

## UPGRADE PROCESS TO ECS 5.1.1

Date: 25-Sept-09

### **Subject: Recommended process for upgrading your Eclipse Matrix to version 5.1.1**

The following list summarises the steps required to upgrade your matrix to ECS V5.1.1

The upgrade to V5.1.1 may affect all elements of your system and you should read the Eclipse release note and the Eclipse upgrade reference manual before attempting any upgrade.

If you are unsure of a particular process, please contact your local ClearCom Technical Support centre who will be more than happy to help you. Alternatively you can obtain a quote from Clear-Com for an Engineer to visit your site and assist you with the upgrade.

Care should be taken to ensure that all elements are upgraded correctly and in the correct order.

Full details of each upgrade process can be found in the Eclipse Upgrade Reference Manual.

See the ECS V5.1.1 release note for full details of the current software versions.

### **Important Notes**

- 1) The order the upgrade is carried out is important
  - ◆ **Update the MVX cards last**
- 2) The data sent between networked (linked) matrices has changed and all matrices in a networked system must be upgraded at the same time to bring the whole system back
- 3) You will have to upgrade each V-panel individually by connecting it directly to a PC
- 4) Observe Electrical shock hazard warning and precautions for handling electrostatic sensitive devices

Click on each link for more a detailed explanation of the upgrade process

**To avoid matrix to panel comms issues, ensure the matrix MVX cards are the last system elements to be updated**

NEW VERSION	OLD ECS VERSION		
	ECS 2.2	ECS 4.2	ECS 5.0.0
ECS 5.1.1			
ECS PC application	<a href="#">Export your old map from ECS 2.2</a>	<a href="#">Export your old map from ECS 4.2</a>	<a href="#">Export your old map from ECS 5.0</a>
	<a href="#">Import your map into the new ECS</a>	<a href="#">Import your map into the new ECS</a>	<a href="#">Import your map into the new ECS</a>
Omega / Median CPU card	<a href="#">Change CPU boot prom</a> <a href="#">Use S4 driver method to upgrade CPU card</a> <a href="#">You will need a RS232 serial cable</a>	<a href="#">Use ECS to upgrade CPU card</a>	<a href="#">Use ECS to upgrade CPU card</a>
	<a href="#">You may need to perform IP default reset</a>	<a href="#">You may need to perform IP default reset</a>	
MVX * should be upgraded last	<a href="#">Upgrade using special MVX cable</a>	<a href="#">Upgrade using special MVX cable</a>	No upgrade required
	Upgrade MVX cards after CPU card and panels	Upgrade MVX cards after CPU card and panel	
E-QUE	n/a	<a href="#">Upgrade application code</a>	<a href="#">Upgrade application code</a>
		<a href="#">Upgrade EQU Card FPGA</a> <b>** Needs specialised programmer</b>	<a href="#">Upgrade FPGA</a> <b>** needs specialised programmer</b>
		<a href="#">Upgrade boot prom</a>	<a href="#">Upgrade boot prom</a>

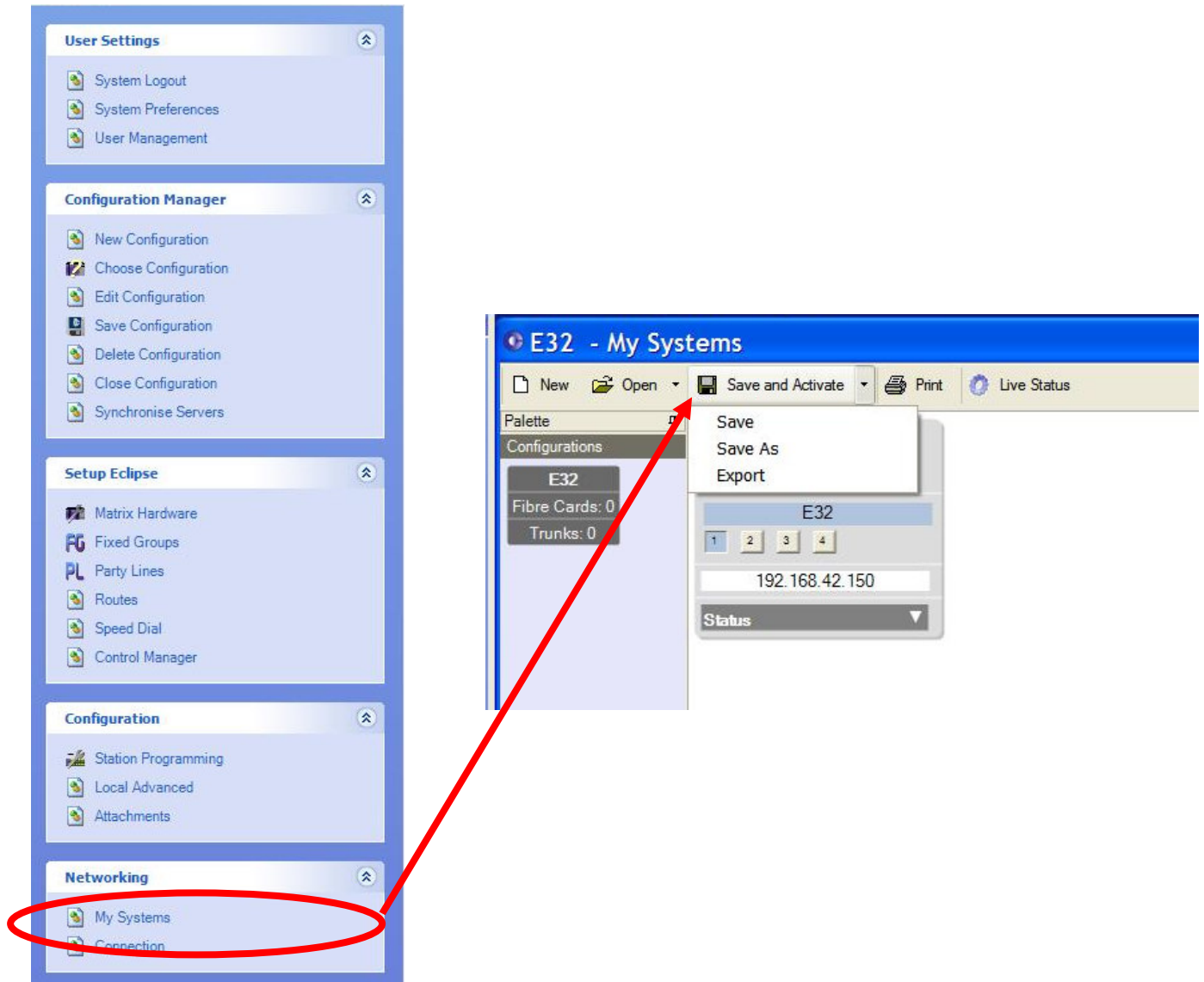
NEW VERSION	OLD ECS VERSION		
ECS 5.1.1	ECS 2.2	ECS 4.2	ECS 5.0.0
E-FIB	n/a	<a href="#">Upgrade E-FIB Card FPGA</a> <a href="#">** Needs specialised programmer</a>	No upgrade required
V-Panels	n/a	<a href="#">Use TFTP to upgrade Uboot</a>	<a href="#">Use TFTP to upgrade Uboot</a>
		<a href="#">Use TFTP to upgrade Application code</a>	<a href="#">Use TFTP to upgrade Application code</a>
		<a href="#">Use TFTP to upgrade Kernel</a>	<a href="#">Use TFTP to upgrade Kernel</a>
		<a href="#">Use ECS to update Display module firmware</a>	<a href="#">Use ECS to update Display module firmware</a>
I-Station	<a href="#">Use ECS to upgrade</a>	<a href="#">Use ECS to upgrade</a>	<a href="#">Use ECS to upgrade</a>
ICS-2003	<a href="#">Use ECS to upgrade</a>	<a href="#">Use ECS to upgrade</a>	<a href="#">Use ECS to upgrade</a>
ICS 52 /62 /92 /102	<a href="#">Use ECS to upgrade</a>	<a href="#">Use ECS to upgrade</a>	<a href="#">Use ECS to upgrade</a>
ICS 1008/ 1016	<a href="#">Use ECS to upgrade</a>	<a href="#">Use ECS to upgrade</a>	<a href="#">Use ECS to upgrade</a>
. 4224	<a href="#">Use ECS to upgrade</a>	<a href="#">Use ECS to upgrade</a>	<a href="#">Use ECS to upgrade</a>

NEW VERSION	OLD ECS VERSION		
	ECS 2.2	ECS 4.2	ECS 5.0.0
ECS 5.1.1			
. 4222	<a href="#">Use ECS to upgrade</a>	<a href="#">Use ECS to upgrade</a>	<a href="#">Use ECS to upgrade</a>
FS-BP	n/a	<a href="#">Use FreeSpeak upgrader to upgrade</a>	<a href="#">Use FreeSpeak upgrader to upgrade</a>
		Use beltpack registration cable	Use beltpack registration cable
Antenna	n/a	<a href="#">Use FreeSpeak upgrader to upgrade</a>	<a href="#">Use FreeSpeak upgrader to upgrade</a>
		Use beltpack registration cable	Use beltpack registration cable
Eclipse-Pico / E32 CPU	<a href="#">Change CPU boot prom</a> <a href="#">Use S4 driver method to upgrade CPU card</a> <a href="#">You will need a RS232 serial cable</a>	<a href="#">Use ECS to upgrade</a>	<a href="#">Use ECS to upgrade</a>
	<a href="#">you may need to perform IP default reset</a>	<a href="#">you may need to perform IP default reset</a>	
E-Pico / E32 MVX	<a href="#">Upgrade using special MVX cable</a>	<a href="#">upgrade using special MVX cable</a>	No upgrade required
	Upgrade MVX section after CPU card and panels	Upgrade MVX section after CPU card and panels	
AES-6	n/a	<a href="#">Upgrade AES-6 Application code using MVX upgrader tool</a>	No upgrade required
		<a href="#">Upgrade AES-6 FPGA firmware using Tera Term application</a>	

NEW VERSION	OLD ECS VERSION			
ECS 5.1.1	ECS 2.2		ECS 4.2	ECS 5.0.0
			Use beltpack registration cable	

## ECS 2.2 exporting the map

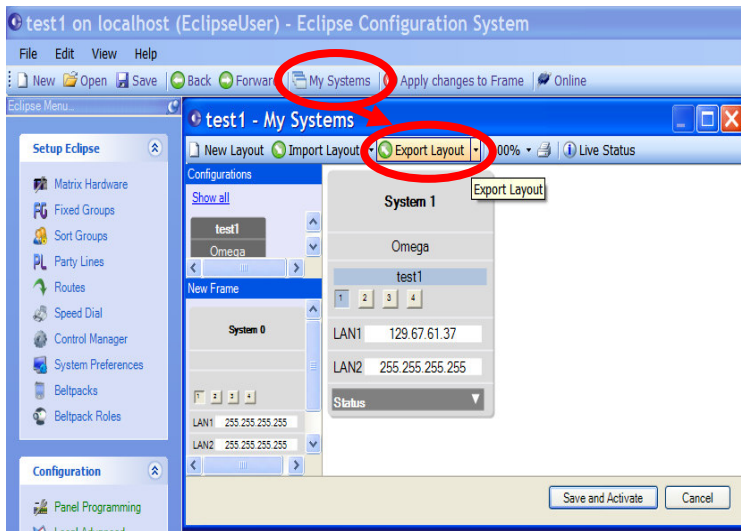
Select My Systems > Save > Export the layout to your PC hard drive



[Return to top](#)

## ECS 4. 2. & 5.0. Exporting the map

Select My Systems > Export layout > Export the layout to your PC hard drive



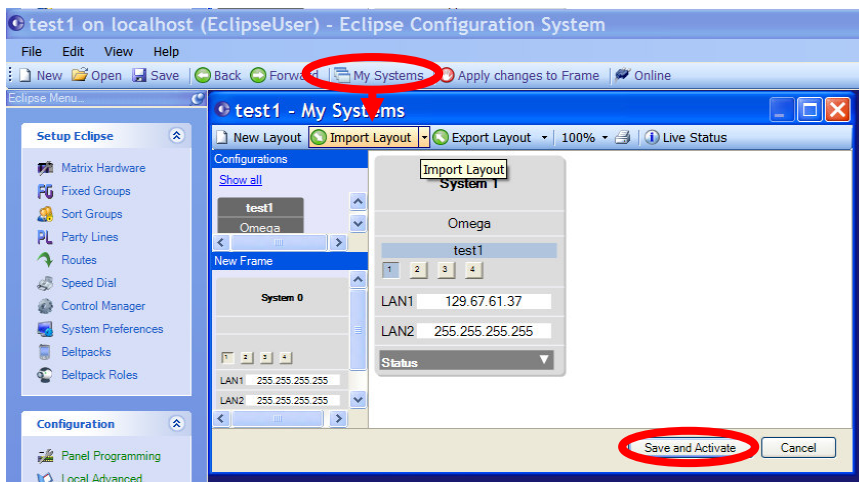
[Return to top](#)

## ECS 5.1.1 importing the map

Select My Systems > Import layout > Import the layout from your PC hard drive

Press Save and Activate

**DO NOT** download your configuration



[Return to top](#)

## Upgrading the Omega / Median CPU boot prom from V2.2 to V5.1.1

1.	<p><b>Using ECS V5</b> Import your config(s) using the <b>my systems screen</b>.</p> <p>Open a configuration and “save and activate”</p> <p><b>Close ECS</b> at this point</p>	<p>After checking that ECS can run on your PC. <b>CLOSE ECS</b></p>
<b>THE ORDER OF THE UPGRADE PROCESS IS IMPORTANT</b>		
2.	<p><b>Update the CPU boot prom</b></p> <p>Remove <b>BOTH</b> CPU cards</p> <p><b>Remove</b> the <b>old V2.xx</b> CPU card <b>BOOT proms</b> from both CPU cards</p> <p>Install the new V5 CPU boot proms onto both CPU cards</p> <p>The software for the Boot prom is on the CD-ROM – you need a 2Mbit prom (ST27C2001)</p>	<p>Observe precautions for handling electrostatic sensitive devices</p> <p><b>See Page 13 of the Eclipse V5.1 (rev6) upgrade manual</b></p>
3.	<p><b>Using the S4 upgrade process</b></p> <p>Install only ONE CPU card into the matrix</p> <p><b>Set the CPU card dip switches to test mode</b></p> <p>Erase the old V2.xx firmware</p>	<p><b>You will need a serial download cable</b></p> <p>Follow the S4 upgrade method from the Eclipse upgrade manual</p> <p><b>See Page 20-24 of the Eclipse V5.1 (rev6) upgrade manual</b></p>



4.	<p>Using the S4 upgrade process</p> <p>Set the CPU card dip switches to normal mode</p> <p>Load the V5.1.1 rack code application firmware</p>	<p>You will need a serial download cable</p> <p><b>See Page 20-24 of the Eclipse V5.1 (rev6) upgrade manual</b></p> <p>See the Eclipse release note for the latest Omega/Median CPU app code version</p>
5.	<p><b>Set the default IP address</b></p> <p>Perform the 3 finger reset to force the system to use the Default IP address 172.16.2.100</p>	<p>Set your PC Ethernet IP address to 172.16.2.10</p> <p>To reset the matrix to the factory default IP address (172.16.2.100). Use the 3 finger reset process</p> <p>The reset sequence is to press and hold the 'ENG' and 'FULL RESET' front panel buttons simultaneously then press the top 'RESET' button</p> <p>Once the CPU card OK led starts to flash release the Eng / Full buttons</p>
6.	<p>Using the S4 upgrade process</p> <p>Install the <b>SECOND</b> CPU card in the matrix (remove the first CPU card)</p> <p>Set the CPU card dip switches to test mode</p> <p>Erase the old V2.xx firmware</p>	<p>You will need a serial download cable</p> <p><b>See Page 20-24 of the Eclipse V5.1 (rev6) upgrade manual</b></p>
7.	<p>Using the S4 upgrade process</p> <p>Set the CPU card dip switches to normal mode</p> <p>Load the V5.xx rack code application</p>	<p>You will need a serial download cable</p>

	firmware	
8.	<p><b>Using ECS V5</b></p> <p>Install both CPU cards into the matrix</p> <p>Start ECS on your PC</p>	Note after the upgrade the CPU cards OK led will double flash to show NO map – This is normal
9.	<p><b>Using ECS V5</b></p> <p>Create a simple test map</p> <p>Check the my systems screen and make sure the IP address is 172.16.2.100</p>	
10.	<p><b>Using ECS V5</b></p> <p>Download the test map <b>serially</b> to the matrix</p>	
11.	<p><b>Using ECS V5</b></p> <p>Go to matrix event log screen and set the matrix IP to suit your requirements</p>	<p>See ECS V5.1 manual on how to <b>change matrix IP address</b></p> <p><b>See Page 65-67 of the ECS V5.1 manual</b></p>
12.	<p><b>Reset your PC Network card IP address</b></p> <p>To be in the same range as the new IP address of the matrix</p> <p>Connect a Ethernet crossover cable to the matrix LAN port 1</p>	<b>You will need a Ethernet Crossover cable</b>
13.	<p>Go to the my systems screen</p> <p>Change the IP address to match the new IP address you entered using the Matrix event log screen</p> <p>Go the ECS &gt; File &gt; matrix connection and select Ethernet</p>	<p><b>You will need a Ethernet Crossover cable</b></p> <p>Test your Pc to matrix connection by making a download</p>

[Return to top](#)

## Upgrading Omega / Median MVX cards

**To avoid matrix to panel comms issues, ensure the matrix MVX cards are the last system elements to be updated**

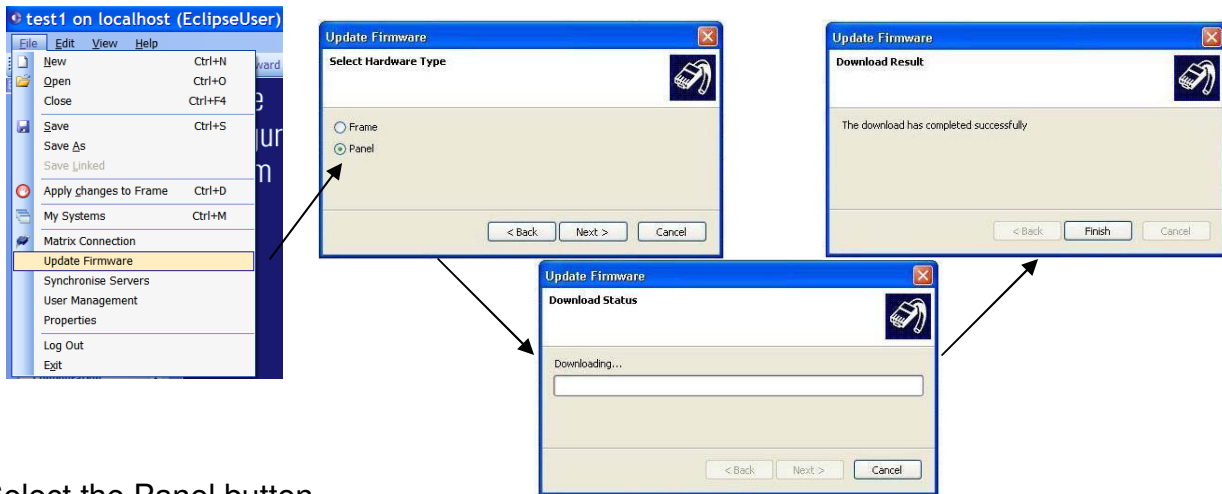
MVX CARD		
1.	<p>Using the MVX upgrade process</p> <p>Upgrade the MVX cards</p> <p><b>See Page 41-46 of the Eclipse V5.1 (rev6) upgrade manual</b></p>	<p>You will need the special MVX upgrade cable. Contact your local ClearCom Technical Support Centre for details of the cable</p> <p>You may also need a jumper link and a Paper clip to reset the MVX card</p> <p><b>See Page 50-56 of the Eclipse V5.1 (rev6) upgrade manual</b></p>

[Return to top](#)

## Panel upgrade (except V-series panels)

<b>PANEL UPGRADE</b>		
1.	<b>Using ECS V5</b> – upgrade all the <b>PANELS</b> on the system	<b>EXCEPT</b> the V-series panels

From ECS select “File -> Update Firmware” from the main ECS menu.



Select the Panel button

Click on “Next” and then browse to the appropriate **xx.4KP** file.

Click on “Next” and confirm that the details displayed are correct.

Click on “Next” and confirm that the download commences.

### Panel firmware files

Panel type	Firmware location on CDROM
Istation	CDROM\Panel_Software\I-Station\710627Z - I-Station -010128\710627Z.4kp
ICS2003	CDROM\Panel_Software\ICS-2003\Analog\710628Z - Panel code\710628Z.4KP
ICS 52 /92	CDROM\Panel_Software\ICS-52-92\710630Z-PROG-xx\710630Z.4KP
ICS 62 /102	CDROM\Panel_Software\ICS-62-102\710631Z-PROG-xx\710631Z.4KP
ICS 1008 /1016	CDROM\Panel_Software\ICS-1008-1016\710632Z-xx\710632Z.4KP
4224-CAT5	CDROM\Panel_Software\4000 - 4224 +\710704Z - 4224E-4226E-4294E-4215E Panel Code\ 710704Z.4KP
4222-CAT5	CDROM\Panel_Software\4000 - 4222+\710702Z - 4222E-4212E Panel Code\710702Z.4KP
Vpanel Key module firmware	CDROM\ Panel_Software\V-Series\Display_Module\710819Z - Display PIC Application Code\710819Z.4kp

[Return to top](#)

## Upgrading the Eclipse-Pico / E32 CPU boot prom from V2.2 to V5.1.1

1.	<p><b>Using ECS V5</b> Import your config(s) using the <b>my systems screen</b>.</p> <p>Open a configuration and “save and activate”</p> <p><b>Close ECS</b> at this point</p>	<p>After checking that ECS can run on your PC. <b>CLOSE ECS</b></p>
<b>THE ORDER OF THE UPGRADE PROCESS IS IMPORTANT</b>		
2.	<p><b>Update the CPU boot prom</b></p> <p><b>Remove the Eclipse-Pico lid</b> and (observe – Electrical shock hazard warning and precautions for handling electrostatic sensitive devices)</p> <p><b>Remove the old V2.xx BOOT prom</b> from the main board</p> <p>Install the new V5 CPU boot prom onto the main board</p> <p>The software for the Boot prom is on the CD-ROM – you need a 2Mbit prom (ST27C2001)</p>	<p>Observe precautions for handling electrostatic sensitive devices</p> <p><b>See Page 39-43 of the Eclipse V5.1 (rev6) upgrade manual</b></p>
3.	<p><b>Using the S4 upgrade process</b></p> <p><b>Set the CPU card dip switches to test mode</b></p> <p>Erase the old V2.xx firmware</p>	<p>You will need a <b>serial download cable</b></p> <p>Follow the S4 upgrade method from the Eclipse upgrade manual</p> <p><b>See Page 39-43 of the Eclipse V5.1 (rev6) upgrade manual</b></p>

4.	<p>Using the S4 upgrade process</p> <p>Set the CPU card dip switches to normal mode</p> <p>Load the V5.1.1 rack code application firmware</p>	<p>You will need a serial download cable</p> <p><b>See Page 39-43 of the Eclipse V5.1 (rev6) upgrade manual</b></p> <p>The current E-Pico config application version is 12.81</p>
5.	<p><b>Set the default IP address</b></p> <p>Perform the 3 finger reset to force the system to use the Default IP address 172.16.2.100</p>	<p><b>Set your PC Ethernet IP address to 172.16.2.10</b></p> <p>To reset the matrix to the factory default IP address (172.16.2.100). Use the 3 finger reset process</p> <p>The reset sequence is to press and hold the 'ENG' and 'FULL RESET' front panel buttons simultaneously then press the top 'RESET' button</p> <p>Once the CPU card OK led starts to flash release the Eng / Full buttons</p> <p><b>For Eclipse-Pico matrix See page 20 of the Eclipse-Pico manual</b></p> <p><b>For E32 matrix See page 19-20 of the Eclipse-Pico manual</b></p>
6.	<p><b>Using ECS V5</b></p> <p>Start ECS on your PC</p> <p>create a simple test map</p> <p>Check the my systems screen and make sure the IP address is 172.16.2.100</p>	<p>Note after the upgrade the CPU OK led will double flash to show NO map – This is normal</p>

7.	<p><b>Using ECS V5</b></p> <p>Download the test map <b>serially</b> to the matrix</p>	
8.	<p><b>Using ECS V5</b></p> <p>Go to matrix event log screen and set the matrix IP to suit your requirements</p>	<p>See ECS V5.1 manual on how to <b>change matrix IP address</b></p> <p><b>See Page 65 – 67 of the ECS V5.0 manual</b></p>
9.	<p><b>Reset your PC Network card IP address</b></p> <p>To be in the same range as the new IP address of the matrix</p> <p>Connect a Ethernet crossover cable to the matrix LAN port 1 and PC</p>	<p><b>You will need a Ethernet Crossover cable</b></p>
10.	<p>Go to the my systems screen Change the IP address to match the new IP address you entered using the Matrix event log screen</p> <p>Go the ECS &gt; File &gt; matrix connection and select Ethernet</p>	<p><b>You will need a Ethernet Crossover cable</b></p> <p>Test your Pc to matrix connection by making a download</p>
11.	<p>Do not screw the lid back on to the Pico matrix in order to upgrade the MVX section of the matrix later</p>	

[Return to top](#)

## Upgrading Eclipse-Pico MVX section

**To avoid matrix to panel comms issues, ensure the matrix MVX cards are the last system elements to be updated**

E-Pico MVX CARD		
1.	<p>Using the MVX upgrade process</p> <p>Upgrade the MVX cards</p> <p>For Eclipse-Pico matrix  <b>See Page 59 – 69 of the Eclipse V5.1 (rev6) upgrade manual</b></p> <p>For E32 matrix  <b>See Page 59 – 69 of the Eclipse V5.1 (rev6) upgrade manual</b></p>	<p>You will need the special MVX upgrade cable. Contact your local ClearCom Technical Support Centre for details of the cable</p> <p>You may also need a jumper link and a Paper clip to reset the MVX card</p>

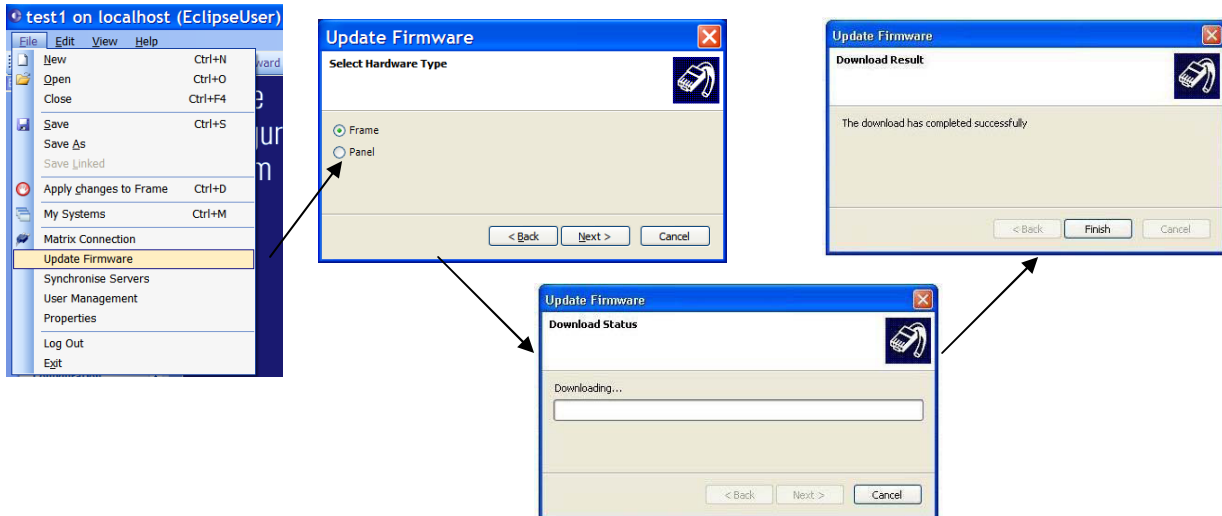
[Return to top](#)



## Upgrading the Omega / Median Rack Application from V4.2 / V5.0 to V5.1.1

RACK CODE UPGRADE		
1.	<p><b>Using ECS V5</b></p> <p>a) Upgrade CPU cards on the system</p> <p>b) Send the rack code</p> <p>c) Download your map</p>	<p>Note after the first upgrade the CPU card OK led will double flash to show NO map –</p> <ul style="list-style-type: none"> <li>- This is normal</li> <li>- The download your map to complete the upgrade process</li> </ul>

From ECS select “File -> Update Firmware” from the main ECS menu.



Select the Frame button

Click on “Next” and then browse to the appropriate **xx.4KR** file.

Click on “Next” and confirm that the details displayed are correct.

Click on “Next” and confirm that the download commences.

### Rack firmware file

Matrix	Firmware location on CDROM
Omega / Median	CDROM\Omega-Median\710621Z - Config App\710621Z.4kr

[Return to top](#)

### Reset the matrix to the factory default IP address

<p>1.</p>	<p><b>Set the default IP address</b></p> <p>Perform the 3 finger reset to force the system to use the Default IP address 172.16.2.100</p>	<p>Set your PC Ethernet IP address to 172.16.2.10</p> <p>To reset the matrix to the factory default IP address (172.16.2.100).</p> <p>The reset sequence is to press and hold the 'ENG' and 'FULL RESET' front panel buttons simultaneously then press the top 'RESET' button</p> <p>Once the CPU card OK led starts to flash release the Eng / Full buttons</p>
<p>2.</p>	<p><b>Using ECS V5</b></p> <p>Install both CPU cards into the matrix</p> <p>Start ECS on your PC</p>	<p>Note after the upgrade the CPU cards will double flash to show NO map – This is normal</p>
<p>3.</p>	<p><b>Using ECS V5</b></p> <p>Start ECS on your PC</p> <p>create a simple test map</p> <p>Check the my systems screen and make sure the IP address is 172.16.2.100</p>	
<p>4.</p>	<p><b>Using ECS V5</b></p> <p>Download the test map <b>serially</b> to the matrix</p>	

5.	<p><b>Using ECS V5</b></p> <p>Go to matrix event log screen and set the matrix IP to suit your requirements</p>	<p>See ECS V5.0 manual on how to <b>change matrix IP address</b></p> <p>See Page 65-67 of the ECS V5.0 manual</p>
6.	<p><b>Reset your PC Network card IP address</b></p> <p>To be in the same range as the new IP address of the matrix</p> <p>Connect a Ethernet crossover cable to the matrix LAN port 1 and PC</p>	<p>You will need a <b>Ethernet Crossover cable</b></p>
7.	<p>Go to the my systems screen Change the IP address to match the new IP address you entered using the Matrix event log screen</p> <p>Go the ECS &gt; File &gt; matrix connection and select Ethernet</p>	<p>You will need a <b>Ethernet Crossover cable</b></p> <p>Test your Pc to matrix connection by making a download</p>

[Return to top](#)

## Upgrading the Eque card Application code

To upgrade the EQUÉ card you need to follow the upgrade process in this particular order

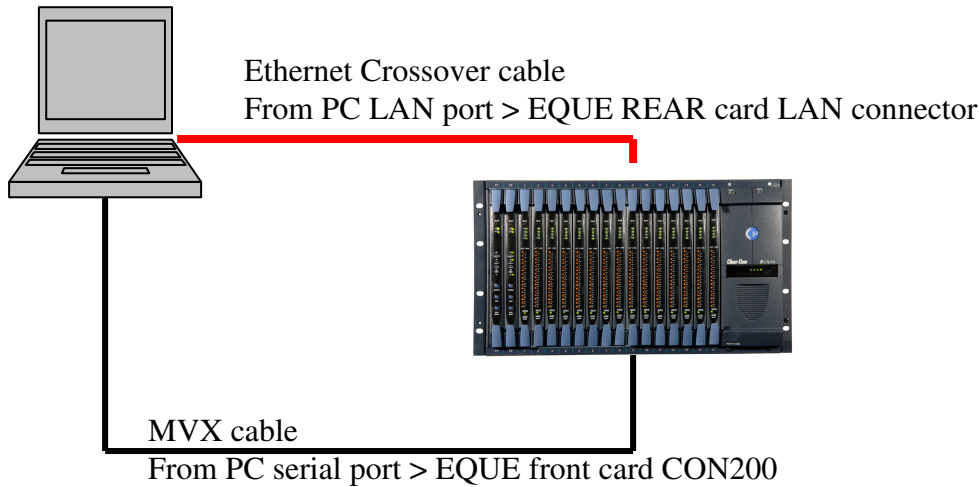
1<sup>st</sup> - Upgrade the EQUÉ CARD App code – requires the MVX upgrade cable & a Ethernet Crossover cable

2<sup>nd</sup> - Upgrade the EQUÉ CARD FPGA code – requires specialised equipment

3<sup>rd</sup> - Upgrade the EQUÉ CARD BOOT prom

EQUE Card UPGRADE		
THE ORDER OF THE UPGRADE PROCESS IS IMPORTANT		
1.	<p>Upgrade the EQUÉ CARD App code</p> <p>You require the MVX card upgrade cable</p> <ul style="list-style-type: none"> <li>◆ Connect the MVX cable to your PC serial port and the EQUÉ front card CON 200 connector</li> </ul> <p>You require an Ethernet LAN crossover cable.</p> <ul style="list-style-type: none"> <li>◆ Connect a Ethernet Crossover cable to your PC LAN connector and the EQUÉ card REAR LAN connector</li> </ul>	

### Eque card setup



<p>2.</p>	<p>The EQUEREAR card app code upgrade process requires you to</p> <ol style="list-style-type: none"> <li>a) Use the Tera term programme to send commands to the Eque card via the MVX cable</li> <li>b) Use a TFTP server to transfer the actual app code file to the Eque card over the Ethernet crossover cable.</li> <li>c) Make a folder called C:\TFTP</li> </ol>	<p>You will need a <b>paperclip</b> to press the <b>reset button</b> on the <b>front of the Eque card</b></p>
<p>3.</p>	<p>Install the Tera Term programme and set up the following <b>serial port setting</b></p> <ul style="list-style-type: none"> <li>• Baud Rate: 115200</li> <li>• Parity: None</li> <li>• Data Bits: 8</li> <li>• Stop Bits: One</li> <li>• No flow control</li> <li>• Transmit delay 50ms/char</li> </ul>	<p>Tera Term programme is on the CDROM</p> <p>CDROM\3rd_Party_Software\Teraterm\tterm23.zip</p> <p><b>See Page 67 - 79 of the Eclipse V5.1 (rev6) upgrade manual</b></p>

<p>4.</p>	<p><b>Copy the TFTP server</b> programme to the C:\TFTP folder on the ROOT of your hard drive</p> <p>Eque TFTP server is on the CDROM</p> <p>Copy the <b>ftpsrv.exe</b> file to the <b>C:\TFTP</b> folder you have just made</p> <p><b>Copy the Eque file application</b> to the C:\TFTP folder on the ROOT of your hard drive</p> <p>Copy the <b>710809Z</b> file to the <b>C:\TFTP</b> folder you have just made</p> <p><b>Copy the eque_upgrade.ttl</b> macro to the C:\TFTP folder on the ROOT of your hard drive</p> <p>Copy the <b>eque_upgrade.ttl</b> file to the <b>C:\TFTP</b> folder you have just made</p>	<p>Make a folder called C:\TFTP Place the eque TFTP server in to this folder</p> <p>CDROM\ 3rd_Party_Software\EQue TFTP Server App\ <b>ftpsrv.exe</b></p> <p>CDROM\ \Omega-Median\ 710809Z - E-Que Application\ <b>710809Z</b></p> <p>CDROM\ \Omega-Median\ 710809Z - E-Que Application\ <b>eque_upgrade.ttl</b></p>
<p>5.</p>	<p><b>Set the IP address of your PC</b> to have a fixed / Static address – any IP address of your choice is suitable.</p> <p>Example use IP address: 192.168.42.10 Subnet mask: 255.255.255.0</p>	<p><b>See Page 67-79 of the Eclipse V5.1 (rev6) upgrade manual</b></p>
<p>6.</p>	<p>Install the EQUÉ card into the matrix (make sure the MVX cable is attached to the card) and is powered</p> <p>Start the TFTP server programme by double clicking on it</p> <p>Start Tera Term</p>	
<p>7.</p>	<p>Using Tera Term Go to <b>Control&gt;macro</b> And navigate to the C:\TFTP folder</p>	<p><b>See Page 67-79 of the Eclipse V5.1 (rev6) upgrade manual</b></p>

	Select the <b>eque_upgrade.ttl</b> macro  Reset the Eque card by pressing the reset button with the paperclip	
8.	Tera Term should bring up a small macro window.  <ol style="list-style-type: none"> <li>1. Enter <b>Any IP address for the Eque card that is in the same range as Your PC IP address</b></li> <li>2. Enter <b>Your PC IP address</b></li> <li>3. Enter the <b>file name</b> of the Eque card application code</li> </ol> <p>The Tera term screen should show a progress bar as the app code is downloaded and the card resets its self</p>	Type <b>192.168.42.11</b>  Type <b>192.168.42.10</b>  Type <b>710809Z</b>
9.	Remove all cable from the Eque card front and rear and replace it back into the matrix	<b>See Page 67-79 of the Eclipse V5.1 (rev6) upgrade manual</b>

[Return to top](#)

### Upgrading the Eque card FPGA

EQUE card FPGA upgrade		
<b>Requires the use of specialist equipment</b>		
1.	<b>Requires the use of specialist equipment</b>  <b>See Page 80-83 of the Eclipse V5.1 (rev6) upgrade manual</b>	

[Return to top](#)

## Upgrading the Eque card BOOT prom

The boot prom should be upgraded after the EQUÉ CARD application code has been upgraded		
EQUE CARD BOOT		
1.	<p><b>Upgrade the EQUÉ CARD BOOT prom</b></p> <p>You will need a 2Mb prom (ST27C2001)</p> <p>Use your normal prom programmer / burner to programme the device.</p> <p>The boot prom code can be found on the CDROM</p> <p>CDROM\Omega-Median\710810Z - E-Que Boot ROM\710810Z.srec</p> <p>The file is a S-record file</p> <p><b>NOTE: The file needs to be programmed using a offset (The load address of this S record is 0xFFF00000)</b></p> <p>For some programmers the offset is entered as xF00000</p>	

[Return to top](#)



## Upgrading the E-FIB card (Front / Rear) FPGA

E-FIB card FPGA upgrade		
<b>Requires the use of specialist equipment</b>		
2.	<p><b>E-FIB card FPGA upgrade</b></p> <p><b>Requires the use of specialist equipment</b></p> <p><b>See Page 70-73 of the Eclipse V5.1 (rev6) upgrade manual</b></p> <p><b>E-FIB Front card</b> CDROM\ Omega-Median\710793Z - Fibre Router (front) FPGA\ <b>710793Z.mcs</b></p> <p><b>E-FIB Rear card</b> CDROM\ Omega-Median\710794Z - Fibre Networking (rear) FPGA\ <b>710794Z.mcs</b></p>	Call ClearCom tech support about arranging for a COSTED visit to upgrade fibre cards

[Return to top](#)

## V-series panel upgrade

V-SERIES PANEL UPGRADE		
1.	<p><b>V-series panels</b> For ECS V5 – The V-series panel upgrade requires 3 steps</p> <ul style="list-style-type: none"> <li>a) upgrade Uboot</li> <li>b) upgrade Panel firmware</li> <li>c) upgrade the Panel Key module</li> </ul>	<p>Steps A &amp; B require the V-series panels to have a direct PC to panel connection The upgrade is done using a Ethernet Crossover cable.</p> <p>Step C can be done via ECS</p>

Waiting	for	Eclipse	U 0.0.11	K 2.6.16	A 0.19.0
M 0.20.0	- -	- -	M 0.20.0	172.16	86.101

Figure 2-118: Offline Panel Display for Rack Mount Panels

The image above shows the panel firmware status

U.0.0.11 = The Uboot firmware version

A.0.19.0 = The Application code firmware version

M0.20.0 = The Key module display firmware version

2.	<p>Check the UBOOT version of your V-series panel by unplugging the matrix comms cable – the V-panel offline mode will display all panel firmware versions</p> <p>For ECS V5 ClearCom strongly recommends that all panels have their U-boot code upgraded.</p>	<p>Or use ECS <b>matrix event log</b> and request “<b>matrix overview</b>” to show / check all panel firmware versions.</p> <p><b>U.0.0.11</b> = The Uboot firmware version</p> <p><b>A.0.19.0</b> = The Application code firmware version</p> <p><b>M 0.20.0</b> = The Key module display firmware version</p>
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<p>3.</p>	<p>To upgrade the V-series panel directly you need to use a <b>TFTP server</b> application and <b>upgrade each panel one at a time</b></p> <p>Set Your PC IP address IP address : 172.16.5.50 Subnet mask: 255.255.0.0</p> <p>Install the TFTP programme.</p> <p>CDROM\3rd_Party_Software\V-Panel TFTP Server App\ TFTPUtil_GUI_Version_1.3.0_Installer.exe</p> <p>Once installed run the <b>TFTPUtil GUI</b> programme</p> <p><b>Go to settings and set the path to be C:\tftp</b></p> <p>Create a folder on your hard drive</p> <p>C:\TFPT\RELEASE</p>	<p><b>See Page 109-114 of the Eclipse V5.1 (rev6) upgrade manual</b></p> <p>Note: your advised to switch OFF your PC wireless connection during the upgrade process</p> <p><b>Do not</b> use the TFTPUtil Client GUI</p> <p>When you start the TFTP. You should see in the bottom right hand corner of the TFTP screen the IP address that the TFPT server is using this should be 172.16.5.50</p>
<p>4.</p>	<p><b>Copy the following files into the C:\TFTP\RELEASE folder</b></p> <p>Uboot file: <b>U-Boot.ldr</b> InstallCD\Panel_Software\V-Series\Main_Board\710817Z -Panel UBOOT TFTP Image\U-Boot.ldr</p> <p>App code: <b>sbin.jffs2</b> InstallCD\Panel_Software\V-Series\Main_Board\710817Z -Panel UBOOT TFTP Image\sbin.jffs2</p> <p>File system: <b>vmlImage</b> InstallCD\Panel_Software\V-Series\Main_Board\710821Z -Panel Kernel\vmImage</p> <p>Root File System: <b>rootfs.cramfs</b></p>	<p>Copy all 4 files</p> <p><b>U-Boot.ldr</b> <b>sbin.jffs2</b> <b>vmlImage</b> <b>rootfs.cramfs</b></p> <p>into the C:\TFTP\RELEASE folder</p>

	<p>InstallCD \Panel_Software\V-Series\Main_Board\710822Z -Root File System\rootfs.cramfs</p>	
<p>5.</p>	<p><b>V-series panel Uboot ver 16 or earlier</b></p> <p>If the U-BOOT is Version 16 or EARLIER – Then you need to upgrade EACH panel directly using the PC.</p> <p>Start the TFTP GUI app Connect an Ethernet Crossover cable from your PC to the Ethernet port located on the rear of the Vpanel.</p> <p><b>Press and hold the Main and AUX volume pots.</b></p> <p>Power-cycle the V-series panel</p> <p><b>The 4x function Leds (mic on, h/s, menu, shift) should be flashing</b></p> <p>Release the Main and AUX volume pots.</p> <p><b>Pres and release the H/S button Press and release the SHIFT button.</b></p> <p>The TFTP programme should show the boot file downloading</p> <p><b>WAIT 1 complete minute</b> for the V-series panel to finish upgrading. When the upload is complete, the panel will reset itself, completing the procedure. After the panel has reset the display will be blank.</p>	<p><b>See Page 109-114 of the Eclipse V5.1 (rev6) upgrade manual</b></p> <p>Upgrade both Uboot and Panel application code</p> <p>Recommend that you switch off your laptop wireless connection when using the V-series panel TFTP server application</p>
<p>6.</p>	<p><b>V-series panel Application code</b></p> <p>Start the TFTP GUI app Connect an Ethernet Crossover cable from your PC to the Ethernet port located on the rear of the Vpanel.</p> <p><b>Press and hold the Main and AUX volume</b></p>	<p><b>See Page 109-114 of the Eclipse V5.1 (rev6) upgrade manual</b></p> <p>Upgrade both Uboot and Panel application code</p> <p>Recommend that you switch off</p>

	<p><b>pots.</b></p> <p>Power-cycle the V-series panel</p> <p><b>The 4x function Leds (mic on, h/s, menu, shift) should be flashing</b></p> <p>Release the Main and AUX volume pots.</p> <p><b>Press and release the SHIFT button.</b></p> <p>The TFTP programme should show the 3 files vmImage , rootfs-cramfs, sbin.jffs2 files downloading</p> <p><b>Wait</b> until the panel <b>completely resets</b> it self and <b>displays the offline status</b> <b>message</b></p> <p><b>“WAITING FOR ECLIPSE”</b></p> <p>screen before powering down the panel</p>	<p>your laptop wireless connection when using the V-series panel TFTP server application</p>
<p>7.</p>	<p><b>V-series panel Key module firmware</b> Once the V-series panel Uboot and Application have been upgraded then</p> <p>Upgrade the Key modules on the V-series panel</p> <p>Use the normal ECS panel firmware upgrade process to update the V-series panel Key module firmware</p> <p>Click here &gt;&gt; <a href="#">Use ECS to upgrade</a></p> <p>CDROM\ Panel_Software\V- Series\Display_Module\710819Z - Display PIC Application Code\710819Z.4kp</p>	<p>See file Panel_Software\V- Series\Display_Module\710819Z - <b>Display PIC Application</b> Code\xxx.4kp</p>

[Return to top](#)

## Upgrade CellCom / FreeSpeak beltpacks

<p>Belpack Application firmware upgrade</p>	<p><b>Using the FreeSpeak upgrade process</b></p> <p>Upgrade FreeSpeak BP beltpacks</p> <p>Install the FreeSpeak upgrader programme</p> <p>CDROM\ 3rd_Party_Software\Wireless System PC Tools\Belpack_Upgrader\v1.0.5</p> <p>Using the beltpack registration cable. Connect your PC to the BP</p> <p>Start the FreeSpeak upgrader application</p> <p>Power on the BP</p> <p>Navigate to the correct beltpack application file</p> <p>CDROM\ Wireless Beltpacks\ Belpack\ Select the Download button</p>	<p>You will need the FreeSpeak beltpack registration cable or</p> <p><b>See Page 5-9 of the CellCom / FreeSpeak (rev6.05) upgrade manual</b></p> <p><b>Note:</b> Any 3rd party software referenced in the CellCom-10/FreeSpeak-10 Firmware Update Procedure document (Part No 810372Z) is located on the Eclipse CD-ROM.</p> <p><b>Eclipse CD-ROM\ 3rd_Party_Software\Wireless System PC Tools</b></p> <p>Check the current Eclipse release note to determine the current version of BP firmware</p>
<p>Belpack Dect firmware upgrade</p>	<p><b>Using the Dect upgrade process</b></p> <p>Upgrade FreeSpeak BP beltpacks</p> <p>DECT flash loader programme</p>	<p>You will need the FreeSpeak beltpack registration cable or</p> <p><b>See Page 5-9 of the CellCom / FreeSpeak (rev6.05) upgrade manual</b></p>

	<p>CDROM\          3rd_Party_Software\Wireless System          PC Tools\DECT\DectLoader\  <b>Flash.exe</b></p> <p>Using the beltpack registration cable.          Connect your PC to the BP</p> <p>Using the <b>CellCom / FreeSpeak (rev4) upgrade manual</b></p> <p>Determine if your BP is a 2202, mkl or mkll</p> <p><b>For 2202 and Mkl BPs</b> – open the unit and set the internal dip switches to dect mode          Start the Dect loader application and follow the instructions as per the</p> <p><b>CellCom / FreeSpeak (rev6.05) upgrade manual pages 10-12</b></p> <p><b>For Mkll BPs</b> –          Start a Tera Term terminal session          Enter the code “# 0174” note there is a space after the ‘#’.</p> <p>This puts the BP into DECT upgrade mode</p> <p>Close Tera Term</p> <p>Start the Dect loader application and follow the instructions as per</p> <p><b>CellCom / FreeSpeak (rev6.05) upgrade manual pages 10-12</b></p>	<p><b>Note:</b> Any 3rd party software referenced in the CellCom-10/FreeSpeak-10 Firmware Update Procedure document (Part No 810372Z) is located on the Eclipse CD-ROM.</p> <p><b>Eclipse CD-ROM\          3rd_Party_Software\Wireless System PC Tools</b></p> <p>Check the current Eclipse release note to determine the current version of BP firmware</p> <p><b>For Mkll BPs</b> –          Start a Tera Term terminal session          Port settings 19200 8,N,1</p>
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[Return to top](#)

## Upgrade CellCom / FreeSpeak Antennas

<p>Antenna Application firmware upgrade</p>	<p><b>Using the FreeSpeak upgrade process</b></p> <p>Upgrade Antenna Firmware</p> <p>Install the FreeSpeak upgrader programme</p> <p>CDROM\ 3rd_Party_Software\Wireless System PC Tools\<b>Beltpack_Upgrader\v1.0.5</b></p> <p>Using the beltpack registration cable. Connect your PC to the BP</p> <p>Start the FreeSpeak upgrader application</p> <p>Power on the Antenna</p> <p>Navigate to the correct Antenna application file</p> <p>CDROM\ Wireless Beltpacks\ Antenna</p> <p>Select the Download button</p>	<p>You will need the FreeSpeak beltpack registration cable or</p> <p><b>See Page 13-15 of the CellCom / FreeSpeak (rev6.05) upgrade manual</b></p> <p><b>Note:</b> Any 3rd party software referenced in the CellCom-10/FreeSpeak-10 Firmware Update Procedure document (Part No 810372Z) is located on the Eclipse CD-ROM.</p> <p><b>Eclipse CD-ROM 3rd_Party_Software\Wireless System PC Tools</b></p> <p>Check the current Eclipse release note to determine the current version of Antenna firmware</p>
<p>Antenna Dect firmware upgrade</p>	<p><b>Using the Dect upgrade process</b></p> <p>Upgrade Antenna Dect firmware</p> <p>DECT flash loader programme</p> <p>CDROM\ 3rd_Party_Software\Wireless System</p>	<p>You will need the FreeSpeak beltpack registration cable or</p> <p>You may also need a jumper link as part of the upgrade process</p> <p><b>See Page 16-18 of the</b></p>



	<p>PC Tools\DECT\DectLoader\ Flash.exe</p> <p>Using the beltpack registration cable. Connect your PC to the Antenna</p> <p>Using the <b>CellCom / FreeSpeak (rev4) upgrade manual</b></p> <p>Determine if your Antenna uses a Kirk or RM5 RF module</p> <p>Follow the details in the <b>CellCom / FreeSpeak (rev4) upgrade manual pages 16-18</b></p>	<p><b>CellCom / FreeSpeak (rev4) upgrade manual</b></p> <p><b>Note:</b> Any 3rd party software referenced in the CellCom-10/FreeSpeak-10 Firmware Update Procedure document (Part No 810372Z) is located on the Eclipse CD-ROM.</p> <p><b>Eclipse CD-ROM\3rd_Party_Software\Wireless System PC Tools</b></p> <p>Check the current Eclipse release note to determine the current version of Antenna firmware</p> <p>You may also <b>need a jumper link</b> as part of the upgrade process</p>
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[Return to top](#)

<p><b>FREESPEAK SPLITTER</b></p>		
<p>1.</p>	<p>Using the <b>FreeSpeak upgrader application</b></p> <p>Upgrade FreeSpeak Splitter</p> <p>Install the FreeSpeak upgrader programme</p> <p>CDROM\ 3rd_Party_Software\Wireless System PC Tools\<b>Beltpack_Upgrader\v1.0.5</b></p> <p>Using the beltpack registration cable. Connect your PC to the Splitter</p>	<p>You will need the <b>FreeSpeak beltpack registration cable</b></p>

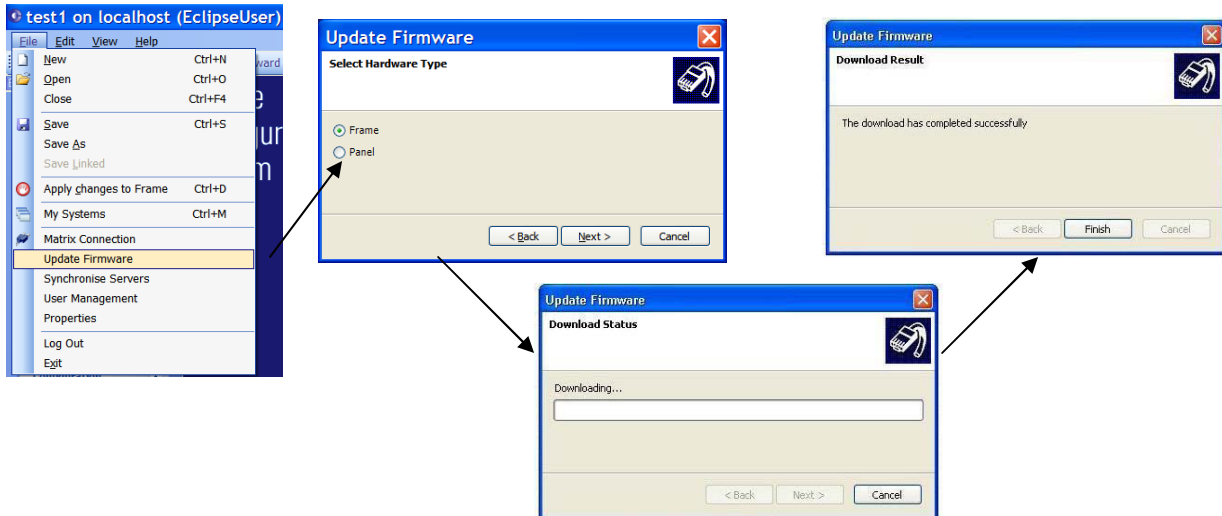
	<p>Start the FreeSpeak upgrader application</p> <p>Power on the Splitter</p> <p>Navigate to the correct Splitter application file</p> <p>CDROM\ Wireless Beltpacks\Splitter</p> <p>Select the Download button</p> <p>Check the current Eclipse release note to determine the current version of Splitter firmware</p>	
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[Return to top](#)

## Upgrading the Eclipse-Pico / E32 Rack Application from V4.2 / V5.0 to V5.1.1

RACK CODE UPGRADE		
1.	<p><b>Using ECS V5</b></p> <p>a) Upgrade the CPU on the E-Pico / E32 on the matrix</p> <p>b) Send the rack code</p> <p>c) Download your map</p>	<p>Note after the first upgrade the CPU status LED will double flash to show NO map –</p> <ul style="list-style-type: none"> <li>- This is normal</li> <li>- Then download your map to complete the upgrade process</li> </ul>

From ECS select “File -> Update Firmware” from the main ECS menu.



Select the Frame button

Click on “Next” and then browse to the appropriate **xx.4KR** file.

Click on “Next” and confirm that the details displayed are correct.

Click on “Next” and confirm that the download commences.

### Rack firmware file

Matrix	Firmware location on CDROM
E-Pico E-32	CDROM\E-Pico E-32\710749Z - Application Code\710749Z.4kr

[Return to top](#)

## Upgrading the AES-6 Application code

<p>AES-6 CARD Application firmware upgrade</p>		
<p>1.</p>	<p><b>Using the AES-6 upgrade process</b></p> <p>Upgrade AES-6 card</p> <p><b>See Page 121 – 126 of the Eclipse V5.1 (rev6) upgrade manual</b></p> <p>Start the MVX upgrader programmer</p> <p>Renesas\FDT-3.4 Basic</p> <p>Select Options / New settings</p> <p>And set the following</p> <p>Select Device: H8S/2318F</p> <p>Select Port: COM1 (change to match COM port present on the PC)</p> <p>CPU Frequency: 25.00000 MHz</p> <p>Connection: BOOT mode</p> <p>Recommended Speed:</p> <ul style="list-style-type: none"> <li>◆ Turn off “Use Default” and set to 9600</li> </ul> <p>Protection: Automatic</p> <p>Messaging: Advanced</p>	<p>You will need the FreeSpeak beltpack registration cable or Eclipse-Pico serial download cable</p> <p>You may also need a jumper link and a Paper clip to reset the AES-6 card</p>
<p>2.</p>	<p>1. Fit the AES-6 card into a IMF frame .</p> <p>2. <b>There should be a jumper on J6.</b></p>	<p><b>See Page 121 – 126 of the Eclipse V5.1 (rev6) upgrade manual</b></p>

	<p><b>Move it to J3.</b></p> <p>3. Connect the serial cable to the front of the AES-6.</p> <p>4. Reset or power-cycle the card so the jumper change takes effect.</p> <p>5. Using the FDT 3.4 Basic application download the AES-6 application:</p> <p>CDROM\<b>Other_Software</b>\710813Z - AES-6 Application\<b>710813Z.mot</b></p> <p><b>6. When the download is complete, move the jumper on J3 back to J6.</b></p> <p>7. Reset or power-cycle the card to complete.</p> <p>8. At this point, the card will run normally, if an FPGA image is present, or, if an FPGA image is not present, it will prompt for an FPGA image; please see the AES-6 FPGA upgrade instructions for information.</p>	
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[Return to top](#)

## Upgrading the AES-6 FPGA firmware

<p>AES-6 CARD FPGA upgrade</p>		
<p>1.</p>	<p>Using the Tera Term terminal programme</p> <p><b>See Page 121 – 126 of the Eclipse V5.1 (rev6) upgrade manual</b></p> <p>Start the Tera Term application Set the serial port settings to</p> <p>Baud rate: 57600 Parity: None Data Bits: 8 Stop Bits: 1 Flow Control: None</p>	<p>You will need the FreeSpeak beltpack registration cable or Eclipse-Pico serial download cable</p> <p>You may also need a jumper link and a Paper clip to reset the MVX card</p>
<p>2.</p>	<p>1. Fit the AES-6 card into a IMF frame .</p> <p>2. Connect the serial cable to the front of the AES-6</p> <p>3. Reset or power-cycle the card</p> <p>4. After the boot up screen</p> <p>Type "testmode" into the TeraTerm window and hit return. This will cause the card to enter test mode and will display the following test menu</p> <p>5. Select option 6, "Download FPGA Image".</p> <p>You will be prompted to delete the old FPGA image. This needs to be done, so press "Y". (Note that key entry is case sensitive, so caps lock needs to be on).</p>	<p><b>See Page 121 – 126 of the Eclipse V5.1 (rev6) upgrade manual</b></p>

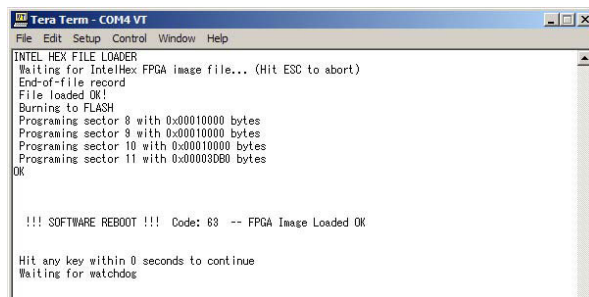
The card will then delete the old image and then prompt for a new FPGA image

6. In TeraTerm, select Send File and select the FPGA image.

CDROM\ **Other\_Software**\710814Z - AES-6 FPGA\**710814Z.mcs**

7. During the download the six yellow LEDs should be illuminating in a circulating anti-clockwise direction.

8. When the download is complete, the six yellow LEDs should be off and the following text should be displayed in TeraTerm:



```
INTEL HEX FILE LOADER
Waiting for IntelHex FPGA image file... (Hit ESC to abort)
End-of-file record
File loaded OK!
Burning to FLASH
Programming sector 8 with 0x00010000 bytes
Programming sector 8 with 0x00010000 bytes
Programming sector 10 with 0x00010000 bytes
Programming sector 11 with 0x00003060 bytes
OK

!!! SOFTWARE REBOOT !!! Code: 63 -- FPGA Image Loaded OK

Hit any key within 0 seconds to continue
Waiting for watchdog
```

9. Remove all cables

10. Reset or power-cycle the card to complete.

[Return to top](#)