Las Vegas Garden Railway Society / Monthly Newsletter







December

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Hello Everyone,

Well, December is now here and what a year it has been. I hope this finds you all safe and healthy

We started with our annual meeting and ended with a Covid 19 lock-down.

Thank you to all the members who volunteered to help with setup, running trains, and tear-down at our annual Jim Marsh run.

Unfortunately, I have received word that our annual setup at Jim Marsh Chrysler has been canceled. This has been done out of an abundance of caution. Mr. Marsh has let me know that there is a possibility of having a run this spring, assuming Covid restrictions have been relaxed. He also wanted to let the membership know that he wholeheartedly supports the club and is as disappointed as we are.

I wish all of you a Merry Christmas and a Healthy New year.

Bill





Jim Marsh – Xmas Train display Has been canceled







December Events

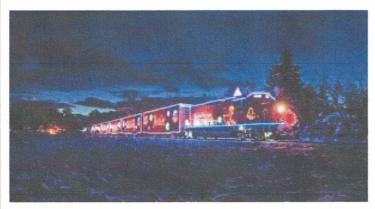
Jim Marsh Christmas Train Run December 14th – December 27th

Unfortunately Jim Marsh Christmas train run has been canceled due to Covid restrictions.

Special Thanks

Special thanks goes out to the Bill & Lynn Thornhill for hosting their train run last month at their fabulous home, we appreciate their hospitality, the train layout was one of the best that I've seen. Great job, looking forward for the next one.







Club Polo & Tee Shirts

The Club has purchased some Ultramarine Blue Polo shirts, embroidered with the club logo.





Men's. Ladies & Youths polo shirts are \$25.00 per shirt, if you would like it personalized with your name, add an additional \$5.00, a total of \$30.00.

The shirts come in sizes small to 5xl. they have youths sizes also.

You can also order Tee shirts, the cost is \$20.00, \$25.00 if you would like it personalized.

Please email me at: chasjell@cox.net if you wish to order any shirts, please include the following: men, ladies, youth, the size, how many, and name if you want it personalized. Shirts will not be ordered until the payment has been received.

Send your payment to:
Jerrie Ling
4514 Patriot Cannon St.
North Las Vegas, NV. 89031-0191

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CRAIN'S RAILROAD PAGES

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CONTROLLING SEVERAL TRAINS

When you get started in large scale railroading, you usually begin with one track (a circle or an oval) and one power supply to control one train. It doesn't take long for this to get boring, so you might think of running more trains on more tracks. Each separate track will need a separate speed controller. With smaller, low cost power supplies, this means several separate power supplies will be used. Some larger power supplies have two, three, or four speed controllers in one box, for example PH Hobbies or Bridgewerks. You can also find systems that allow several separate speed controllers to be connected to one power supply (eg LGB 50061+50070+50090). Remember, the total load of all trains will determine the amp rating of the power supply needed to run multiple trains.

You might consider the walk around radio controllers, mentioned above, to run the separate tracks. One large power supply with 3 or 4 radio-receiver speed controllers is a reasonably inexpensive and flexible system. One or two handheld transmitters will be needed (eg AristoCraft Train Engineer system, now labeled Crest Train Engineer.

You can run more than one train on one track, provided your power supply is big enough, BUT, one train will always catch up to the next. You will have to manually catch the faster train and hold it for a short time to prevent a crash. Alternatively, you can isolate a portion of track with plastic rail joiners and connect a toggle switch between the power supply and the isolated track. By turning the switch to the off position, you can hold the faster train for a few moments and then release it. Instead of the toggle switch, you can use a second speed controller on the isolated track to adjust the speed each time the faster train comes by. This kind of operation requires constant attention and may get boring for the operator.

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Several battery powered, radio controlled trains can be run on the same track – that's the appeal of battery power with R/C. One or more additional trains could also be run under track power. Digital command control (DCC) also allows multiple trains on one track. Locos require some re-wiring for battery or DCC operation.

DCC for large scale is available from LGB, Locolinc, and others. Battery Backshop and Reed's Hobbies offer radio control and batteries specially designed for large scale trains. For battery operation, be sure to disconnect all sources of track power to the locomotive; otherwise, the battery will end up powering other trains through the track. For automatic control of multiple trains, read on!

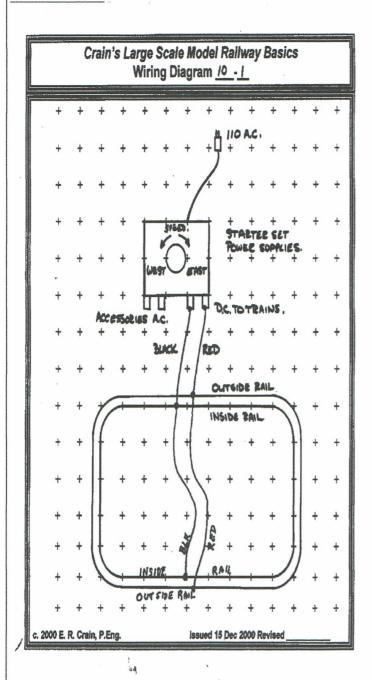
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WIRING MULTIPLE TRACK SECTIONS

1. Separate manual speed controllers - independent tracks.

When your track layout comprises two or more independent ovals, control of each is simple and requires no special electronic circuitry. Connect one power supply with built-in speed controller to each loop. I recommend strongly that you use color coded wire between the controller and the track. I use red and black hook-up wire from Radio Shack. LGB offers red and blue wire (LGB 51230). Connect the red wire to the outside rail on each loop and the black (or blue) wire to the inside rail. Keep the color code and inside vs outside color constant for all your wiring. ALWAYS turn off or pull the plug on a power supply before connecting wires. Connect the wires to each rail securely. LGB sells a pair of thumbscrew terminals for this purpose (LGB 50160 or 50161). You can also solder the wires to each rail. Run separate wires to the rails every 20 feet or so. Mark your direction control switch with labels that indicate train direction, eg. CW = clockwise, CCW = counterclockwise, or East and West. I equate Eastbound with Clockwise.

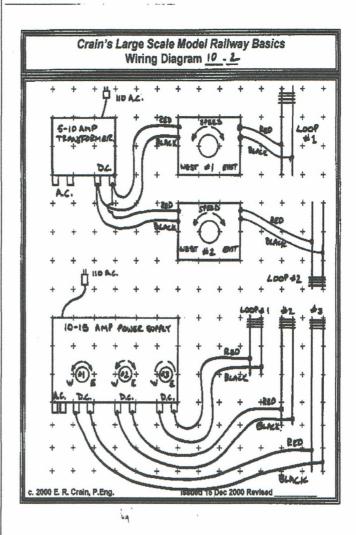
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2. Multiple manual speed controllers – independent tracks.

Alternatively, you can use a single power supply with multiple speed controllers, either built into one control box (Bridgewerks) or as separate pieces (LGB).

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3. Separate radio controllers – independent tracks.

A better approach is to use one good power supply with separate radio controlled speed controllers connected to each independent loop (AristoCraft Train Engineer system).

4. Independent track blocks on one loop – manual speed control.

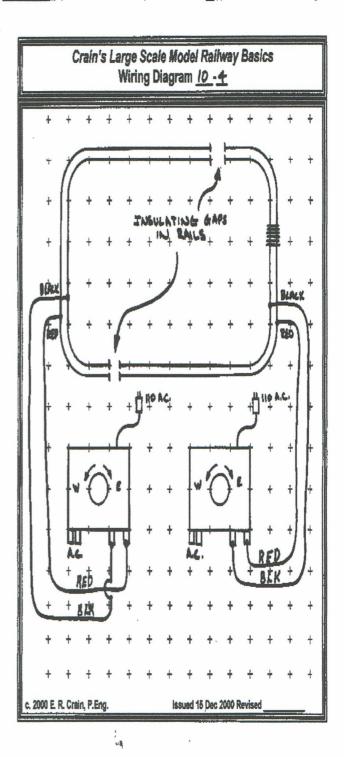
Here, we are trying to run two or more trains on the same track, with enough manual control to prevent collisions.

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Crain's Large Scale Model Railway Basics Wiring Diagram 10 -3 5-10 AAP Transforme? c. 2000 E. R. Crain, P.Eng. Issued 15 Dec 2000 Revised

 $Separate\ radio\ controllers-independent\ tracks.$

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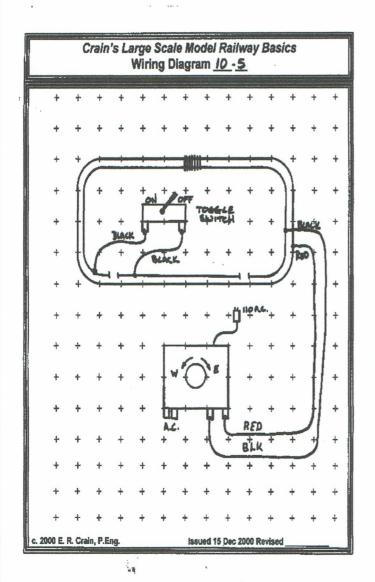


Independent track blocks on one loop – manual speed control.

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5. Independent track blocks on one loop - manual switch control.

The switch turns off the power to a portion of the track, thus stopping the train until the switch is moved back to the "run" position. You can use an "on/off" toggle switch from Radio Shack, or one of the switches on an LGB 51800 switch box. Commercial toggle switches should be automotive quality, designed for 12 volt DC high current applications. They are also known as "flip" switches. A version of this circuit using LGB relays activated by the trains is described on Page 19.



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OPERATIONAL VARIETY WITH RELAYS AND SWITCHES

Operating trains manually can be a lot of fun. Stop at stations, set out freight cars on sidings, or park one train and start up another. When visitors arrive you can set each train to run at a safe speed and forget them for a while. But at a garden party or a show-and-tell for the local scout or guide troop, you may want to use a more interesting approach automation with relays.

I like automatic operation during show-and-tells. This means that trains stop at stations without my help. Trains stop for a while and others move out on the same track. Trains run reverse loops, go back-and-forth on a dead-end line, others pass each other without crashing. Even when no one else is around and I'm working on the railway, it is pleasing to see everything chuffing and puffing around the layout.

All this is done with relays. Don't panic – it's easy!! The next few pages will describe several automatic circuits that work well on my railway. They use LGB's EPL switching components with LGB's 50101 Jumbo power supply. The Jumbo has no AC terminals, so you also need an AC transformer like LGB's 50111. You can use other power supplies with the EPL relays, but there will be no momentum effects. The LGB Jumbo is the only power supply with built-in momentum and timer features that can be controlled by trains passing over train sensors. Without momentum, trains start and stop with a jolt. You will need basic hand tools such as small screwdrivers and wire cutters, hookup wire, and (rarely) a soldering iron, solder, and electrical tape.

There are six essential components from the LGB EPL system:

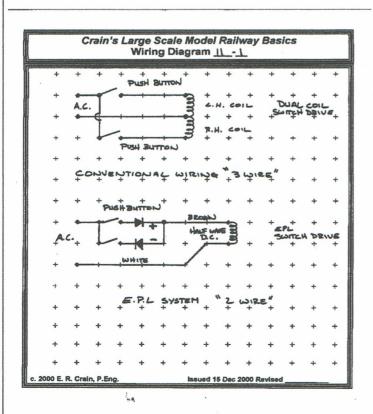
- 1. LGB 12010 Switch Motor these switch turnouts and/or electrical connections.
- 2. LGB 17100 Train Sensor these trigger the LGB 50101 timers or an LGB 12010 switch motor

Page 11 cont.

- 4. LGB 17010 switching magnet -these are glued to the underside of each locomotive to trigger the LGB 17100 train sensor.
- 5. LGB 51750 momentary contact control box.
- 6. LGB 51800 on/off control box.

The latter two control boxes have switches for four circuits and are weatherproof.

Both the LGB 17100 Train Sensor and the LGB 51750 Control Box contain diodes that allow a two wire connection to switch drive motors, instead of the more traditional three wire system. This saves a lot of wire on a large scale railway. The diodes pass "half-wave DC" to the switch motor. Positive DC throws the drive in one direction; negative DC throws it the other way. Conventional switch drives have two coils wound in opposite directions to accomplish this. Wiring errors can burn out the diodes instantly, so follow the instructions on the following pages carefully.



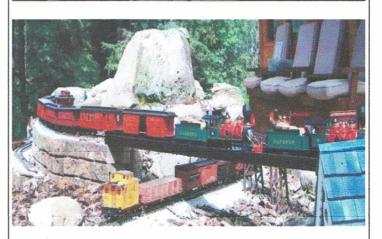
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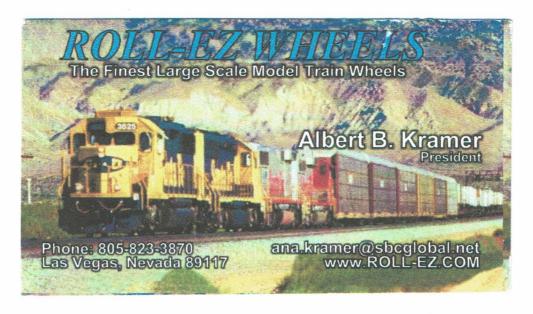
CRAIN'S RAILROAD PAGES

More pages next Newsletter









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