

0-scale Tinplate Module Standards (Non-corner/Non-peninsula)

Module is intended to be built on a common 80 in. x 30 in. interior wooden door. Foreign module edges must be squared

Note that multiple modules can be built to form an integrated set, which can be joined with any edge shape or connectors.

Loose powder/grit (smaller than Lionel “coal”), exposed liquids, or open flames, are not permitted on a module

Primary module operation will be from the front edge, but staging tracks (and etc.) may be operated from the rear

Module designers must assume that a human hand will be used to uncouple cars, and so must ensure necessary clearances

Atlas O 21st Century Track or equivalent is to be used. Switch-unit types may be automatic, remote control, or local manual

Module designers must take into account the effects of S-curves, vertical curves, sideswiping, and train weights

Module must always have one primary main line, built to RED line standards, that completely crosses the module

Primary main line must exit foreign edges at 90 degrees to the edge, and exactly opposite their counterpart on each end

Note that this is so that when a module is slipped between two other modules, the primary main line tracks can link up

Module must allow height adjustment so that both TOPS of the exiting primary main line tracks sit at 50 in. above the floor

A clearance gap of at least 2 in. must exist between the modules support legs and the module edges, to prevent interference

Note that a module must provide a method for keeping a foreign module firmly butted up against its foreign module edge

Skyboards, fascias, safety rails, (and etc.) may attach to and extend beyond the rear (or front) module edges only

Note that for rolling stock safety, avoid building a tangent track center closer than 2 in. to a module edge.

Each module can be assumed to have nearby access to at least 110vac x 12amp @ 60hz of unfiltered and unregulated power

Note that access might only be a single ungrounded and unpolarized two prong socket with 1 in. x .5 in. of plug clearance

Primary main line must be powered from tapping into 2 separate (minimum 14ga.) under-the-module edge-to-edge bus wires

Screw-terminals must be provided as the default method for connecting track power buses to foreign modules

Note that owners could always hook onto their screw-terminals some sort of club approved quick-connect plug

Each module must provide a means of dynamic control over when and which track segment will receive track power

Note that dynamic control of a tracks power may be automated (such as with working railroad signals)

No device may transmit a signal or inject power onto a track until the device is first approved by all connected module owners

Passing sidings on, and tracks branching off, the main line, must be electrically isolated from the main line and each other

Accessories may tap into a track power bus *only* to receive intelligence about its power level and polarity, or packet traffic

Electrical or mechanical controls must not be attached on a module side that will bump against a foreign module

Note that each module owner may choose their own scenery and accessory powering methods and placement of controls

Primary main line must be protected with one functional stop/go block signal within 30 in. of right-hand foreign module edge
Note that normal operating direction for the primary main line is left to right (as viewed from the modules front)

Passing sidings connecting to a main line must use a turnout or Y-switch with a minimum curvature of O54
Note that the sidings (normal-traffic-direction) main line re-entrance point must be protected by a functional stop/go signal

Passing sidings and Primary Yard Leads must be built to *at least* YELLOW line standards

Minimum tangent track length for a stub siding (where parked train will fully clear other tracks) must = 13.5 in.
Note that for dispatching purposes, any passing or siding track longer than 73.5 in. is assumed to be only 73.5 in. long

Any track somehow reachable by rolling stock from the primary main line, must be built to *at least* BLUE line standards

Any other O gauge track placed on the module is considered scenery, and has no minimum standards imposed upon it
Note that this could include track used for a dedicated "trolley" line

Red line specifications:

Minimum overhead clearance above track = 15 in. [safe clearance for most unlimbered cranes and launchers]

Minimum curve = O54

Note that you can use O45, if curve is combined with an O54 easement track (or turnout leg) start/end segment

MAXimum grade = Quarter the maximum recommended for Lionel Elevated Trestle set

Minimum parallel tangent track center distance = 4 in. [the distance between a Lionel O54 crossover]

Minimum structure distance from tangent track center = 2 in. [half the distance between a Lionel O54 crossover]

Flat crossovers must be protected by *at least* two (normal-traffic-direction) functional stop/go signals

Yellow line specifications:

Minimum overhead clearance above track = 5 in. [the height of Lionel rock piers]

Minimum curve = O36

MAXimum grade = Half the maximum recommended for Lionel Elevated Trestle set

Note that if the start/end of a vertical curve is very steep, it must be entered/exited with a short vertical easement

Minimum parallel tangent track center distance = 4 in. [the distance between a Lionel O54 crossover]

Minimum structure distance from tangent track center = the clearance of the Lionel Giraffe Car tattletale pole

Blue line specifications:

Minimum overhead clearance above track = 5 in. [the height of Lionel rock piers]

Minimum curve = O27

MAXimum grade = Maximum recommended for Lionel Elevated Trestle set

Minimum parallel tangent track center distance = the minimum clearance for parallel wobbling rolling stock to pass

Note that if one of the parallel tangent tracks is a Red/Yellow line, then the minimum distance must be 4 in.

Minimum structure distance from track center = the minimum clearance for wobbling rolling stock to pass