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### Notes

1. IC2 Q4 has a period of 30 secs (15s on, 15s off)
2. For the above to be true then IC1 needs to output 16 pulses in 30 secs. Period =  $30/16$  or 1.875 secs.
3. Every 30s IC3 is clocked. On the first pulse D0 goes high, on second pulse D0 goes low & D1 goes high etc etc.
4. After **B** (D2) goes low D3 (Inhibit) goes high and fed back to Pin 13, blocks any further clock pulses to IC3  
IC3 will now stay with **A=0, B=0, Inhibit=1** until a reset signal (Pin 15 High) appears.  
The inhibit goes high after 90 secs  $\equiv 90/1.872$  pulses  $\equiv 48$  pulses
5. IC2 continues counting until Q5,6,7 & 9 are all high i.e.  $(Q5)16 + (Q6)32 + (Q7)64 + (Q9)256$  pulses  $\equiv 368$  pulses  
If we subtract the original 48 pulses then the inhibit will be high for 320 MCik pulses  $\equiv 320 \times 1.875s \equiv 600s \equiv 10$  minutes
6. When Q5,6,7 & 9 are high then this resets IC2 & 3 and the process repeats
7. Please check the timing waveform on the next page

