

TROUBLESHOOTING

****DO NOT PLUG THE UNIT INTO AN OUTLET UNTIL THE POWER SUPPLY WIRING HAS BEEN CHECKED****

****MAKE SURE THE WIRES TO THE TRANSFORMER HAVE SHRINK TUBES ON THEM AND HAVE BEEN SHRUNK WITH THE HEAT GUN****

*****DO NOT INSERT IC CHIPS JUST YET!!!*****

- PLUG IN THE DIGITAL TRAINER TO AN OUTLET AND USING A MULTI-METER CHECK THE VOLTAGE (V) ON THE PC BOARD. (**RED LEAD** TO V; **BLACK LEAD** TO GND) IF TAKING EMT1150L USE THE METER IN THE LAB KIT OTHERWISE BORROW A METER FROM THE TECHNICIAN.
- WHEN CHECKING '**C1**' THE METER SHOULD READ $\approx 12V$
- WHEN CHECKING THE '**5V REGULATOR**' (7805) THE METER SHOULD READ $\approx 5V$.
- CHECK THE **+5V** AND **GND** FROM BOTH THE PC BOARD AND TERMINAL STRIP ON THE TOP OF THE DIGITAL TRAINER. THE METER SHOULD READ $\approx 5V$.

ONCE PROPER VOLTAGE IS CHECKED, INSERT THE IC CHIPS AND THE 14&16 PIN RIBBON CABLES TO THE PC BOARD. (MAKE SURE WIRE 1 IS ON TOP)

*****ALL 3 IC CHIPS NOTCHES SHOULD BE FACING THE 16 PIN*****

USING A WIRE (WITH BOTH ENDS STRIPPED) OR ALIGATOR WIRE, CHECK THE FOLLOWING POINTS:

- L.E.D.'S – ONE END OF THE WIRE SHOULD BE ON THE **5V** OF THE TERMINAL STRIP WHILE THE OTHER END TOUCHING POINTS: **T1, T2, T3, T4, T5** (EACH L.E.D. SHOULD LIGHT UP WHEN TERMINAL IS TOUCHED ONE AT A TIME)

ONE END ON '**PROBE**' THE OTHER END ON: * **+5V** RED L.E.D. (HIGH) LIGHTS UP, * **GND** GREEN L.E.D. (LOW) LIGHTS UP, * '**TIMER**' RED AND GREEN L.E.D. ALTERNATE ON AND OFF BETWEEN THEM, WHEN THE DIAL IS TURNED ON THE **POTENTIOMETER** THEY SHOULD SPEED UP OR SLOW DOWN.

- TOGGLE SWITCHES – ONE END OF THE WIRE ON 'PROBE' THE OTHER END OF THE WIRE ON THE TERMINAL STRIP ABOVE THE TOGGLE SWITCHES, RED AND GREEN L.E.D.'S SHOULD LIGHT UP ALTERNATING BETWEEN THE POSITIVE AND NEGATIVE POINTS. FLIP TOGGLE POSITIONS AND LIGHTS SHOULD LIGHT UP IN THE OPPOSITE SEQUENCE.
- MOMENTARY SWITCHES – ONE END OF THE WIRE ON 'PROBE' THE OTHER END ON Q1, WHEN SWITCH 1 IS PRESSED THE RED AND GREEN L.E.D.'S SHOULD "BOUNCE" BETWEEN THEM. WHEN THE OTHER END IS ON Q2 THE OPPOSITE LIGHTS SHOULD "BOUNCE". REPEAT FOR Q2 & Q1 WITH SWITCH 2.

