

Coder 5.07-4 Release Notes

DATE:

April 28, 2017

BACKGROUND:

Version 5.07-4 is a new release of the Coder / Operating System

COMPATABILITY:

This version of the GAP Programmer is only for Engine platform controls: ECM3, MCU (733, 766, In-Pulse II, "ARAPAHOE"), PCMHD. Support for Atlas II was removed for this release.

To use this version of GAP/Coder, you must use the GAP Editor 3.08 or higher.

To use this version of GAP/Coder, you must use SOS 4.05 or higher.

To use this version of GAP/Coder, you must use Control Assistant 4.04 or higher.

To use this version of GAP/Coder, you must use Toolkit 4.0 or higher.

To use this version of GAP/Coder, you must use Windows XP®, Windows Vista® or Windows 7®

NEW FEATURES:

PCMHD- Changed the minimum Tooth gap for 2 missing teeth in a 60-2 pattern to be 2.25 times the previous tooth period. The legacy check enforced 2.5 times the previous tooth period. This has proven too strict for certain engine applications.

ISSUES:

The following Product Issue Database ("PID") issues and requests were addressed in 5.07-4:

Issue #	Description	Solution
17349	Potential corruption of Multi packet messages when an attempt to send a single packet message is made before the multi packet message is complete. This was specifically seen on the DM1 message when the system was transmitting a status of >1 active faults and the number of active faults became 1 before the multi packet message was done.	Message transfer mechanism now protects against this scenario. The formerly offending single packet transmission will now wait for the multi packet transmit to finish before sending.
17441	Coder crash possible when using the MOMNTARY_B block	Ported array boundary fix for MOMNTARY_B string from GAP Programmer 6.00

UNSUPPORTED BLOCKS:

The following blocks are available in the Template and GAP Editor, but are not supported for customer use in the 5.07-4 release version of the Coder (compiler):

- **CAL_ID**
- **I_TO_NAN**
- **PC104_ATL**
- **RT_CAN_NTW**
- **TEMP_HIST**
- Tunable inputs for the **SYNC_INJ** block (CYL, MIN_ADV, MAX_ADV) are only available to Woodward developers in this version

PART NUMBERS:

Version 5.07-4

Gap/Coder Part Number: 9927-2101 D

Master Kit: 9927-1333, 8928-1088, 1796-1068

Coder 5.07-3 Release Notes

DATE:

August 8, 2014

BACKGROUND:

Version 5.07-3 is a new release of the Coder / Operating System developed for Internal Woodward development use only and is not available to customers.

PART NUMBERS:

Version 5.07-3
Gap/Coder Part Number: 9927-2101 C
Master Kit: 9927-1333, 8928-1088, 1796-1068

Coder 5.07-2 Release Notes

DATE:

July 24, 2013

BACKGROUND:

Version 5.07-2 is a new release of the Coder / Operating System

COMPATABILITY:

This version of the GAP Programmer is only for the Atlas II and Engine platform controls: ECM3, MCU (733, 766, In-Pulse II, "ARAPAHOE"), PCMHD.

To use this version of GAP/Coder, you must use SOS 4.04 or higher.

To use this version of GAP/Coder, you must use Control Assistant 4.03 or higher.

To use this version of GAP/Coder, you must use Toolkit 4.0 or higher.

To use this version of GAP/Coder, you must use Windows XP®, Windows Vista® or Windows 7®

NEW FEATURES:

Includes support for the Atlas II control, including LinkNet HT functionality

Pattern 25: Cummins pattern for 60-2 6+1 with ability to sync on crank only. To perform on-the-fly adjustment of TDC, contact Woodward.

ISSUES:

The following Product Issue Database ("PID") issues and requests were addressed in 5.07-2:

Issue #	Description	Solution
N/A	Some customers need to use a PWM frequency of 150khz in the EFI_MUX block of the ECM3 control	Removed the coder error check which caused the coder to exit when the PWM frequency reached or exceeded 150khz on the EFI_MUX block in the ECM3 control
15470 16478	NetSim does not properly reflect the security model of the runtime system	Copied the security code from the runtime system
15734 15832	Spurious WR_SEC error for read value	Eliminated the error check of WR_SEC for values which are not writable

Issue #	Description	Solution
16575	MODBUS_M port delay functionality	Added an unpublished hook which allows users to adjust the delay (default 0) via a C_FUNCTION or CALC_PLUS block. Contact Woodward for help in implementing this function.
16787 16887	Limit of 10000 HMI_PT blocks exceeded in some applications because Userblocks generate HMI_PT blocks for all tunable input and output fields	Increased limit to 100000
16896	PCMHD <i>Island Mode</i> changes	This mode is only available through special authorization from Woodward

UNSUPPORTED BLOCKS:

The following blocks are available in the Template and GAP Editor, but are not supported for customer use in the 5.07-2 release version of the Coder (compiler):

- **CAL_ID**
- **I_TO_NAN**
- **PC104_ATL**
- **RT_CAN_NTW**
- **TEMP_HIST**
- Tunable inputs for the **SYNC_INJ** block (CYL, MIN_ADV, MAX_ADV) are only available to Woodward developers in this version

PART NUMBERS:

Version 5.07-2
 Gap/Coder Part Number: 9927-2101 B
 Master Kit: 9927-1333, 8928-1088, 1796-1068

Coder 5.07-1 Release Notes

DATE:

March 15, 2013

BACKGROUND:

Version 5.07-1 is a new release of the Coder / Operating System

COMPATABILITY:

This version of the GAP Programmer is only for Engine platform controls: ECM3, MCU (733, 766, In-Pulse II, "ARAPAHOE"), PCMHD.

To use this version of GAP/Coder, you must use SOS 4.03 or higher.

To use this version of GAP/Coder, you must use Control Assistant 4.03 or higher.

To use this version of GAP/Coder, you must use Toolkit 4.0 or higher.

To use this version of GAP/Coder, you must use Windows XP®, Windows Vista® or Windows 7®

NEW FEATURES:

New pattern for PCMHD (pattern 24) with 60-2 crank, 6+1 Advanced CAM

ISSUES:

The following Product Issue Database ("PID") issues and requests were addressed in 5.07-1:

Issue #	Description	Solution
15666	ISA Firewall can block SOS Servlink OPC Server from communicating with NetSim on the LocalHost channel (127.0.0.1).	Changed the syntax of the TCP write command which NetSim uses for Servlink
16536	Request for a new pattern with 60-2 crank, 6+1 Advanced CAM	Pattern was implemented such that TDCA_23 will be used to set the offset between CAM tooth 1 and Crank tooth 1. The TPU will sync to the first gap after CAM tooth 1. CAM_LOC can be used to measure the distance between cam tooth 1 and crank tooth 1.

Issue #	Description	Solution
16680	When more than one output node is used on a network of LinkNet HT or RTCNet DO and one or more of the DO readback messages are disabled, CAN messages become incorrect and the incorrect output could be driven	Enforce RDBK_EN is TRUE (default) on the LN_BO_16C
16683	Problem showing Servlink TOD values in NetSim	The specialized Servlink handle for TOD values was not understood by the NetSim code. The handle was changed to a standard handle
16685	When the readback is disabled for LinkNet HT or RTCNet AIO, the channel faults go TRUE and can't be reset	Enforce RDBK_EN is TRUE (default) on the LN_AIO_10C
16774	Too much flash memory is consumed with EGAP option	Localized some global variables which were preventing the code optimizer from simplifying the code

UNSUPPORTED BLOCKS:

The following blocks are available in the Template and GAP Editor, but are not supported for customer use in the 5.07-1 release version of the Coder (compiler):

- **CAL_ID**
- **I_TO_NAN**
- **PC104_ATL**
- **RT_CAN_NTW**
- **TEMP_HIST**
- Tunable inputs for the **SYNC_INJ** block (CYL, MIN_ADV, MAX_ADV) are only available to Woodward developers in this version

PART NUMBERS:

Version 5.07-1
Gap/Coder Part Number: 9927-2101 A
Master Kit: 9927-1333, 8928-1088, 1796-1068

Coder 5.07-0 Release Notes

DATE:

October 31, 2012

BACKGROUND:

Version 5.07-0 is a new release of the Coder / Operating System

COMPATABILITY:

This version of the GAP Programmer is only for Engine platform controls: ECM3, MCU (733, 766, In-Pulse II, "ARAPAHOE"), PCMHD.

To use this version of GAP/Coder, you must use SOS 4.03 or higher.

To use this version of GAP/Coder, you must use Control Assistant 4.03 or higher.

To use this version of GAP/Coder, you must use Toolkit 4.0 or higher.

NEW FEATURES:

- IC1100 functionality for the ECM3 platform
- Support for the newly introduced LinkNet HT I/O Control Modules (RTD, TC, DIN, DOUT, and AI/AO) – Modules that will support control loops that are capable of operating at high temperature (100° C) and high vibration for skid mounted turbine and engine controls.
- Support for integrating The Mathworks®, Inc. MATLAB®/Simulink® generated code.

ISSUES:

The following Product Issue Database ("PID") issues and requests were addressed in 5.07-0:

Issue #	Description	Solution
14627	PCMHD Misfire change	Modified misfire block zero speed detection algorithm to only use the samples setting at initialization. Runtime changes are not allowed
14654	Misfire output reads non-zero when not enabled	Forced misfire block to always read zero when disabled

Issue #	Description	Solution
15781	In-Pulse II and ECM3 discrete input state changes. This issue was evaluated in CAC 1508. These changes are identical to those made in coder 4.06-6 for the same issue.	<p>Changed Discrete input monitoring from edge triggered to a periodic polling of the pin state to prevent any potential of the input state getting latched in the wrong state as a result of severe EMC phenomena. This mitigation was approved by the corrective action committee</p>
15814	Coder warning issue	Corrected issue with special case tunables when the number exceeds 400 and causes compiler warnings
15911	J1939_DMA DM18 KEY timeout for Long Security	Modified timeout algorithm to keep the transaction open and busy for 250ms per the j1939 specification instead of 100ms
16007	J1939 DMA DM16 unused bytes should be set to FF	Forced control to set unused bytes in the DM16 message to 0xFF
16022	J1939 DMA validate data type function	The check for # tunable analogs was incorrectly using the number of # tunable integers in the validation routine. This was corrected
16050	DM18 message with wrong key	Corrected routine to only send out one message when a wrong key is received
16182	EFI_CORE Phase fault can't be reset on the In-Pulse II	The EFI_CORE phase fault is now non-latching and will return to FALSE when the proper signals are applied and synchronization is achieved
16266	AI_PWM PCMHD DG3-6	Modified the AI_PWM block to ensure that the frequency is displayed correctly throughout the valid range.

Issue #	Description	Solution
16362	J1939 DMA transmit rate	Modified transmission routine such that messages will not be sent faster than 5ms
16546	<p>IC100SPRK late pulse:</p> <p>If a fuel/spark pulse is scheduled with an end point and the duration is such that the beginning of the pulse overlaps a tooth edge that generates an interrupt to the TPU code, the beginning of the pulse may be delayed until the next tooth.</p>	The TPU rollover handling code had a mistake which has been corrected.

UNSUPPORTED BLOCKS:

The following blocks are available in the Template and GAP Editor, but are not supported for customer use in the 5.07-0 release version of the Coder (compiler):

- **CAL_ID**
- **I_TO_NAN**
- **PC104_ATL**
- **RT_CAN_NTW**
- **TEMP_HIST**
- Tunable inputs for the **SYNC_INJ** block (CYL, MIN_ADV, MAX_ADV) are only available to Woodward developers in this version

PART NUMBERS:

Version 5.07-0
Gap/Coder Part Number: 9927-2101
Master Kit: 9927-1333, 8928-1088, 1796-1068