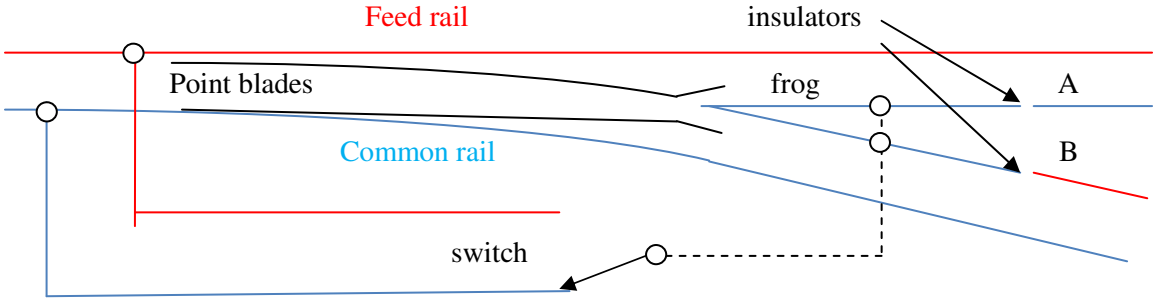
HINTS AND TIPS 1

LIVE FROG POINTS

These are a better idea for ensuring continuity of track work electrically.
With this method the frog of the point is switched between the feed rail and common return rail see fig. 1 As you can see in this diagram the point blades are switched to the common rail so both rails on the curve are at common so no power is available to the locomotive on the track at the curve section at the frog and there has to be an insulator at each rail of the frog to ensure no short circuit can occur. When the point blades are switched to the feed rail then the frog becomes a feed and the curve is operational, the straight section becomes at feed potential on each rail and therefore no current can be fed to the locomotive sections marked A and B are switched on or off as required.



HOW A CDU WORKS

A CDU is a device for operating points and is shown in simple form below fig.1.
When the switch is at A the capacitor charges from the supply after the diode 1 has converted it to dc . the voltage cannot discharge even if the supply is removed as diode D2 prevents it flowing backwards . When the switch is operated the charge at the + ve end of the capacitor discharges into the point motor operating the point. The capacitor remains discharged as resistance of R1 is much higher in value than the point coil so no voltage exists and the point coil does not burn out. When the switch is released the capacitor re-charges ready for next time. Several switches and point coils can be connected to the capacitor so the whole layout can operate from one CDU.