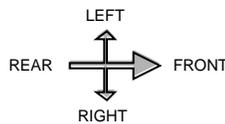
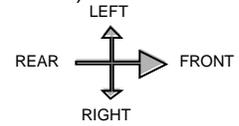


**Fig 45a Initial Conditions - 5 Trains** — (Trains run on all 4 Tracks, using both control units)

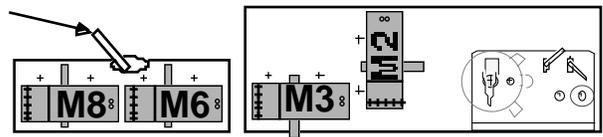
1. Toggle switch K1 'UP' (switching ON). K2 'UP' (blocking 'ON').
2. Toggle switch K0 on helper—Arm FRONT (helper ON).
3. Rheostat R1: Turn forward (CW) for no slowdown. Adjust later.
4. Push engine 4 on Track 4 backward over T4-T6-T8. This will set switches & relays to track 1.

Return engine 4 forward to position on stop block as shown.

5. Track switches: S5 curved, S1 & S7 straight.
6. Relay motors M8 & M6: Arms RIGHT. (routes power to Track 1)
7. Relay motor M3: Arm RIGHT.
8. Motor M2: Arm 'REAR' (block 'RED').
9. Position engines 1, 2, 3, 4 & 5 as shown. Engine 5 must be UPSTREAM of T2.

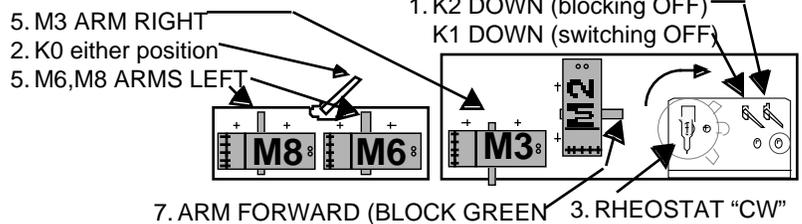
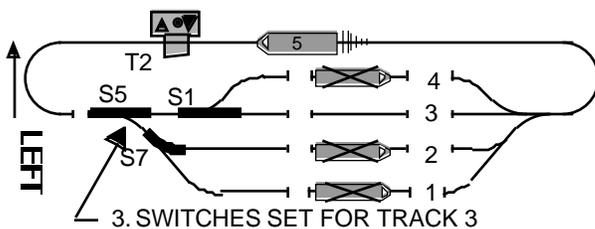


K0 REAR



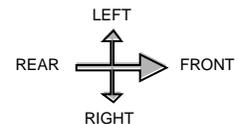
**Fig 45b To Depower Tracks 1 & 2 While Tracks 3 & 4 Continue to Operate:**

1. While all 5 trains are operating, wait until a train enters Track 3 and stops.
2. Immediately change toggle switch 'K0' to the 'rear' position (this deactivates Helper Control and Tracks 1 & 2).



**Fig 45c Initial Conditions - 1 Train—No Controls Operating** (Single train travels on Track 3)

1. Toggle switches K1 & K2—Push to 'DOWN' position (switching & blocking 'OFF').
2. Toggle switch K0 on rear control board—Arm can be in either position.
3. Rheostat R1: Turn forward (CW) for no slowdown. Do out adjust.
4. Track switches: S5 & S1 straight, S7 curved.
5. Relay motors M8 & M6: Arms LEFT.
6. Relay motor M3: Arm RIGHT (routes power to thru Track 3).
7. Motor M2: Arm 'FRONT' (block 'GREEN').
8. Position engine 5 as shown. Tracks 1, 2, & 4 are dead.



(6H10)

# Zellner Yard - Startup Instructions

## — Normal Operation (Fig 45a)

**Note:** Fig 45a at left shows the same 5-train operation, as Fig 44f on Sheet 44.

The method at left is easier than Fig 44f, because by sliding the engine back over the 3 track contacts, you “automatically” initialize all the switches and relays (except M2).

**Summary:** *This sheet shows how to position the relay switches, to start the system for the most common modes of operation.*

### Notes:

1. You may want to copy and plastic laminate the left half of this sheet, to make an “operator’s reference sheet”.
2. Use Sheets 43 and 44 to check out the system as you are building it.

← **Note:** Fig 45b at left shows the same 3-train operation, as Fig 44d on Sheet 44, and also Fig 43e on Sheet 43.

This operates the unit as a 3 track system (Helper Control and Tracks 1 & 2 depowered), so to operates the same as the original 2-track Automatic Switching Block.

← **Note:** Fig 45c at left shows the same 1-train operation, as Fig 43a on Sheet 43.

This operates the unit as a 1 track. 1-train system with all controls depowered. Note that you can operate the system this way without the controls, if you make the appropriate jumper connections on Terminal Block TB8, as explained in the instruction booklet.