

S500 MKIII Sercal Exec – S1918

<u>Revision</u>	<u>Change</u>	<u>Customer Release Note</u>
6.05	CN1464	Feature #713: Change frequency display to Hz from KHz. This version of Exec will implicitly specify REV2.01 of the AVR software is fitted. This version of Exec will implicitly specify REV2.00 of the ISP software is fitted.
6.04	CN1461	Feature #693: Add support for S255 IO Test Rig via #define Bug #685: Non temperature compensated DQ fault. This version of Exec will implicitly specify REV2.01 of the AVR software is fitted. This version of Exec will implicitly specify REV2.00 of the ISP software is fitted.
6.03	CN1454	Feature #293: Add support for Frequency Input Card Feature #409: Sercal D2F function limited to 1.6777215e+7 (24bits) result Bug #326: ACOS and ASIN functions do not trap > 1.0 Bug #475: Occasional timeout errors on Local Protocol at 19k2 This version of Exec will implicitly specify REV2.01 of the AVR software is fitted. This version of Exec will implicitly specify REV2.00 of the ISP software is fitted.
6.02	CN1423	Use S1916 REV2.01 AVR software which fixes a possible RTC reset under 12V low battery conditions. This version of Exec will implicitly specify REV2.01 of the AVR software is fitted. This version of Exec will implicitly specify REV2.00 of the ISP software is fitted.
6.01	CN1419	Fix Program download issue over non PMMI ports. This version of Exec will implicitly specify REV2.00 of the AVR software is fitted. This version of Exec will implicitly specify REV2.00 of the ISP software is fitted.
6.00	CN1411	Support S255 RTU. Add support for manufacturing info in flash and display on LCD. Add support for firmware upgrade via download to archive memory. Fix COS modification of V595. Add support for dual flash motherboards. Allow GSM to power down quicker after use. This version of Exec will implicitly specify REV2.00 of the AVR software is fitted. This version of Exec will implicitly specify REV2.00 of the ISP software is fitted.
5.32	CN1399	Allow TSP to operate on all ports. Fix problem reading MFDI log entries. Fix MFAI LCD screen issue.
5.31	CN1362	Mod to MFI AI card handler to fix intermittent problem where card fails to accept writes.
5.30	CN1321	Add support for Multifunction Analogue Input board. Add Comms Monitor timer to TSP local ports. Remove I23 handler support.
5.29	CN1298	X28 handler did not function correctly due to change in LINKDATA.C introduced for GSM problem in 5.23.
5.28	CN1268	Access allowed to greater than 64K Program Space.
5.27	CN1264	!F2D function now allows conversion of a value up to full 32 bit integer (+-2147483647). Allow extra floating point values mapped in V1280 onwards (via Camway only). Initialise v33 earlier to prevent fast start apps seeing a unnecessary transition. Allow Sermon SetSeg command to select Pspace.
5.26	CN1259	Improve Hayes/Local error handling on noisy lines. Slave no longer reports X4000 Checksum errors, in case master station is not expecting a response. Also Master hayes handler does not hang upon Rx timeout. Instead it reports error to application and remains online for possible retry. 10 consecutive errors will force hang.
5.25	CN1258	Add annotation in archive memory support. Move batbacked segment to location where it will not be destroyed by exec move from flash to RAM. Add annotation fail flag the fail LCD screen.

- 5.24 CN1250 Handler modified to send only a single ATH to Internal GSM modem.
- 5.23 CN1232 Fix to the occasional hang immediately after answer.
- 5.22 CN1230 Fix Mux Anin reading hffff problem by implementing full power up/down sequence. Add Mux Anin channel scanned flags.
- 5.21 CN1224 Improve GSM power up/down code to prevent modem lockup. Fix invalid NV_memory config correction procedure to ensure further programming works correctly.
- 5.20 CN1217 Support for internal GSM modem added. Hayes handler improvements and restructure.
- 5.19 CN1197 Hayes mods for full V34 modem functionality. Modbus slave receiver fix for faster polling. Modbus RTS off fix when delay = 0. LCD in Vspace mods to allow Telepack LCD emulator to work with standard screens.
- 5.18 CN1193 Add Monitor RLSD option for Hayes in bit 5 of modem setup word. Fix Hayes Put command (12) so user no longer needs to zero terminate and add 1 to length.
- 5.17 CN1181 Accuracy of user timers improved by calibrating the 0.977mS tick.
- 5.16 CN1177 Add Flash application CRC in V597 and LCD indication of Flash/RAM application comparison.
- 5.15 CN1175 Add fast start capability for Sercal application.
- 5.14 CN1148 Prevent problems with IO on medium/heavily loaded systems, particularly Mux Anin. Problem particularly apparent since REV5.11.
- 5.13 CN1146 Ensure RTU stays awake on initial key wake after application of battery power.
- 5.12 CN1139 Fix common X0004 error as first response after PSTN connect to RTU configured to obey connect baud rates. Improve RTC alarm setting functionality. V510 & v511 now contain actual alarm time set after power up & an update. bov517 (alarm update bit) will not be cleared until alarm is set and verified. b5v767 (RTC wake) is now truly read only. It can only be cleared by setting the alarm to a valid time or FF:FF:FF to disable it. Make X8000 power up/reset comms error message configurable. High byte of config. word 51(33h) , 1 bit per port. 1=disable x8000 , 0=enabled(default).
- 5.11 CN1137 When >1 multifunction IO variable is updated, the 'write in progress' bit would be cleared between each actual write to the board. The bit now remains set until no more writes to do. Improve writes to multifunction IO board by repeating any that fail. Improve current consumption by removing some RTC diagnostic code. Improve EMI emissions by allowing IO bus to be disabled when not used.
- 5.10 CN1132 Allow Talkthrough to work regardless of master echo filter configuration on talkthrough master port. Previously only worked if master echo filter enabled (which will act as a work around). Display Digin IO LCD screen for event input board. 'PMMI connected' indication on LCD comms menu now functions correctly. Added fail & wake screens to LCD. The fail screen displays an annotated version of v31 contents, indicating diagnostic data. The wake screen displays currently active reasons for the RTU staying awake. Default configuration now sets up: PORTA - PSTN (2k4,8,n,1) PORTB - Local Master (9k6,7,e,1) PORTC - Local Slave (9k6,7,e,1) PORTD - unconfigured. Auto program the default configuration if,at startup,memory is blank or contains an Isagraf configuration.
- 5.07 - 09 **NOTE: Rev 5.07, 5.08, 5.09 were never released to production**
- 5.06 CN1123 Allow configurable offsets for Modbus driver as per S1901(Mk2) Rev4.26. Improve Battery present test Add GPS support on PMMI port (preferred module is GARMIN GPS35 with 1PPS sync o/p) Add new SERCAL trig functions: SIN,TAN,ARCSIN,ARCTAN

New defaults for S500 Mk3 exec: 128k Pspace,320K Aspace, COMA & COMB PSTN ports

- 5.05 CN1103 Enable use of high speed counter on channel 0 of digin in slot 0
Add new SERCAL trig functions: COS & ARCCOS Enable exec updates via PMMI port
Add support for Multifunction I/O board
- 5.04 CN1083 Prevent RTC wake alarm being asserted twice at startup.
- 5.03 CN1082 RTU now wakes at correct time, not 1 second early.
- 5.02 CN1075 Add support for Rugby Timecode Receiver module.
- 5.01 ----- First Release