



I have had some success with increasing the value of C8 to 470nF which reduced the tendency for misoperation when triggering with a cheap bouncy bell push

One example of this board I have seen had the motor end limit switch connected to the wrong terminal. The PCB will show that it can easily be misassembled in that way. The connection shown here is the correct one.

overload prevented for 0.25s after start

Counter timeout = $2 \times 13 / 37 = 3.5$ minutes

Oscillator approx 37Hz

Messex LiftBoy GB1 schematic Reverse engineered from PCB by John W Cook. V1.01 updated November 2018 (Updated component type for relays) This schematic is for indication only. I cannot offer any guarantee of its accuracy Use this at your own risk

#Note 1
There is a problem with this node (clock node for monostables). It is floating at dc. I thought this was a fault with my pcb tracing but I've rechecked many times and I'm pretty sure this is true. This is very bad practice and makes circuit operation unpredictable. R7 seems to serve no particular purpose. Probably the intention was for it to be a bias resistor but instead it is useless in series with one of the monostable's clock input.

#Note 2. R8 also seems to serve very little purpose. There is already an input resistor integrated inside the ULN2004 driver.

I traced this board when diagnosing a fault. The fault turned out to be RL3 contacts not mating. At time of writing can buy these relays for £1.95 from Farnell

grey - motor end limit switch
yellow - overload switch
green - door end limit switch
black - control connector centre = operate
pink - limit switches & overload switch common = 12Vreg
white - control connector RHS = 0V
red - control connector LHS = 24Vunreg
blue - neutral
white - capacitor and motor
black - capacitor and motor
red - courtesy lamp
brown - live

