

## RELEASE NOTES: XM500 CONFIG TOOL REV C

### Added Features:

- Added 7 Proprietary 16 bit Analog SPNs on two PGNs - 65350, 65351. (See table below)
- Added selectable TX rate for proprietary PGNs (default 100ms ) - Engineering menu only.
- Added received PGN 65352 and checkbox on settings page to allow external control of XM500 digital outputs. (See table below)
- Added 'F1 level' tooltip on Hardware Combo boxes on Analog pages. This tip will show the user the Min A/D and Max A/D default values.
- Added Engine run Alarm delay textbox on Engine Run State page.
- Extended tire diameter and differential ratio on mag pickup page.
- Added RAW A/D COUNT option for Sender on analog pages. This will place the raw A/D values in the specified SPN. (Recommend using SPN 523001 – SPN 523007 to broadcast these values) This data can be received and scaled by other devices on the bus if desired. (PV display products)

SPN	PGN	Name	1-based Start Byte	1 based Start Bit	Bit Length	1 unit / bit Resolution	Offset	Min Value	Max Value
523001	65350	Analog 1 In	1	1	16	1	0	0	32767
523002	65350	Analog 2 In	3	1	16	1	0	0	32767
523003	65350	Analog 3 In	5	1	16	1	0	0	32767
523004	65350	Analog 4 In	7	1	16	1	0	0	32767
523005	65351	Analog 5 In	1	1	16	1	0	0	32767
523006	65351	Analog 6 In	3	1	16	1	0	0	32767
523007	65351	Analog 7 In	5	1	16	1	0	0	32767
	65352	Digital Out 1	1	1	2	1	0	0	3
	65352	Digital Out 2	1	3	2	1	0	0	3
	65352	DO SA Filter	2	1	8	1	0	0	255

Digital out PGN is received by the XM500

Digital out states:

- 0 = OFF,                      OFF means outputs are floating.
- 1 = ON,                        ON means outputs are sinking current.
- 2 = ERROR,                  This state will turn output off.
- 3 = NOT USED                This state will turn output off.

If configured to use external out control and PGN 65352 not received in past 3 seconds then outputs turn off. A source address filter has been added to the RX digital output control PGN (Byte 2 of PGN 65352). If this value is set to 255 decimal then the XM500 will respond to any/all received output control messages. If a lower number is sent in the second byte then the XM500 compares it to its static source address and will allow output control if the values match.

## Bug Fixed:

- Fixed bug where analog 0-5 V and 4-20 ma Min A/D and Max A/D values were being overwritten by default values.
- Fixed checkbox behavior on custom sender page.
- Fixed RPM defaulting to 400 when config reload on Engine Run State page.
- Fixed problem with Analog 3 Fault 1 and fault 2 seconds being overwritten upon config reload.
- Fixed set point resolution for Analog 0 set point. (Voltage Fault set points are 1 decimal place. ie. 14.7 V )
- Fixed problem with RPM set point being 100 RPM low on Engine run page.
- Fixed problem where Analog fault 1 engine run checkbox check state not restored on config reload.
- Fixed incorrect text on tooltip for SPN 1762 (50ms TX rate, not On Request)

## Known Issues :

- The Help file not updated in beta version.
- When using the 'METRIC KPA' setting, the kPa max range for SPN 1762 (128,510 kPa) is not achievable using the config tool due to the 16 bit register allocations within the s19 app.  
The workaround is to use the 'US STANDARD' setting (18638 psi) for pressure for this SPN.