The world’s precision agriculture leader

DICKEY-john’s industry-leading precision agriculture electronics continue to meet the challenges today’s producers face. Built on innovation and accuracy, our world-class solutions handle farming’s toughest demands:

- IntelliAg™ with Trimble AgGPS®—the first complete precision agriculture package
- mini GAC®—award-winning handheld moisture tester that delivers “grain trade” accuracy
- Ag industry’s first successful planter monitor
- ISO 9001 quality certified—one of the industry’s first

Customers on six continents depend on our precision products to perform in the most rugged environments. Our in-house manufacturing and on-site engineering team help us maintain a 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.
Incredibly simple, amazingly accurate

Land Manager® control systems make precision chemical and fertilizer application easy.

They’re versatile to suit your business—all operate in English or metric modes and in a variety of commonly used languages without reprogramming. Password protection is standard on each unit to limit access to configuration programming setup. And, each is equipped with speed/area and distance monitoring modes and controls proportional, hydraulic, servo, and electric drives.

Land Manager units offer up to two channels of variable rate application control when connected to a precision farming software GPS package.

They are available for flow or pressure-based systems—whether you’re running liquid, granular, or anhydrous ammonia systems, this versatile family of products has what you need.

**Land Manager® SE**
- Economical application control
- Single channel
- Easy 1-button setup
- Up to 6 boom inputs
- Digital accessory input (hopper level, fan RPM, or vapor detector)
- Product-level monitoring
- Non-volatile memory retains settings when disconnected from battery

**Land Manager**
- Versatile application control
- Single channel
- Variable rate application control
- Application library stores up to 10 configurations
- Creates and logs up to 10 individual reports
- Standard RS232 interface link
- Records tank fill (with optional flow meter)
- Automatic pump shutoff
- Auto gain tunes responsiveness to application

**Land Manager II**
- The smartest application control
- Dual channel
- Spray and spread with 1 console
- Variable rate application control for 2 channels
- Application library stores up to 10 configurations
- Creates and logs up to 10 individual reports
- Standard RS232 interface link
- Records tank fill (with optional flow meter)
- Automatic pump shutoff
- Auto gain tunes responsiveness to application

**DID YOU SELECT YOUR**
- Pressure sensor or flow meter (page 22, 30)
- Control valve (page 26-29)
- NH₃ kit (page 24)
- Ground speed sensor (page 54)

**CUSTOMERS WHO BUY LAND MANAGER ALSO BUY THESE CONVENIENT ACCESSORIES:**
- Hopper level sensor—precise material level readings
- Hall effect sensor—cost-effective shaft revolution monitoring
- Application rate sensor—precise granular application monitoring
- Boom control module—manual control of up to six boom sections

Material Application
The most affordable spray monitoring

The CMS100 delivers cost-effective ground speed, area count, and application monitoring, with the precision you expect from Dickey-john.

Three touch switches make setup easy. The CMS100 automatically calibrates ground speed—simply drive a measured course to set the speed constant.

Use the CMS100 to monitor:
- Ground speed
- Field area
- Total accumulated area
- Area per hour
- Distance traveled
- Products applied by field
- Total product applied
- Product remaining
- Spray bar pressure
- Application rate

The unit retains information even in the event of power failure, and English and metric versions are available.

Use it alone for accurate liquid, granular, or anhydrous application monitoring, or pair it with the CCS100 for a complete application control package.

The most cost-effective application control

For precise custom application control that pays back quickly, get the CCS100.

This compact, easy-to-use unit gives you maximum control over the gallons or pounds per acre of liquid, granular, or anhydrous material you apply, even with ground speed changes. And, adjust application rates in the field thanks to a simple 3-button control panel and a high-speed valve that opens and closes in less than 2 seconds.

The CCS100 gives you all that and more:
- Dual digital readout of pressure and gallons per acre
- Dual digital readout of pounds per hour and pounds per acre
- Compact size maximizes cab space
- Plugged nozzle indicator
- English or metric versions available
- Information preserved even with power loss

For a complete liquid, granular, or anhydrous application control and monitoring package, pair the CCS100 with the CMS100.

Customers who buy the CMS100 also buy these convenient accessories:

- CCS100—economical liquid, granular, and anhydrous application control
- Pressure sensor or flow meter—accurate liquid application measurement
- Hopper level sensor—precise material level readings
- Application rate sensor—precise granular application monitoring

DID YOU SELECT YOUR Pressure sensor (page 22)

Pressure sensor for accurate application monitoring

Customers who buy the CCS100 also buy these convenient accessories:

- CCS100—economical liquid, granular, and anhydrous application control
- Flow meter—spray flow rate and plugged nozzle monitoring
- Pressure sensor or flow meter—accurate liquid application measurement
- Hopper level sensor—precise material level readings
- Application rate sensor—precise granular application monitoring

DID YOU SELECT YOUR Flow meter (page 26-29)

Flow meter for accurate application monitoring

Customers who buy the CCS100 also buy these convenient accessories:

- CCS100—economical liquid, granular, and anhydrous application control
- Pressure sensor or flow meter—accurate liquid application measurement
- Hopper level sensor—precise material level readings
- Application rate sensor—precise granular application monitoring

DID YOU SELECT YOUR Hopper level sensor (page 24)

Hopper level sensor for accurate application monitoring

Customers who buy the CMS100 also buy these convenient accessories:

- CCS100—economical liquid, granular, and anhydrous application control
- Boom control module—manual control of up to six boom sections

Material Application
The world’s most versatile controller

IntelliAg™ puts the future of application control in your cab, providing state-of-the-art communication between implement and tractor. This precision farming system monitors and controls with just one terminal, eliminating the need for multiple controllers.

Because IntelliAg is designed to the ISO 11783 standard, it is interchangeable with other manufacturers’ compatible equipment.

Use IntelliAg with:
- Sprayers
- Fertilizer spreaders
- Anhydrous bars
- Planters
- Air carts (strip till/seeding)

**BENEFITS**

- Standard electrical connector at hitch for convenient plug and play installation
- Lower equipment cost—no need for different controllers for different farm applications
- Off-the-shelf ISO 11783 conformance allows for quick retrofitting to tractors and implements
- Only one terminal to learn
- Full screen alarms identify abnormal or failed operation on all enabled system components/controls
- Control hydraulic valves (pulse-width modulated and servo)
- Reduce wiring and harnessing
- Monitor up to 196 rows of seeding
- Monitor hopper level, air pressure, and shaft speed
- Retain information even in power failure
- Variable rate application
- Log as applied data
Tractor Electronic Control Unit (ECU)

A tractor ECU is required when using an IntelliAg 10 inch terminal. It manages the power on the CAN BUS and accessory sensor inputs connected to the tractor cab harness, such as ground speed.

Terminal

Virtual terminal (ISO compatible)
10 inch color touch screen
Video display (connect to optional camera)
Backlight and audible alarm adjustment
SD card slot allows for saving of configuration files, as applied data, and prescription application
Generates as covered maps
4 channel variable rate prescription
Compatible with GPS receiver/NEMA
Interface with Trimble AgGPS® Autopilot™ steering
**Anhydrous**

The IntelliAg™ anhydrous (NH3) control system provides automatic ground speed control for the application of anhydrous ammonia only. The system is capable of up to 2 independent channels of control for better utilization of anhydrous application on large tool bars. This allows the tool bars to be split in half and vary the rate of each section while traveling through the field.

**Benefits and Features**
- 2 channels of anhydrous ammonia control
- Prescription variable rate
- Log as applied data
- Generate as covered map
- Can be connected with ISO VT already in tractor:
  - John Deere
  - Case IH
  - AGCO

**System Diagram Anhydrous Control**
Sprayer
The IntelliAg™ sprayer control system (LIQIV) is designed with features tailored specifically for self-propelled liquid sprayers. The control system can use either pressure sensor or flow meter feedback of liquid flow rate and works with a wide range of liquid servo control valves or hydraulic control valves. It includes 4 channels of liquid control and inputs for auxiliary sensors such as liquid pressure, shaft RPM, and 7 boom shutoff inputs.

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

System Diagram Sprayer Control

Benefits and Features

- 4 independent liquid control channels
- Prescription variable rate
- Log as applied data
- Generate as covered map
- Monitor up to 7 boom shutoff inputs, 2 shaft RPM, and 4 liquid pressure
- Boom shutoff module (BSM) available to control up to 24 boom on/off shutoff valves
Granular
The IntelliAg™ granular spreader control system (GCIV) is designed with features tailored specifically for self-propelled granular spreaders. The control system uses a 360 pulse per revolution feedback sensor. This mounts on the shaft of the granular material delivery system to provide the most accurate information on the granular material being applied. The system includes 4 channels of granular control and inputs for auxiliary sensors such as hopper level, shaft RPM, gate height, and 5 air boom shutoff inputs.

Boom Output Module
The boom output module is required for control of air boom shutoff section.

**System Diagram Spreader Control**

**Material Application**

**Granular**

- The IntelliAg™ granular spreader control system (GCIV) is designed with features tailored specifically for self-propelled granular spreaders. The control system uses a 360 pulse per revolution feedback sensor. This mounts on the shaft of the granular material delivery system to provide the most accurate information on the granular material being applied. The system includes 4 channels of granular control and inputs for auxiliary sensors such as hopper level, shaft RPM, gate height, and 5 air boom shutoff inputs.

**Boom Output Module**

The boom output module is required for control of air boom shutoff section.

**Benefits and Features**

- 4 independent granular control channels
- Prescription variable rate
- Log as applied data
- Generate as covered map
- Monitor up to 5 boom shutoff inputs, 2 shaft RPM, 2 bin level, and 4 gate height sensors
- Boom shutoff module (BSM) available to control up to 24 boom on/off shutoff valves
IntelliAg™—now available with Trimble AgGPS® AutoSteering

1 inch repeatability from plant to harvest—any field pattern

IntelliAg equipped with the Trimble AgGPS AutoSteering guidance system extends your operating hours, so you can work when you need to and maximize the precision of your rows.

10 Inch Color Touch Screen Terminal

4 channels of variable rate control
Coverage maps with paint-over prescription maps
Prescription variable rate maps
GPS receiver with NEMA output

AgGPS 252 Receiver with AgGPS 900 Radio
Multiple options for GPS corrections including WAAS, OmniSTAR, and RTK
AgGPS 900 radio (optional) provides +/–1 inch pass-to-pass, year-to-year accuracy using RTK corrections

AgGPS NavController II
Using data from the GPS receiver and internal sensors, the AgGPS NavController II sends precise instructions to the steering control system
T3™ technology continually corrects for roll, pitch, and yaw by using state-of-the-art 6-axis solid state inertial sensors to give you a true on-ground position
Plug and play into most guidance ready vehicles

GPS, GLONASS, and RTK Base Station
Uniquely combines a GPS receiver, RTK radio, and 10-hour battery into one small unit for quick setup
Automatically assigns a previously set point with Autobase™ technology
Rugged and weather proof

RTK GPS Networks
Trimble RTK networks currently cover more than 130 million acres of North American farmland, so you may have a network covering your area. A network consists of a number of fixed RTK base stations that independently broadcast RTK correction signals so the vehicle can obtain sub-inch accuracy. Contact a local Trimble reseller to manage an RTK network in your area—RTK fees may apply for network usage.
Variable Rate Application

After loading selected prescription stored on the SD card, the variable rate map will be displayed on the terminal. During the application of prescribed materials, an as covered map is displayed over the prescription map.

Note: Farm prescription software must be compatible with FODM applications.

Examples: Farm Works version 12, SGIS software, GTA Software Suite, Map Shots, Ag Leader SMS
**Application Rate Sensor**
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

**Liquid Pressure Sensor**
Measures 0-650 psi liquid pressure
Can be used as alternative to flow meter in Land Manager® or CCS100 liquid sprayer control systems
Reads liquid pressure at nozzle on spray bar
Prevents over-application caused by single nozzle clogs

**Air Pressure Sensor**
Measures air pressure in seed hopper

**Hall Effect Sensor**
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.

**Implement Lift Switch**
Enables or disables implement function
Attaches to 3-point hitch or lift cylinder
Ties to planter monitors and control systems

**Hopper Level Sensor**
Mounts inside planter, drill, or air cart
Alerts when seed or granular material reaches low level
**NH₃ System Flow Rates**

All maximum flow rates listed are at 110 psi tank pressure. To account for application in cold conditions where tank pressures will be significantly lower, use the following conversion when sizing an NH₃ system: Approximately 1/3 of the total system capacity is lost at 1/2 of the tank pressure.

Example: 42.5 ft. x 6 mph x 200 lbs. NH₃ x 0.1212 = 6,181 lbs./hr.

6,181 lbs./hr. x 1.335 = 8,251 lbs./hr.

Based on the calculation above, you would need a system with at least 8,251 lbs./hr. capacity to put on the required amount at 55 psi tank pressure or in this instance, a DICKEY-john/Continental system rated at 9,600 lbs./hr. maximum flow rate.

**NH₃ or Granular Flow Rate Formula**

To calculate NH₃ flow rates (lbs/hr.) so you can select the appropriate heat 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. NH₃ x 0.1212 = 6,181 lbs./hr.

6,181 lbs./hr. x 1.335 = 8,251 lbs./hr.

**NH₃ Kit Anhydrous Ammonia Flow Rate Chart**

<table>
<thead>
<tr>
<th>Heat Exchanger Kit</th>
<th>Valve Size</th>
<th>Maximum Flow Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single TTU</td>
<td>3/4 in.</td>
<td>4,200 lbs./hr.</td>
</tr>
<tr>
<td>Double TTU</td>
<td>1 in.</td>
<td>5,500 lbs./hr.</td>
</tr>
<tr>
<td>Continental</td>
<td>1 1/4 in.</td>
<td>9,600 lbs./hr.</td>
</tr>
<tr>
<td>Magnum Equalizer™</td>
<td>1 1/4 in.</td>
<td>9,600 lbs./hr.</td>
</tr>
</tbody>
</table>

**Boom Controller**

Controls 6 boom sections
Includes master boom shutoff switch
Provides pressure regulation with control valves

**Continental Magnum Equalizer™ NH₃ Heat Exchanger System/Kit**

Allows faster runs at lower tank pressures
Attain flow rates up to 9,600 lbs./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

**IMPORTANT!**

To ensure the highest possible flow rates, your applicator plumbing must be sized properly. The following is a guideline for transfer of NH₃ from the nurse tank to the applicator.

**LBS/Hr. Plumbing Size**

<table>
<thead>
<tr>
<th>Lbs/hr</th>
<th>Plumbing Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-3,600</td>
<td>1 in. feed line and breakaway</td>
</tr>
<tr>
<td>3,600-6,800</td>
<td>1 1/4 in. feed line and breakaway</td>
</tr>
<tr>
<td>6,800 &amp; up</td>
<td>1 1/2 in. feed line and breakaway</td>
</tr>
</tbody>
</table>

**Material Application**

SINGLE TTU

DOUBLE TTU

CONTINENTAL MAGNUM EQUALIZER
<table>
<thead>
<tr>
<th>Valve Size</th>
<th>Description</th>
<th>Maximum GPM Flow Rate at 1 psi Drop</th>
</tr>
</thead>
<tbody>
<tr>
<td>3/8 in.</td>
<td>3/8 in. 2-way SS</td>
<td>6</td>
</tr>
<tr>
<td>3/8 in.</td>
<td>3/8 in. 3-way SS</td>
<td>3</td>
</tr>
<tr>
<td>3/8 in.</td>
<td>Valve, 3/8 in. 2-way SS</td>
<td></td>
</tr>
<tr>
<td>3/8 in.</td>
<td>Valve, 3/8 in. 3-way SS</td>
<td></td>
</tr>
<tr>
<td>1/2 in.</td>
<td>1/2 in. 2-way SS</td>
<td>30</td>
</tr>
<tr>
<td>3/4 in.</td>
<td>3/4 in. 2-way poly</td>
<td>51</td>
</tr>
<tr>
<td>3/4 in.</td>
<td>3/4 in. 2-way SS</td>
<td>30</td>
</tr>
<tr>
<td>3/4 in.</td>
<td>(used with NH TTU kit)</td>
<td></td>
</tr>
<tr>
<td>3/4 in.</td>
<td>Valve, 3/4 in. 2-way SS</td>
<td></td>
</tr>
<tr>
<td>3/4 in.</td>
<td>Valve, 3/4 in. 2-way poly</td>
<td></td>
</tr>
<tr>
<td>1 in.</td>
<td>1 in. 2-way CS</td>
<td>68</td>
</tr>
<tr>
<td>1 in.</td>
<td>(used with NH TTU/Cont kit)</td>
<td></td>
</tr>
<tr>
<td>1 in.</td>
<td>1 in. 2-way poly</td>
<td>68</td>
</tr>
<tr>
<td>1 in.</td>
<td>1 in. 2-way SS</td>
<td>68</td>
</tr>
<tr>
<td>1 in.</td>
<td>Valve, 1 in. 2-way CS</td>
<td></td>
</tr>
<tr>
<td>1 in.</td>
<td>Valve, 1 in. 2-way poly</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Valve Size</th>
<th>Description</th>
<th>Maximum GPM Flow Rate at 1 psi Drop</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.5 in.</td>
<td>1.5 in. 3-way poly</td>
<td>47</td>
</tr>
<tr>
<td>1.5 in.</td>
<td>1.5 in. 3-way SS</td>
<td>34</td>
</tr>
<tr>
<td>1.5 in.</td>
<td>Valve, 1.5 in. 3-way poly</td>
<td></td>
</tr>
<tr>
<td>1.5 in.</td>
<td>Valve, 1.5 in. 3-way SS</td>
<td></td>
</tr>
<tr>
<td>2 in.</td>
<td>2 in. 2-way SS</td>
<td>376</td>
</tr>
<tr>
<td>2 in.</td>
<td>2 in. 3-way SS</td>
<td>47</td>
</tr>
<tr>
<td>2 in.</td>
<td>Valve, 2 in. 2-way SS</td>
<td></td>
</tr>
<tr>
<td>2 in.</td>
<td>Valve, 2 in. 3-way SS</td>
<td></td>
</tr>
<tr>
<td>3 in.</td>
<td>3 in. 2-way SS</td>
<td>720</td>
</tr>
<tr>
<td>3 in.</td>
<td>Valve, 3 in. 2-way SS</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Valve Size</th>
<th>Description</th>
<th>Maximum GPM Flow Rate at 1 psi Drop</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 in.</td>
<td>2 in. 2-way SS</td>
<td>47</td>
</tr>
<tr>
<td>2 in.</td>
<td>2 in. 3-way SS</td>
<td>376</td>
</tr>
<tr>
<td>2 in.</td>
<td>Valve, 2 in. 2-way SS</td>
<td></td>
</tr>
<tr>
<td>2 in.</td>
<td>Valve, 2 in. 3-way SS</td>
<td></td>
</tr>
<tr>
<td>3 in.</td>
<td>3 in. 2-way SS</td>
<td>720</td>
</tr>
<tr>
<td>3 in.</td>
<td>Valve, 3 in. 2-way SS</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Valve Size</th>
<th>Description</th>
<th>Maximum GPM Flow Rate at 1 psi Drop</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 in.</td>
<td>1 in. 2-way SS</td>
<td>68</td>
</tr>
<tr>
<td>1 in.</td>
<td>1 in. 2-way poly</td>
<td>68</td>
</tr>
<tr>
<td>1 in.</td>
<td>1 in. 2-way poly</td>
<td>68</td>
</tr>
<tr>
<td>1 in.</td>
<td>1 in. 2-way poly</td>
<td>68</td>
</tr>
</tbody>
</table>
Proportional Hydraulic Flow Control Valves
Available in 4 and 8 gpm sizes
Operating pressure inlet 3,500 psi (240 bar)
Regulated flow rate 0-4 gpm (0-15 lpm), 0-8 gpm (0-30 lpm), and 0-24 gpm (0-90 lpm)
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
Maximum control current of 1,500 ±100 mA

Serve Hydraulic Flow Control Valves
For precise oil flow to hydraulic-driven conveyors and liquid pumps
Control hydraulic flow from 4 to 58 gpm
Variety of sizes available

HD 4180 All in One Hydraulic Motor & Valve Assembly
0-4 gpm hydraulic flow delivers 4-180 RPM at 1,400 inch pounds of torque
Eliminates ground drive system to rotate seeding shafts
Install up to four units in series to control multiple planter sections or fertilizer application
Interface with ground speed control systems for variable rate planter and fertilizer application control
Manual override of hydraulic flow in the event of electrical failure

LIQUID FLOW CONTROL VALVES

<table>
<thead>
<tr>
<th>Valve Size</th>
<th>Description</th>
<th>Maximum GPM Flow Rate at 1 psi Drop</th>
</tr>
</thead>
<tbody>
<tr>
<td>Actuators</td>
<td>Actuator assy. (used with Continental 1.25 in. NH valve)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Actuator assy.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Actuator assy., on/off (used with 467096000, 6010, 6020 shutoff valves)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3/4 in. single shutoff valve</td>
<td>3/4 in. 3 bank shutoff valve</td>
<td>3/4 in. 5 bank shutoff valve</td>
</tr>
<tr>
<td>40</td>
<td>38</td>
<td>38</td>
</tr>
<tr>
<td>Boom Shutoff Valves</td>
<td>3/4 in. single shutoff valve</td>
<td>3/4 in. 3 bank shutoff valve</td>
</tr>
<tr>
<td>40</td>
<td>38</td>
<td></td>
</tr>
<tr>
<td>Adapter Brackets</td>
<td>467095060 actuator to Continental NH valve bracket (used to mount EH2 actuator on Continental 1.25 in. valve)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>467095060 actuator to Continental NH valve coupler (used to mount EH2 actuator on Continental 1.25 in. valve)</td>
<td></td>
</tr>
</tbody>
</table>

| 3/4 in. single shutoff valve | 3/4 in. 3 bank shutoff valve | 3/4 in. 5 bank shutoff valve |
| 3/4 in. single shutoff valve | 3/4 in. 3 bank shutoff valve | 3/4 in. 5 bank shutoff valve |

Use the following information to help you choose the right Flow Control Valve for your equipment.

LIQUID FLOW RATE FORMULA
To calculate liquid flow rates (gpm) so you can pick the correct Flow Control Valve for your application, use the following formula:

\[ \text{Width} \times \text{speed} \times \text{application rate (gpa)} \times 0.00202 = \text{gpm} \]

Example: 60 ft. x 15 mph x 20 gpa x 0.00202 = 36.36 gpm

<table>
<thead>
<tr>
<th>Valve Size</th>
<th>Flow Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>3/8 in. 2-way SS</td>
<td>6 gpm</td>
</tr>
<tr>
<td>3/8 in. 3-way SS</td>
<td>3 gpm</td>
</tr>
<tr>
<td>1/2 in. 2-way SS</td>
<td>30 gpm</td>
</tr>
<tr>
<td>3/4 in. 2-way poly</td>
<td>51 gpm</td>
</tr>
<tr>
<td>3/4 in. 2-way SS (used with NH, TTU kit)</td>
<td>30 gpm</td>
</tr>
<tr>
<td>1 in. 2-way CS (used with NH, TTU/Cont kit)</td>
<td>68 gpm</td>
</tr>
<tr>
<td>1 in. 2-way poly</td>
<td>68 gpm</td>
</tr>
<tr>
<td>1 in. 2-way SS</td>
<td>68 gpm</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Valve Size</th>
<th>Flow Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.5 in. 3-way SS</td>
<td>47 gpm</td>
</tr>
<tr>
<td>1.5 in. 3-way SS</td>
<td>24 gpm</td>
</tr>
<tr>
<td>2 in. 2-way SS</td>
<td>376 gpm</td>
</tr>
<tr>
<td>2 in. 3-way SS</td>
<td>47 gpm</td>
</tr>
<tr>
<td>3 in. 2-way SS</td>
<td>720 gpm</td>
</tr>
<tr>
<td>3/4 in. single shutoff</td>
<td>40 gpm</td>
</tr>
<tr>
<td>3/4 in. 3 bank shutoff</td>
<td>38 gpm</td>
</tr>
<tr>
<td>3/4 in. 5 bank shutoff</td>
<td>38 gpm</td>
</tr>
</tbody>
</table>
Flow Meters

Available in poly or stainless steel to meet your spraying needs.

1/2-2 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)

Use the following information to help you choose the right Flow Meter for your equipment.

LIQUID FLOW RATE FORMULA

To calculate liquid flow rates (gpm) so you can pick the correct Flow Meter for your application, use the following formula:

\[ \text{Width} \times \text{speed} \times \text{application rate (gpa)} \times 0.00202 = \text{gpm} \]

Example: 60 ft. x 15 mph x 20 gpa x 0.00202 = 36.36 gpm

LIQUID FLOW METER SIZES

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<thead>
<tr>
<th>Flow Meter</th>
<th>Flow Rate</th>
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<td>1 in.</td>
<td>2.64-26.4 gpm</td>
</tr>
<tr>
<td>1 1/2 in.</td>
<td>9.25-92.5 gpm</td>
</tr>
<tr>
<td>2 in.</td>
<td>19.00-198 gpm</td>
</tr>
<tr>
<td>3 in.</td>
<td>39.6-396 gpm</td>
</tr>
<tr>
<td>4 in.</td>
<td>79.0-790 gpm</td>
</tr>
</tbody>
</table>
World-class precision plus flexible monitoring

For incredible versatility and unsurpassed accuracy, choose the PM Series of planter monitors. With models to monitor as few as 1 row or as many as 36 rows simultaneously, this series has what you need to optimize planting and minimize skips and misses. PM Series planter monitors offer:

- Row and ground speed monitoring
- Area and population count
- Accessory monitoring
- High and low population warning alarms
- Speed and area modes for quick field assessments
- Data saved even in power losses
- Preset parameters for out-of-the-box operation

Customizable features for advanced operation
Multiple seed flow display options—bar graphs, gauges, flashing bar segments, text enlargement

PM200 and PM200E
Easy, affordable planter monitoring
12-row monitoring
Speed/area monitoring
Implement population average (200E)

PM300
The next level in planter monitoring
16-row monitoring
1 accessory input (select shaft RPM, liquid flow meter rate, or fan RPM)
Ground speed monitoring

PM400
Large-scale planter monitoring
36-row monitoring
1 accessory input (select shaft RPM, liquid flow meter rate, or fan RPM)
Ground speed monitoring

PM500
Expanded planter monitoring
12-row monitoring
12-row tramline (four rows simultaneously)
Right and left marker input
CAN-based external row shutoff module
3 accessory inputs (shaft RPM, liquid flow meter rate, and fan RPM)
Ground speed monitoring

PM100 and PM100E
Economical planter monitoring
1- to 16-row monitoring
Automatic sensor to detect seed flow
LED row indicators
Multiple row failure indicator options

PM600
Modular planter monitoring
64-row monitoring
1 accessory input (select shaft RPM, liquid flow meter rate, or fan RPM)
Ground speed monitoring

DID YOU SELECT YOUR
Seed sensor (page 50)
Ground speed sensor (page 54)

CUSTOMERS WHO BUY PM SERIES PLANTER MONITORS ALSO BUY THESE CONVENIENT ACCESSORIES:
- Hopper level sensor—precise material level readings
- Hall effect sensor—cost-effective shaft revolution monitoring
- Flow meter—sprayer application monitoring
- Implement lift switch—simple implement control
The world’s most versatile controller

IntelliAg™ puts the future of application control in your cab, providing state-of-the-art communication between implement and tractor. This precision farming system monitors and controls with just one terminal, eliminating the need for multiple controllers.

Because IntelliAg is designed to the ISO 11783 standard, it is interchangeable with other manufacturers’ compatible equipment.

Use IntelliAg with:
- Planters/grain drills
- Air carts

**BENEFITS**

- Standard electrical connector at hitch for convenient plug and play installation
- Lower equipment cost—no need for different controllers for different farm applications
- Off-the-shelf ISO 11783 conformance allows for quick retrofitting to tractors and implements
- Only one terminal to learn
- Full screen alarms identify abnormal or failed operation on all enabled system components/controls
- Control hydraulic valves (pulse-width modulated and servo)
- Reduce wiring and harnessing
- Monitor up to 196 rows of seeding
- Monitor hopper level, air pressure, and shaft speed
- Retain information even in power failure
- Variable rate application
- Log as applied data
**Terminal**

Virtual terminal (ISO compatible)

10 inch color touch screen

Video display (connect to optional camera)

Backlight and audible alarm adjustment

SD card slot allows for saving of configuration files, applied data, and prescription application

Generates as covered maps

4 channel variable rate prescription

Compatible with GPS receiver/NEMA

Interface with Trimble AgGPS® Autopilot™ steering

---

**Tractor Electronic Control Unit (ECU)**

A tractor ECU is required when using an IntelliAg 10 inch terminal. It manages the power on the CAN BUS and accessory sensor inputs connected to the tractor cab harness, such as ground speed.

---

**INTELLIAG™ 10 INCH COLOR TOUCH SCREEN**

---

**Cab/Power Harness Diagram**

![Diagram of Cab/Power Harness](image)
Planter

The IntelliAg™ planter/drill system (PDC) opens up the opportunity to use the planter for more than just an implement to put seeds in the ground. The system provides planter monitoring of seeds being placed in soil by each row unit, including counting seeds planted per acre, inches between seeds, and average population. Plus, the IntelliAg controls the amount of seeds planted per acre. In addition, it features inputs for 16 seed sensors along with auxiliary sensors such as hopper level, air pressure, and shaft RPM.

Accessory Module

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

System Diagram Planter Control

![System Diagram Planter Control]

<table>
<thead>
<tr>
<th>Benefits and Features</th>
<th>Can be connected with ISO VT already in tractor:</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 independent control channels for:</td>
<td>John Deere</td>
</tr>
<tr>
<td>Row crop planter seeding (seeds/acre)</td>
<td>Case IH</td>
</tr>
<tr>
<td>Grain drill seeding (lbs./acre)</td>
<td>AGCO</td>
</tr>
<tr>
<td>Liquid spraying (gal./acre)</td>
<td></td>
</tr>
<tr>
<td>Granular fertilizer (lbs./acre)</td>
<td></td>
</tr>
<tr>
<td>Planter monitor functionality (max. 196 rows)</td>
<td></td>
</tr>
<tr>
<td>Auto row shutoff control</td>
<td></td>
</tr>
<tr>
<td>Utilizes Tru Count Clutches (24 rows)</td>
<td></td>
</tr>
<tr>
<td>Monitor accessory implement sensors including:</td>
<td></td>
</tr>
<tr>
<td>2 hopper level, 2 air pressure, 2 shaft RPM,</td>
<td></td>
</tr>
<tr>
<td>1 ground speed, 1 lift switch</td>
<td></td>
</tr>
</tbody>
</table>
Air Seeder

The IntelliAg™ air cart control 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 not being trapped in a hose. The system uses a low-cost yet high-tech flow sensor that can detect a flow or blockage situation. A maximum of 216 delivery hoses can be monitored for this condition simultaneously. The air cart control system also includes inputs for auxiliary sensors such as hopper level, air pressure, and shaft RPM.

Accessory Module

An accessory module is required for processing 18 seed sensor inputs for communication to control module. Maximum 216 rows of seed flow monitoring (12 modules).

System Diagram Air Cart Monitoring and Control

4 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)

Planter monitor functionality (max. 216 rows)
Monitor accessory implement sensors including
- 5 hopper level, 4 air pressure, 4 shaft RPM, 1 ground speed, 1 lift switch
Control of fertilizer in strip till application with air carts

Can be connected with ISO VT already in tractor:
- John Deere
- Case IH
- AGCO

BENEFITS AND FEATURES

4 independent control channels for:
- Air cart seeding (lbs./acre)
- Grain drill seeding (lbs./acre)
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- John Deere
- Case IH
- AGCO

Benefits and features:

- 4 independent control channels
- Planter monitor functionality
- Monitor accessory implement sensors
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Can be connected with ISO VT already in tractor:
- John Deere
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Benefits and features:

- 4 independent control channels
- Planter monitor functionality
- Monitor accessory implement sensors
- Control of fertilizer in strip till application with air carts
IntelliAg™—now available with Trimble AgGPS® AutoSteering

1 inch repeatability from plant to harvest—any field pattern

IntelliAg equipped with the Trimble AgGPS AutoSteering guidance system extends your operating hours, so you can work when you need to and maximize the precision of your rows.

10 Inch Color Touch Screen Terminal
4 channels of variable rate control
Coverage maps with paint-over prescription maps
Prescription variable rate maps
GPS receiver with NEMA output

AgGPS 252 Receiver with AgGPS 900 Radio
Multiple options for GPS corrections including WAAS, OmniSTAR, and RTK
AgGPS 900 radio (optional) provides +/-1 inch pass-to-pass, year-to-year accuracy using RTK corrections

AgGPS NavController II
Using data from the GPS receiver and internal sensors, the AgGPS NavController II sends precise instructions to the steering control system

T3™ technology continually corrects for roll, pitch, and yaw by using state-of-the-art 6-axis solid state inertial sensors to give you a true on-ground position

Plug and play into most guidance ready vehicles

AutoSteering Screen
Operator view of AutoSteering screen on IntelliAg terminal

Control Valve
Receives electrical signals from the AgGPS NavController II
Converts signals to precise hydraulic commands that the vehicle’s steering system uses to keep the vehicle on path

AgGPS AutoSense™ Steering Sensor
Unique in-a-box steering sensor
Measures highly accurate wheel angle information on all terrain
Patent pending technology
Obtains information without the use of moving parts or linkages
Continuously sends that information to the AgGPS NavController II

GPS, GLONASS, and RTK Base Station
Uniquely combines a GPS receiver, RTK radio, and 10-hour battery into one small unit for quick setup
Automatically assigns a previously set point with Autobase® technology
Rugged and weatherproof

RTK GPS Networks
Trimble RTK networks currently cover more than 130 million acres of North American farmland, so you may have a network covering your area. A network consists of a number of fixed RTK base stations that independently broadcast RTK correction signals so the vehicle can obtain sub-inch accuracy. Contact a local Trimble reseller to manage an RTK network in your area—RTK fees may apply for network usage.
Variable Rate Application

After loading selected prescription stored on the SD card, the variable rate map will be displayed on the terminal. During the application of prescribed materials, an as covered map is displayed over the prescription map.

Note: Farm prescription software must be compatible with FODM applications.

Examples: Farm Works version 12, SGIS software, GTA Software Suite, Map Shots, Ag Leader SMS

INTELLIAG™

INTELLIAG™

INTELLIAG™

INTELLIAG 10 INCH COLOR TOUCH SCREEN

LOAD SELECTED TASK

START AND STOP TASK

AS COVERED
The most advanced monitoring for large operations

The Seed Manager™ SE puts the power of DICKEY-john’s state-of-the-art high-rate sensors to work for maximum performance and precision monitoring.

Versatile and modular, it offers a variety of options for monitoring seed and fertilizer flow on air carts, drills, and planters:

- Population count for all rows
- Population for the first row in each module and material flow for all other rows
- Material flow for all rows

Plus, choose from 3 modules to build the Seed Manager SE that works for your operation, and enjoy the flexibility of adding modules later for up to 96-row monitoring.

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)

Acre count
Population monitoring
Ground speed monitoring
Seed spacing monitoring
Seed count
RS485 communication modules

Wiring Diagram

Customers who buy Seed Manager SE also buy these convenient accessories:
- Hopper level sensor—precise material level readings
- Hall effect sensor—cost-effective shaft revolution monitoring
- Air pressure sensor—hopper air pressure measurement
- Implement lift switch—simple implement control

DID YOU SELECT YOUR
- Seed sensor (page 50)
- Ground speed sensor (page 54)
The most economical drill monitoring

For cost-effective grain drill monitoring that’s backed by DICKEY-john’s legendary durability and dependability, put the DM100 in your tractor.

Economy and accuracy combine for first-rate monitoring

When you want top-level monitoring at low-level pricing, the DJASM™ II air cart monitor delivers. It precisely monitors flow on large drills and seeders to help prevent lost profit from unseeded strips.

Modular and customizable, the DJASM II is easy to operate yet accurate, with 16 row indicators per module and a 7-segment display. Add up to 8 modules and adjust the minimum seeds per second alarm to fit your needs.

Blockage monitoring for up to 128 rows or 120 rows and 8 hopper level sensors
Customizable seeds per second alarm point for 1 to 150 seeds per 2 seconds
Modular design can reduce harnessing and wiring costs
Advanced RS485 communication modules receive input from 16 sensors or 15 sensors and 1 hopper level sensor
Internal audible alarm
Five-step LED dimming for day or night use
Alarm recognition override
Odd and even row shutoff capability

CUSTOMERS WHO BUY DJASM II AIR CART MONITORS ALSO BUY THESE CONVENIENT ACCESSORIES:
- Hopper level sensor—accurate material level readings
- Implement lift switch—simple implement control

DID YOU SELECT YOUR
- Seed sensor (page 50)
- Flow sensor (page 22, 50)

For unbeatable grain drill monitoring, pair the DM100 with 1 hopper level sensor per hopper and 2 of DICKEY-john’s advanced seed sensors for each drill section. Choose our Recon Flow Sensor for precision monitoring at a reasonable price.
**Air Pressure Sensor**

Measures air pressure in seed hopper

**Hall Effect Sensor**

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.

**Implement Lift Switch**

Enables or disables implement function
Attaches to 3-point hitch or lift cylinder
Ties to planter monitors and control systems

**Hopper Level Sensor**

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

**High-Rate Blockage Sensor**

Superior blockage detection
Easy to install
Detects all sizes of seeds, granular fertilizers, and pesticides
Use with air seeders and grain drills

**Recon Flow Sensor**

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

**High-Rate Seed Sensor**

Delivers improved population counts
Detects small seeds like milo, beets, and cotton
Use with many planter brands

**High-Rate Grain Drill Sensor**

Proven high-rate sensor technology packaged for grain drills
Provides improved population counts
Detects small seeds like milo, beets, and cotton
Compatible with many grain drill brands
Flow Meters
Available in poly or stainless steel to meet your spraying needs

1/2-2 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)

Use the following information to help you choose the right Flow Meter for your equipment.

LIQUID FLOW RATE FORMULA
To calculate liquid flow rates (gpm) so you can pick the correct Flow Meter for your application, use the following formula:

\[ \text{Width} \times \text{speed} \times \text{application rate (gpa)} \times 0.00202 = \text{gpm} \]

Example: 60 ft. x 15 mph x 20 gpa x 0.00202 = 36.36 gpm

LIQUID FLOW METER SIZES

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Measuring ground speed has never been easier

Radar III
World-class accuracy in a ground speed sensor
The high-performance, top-of-the-line unit is a streamlined, more compact version of our best-selling Radar II model.
Weighs only 1 lb.
Compact size—4 x 3.4 x 3.1 inches
High-tech planar array for truest possible velocity measurement
Views ground surface for accurate ground speed detection
Velocity errors of less than or equal to 1-3% after in-field calibration
Easy to install
Can be mounted to view forward or backward from vehicle

Radar II
The most accurate ground speed sensor
This radar ground speed sensor delivers the truest velocity measurement at mounting heights over 6 feet.
Installs easily
Views actual ground surface for accurate speed measurement
Can be mounted to look forward or backward from vehicle
Velocity range 0.33-60 mph (0.53-96.6 km/h)
Mounts at 35°±5° angle and at least 24 in. (610 mm) height from target surface (mounts anywhere from 2 to 8 ft. high)
Variety of factory output frequency settings available
Sleek design—4 x 4 x 12.25 in. (10 x 10 x 31.1 mm)
Weights only 4.5 lbs. (2.05 kg)
Achieves velocity errors of ±1-3% through in-field calibration

Hall Effect Sensor
Durable, economical ground speed measurement
For cost-effective ground speed detection, choose the Hall Effect Sensor backed by DICKEY-john’s legendary reliability.
Low-cost ground speed measurement
Detects based on gear-tooth/sprocket/lug nut movement
Designed for rugged agriculture environment
Fast, simple installation

4 in 1 Adapter
Convenient multi-console operation
Radar signal adapter
Run 4 electronic consoles off of 1 RVS I or II
Still America’s choice for consistent testing

Put the power of fast, fully automated grain testing to work for your business with GAC® Series grain analysis computers.

The GAC Series delivers accurate, reliable moisture, temperature, and test weight results quickly and consistently for applications including cereals, oilseeds, grass seeds, vegetable seeds, and beans. Advanced technology in GAC units makes grain testing easy—simply choose your grain; load the hopper, and press a button for precise analysis.

Each unit comes with an available calibration library of more than 450 different products, and all calibrations are transferable between units. Units are easily reprogrammed—users can change product display labels and calibrations at any time.

The GAC Series also features:

- Measurement through capacitance, conductance, and a weighing device
- Testing for a moisture range of at least 5 to 45% (depending on grain calibration)
- Automatic temperature compensation
- Moisture repeatability of ±0.1% (depending on application)
- Large LCD display (240 x 64 pixels)
- Standard RS232 output
- Power supply of 85-264 VAC, 48-62 Hz at 20 VA consumption

Each unit comes with an available calibration library of more than 450 different products, and all calibrations are transferable between units. Units are easily reprogrammed—users can change product display labels and calibrations at any time.

GAC2100 Agri
- Economical accuracy
- Grain testing results in 32 seconds
- Stores 8 grain calibrations

GAC2100 GI
- Professional-level precision testing
- Grain testing results in 16 seconds
- Stores 16 grain calibrations

GAC2100b
- The federal standard
- NTEP certified
- Grain testing results in 16 seconds
- Stores 64 product calibrations
- User-definable quick keys for one-touch grain testing

GAC500 XT
- Elevator-quality testing on the farm
- Grain testing results in 25 seconds
- Semi-portable
- Stores 16 grain calibrations

Moisture Testing
The leader in precision grain analysis

The Instalab® 600 Series delivers the most consistent, accurate results you'll find in fixed-filter testing.

Available with 4 to 10 filters, Instalab 600 Series units are customizable for your needs—we preprogram each unit with user-defined filters.

CHANGE FILTERS TO ADJUST BANDWIDTH FOR ANY PROBE YOU NEED TO CONDUCT, INCLUDING:

- protein
- cellulose
- sugar
- ash
- starch
- oil and fat
- alcohol
- cotton
- polyester

Product calibrations are available on request, and the Instalab 600 Series is designed for versatility and easy configuration in the field.

In addition to grain, the Instalab 600 Series delivers high-performance analysis in applications including:

- Textile manufacturing
- Grain processing
- Flour milling
- Ethanol production
- Feed processing
- Meat processing

Model 660A
Includes filters in 6 common wavelengths
Measures moisture, protein, starch, oil, and more

Model 610FGA
Includes 10 filters
Measures feed and grain properties

Model 610SBA
Includes 10 filters
Measures soybean, wheat, and corn properties
Meets FGIS requirements for moisture, protein, and oil

Model 610MCA
Includes 10 common filters for NIR applications
Measures properties in food, feed, grain, meat, and dairy

Model 610A Custom
Includes 10 filters:
- 6 standard filters
- 4 customer-selected filters
Choose from more than 50 wavelengths
Allows dedicated calibration for special product applications

Moisture Testing
The world’s most accurate handheld moisture tester

Put the industry’s choice for precision moisture testing in your hand. The mini GAC® is the only handheld that tests both moisture and test weight of grain.

Based on federal standard moisture testing technology, it delivers “grain trade” accuracy.

The mini GAC is fast and easy to use—no cumbersome screw caps.

Both models come with a loader, 9 volt battery, carrying case, and belt clip and offer these features:

- Moisture range 5-45% (depending on grain type)
- 0.2% moisture repeatability (depending on grain type)
- Internal scale—no preweighing
- More than 450 calibrations available
- USB compatibility for calibration loading
- Test grain hot or cold (32-122°F)
- Menu-driven operating system
- Automatic temperature compensation

mini GAC plus
Accurately tests both moisture and test weight
Stores up to 20 grain calibrations

mini GAC
Precision moisture testing results
Stores up to 20 grain calibrations
For the fastest grain moisture testing

The M3G™ and M20P put high-speed, repeatable moisture testing in your hands. These lightweight units let you take grain moisture readings with a simple scoop from bins or hoppers.

Advanced DICKEY-john technology lets you easily bias to match readings to local elevator tests and change grain types with the push of a button. Both units store and average up to 10 individual samples.

**M3G**

**Basic moisture testing**
- Test up to 3 grains
- Preprogrammed calibrations for:
  - Corn high (15-32%) and low (8-17%)
  - Soybeans (8-22%)
  - Wheat (8-20%)
- Change grain calibrations with a simple download
- ±0.5 repeatability with normal stored grain
- No cups or screw-on caps
- Density compensation without weighing or compressing samples
- Easy-to-read LCD display with grain labels clearly listed
- USB port for language changes and grain calibration uploads
- Compact and lightweight—only 1.6 lbs.

**M20P**

**Versatile moisture testing**
- Test up to 20 grains
- Download preprogrammed calibrations to suit your needs (for Europe unless otherwise indicated):
  - Corn high and low (U.S.)
  - Corn high
  - Soybeans (U.S.)
  - Wheat (U.S. and Europe)
  - Barley (six and two row)
  - Sunflowers
  - Peas
  - Rice
  - Durum
  - Triticale
  - Rye
  - English ray grass
  - Horsebean
  - Dactyle
  - Rapeseed
  - Oats
  - Lupine
  - Milho Alta and Baixa (Portugal)
  - Milo (U.S.)
  - Soja (Portugal)
  - Trigo (Portugal)
- ±0.5 repeatability with normal stored grain
- No cups or screw-on caps
- Density compensation without weighing or compressing samples
- Easy-to-read LCD display with grain labels clearly listed
- USB port for language changes and grain calibration uploads
- Compact and lightweight—only 1.6 lbs.
Hay producers’ most essential instruments

Know when to bale and how to store with our precision Hay Moisture Testers. These portable units quickly and accurately measure moisture levels in hay bales, while baling and in windrows.

Easy to use, our Hay Moisture Testers measure moisture from 6 to 40% on hay.

Multiple attachments are available for added flexibility and functionality.

Each has built-in battery and calibration checks and a temperature-stable microcontroller circuit. Hay Moisture Testers are available with durable storage cases.

**Dj FX-2000-PKGS1**
- **Hay baler monitor**
  - Includes baler monitor, hay handle, 10 inch probe, short pin prod, baler sensor, power supply harness, and carrying case
  - Measures continuously during baling
  - Works with most baler brands
  - *In continuous mode*  
    - Takes 2 readings every second
    - Displays average and highest of 8 accumulated readings
    - Updates readings every 4 seconds
    - Backlit display
  - *In portable mode*  
    - Averages up to 100 accumulated readings
    - Displays average and highest of accumulated readings

**Dj FX-2000-1986S1**
- **Hay baler monitor with sensor**
  - Includes in-cab baler monitor and baler sensor
  - Measures continuously during baling
  - Works with most baler brands
  - *In continuous mode*  
    - Takes 2 readings every second
    - Displays average and highest of 8 accumulated readings
    - Updates readings every 4 seconds
    - Backlit display
  - *In portable mode*  
    - Averages up to 100 accumulated readings
    - Displays average and highest of accumulated readings

CUSTOMERS WHO BUY HAY MOISTURE TESTERS ALSO BUY THESE CONVENIENT ACCESSORIES:
- Short-pin prod—windrow testing
- Hay handle—high-density or larger bale testing
- 10-inch handle prod—standard and high-density bale testing
- 18-inch handle prod—large square or round bale testing
- 36-inch handle prod—larger square or round bale testing

**Dj F-2000-1235S1**
- **Hay moisture tester with probe**
  - Takes readings in bales and windrows
  - Averages up to 100 accumulated readings
  - Displays average and highest of accumulated readings
  - Digital readout

**Dj F-2000-PKGS1**
- **Hay moisture tester package**
  - Includes hay handle, 10 inch probe, short pin prod, and carrying case
  - Takes readings in bales and windrows
  - Averages up to 100 accumulated readings
  - Displays average and highest of accumulated readings
  - Digital readout
The most reliable cotton moisture analysis

Get the precise moisture readings you need to maximize your lint cotton and seed cotton production with the Dj C-2000-PKGS1 Cotton Moisture Tester.

This easy-to-use, portable meter delivers fast, accurate results.
Uses resistance technology recognized as world standard for moisture testing

4-16% moisture range on lint cotton
6-20% moisture range on seed cotton

Averages up to 100 accumulated readings
Built-in battery and calibration checks
Digital readout
Proven microcontroller circuit
Durable hard-sided case included

CUSTOMERS WHO BUY COTTON MOISTURE TESTERS ALSO BUY THESE CONVENIENT ACCESSORIES:

- Handle—high-density or larger cotton module testing
- 36-inch T-handle—cotton module testing
- 10-inch handle prod—cotton module testing
- 18-inch handle prod—large cotton module testing
- 36-inch handle prod—larger cotton module testing
- Cotton ball cup—cotton ball testing
- Bale fiber probe—baled cotton fiber testing
- Cone & skein fiber probe—baled cotton cone and skein fiber testing
**Hay & Cotton Moisture Tester Accessories**

**10-Inch Prod**
- For testing standard hay bales
- Attaches directly to connector on top of Hay Moisture Testers

**Short-Pin Prod**
- For testing hay in windrows
- Requires Handle

**Baler Sensor**
- For continuous monitoring during hay baling
- Comes with 30 ft. cable to run from baler chamber sensor to meter in cab
- Recommended for use with Dj FX-2000-PKGS1 and Dj FX-2000-198651 Hay Moisture Testers
- Also available with 40 ft. cable for larger balers

**Split Baler Sensor**
- For continuous monitoring during hay baling
- For Freeman balers

**Handle**
- Mounts to connector on top of Hay and Cotton Moisture Testers
- Recommended when testing high-density or larger hay bales and cotton modules to minimize stress on meter case

**36-Inch T-Handle**
- Mounts to connector on top of Dj C-2000-PKGS1 Cotton Moisture Tester
- Recommended when testing cotton modules to minimize stress on meter case

**Cotton Ball Cup**
- For testing cotton balls
- Attaches directly to connector on top of Dj C-2000-PKGS1 Cotton Moisture Tester

**10-Inch Handle Prod**
- For testing standard and high-density hay bales
- Requires Handle

**18-Inch Handle Prod**
- For testing large square or round hay bales
- Requires Handle

**36-Inch Handle Prod**
- For testing large square or round hay bales or cotton modules
- Requires Handle

**CARRYING CASE**
- Fits all Hay and Cotton Moisture Tester components
- Will not hold Baler Sensor or 18-Inch and 36-Inch Handle Prods

**Baled Fiber Probe**
- For testing baled cotton fibers
- Mounts to connector on top of Dj C-2000-PKGS1 Cotton Moisture Tester

**Cone & Skein Fiber Probe**
- For testing baled cotton cones and skein fibers
- Mounts to connector on top of Dj C-2000-PKGS1 Cotton Moisture Tester
The simplest way to measure soil compaction

Maximize your yields and work to decrease your costs with the economical, easy-to-use DICKEY-john Soil Compaction Tester.

This easy-to-use tool quantifies soil compaction so you can develop a targeted plan for optimum yields and cost-effective production. (Heavily compacted soil can inhibit root growth and reduce yields.)

To measure compaction in your fields, simply push the tester into the ground at various locations to determine problem areas and pressure increases and decreases.

The Soil Compaction Tester gauge gives you readings of pressure required to penetrate your soil in pounds per square inch.

Easy-to-read, color-coded, stainless-steel dial
Liquid-filled gauge that reduces shock
Depth marks at 3, 6, 9, 12, 15, and 18 in.
Rugged, molded housing and handle

**Compaction and Root Development**

<table>
<thead>
<tr>
<th>Pressure Range</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-200 lbs.</td>
<td>good</td>
</tr>
<tr>
<td>200-300 lbs.</td>
<td>fair</td>
</tr>
<tr>
<td>300-500 lbs.</td>
<td>poor</td>
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</tbody>
</table>
Advanced solutions for accurate electronics testing

Make sure your equipment is fully functional before you get in the field with DICKEY-john’s selection of high-quality testing equipment.

**Seed Simulator**
Test your planter monitors
- Simulates seed sensor and radar ground speed signals on planters up to 36 rows
- Replicates 1- or all-row failure
- Reproduces 2 seeding rates for both corn and soybeans
- Cables available for PM300/400, PM3000/1000, Seed Manager™ SE, and DjASM™ II

**Sensor Tester 90**
Check your planter sensors
- Accurately verifies sensor operation
- Easy to operate
- Battery operated—no power source required

**Vehicle Ground Speed Simulator 200**
Verify ground speed controller operation
- Simulates speed signal input from Radar II and III ground speed sensors
- Ensures cabling and console are accepting input
- Simple to operate

**Application Rate Sensor Tester**
Assess sensor function
- Easy to operate
- Plug sensor into tester and rotate shaft
- Battery powered
- Sounds intermittent alarm to indicate operation