

REVISIONS						
REV.	ECO	DESCRIPTION	VERSION	APPROVAL	DATE	
C	30566	REVISED PER ECO	1.2.0.9	JRW	12/11/17	
D	30632	REVISED PER ECO	1.2.1.2	JRW	12/22/17	
E	32078	REVISED PER ECO	1.2.2.3	E HERNES	11/07/18	
F	32940	REVISED PER ECO	1.5.1.10	E HERNES	04/04/19	

RELEASE NOTES:

VERSION:	1.5.1.10	FILE NAME: P438V1_5_1_10_2689D291.hex
		SIZE: 5,625,076 BYTES

Version 1.5.1.10 (04-03-2019)

- Added support for Granular Dry Manure/Litter application mode with dynamic calibration and cleanout features (RCM Level 3 only).
- Added soft ramp down of duty cycle for Spinner/Fan products with PWM control valve utilizing PWM Startup feature.
- Improvements to Precision Farming wizard including the implement and section width configuration.
- Improvements to no rate detected alarm.
- Planter Section Control mode now has option for Power to Apply section control logic.
- Spinner/Fan products now have control valve option of None.
- Updates to hardware pinouts for Granular Meter per Section and Planter Seed Rate Control application modes to fully support electric drives.
- Added support for Sensor Gateway Module ECU.
- Added support for 0-138 inches of water pressure transducer.
- Added metric pressure units of centimeters of water.
- Various improvements to tank level sensor accuracy.
- Added support for OEM tank level float sensors.
- Added support for Standby Pressure for servo control valves.
- Added support for planter row spacing in tenths of centimeters and inches.
- Added language support for German, Danish, Czech, Italian and Ukrainian.
- Added support for up to 16 section/auxiliary drivers for spreaders.
- Changed tank charge test to use the previously used self-test speed, or fall back to 6mph if that is not present
- Added bin level sensor selection option with default option of "Analog".
- Remedied max pump RPM feature for liquid operation.

NOTES:			TITLE:		
			SOFTWARE SPECIFICATION, PROGRAM, AGCO RATE CONTROL MODULE		
			<div> <div>RAVEN</div> <div>RAVEN INDUSTRIES, INC. SIOUX FALLS, SD 57104</div> </div>		
			SIZE	DRAWING NUMBER	REV
			A	077-0171-438	F
<div> <div>DRAWN</div> <div>APPROVED</div> </div>			NAME	DATE	
			RRS	12/05/16	
			JRW	12/05/16	
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			14979	N/A	1 OF 6

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D	30632	REVISED PER ECO	1.2.1.2	JRW	12/22/17	
E	32078	REVISED PER ECO	1.2.2.3	E HERNES	11/07/18	
E-X3	32940	REVISED PER ECO	1.5.1.10	E HERNES	04/03/19	

RELEASE NOTES:

VERSION:	1.5.1.10	FILE NAME: P438V1_5_1_10_2689D291.hex
		SIZE: 5,625,076 BYTES

Version 1.4.1.5 (11-6-2018 not released)

- Added Precision Farming wizard.
- Added application modes Seed Rate Control (with clutches) and Seed Rate Control (no clutches) available for planter machine type.
- Added support for tank pressure sensor.
- Added PWM Smart Control.
- Added support for assigning unused section outputs as 12 volt auxiliary drivers.
- Enhancements to control algorithm.
- Added support for PWM Close Control Valve for NH3 application mode.
- Added support for displaying blocked section states when paired with RBM.
- Added support for selecting an ISO speed source through a diagnostic service menu and using speed provided by RS1 ECU if available.
- Added language support for Bulgarian and Hungarian.
- Added turn compensation for product modes that have multiple control valves/rate meters.
- Added support for a mid-bin level sensor.
- Added new layout option for main run screen with 5 widget selections.
- Added support for V4 pressure widget.
- Added support for Raven wireless remote.
- Added Level 3 activation to provide support for configurations with more than 16 sections/clutches, Granular Meter per Section application mode, Planter Seed Rate Control (with clutches) application mode and Planter Seed Rate Control (no clutches) application mode.

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			SIZE	DRAWING NUMBER	REV
			A	077-0171-438	E-X3
<div> <div> <div></div> <div>DRAWN</div> <div>RRS</div> <div>12/05/16</div> </div> <div> <div></div> <div>APPROVED</div> <div>JRW</div> <div>12/05/16</div> </div> </div>			CODE	SCALE	SHEET
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RELEASE NOTES:

VERSION:	1.2.2.3	FILE NAME:	P438V1_2_2_3_1CB6A3DB.hex
		SIZE:	3,643,613 BYTES

Version 1.2.2.3

1. Added support for tank fill switch messaging.

2. Prevented exceeding max pump RPM on liquid products even when the alarm checkbox is disabled - alarm mask/DTC will only show when checkbox is enabled.

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RELEASE NOTES:

VERSION:	1.2.1.2	FILE NAME:	P438V1_2_1_2_222EDBD4.hex
		SIZE:	3,643,472 BYTES

Version 1.2.1.2 (SVN Build 77336)

1. Fixed issue of Gate Height setting incorrectly adjusting Spreader Constant.

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RELEASE NOTES:

VERSION:	1.2.0.9	FILE NAME:	P438V1_2_0_9_0963E218.hex
		SIZE:	3,643,472 BYTES

- Version 1.2.0.9 (SVN Build 77000)
1. Added support for ISOBUS Auxiliary display for catch test and scale functions.
 2. Added AccuFlow Dual Valve control option for NH3 HP+ systems.
 3. Added support for run blockage monitoring integration.
 4. Added resume last test speed button.
 5. Disable unexpected rate alarm for granular modes when pulses per revolution are over 180.
 6. Allow for up to 6 control channels when paired with CNH Pro700/IntelliView displays.
 7. Changed default PWM frequency for air carts and generic to 65Hz.
 8. Updated default Display Setup selections and now allow unused product tabs on main run screen to be configurable as Display Setup selections.
 9. Added spreader constant decimal place to accommodate high-rate spreaders with very low spreader constants.
 10. Added support for gate height entry for spreader machine types.
 11. Added 2 RPM control products for spreader machine types.
 12. Spinner control products for a spreader machine type will now stop controlling to the target rate when all sections are turned off and will hold the current duty cycle.
 13. Fixed issue of Task Controller Commanded Prescription state being set to Auto when the Task Controller commands it to manual.
 14. Updated as applied test with scales to record lowest scale weight only when the implement has been idle for 10 seconds or more. Also disable as applied stop buttons when above minimum application speed.
 15. Updated Dual Encoder Error alarm so it will not trigger during a PWM calibration test.
 16. Enhancements to CAN initialization at startup.
 17. Hide the Auxiliary Functions Setup button for AGCO ECUs in sprayer/liquid fertilizer modes to prevent access to Max Pump RPM.
 18. Pump Dry alarm suppressed when sections are OFF.

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