

LK 1 1MHz Bus Audio Input/Output. (Two position link).  
In the A position the 1MHz Bus signal is an input to the computer's audio mixer.  
In the B position the 1MHz Bus signal is an output from the computer's audio circuit (Minimum load 1K ohm) .  
This link is a permanent track in the A position. This track must be cut before a wire link is used to make the B position.

LK 2 Cartridge -5V decoupler. (One position link).  
In some instances, particular cartridge hardware may need a -5V supply that is decoupled from the main computer -5V load. To do this R9 needs to be fitted and LK2 which is a track on the circuit board should be cut.

LK 3 Not present.

LK 4 Clock chip IRQ. (One position link).  
The 6818 clock/RAM chip has a daily alarm function built in. When the alarm is triggered , the CPU is interrupted via its IRQ line. Fitting a shorting link over LK4 connects the CPU IRQ line to the clock line. This function is not supported by the operating system as this feature may not be present in future versions of the circuit board. Consequently the clock chip must be directly operated by the application software. Note that this will violate ACORN programming recommendations. This link is not fitted as standard.

LK 5 CSYNC polarity. (Two position link).  
The polarity of the composite synchronisation signal is determined by this link. It is supplied as a track on the p.c.b. causing negative synchronisation polarity . This track must be broken and a piece of wire used to make the other side of the link for positive synchronisation.

LK 6(0) and LK 6(1) Main Clock Select. (Multi-function link).  
This group of 4 pins can take either one or two shorting bars as follows :  
- Link between A and B - The computer main 16 MHz reference is provided by on-board circuitry. This is normally how computers are shipped.

Link between B and D - The computer main 16 MHz reference must be provided from pin A17 on either of the cartridge connectors - in this case a clock source MUST be provided or the dynamic memories could be damaged. To prevent this possibility, cartridges providing this facility MUST be fitted in such a way that they are not removable without dismantling the computer. A suitable cartridge locking bar is available from Acorn.

- Link between C and D - The cartridges are clocked by the 8 MHz signal from the computer. This is a synchronous signal with the 2 Mhz (02) signal, also supplied to the cartridges. Note that the link between A and B must also be fitted.

LK 7 Video polarity . (Two position link).  
The polarity of the video RGB signals is determined by this link. It is supplied as a track on the p.c.b. causing true polarity. This track must be broken and a piece of wire used to make the other side of the link for negative polarity .

LK 8 Not present.

LK 9 Present, but not significant.

LK 10 Channel Select. (Two position link).  
When used with NTSC V.H.F. televisions, the modulator enables one of two channels to be selected.

Note that the computer as supplied for use in the U.K. is fitted with a U.H.F. modulator and so no channel select and hence LK 10, are provided.

LK 11 Not present.

LK 12 Cartridge Machine Detect/ Csync. (Two position link).  
Position B - The link position as shipped.  
Certain hardware cartridges may need to detect whether they are plugged into a Master Series computer or an Acorn Electron. Master Series computers are shipped with this link in the B position, causing a logic LOW to appear on pin A 1 0 of the cartridges. The Electron has no connection to this pin.  
Position A CSYNC.  
This connection to the computer CSYNC line is provided for GENLOCK purposes.

LK 13 AID converter reference select. (Two position link).  
As shipped, this link is a track causing the AID converter reference voltage input to be 1.8 V . If this track is cut then either of two other voltage references can be used:  
- A voltage applied between analog ground and Vref on the external connector .  
- A precision reference can be fitted in the position PR1 if the other side of the link is made with wire.

LK 14 Serial data clock reference. (One position link).  
As shipped, this link is a track on the printed circuit board connecting the CHROMA chip 1.23MHz output to the Serial Processor. This link is provided for production purposes and should not be modified.

LK 15 P AL/NTSC select. Two position link.  
As shipped, in the U.K., this link is a track causing the CHROMA chip to encode colour information onto television output in PAL format. If the track is cut and a wire link used to make the other side of the link, then colour information will be encoded in NTSC. In general, televisions within the U.K. can only accept the PAL format.

LK 16 Chrominance information luma trap bypass. (One position link).  
This link is not normally fitted. It is provided for those applications where filtering of the luminance information from the chrominance part of the television signal is not required.

LK 17 Not present.

LK 18 Paged ROM/RAM Select. (Two position link).  
When fitted in the WEST position, this link causes 16 Kbyte of RAM to appear in each of the ''sideways'' memory "slots" 6 and 7. When fitted in the EAST position, a 32Kbyte ROM occupying slots 4 and 5 may be plugged into socket labelled IC41.

LK 19 Paged ROM/RAM Select. (Two position link).  
When fitted in the WEST position, this link causes 16 Kbyte of RAM to appear in each of the ''sideways'' memory "slots" 4 and 5. When fitted in the EAST position, a 32Kbyte ROM occupying slots 6 and 7 may be plugged into socket labelled IC37.

LK 20 Not present.

LK21 Light Pen Strobe to cartridge.  
This link is not normally fitted and so position B10 on the cartridges is merely a connection from one to the other. When the link is fitted, the CRTIC Light Pen Strobe input is connected to B10 . This is to facilitate

GENLOCK and an alternative LPSTB connection to the rear analogue connector .