

# Precision Hardware Guide

DISPLAYS | GUIDANCE & STEERING | PLANTING | CAMERAS | APPLICATION  
HARVEST | TECHNOLOGY | RTK | GPS | MOUNTS | DATA MANAGEMENT

NEW Cooperative Precision Ag is a full-service agronomic provider that supplies precision agriculture solutions through services, sales and support to customers looking to add value to their farming operation. The products and services available assist farmers in gaining insight into their fields to improve management decisions. All the services and solutions offered by NEW Cooperative are customized and tailored for each farmer's individual needs to best fit their specific farming objectives.

AUTHORIZED DEALER FOR THE FOLLOWING BRANDS



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Contact one of these Hardware Specialist for more information.

**ARLYN GORACZKOWSKI**  
 agoraczkowski@newcoop.com  
 515-570-0775

**ALEX SEGO**  
 asego@newcoop.com  
 515-297-3390

**SHANE CARLSON**  
 PRECISION HARDWARE MANAGER  
 scarlson@newcoop.com  
 515-570-1147

# Ag Leader®

## INCOMMAND

### Year-Round Functionality

From planting through harvest, and every field activity in between.

### Display-to-Display Communication

Share maps, information and more with other InCommand displays in your operation.

### ISOBUS Connectivity

Universal Terminal provides the ability to control ISOBUS-compliant implements. Many controllers are compatible through serial control.

### Unmatched Visibility

Get a virtual window into your planter with row-by-row detail for confidence as you move through the field.

### View Two Screens at Once

Compare planting maps with live harvest.



**GET YEAR-ROUND PRECISION MACHINE CONTROL PLUS INSTANTANEOUS INFORMATION TO SIMPLIFY CRUCIAL DECISIONS THAT IMPACT YOUR YIELD AND PROFITABILITY**



FEATURES	InCommand® 1200	InCommand® 800
Display Size	12.1"	8.4"
Split Screen Functionality	◆	
Pinch, Pan, Swipe, Zoom Gesture Support	◆	◆
Sleek, Modern Look with Responsive Interface	◆	◆
DisplayCast®	◆	◆
Camera Support	◆	◆
Traditional Grower/Farm/Field Management	◆	◆
Event-Based Management	◆	◆
AutoSwath™	◆	◆*
Hybrid/Variety Logging	◆	◆
Variable Rate Planting	◆	◆
PWM, Hydraulic Servo Control Valves	◆	◆

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\*Unlock required for this functionality



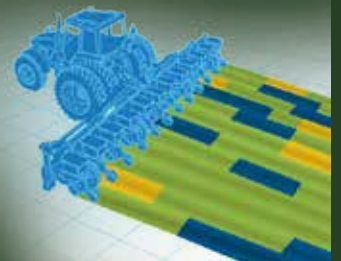
# Ag Leader®

## GET MORE DONE TOGETHER

Connect all your InCommand Displays whether working in the same field, different fields, or from one season to the next with DisplayCast. Efficiency in your operation increases when you're connected.



## SHARE BETWEEN INCOMMAND 1200 DISPLAYS



Coverage Maps  
Guidance Lines  
Live Field Stats & Maps

Swath Control  
Yield Summaries  
and More

FEATURES	InCommand® 1200	InCommand® 800
Rawson ACCU-RATE Direct Drive	◆	◆
Split-Planter Logging	◆	◆
Planter Population Monitoring	◆	
Advanced Seed Monitoring	◆	
Hydraulic Down Force Control	◆	
Guidance	◆	◆
Autosteer	◆	◆
Headlands	◆	◆
Air Seeder Support	◆	◆
Coverage Mapping	◆	◆
Data Logging	◆	◆
Liquid and Dry Product Application Control	◆	◆
Multiple Product Application (Liquid or Granular)	◆ Up to 8*	◆ Up to 3*
Variable Rate Application	◆	◆
Closed Loop Spinner Speed Control	◆	◆
Container Sequencing	◆	
SmartReport™	◆	
Strip-Till	◆	◆
Chemical Injection	◆	◆
Boom Height Control	◆*	◆*
External Switchbox	◆	◆
OEM Switch Input Support	◆	◆
OptRx® Crop Sensors	◆	
Grain Harvest	◆	◆
Harvest Variety Tracking	◆	
Load Variety Maps	◆	
Survey Collection	◆	◆
Intellislope® Plow Control	◆	
Topography Mapping	◆	◆
Universal Terminal Support	◆	◆*
Task Controller	◆	◆
ISO .XML Data Export	◆	◆
Multiple Product Task Controller Support for Liquid, Granular Spreader,	◆	◆
Air Seeder, Row Crop Planter	◆	◆
Camera Support	◆	◆
AgFiniti® Wireless and Remote Support with AgLeader USB Wi-Fi Adapter	◆	◆
AgFiniti® Mobile	◆	◆

\*Unlock required for this functionality

# Precision Planting®

## 20|20

### High Definition Ag Technology

High definition data enables high impact decisions. The new 20|20 monitor provides the most advanced agronomic picture you've ever seen. Optimize planting, harvest, and application decisions with a smart, intuitive interface that visualizes performance and field conditions in real time; seed by seed, plant by plant, drop by drop. Customize display configurations, add sensors, and discover things about your field you may have never known.



## SEE THE DIFFERENCE

### Furrow Moisture

Water weight a seed gains in three days

### Furrow Temperature

Real time temperature of the soil in the furrow

### Uniform Furrow

Variation in the furrow - light, cloddiness, moisture changes

### Clean Furrow

Absence of crop residue

### Organic Matter

Estimated soil organic matter

### Liquid Rate

Rate of liquid applied

### Ground Contact

Row unit planting/seeding at the depth it is set

### Margin

Excess weight on gauge wheels

### Ride Quality

Smoothness of row unit

### Singulation

Amount of properly singulated seeds

### Yield

Spatially accurate crop yield

### Applied Down Force

Force applied to the row

Your data, customized. See the information you need to control your operation. Take control of the data you collect, and choose from a limitless number of customizable views. Instantly understand what's going on during every pass through the field. Choose the display size and the number of displays that fit your needs. Put metrics and a map on a single 10.1" display.





# Ag Leader®

## GUIDANCE & STEERING

Revolutionize the way you farm with leading autosteer technology. If you want sub-inch accuracy, leading steering performance and simple setup, you'll get that and much more with the SteerCommand automated steering paired with GPS 7500



### GPS 7500

#### Up to sub-inch accuracy

With RTK, TerraStar-X, TerraStar-C Pro, TerraStar-L, and SBAS

#### Dual-Frequency GNSS Receiver

Fully scalable, compact, rugged smart antenna, designed to meet the demands of today's professional growers.

#### Upgradable

400 MHz and 900 MHz RTK Radio

#### Standard

GLONASS, 20Hz output, LED Monitoring and Radar Speed Output

### GPS 7000

#### Affordable

For growers seeking a cost-effective GPS receiver



#### Guidance

Designed for general mapping and AutoSwath functions

#### Scalability

Scalable differential correction from Glide up to TerraStar C Pro

### GPS 7500 Base Station

GPS 7500 can be converted to a dual-frequency RTK base station by combining with 900 or 400 radio to provide base-station functionality. This is ideal for steering and other operations where sub-inch accuracy is needed. Wi-Fi capability is included for setup by phone or tablet

(GPS 7500 Base Station pictured above.)

### SteadySteer

#### Complete System

Take control of steering, planting, application harvest and more all through one interface.

#### SBAS to RTK Ready

Economical, hands-free assisted steering system paired with a GPS receiver delivering pass-to-pass accuracy to any operation.

#### Fit to Most Vehicles

13 possible motor orientation options and a detachable motor for easy installation on any vehicle.

#### Fast Line Acquisition

Quickly acquire and maintain the line even in tough terrain on any vehicle.

#### SteerCommand Z2

#### Repeatable Accuracy

Up to sub-inch repeatable accuracy with RTK or TerraStar-X correction. Also compatible with TerraStar-C Pro, TerraStar-L and SBAS.

#### Automated Steering

Automated steering keeps your vehicle on the guidance line and makes adjustments to deliver repeatable pass-to-pass accuracy.

#### Perfect for High-Value Crops

Ideal for field operations requiring high accuracy steering that require precise placement of inputs.

#### Guidance Pattern Support

Supports common and advanced guidance patterns including SmartPath.



### 360 Guide

The 360 Guide Steering System is an add-on that lets your existing guidance system maintain ideal middle-of-the-row position when A-B line accuracy isn't enough.

#### Features

- 360 GUIDE connects between the GPS globe and the OEM controller
- The system works in row widths from 20" to 38"
- Ties into existing auto guidance controls in your OEM display
- Uses an iPad-based app for calibration and set up, then turns operation and control over to the OEM guidance

The system is available for John Deere R-Series and 30-Series applicators equipped with John Deere AutoTrac and for Hagie STS applicators equipped with Raven SmarTrax steering systems.



# Ag Leader®

## SureDrive

### Individual Row Section Control

Each SureDrive row also acts as an individual section shut-off, reducing overlap, wasted seed and lodged plants.

### Variable Rate or Prescription Based

Easily and effectively vary the population across the whole planter with the hyper-responsive electric SureDrive unit.

### Turn Compensation

SureDrive automatically adjusts meter speed on each row to keep a consistent population around turns and contours.

### SureDrive Features

- Bidirectional, maintenance-free drive
- 12 volt system, 51:1 gear ratio
- 4 steel gears and chain driven in a full synthetic bath
- Installs directly on the planter meter

## SeedCommand for InCommand

### Precise Planter Monitoring

Track population, singulation, spacing quality and more down to the individual row level.

### Turn Compensation

On-screen bar chart shows SureDrive system adjusting population around turns.

### Seed Rows

Select varying planting rate by row for seed corn male and female rows.



## Ag Leader Technology®

## New High-Speed Planting Technology

## SureSpeed

### Engineered for Accuracy

Every detail of the SureSpeed system was designed to account for superior accuracy at any speed. Unique meter orientation on the row unit allows seed to move seamlessly between the meter and delivery system resulting in accurate seed placement. Additionally, the meter was designed to handle a variety of seed shapes and sizes accurately and without singulator adjustments for hassle-free planting.

Paired with Ag Leader's hydraulic down force solution, SureForce®, the system provides the highest available force capacity on the market.



## SureForce

### Instant Response Time

Instantly responds to changing conditions by adjusting pressure to give each row each the exact pressure needed to plant at ideal depth. Replaces manual springs or airbags that have a up to 20 seconds delay in response.

### Instantly Apply or Remove Force

Instantly provides the necessary downforce to maintain depth in no-till conditions and varying soil types, through heavy residue and in compacted areas. Hydraulic uplift prevents sidewall compaction by removing excess weight on the gauge wheels.

### Handles All Planting Environments

This system adjusts for varying soil types and conditions, tillage practices, compaction, light soils, weight on planter and more.

*\*SureDrive electric drives and Individual Row Hydraulic Down Force are proprietary only compatible with the InCommand 1200 display.*

## SureStop Clutches

**Lower Seed Cost** by eliminating double planting at end rows, point rows and partial swaths.

**Increase Yield** by eliminating double planting at end rows, point rows, and partial swaths.

**Increase productivity** by eliminating the need to slow down to raise/lower the planter at end rows.



# Precision Planting®

## METERS

The Precision Planting vSet® meter and mSet™ multi-hybrid system allow you to build the system you will utilize now and in the future. If today you decide to add vSet to your planter with mini hoppers for a single hybrid and then in the future add the mSet seed selector, you use the hopper you already have. If you want to move from mini hoppers to a 1.6 bushel single hybrid or dual hybrid hopper, you simply add on to your existing mini hopper. A purchase today is an investment in your planter for the long term.

### vSet Meter

#### Every Seed Counts

The vSet meter is simple. It requires no adjustments, is incredibly accurate, and is easy to maintain.

#### Features

- vSet meters provide accurate performance without needing to be adjusted for seed size
- Singulation accuracy in corn & soybeans of over 99% without adjustments to vacuum, disk, or singulator
- vSet can handle most any crop you throw at it with thirteen different crop sets

*\*vDrive required*

### vDrive

#### Reduce Complexity

Electric drive that eliminates a complicated mechanical drive system.

#### Features

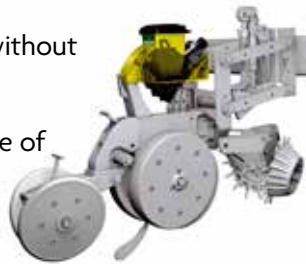
- One simple electric motor on each row, minimizing your risk and maintenance during planting
- vDrive pairs with 20|20 to eliminate the drive system and simplify how seed and insecticide meters operate
- vDrive can change population independently

### eSet Meter

Singulation for John Deere meters without adjustment.

#### Features

- A retrofit system that goes inside of a John Deere vacuum meter
- Paired with a floating singulator that doesn't need adjustments



### Reveal Row Cleaners

Row unit-mounted row cleaners hurt row unit ride and affect down force requirements. Reveal is frame-mounted, removing its impact on the row unit. With its own internal gauge wheel, Reveal precisely controls the depth of the cleaning tines to create a consistently clean and ideal seeding environment for even emergence to occur.

#### Features

- Reveal is frame-mounted
- Reveal has an internal gauge wheel



### SmartDepth

Adjusting depth on your planter is time-consuming. SmartDepth allows you to quickly and easily make depth adjustments, from inside the cab, as conditions change. This saves you time and gives you the confidence that each row is set right where you need it to be.

#### Features

- SmartDepth allows you to make depth adjustments in 1/10th inch increments, right from the cab, so you can get your seed depth exactly where you need it.
- SmartDepth removes row-to-row variability through a calibration process to make sure the same depth setting truly means the same depth.



### mSet Meter

#### Multi-Hybrid Planting with Speed

Under a split hopper holding two hybrids, a seed selector lets a few seeds of the hybrid that is currently being planted into the meter. When it is time to switch hybrids, it allows seeds from the other part of the hopper to come into the meter.

#### Features

- mSet pairs with 20|20, vSet, and vDrive
- A seed level sensor in the meter tells the seed selector when more seed is needed

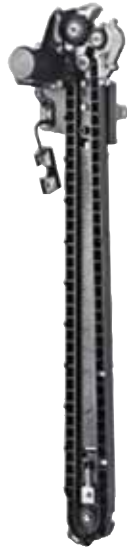




## SEED DELIVERY

### SpeedTube

SpeedTube combines with other systems from Precision Planting as part of a high speed planting system that ensures that as you speed up, yield potential is not going down. SpeedTube uses two feeder wheels to pull seeds off of the vSet disk, into a flighted belt, and into the seed trench. The seeds don't bounce in the tube because they are under control, and they also don't tumble in the furrow because the seed release is matched to ground speed. The result is properly spaced seeds, and more acres covered in the ideal planting window.



### WaveVision

The WaveVision seed sensor counts seed and not dust, has tungsten carbide wear points to reduce double disk wear on the tube, and has a smooth front wall to prevent seed bounce.



## UPGRADE YOUR PLANTER, DON'T TRADE IT

### ReadyRowUnit

- Cast iron row unit
- 14" parallel arms and 16" disk openers
- 11" of row unit travel
- Gauge wheel options - 3" or 4.5" plus optional gauge wheel scrapers
- Closing wheel options- rubber, cast iron, or none
- Universal faceplate – many row cleaner and fertilizer coulters options

The attachment integrates dual-band near furrow 3/4" placement with optional third band in-furrow for maximum plant uptake, rate flexibility, and suited for a wide range of liquid product options.



## SIMPLE ADJUSTMENTS FROM THE CAB

### CleanSweep

CleanSweep does all that hard work for you. It puts row cleaners right where they need to be – where they move the residue but not the soil – and continuously adjusts them as field conditions change.

### Keeton Seed Firmer Low Stick

With its unique, in-the-trench design, the Keeton Seed Firmer is the only thing that gently firms those seeds to the bottom of the V, so the depth is even.

### SmartFirmer

Know your furrow conditions as you plant. Digging seeds only lets you see a fraction of a percent of seeds planted in a field. SmartFirmer measures temperature, moisture, and residue in the seed furrow, and displays the measurements on 20|20. SmartFirmer can control your seeding rate, fertilizer rate, and hybrid based on organic matter.



### FurrowForce

FurrowForce is an automated two stage closing system with integrated sensing. FurrowForce works fundamentally different than other closing systems. The first stage notched wheels work to close the seed furrow from the bottom up, eliminating air pockets. The second stage stitch wheels carry weight on them to firm the soil over the seed to retain moisture.

# ∇ Precision Planting®

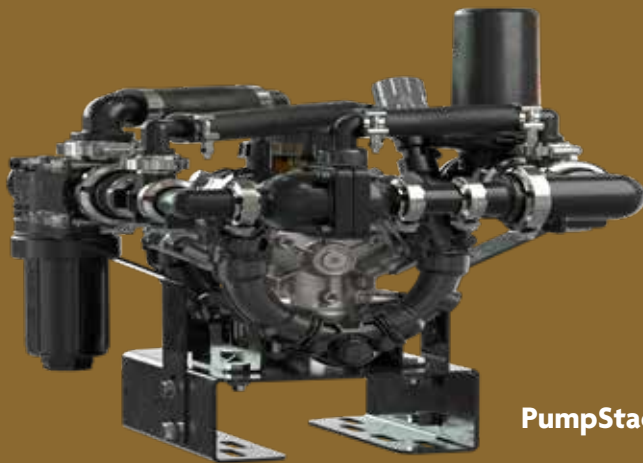
## DOWNFORCE CONTROL MADE AUTOMATIC

### DeltaForce

DeltaForce takes your existing planter and adds a down force sensor and hydraulic cylinder to each row. This ensures all seeds are planted at the optimal down force, ensuring consistent depth while eliminating excess compaction, row by row.

- Row by row accuracy
- Replaces the springs or airbags on your current planter with hydraulic cylinders
- Automatic adjustments on every row

## LIQUID CONTROL



PumpStack

### vApply HD

vApplyHD is the industry first, on-row liquid control product which incorporates flow measurement and control into a single device. Its row-by-row features include turn compensation, swath, automatic flow balancing, and variable rate prescription execution. The module is easy to install, simple to use, and designed with industry leading flexibility. The vApplyHD module is used, without modification, from the lowest pop-up rates on the planter to the highest sidedress rates, across the full range of speeds.

*\*For use with Precision Planting 20/20 Monitor.*



### EM FlowSense

EM FlowSense tells you liquid application rate on each row. Displayed on the 20|20 in the cab, you will know what rate each row is receiving, and be able to fix issues if they are occurring.



### Conceal

Conceal is a simple nutrient placement device that places fertilizer in a band, incorporated into the soil, where the plant will be able to get those nutrients during the critical ear set stage. Conceal can be utilized to put either a single or a dual band of nutrients down beside the row.



### FurrowJet

Putting starter where the plant needs it, when the plant needs it, takes FurrowJet. FurrowJet is a planter mounted device that places three bands of phosphorus starter fertilizer near the furrow; one in furrow, and two about 3/4" away from the seed on either side. These three bands are placed right where the seedling roots and crown roots will grow, taking up the P and thriving.





## GAIN EFFICIENCY WITH BANDED NITROGEN

### 360 Bandit

Banding nitrogen with the planter helps boost efficiency – nutrient efficiency and time efficiency. But it is critical that adding this operation to your planter pass does not interfere with the critical functions of the planter – getting seeds at the right depth, right spacing and firmed beneath the soil surface.

#### Features

- One pass, multiple tasks
- Consistent placement
- Fertilizer disks place nitrogen shallower than other closing systems
- Easy installation
- Designed with maintenance and wear in mind

## PERFECT NITROGEN PLACEMENT FOR MORE EFFICIENT UPTAKE

### ENHANCED SEED-TRENCH CLOSING WITH RAPID STARTER UPTAKE

#### 360 Wave

Improved trench closing is just one reason to add 360 WAVE to your planter.

#### Features

- Creates a wave of moist soil that rolls over the seed to simplify the job of the closing wheels
- Spring-loaded to move up and over obstacles to prevent damage, lower down force demands and maintain depth
- Positions starter fertilizer 3/4" to the right of the seed trench and below the seed



#### 360 Dash

360 DASH lets you apply the maximum rate for yield response while trimming your starter volume per acre - and cost per acre - by 50% to 75%.

#### Features

- Applies liquid fertilizer in a concentrated dash over the seed.
- Compatible with a variety of starter application tools including the 360 WAVE and most Keeton Seed Firmers.
- Set up and control settings are simplified via the 360 DASH App. Giving you control of the length of the "dash" and its position.



#### 360 Tanks

Improved trench closing is just one reason to add 360 Liquid nitrogen tanks from 360 Yield Center deliver the things you need for an efficient on-planter nitrogen system: weight balance, capacity, visibility, and accessibility.



### REFILL ON THE GO

#### 360 Sprint

The 360 SPRINT system lets you re-supply nitrogen and starter on-the-go and in the field. Like a jet refueling system, 360 SPRINT uses a modified UTV with an innovative docking system to lock onto your planter and transfer up to 300 gallons to the planter or tractor tanks.



#### 360 Drag Chain

360 Drag Chains mount using the closing wheel hub bolt. This mounting location provides added width and minimizes the overall bracket length. That reduces transport width on front fold planters. 360 BANDIT places nitrogen in a band, three inches from the seed trench. The 360 DRAG CHAIN covers an eight-inch swath. That extra width ensures that the nitrogen slot is sealed and the seed trench is leveled.

*360 Drag Chains are designed for John Deere, Kinze, White and Harvest International planter row units and work with most closing wheels including: Rubber, Cast, Spike, Schlagel and Copperhead.*

## CLOSING WHEELS

Furrow Cruisers finally have solved the sidewall compaction problem that came with the development of the double disk opening system on all modern planters.

### Furrow Cruiser

- Built-in depth control
- Compatible with multiple crops
- 16 angular teeth
- Made from UHMW poly material
- Shallow depth option available

### Cruiser Xtreme

- Built-in depth control
- Compatible with multiple crops
- 14 angular teeth
- Cast-iron construction

*Fits: JD 1700, DB and Max Emerge Series, Kinze 1993 and Newer, White 6000, 8000 and 9000 Series, Great Plains, Monosem, Horsch, Case IH SDX No-Till Drills*

### Furrow Cruiser Inserts

- Use with your existing closing wheel

### Conversion Kits

- Roll Pin Bearing Kit, Case IH Kit, C IH Xtreme Kit

### RK Closing Wheel Frame Repair Kit

This kit replaces the bushing on a closing wheel arm with a bearing. It can be used on brand new planters and on planters that already have some wear to the closing wheel arm. Having the closing wheel arms tight is critical to keeping closing wheels centered on the seed trench and ensuring that your closing wheel can operate at peak performance.

*If your planter is an early 7000 you should consider purchasing a new closing wheel frame. The curved tube that supports the closing wheel bearing shafts is very weak on these early frames. Any replacement frame will have a stronger tube.*



### RK Mud Scraper

This scraper blade is available for each of the three main gauge wheel tire profiles. The blades are made from 3/16 heat treated steel and are mounted at about a 45° angle to the wheel. This allows the scraper to deflect mud outwards, away from the furrow and closing wheels. When the gauge wheel is free of mud and debris, it enables the disc openers to run at a consistent depth, enhancing consistent seed depth and spacing.

*Compatible with: John Deere, Kinze (Pre 3000) and White (6000 & 8000)*



## GAUGE WHEELS

### Open Rim Complete Gauge Wheel

The MudSmith Gauge Wheel utilizes a patent protected open rim design. This open rim design reduces mud and debris buildup while being extremely durable. The modular construction allows every part to be field replaceable.



MudSmith Hardware Kits include everything necessary to convert old gauge wheels to MudSmith's open rim design. The MudSmith Gauge Wheel Hardware Kit is available in 4.5, 3 and 2.5 sizes, and is compatible with all brands and models of implement matching those measurements.



### RK Gauge Wheel Arm Repair Kit

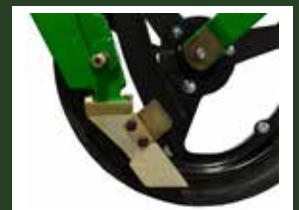
This repair kit is different from all other kits on the market, because it supports the offset load in a different way and actually solves the problem. The RKP design utilizes a disc spring to preload the outer end of the hub of the arm with enough spring pressure that the arm cannot lean but can pivot freely. Because the arm cannot lean the pressure remains distributed almost uniformly around the circle of contact which is a large area. The result is that wear is practically eliminated.



*Compatible with: John Deere 1700, JD 7000/7200 Planter 1/2 Pivot Pin, JD 7000/7200 Planter 5/8 Pivot Pin, JD Max Emerge 5, Kinze 2000/3000, Case IH 800/900, 955 and up with Grease Zerk, White 5000 & 6000 (Single Closing Wheel), White 6000 & 8000*

### RK Seed Tube Guard

The nearly constant width and the flat bottom of the furrow produced by the RKP guards will allow the seed to more consistently reach a uniform depth. The flat bottom will not be compacted or glazed which should result in more uniform emergence.



## ROW CLEANERS

### Martin-Til Row Cleaner

Martin row cleaner teeth continuously engage the soil to the shallow depth of 1" to 1 1/2". The scarifying of the soil's surface layer makes it easier for the seed openers to open a well-defined "V" but without furrowing out or causing slabbing or fleaking. Martin Row Cleaners come in two basic types: rigid and floating and offer 3/8" thick, high-strength, right- and left-toothed wheels with diamond shaped points and stationary triple-lip seals and heavy-gauge oval dust caps.



### Smart Clean

The exclusive Martin-Till Smart Clean Row Cleaner adjustment system combines a bluetooth connection with an easy-to-use mobile app to allow the operator to raise and lower floating row units on the go by varying the amount of air pressure in the cylinders.

### Features

- Improved ability to properly clean the soil ahead of seed furrow to reduce residue in furrow
- Wireless control allows for less equipment in the cab
- 1 PSI increments allow for more precise row cleaner control

## COMPLETE LIQUID FERTILIZER PLANTER KITS

### Totally Tubular Fertilizer Systems

Keep liquid fertilizer off of your expensive machines! The 3/4" wide Fin made of UHMW plastic ensures long wear life and replaces the traditional 1" wide seed firming wheel. The Fin places liquid fertilizer at the deepest point of the furrow. Regardless if the fin is brand new or worn to 50%, the patented design keeps the delivery point deep in the furrow. For John Deere, Case, Kinze and White



## DAKOTA MICRO

RUGGED AG CAMERAS THAT CAN BE INTEGRATED WITH AG LEADER DISPLAYS



### AgCam AHD

- 100% waterproof, triple O-ring sealed housing
- Analog, High-Definition imaging
- Camera optics are able to function in highly dusty conditions
- Able to withstand high vibration for long periods of time



### Overview Wireless

- Built-in, high quality CCD camera with high performance infrared (IR) illuminator modules
- 2.8mm Camera lens provides 120° field of view



### Overview

- Watertight cameras
- Automatic IR night vision gives you 45'+ of viewing in complete darkness
- Unique bracket design allows camera to be mounted in ANY orientation field of view



### Ranch Hand Wireless

- Waterproof housing
- Sealed against extremely high humidity
- Allows for easy wireless upgrade to your AgCam system



Also available are third-party Camera Adapter Cables for the following Displays and Monitors: JD 2630 Display, JD Command Center Adapter, JD 6R Command Center, CNH Intelliview Displays, Topcon X30, Trimble FMX, Trimble CFX 750, Ag Leader Integerra, Ag Leader Versa, AGCO C1000 Monitor, AGCO C2000 Monitor and AGCO GTA Monitor



**UNIQUE DESIGN  
ENABLES YOU TO  
APPLY LATE-SEASON  
NITROGEN — EVEN UP  
TO TASSEL**

**Y-DROP &  
UNDERCOVER**

**Y-DROP  
SIDEDRESS**

### 360 Y-Drop

360 Y-Drop allows you to apply nitrogen exactly where it's needed — as late as VT, giving you the widest sidedress window ever, for more flexibility and bigger yields.

#### Features

- Variable rate nitrogen application
- Apply nitrogen within 2 to 3 inches of the stalk base
- Y-Drop gives you the flexibility to extend the midseason application window from V6 to VT
- Narrow-row design with four-position adjustable arms allows precision placement in 15-inch to 36-inch rows
- Variable rate nozzles are available
- Breakaway mounting brackets
- Available in 20-inch to 30-inch row spacing.
- You can install and remove it easily on most sprayers

### 360 Undercover

360 Undercover makes in-canopy application possible - in corn, seed corn, soybeans, wheat, cotton, sugar beets, sorghum and more. Compare coverage on the underside of the leaf.

#### Features

- Flexible fungicide, insecticide and nutrient applications
- Under canopy application
- Easy add-on to the 360 Y-DROP system

### 360 Y-Drop Sidedress

Upgrade your coulter bar with 360 Y-Drop Sidedress and get precise nitrogen placement well into V6 for more flexibility and bigger yields.



### 360 Glide

360 Glide provides reliable, mechanical, automatic positioning of your 360 Y-Drop system that ensures ideal hose position and nitrogen placement. 360 Glide uses a mechanical sensor rod to automatically maintain the ideal position of the 360 Y-Drop base. That keeps the delivery hoses in the right angle to deliver nitrogen directly to the base of the corn plant.



#### Features

- Ideal hose position
- Simple, familiar in-cab control

*360 Glide is available for John Deere applicators equipped with BoomTrac Pro, Hagie and Rogator applicators with Norac UC5 and Norac UC7.*

### 360 Y-Drop Sidedress

Upgrade your coulter bar with 360 Y-Drop Sidedress and get precise nitrogen placement well into V6 for more flexibility and bigger yields.

#### Features

- Adjustable riser length allows for mid-to late-season nitrogen application as late as V7 and four-position adjustable arms allow for precision nitrogen placement in 15-36" rows.
- Breakaway risers provide protection on uneven terrain and variable rate nozzles are available for precise rate control.
- Simple retrofit for your current coulter bar. U-bolt mount system designed for most coulter bar sizes).



**COMPLETE  
CONTROL OVER  
LIQUID AND  
GRANULAR  
APPLICATION**

**Ag Leader®**

### DirectCommand

Whether you have an NH3 toolbar, Liquid N sidedress unit, sprayer, spreader or electric starter fertilizer pump on your planter, DirectCommand will transform the application process, allowing for maximum control.

#### Features

- Liquid and Dry Rate Control
- Eliminate over-application, overlap, and spray drift
- OptRX Crop Sensors measure health and provide application rate recommendations in real time to maximize your profit
- Applying multiple products at one time
- Compatible with NORAC UC-5 Height Control



*ISOBUS Task Controller offers capability for single-product ISOBUS equipped sprayers, provides support for AutoSwath™ Control, Prescription Rate Control and Data Logging.*



### 360 Bullet

Most rippers do a good job of leaving the surface smooth and level. But what about the soil underneath? With 360 BULLET, you can fracture the complete soil profile, eliminating subsurface berms left by other ripper points for better root penetration and access to nutrients.

#### Features

- Similar horsepower requirements compared to traditional ripper points
- Precision wing angle and pitch lifts soil without creating compaction under wing

360 BULLET ripper points are available for the following models: Case IH 870, 875, 530 and 730 Ripper Models, John Deere 512 and 2730 Ripper Models, Landoll 2410 and 2430 Ripper Models, Kuhn Krause, Dominator Ripper Models, DMI 530 and 730 Ripper Models



### REDUCE HEADER LOSS

#### 360 YieldSaver

Traditional corn heads have gaps in the deck plates and gathering chains that result in corn kernels falling right through. 360 Yield Saver eliminates those gaps by adding intermeshing bristles to traditional gathering chains to capture significantly more kernels.

#### Features

- Mounts easily on corn heads
- Provides a similar wear life to other gathering chains
- Chain includes crop lugs to improve stalk feeding
- 360 Yield Saver blocks easily attach to chain
- Replace blocks when they wear out
- Chain wear life similar to conventional chains
- Block life expected to be one to one and a half seasons



**INSTANT CROP  
YIELD AND  
MOISTURE DATA**

**Ag Leader®**

#### Yield Monitor

View yield and moisture maps in real-time for instant feedback on yield performance across the field.

#### Live Field Progress on Connected Displays and Devices

Share maps, information and more with other connected InCommand displays as well as connected devices like tablets and phones.

#### Simple Setup

A simple two-load calibration process (recommended) gives you world class accuracy, system is flexible from one simple calibration to the gold standard of 4-6 loads.

#### Increased Visibility

View and mirror up to four cameras right from the display.

#### CartACE

As a tech tool to assist grain cart operators, Ag Leader has introduced CartACE, which connects the grain cart to the combine by synching the combine's auto-guidance line with the grain cart tractor's auto-steer.

The new feature is integrated on the InCommand display and is currently available in a limited beta release. CartACE also shares a live map of combine location in the field.



### ENGINEERED FOR PERFORMANCE

#### 360 ChainRoll

Create the right environment for soil microbes and nitrogen availability with a new approach to residue management.

#### Features

- Precision cutting, sizing and residue management
- Directly replace old stalk rolls
- 360 Chainroll stalk rolls directly replace old stalk rolls
- Cuts stalks in seven-inch segments, ideal for row cleaners to remove residue from the seed trench reducing seedling blights, wicking and lower ear counts
- Combination of cutting flutes and piercing teeth create chain-like perforated residue
- ChainRoll Works on John Deere C-IH and Geringhoff NorthStar corn heads



## HEADER HEIGHT CONTROL FOR CORN

### Horizon® Controller

Headsight's Horizon offers the most advanced header control and diagnostics at your finger tips. It uses the existing OEM display enabling the operator to update settings, view diagnostic info, and perform calibrations without ever leaving the cab. Horizon enhances the performance of header height control and adds extensive capabilities to monitor and control header functions.

### Terrahawk - Radar Height Sensor

Headsight is pleased to announce Terrahawk, a non-contact radar height sensor for headers. Terrahawk interfaces with Headsight's Horizon controller to provide industry-leading in-field performance.

### Poly Arm Height Sensor

Headsight's patented Flexible Poly Arm design allows the sensing arm to absorb the abuse of the field and fully contact the ground - even at higher operating speeds.

### Insight Controller

Insight surpasses OEM header height performance by adding features and advanced settings with an interface controller mounted at the back of the head.

## PRECISE RESPONSE FOR CORN

### ForeSight

ForeSight detects when the snout tip touches the ground by using a calibration point and magnifies the sensitivity below that point, giving the same (or better) header control responsiveness with the tips on the ground than off the ground. Foresight is standard with Horizon Controllers settings with an interface controller mounted at the back of the head.

### Feathersight

By using the readings from the header height sensors and the pressure from the feederhouse lift cylinders, Feathersight combines the operating range of the height sensors with the operating range of float mode to give seamless control through the whole range from in the air to pressure on the ground, also allowing the operator to feather the header lightly on the ground.



## Concave Systems

### Harvest All Crops with One Set

The Copperhead Concave System uses three cover plates. Two in the first concave and one in the second concave section. The cover plates are completely adjustable and/or removable, which is what allows you to harvest any crop with the same set of concaves! With the ability to easily adjust the system, you will be able to dial in close to zero rotor loss.

#### Features:

- Increase capacity in all crops
- Hard surfaced for long life
- Less Fuel Consumption
- Slower rotor speed
- Cleaner grain sample
- Faster harvesting
- Includes disrupter lugs
- Notched bar design



*Copperhead John Deere Concaves are compatible with the following combines:*  
 STS Series: 9650, 9660, 9670, 9750, 9760, 9770, 9860, 9870  
 S Series: 650, 660, 670, 680, 690, 770, 780, 790



*Copperhead Case IH Concaves are compatible with the following combines:*  
 88 Series: 1680, 1688, 2188, 2377, 2388, 2577, 2588, 5088, 6088, 7088, 5130, 6130, 7130, 5140, 6140, 7140  
 Flagship Series: 7010, 8010, 7120, 8120, 9120, 7230, 8230, 9230, 8240, 9240





## ROW GUIDANCE FOR CORN

Headsight offers high accuracy row-crop autosteer control systems for corn harvesting. They use mechanical sensing wands to feel the stalks and integrate with an existing steering devices to guide the combine down the row. Headsight row guidance systems are not tied to GPS; therefore, they can be installed on any combine with a supported steering valve or motor.

### TrueSense

Row guidance that uses Headsight's single crop sensor design with the Truesense module and the OEM steering controls. Allows Factory row guidance to be used with off brand heads.

### TrueSense+

Row guidance that uses Headsight's single crop sensor design with Horizon and the OEM steering controls. Allows Factory row guidance to be used with off brand heads.

### TrueSight 2

Truesight 2 row guidance continues the tradition of class-leading performance and flexibility while adding features for the modern harvesting operation.

### TrueSight 2 Sprayer Guidance

Truesight 2 for self-propelled sprayers is a mid to late season row guidance option for sprayers. Current availability is limited through Headsight's application-based program.

	Truesense	Truesense +	Truesight 2
Durable Hall Effect sensor	X	X	X
Robust single-sensor design	X	X	X
Mounts on any header	X	X	X
Uses OEM steering algorithm	X	X	
Uses advance Headsight steering algorithm			X
Requires OEM guidance unlock	X	X	
In-Cab diagnostics		X	X
Compatible with Headsight mobile app			X
VT Interface		X	optional
TS remote display			optional
Works with aftermarket steering devices			X
Tilt compensation			X
Advanced settings			X
Serves as Horizon bridge			optional
Supports redundant crop sensors		optional	optional
Auto crop-detect for swap to GPS		X	

## ∇ Precision Planting®



### YieldSense

#### Accurate Yield Data

YieldSense uses a flow sensor at the very top of the clean grain elevator to measure all of the crop as it comes off the paddle. Traditional flow sensors don't measure all of the crop, and calculate yield improperly as a result. YieldSense also uses a specially shaped clean grain paddle so that the grain comes off of the paddle consistently. When grain is moving correctly across the flow sensor, variances in flow can easily be measured.

#### Simple Set Up

YieldSense is simple to use. One simple calibration per crop, per season is all you need to get started. Our unique grain property kit keeps the sensor calibrated as you change hybrids, varieties and moistures within fields, and from field to field.

#### Data You Can Trust

Our patented flow sensor is installed in the correct location, so accurate yield is measured across all mass rates. With real time yield by hybrid reports, wireless data sharing between combines, and a Grain Property Kit to keep the system accurate,



# Ag Leader®

## AgFiniti

### Query Fields to Learn More

Analyze yield factors by querying and layering areas of the field to generate simple yield comparison reports.

### Do More In-Depth Analysis

AgFiniti integrates with Ag Leader's robust analysis platform, SMS Software. Data is automatically synced to SMS for further analysis and can easily be shared back to displays through AgFiniti.

### Generate Prescriptions

Generate prescriptions in AgFiniti in real-time without having to know how to write an equation or understand soil chemistry. AgFiniti does the work!

### View Remote Displays

Use AgFiniti to access InCommand displays for calibrating, equipment setup, troubleshooting and more!



**Mobile App** Maps available immediately and sync across all connected devices to InCommand displays, SMS software or other cloud platforms.

## A SOFTWARE FOR EVERY SEASON

### SMS

SMS Software is an easy-to-use decision-making tool to help you capture the most out of every acre simple yield comparison reports.

### Planting

- ☐ Choose seed based on historic yield performance
- ☐ Create planter performance reports and charts
- ☐ Satisfy government reporting needs

### Application

- ☐ Track variable rate application operations
- ☐ Record application operations record keeping
- ☐ Create variable rate prescriptions

### Harvest

- ☐ Analyze harvest data
- ☐ Discover yield trends using multiple years' data
- ☐ Create harvest reports and charts or use query tools



### SMS Basic

Turn field data into smart management decisions using information gathered from planting through harvest.



### SMS Advanced

Farmers and consultants can enjoy all the features of SMS Basic plus more in-depth analysis.



### SMS Mobile

Collect information from the field and sync with desktop software.

### Intellislope

InCommand displays with Intellislope® technology assist you in controlling the plow to install drainage tile on grade throughout the entire run.

### Survey

Collect a survey of the surface elevation by driving over the path either before or during installation.

### Plan

Enter parameters to ensure tile is placed as desired in field or import complete tile plan from SMS Advanced.

### Install

The AutoTile mode will automatically adjust depth of the plow automatically or use manual grade or pitch control modes.



## DigiFarm Virtual Base Network

### Beacon V3.0

The Beacon v3.0 is a ruggedized device that enables a wireless Bluetooth connection between GPS/GNSS receiver and a Bluetooth enabled tablet. The DigiFarm NTRIP app supports the iPad, Android and Windows devices. This bridge allows RTK corrections to be passed through the smart device, eliminating the need for additional data plans, radios, or costly RTK base stations. The NTRIP app is available for free from iTunes.

The Beacon v3.0 is the industry's first Bluetooth device to be MFi (Apple) certified to stream RTK data using a cellular-capable iPad to all major brands of GPS rovers. Because it's certified by Apple, we are able to optimize communication performance between the Beacon and iPad. Devices that haven't been through this certification run the risk of limited bandwidth, interrupted data flow, and reduced operating range.

#### Features

- Stream RTK through iPad using NTRIP app
- High-power Bluetooth device
- Ruggedized and weather resistant
- Also works with Android and Windows devices
- Reduces cab clutter by eliminating cables

### DigiFarm VBN

DigiFarm VBN (Virtual Base Network) maximizes RTK correction accuracy and reliability by combining all of the bases in our network with powerful server software to create a virtual base station in close proximity to where you are working. That means you can have an RTK signal anywhere within the DigiFarm network.

#### Features

- Extreme accuracy
- Short baseline distance
- No need to change radio IDs
- No line shifts
- No need for a repeater
- Works with all major brands of GPS receivers

### Elevate Modem

The highest accuracy, reliability, and security for your precision farming systems.

#### Features

- Roof Mounted
- Compatible with ALL RTK Receivers Including:
  - NEW John Deere Integrated Receiver
  - NEW Case Vector Pro Receiver
  - ALL John Deere Star Fire Receivers
- Order elevate with cabling for your RTK receiver
- No special programming is needed
- Elevate is the lowest cost external modem on the market
- Easily move elevate with your RTK receiver from machine to machine
- Convenient mag-mount design
- Eliminate in-cab clutter
- Elevate is also available as an in-cab solution



**DigiFarm**  
Virtual Base Network

## RTK FROM THE SKY

### TerraStar-X

Ag Leader announces GPS 7500 receivers will now support TerraStar-X, providing centimeter-level accuracy to customers across the Midwestern United States, with additional coverage areas coming soon. TerraStar-X delivers RTK From the Sky™ performance, and convergence in under one minute with two centimeter accuracy.

TerraStar-X revolutionizes the precision agriculture industry, by delivering rapid, accurate and reliable positioning" said Bill Cran, Ag Leader Product Specialist. "TerraStar-X allows growers to get the accuracy and speed of an RTK network for planting and other high-precision field operations, while reducing equipment requirements and increasing productivity."

**Ag Leader®**





## HOW IT WORKS

### ONE

#### Choose a Device Adapter

RAM® offers a wide selection of adapters and cradles for your specific device.

### TWO

#### Choose an Arm

Select an arm based on your desired length and placement.

### THREE

#### Choose a Base

Select from a variety of bases to help secure your device where you need it.



RAM® Mounts manufactures rugged and versatile mounting systems for cameras, tablets and other mobile devices that can be attached nearly anywhere. Unlike other mounts on the market, RAM® allows you to mount items where you need them most. The unique design of the RAM® Mounts system provides quick installation, adjustability, strength, vibration damping and durability—all at a low cost. Backed by a lifetime warranty, RAM® uses powder-coated marine-grade aluminum with lightweight and high-strength composites, stainless steel hardware and rubber balls.

#### Premium Design

The rubber ball and socket design of our mounting systems offers a secure hold, with near-infinite adjustability and vibration damping for the most demanding environments. With thousands of components trusted by users around the world, we've been able to design and develop mounting solutions that consumers and companies previously only dreamed were possible.

#### Customizable

Take your phone mount from your truck to your tractor, or mix and match components to create your ideal mount. Because of the modularity of the RAM® system, you can customize your solution to fit your specific needs in almost any application.

#### Quality Materials

A premium design deserves the highest quality materials available, from rubber and stainless steel to high-strength composites and marine-grade aluminum. Our facilities—including powder coating, die casting, rubber injection molding, and shock and vibration testing—help us deliver on this promise to bring you inventive mounting solutions.

#### Lifetime Warranty

It's simple. Our reputation as the leader of premier mounting systems means if we build it, then we guarantee it. We're confident in the quality of our products, and with our warranty, you can be too. Learn more [rammount.com/warranty](http://rammount.com/warranty) about our lifetime warranty.

## BALL SELECTION GUIDE



#### B Size

1" Ball Dia.  
Holds up to 2 lbs.  
Ideal for phones, cameras and cup holders.



#### C Size

1.5" Ball Dia.  
Holds up to 4 lbs.  
Ideal for tablets and small monitors.



#### D Size

2.25" Ball Dia.  
Holds up to 6 lbs.  
Ideal for display integrations.

**Technological innovation within the agriculture industry has taken off at an unprecedented rate in recent years, and RAM® Mounts has worked closely alongside vehicle and display manufacturers to provide farmers with the best in-cab experience possible. Our trusted partnerships include companies like Agco, John Deere, Precision Planting, Trimble, and many more. Depend on RAM® to provide a wide range of mounting solutions built specifically with agriculture in mind.**



# COMING SOON!

A COMPLETELY NEW WAY  
TO NURTURE YOUR CROP

By delivering bands of water directly to the base of the plant, 360 RAIN™ provides advantages over traditional irrigation methods. 360 RAIN requires much lower volumes of water than traditional irrigation systems. Depending on field size, wells need to provide just 100 to 225 gallons per minute to the system. Plus, 360 RAIN can water irregular shaped fields that do not fit typical center pivot systems.

The 360 RAIN system also provides 100% field coverage - no special equipment needed to cover the corners that are typical to center pivot fields.

# CLIMATE FIELD VIEW™

The digital ag platform that gives you data-driven insights to maximize your return.

**GET YOUR DATA IN ONE PLACE  
UNCOVER VALUABLE FIELD INSIGHTS  
OPTIMIZE YOUR INPUTS**



## Turn your field data into insights

Are you looking for the best way to make your field data work for you? Is your data stored across software systems, flash drives and even notes on seed sacks? We designed FieldView™ digital tools to eliminate that challenge and become your partner to turn data from your unique fields into insights. On your tablet, smartphone or desktop, FieldView is with you, helping you make data-driven decisions and maximize your return on every acre.

## Easy Field Data Collection & Sharing

- Collect data with FieldView Drive and see your field maps build in real time
- Simple to install
- Compatible with many equipment types

## Connect All Your Data in Our Integrated Platform

If you subscribe to the Climate platform partner products, FieldView delivers even more insights and conveniences from:

- High resolution soil maps
- Aerial and drone imagery
- USDA and insurance reporting
- Sales management tools and analytics

## Use Data to Analyze Crop Performance

Make every field a test plot to analyze the return on your input decisions throughout the year. At harvest, all your data is at your fingertips so you can make decisions with confidence as soon as you leave the field.

- Quickly generate crop performance reports
- Make informed decisions



## FieldView Drive

The FieldView™ Drive is an in-cab hardware device that plugs into your equipment's CAN diagnostic port, capturing both machine and field data. It connects your equipment to your iPad® mobile device via Bluetooth®, allowing you to collect data and store it as you pass through your fields.



## GET YOUR DATA IN ONE PLACE

Data Connectivity  
Data Visualization

## UNCOVER VALUABLE FIELD INSIGHTS

Crop Performance Analysis  
Field Health Imagery

## OPTIMIZE YOUR INPUTS

Variable Rate Prescriptions  
Fertility Management



## INCREASE YIELD WITH VARIABLE RATE PRESCRIPTION TOOLS



### **NEW Cooperative Precision Hardware Sales & Service**

NEW Cooperative is an authorized dealer for the brands listed in this book. Our team is trained to install, support and service these products.

### **AgLeader Blue Delta Dealer**



Blue Delta Dealers have the most elite precision farming experts. NEW Cooperative employees are intensely trained & backed by the best resources in the industry.

### **Precision Planting Premier Dealer**



A Precision Planting Premier Dealer is a world-class certified precision agriculture expert, with rigorous training and knowledge of the industry and issues facing you today. A Premier Dealer is the only specialist that can offer the entire Precision Planting product line. & backed by the best resources in the industry.

### **Spring Planter Meter Calibration**

Calibration of the metering system can help eliminate uneven stands and can help control seeding costs by achieving targeted seeding rates. Also, calibration can give producers confidence in their planting operation as they move from bagged seed to bulk seed.

Each spring, the NEW Cooperative Precision team performs seed meter calibrations. Contact your sales representative to schedule your free on-the-farm pick-up.



**NEW**  
COOPERATIVE INC.  
**NEW**  
PRECISION AG

[www.newcoop.com](http://www.newcoop.com)

515.955.2040

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