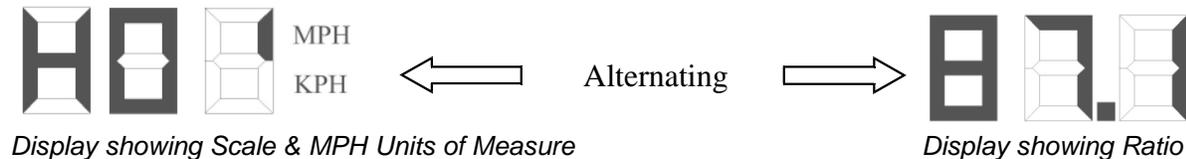


Operating Instructions for **Accutrack II** Model Railroad Speedometer HO & N Scale Version

Congratulations on your purchase of the Accutrack II Model Railroad Speedometer. Your unit's accuracy is derived from the 1 Megahertz clock of the microcontroller computer chip. Your train's travel time between the two infrared sensors is measured and then used to calculate the scale speed for your train.

Step 1 – Install the 2 included AAA batteries in the back of the control box located inside the plastic tunnel. Observe the labels which show the correct battery installation direction.

Step 2 – Turn on the power by moving the switch on the lower left corner of the front panel to the on position. The current scale setting will appear. This display alternates between a display of the scale name (i.e. HO) along with an indicator showing the current units of measure, miles per hour (MPH) or kilometers per hour (KPH) and then the scale ratio. The ratio display is necessary to distinguish between the two N scales used in Europe and the UK. Below is a graphic of the two phases of the display:



Scales available are HO (1:87.1), N (1:160), OO (1:76.2) & N (1:148), each in both MPH and KPH units of measure.

To Change the Active Scale: Using a paper clip or other probe small enough to fit in the SETUP hole on the face of the display, press the switch inside the hole and release. If the scale display is currently active, it display will step to the next scale / units of measure setting. If the display is not active, the first switch press will bring up the current active scale. Keep pressing and releasing until the desired scale in the desired units of measure is displayed. Each scale selection is cycled through in the MPH units mode and then each scale is cycled through in the KPH units mode. Once the desired scale is displayed, **Turn Off the Power** and turn it back on to save this setting in memory and load the correct calculation factors.

Step 3 – Set the unit over the track in a convenient location where you can observe the readout window on the front of the unit.

Step 4 – With the unit on and the proper scale set, verify that the unit is spaced over the track so that your train will clear the tunnel without contacting it. Run you train through it and observe the speed!

Operation – The 3 digit display shows the speed measured for the train. Below 10 MPH/KPH, the display displays in 1/10 MPH/KPH increments (i.e. 5.8). Above 10 MPH/KPH, the unit displays in full units of MPH/KPH.

The display will stay on for about 4 seconds after the last unit of the train clears the second timing light. During this time, no new speed measurements can be taken. As soon as the display times out and turns off, the center decimal point will begin flashing once per second as an indication that the unit is ready for another measurement and as a reminder to you that the power is on and the battery is in use. A battery saving feature kicks in after 5 minutes of non-use (no trains). This time period is adjustable (See later instructions)..After this 5 minute period, the unit powers down and remains powered down until the switch is turned off and back on. **It will not detect a train once it has powered down, until it is reset!** It is still recommended that you turn off the unit once you are done using it, but if you forget, it will turn itself off.

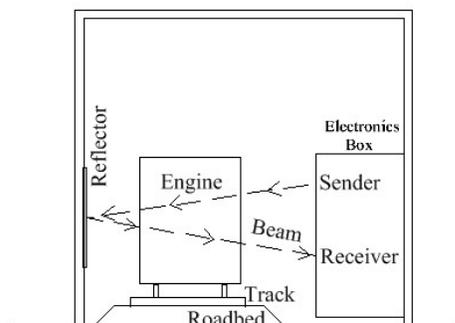
Setting the Power Down Feature

The Power Down feature can be turned off or can be set for a timeout period of from 1 to 30 minutes. To enter the setup mode for the timeout feature, hold down the "Scale" button while you are turning on the unit with the toggle switch. Release the "scale" button as soon as the display turns on. If the Power Down feature is currently enabled, the display will alternate between displaying "On" and the time out period in minutes (.i.e. "15" would indicate a timeout period of 15 minutes). If the Power Down feature is currently disabled, the display will display "OFF"

- To change from "On" to "OFF" or from "OFF" to "On", press and release the "Scale" button. Turn the unit off and back on with the toggle switch to save the setting.
- To change the amount of time that the unit runs after its last speed reading, make sure the display is showing the alternating display of "On" and the timeout period. Press and hold the "Scale" button until a "1" shows steady in the display. This indicates 1 minute. Each press and release of the "Scale" button advances the display one minute. Continue pressing and releasing the button until the amount of time you want is displayed. Turn the unit on and off with the toggle switch to save the new value is set in memory.

The decimal point on the display is also used to indicate the initiation of a timing cycle. As the train enters the timing tunnel, the decimal point on the side from which the train has entered will turn on as the speed timing begins (i.e. as soon as the first light beam of the trap is broken). If the train stops in the tunnel or is reversed out before the second sensor is activated, the system will error out with an **Err** message shown on the display. This error out time is equivalent to a speed of about 0.5 MPH/KPH.

If the display begins to dim, or you begin to get erratic readings for what appears to be constant speeds, this is an indication that the batteries are getting low and should be replaced (2 AAA batteries).



For accurate sensing (especially for N scale), the following speedometer placement is recommended:

Make sure speedometer is sitting squarely on flat surface of layout. Roadbed can be either cork or foam or built in roadbed such as Kato Unitrack.

Thank you for your purchase of this unit. We want you to be completely satisfied with your purchase. If you have any questions or concerns about your unit, please contact us at:

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