

# MAKE AN ODOMETER CAR

See How Far Your Trains Travel

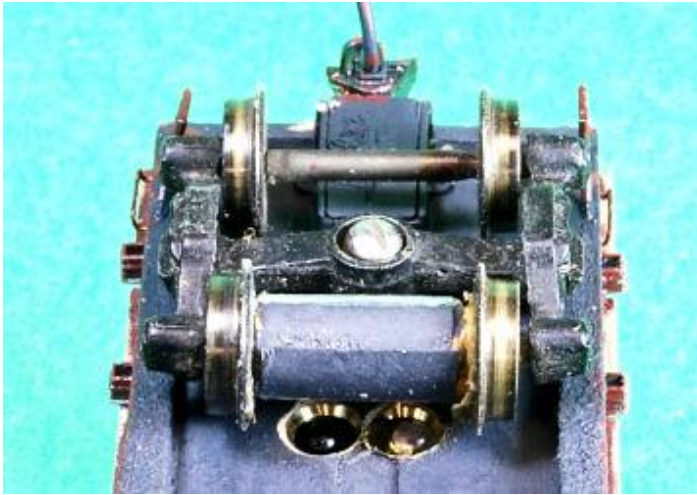


Presented by BOB VAN CLEEF  
of the North River Railway



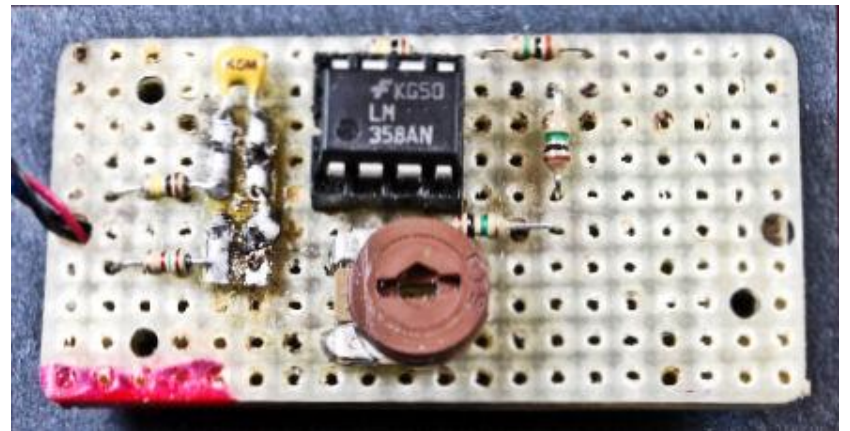




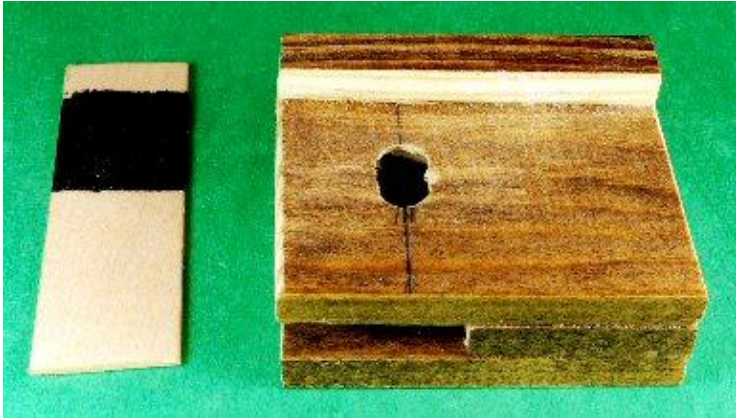


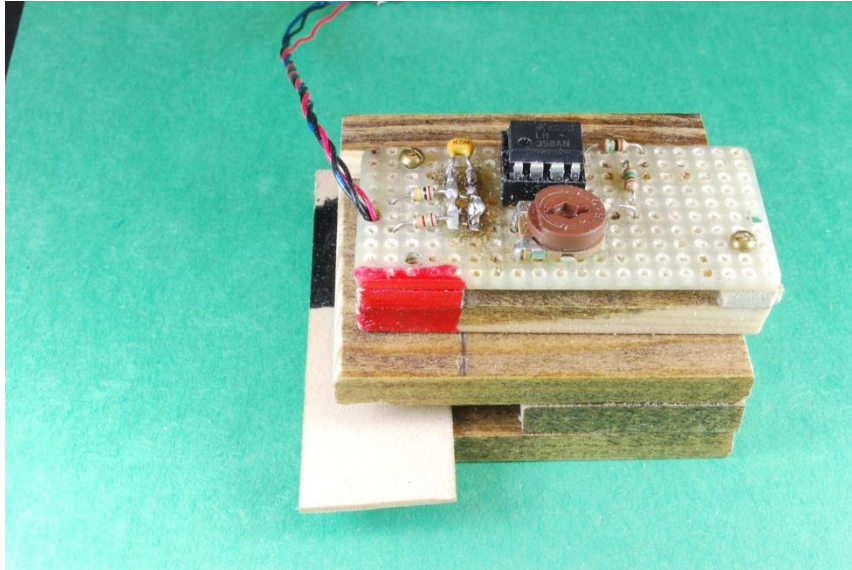




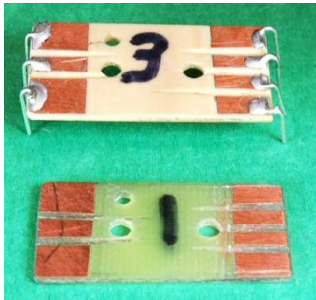


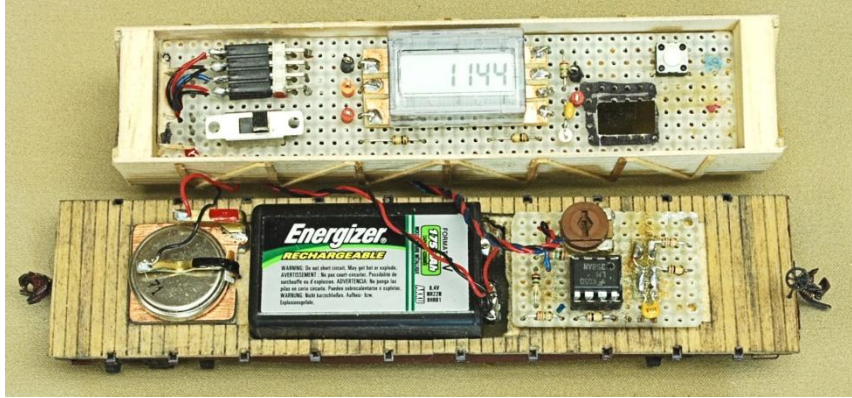


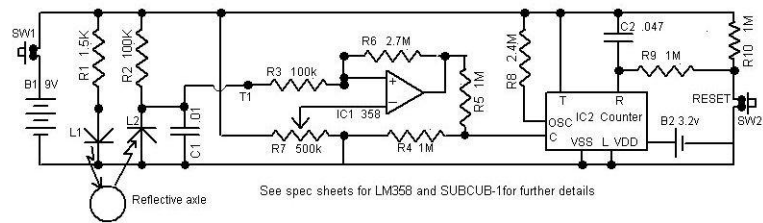








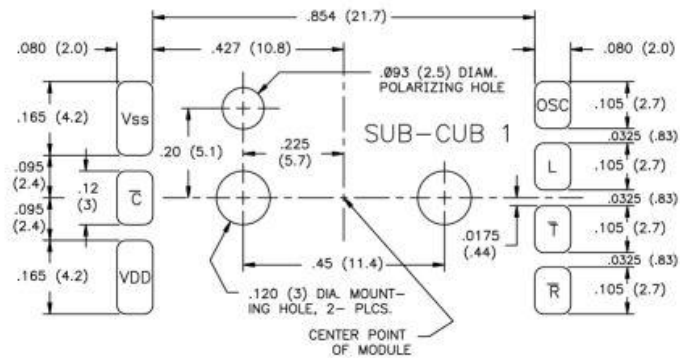




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## P.C. BOARD LAYOUT

P.C. Board pads may be gold or tin-lead plated. Pad surface must be flat without excessive tin-lead build-up. (Layout views are from SUB-CUB-D mounting side of board.)



## **DEVICE CONNECTIONS \***

**COUNT** ( $\overline{C}$ ) - CMOS, Schmidt Trigger; counter increments on negative going transition.

**RESET** ( $\overline{R}$ ) - CMOS Schmidt Trigger; counter is reset to zero when input is low. Counter should always be reset to zero whenever power is first applied to the unit.

**LATCH** (**L**) - CMOS level-sensitive, asynchronous input. When pulled low, the latches are transparent and display is updated as new counts are received. When latch input is pulled high, the display registers count existing immediately prior to activating the latch.

**TEST** ( $\overline{T}$ ) - Input must be connected to  $V_{DD}$ . This input is used by manufacturer during factory testing.

**OSC.** - This input provides for connection of an external 2.4 Meg. resistor required by the on-board scan oscillator. Oscillator runs at 240 Hz  $\pm 35\%$  and has internal divider to provide 60 Hz back plane drive.

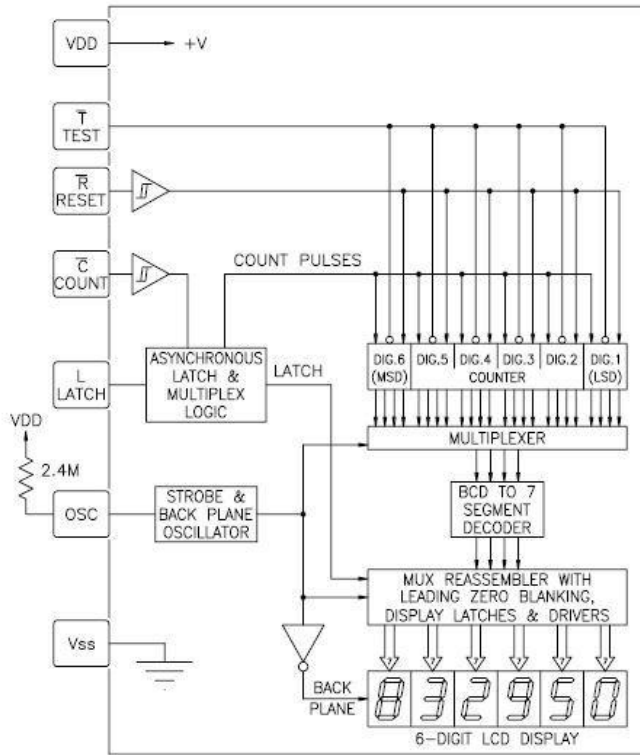
$V_{DD}$  - +3 or +5 V.D.C. Supply.

$V_{SS}$  - Common for D.C. Supply and Inputs.

\* All unused inputs must be tied to either  $V_{DD}$  or  $V_{SS}$ , whichever is appropriate.



### BLOCK DIAGRAM



# For More Information...

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This presentation has been brought  
to you by the North River Railway

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# THE END

