



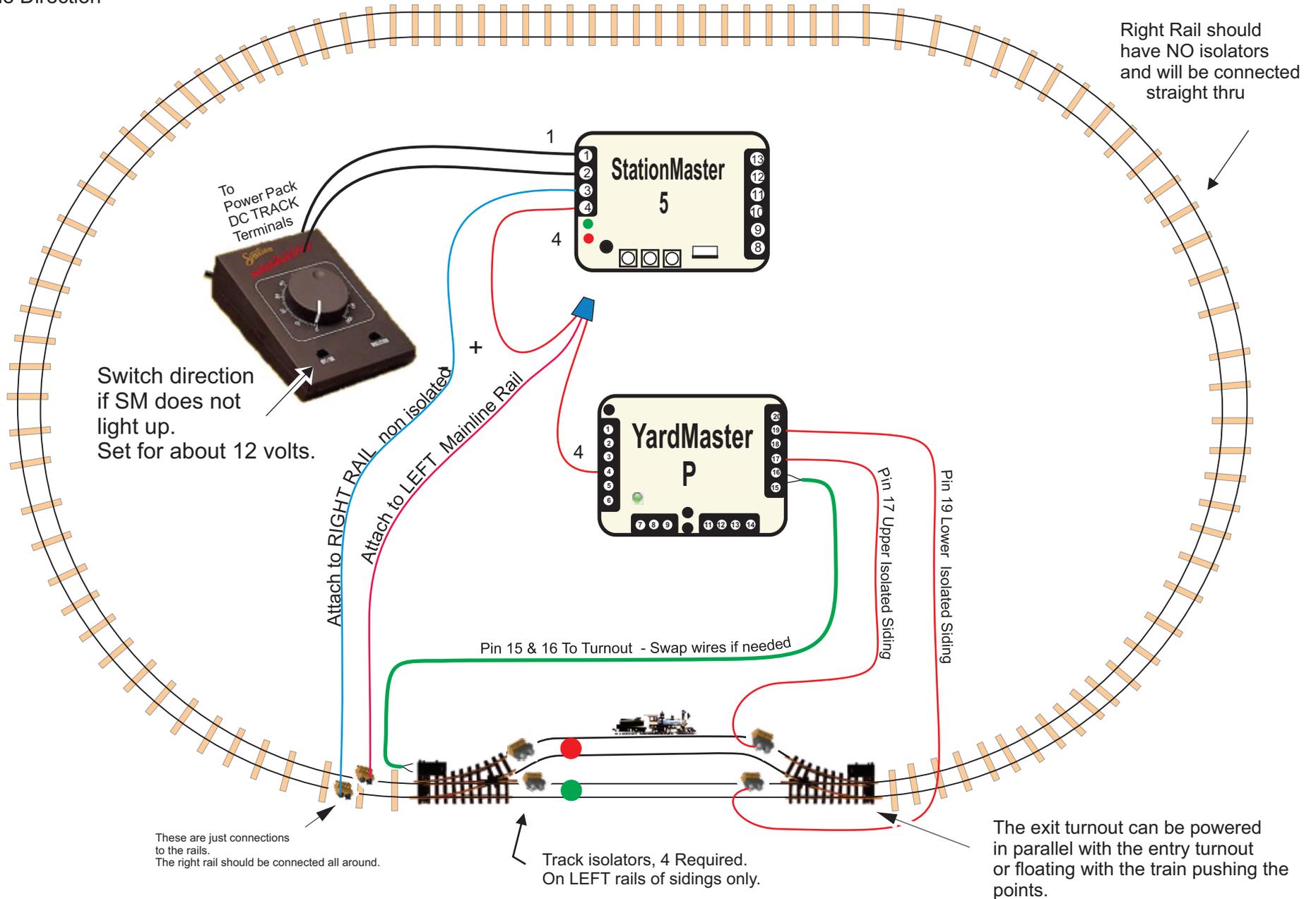
Alternate 2 Trains at a Siding

With Slow-Down Realism & Programmable Station Stop.

- One Direction -



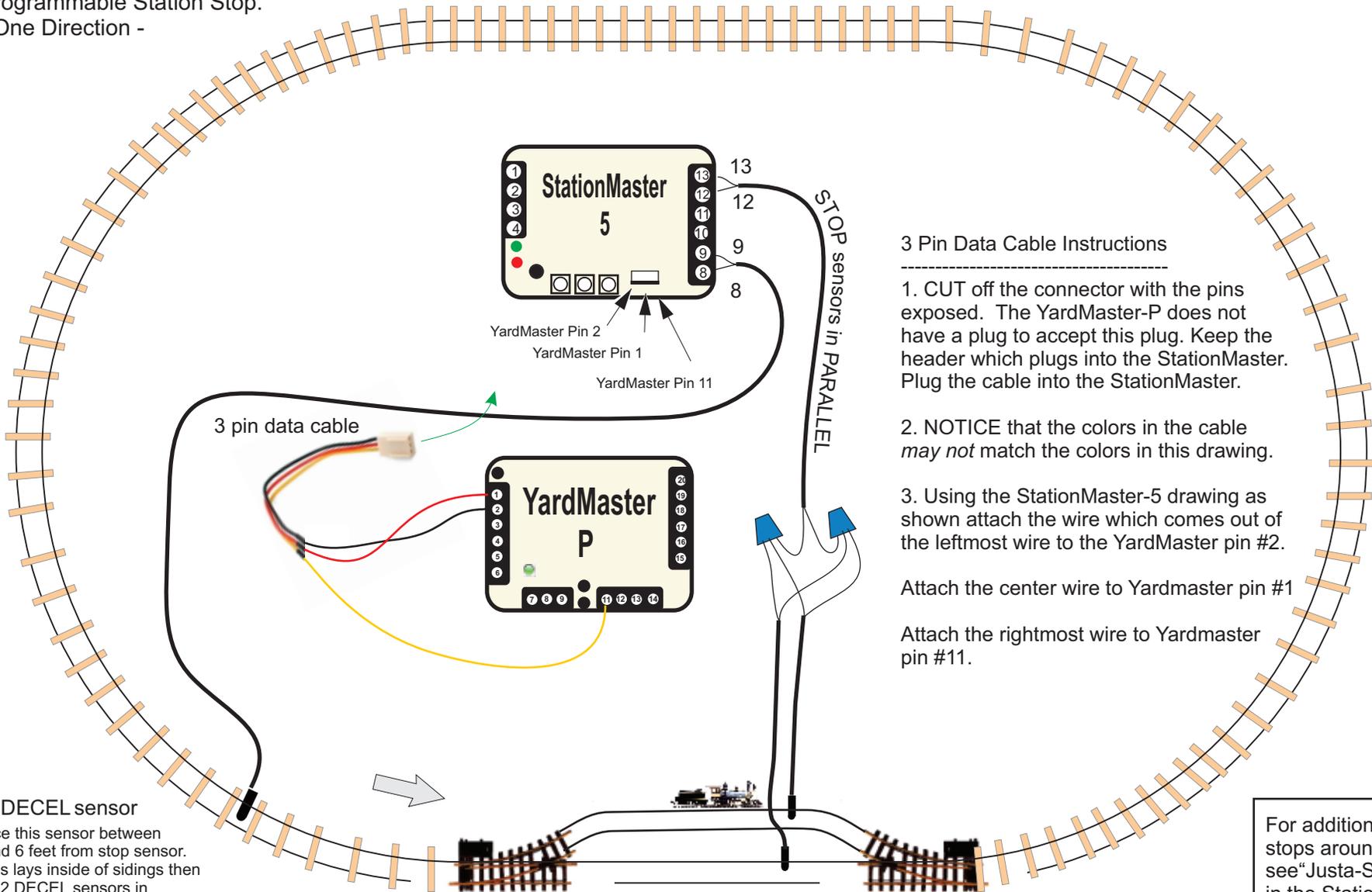
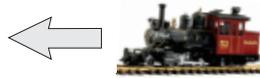
Place MAGNET on bottom of engines.



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3 Pin Data Cable Instructions

1. CUT off the connector with the pins exposed. The YardMaster-P does not have a plug to accept this plug. Keep the header which plugs into the StationMaster. Plug the cable into the StationMaster.

2. NOTICE that the colors in the cable may not match the colors in this drawing.

3. Using the StationMaster-5 drawing as shown attach the wire which comes out of the leftmost wire to the YardMaster pin #2.

Attach the center wire to Yardmaster pin #1

Attach the rightmost wire to Yardmaster pin #11.

DECEL sensor
Place this sensor between 3 and 6 feet from stop sensor. If this lays inside of sidings then use 2 DECEL sensors in parallel and place one in each siding.

Notes:

1. Program the StationMaster deceleration rate to MAXIMUM for self-adjusting deceleration.
2. Sensors have NO polarity.

For additional station stops around the loop see "Justa-Station-Stop" in the StationMaster manual.

Alternate 2 Trains at a Siding with Slow-Down Realism.



Parts Required:

StationMaster:	Qty 1	4 AMP or 10AMP version.
YardMaster:	Qty 1	
Turnouts:	Qty 2	One is powered and the second can be either floating or powered.
Track Isolators:	Qty 4	
Magnets:	Qty 2 (or one per train)	
Sensors:	Qty 3	

Description

The Alternating 2 train siding will allow 2 trains to run around the layout. One of them will always be in the siding while the other train will be traveling. Trains will alternate using a **programmable lap count**, **programmable time delay**, **self-adjusting deceleration**, and **programmed acceleration rate**. (All can be from factory default except for maximum deceleration which is required for the self-adjusting deceleration.)

StationMaster Hookup:

Terminals 8 and 9 are the DECEL sensor inputs and attach to the DECEL sensor as shown. (No polarity)
If the siding is very long then a sensor can be placed in each leg wired in parallel.

Terminals 12 and 13 are the STOP sensor. Attach these to the STOP sensors in parallel as shown. (No polarity) The train will stop just past this sensor.

Terminals 1 and 2 attach to the transformer. Change the train direction on the transformer if the StationMaster does not light up.

Terminal 3 attaches to RIGHT RAIL which is common ground throughout.
Terminal 4 attaches to YardMaster terminal 4 and the LEFT rail of the main line track section. This is the voltage output of the StationMaster.

StationMaster Programming:

A StationMaster **factory default** will set everything perfectly to operate this hookup except for the deceleration rate which must be set to MAXIMUM.

To turn on "Realistic Self Adjusting" program the deceleration rate to MAXIMUM:
1) Turn the top speed dial fully counter-clockwise.
2) Press and hold down button #1 until the LED flashes quickly.
3) Turn the top speed dial fully clockwise.

The "Realistic Self Adjusting" feature will self-adjust each lap. This means that for the first dozen laps the train will overshoot the stop sensor. (One time only) This is normal. Eventually the deceleration will be perfect and this will be stored in memory and saved forever until the deceleration rate is re-programmed again.

YardMaster Hookup

Terminal 4 attaches to StationMaster terminal 4 and the LEFT rail of the main line track section. This is the voltage output of the StationMaster.

Terminals 15 and 16 attach to the turnout. You may need to swap these wires at the turnout as necessary so that the turnout direction matches the siding which has power.

Terminals 19 and 17 attach to the LEFT isolated rails of the sidings. The YardMaster will switch the voltage entering terminal 4 between these two terminals.

The 3 pin keyed connector attaches between the StationMaster and YardMaster AS SHOWN. Cut off the pin header and strip insulation to expose wires.

YardMaster Programming:

No programming however a factory reset may be necessary.

Additional Notes:

The train direction shown in the drawings assumes "Large Scale" trains which do not follow NMRA standards. For NMRA trains the trains will travel in the opposite directions as indicated by the arrows in the drawings. These include HO, N, etc. For NMRA trains to go in the directions as shown swap the 2 wires that attach to the StationMaster in terminals **3** and **4**.