The RR Concepts Shuttle is a solid state electronic device that automatically reverses the train direction by reversing the track polarity. When the unit senses a total lack of current flow the Shuttle measures the time duration for the run. This is repeated for both forward and reverse runs. When the train travels in each direction the deceleration will start a few seconds before reaching the ends. Accelerations are smooth. The Shuttle will re-adjust the time to start the deceleration on each run if needed to obtain a realistic stop. Diodes are used on the ends to stop the train, and restart the train when track polarity is reversed. An external voltage source is required to operate. (Fixed DC power source or variable speed model train transformer) In-betweens tops are possible using a train sensor at the stopping location, and a magnet attached to the train. (Not included)
DC trains can be used, or DCC trains with the addition of a "PWM to DC Conversion unit". (Not Included)

SPECIFICATIONS, Point to Point Reversing Unit
Time delay: 0 to 60 seconds
Input voltage: 24VDC maximum, 12VDC optimum.
Maximum operating current: 5 AMPS

LIST OF PARTS
Shuttle Reversing Unit
Diodes
Split-Jaw insulating clamps
Instructions