

Houston N'Crowd

twiNTRAK Standards

January 2005

1. Frame sizes:

Lengths are in multiples of two feet, with a minimum size of 2' X 2' and a maximum of 4' x 6'.

2. Height of track:

Normal track height is 40" above the floor.

3. Track location:

The twiNTRAK main lines (yellow and blue) are set at 5" (Yellow Main) and 6-1/2" (Blue Main) from the lengthwise center of the module board on both.

4. Module electrical interfaces:

We will use Molex connections (Radio Shack part numbers 274-151 and 274-154) for the yellow, blue and white (DC Supply, for accessories) cables. Be sure to solder the bus wires to the Molex connectors, as merely crimping them may not maintain adequate contact. The Molex connectors have one square side and one peaked (like a roof) side. The outside rail is always connected to the wire on the peaked side of the Molex connector. The inside rail is always connected to the wire on the square side of the connector. For the DC power wiring, the peaked side of the Molex connector will be considered the positive (+) side of the cable.

The female Molex connector, part number 274-151, goes on the left hand side (as viewed from the front) of the module and has about 20" of wire dropped from the bottom of the module. The male connector, part number 274-154, goes on the right hand side (as viewed from the front) of the module and has a 6" drop. Each module has a 110v multi-plug cord, with at least 15" of extra cord to make the connection to the next module. The multi-plug unit should be placed on the underside of the module, near the left end (when viewed from the front) of the module. There are no special requirements for DCC operation: NTRAK standards for wire size will suffice.

Though not a standard, the suitcase connectors sometimes used to connect the track feed (22g solid wire) to each rail's bus wire is the Radio Shack #RS 64-3053, "Tap-In Squeeze Connector."

5. Track size:

Code 80 is standard. Code 55 is acceptable so long as there are appropriate transitions to the end pieces made (see item 14).

6. Turnouts:

Peco turnouts are standard. All turnouts on the mains, passing tracks and interchange tracks will be number 8s. Number 6 turnouts may be used in other sidings, yards, and branch lines. MicroEngineering and Atlas turnouts may only be used off the main and passing tracks.

7. Grades:

Grades of no more than 1.5% across a dedicated set of modules is recommended.

8. Scenery:

Any realistic scenery is permitted. Round down all ends of hills so the adjacent flat modules look realistic. Sets of theme modules are encouraged! Use buildings, hills, tracks, etc., to separate scenes on a module.

9. Skyboards:

Skyboards will be standard. They will extend 12" above the module deck.

10. Junction and special transition modules:

The smallest recommended size is 3' X 4'. No special design is recommended at this time.

11. Corner modules:

Standard corners do not apply to twinTRAK. Bend Track style dog-bones may be placed at the end of each layout. If one chooses to build a standard NTRAK corner, the recommended size is 3' x 3'.

12. Offset modules:

Offsets are in one foot increments. These provide visual variety. Remember to consider construction of these in pairs, as the offset will need to be accounted for in a "closed loop" type of display layout. Observe all other standards.

13. Passing siding modules:

Basic passing siding modules should be incorporated into a twinTRAK layout. Two 4 foot modules will provide about a 7 foot passing siding.

14. Module legs:

To speed set up and tear down of the layout, special legs are used that differ from NTRAK standards. The legs are made of 2" x 2" lumber and each is 38" long. One end is machined to fit easily into a 2" x 2" pocket on each corner of the module frame. The other end has an eyebolt (1/4-20 X 2-1/2") for height adjustment.

15. Module interface (joiner) tracks:

Kato part number 20-050, 78mm-108mm Expansion Track, is used to connect mains from one module to the next. If using only Kato track, the module tracks must stop 1-7/8" from the end of the module. The connector track then fits into the gap. If using flex track, the Kato Snap Track Conversion Track, part number 20-045, may be used to transition from the flex track to the connector track. In this case, the Kato Snap Track Conversion Track is spaced from 1-7/8" to 4-3/4" from the end of each module.

16. Optional module alignment dowel:

Ray Byer will provide the club with a jig to allow placement of a 3/4" dowel in the center of the left end (when viewed from the front) frame member. This dowel will fit in a complementary 3/4" hole drilled in the right end (when viewed from the front) frame member of the adjoining module.

17. Curve radius:

Minimum radius for all mainline tracks (yellow and blue) is 24". Suggested minimum radius for all other tracks is 18".

18. Ballast:

The standard ballast will be Arizona Rock & Mineral Company (AZ R&M) #138-1, Southern Pacific Ballast. If this material is unavailable, acceptable alternatives are AZ R&M #105-1, PRR, or other ballast batches that come close to these colors.

19. Track placement review:

The mains are placed at 5" and 6-1/2" from the center of the board; Kato Snap Track Conversion Tracks are placed 1-7/8" from the end of the module; 24" minimum mainline radius with proper easements; all adjoining tracks should have 1-1/2" center spacing; dedicated module sets may place the mains at other locations on the modules, so long as the end modules of each set have the proper track spacing.