# MILEMARKER, MM-01
BATTERY REPLACEMENT PROCEDURE

Milemarker Raceclock model MM01, utilizes two internal sealed lead-acid batteries for clock operation. With fresh, fully charged batteries installed, the clock will operate for approximately 10 hours. These batteries, EN part number 860-008, are 6V and are connected internally in series to provide 12V operating voltage. Battery kit, MM01-BK provides the correct replacement batteries and the necessary replacement parts which are removed during battery replacement.

To replace the batteries, it is necessary to partially disassemble the clock.

1)   Using a Philips screwdriver, remove the 12 screws around the base of the clock.

2)   Insert the screwdriver into the lower vent-slots on the ends of the clock and gently pry upward, pushing the base downward to separate the top enclosure from the base. Alternately pry each end until the top enclosure is completely free from the base.
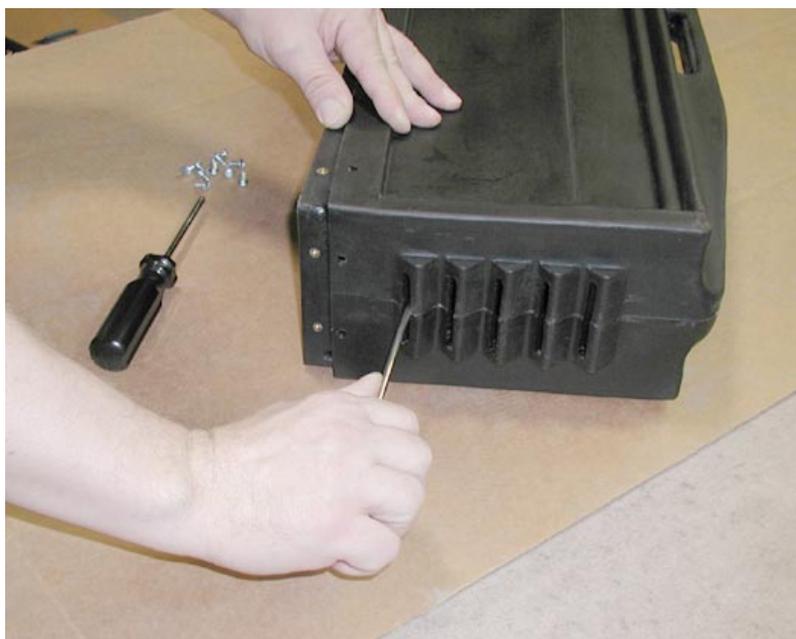
3)   With the enclosure top free from the base, carefully lift the enclosure top and lay it on the table behind the clock being careful not to disturb the wires connected between the enclosure top and the base.

4)   Remove the (+) positive (red wire) and (-) negative (black wire) from the batteries. There is a small amount of silicone adhesive on the terminals to keep them in place.

5) Cut the top strap, the large bottom tie-wrap and the small ribbon cable tie-wrap. When removing the top strap, note how the strap is fed through the buckle for re-installation of the new strap.

Top strap

Large bottom tie-wrap

Ribbon cable tie-wrap
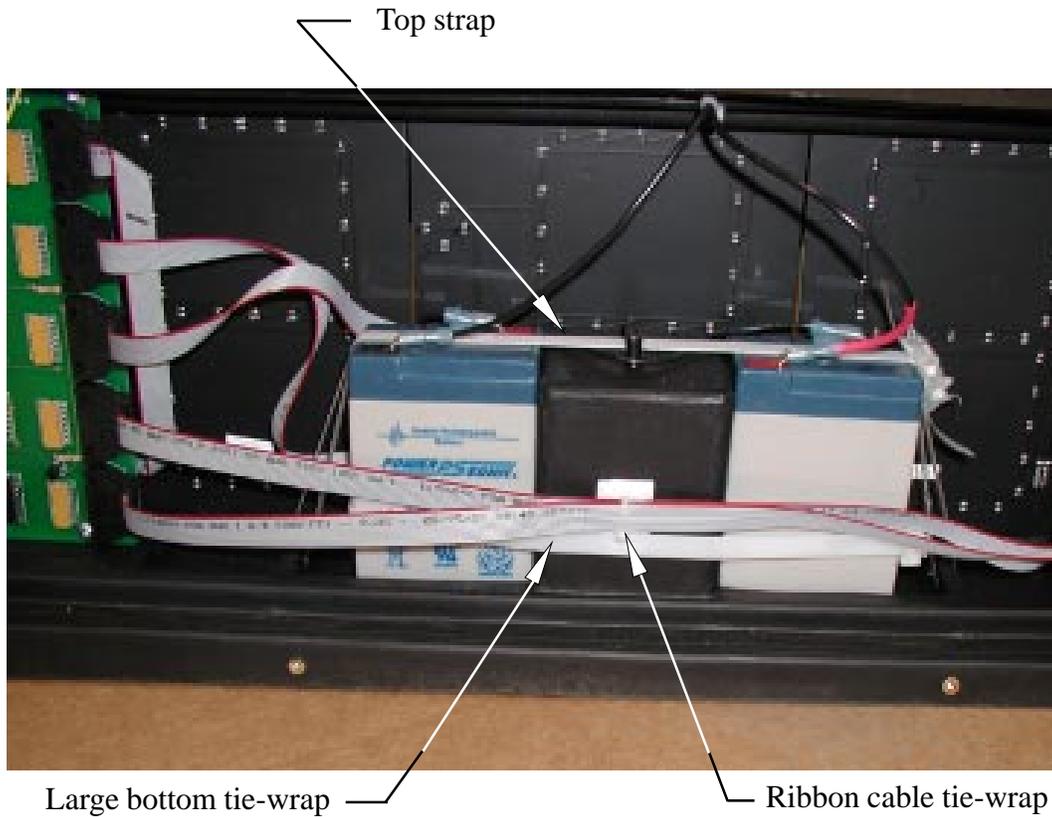
Cut the ribbon cable tie-wrap

Cut the top strap

Cut the large bottom tie-wrap

6) Remove the black jumper wire from the left-hand battery positive (+) battery terminal and the right-hand battery negative (-) terminal. There is a small amount of silicone adhesive on the terminals to keep them in place. Remove the two batteries. There is a small amount of silicone adhesive underneath the batteries to keep them in place.
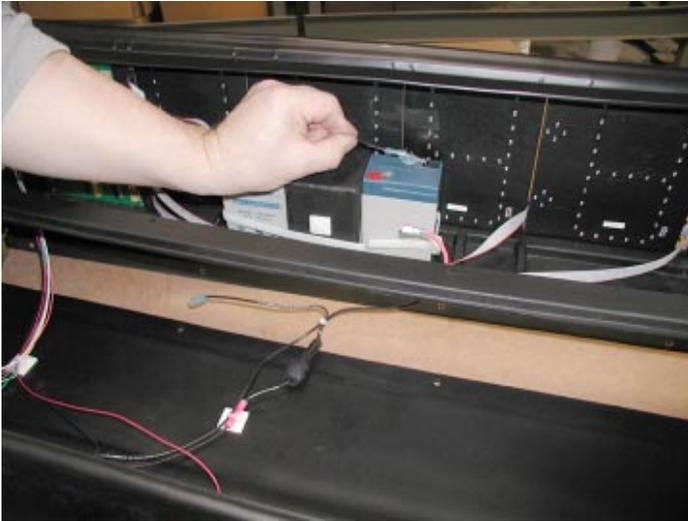

Remove the black jumper wire

Remove the two batteries

7) Note the orientation of the batteries for re-installation. Apply a small amount of silicone to the clock base under the new batteries and between the batteries and the center (molded) post. Position the batteries as shown. Install the large bottom tie-wrap. Tighten using neddle-nose pliers and trim the end.
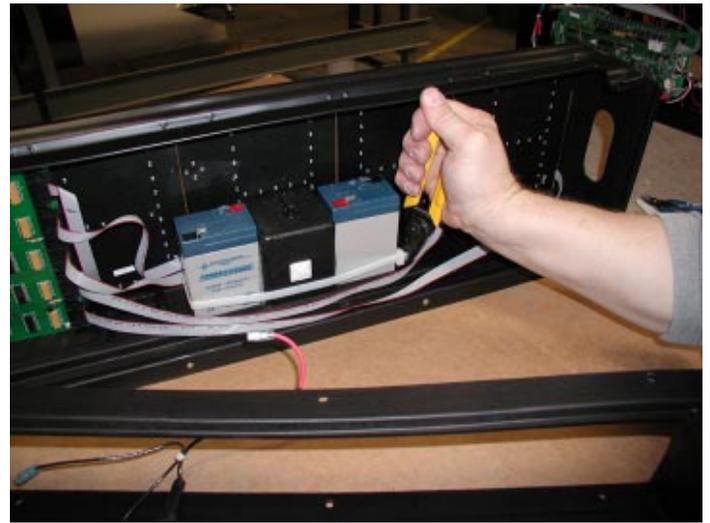
Center (molded) post
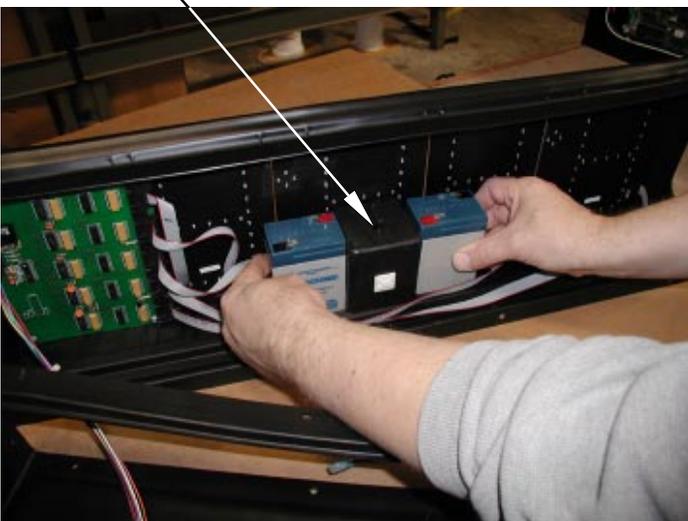
Install the new batteries noting the orientation

Install the large bottom tie wrap
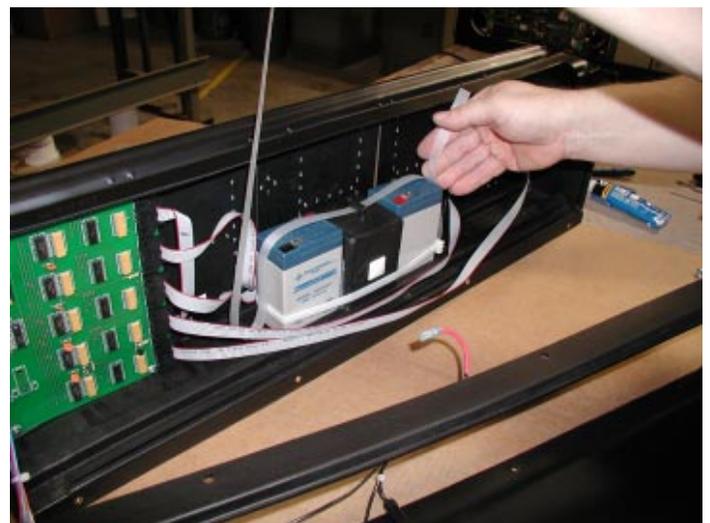
Tighten the bottom tie wrap

Trim the bottom tie wrap

8) Install the new top strap and buckle. Reference how the old strap was fed through the old buckle when installing the new buckle. Trim the ends.

Install the top strap starting on the right

Feed the strap as shown

Install the top strap buckle

Tighten and trim the ends

8)   Install the black jumper wire from the left hand battery (+) positive battery terminal and the right hand battery (-) negative terminal. Add a small amount of silicone adhesive on the terminals to keep them in place. install the two power wires with the red wire to the right-hand battery positive (+) terminal and the black wire to the left-hand battery negative (-) terminal. Add a small amount of silicone adhesive on the terminals to keep them in place.

Install the black jumper wire

Install the two power wires

9)   Install the ribbon cable tie wrap and trim. Check the operation of the clock with the top cover still not installed. With the clock functioning correctly, install the top cover, being careful not to damage the wires. Push the cover down firmly to snap into the bottom plate. Install the 12 screws to retain the top cover to the bottom base.

Install & trim the ribbon cable tie wrap

Install the top cover

Raceclock™

Electro-Numerics, Inc.
42213 Sarah Way, Temecula CA 92590
Tel: 800-854-8530 or 951-699-2437