

APGAR TIMER

VM3/COP/47.01

Date: 10-Sep-02 **Revision date: 7-Apr-11** Issue: 3



Equipment required: Dremell multi-tool, Dremell small grinding wheel, Soldering iron (0060120), Solder (0050012), De solder tool (0060127), Flush cutter (0060010), M5 Socket drive, Loctite 242 thread-lock, Hand Drill, 4mm Drill Bit, Philips screwdriver no.1, Screwdriver set (0060090), Hacksaw, Band saw, Silicon Polish (0050127)

Parts list: Kit and parts required.

Parts		
Qty	Description	Part No.
1	Dovetail attachment	0330030
2	M4 x 12 Screw & washer	0330070
2	M4 Full Nut	0330075
1	Switch Normally Closed	0330500
1	Button Cap Black	0330501
1	Label front panel. Digital timer	0330502
1	Label top panel. Digital timer	0330503

^{*} NB: When removing the unit from the original packaging, take care not to damage the box or bubble wrap, (instruction leaflet supplied is to be discarded) as it will be used to repack the finished component.



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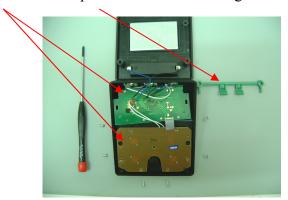
ASSEMBLY OPERATIONS

1. Dismantle casing by removing 6 screws in the rear of the unit.





2. Disassemble circuit board and position bar via fastening screws.



3. De-solder the wire from the positive terminal of the battery connection of the lower case.



4. Cut all three wires at the topside of the green circuit board flush.



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5. Remove circuit boards from the upper casing, and protective film from the display face.



6. Remove three M5 nuts from the upper casing. Keep any one wire for use further in the assembly process.



7. Remove label from the front of the upper casing. And clean surface of excess glue.



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8. Use the dremell multi-tool and grinding wheel to remove the small lip from around the button-hole.



9. Apply Viamed labels to the top surface and face of the upper casing.





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10. Cut the dovetail to 42 mm in length (taking it off the side which has the narrowest dimension) and sand surface smooth using the band saw grinding wheel. Remove any burrs and rough edges.

*NB: OPERATOR MUST BE SUPERVISED BY A COLLEAGUE WHEN USING THE BANDSAW.

11. Resting the upper case and dovetail on a flat surface, mark off the required positions of the holes to be drilled to mount the dovetail to the case in a central position.



12. Holding the upper case in a vice (cover the case in a cloth to protect the surface) drill the two 4mm holes on the rear side.





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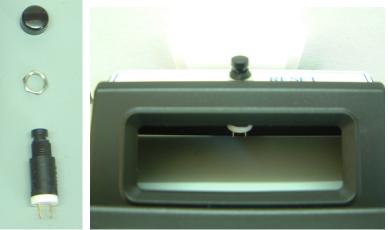
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13. Fasten the dovetail piece to the casing using the M4 nuts and bolts applying thread lock before tightening.



14. Fasten reset button to the upper case (take care not to over tighten).



15. Fasten circuit boards and position bar securely back into place.



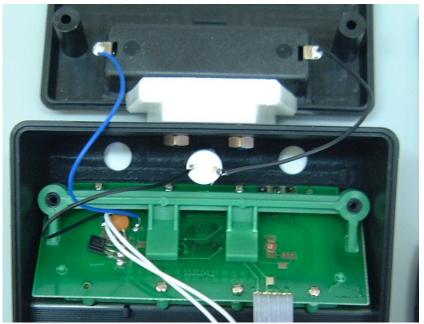


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16. Solder the positive wire from the circuit (this case shows black) board to the left hand side of the reset switch. The remaining pin needs to be soldered to the positive side of the battery housing.



17. Fasten upper and lower cases back together.





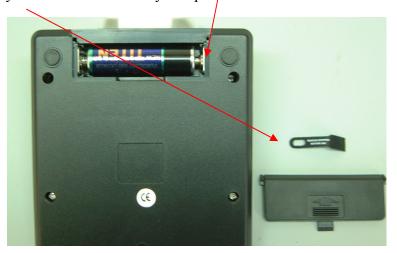


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1. Remove safety shield from the battery compartment.



2. Start and stop the timer to ensure it works.



3. Reset the clock timer to again check to see it works.



- 4. Repeat steps 2 & 3 a few times to make sure all works well.
- 5. Replace the safety shield to the battery (positive terminal) and fit the cover back on.



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Packaging

1. Clean the unit using silicon polish and a paper towel.

2. Replace unit back into original bubble wrap packaging and then into the original box in which the unit was first supplied.



3. Using the Zebra labelling machine print out a 'Packed & Tested' label, showing the date and initials of assembler and attach it to the side of the box lid.

