

LK1 Control Board Upgrade Procedure

Important – Anti-static precautions must be taken when carrying out the following upgrade – the LK1 circuitry contains many static sensitive devices, which are easily damaged by tiny static discharges from your body (that you will not be aware of). Use an anti-static earthing mat and wrist strap when working on an LK1 with its sleeve removed or when handling any of the circuit boards or spare parts.

Estimated time for completion of this task: 1 hour

Symptoms

The front panel of the LK1 will lock up and the LK1 will not function at all. Fault may be intermittent. It is recommended that you read through this procedure before proceeding to check that this mod has not already been carried out.

Units affected

No precise serial number details are available, but this problem affects LK1s sold prior to 1987 which have not already been upgraded.

Equipment Required

No1 Posidrive (Supadrive) Screwdriver
Soldering Iron, temperature controlled 25 watt with fine tip
Small flat-blade screwdriver
Solder Sucker
Fine solder
Fine Pliers
Fine side cutters
Soft cloth

Parts Required

22pF Capacitor – Linn part no: CAP 047
22Kohm resistor – Linn part no: RES 025
Programmed EEPROM – Linn part no: IC 016 (a programmed EPROM will have its window covered with a label and this label will normally read 'MK3'.)

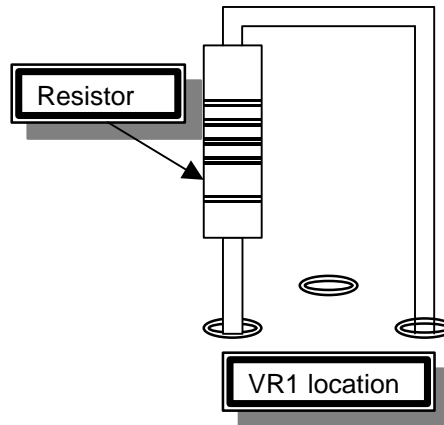
Procedure

Take anti-static precautions!

1. Disconnect LK1 from everything and especially the mains
2. Remove sleeve
3. Disconnect the ribbon cable (connecting control board to main board) from P1 main board.
4. Remove the control board from the facia: -
 - a. Take the soft cloth and spread it on the bench to protect the facia
 - b. Unscrew the 4 screws holding the facia to the tray and carefully lift the facia away from the tray. Be very careful as the facia will still be attached to the tray by the wires going to the mains switch – do not tug the wires.



- c. Lay the facia face down on the cloth & also use the cloth to protect the edge of the facia from being scratched by the edge of the tray.
 - d. Remove the 5 screws that hold the control board on to the facia.
 - e. Lift the board out of the facia.
5. Replace VR1: -
- a. De-solder, remove & discard the potentiometer (3-pin variable resistor) from location VR1
 - b. Fit & solder the 22K resistor at VR1 – use the 2 outside pads of the location and leave the middle pad empty. Bend the resistor as shown and insert it so that it stands up as shown below.



6. Replace the EEPROM: -
- a. Take the small flat-blade screwdriver & very carefully prise the EPROM – U9 out of its socket. Gently lift one side slightly, then lift the other side slightly – repeat – going from one side to the other until the EPROM is clear of the socket – remove the EPROM and lay aside on an anti-static mat.
 - b. Take the new EPROM and try it against the socket – you may find that the legs require to be bent inward slightly to make it fit – do this very carefully on a flat anti-static surface.
 - c. Ensuring correct orientation, place the EPROM onto the socket. The small notch at one end of the EPROM should correspond with the mark on the silk screen. If correct, the notch should be facing toward the large IC, U6.
 - d. Ensure all legs are located correctly in the socket.
 - e. Push the EPROM fully home and check that all the legs have gone into the socket – make sure no legs are bent inward (underneath the EPROM) or outward.
7. Remove capacitor C16, if fitted – snip both legs of C16 – discard the capacitor and leave the location empty.
8. Replace capacitor C15 – de-solder and remove the part fitted and then fit the 22pF capacitor in its place.
9. Re-assemble the LK1 (do the opposite of dis-assembly) and check unit fully.

