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760507-0819-1A

M680 Main Application Version 3.12.3307 Release Notes

1A

16/06/2023

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Revision History				
Rev	Date	Section	Change	Author
1A	16/06/23	All	Created Release Notes	ST

1 Software

This section identifies the software to which these Release Notes apply:

Software Release	
Number	760507
Title	M680 Main Application Code
Version	3.12.3307
Subversion revision	3307
File Format	.sw
Repository	806273 - M680/M720 Boot and Application Code

1.1 Summary

This version includes:

- Support for ELS62 modem
- Support for RC7620 modem

1.2 Build

This firmware has been built with Multi IDE version 4.2.3 (compiler version 4.2.1).

To build the firmware, first run the prebuild.bat file from the root directory after checking the source into or out of version control. This regenerates the VER.h file to include up-to-date revision details. Open the M683_rom.gpj file (in the Products\M680 folder) in Multi Builder and press the Build button on the toolbar.

The output file is M68x.mem in the Products\M680 folder. Its file extension should be changed to .sw.

To create a new candidate build, first commit the source to version control and run prebuild.bat. Rebuild the code and enter the raw size of the M68x.mem file into romtest.i (in the Products\M680 folder) as the value for the ROMTEST_SIZE #define. Build the code again and load it into a unit. Run the ROMTEST diagnostic interface command and enter the correct checksum into romtest.i as the value for the ROMTEST_CHK #define. Build the code again to produce the candidate image.

1.3 Identification

The software number and version can be inspected in one of two ways:

1. The VER command on the CPU Card's diagnostic interface.
2. MLink's Device Overview screen.

2 Deployment

2.1 Target System

The firmware is programmed into IC1 on M680 CPU Card.

2.2 Pre-requisites

In all instances, it is recommended to stop all vehicle surveys and any IVD reporting.

2.3 Installation

The firmware can be installed in one of two ways:

1. Using MLink's / Device / Upload Firmware option.
2. Using the M680/M720 Application Loader .

2.4 Configuration

The unit will retain the configuration that existed before the upgrade. The configuration can be modified using MLink (version 2.11 or above recommended for full access to the latest set of parameters).

2.5 Verification

See Section 1.3.

3 Functionality

This section details changes made to the software since the last release. Changes to functionality not included in the build are omitted. Fixes to bugs introduced since the last release are included in grey.

3.1 Added / Changed Functionality

- Support for ELS62 modem
- Support for RC7620 modem

3.2 Removed Functionality

- None

3.3 Fixed Issues

- None

3.4 Known Issues

- When historical data is retrieved on restoration of the Instation link following a communications outage, the M68x/M72x can retrieve not-yet-acknowledged live IVD as part of the historical data (LOOPVCC-577). This results in the same data being sent twice, but Insight is able to filter out the duplicate copy.
- While the GPRS modem interface has both an idle time-out (for low-level communications) and a receive time-out (for high-level communications), the GSM interface has only an idle time-out.
- IVD reporting time cannot be set below 10s as it will crash the unit. This is a limitation of the design, cannot be fixed without major rework.
- There is a limitation on MLLD card usage in HPLD mode, as it only works with the latest MLLD revision 1.5 or above, refer to document “942248 - 0212 - 1A - MLLD revision compatibility with M680 and M720” for details.
- ELS61, BGS2 and TC65 modems occasionally resets due to overrun error. The attached log file (M680 with MLLD at MK3 location, attached to hardware vehicle simulator with approx. one vehicle per second, ivd set to 60s, BGS2 modem) shows the mentioned overrun error, happening 5-10 times a day at random time intervals. The root cause is data being sent from the modem to serial input before the previous data is read. The modem is reset when this error happens and recovers without any problems, however this results in modem power cycle, lasting 10s (5 mins for TC65) and subsequent reconnection to insight after approximately 1 minute.



DiagMK3.txt

End of Document