STATION STOPPER

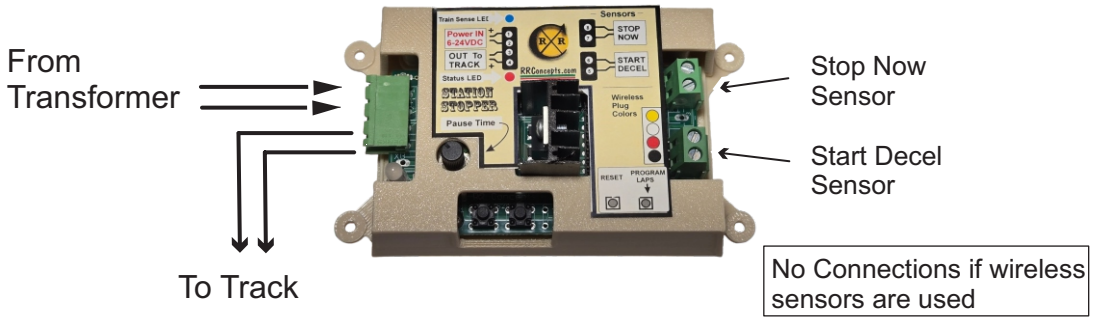
V1

How to operate:

Attach a magnet to the engine, place the train sensors on the track, and watch. Trains with a DCC decoder may need a PWM to DC converter if the train does not properly accelerate.

Installation:

- Connect the transformer TRACK terminals to the Station Stopper “Power In” terminals.
- Connect the Station Stopper “Out To Track” wires to the track.
- The input Voltage must between 6 and 24 volts DC. Pulsed (momentum) transformers can be used when a PWM to DC converter is in place.
- Set the direction on the transformer so the Station Stopper LEDs come on when power is applied.
- When the direction on the transformer is “reversed”, the Station Stopper will dis-connect and bypass to allow manual control. You can manually run the train backwards if needed.
- If the train runs in the wrong direction, swap the two “Out to Track” wires. Do not reverse the direction on the transformer.



Easy Stop Mode:

Easy stop requires a single sensor and will decelerate and pause the train when the “Decel” sensor is triggered.

- Place a START DECEL sensor where the deceleration should start. Use either a wired sensor attached to the START DECEL terminals, or a wireless sensor programmed for “DECEL”.
- Set the Transformer to the Running Speed of the Train.
- The train will decelerate and stop with the time delay set by the dial. After the delay the train will accelerate up to top speed.
- The stopping location will be determined by the speed of the train.

Precision Self-Adjusting Mode:

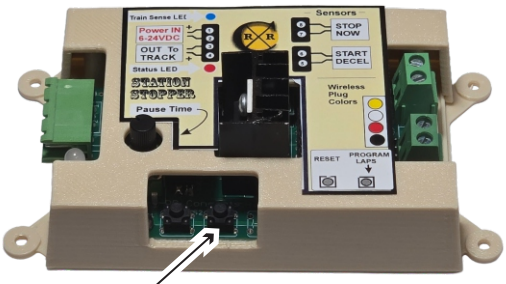
Self-Adjusting mode will decelerate the train and creep into a stopping location at a precise location.

- Place a STOP NOW sensor about 1 inch before the desired stopping location and attach to the STOP NOW terminals.
- Place a START DECEL sensor between 3 and 20 feet before that, and attach to the START DECEL terminals.
- The sensors can be either wired and attached to the Station Stopper, or wireless when optional wireless sensors are used.
- The train will stop short, and will run past the stop sensor as it learns, but the Station Stopper will eventually stop the train precisely on the STOP NOW sensor as it learns. Sit back and watch. Some learning cycles could take up to 30 seconds.
- After each stop the Station Stopper will adjust the creeping speed and deceleration rate until a perfect stop is obtained.
- The Station Stopper will resume to the previous adjustments on power up. All settings are stored in permanent memory.
- Perform a RESET operation to re-start the learning operation.

Lap Counting:

The Station Stopper can be programmed to run multiple laps before stopping.

- To see the current setting quickly press the “Program Laps” button.
- To set a new lap count, press and hold the “Program Laps” button and count the blinks. Release with the desired count.



Program Laps Button

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Reset:

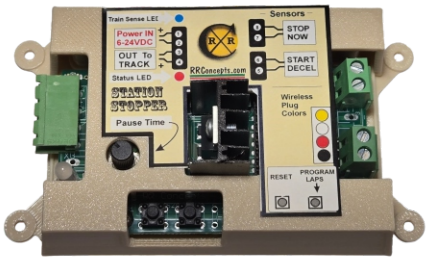
Restarts the self-learning operation when active.

- To reset, simultaneously press both buttons and release.

Factory Reset:

Clear all programming and reset.

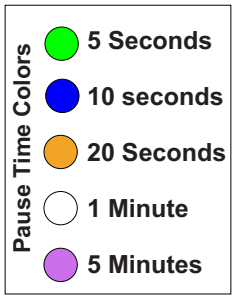
- To Factory Reset, simultaneously press both buttons for 10 seconds.



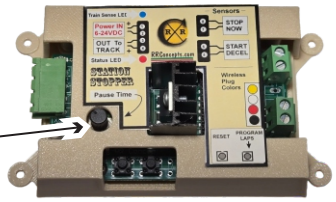
Simultaneously press both buttons to reset.

Pause Time:

Use the dial to set the pause time while stopped. The flashing color indicates the time.



Pause Time Dial



Shutdown Protection:

Train Wrecks do occur! The Station Stopper will try to protect itself and prevent damage to your trains.

- If a sudden spike in AMPs occur, the RED and BLUE LEDs will flash and it will shut down.
- If a train is sensed on the track but has not run over a sensor for 5 minutes, then the GREEN and BLUE LEDs will flash. Perhaps a train is spinning it's wheels and damaging the track!
- To restart, either cycle power (shut off power for an instant) or press button #1 for 3 seconds.
- **To disable the shutdown protection, press and hold the "Program Laps" button for 10 seconds.** *This is sometimes necessary when very small amperage transformers are used and the current sensing protection is not needed or is unreliable.*

DCC Locomotives:

A DCC decoder installed in a locomotive drives the motor with a PWM (pulse width modulated) voltage. Similarly, the Station Stopper puts a PWM voltage on the track to control the trains. Obviously both systems can't be in control of the locomotive at the same time. Because the Station Stopper does not send out a DCC signal some DCC decoders interperate this as a DC voltage and the train runs as expected, performing station stops. Some DCC decoders, on the other hand, will need to have the DCC decoder disabled, or a "PWM to DC" module must be in place between the Station Stopper and the track.