

Fig 14a—Track Layout

Suggested Track Installation Steps:

- Pick a sheltered location for the Control Unit where it is sheltered from the weather and dirt as much as possible.
- Calculate the required length of the On/Off blocks B2 and B4. The minimum length should be longest engine combination plus "rolling distance" of about 1 foot, depending on the brand of engine. For single engines, I suggest a length for On/Off Block B2 of 3'-6", as shown in the sketch. (The length of the "standard" assembled unit I build is about 3'-4". For small engines you could use shorter lengths as short as 1-6'.)
At Countryside Inn in Lyons CO, they run double-headed White Pass type diesels. A B2 On/Off block length of 4-6" barely works if the engines are run slowly so they do not coast, but a length of 5' would be more desirable for this engine combination.
- Calculate the required length of the Slowdown Blocks B1 and B3. The length of the Slowdown Block B1 can be anywhere from approx. 4' to 20'. The length should be long enough to "hold" all the cars of the longest train you plan to operate.
- Pick a location for the two tracks (from Switch S1 thru Switch S2). **IMPORTANT: Pick a location where all the Blocks B1, B2, B3 and B4 can be straight and level if possible.** Curved slowdown blocks do not work as well, because speed control is more difficult.
- Install a concrete or plywood base where the switches and tracks will go, as shown in the sketches. This base is not necessary, but will help keep the tracks level.
- Install the two tracks (from Switch S1 thru Switch S2), plus plastic insulators #1 thru #5 and 17000 track contacts T1, T3, and T4. Locate T3 and T4 immediately to the rear of insulators #2&3 as shown (do NOT put them inside the on/off blocks). Remove the motor from converging switch S2 so that the engines can push the switch points in either direction.
- Pick a location for Terminal Blocks TB8 and TB9, and install these. A suggested location is somewhere between the middle of Block B4 and Switch S2, as most of the wires will terminate in this area.
- Connect blue wires 3, 8, and 8J as shown, and black wires 4 and 7, as shown. Attach temporary jumper strip on Terminal Block TB8 as shown. This temporary connection connects all track blocks together so you can operate the layout without yet having installed the Automatic Switching Block Control Unit.
- Initially locate Track Contact T2 approximately 2/3 of the way around the loop.

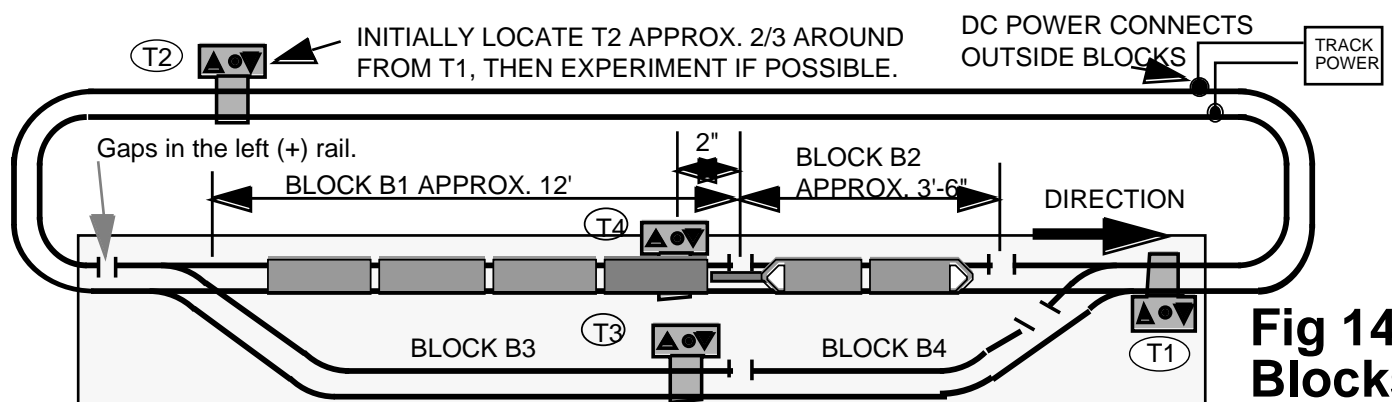
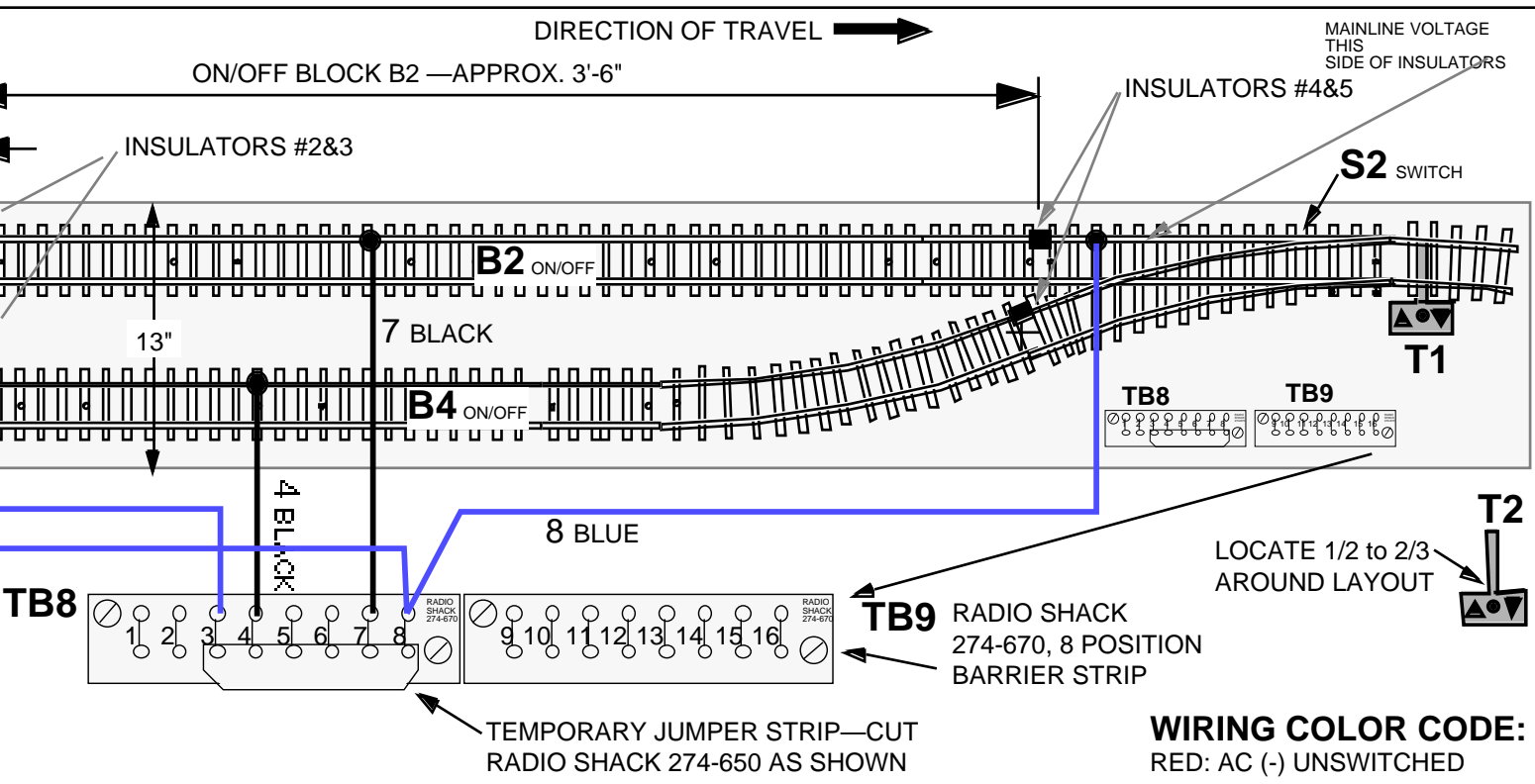


Fig 14b—Blocks



Summary: This sheet shows how to install the blocks in a permanent layout. It also shows how to wire all blocks together for temporary operation without the control unit. The following Sheet 15 shows how to connect the control unit. (Use Sheet 4 instead of this sheet if you want to build a self-contained, portable track unit.)

- WIRING COLOR CODE:**
 RED: AC (-) UNSWITCHED
 YELLOW: AC (+) UNSWITCHED
 GREEN: AC (+) SWITCHED
 BLUE: DC (+) UNSWITCHED
 BLACK: DC (+) SWITCHED
 (DC (-) RT RAIL IS CONTINUOUS)

QTY PART NUMBER AND DESCRIPTION

- 1 LGB 16050 Switch - Right Hand, Electric, 46" Radius — use for S1
 - 1 LGB 16150 Switch - Left Hand, Electric, 46" Radius — use for S2—remove motor
 - 5 LGB 10260 (5026) Insulated Rail Joiner (pack of 4 for \$)
 - '-- LGB 10153 Straight Track Single Isolating (gap in 1 rail) - 6" Long (You can use these as an alternate to insulated rail joiners. They have built-in terminals to connect power to the track, but they are expensive.)
 - '-- LGB Straight and Curved Track as req'd to make sidings
 - 1 Radio Shack 274-650 - 8 Position Jumper (for term. blocks TB8 & TB9)
 - 2 Radio Shack 274-670 - 8 Position Dual Row Barrier Strip ((TB8 & TB9)
 - 1 Wire, Radio Shack 278-1301 - 24 Ga. Stranded, Double Conductor (wires 11 & 12 @ T2; 50' roll)
- Use following solid wire for wires 1 thru 16 connecting TB8/TB9 to the track and track contacts—see next sheet.
- 50' Wire, 18 Ga Solid, color black (DC "+", switched) (ALL WIRE PT # 50018000-0, \$15 per 500' roll)
 - 50' Wire, 18 Ga Solid, color blue (DC "+", unswitched) (ALL WIRE PT # 50018000-6, \$15 per 500' roll)
 - 50' Wire, 18 Ga Solid, color green (AC "+", switched) (ALL WIRE PT # 50018000-5, \$15 per 500' roll)
 - 50' Wire, 18 Ga Solid, color red (AC "-", unswitched (common) (ALL WIRE PT # 50018000-2, \$15 per 500' roll)
 - 50' Wire, 18 Ga Solid, color yellow (AC "+", unswitched) (ALL WIRE PT # 50018000-4, \$15 per 500' roll)
 - 50' Wire, 18 Ga Solid, color gray (AC "+", switched, for target lights) (ALL WIRE PT # 50018000-8, \$15 per 500' roll)
- Use following cable (see next sheet) for wires 1 thru 16 connecting the control unit to terminal blocks TB8/TB9.
- 1 Wire Cable, Carol Part No. C2423, Stranded Cable with PVC jacket, 15 conductor, 18 ga.—length as required to connect control unit to Terminal Blocks TB8 & TB9
 - 1 Paint, for plywood base, flat brown (use enamel for outdoors)
 - 4 Screw, Wood, #4 X 1/2" Long (connect terminal blocks to wood base)
 - 30 Screw, Wood, #4 X 5/8" Long (connecting track to wood base)
 - 1 Wood, Plywood Base for Track Unit, 3/8" Thk, approx 13" wide by necessary length