

# RomUpdate Eprom Replacement Revision 1.x

#### Mac Software Installation

Download romupd-mac.zip from <a href="http://www.colinbroad.com/cbsoft/romupd/romupd.html">http://www.colinbroad.com/cbsoft/romupd/romupd.html</a>

Unzip and move to a suitable location

If you are using the CB USB-422 interface you can find low latency drivers here <u>http://www.colinbroad.com/cbsoft/usb422/usb422.html</u>

#### Windows Software Installation

Download romupd-win.zip from <a href="http://www.colinbroad.com/cbsoft/romupd/romupd.html">http://www.colinbroad.com/cbsoft/romupd/romupd.html</a>

Unzip and move to a suitable location

If you are using the CB USB-422 interface you can find a link to the FTDI drivers here <u>http://www.colinbroad.com/cbsoft/usb422/usb422.html</u>

Please ensure you follow the instructions in our information sheet on adjusting the interface Latency.

#### Connecting your MAC or PC to the RM-6

In most cases you will need a USB to RS-422 adaptor, we recommend using the CB USB-422 Dual RS-422 adaptor which is available as an option on the romUpd kit. If you are using CBServer you will already have a suitable interface.

Use a 1:1 RS422 cable between Port B on a CB USB-422 to port F on the RM-6

If you use a different RS422 adaptor you may need a different cable.

#### Connecting your MAC or PC to the SR-4

In most cases you will need a USB to RS-422 adaptor, we recommend using the CB USB-422 Dual RS-422 adaptor which is available as an option on the romUpd kit. If you are using CBServer you will already have a suitable interface.

If Port A on the SR-4 is configured as a Output (Controller) use a 1:1 RS422 cable between Port A on a CB USB-422 and port A on the SR-4.

If Port A on the SR-4 is configured as a Input (Device) use a 1:1 RS422 cable between Port B on a CB USB-422 and port A on the SR-4.

### **Updating the Software**

| Print New Edit Help<br>Sect S/W Update S/W Help<br>R5-452 Post<br>cont11                       | When you run the software<br>initially you will se a blank<br>display as shown on the left.                             | Pomilipe<br>Die Wew Edit Help<br>Select SIW Update SIW Help<br>RS-452 Post<br>COMIL E Refresh  |
|--|---|--|
| Select Version 2   | You will need to select the<br>correct RS422 port, the<br>software will remember the<br>port for next time.             | Select Version 1<br>E223 RM-6HD S296, XXX, C156, Feet, Rdr /MOGALC,<br>PO, N=8, SYSDNOL/T, BGX, 23(10)/14  |
| HIW Montor S(W Revision 7.3     Rand Contents (Revet Device)     Greed Currer     Greed Currer | Click on "Read Contents" to<br>check which software is<br>currently installed and<br>selected as shown on the<br>right. | E223 SR-4/SR-3 4 Port Jim:, Pret, Bitr /MCSAEC,<br>NHK, SYSWOUT /BSA, 23/02/14<br>PH/W Moniton S/W Reveace (.0<br>Raud Contents (Reset Device)<br>Geod Cames Close |

You can change the software in use by clicking on the radio button in the box.

Each time you select a version the unit will reset and start with the new software.

By default the hardware monitor is not enabled, the H/W Checkbox will enable the hardware monitor, the Monitor H/W checkbox updated when the contents are read.

### **Installing New Software**

| Select SIW (Update SIW)   | To install new software select the "Update S/W" page as shown on the left.  | Preferences Select SIW Update SIW Verw Conner.   |
|---|---|--|
| Select Version to Update<br>Wenicon 3 Useraion/2<br>DOTDS RM-6HD 3298 Jine; C1593, Peek, Rick, MCSABC,<br>PO, B64, 09(07)13 | The new software will overwrite the current software displayed.   | Select Version to Update<br>(E. version 1 Of Version 2<br>DOTES RM-6HD 52280, Aver, C1550, Peek, Rich, MOSANC,<br>PO, BGY, 03(07(13) |
| Update Financia   | Click on [Enable] and then on<br>[File] to select the software<br>that you wish to install. The file<br>name will be displayed in the | Update Finneare<br>Theirs File Tint Reset  |
| Close   | window below.   | Close  |

You can then click on [Start] to commence installing the new software. During the install no options will be available until it has finished.

You can then click on [Reset] to restart the device and display the Software installed

| Preferences   | Preferences  | Proferences   |
|---|--|---|
| Select S/W Update S/W   | Select S/W Update S/W  | Select S/W Update S/W   |
| Select Version to Update  | Select Version to Update   | Select Version to Update  |
| (Extrain ) (Planae 2  | (Exhibit) (7 hears   | (Extense 1. C. Varian 2.  |
| DUTD RM-RHD S280,Xmc, C150,Peek,Rdr,MOSAIC,<br>PO,BGI, 03(00/13 | D700 RM-RHD 3280,0nc, C150,Piert,Rdr,MOSAIC,<br>PO,B67, 03(07)13 | DOTD RM-RHD S208,20x, CISI, Peek, Rdr, MOSAIC,<br>PO, BGI, 03(07)13 |
| Update Finance<br>Theirs Be Stat Reset                          | Update Pervision<br>Citrates Perul Citrat Citrates               | Ledon Finnise<br>Endels Fin Thirt Read                              |
| HM_6N_0703.bh   | WM_6N_C703.bin   | HM_6N_0703.bin  |
| Eyte Count 0  | Ryte Court 7184  | Ryte Count Prehed   |
| Close   | 110 Mar 10   | Close   |

## Appendix A: SR-4/XSR-4 RomUpd Installation Instructions

#### Cable length 250mm

- 1) Remove PCB
- 2) Unplug U17(U29 on SRmicro-F) (EPROM) from its socket (you can keep the EPROM as a backup)
- 3) Plug the ROMUPD PCB into U17(U29 on SRmicro-F) Socket, check the orientation
- 4) Connect cable 2 to Tx Data A, pin 30 on U13 (SC26C92C1N)
- 5) Connect cable 4 to Rx Data A, pin 31 on U13 (SC26C92C1N)
- 6) Connect Cable 5 to Reset, pin 1 on U14 (DS1232)
- 7) Connect Cable 6 to DMA, pin 33 on U16 (HD68C09)
- Connect Cable 1 to Tx Data D, pin 11 on U12 (SC26C92C1N) 1<sup>st</sup> Hardware Monitor (SR-4)
- 9) Connect cable 3 to TX Data B, pin 11 on U13 (SC26C92C1N) 2<sup>nd</sup> Hardware Monitor (XSR-4)

#### SR-4 6 way cable

- 1 U12 pin 11
- 2 U13 Pin 30
- 3 U13 Pin 11
- 4 U13 Pin 31
- 5 U14 Pin 1
- 6 U16 Pin 33

#### After Installation use Serial Port A on the SR-4 to program/control Romupd.

Note 1: After modification the unit will take 1 or 2 seconds longer to start up as the software is loaded.

Note 2: RomUpd S/W Version 0.0 is not fitted with the H/W Monitor function; connecting cable 1 and 3 will not cause any problems but will not add the monitor function.

Note 3: RomUpd S/W Version 1.x if the H/W Monitor function is enabled and cable 1 is NOT connected then the Unit will Reset about once every 5 seconds.

Note 4: It is possible to update the RomUpd software using the romupd.elf file from the website using a Atmel programmer (AVRDragon, JTAGICE or equivalent).

Note 5: To add the  $1^{st}$  Hardware monitor function (SR-4) to an early RomUpd PCB Link U4 (Atmega128) pin 6 to J1 pin 1.

Note 6: To add a 2<sup>nd</sup> Hardware Monitor function (XSR-4) to an early RomUpd PCB Link U4 (Atmega128) pin 8 to J1 pin 3, (Cut any existing track to J1 pin 3)

## Appendix B: XSR-2 (Remote to RM-6) RomUpd Installation Instructions

#### Cable length 250mm

- 1. Remove PCB
- 2. Unplug U17(U29 on SRmicro-F) (EPROM) from its socket (you can keep the EPROM as a backup)
- 3. Plug the ROMUPD PCB into U17(U29 on SRmicro-F) Socket, check the orientation
- 4. Connect cable 2 to Tx Data A, pin 30 on U13 (SC26C92C1N)
- 5. Connect cable 4 to Rx Data A, pin 31 on U13 (SC26C92C1N)
- 6. Connect Cable 5 to Reset, pin 1 on U14 (DS1232)
- 7. Connect Cable 6 to DMA, pin 33 on U16 (HD68C09)
- 8. Connect cable 3 to TX Data B, pin 11 on U13 (SC26C92C1N) 1<sup>st</sup> Hardware Monitor

#### SR-4 6 way cable

- 1 U13 Pin 11 2 – U13 Pin 30 3 – No Connection 4 – U13 Pin 31 5 – U14 Pin 1
- 6 U16 Pin 33

#### After installation use Serial Port A on the XSR-4/2 to Program / Control Romupd.

Note 1: After modification the unit will take 1 or 2 seconds longer to start up as the software is loaded.

Note 2: RomUpd S/W Version 0.0 is not fitted with the H/W Monitor function; connecting cable 1 will not cause any problems but will not add the monitor function.

Note 3: RomUpd S/W Version 1.x if the H/W Monitor function is enabled and cable 1 is NOT connected then the Unit will Reset about once every 5 seconds.

Note 4: It is possible to update the RomUpd software using the romupd.elf file from the website using a Atmel programmer (AVRDragon, JTAGICE or equivalent).

Note 5: To add the  $1^{st}$  Hardware monitor function to an early RomUpd PCB Link U4 (Atmega128) pin 6 to J1 pin 1.

## Appendix C: RM-6/XSR-6 RomUpd Installation Instructions

#### Cable length 480mm

- 1) Remove PCB
- 2) Remove U14 (EPROM) from its socket (you can keep the EPROM as a backup)
- 3) Plug the ROM Update PCB into U14 Socket, check the orientation
- 4) Connect cable 2 to Tx Data F, pin 11 on U24 (SC26C92C1N)
- 5) Connect cable 4 to Rx Data F, pin 10 on U24 (SC26C92C1N)
- 6) Connect Cable 5 to Reset, pin 1 on U5(DS1232)
- 7) Connect Cable 6 to DMA, pin 33 on U17 (HD68C09)
- 8) Connect Cable 1 to Tx Data A, pin 30 on U20 1<sup>st</sup> Hardware Monitor
- 9) Connect Cable 3 to Tx Data B pin 11 on U20 2<sup>nd</sup> Hardware Monitor

#### RM-6 6 way cable

- 1 U20 pin 30
- 2 U24 Pin 11
- 3 U20 pin 11
- 4 U24 Pin 10
- 5 U5 Pin 1
- 6 U17 Pin 33

# After installation connect RM-6 Port F to USB-422 port B to program or select software on the Romupd

Note 1: After modification the unit will take 1 or 2 seconds longer to start up as the software is loaded.

Note 2: RomUpd S/W Version 0.0 is not fitted with the H/W Monitor function; connecting cable 1 will not cause any problems but will not add the monitor function.

Note 3: RomUpd S/W Version 1.x if the H/W Monitor function is enabled and cable 1 and 3 are NOT connected then the Unit will Reset about once every 5 seconds.

Note 4: It is possible to update the RomUpd software using the romupd.elf file from the website using a Atmel programmer (AVRDragon, JTAGICE or equivalent).

Note 5: To add the  $1^{st}$  Hardware monitor function to an early RomUpd PCB Link U4 (Atmega128) pin 6 to J1 pin 1.

Note 6: To add a 2<sup>nd</sup> Hardware Monitor function (XSR-4) to an early RomUpd PCB Link U4 (Atmega128) pin 8 to J1 pin 3, (Cut any existing track to J1 pin 3)

### Appendix D: Lawo Remote RomUpd Installation Instructions

#### Cable length 480mm

- 1. Remove PCB
- 2. Remove U14 (EPROM) from its socket (you can keep the EPROM as a backup)
- 3. Plug the ROM Update PCB into U14 Socket, check the orientation
- 4. Connect cable 2 to Tx Data A, pin 30 on U20 (SC26C92C1N)
- 5. Connect cable 4 to Rx Data A, pin 31 on U20 (SC26C92C1N)
- 6. Connect Cable 5 to Reset, pin 1 on U5(DS1232)
- 7. Connect Cable 6 to DMA, pin 33 on U17 (HD68C09)
- 8. Connect Cable 1 to Tx Data B, pin 11 on U20 1<sup>st</sup> Hardware monitor

#### RM-6 6 way cable

- 1 U20 pin 11
- 2 U20 Pin 30
- 3 No Connection
- 4 U20 Pin 31
- 5 U5 Pin 1
- 6 U17 Pin 33

# After installation connect Lawo interface Port A to USB-422 port A to program or select software on the Romupd

Note 1: After modification the unit will take 1 or 2 seconds longer to start up as the software is loaded.

Note 2: RomUpd S/W Version 0.0 is not fitted with the H/W Monitor function; connecting cable 1 will not cause any problems but will not add the monitor function.

Note 3: RomUpd S/W Version 1.x if the H/W Monitor function is enabled and cable 1 is NOT connected then the Unit will Reset about once every 5 seconds.

Note 4: It is possible to update the RomUpd software using the romupd.elf file from the website using a Atmel programmer (AVRDragon, JTAGICE or equivalent).

Note 5: To add the monitor function to an early RomUpd PCB Link U4 (Atmega128) pin 6 to J1 pin 1.