



JOHN DEERE

*JOHN DEERE
PRECISION UPGRADES
Model Year 2024*

LEVEL UP

PERFORMANCE AND PROFITABILITY

It's a simple equation: reducing input costs and increasing yield returns a higher profit to farmers' bottom lines.

Our Precision Upgrades provide farmers with a unique opportunity to adopt the latest technology without purchasing new or used equipment. This gives them a faster ROI while increasing the value of their current machine and improving operational efficiencies.



04



PLANTER
PRECISION UPGRADES

16



SPRAYER
PRECISION UPGRADES

24



COMBINE
PRECISION UPGRADES

30



SUREPOINT AG SYSTEMS

32



COMPLETING PACKAGES

28



TRACTOR
PRECISION UPGRADES

33



CUSTOMS, QUOTING & ORDERING

34



INSTALLATION &
JOHN DEERE INSTALLATION
SERVICES, WARRANTY & SUPPORT

Please note: The features and compatibility contained within this handbook are subject to changes. Please review the Ag Sales Manual or Deere.com for the most up-to-date content.



PLANTER PRECISION UPGRADES



Improve your yield potential¹ and profitability by upgrading your current machine – and reap the benefits of new technology, performance and confidence.

When upgrading with Core Features and additional Optional Features, there's no shortage of choices to bring out the best in your equipment.



¹<https://crops.extension.iastate.edu/cropnews/2020/03/high-speed-planting-technology>

Core Features

These option codes can be selected and ordered for compatible model planters as a stand-alone feature. Multiple core features can be ordered together.

Available Core Features

- ExactEmerge™
- MaxEmerge™ 5e
- Individual Row Hydraulic Downforce
- ExactShot™
- ExactRate™ Fertilizer System
- FurrowVision™
- Precision Ag Technology
- Frame Weight Distribution
- Central Tire Inflation System (CTIS)
- Ultimate LED Lighting Kit

Optional Features

These option codes can be added to orders containing either ExactEmerge or MaxEmerge 5e row unit upgrades on a compatible model planter. Optional Features are primarily compatible with electric drive row units.

Available Optional Features

- Active pneumatic downforce
- Mechanical and pneumatic closing wheel systems
- Rubber, cast iron, or Yetter Twister® closing wheels
- Central Commodity System (CCS™) conversion kit
- Color-coded hydraulic grips
- And more ...



Electric Drive Upgrades

ExactEmerge™

Ships as a complete row-unit for faster installation time.

- Maintain accurate seed placement at speeds up to up to 16.1 km/h (10 mph)
- Industry exclusive BrushBelt™ uniformly carries seed from the meter to the trench, reducing seed roll in the furrow
- Dual 56-volt electric motors provide infinite seed placement
- 20% improvement in population accuracy with curve compensation
- Compatible with ExactShot™
- Unlocks additional optional features like Easy Adjust row cleaners, Individual Row Hydraulic Downforce, and pneumatic closing wheels
- Exclusive upgrade: 1.6 bu or 2.7 bu hoppers available for non-CCS planters



EXACTEMERGE UPGRADED



MAXEMERGE 5E UPGRADED

MaxEmerge™ 5e

Ships as a complete row-unit for faster installation time.

- Lowest entry cost for electric drive planter upgrades
- 20% improvement in population accuracy with curve compensation
- Unlocks additional optional features like Easy Adjust row cleaners, Individual Row Hydraulic Downforce, and pneumatic closing wheels
- Fewer mechanical parts compared to ExactEmerge
- Seed tube seed accuracy starts to diminish as field speed exceeds 5 mph in most conditions



Downforce

Individual Row Hydraulic Downforce

- Increase even plant emergence due to increased contact of the row unit to the ground
- Consistently place seed at desired depth regardless of soil conditions
- Closed loop downforce system reacts quickly on an individual row basis to changing soil conditions
- Adjusts up to five times per second
- 58% faster than pneumatic systems

COMPATIBILITY:

- 1700/05, 1720/25 (CCS and non-CCS), 1730/35, 1750/55, 1760/65, 1770/75NT (Flex, CCS, and non-CCS), 1780/85, and 1790/95; model years 2005 and newer
- DB44 up to DB90, model years 2012 and newer

EXACTSHOT™



Fertilizer Upgrades

ExactShot™ **NEW**

- Save up to 60% of in-furrow nutrient input costs
- Switch between Dosing and Continuous mode from cab
- Apply nutrients directly on seed where they are used most efficiently
- In-furrow option only
- Easy to setup, monitor, and change rates using G5 display

COMPATIBILITY:

- 1770/75NT CCS, 1790/95, DB44 and DB60 up to 24 rows; model years 2022 and newer
- ExactEmerge only for MY24



Please see Ag Sales Manual for more details around compatibility requirements for ExactShot and ExactRate upgrades.

Electric drive row units are required to operate ExactShot or ExactRate fertilizer upgrades. ExactShot is not compatible with planters using FurrowVision.

ExactRate™

- Average of 4.3% (up to 12%) reduction in input (fertilizer) costs
- Performance up to 16.1 km/h (10 mph)
- Variable rate prescriptions
- Fully integrated into Generation 4 displays
- Turn compensation
- Row-by-row section control
- Flow detection
- As-applied documentation
- In-furrow or 2x2 application methods available



In-furrow application



*Frame mounted fertilizer opener
(sold separately)*

COMPATIBILITY:

- 1770/75NT CCS, 1790/95, and DB44 up to DB90; model years 2018 and newer





Technology

FurrowVision™ **NEW**

- Live camera feed into actual planter furrow, streamed on tablet in cab
- Validate seed depth accuracy across planter sections
- Ability to slow, pause, and rewind live stream to review
- Adjust row cleaners and downforce based on observations without leaving cab

Please see Ag Sales Manual for more details around compatibility and requirements for FurrowVision upgrades. Electric drive row units are required. FurrowVision is not compatible with planters using ExactShot.

Precision Ag Technology



In-Cab Touchscreen Displays

Manage guidance lines, application rates, input placement, and more; G5 displays offer more screen space, faster processing, and 1080p HD quality



StarFire™ 7000 Receiver

SF-RTK signal gives RTK accuracy without the need of a radio



JDLink™ Connection

Streams machine and field data to your Operations Center account



John Deere Operations Center™

- Single, secure place to setup, **plan**, monitor, analyze, and share your farm data – anytime or anywhere



Whether you're tilling, seeding, applying, or harvesting, Work Planner gives you everything you need to create exact work plans that detail variety, guidance lines, prescriptions, and more.

AutoPath™*

- Uses crop row data from your first pass to create accurate guidance lines for secondary passes such as planting, spraying, and harvest

John Deere Section Control

- Reduce overlap and minimize skips ensuring precise placement of crop protectants and nutrients

Mobile Row-Unit Runoff

- Setup and check rows from your mobile device
- Reduce chances of doubles and skips

Easy Fold

- Automate planter folding/unfolding
- For compatible ExactEmerge and MaxEmerge 5e upgrades

SeedStar™ 4HP

- Monitor and view multiple functions in overview layout
- For most row units

SeedStar™ 5HP

- Only available in MY24 for ExactShot upgrades or MP512 and MP516 model completing row unit kits

Connect Mobile

- Document and visualize row-by-row planter performance
- For ExactEmerge and MaxEmerge 5e upgrades

AutoTrac™ Turn Automation (ATTA)*

- Automatically complete accurate, hands-free, end-of pass turns

Implement Guidance*

- Increased pass-to-pass accuracy on curved passes and sloped terrain using a second StarFire™ receiver on your implement



*Available as part of the Automation 4.0 Package and G5 Advanced Package.

Compaction Management Upgrades

Frame Weight Distribution **NEW**

- Redistributes weight to wings where it can be used to increase downforce on row units
- Reduces compaction in center section of CCS planters
- Factory-ready solution available for planters that chose the "less" option when ordering from factory
- Bolt-on solution available for planters that did not have a Frame Weight Distribution option when ordered from the factory



COMPATIBILITY:

- 1770/75NT, model years 2005 and newer
- Factory-ready 1775NT 24R30 kits for model years 2016 and newer planters; bolt-on solution for model years 2005-2015
- 1790/95, model years 2005 and newer
 - Kits only available for 31R15 and 32R15 models
- DB60, model years 2017 and newer; factory-ready kits



Central Tire Inflation System **NEW**

- Reduces overall footprint and compaction in center section of CCS planters
- Replaces existing tire with new Firestone VF
- ISOVT connection allows operators to change tire pressures from cab
- Inflate tires to road pressure in as little as four minutes*
- Deflate tires to field pressure in as little as 2 minutes, 20 seconds*

COMPATIBILITY:

- 1770/75NT and 1790/95; model years 2005 and newer

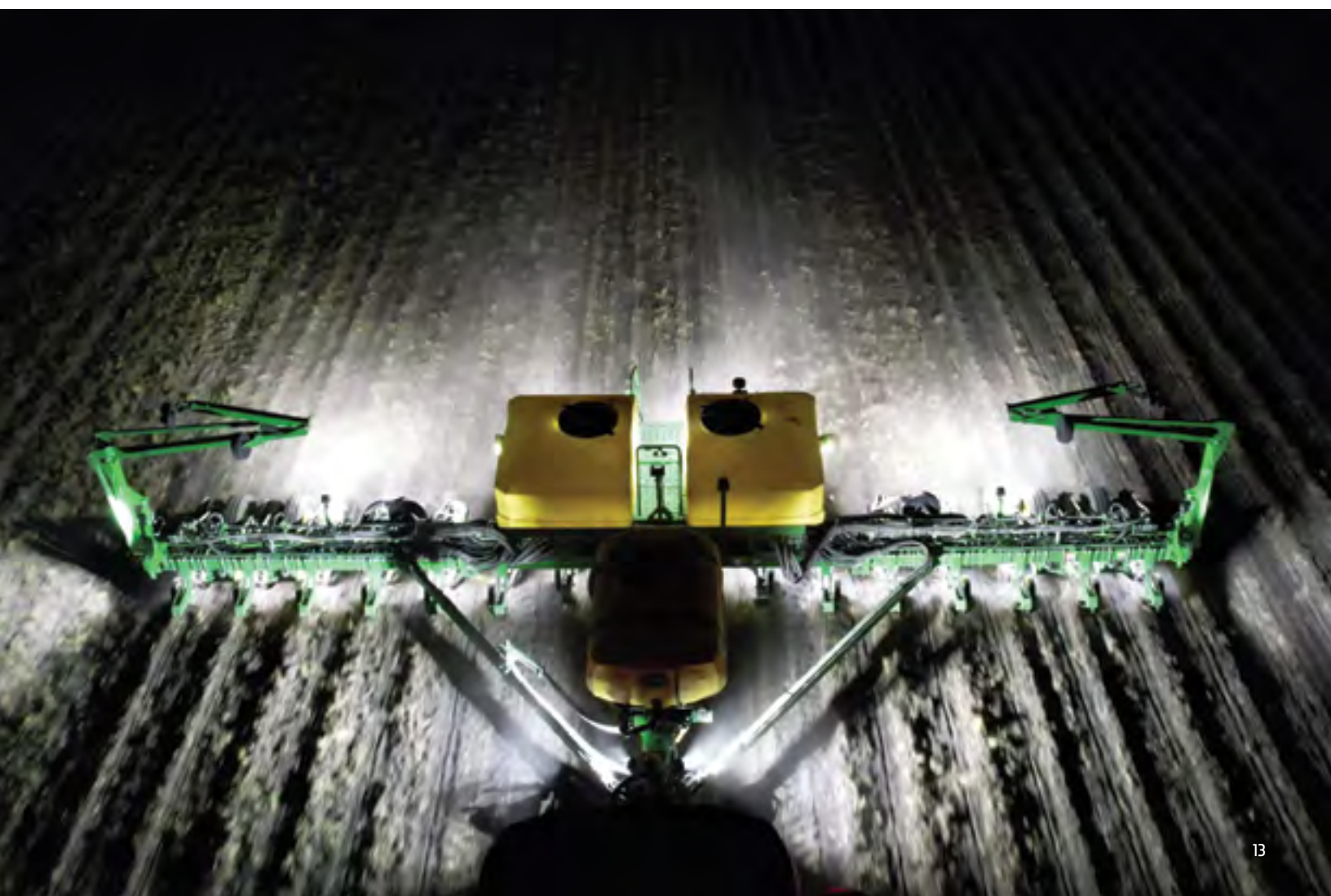
**This is based on field testing of a prototype design. Inflation time approximately .69 bar/min (10 psi/min). Deflation time approximately .51 bar/min (17.4 psi/min).*

Ultimate LED Lighting Kit

- LED lights match the color temperature used in the lighting for Premium and Ultimate Visibility packages on John Deere tractors
- Lights mounted on the front hitch to fill the area between the tractor and planter with light, accommodating tractors that may not have enough lighting to fill this void
- In-tank mounting for full tank illumination for seed level monitoring
- Added illumination under the bar on each row-unit for better detection of obstacles, plugs, and more
- Added illumination to the ends of the planter bar for better visibility around the entire machine
- Robust rear lighting enables in-field planting quality audits and in-cab monitoring
- Improved visibility during row-unit service

COMPATIBILITY:

- 1770/75NT and 1795, model years 2005 and newer
- DB planters, model years 2012 and newer



Optional Features

Available when ordering an Electric Drive upgrade package

DOWNFORCE

Individual Row Hydraulic Downforce (IRHD)

- Increase even plant emergence due to increased contact of the row unit to the ground
- Consistently place seed at desired depth regardless of soil conditions
- Closed loop downforce system reacts quickly on an individual row basis to changing soil conditions
- Adjusts up to five times per second
- 58% faster than pneumatic systems

Active Pneumatic Downforce

- Maintains margin set from display across sections of planter rows
- Uses air bags to increase/decrease pressure on sections of planter rows



CLOSING SYSTEMS

Pneumatic Closing Wheels

- Improve seed-to-soil contact for uniform emergence and better yield potential
- Adjust settings in seconds from the cab
- Operators are notified when closing pressure is not met, unlike spring systems

Mechanical Closing Wheels

- Manually set using handle on each row



CLOSING WHEELS

Rubber Closing Wheels

- Standard closing wheel from factory

Cast Iron Closing Wheels

- Heavier wheel for more aggressive soil contact

Yetter Twister® Closing Wheels

- Break up soil compaction
- Rounded center-ring design ensures consistent trench closure



ROW TILLAGE

Easy-Adjust Row Cleaners

- Helps keep furrow free of debris
- Adjustable from display while planting
- Pneumatic up and down pressure
- Three presets for different field conditions

CONVENIENCE

Color Coded Hydraulic Grips

- Easily connect planter hydraulics to proper tractor ports
- Aluminum handles with John Deere logo and extend/retract icons etched into metal

SEED DELIVERY

Central Commodity System (CCS™) Conversion Kit

- 55 bu CCS tank
- Only available for 12- and 16-row 1720/25 non-CCS kits adding electric drive row-units

Hoppers

- 1.6 bu for ExactEmerge and MaxEmerge 5e upgrades
- 3.0 bu for MaxEmerge 5e upgrades
- 2.7 bu for ExactEmerge upgrades



SPRAYER PRECISION UPGRADES



Reduce costs and potential crop damage while covering even more acres with a precise, consistent application. No need to trade your current sprayer — upgrade instead.



See & Spray™ Premium **NEW**

- See, target, and kill in-season weeds using advanced cameras and machine learning
- Select targeted or broadcast applications
- Save on non-residual herbicide use
- Reduce water usage and tender stops
- Reduce crop stress and improve yields
- Delivers results at operating speeds up to 19.3 km/h (12 mph)



COMPATIBILITY:

- R4030 to R4060, 400 and 600 Series; model years 2018 and newer
- Boom lengths of 36.6 m (120 ft.)



ExactApply™

- Premium nozzle control option to reduce over-application, crop burn, and off-target drift
- Cover up to 20 more acres per hour (based on a 2-mph increase in operating speed) with more consistent spray deposition
- Save 2-5% on herbicides and pesticides*
- 6 nozzle turret with multiple modes of operation maintains rate and pressure
- 15-Hz pulse-width modulation (PWM) pulses one solenoid for more consistent pressure and droplet size over a wider range of ground speeds and application rates
- 30-Hz PWM pulses both solenoids at 15 Hz for more thorough coverage during high-volume applications, like liquid fertilizer
- AutoSelect A/B mode automatically switches between two nozzles to maintain a constant spray pressure while you're spraying conventionally
- Turn compensation mode decreases the spray rate on the inside of a turn while increasing the rate on the outside, ensuring consistent application across the entire width of the boom
- Individual nozzle control minimizes overlap by controlling spray application at the individual nozzle level

COMPATIBILITY:

- R4030 and R4038, model years 2014-2021
- R4045 model years 2015-2021
- R4044 and R4060, model years 2019-2021
- 400 and 600 Series, model years 2022 and newer

**Internal comparison of ExactApply components with non-ExactApply components, based on field and growing conditions. Individual results may vary.*



Individual Nozzle Control Pro

- Offers a step up from Section Control, allowing for more precise application
- Section size reduced to individual nozzle turrets
- Turn compensation by individual nozzle
- 15-Hz single pulse-width modulation (PWM)
- Combination of proven existing standard flow hardware with increased capability
- Compatible with pressure recirculation and product reclaim

COMPATIBILITY:

- R4030 to R4060, 400 and 600 Series; model years 2014 and newer
- Boom lengths of 30.5 m (100 ft.) and 36.6 m (120 ft.)



Individual Nozzle Control Heavy Duty

- Designed for high-viscosity and suspended solid fertilizers and chemicals
- Allows accuracy of nozzle control down to the individual nozzle, helping reduce overlap and over-spraying, reducing overall chemical usage and overapplication
- Utilizes the John Deere five-position high-flow nozzle body
- Flow is controlled by a ball valve and powered open and closed by a small electric actuator on each nozzle
- Section width equivalent to the nozzle spacing when used with John Deere Section Control
- Compatible with pressure recirculation and product reclaim

COMPATIBILITY:

- R4030 to R4060, 400 and 600 Series with 36.6 m (120 ft.) steel booms, model years 2018 and newer
- LS475 and LS20 LIquid Application System for F4365/800R with boom lengths of 27.4m (90 ft.); model years 2021 and newer

Pressure Recirculation and Product Reclaim

- Pressure recirculation pushes product through the sprayer booms with a three-way valve, keeping solution from settling and delivering a consistent product to every nozzle
- Product reclaim pushes air through the sprayer lines and moves the solution back into the center feed tank
- Save product with pressure recirculation – up to 113.6 L (30 gal.) per boom prime post boom purge*
- Save up to \$600 a day* with pressure recirculation 10 times a day, coupled with approximately 85.2 L (22.5 gal.) of solution savings with product reclaim one to two times per day
- Reduce crop damage from residual chemical buildup
- No tank modifications are needed

No tank modifications are needed.



COMPATIBILITY:

- R4030, R4038, and R4045; model years 2018-2021
- R4044 and R4060; model years 2019-2021
- 400 and 600 Series; model years 2022 and newer

**Assumes 113.6 L (30 gal.) of residual product in the system at 93.5 L/ha (10 gal./acre) and \$20 per acre 10 times per day. Please adjust the calculation to suit your operation.*





Boom Extensions

- Increasing boom length covers more ground in a single pass, helping improve acres covered per day
- Going from 27.4 m (90 ft.) to 36.6 m (120 ft.) booms could see an overall improvement of 135 acres accomplished in a day
- Boom extensions allow 27.4 m (90 ft.) and 30.5 m (100 ft.) existing booms to be upgraded to 36.6 m (120 ft.) steel booms
- Kits include new inner, outer, and breakaway sections
- Both wings come from the factory assembled, helping reduce installation time



COMPATIBILITY:

- R4030/408R up to R4060/616R; model years 2014 and newer
- Customs opportunities for smaller models like R4023



BoomTrac Pro™ 2

- Offers a 22% greater spray accuracy and five-time increase in the amount of time the boom maintains its target height (compared with the previous BoomTrac Pro system)
- Inertia-monitoring sensor helps correct chassis roll
- Helps ensure accuracy in product application and reduces drift, even in hilly or rough conditions
- Requires BoomTrac Pro System, if not already installed, in order to operate

COMPATIBILITY:

- R4030, R4038, and R4045; model years 2018-2021
- R4044 and R4060; model years 2019-2021



LED Boom and Vehicle Lighting

- Help improve visibility around the machine and increase confidence when operating in less-than-ideal light situations
- **Vehicle work lighting package:**
 - 20 LED lights added to the hood, cab roof, boom cradles, left-hand platform, fill station, and right-hand fuel tank
- **Boom lighting package**
 - Tip edge light:**
 - Illuminates a line on the ground aligned with end of the boom
 - Installs on left-hand and right-hand boom tips
 - Compatible with 27.4-m (90-ft.), 30.5-m (100-ft.), or 36.6-m (120-ft.) steel booms
 - Compatible with fence row nozzles and foamers
 - Spray pattern illumination lights:**
 - Located on inside of inner wings
 - Faces outward
 - Can be used with ExactApply™ spray pattern lighting

COMPATIBILITY:

- Vehicle lighting - R4030/408R up to R4060/616R; model years 2014-2021
- Boom lighting - R4030/408R up to R4060/616R; model years 2014 and newer

Precision Ag Technology

John Deere Operations Center™

- Single, secure place to setup, plan, **monitor**, analyze, and share your farm data – anytime or anywhere



On the farm or away from it, Monitor features in Operations Center give you web and mobile tools to view field progress, work totals, and machine location.

Notifications give you 24/7 updates on your operation.



AutoPath™*

- Uses crop row data from your first pass to create accurate guidance lines ensuring your sprayer stays on track
- Saves time while minimizing crop damage

AutoTrac™ RowSense™ - Sprayer

- Paddle sensor mounted on front wheel
- For late, post-emerge applications
- Approved for 30-in to 40 in (76 cm-101.6 cm) corn
- For all 4 Series Sprayers



John Deere Mobile Weather

- Confidently apply crop protectants according to label requirements by knowing the current weather conditions including wind speed, wind direction, and humidity

- Improve recordkeeping and compliance reporting by documenting weather conditions during application

AutoTrac™ Vision

- Decrease crop damage, reduce operator fatigue, and operate at higher speeds compared to manual driving by enabling the equipment to follow the actual planted crop row



In-Cab Touchscreen Displays

Manage guidance lines, application rates, input placement, and more; G5 displays offer more screen space, faster processing, and 1080p HD quality



StarFire™ 7000 Receiver

SF-RTK signal gives RTK accuracy without the need of a radio



JDLink™ Connection

Streams machine and field data to your Operations Center account

COMBINE PRECISION UPGRADES



Unlock the full potential of existing equipment with Precision Upgrades, available for X9 and S700 Combines.

Cross Auger Shut Off **NEW**

- Cross augers engage after unloading auger has engaged reducing overall system load
- Cross augers disengage prior to unloading auger to allow unloading auger to empty
- Reduces grain weight in the unloading auger
- Improves auger start up and decreases wear and tear



COMPATIBILITY:

- S760, S770, S780, and S790; model years 2018 and newer



Adjustable Auger Spout **NEW**

- Prevents grain dribbling in the field and in transport
- Adjustable from the multi function lever to move spout and easily programmable
- Easier to unload into grain cart or trailer
- Fully integrated into John Deere controls and displays



Field Transport Position



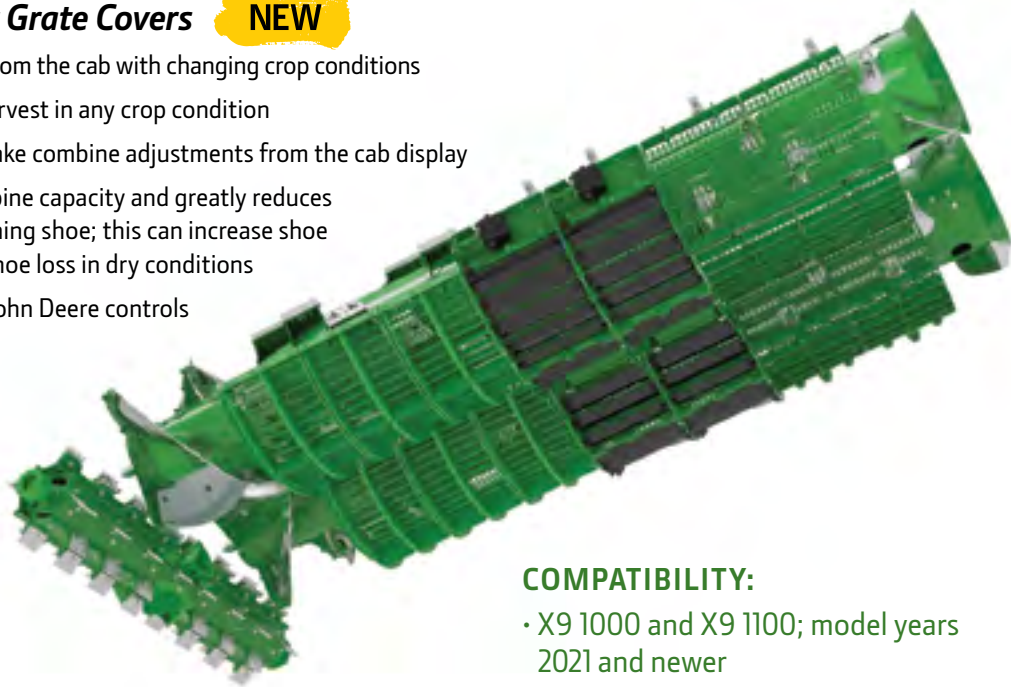
Road Transport Position

COMPATIBILITY:

- S760, S770, S780, and S790; model years 2018 and newer

Remote Separator Grate Covers **NEW**

- Open or close covers from the cab with changing crop conditions
- Maximize ability to harvest in any crop condition
- Increased ability to make combine adjustments from the cab display
- Increases overall combine capacity and greatly reduces chaff load to the cleaning shoe; this can increase shoe capacity and reduce shoe loss in dry conditions
- Fully integrated into John Deere controls and displays



COMPATIBILITY:

- X9 1000 and X9 1100; model years 2021 and newer

LED Light Kit **NEW**

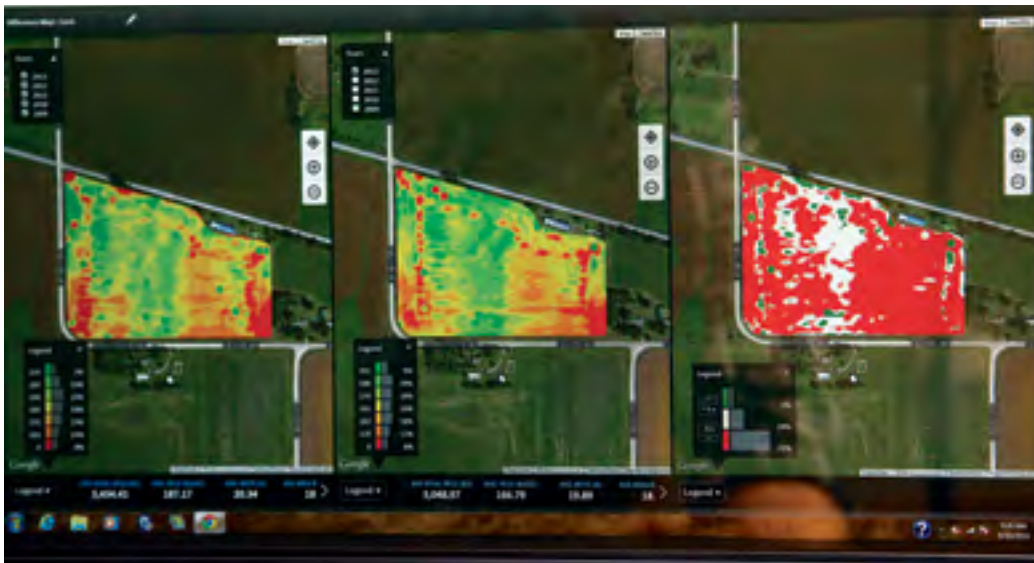
- The kit provides improved sight in low-visibility conditions
- Outer cab work lights, rear discharge lights, and unloading auger light are brighter than standard LED lights for better visibility
- Updated row finder light that can be pointed directionally where the operator wants it to shine

COMPATIBILITY:

- S660, S670, S680, and S690; model years 2012-2017
- S760, S770, S780, and S790; model years 2018 and newer



Precision Ag Technology



John Deere Operations Center™

- Single, secure place to setup, plan, monitor, **analyze**, and share your farm data – anytime or anywhere



By collecting field and machine data, you can Analyze performance metrics so you know how you did this season... and how you can plan for the next. With just a few clicks, you can wirelessly share data with trusted advisors and partners, and create detailed reports for accurate record keeping.

Machine Sync License*

- Automates unloading on-the-go in order to reduce machine-to-machine interactions and allow operators to focus on operation
- Increase efficiency by showing multiple machines in the field at the same time
- Share coverage map and guidance lines for increased efficiency and complete field coverage when two machines are working in the same field



AutoPath™*

- Uses crop row data from your first pass to create accurate guidance lines for a more accurate harvest track
- Saves time while minimizing grain loss

AutoTrac™ RowSense™

- Cover more acres per day with less stress by extending AutoTrac into post emerge in-field operations such as spraying and harvest
- Protect crop yield when applying crop protectants and nutrients in stand crop by making sure that the sprayer or tractor stays off the crop rows
- Focus on quality of the job being performed and ensure that the machine is operating as it should rather than being concerned about steering the machine in standing crop

PRECISION AG ESSENTIALS



In-Cab Touchscreen Displays

Manage guidance lines, application rates, input placement, and more; G5 displays offer more screen space, faster processing, and 1080p HD quality



StarFire™ 7000 Receiver

SF-RTK signal gives RTK accuracy without the need of a radio



JDLink™ Connection

Streams machine and field data to your Operations Center account

*Available as part of the Automation 4.0 Package and G5 Advanced Package.

TRACTOR PRECISION UPGRADES



Rear Implement Ethernet

- Enables high bandwidth communication between the tractor and implement
- With an increase to 1 GB/s of CAN speed (previously 250 kb/s), tractors and implements can communicate high-definition data faster, resulting in better decision-making for customers and dealers
- Rear implement ethernet is required for future precision ag applications; building block to John Deere's autonomous solution
- Ethernet switch, connector in cab, connector on back of tractor, brackets, harnessing is included
- Current implement offerings requiring ethernet: implements with high data flow requirements (electric drive planters)

COMPATIBILITY:

- 7R, 8R AND 8RT; model years 2014 and newer
- 8RX; model years 2020 and newer
- 9R AND 9RT; model years 2015 and newer
- 9RX; model years 2016 and newer

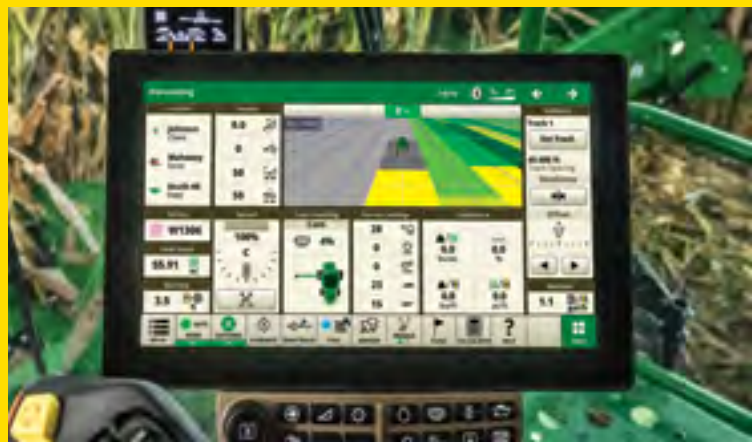
Precision Ag Technology

Advanced License w/SF-RTK

Includes a one-year Essentials License in addition to the G5 Advanced License consisting of AutoTrac™ Implement Guidance (Passive), AutoTrac™ Turn Automation, AutoPath™, In-Field Data Sharing, Machine Sync, and SF-RTK

- AutoPath™ lets you use data from planting – or strip till and planting – to automatically create full-field guidance lines for secondary passes
- Let AutoTrac™ Turn Automation take over your turns, implement functions, and speed
- Reduce harvest chaos through combine and grain cart controls with Machine Sync
- AutoTrac™ Implement Guidance places your tool exactly where it needs to be, even on sidehills and around curves

- In-Field Data Sharing increases the efficiency of your field operations by monitoring the operations of up to six tractors, sprayers, nutrient applicators, or combines on one screen





In-Cab Touchscreen Displays

Create A-B lines. Manage application rates. Improve input placement. No matter which John Deere display you choose, you can easily improve the operating experience for older John Deere tractors and mixed fleets.

And with the new G5 series, you'll get 35% more screen space to add additional maps and widgets. 3x faster processing. And clear, 1080p HD resolution.



JDLink™ Connection

Whether it's your fields, your machines, or your operators, JDLink connects you to your entire operation. Anytime. Anywhere. With it, your machine and field data streams automatically to your Operations Center account. Just go to your Operations Center account and turn it on.



StarFire™ 7000 Receivers With SF-RTK

The StarFire 7000 – now with SF-RTK – delivers next-generation performance and dependability. A multi-constellation satellite signal reduces time needed to achieve full signal accuracy. Season-to-season repeatability minimizes guidance line, coverage, and boundary drift year after year.

- SF-RTK signal offers RTK-like accuracy within 2.5 cm
- Up to 73% faster pull-in times, compared to SF3
- Guaranteed 5-year+ repeatability, season to season
- Drop-in replacement for StarFire™ 6000 integrated or universal

John Deere Operations Center™

Unlock the full power of your farm data. Operations Center seamlessly connects data from your fields, your machines, and your operators and advisors. Simplified farm data management from one location allows you to **setup**, plan, monitor, analyze and share for better operation decisions.

- Review your season-to-season yield success and machine performance, so you can make changes to increase profitability
- Easily share data with trusted advisors to help you make data-driven decisions
- Experienced dealers available for setup and support; allow you to focus on your job
- Maintain complete control; you decide if your data is shared or removed at anytime



Setup helps you sync your in-cab displays with your Operations Center dashboard. Improve management of your fields and equipment. Save time by reducing in-cab decisions and improve in-field work accuracy.

SUREPOINT AG SYSTEMS

SurePoint Ag Systems was founded in 2007 to help producers become more efficient by applying the right product, in the right place, at the right rate. SurePoint products work with many brands of implements and integrate with most existing technology. Whether John Deere, CaseIH, AgLeader®, Trimble®, Raven, or DICKEY-john®, they offer a wide range of compatibility options.

SurePoint Ag Systems operates as an independent business and each John Deere dealer has access to sell SurePoint products.

FERTILIZER APPLICATION SYSTEMS

SurePoint starts by understanding your variables and then delivers custom-configured application systems for all types of farm equipment. Not all fertilizers are created equal. Their team of experts has developed the highest level of expertise, bringing together the right components to successfully achieve your application needs. They have a range of solutions from simple and basic, to some of the most advanced systems providing individual rate control of each row.



SPRAY TENDER SYSTEMS

QuickDraw® Is a fully automated sprayer tender system. Start by creating a recipe that is saved and used every time you load that mix of chemicals. Enter the application rate/acre you will be spraying and the size of load you need, either in total gallons or total acres to spray. QuickDraw calculates the correct amount of each chemical in the batch and automatically measures and loads each chemical as well as the correct amount of carrier and stops the pump when the batch is complete.

The QuickDraw Swing Down Eductor allows operators to work on ground level. Add manually measured products including dry AMS through the Swing Down Eductor. Also available with ChemBlade, for splitting, dumping, and rinsing jugs.





Products Complementary to Deere:

- Dual Liquid Product on Planters
- QuickDraw for easy and accurate See & Spray™ tendering
- Precise NH₃ Control and Monitoring with Torpedo and Sentinel NH₃

ANHYDROUS APPLICATION SYSTEMS

The Sentinel™ NH₃ system allows in-cab monitoring of anhydrous to every row of the applicator.

The Torpedo™ Cooler is the central piece of the SurePoint Anhydrous Ammonia application system. It is a high capacity, extremely accurate, efficient heat exchanger. Couple the cooler with all plumbing and distribution components to get anhydrous from the tank to the shank.



MARKSMAN PRECISION INJECTION

Marksman provides producers and retailers a line-up of features not common in most fertigation and chemigation systems. You have flow measurement, flow control, alarms, batch modes, and auto run options.

Every 10 minutes it logs an entry which includes field number, date, time, flow rate set point, actual flowrate, pressure, and batch total. You will know when, where and how much was applied.



COMPLETING PACKAGES

Producers are continually looking for opportunities to upgrade existing equipment with new technology to enhance productivity, sustainability, and reduce costs. These relationships give John Deere customers access to innovative and field-proven equipment and technology through a proven distribution channel.

John Deere's partnership brings premium brands together with the shared goal of providing John Deere dealers and customers with easy access to some of the most advanced products, technology, and services for customers whose work is revolutionizing agriculture.

Custom Built Planters

Located in Nebraska, TC Machine, Inc., is a complete steel and aluminum fabrication and repair machine shop. They manufacture a wide range of agricultural equipment. TC Machine has over 15 years of related experience and serves the agriculture industry across the nation.

tcmachineinc.com



CUSTOM PRECISION UPGRADES

Custom Precision Upgrades are an option to explore when a standard offering is not available. A team of engineers will work with you on your request to evaluate if your specific needs can be met with a Custom Precision Upgrade.

Reasons to submit a custom request may include, but are not limited to:

- 1) No standard kit offering for the model year of equipment to be upgraded
- 2) Equipment modifications bring uncertainty around compatibility
- 3) Non-supported configurations that limit compatibility, such as a planter not having vacuum meters or utilization of Hydraulic Planter Power Generator for ExactEmerge

The customs team works toward the goal of evaluating the request, and if possible, providing a quote back within a week. We want this process to be as seamless as possible and are confident there are product offerings that we can customize for your needs.

QUOTING AND ORDERING

John Deere Precision Upgrades are sold as complete goods and available only through Build and Price. The quoting and ordering process is designed to offer the same experience you would expect with other complete goods from John Deere. Using a series of questions, Build and Price will gather the data needed to provide the components and harnessing required to upgrade eligible equipment.

To start a quote, first gather or lookup the customer's equipment serial number in which they desire to add a Precision Upgrade. Each Precision Upgrade is configured to include the proper harnessing, brackets, and other miscellaneous parts needed to upgrade the specified equipment to the selected feature. Although equipment models might be similar or the same, there are design differences between some model years of the same type of Precision Upgrades.

When it comes to Planters, it is imperative that dealers provide the original PIN for which the upgrade will be installed. Having the correct PIN is vital during the ordering process. The correct PIN allows the team to review each order and ensure the proper upgrade is selected, minimizing the chance for shortages and/or incompatible hardware being received, and providing the best chance for an efficient and successful installation.

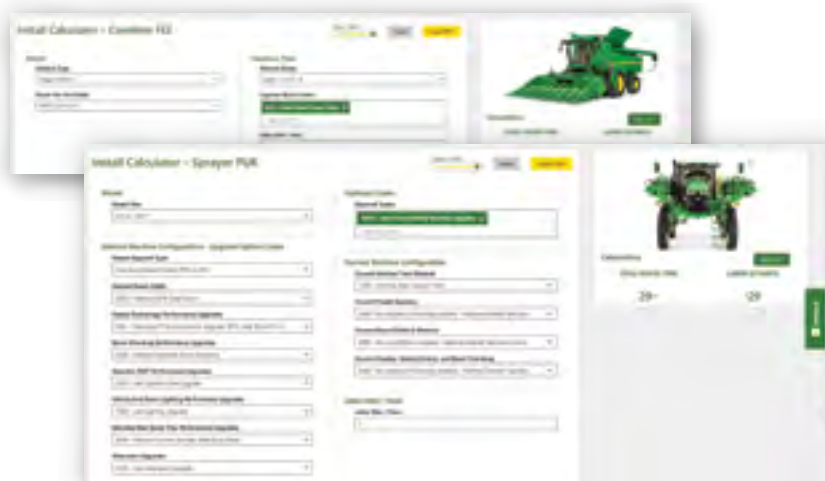
The screenshot displays the 'Build and Price' interface for John Deere Precision Upgrades. It features a list of required fields for a quote, each with a right-pointing arrow icon and a 'Required' status indicator. The fields are:

- Destination *
- Operator's Manuals and Decals *
- Order Type *
- Current Planter Model Year *
- Performance Upgrade Row Unit Model Year *

At the top right, there is a 'View Product Features' button. The interface also includes an 'Expand All' button on the left and a 'Sort by' dropdown menu on the right.

INSTALLATION TIME ESTIMATION (MST)

John Deere dealers have access to installation quoting tools through the Ag Sales Manual. For each Precision Upgrade product line, there is a Marketing Service Time (MST) Calculator loaded for each product. Once you complete a quote on Build and Price, you will then enter the Machine Model or base code and option codes into the MST calculator to get a recommendation for total labor hours to complete the installation. The quoting tool incorporates the selected option codes, and various tasks from teardown to calibration and programming, that are a part of installation.



JOHN DEERE INSTALLATION SERVICES

Starting for model year 2023, John Deere is offering professional installation services to install Precision Upgrades. The installation team will travel to your dealership or customer's shop when certain conditions are met that allow for a successful install. For John Deere dealers and customers, this is an alternative to traditional installation options.

To start this process, dealers need to select option code "Installation Services" when building the upgrade in Build and Price. Once submitted, the Installation Services team will review this request and contact the dealer to gather more details. Partial installations will not be quoted or considered by the Installation Service team.

Before a final estimation of an installation order can be completed, the John Deere Precision Upgrades Installation Service team will require specific photos of the equipment being upgraded. Once these pictures are received, a fixed price quote will be finalized and communicated back to you via email.

Upon agreement to purchase, the Installation Services team will be in contact to coordinate the upgrade delivery with their installation services.

WARRANTY AND SUPPORT

John Deere Precision Upgrades are sold as complete goods from John Deere dealers. The Warranty on the upgrade components is one year from the time of purchase. Precision Upgrades follow the same process and systems as new complete goods with the same field support and Factory DTAC support.

John Deere Precision Upgrades also has a shared inbox to ask for support on ordering questions, compatibility questions, and general support with working with the Precision Upgrades team. That email is accessible for John Deere Dealers [here](#).





SINCLAIR

● T R A C T O R ●

For more information about available Precision Upgrades contact us today