Two Trains operating on one track utilizing the TRak-DTRL.

Initially start with train 1 set at "STOP", train 2 somewhere between "RESET" and "SET". After that startup procedure it is not important as to where the trains are when power is turned off and back on again since the Trak-DTRL remembers it's last state of operation.

Operation: Train1 leaves the "STOP" section when train2 passes over the "SET" section. Train1 will proceed to the "RESET" section. Until that happens, the "PROTECT" section has no power, thus holding off any oncoming train moving towards the "STOP" section. This protects the rear of the leaving train. When train1 passes over the "RESET" section, power is restored to the "PROTECT" section of track and turned off to the "STOP" section. The leaving train (train1) can pass over as much track as you want doing other things, only when a train enters the "SET" section will the stopped train leave and allow the oncoming train to proceed to the available "STOP" section. Therefore, there is no protection to the rear of the train that passed the "SET" section and it is assumed that it has proceeded to the "STOP" section without incident. If more protection is desired, another Trak-DTRL would be required and appropriate protection / trigger zones added. This can be made to work for many trains on the same track using more Trak-DTRL's in the same manner. The 12VPS can power up to a dozen Trak-DTRL's.

The stop timing is determined by how long the train takes to leave the "STOP" section and get to the "SET" trip section. At that point, two trains will be running. The car after the engine may not jumper power to the "STOP" section as well, so illuminated passenger trains will work best if a baggage car is used behind the engine. Lights will stay on in all of the cars when the engine is held at either the "STOP" or "PROTECT" section. A freight train, with an illuminated caboose, will also not adversely affect operation since it does not matter how many extra triggers the DTRL receives on the same sense coil.

The "STOP" and "PROTECT" sections should be long enough to hold the motive power (engine) you are running. If you choose to use multiple engines, they must all have common power pickup between all units (this increases lengths). The length of track between the "STOP" and "PROTECT" sections needs to be at least long enough to contain your longest train.

At minimum, the distance between gaps to make the "SET" and "RESET" sections, should be the length of an engine or one section of track.

Distance between gaps for this RUN section should be the length of a typical train.

Distance between gaps for "STOP" section should be long enough to contain the motive power from running to stopping.

Distance between gaps for "PROTECT" section should be long enough to contain the motive power from running to stopping.

Distance between gaps for this RUN section should be the length of a typical train.

GAP - air space between rails, a plastic insulator may be used.