECU) is required when using an IntelliAg 10" terminal. It manages the power on the CAN BUS and accessory sensor inputs connected to the tractor cab harness, such as ground speed.

Boom Shutoff Valve
Boom Shutoff Valves are controlled by in-cab switches and shuts off the flow of liquid.

Boom Output Module
The Boom Output Module is required for control of boom shutoff section valves.

Sprayer Base System

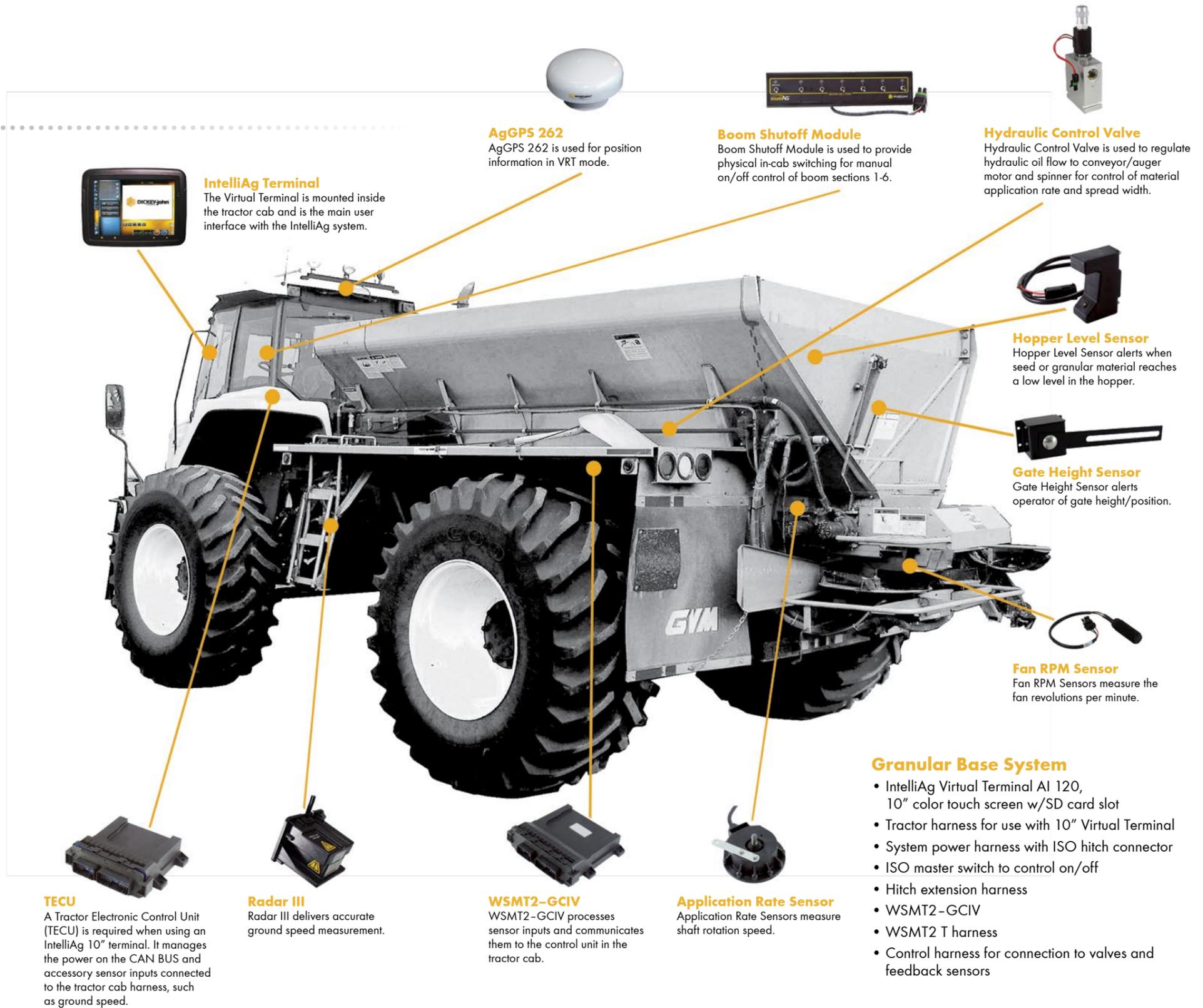
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- Hitch extension harness
- WSMT2-LIQIV
- WSMT2 T harness
- Control harness for connection to valves and feedback sensors

GRANULAR

The IntelliAg Granular Spreader Control System (GCIV) is designed with features tailored specifically for self-propelled and pull-behind granular spreaders.

The system provides:

- 4 channels of granular control and inputs for auxiliary sensors such as hopper level, shaft RPM, gate height, and 5 air boom shutoff inputs
- Monitoring of a 360° pulse-per-revolution feedback sensor; this mounts on the shaft of the granular material delivery system to provide accurate information relative to the granular material being applied
- Pulse-width-modulated, servo-drive hydraulic control valves, and electric motor drives are controlled by the granular controller to maintain the desired application rate.
- Simply set the desired target material rate and go
- Prescription variable rate flexibility to increase or decrease the rates of each material being applied as you drive through the field
- Manual rate changes from the cab or by using prescription application rates loaded into the IntelliAg from a prescription farming VRT map
- A spinner or spread control feature to allow adjustment of the spread width from the cab for conventional V-Box spreaders
- The capability to log as-applied data and generate an as-covered map
- Monitoring of up to 5 boom shutoff inputs, 2 shaft RPM sensors, 2 bin level sensors, and 4 gate height sensors



IntelliAg Terminal
The Virtual Terminal is mounted inside the tractor cab and is the main user interface with the IntelliAg system.

AgGPS 262
AgGPS 262 is used for position information in VRT mode.

Boom Shutoff Module
Boom Shutoff Module is used to provide physical in-cab switching for manual on/off control of boom sections 1-6.

Hydraulic Control Valve
Hydraulic Control Valve is used to regulate hydraulic oil flow to conveyor/auger motor and spinner for control of material application rate and spread width.

Hopper Level Sensor
Hopper Level Sensor alerts when seed or granular material reaches a low level in the hopper.

Gate Height Sensor
Gate Height Sensor alerts operator of gate height/position.

Fan RPM Sensor
Fan RPM Sensors measure the fan revolutions per minute.

TECU
A Tractor Electronic Control Unit (TECU) is required when using an IntelliAg 10" terminal. It manages the power on the CAN BUS and accessory sensor inputs connected to the tractor cab harness, such as ground speed.

Radar III
Radar III delivers accurate ground speed measurement.

WSMT2-GCIV
WSMT2-GCIV processes sensor inputs and communicates them to the control unit in the tractor cab.

Application Rate Sensor
Application Rate Sensors measure shaft rotation speed.

Granular Base System

- IntelliAg Virtual Terminal AI 120, 10" color touch screen w/SD card slot
- Tractor harness for use with 10" Virtual Terminal
- System power harness with ISO hitch connector
- ISO master switch to control on/off
- Hitch extension harness
- WSMT2-GCIV
- WSMT2 T harness
- Control harness for connection to valves and feedback sensors

AS APPLIED

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

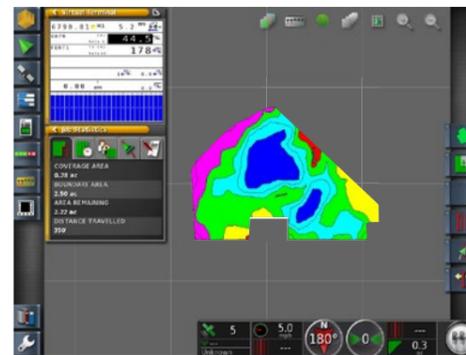
Features include:

- 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.



AI 120 Guidance Screen



Imported Variable Rate Map

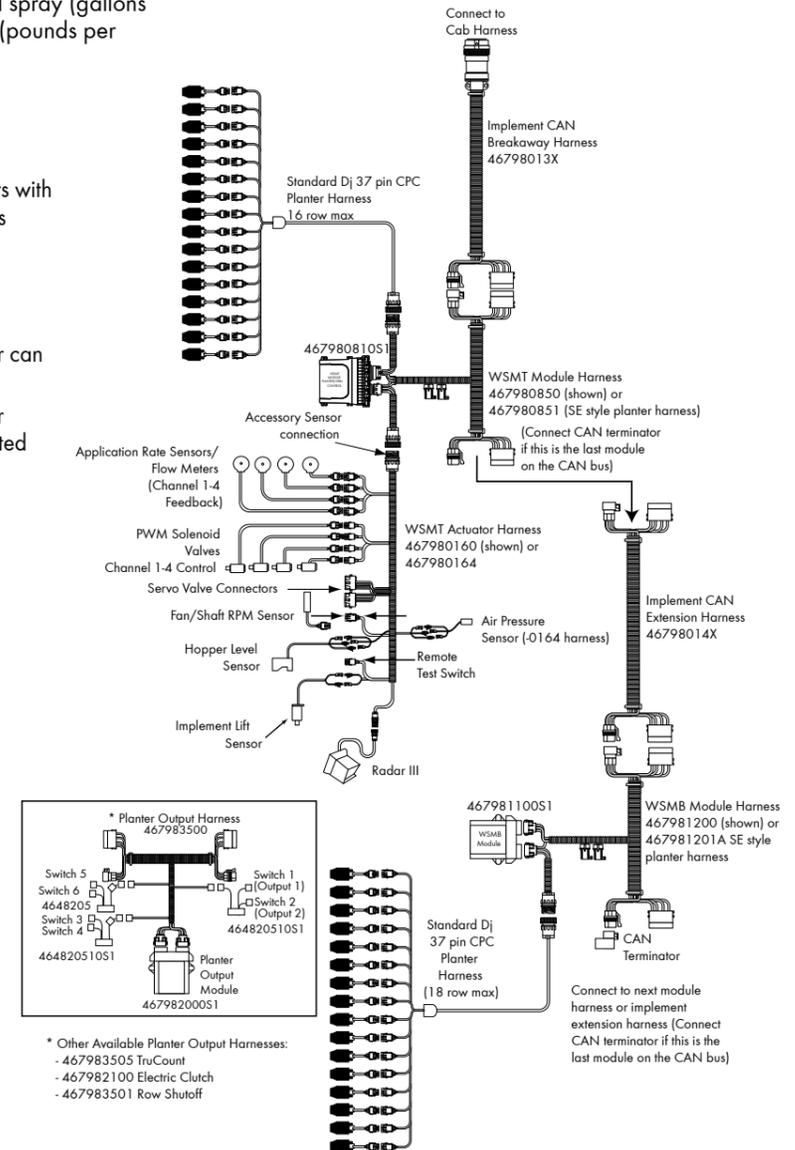
SYSTEM DIAGRAM

Planter/Grain Drill Control Module

4 control channels can be set for planter seeding (seeds per acre), liquid spray (gallons per acre), or granular fertilizer (pounds per acre) application.

Accepts inputs from:

- 1 Hopper level sensor
- 1 RPM or 2 air pressure sensors with 11001-0164 accessory harness
- 1 implement lift switch
- 1 Ground speed sensor
- 16 Seed sensors
- Optional Working Set Member can accept additional seed sensors
- Optional Working Set Member output modules can be connected



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When you take a need, add inspired ingenuity and develop the result with unsurpassed quality, you get market-leading technology in the Agriculture Industry

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Market-Leading Technology:

- DICKEY-john developed the ag industry's first successful planter monitor
- DICKEY-john was one of the industry's first to be ISO 9001: 2008 quality certified
- DICKEY-john was the first to offer a complete precision agriculture package with IntelliAg and Trimble AgGPS AutoSteering
- DICKEY-john offers the award-winning handheld moisture tester mini GAC® - that uses the same technology as the U.S. federal standard

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