

Geneos RCP-KM1 and RCP-KMQ CPU Upgrade Procedure

Introduction

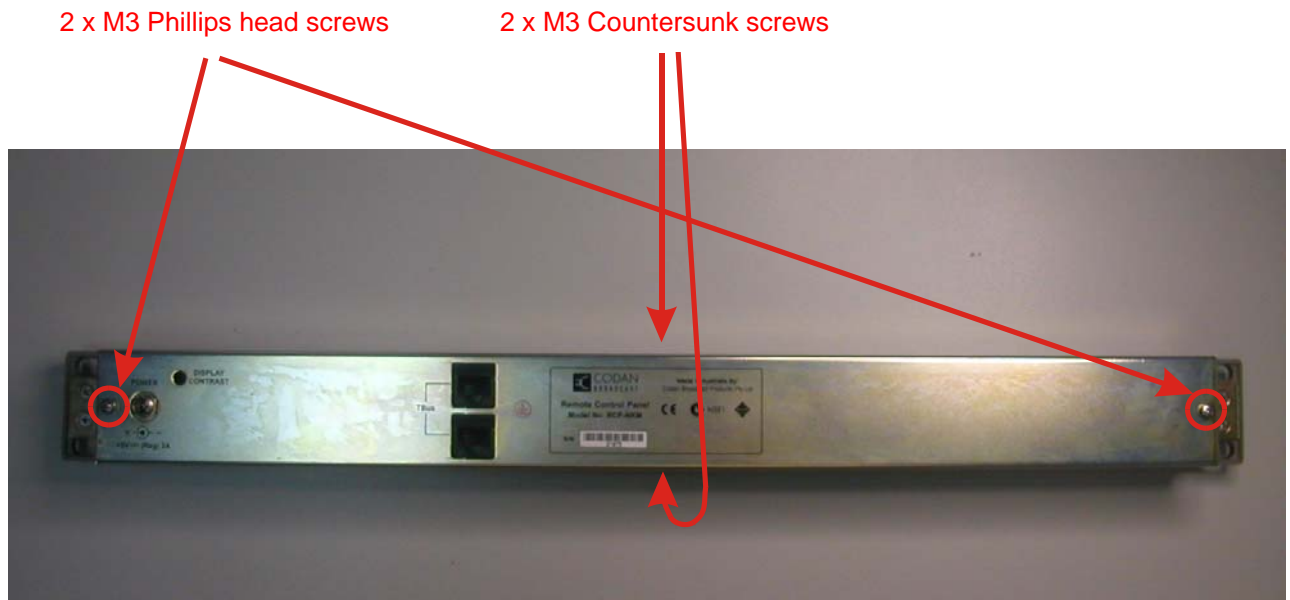
This engineering note describes the procedure for upgrading the CPU board in Geneos RCP-KM1 and RCP-KMQ control panels for use in NK Series routing systems.

The following table shows the applicable CPU board part numbers:

Geneos Control Panel	Geneos CPU Board	Upgrade CPU Board	NK Series Functional Equivalent of Upgraded Panel
RCP-KM1	806-1001	806-1007 (NKM-CPU)	RCP-NKM
RCP-KQ1	806-1003	806-1006 (NKQ-CPU)	RCP-NKQ

Step 1 - Remove the Back Panel

Using a size 1 Phillips head screw driver remove the 4 screws shown below and remove the back panel.

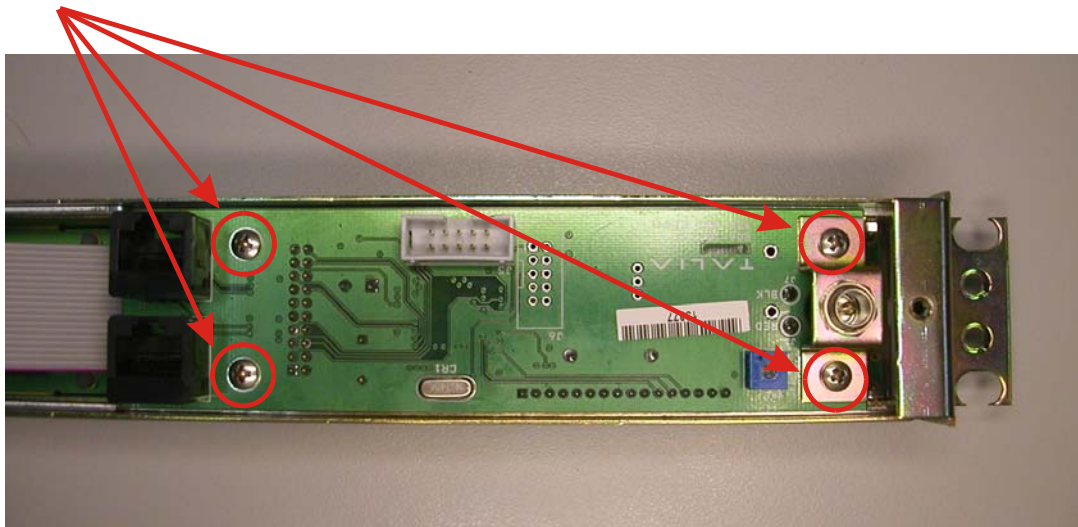




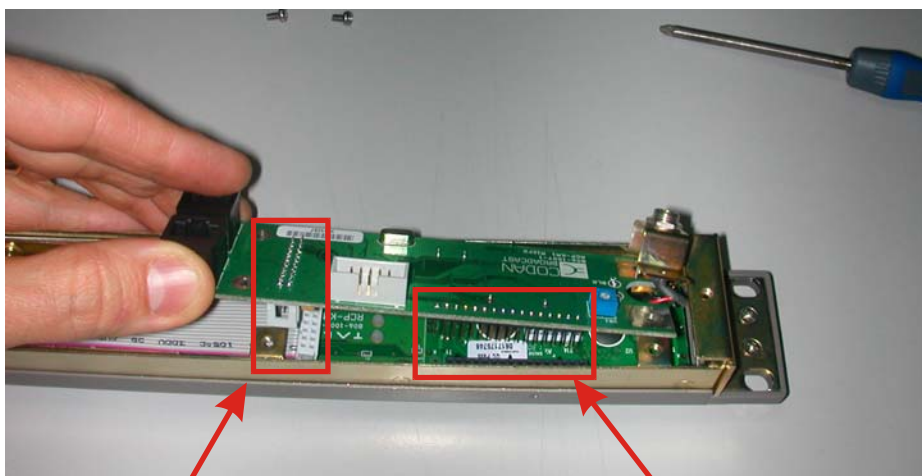
Step 2 - Remove the Geneos CPU Board

Using a size 1 Phillips head screw driver, remove the 4 Phillips head screws shown below:

4 X Phillips head screws



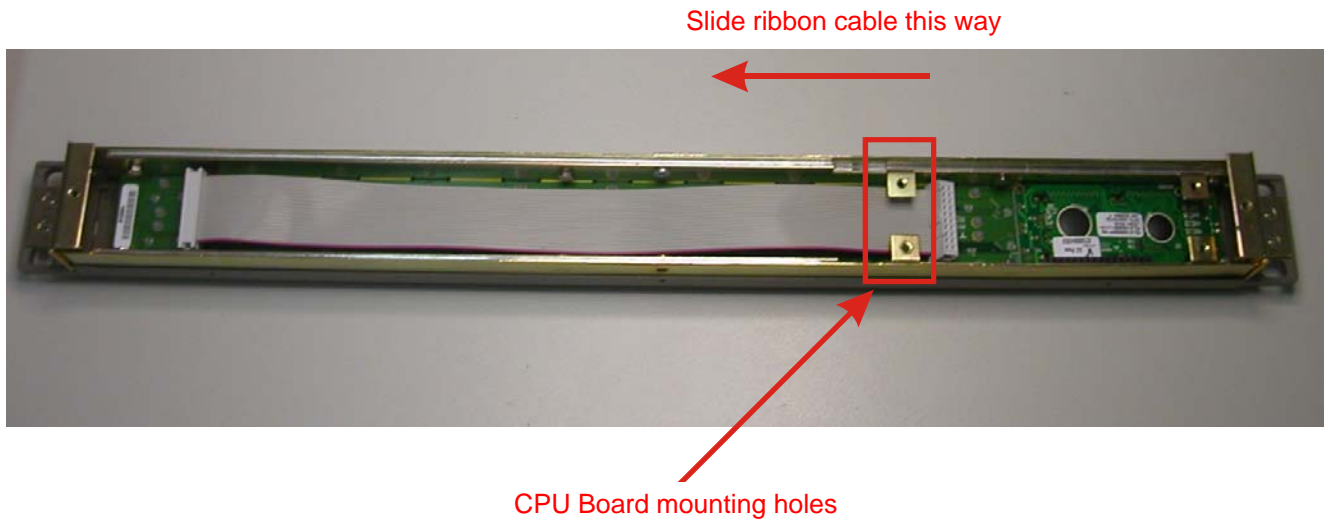
Once all 4 screws have been removed, very gently lift the CPU Board out of the chassis. There is a single row of header pins under the CPU Board which can be easily damaged. Also there is a 20 way IDC header with a ribbon cable attached to it. Once the CPU Board is separated from the header pins, carefully remove the CPU Board from the 20 way IDC cable.



20 way IDC header

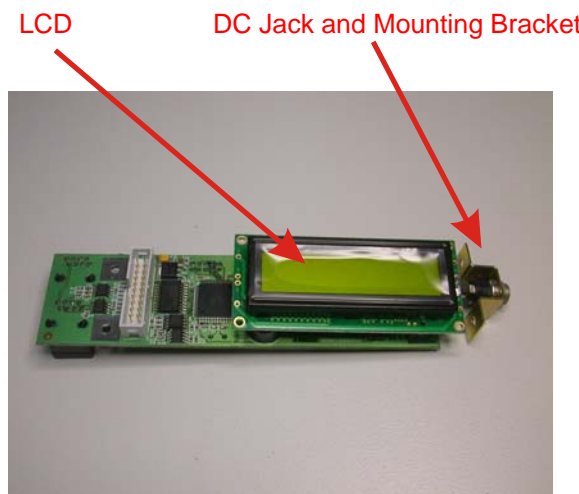
Single row of header pins

Once the CPU board has been removed unplug the other end of the ribbon cable from the header. Remove the ribbon cable from the chassis by sliding it under the CPU Board mounting holes.

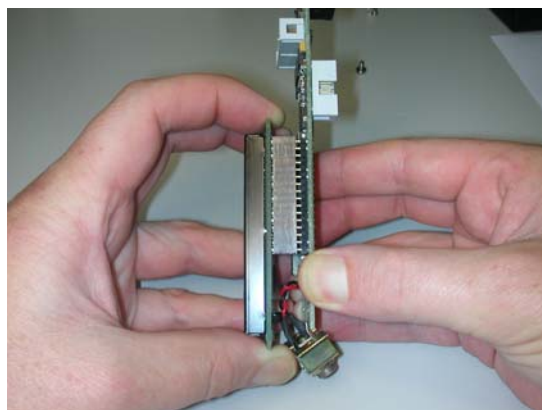


Step 3 – Attach the New CPU Board

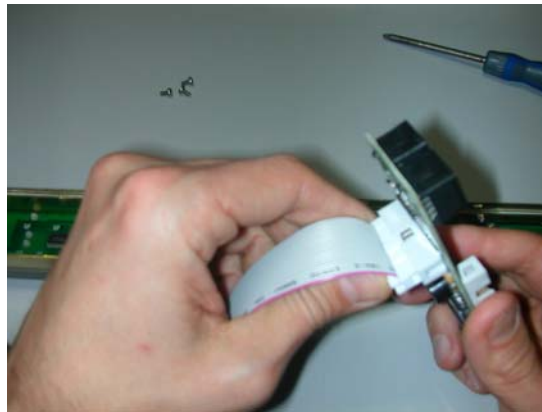
The replacement CPU Board has an LCD attached, along with the DC Jack and mounting bracket.



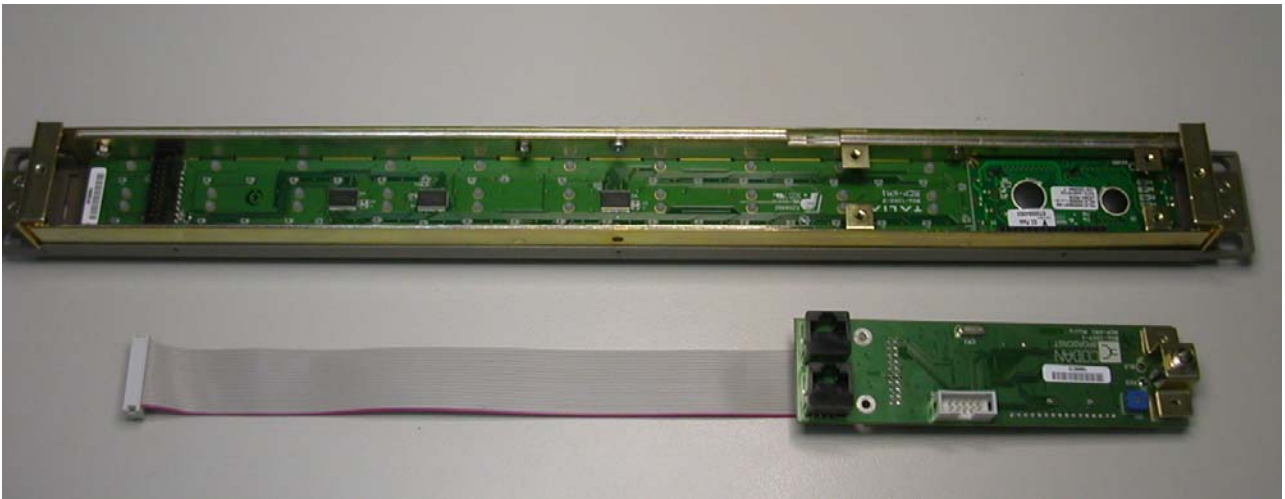
Gently grip the sides of both the main PCB and the LCD. Slowly separate them, ensuring that the pins on the CPU Board are straight and not damaged in any way. (The LCD is not required when replacing the CPU Board as the existing LCD mounted on the panel chassis will be used).



Place the 20 way ribbon cable onto the new CPU Board ensuring that the orientation is correct. There is a mounting key on both the header and plug. The plug should slide into the header easily without any force.

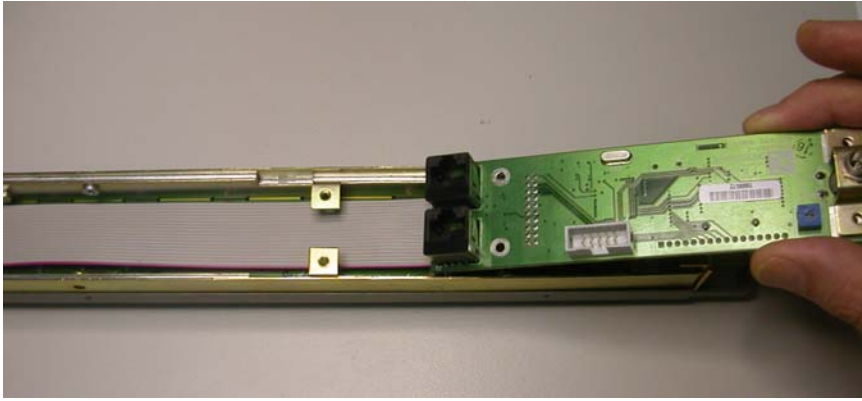


Below is a picture of the ribbon cable connected to the new CPU Board and ready to put into position:

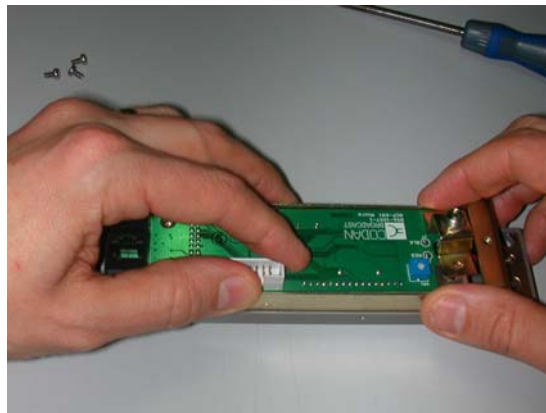


Place the end of the ribbon cable under the CPU mounting holes and slide it along to the header at the other end. This will bring the CPU Board in place.





Carefully line up the single row header connector and then push the CPU Board into position, ensuring that both the ribbon cable and header pins are correctly aligned.



Plug the other end of the 20 way ribbon cable into the header as shown below:



Carefully screw the new CPU Board into position ensuring not to over tighten the screws.



Step 4 – Reassemble the Panel

Once the new CPU Board has been screwed into position replace the back panel which was removed in Step 1.

When all this is done, the CPU Board upgrade has been completed.