



Slave Clock power supply method using the EC4A

The EC4A uses a Capacitor discharge system to give best possible battery life and a good driving force to the clock mechanism. This is rated at a maximum supply level of 16v, however I have found that 9v will drive most clocks perfectly well.

The length of the pulse has a significant effect on battery life, so driving the clock with the shortest pulse length (60mS) will give the longest battery life.

On the clocks that I have tested I have used 9v and the coil has been 24Ω or made up to approx 24Ω with a resistor in series. This gives an instantaneous driving current of approx. 375mA

Averaged out this equates to the running period shown in the charts below.

I can include a resistor in the coil lead if required. You will need to know the resistance of your coil.

Using high quality Alkaline 'AA' cells

	30 sec pulse (120 per hour)	60 sec pulse (60 per hour)
62mS	9 months	18 months
120mS	5 months	10 months
240mS	3 months	7.5 months

Using high quality Alkaline 'C' cells

	30 sec pulse (120 per hour)	60 sec pulse (60 per hour)
62mS	26 months	52 months
120mS	15 months	29 months
240mS	9 months	21 months



It is **ESSENTIAL** that the battery connections are made the correct way around



Slave Clock power supply method using the EC4A - cont.

These are the options that Electric Clocks offers for the EC4A driver

'AA' cell battery holder

A six pack of 'AA' batteries can fit easily behind most clocks. the battery holder has foam double sided tape for sticking/supporting to the inside of the clock and comes pre-wired to the Impulse Driver.

Good quality batteries will last longest

Holder size: 58mm x 47mm x 30mm high

4 + 2 'C' cell battery holders

This option is for a 4 cell holder and a 2 cell holder. This is especially useful where space is tight. The holders are wired together to provide the 9v suggested to run the clock mechanism. The battery holders have holes for fixing and come with a sticky pad on the reverse. Comes pre-wired to the driver board.

Holder sizes: 108mm x 56mm x 28mm high and 63mm x 56mm x 28mm high

6 'C' cell battery holder

This option is for a 6 cell holder. This is the most straightforward option if space is available. The 6 cell holder provides the 9v suggested to run the clock mechanism. The battery holder has holes for fixing and come with a sticky pad on the reverse. Comes pre-wired to the driver board.

Holder size: 158mm x 56mm x 28mm high

It is **ESSENTIAL** that the battery connections are made the correct way around



Slave Clock power supply method using the EC4 - cont.

Using plug in Power Supply Unit

Using a modern efficient Switch Mode plug in power supply which is not much bigger than a standard UK plug, is a good option.

The PSU connects straight to the driver and supplies both the 9v to drive the clock and the 5v to run the impulse driver.

If you use an external Regulator system the PSU plugs straight into the regulator box via a standard 2.1mm connector. The regulator unit is plugged onto the board for the 5v and attached to the screw terminals for 9v.

No batteries are required at all.

PSU lead: 1.4 metres long

Power consumption: less than 1Watt

Regulator box size: 40 x 28 x 18mm