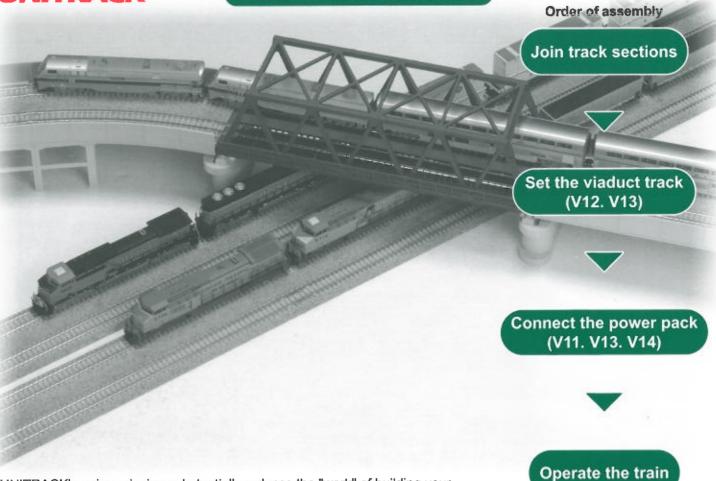


## N-Gauge Track Set V11. V12. V13. V14.

## **Starter Guide**



UNITRACK's unique design substantially reduces the "work" of building your N-Gauge model railroad layout.

The extensive product line allows more versatility in the design and construction of your layout than any other brand of roadbed track.

## N-Gauge railroad models

N-Gauge railroad models are operated on two-rail tracks via a DC (Direct Current) system. The power pack converts the AC voltage from any house outlet into DC 0~12V to provide power for the track, charging the rails with positive (+) and negative (-) current.

Driving Power Current is collected through the wheels of a motorized locomotive which turns the motor and provides rotary power via the drive shaft, moving the car.



In order to control the speed of the train, use the lever on the power pack to regulate the voltage sent through the rails (0~12V).



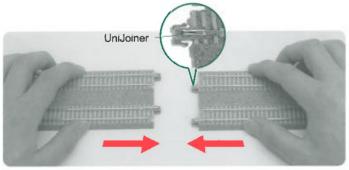
In order to switch the running direction of the train, utilize the reverse lever to switch the direction of current in the tracks.

#### Superelevated Curve Track

On real railroads, banked, or "Superelevated" curves are implemented to allow trains to go around curves at faster speeds than would normally be safe, much like the banking on a racetrack or highway. Now, Kato provides the world's first easy-to-use Superelevated track. Watch as your trains lean into curves like professional skaters, snaking around your layout with jaw dropping smoothness and precision.



### **Joining Track Sections**



As shown here, place the track on a flat surface and insert the rail tips into their respective UniJoiners, pressing them together firmly until they snap together. Once connected, they will retain a secure fit and will not loosen.

#### Disassemble



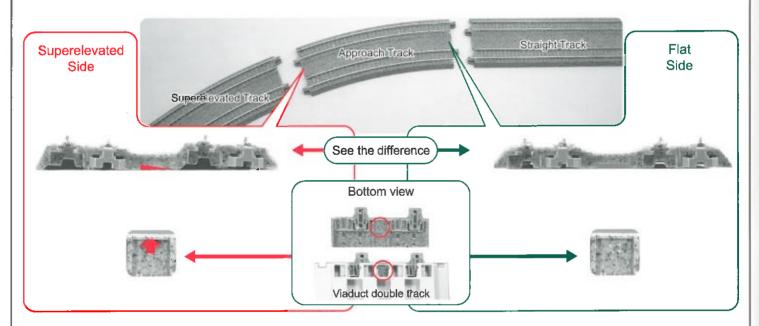
Press out against the edges to snap apart.



Take care not to bend the track sections vertically, as it will break the uni-joiners.

#### Approach Track V11. V12. V13. V14 include curve track superelevated

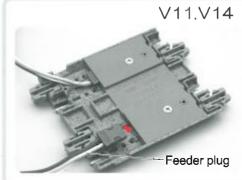
The Easement curve is used to transition into the Superelevated curve pieces from regular curve or straight track. One side is Superelevated, while the other is flat. See below for how to identify the sides.



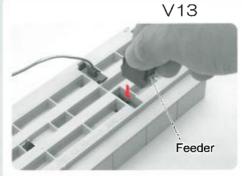
#### Feeder Track (V11.V14) \* Feeder Cables (V13) Installation

Included with each set will be a pair of power feeds that will connect your track to your Kato power pack.

Please note that the grey plug ends will connect to the track, while the white plugs will connect to your power pack.



Each power feed plugs into one side of the included feeder track piece.



On the Viaduct double track, the special feeder plugs can be inserted into any of the straight double track pieces.

## Setting the Viaduct Track (V12.V13)

#### Parts used for assemble

Using the following parts, assemble the viaduct track and attach the piers in proper order.



Parts to connect Viaduct track and piers



Using different height to set up gradual incline track

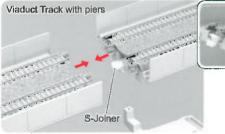


Parts to install Double Track Overhead Catenary Structure sold separately



View of Double Track Overhead Catenary Structure

#### Viaduct connection



To connect, snap S-Joiner (tab down) in the middle of viaduct, press the two tracks firmly together while holding them horizontally and gently connect into the pier

# Connection without piers Connecting Viaduct 22.5û curve, notch S-Joiner (tab up) under each track and connect two viaduct tracks

Flat Track

Connect Approach Track between Flat Track and Viaduct Track

Viaduct Track

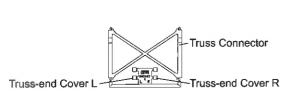
\*\*Please read about Approach Track before connecting Viaduct Curve Track

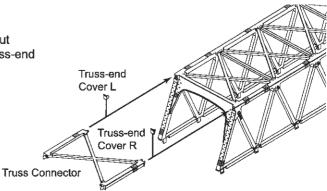
Approach Track

#### Setting the piers Setting Viaduct Double Track and Truss Bride Truss Bridge Pier Place the pier with Viaduct catenary pole base and Truss Bridge in order as shown Gradual Double Track Incline Pier Viaduct Double Track Truss Bridge Incline Double Track Straight Double Track Pier A1 Attach the S-joiner into the middle of piers Viaduct catenary A1 Incline Double Track Straight Please set the pier A2, A3, and A4 as inclining gradually Clearance the height for running train under the viaduct track

#### Double Track Truss Bridge

V12 comes with Truss-end cover L and R plus Truss connector. The Truss Connector allows you to connect additional bridges without interruption. If additional bridges are not used, simply insert the Truss-end covers into the bridge end holes.





#### Connecting the Power Pack, each sold separately (V11.V13.V14)

#### Connecting various cables

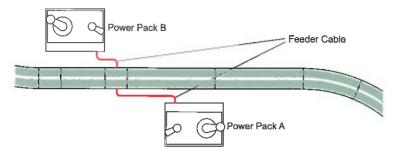
Insert the power supply connector to the jack and the power supply adapter to the wall outlet. Pilot lamp glows green when powered.

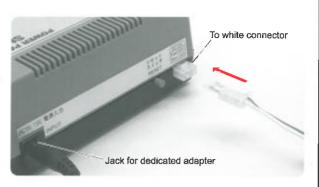


Set the position of the Speed controller to "Stop" and Reverse lever to "Brake".



The white connector from the Feeder Track runs to the power pack. Using two power packs for double track, you can operate each train on individual tracks at the same time.





As the left diagram shows, Power Pack A and Power Pack B can be used to control each powered train on each track

Please refer the instruction sheet in Power Pack or Starter Guide book in the Starter Set.



#### Running a motorized car

#### Rerailing a train car



Put the rerailer on the track and place the car you wish to rerail on top of it, gently pushing it onto the track.

#### Running a motorized car

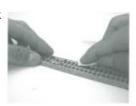
- 1 The closer to "full speed" you turn the speed control lever, the faster the train will accelerate. The green colored region on the side of the lever indicates the optimum levels of power for safe operation. Take care to watch the train carefully and provide it with an appropriate level of power.
- ② Place your locomotive or other motorized car on the track, turn the reverse lever on the controller to either forward or backward, and turn the speed control lever to start the train running.

Use two Power Packs and enjoy operating two trains side by side in either direction



# Maintenance of Track and Train Cars - Following these directions can prevent most common problems from occurring

Track



Before and after running your trains, gently polish the upper part of the rail using a cloth or toothbrush with a plastic-safe track cleaner, followed by wiping it off with a dry cloth.

Locomotive



If the wheels of your locomotive are dirty, clean them off using a cloth or toothbrush with a plastic-safe track cleaner, followed by wiping it off with a dry cloth.

# KATO UNITERACK Track set overview

The Kato UNITRACK Master (M) and Variation (V) sets are the ultimate expansion track sets, perfect for beginners who are looking to get started in the hobby, while also providing complex structures for those seeking to create more complex and advanced layouts! Starting with the base Master Set, you can expand to create any layout you desire by adding as many Variation sets or individual UNITRACK pieces as you like! Each Variation set box contains a complete layout landmark, whether it's a staging yard, a passing siding, or a flyover viaduct bridge.



Starter Set Series

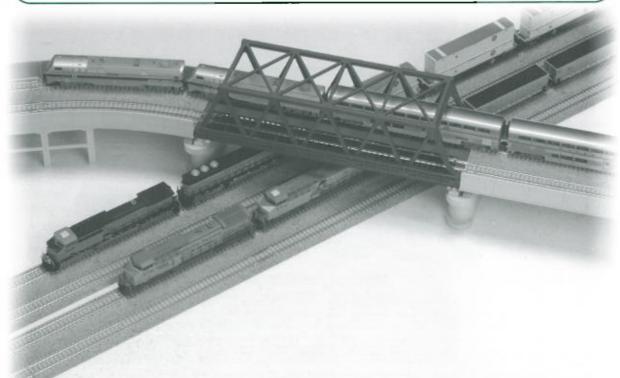


Master Series



Variation Series (Double Track)





You can create and expand realistic model train layouts using Master and Variation set series.

## **Basic Track Set**



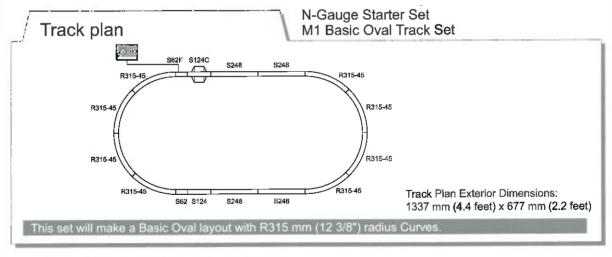
Set includes both Track and Power Pack. Enjoy running your trains on UNITRACK!

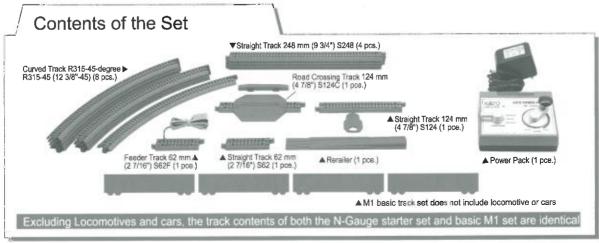
This is the introduction of N-Gauge Starter Sets and Basic Track Sets M1 and M2. Make sure your set contents are complete.



The included 315mm (12 3/8") radius curved track will run any Kato train smoothly so you don't have to worry about minimum radii.

Adding the separately sold V series track sets on this standard set M1 can expand the track plan very easily. The included power pack can control even long trains equipped with power-hungry light kits and accessories.





## **UNITRACK** Basic Track Set M2 with Turnouts



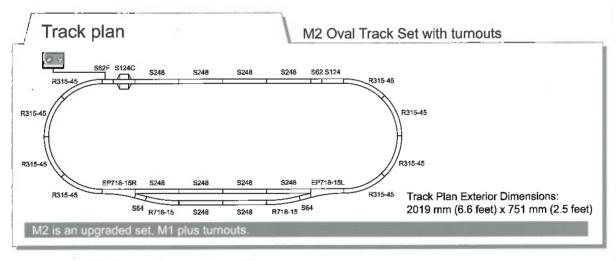
Set includes both Track and Power Pack. Enjoy running your trains on UNITRACK!

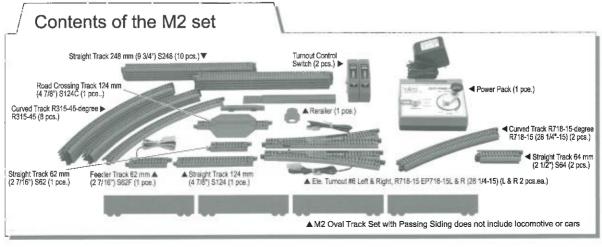
This is the introduction of N-Gauge Starter Sets and Basic Track Sets M1 and M2. Make sure your set contents are complete.



The M2 set is an M1 plus V1 passing siding set. Add a station or use the siding for overtaking and passing. By adding separately sold V Series track sets, the basic track plan can be easily expanded.

The included power pack can control even long trains equipped with light kits and accessories.





## **Expansion Track Sets**



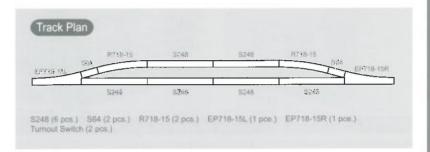
#### Add your V (Variation) Sets to your basic M1 or M2 set and expand your layout!

V (Variation) Sets are made by combining separately sold track items for expansion of the basic track plan of N-Gauge starter sets or M1, M2 sets. V (Variation) Sets, as such, neither include train nor controller (each sold separately). A V (Variation) Set is an additional set for the basic set, and does not always include track items which can make an oval track. For details, please see explanation of each V set track plan.

Add a station and enjoy trains passing and switching around each other!

V1 Mainline Passing Siding Set

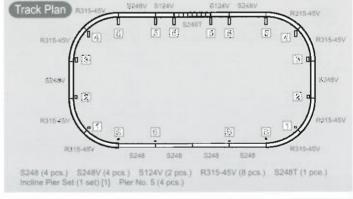




Set includes a bridge for overhead crossing.







This is a Viaduct Set, including R315 mm (12 3/8") Curved Viaducts and Truss Bridge

## Recommendable Structures

This island platform set allows a 6-car train to stop on both sides of the island platform, most suitable for use together with V1 set



① [20-806] Island Platform Set 2 [23-200] Overhead Station

## Expansion Track Sets V3, V4 with Electric Turnouts V3



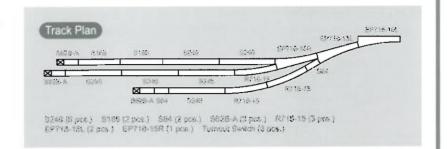
Add your V (Variation) Sets to your basic M1 or M2 set and expand your layout!

Use this set to lay sidetrack for rail yard!

V3 Rail Yard Switching Track Set





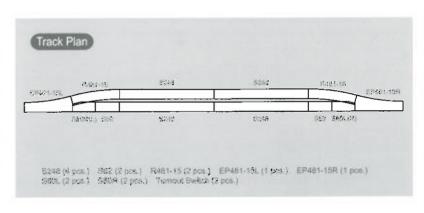


This set is most suitable to make a small switch yard and train shed location

Make a station or signal tower where trains pass by each other!

V4 Switching Siding Set





This Switching Siding set uses number 4 turnouts to create closely placed sidetracks for trains to exchange cars or move aside while preserving layout space

## STRUCTURES Recommendable Structures

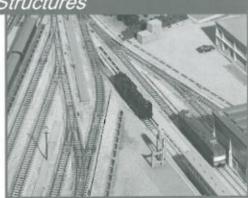


[23-300] Long Engine House (Kit)



[23-310] Railroad Staff Office Building (Kit)





Add your V (Variation) Sets to your basic M1 or M2 set and expand your layout! These expansions let you create inner and outer ovals for your basic oval layout!

# Easily set up and run parallel tracks!

V5 Inner Oval Track Set for Master 1 Set V6 Outer Oval Track Set for Master 1 Set

20-864-1 V5 Inner Oval Track Set for Master 1 Set 20-864-2 V6 Outer Oval Track Set for Master 1 Set

V5 Inner Oval Track Set



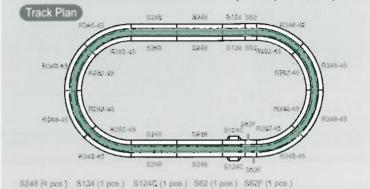
20-865-1

V6 Outer Oval Track Set or Master 1 Set



V5 and V6 Seis are all the same in the contents but the radius of Curved Track is different. V5 and V6 sets do not include a Power Pack. You will need to purchase an additional Power Pack separately for the inner or outer ovals if they are not connected to the main oval (via the V7).

V5 Track Plan Exterior Dimensions: 1271 mm (4.2 feet) x 611 mm(2 feet) V6 Track Plan Exterior Dimensions: 1403 mm (4.6 feet) x 743 mm (2.4 feet)



\$248 (4 pos.) \$124 (1 poe.) \$124C (1 poe.) \$62 (1 poe.) \$62F (1 poe.) R262-45 (celly in V5 Set) (8 pos.) R345-45 (only in V5 Set) (8 pos.) Rareller (1 poe.) Fareder Cable (Blue/White) 1 pce.

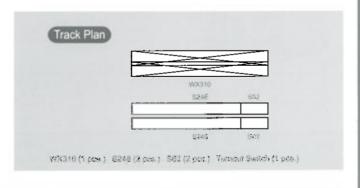
M1 or M2 basic oval track is in the colored part.

This set is to lay the second oval track inside or outside of the basic oval track of M1 or M2 set for double-tracking.

## Set the turnouts to change track

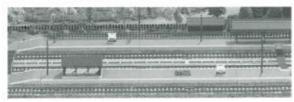
V7 Double Crossover Track Set





This Double Crossover turnout set is used to link adjacent tracks together, such as the M1 and V5 or M1 and V6.

## STRUCTURES Recommendable Structures







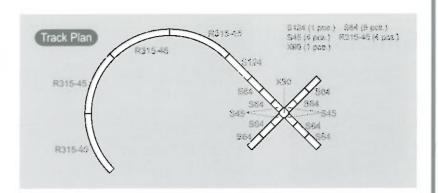
[23-220] Rural Station (Kit)

Add your V (Variation) Sets to your basic M1 or M2 set and expand your layout!

### Create a figure-8 track layout!

V8 90-Degree Crossing Track Set





Combined with an M1 Track Set or Starter Set, the V8 can create a figure-8 shaped layout.

#### Create a double oval track with a 15-degree crossing!

V9 15-degree Left Crossing Track Set V10 15-degree Right Crossing Track Set

V6 and V10 Sets are all the same in the contents but the direction of crossing is

20-868-1 V9 15-degree Left Crossing Track Set 20-869-1 V10 15-degree Right Crossing Track Set

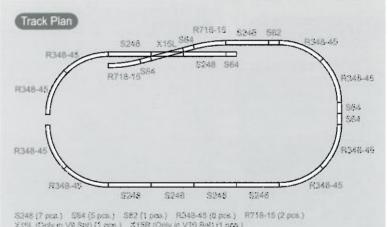




20-869-1







S248 (7 pcs.) S84 (5 pcs.) S82 (1 pcs.) R348-45 (8 pcs.) R718-15 (2 pcs.) X19L (Cety in V9 Set) (1 pcs.) X19R (Cety in V10 Set) (1 pcs.)

This track plan is with 15-degree Left Crossing. Using the 15-degree Right Crossing, the track plan should be flapped nonzentally to compensate for the different drossing direction

In combination with the oval track of M1, V9 or V10 set can create an oval track plan with 15-degree crossing.

## Recommendable Structures

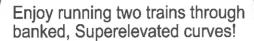






## UNITRACK Expansion Set (Double Track) V11 1 V12

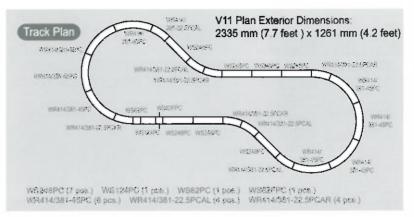
#### Add your V (Variation) Sets to your basic M1 or M2 set and expand your layout!



#### V11 Double Track Set

20-870-1 V11 Superelevated Double Track Set





This set can run two trains separately through a basic double oval track plan

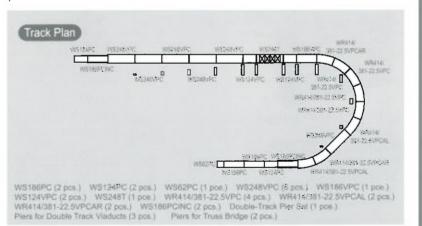
This set allows two trains to run simultaneously with a two-level crossing on Superelevated curves.

V12 Double Track Viaduct Set

Double-Track Pier Set (1 pce.)



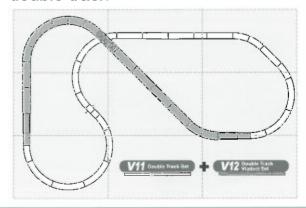




Included Viaduct and Bridge pieces elevate the track to allow for two-level crossing.

# A two-level crossing made with double track





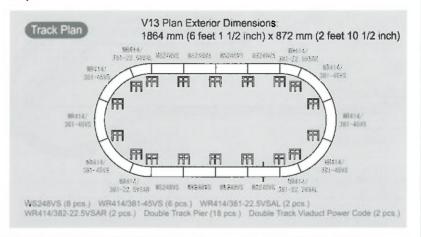
## UNITRACK Expansion Set (Double Track) V13 V14

Add your V (Variation) Sets to your basic M1 or M2 set and expand your layout!

# Start operating trains by going around an elevated loop!

V13 Double Track Elevated Loop Set



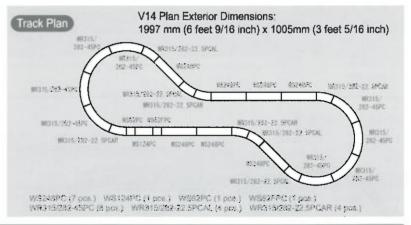


Create an exciting aerial level layout!

# Enjoy running two trains through banked, Superelevated curves!

V14 Inside loop Double Track Set R315/282





This set can run two trains separately through a basic double oval track plan.

## STRUCTURES Recommendable Structures



[23-431A] 4-Floor Office Building, Brick



[23-432A] 6-Floor Office Building 1, Gray



[23-433A] 6-Floor Department Store, Blue

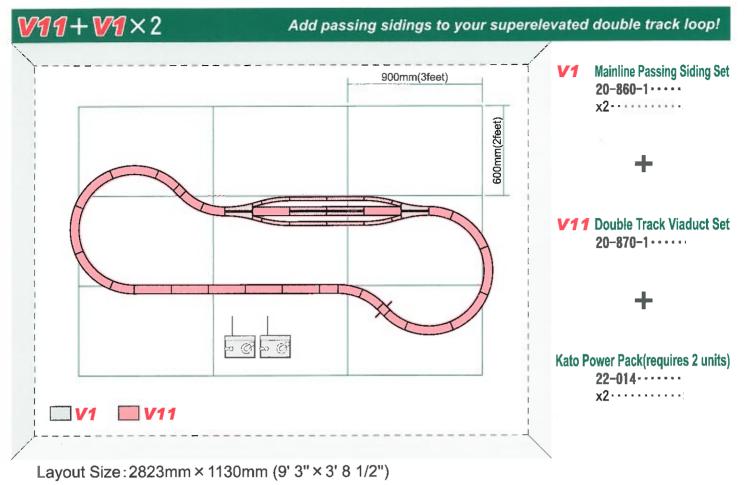


[23-434A] 6-Floor Office Building 2, Grav

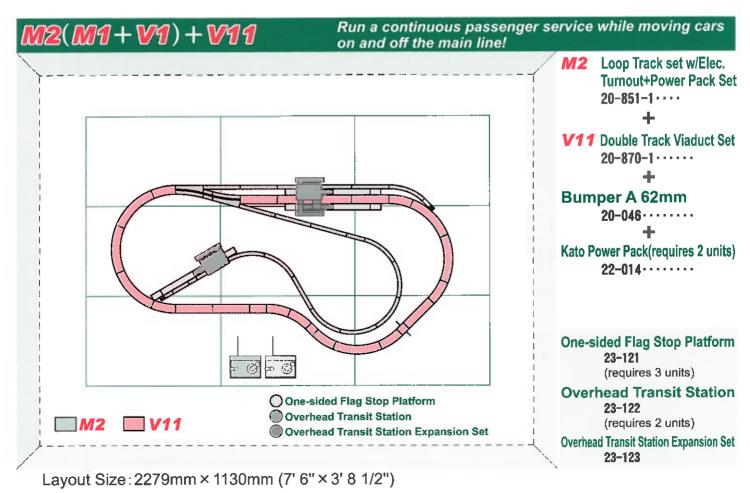


[23-435A] 6-Floor Office Building, Ivory

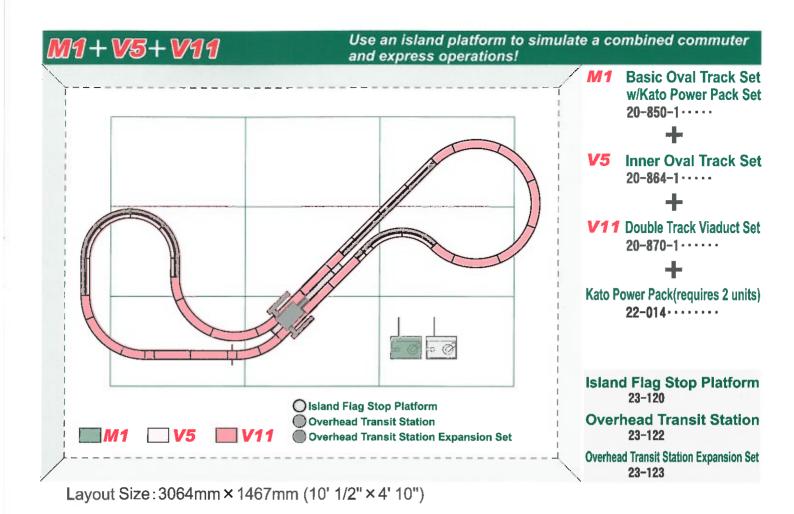
## ■Expand your layout with the KATO UNITRACK Master and Variation sets!

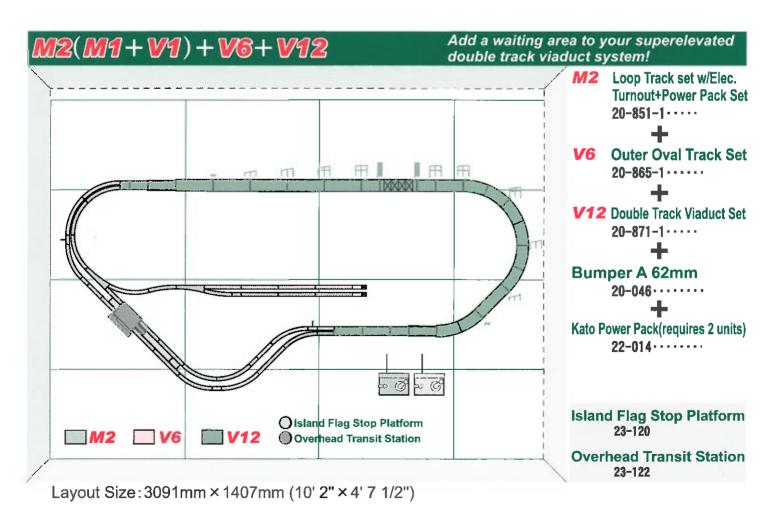


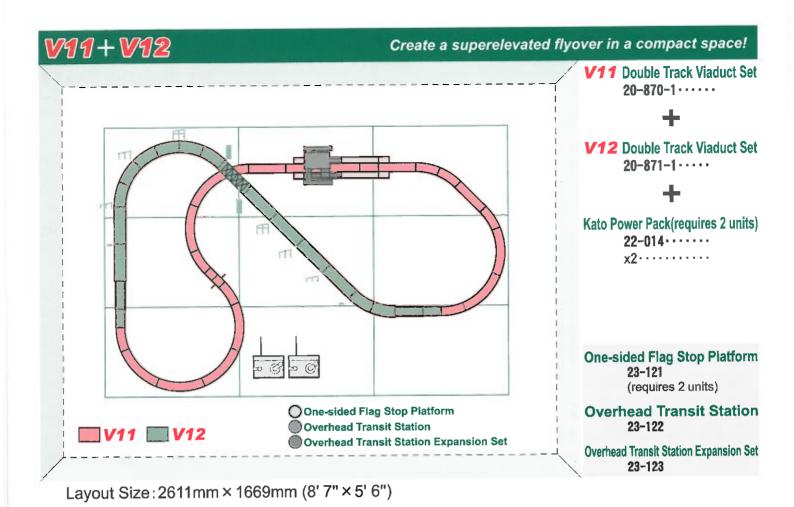
The Double Track sets such as the V11 can be combined with Single-track V sets for more complex and exciting layouts.

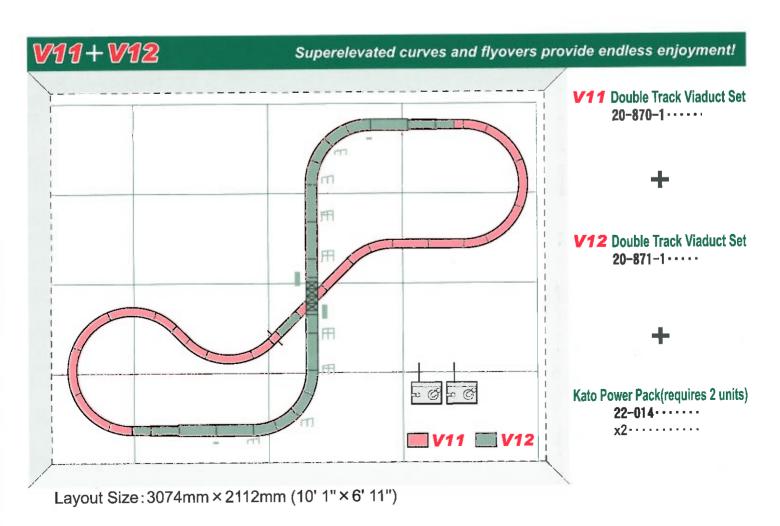


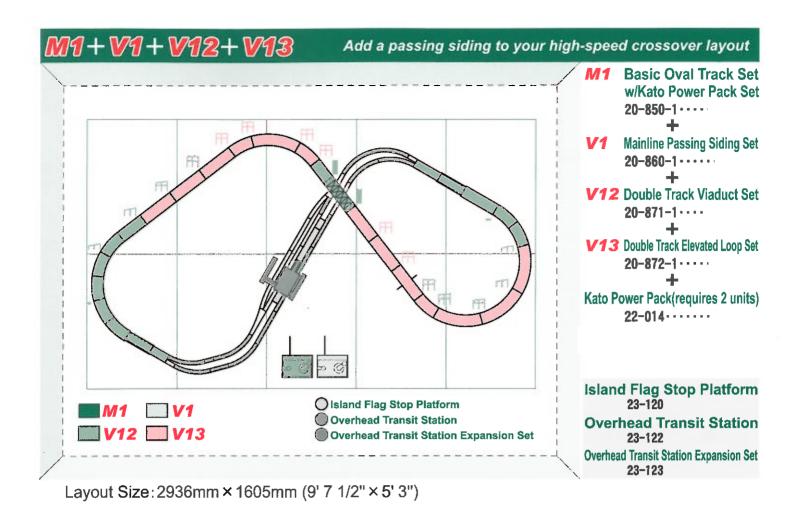
The addition of structures can enhance your layout design and greatly improve realism.

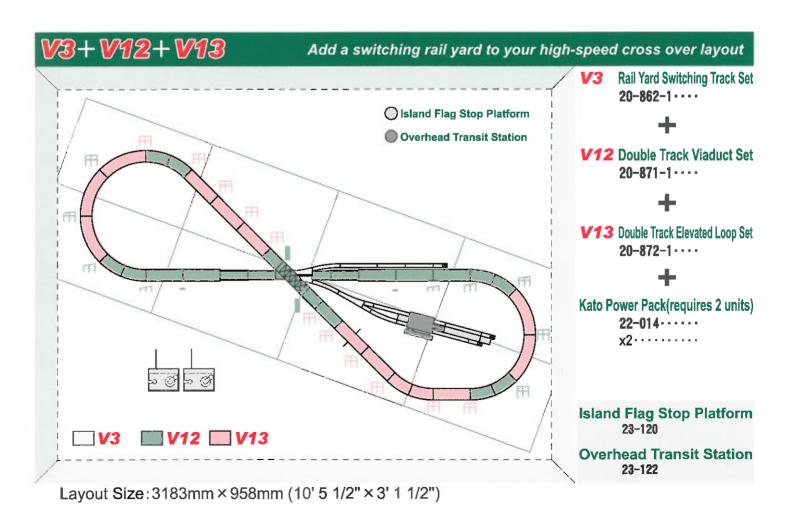


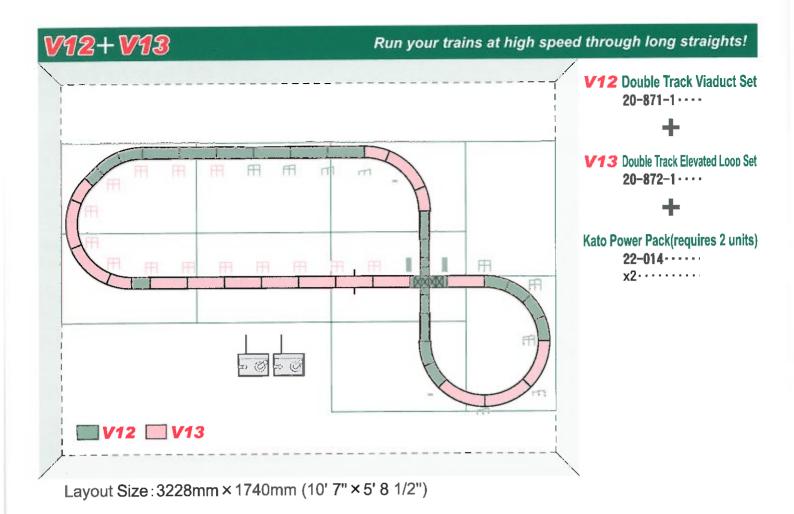


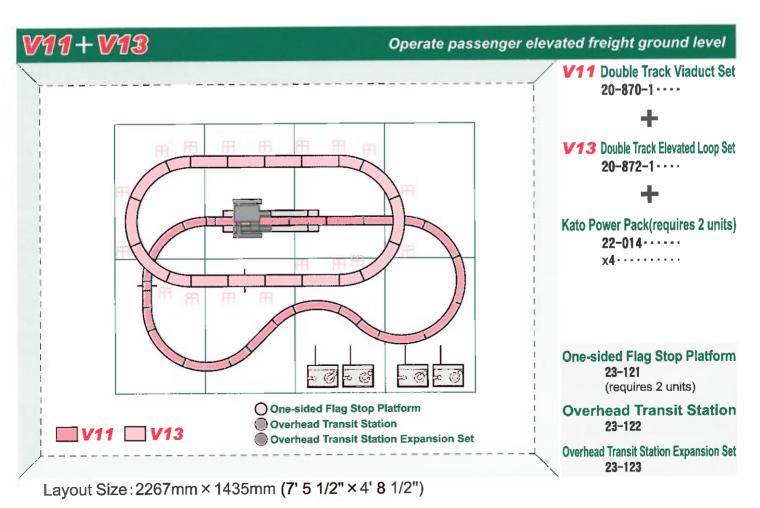


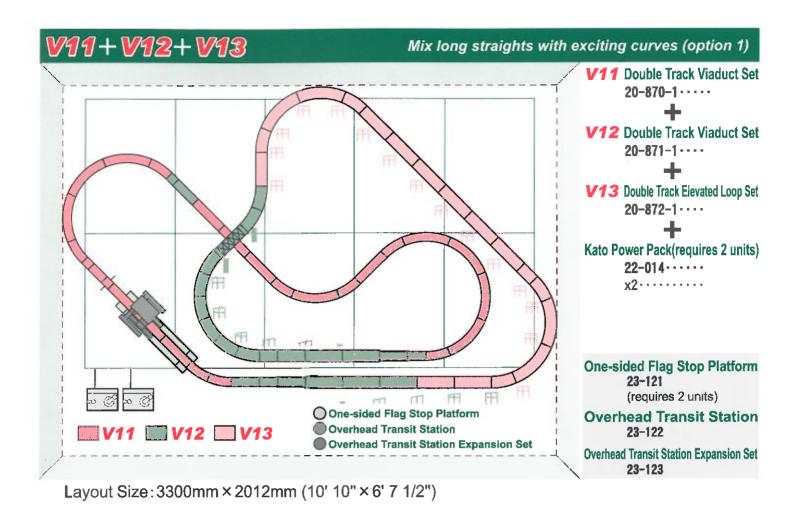


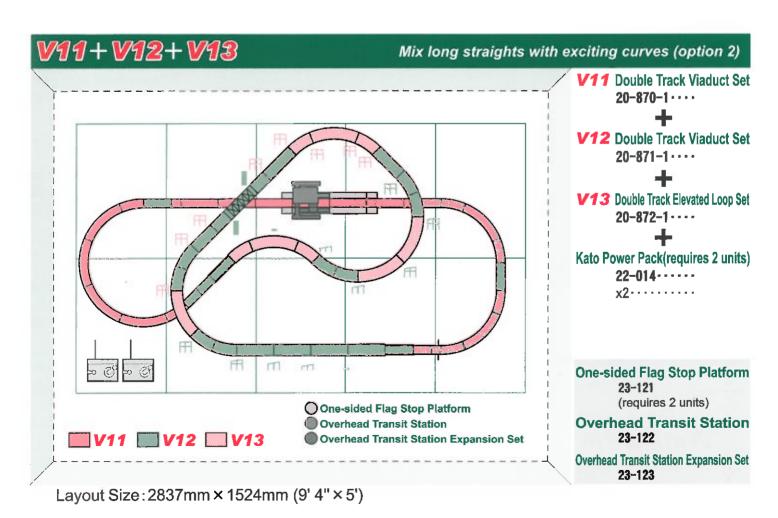


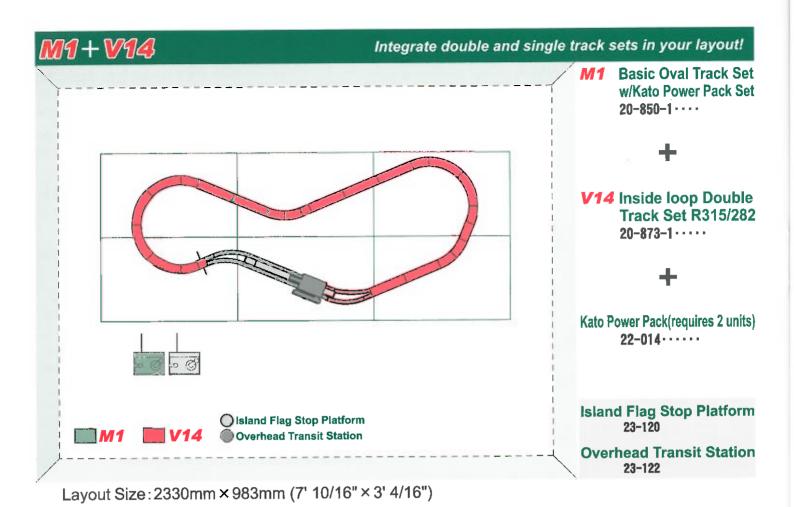


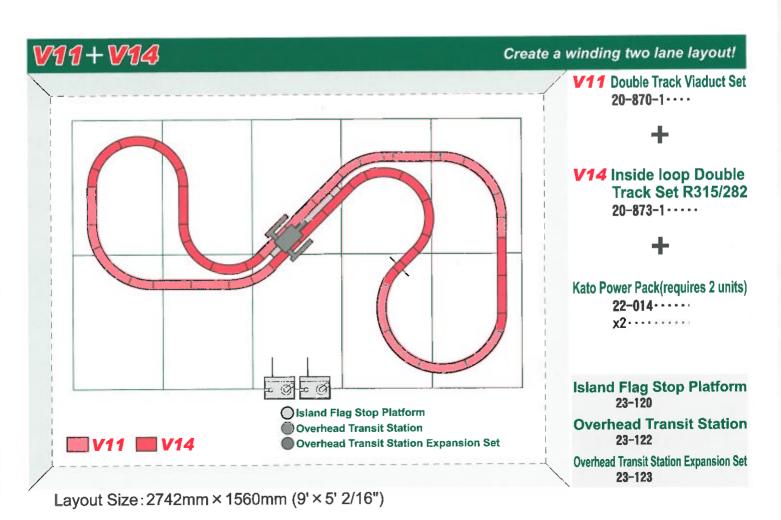


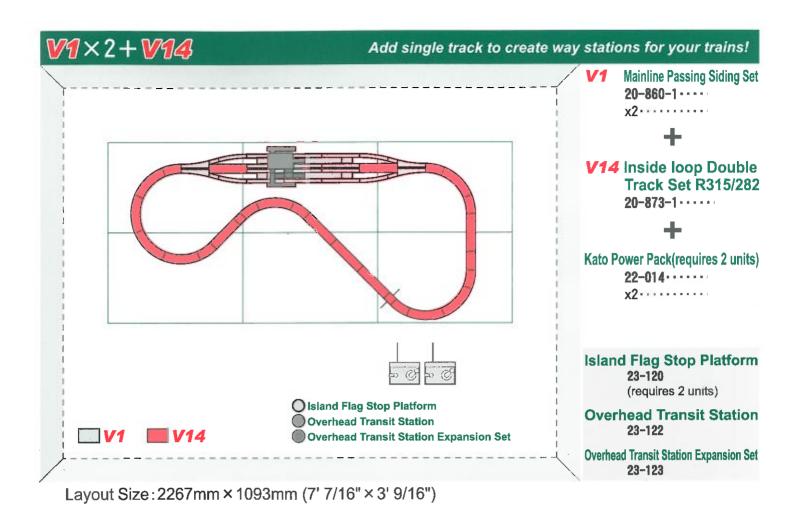


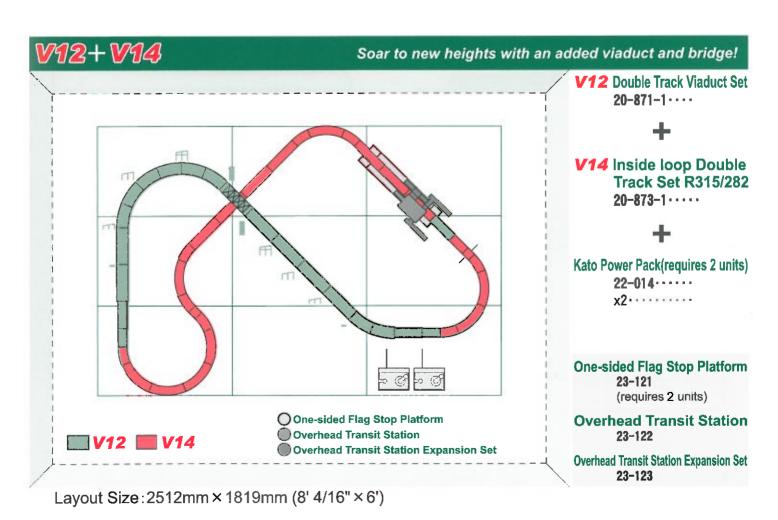


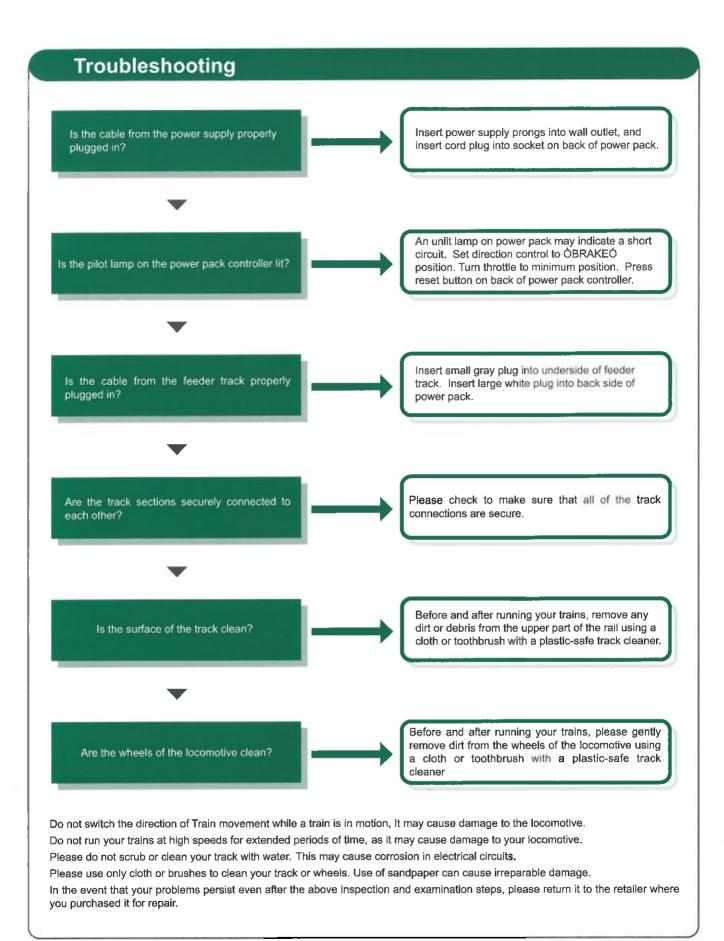












## Description of letters and numbers

#### ■Description of letters and numbers

①The first letter indicates the type of Unitrack. WS means double straight track.

②Numbers indicate length and/or radius of Unitrack.

**S62F** 

3The last letter indicates direction and characteristic of Unitrack.

Example

"S62F means 62mm Straight with Feeder track"

#### 1) letters

S	Straight track	WX	Double crossover turnout	
R	Radius track	Х	Crossing	
EP	Electric turnout	W	Double track	

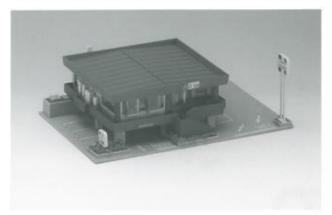
#### 2 numbers

S, WX + numbers = length	
R + numbers = radius and degree	
EP + numbers = radius and degree	
X + numbers = degree of separation	

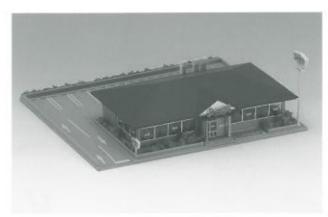
#### 3 letter(s)

В	Bumper	L	Turnout or Crossover Left	Т	Truss bridge
С	Road crossing	R	Turnout or Crossover Right	PC	Concrete tie
F	Feeder track	AL	Approach track Left	S	Concrete slab
V	Elevated track	AR	Approach track Right		

## **More Structures**



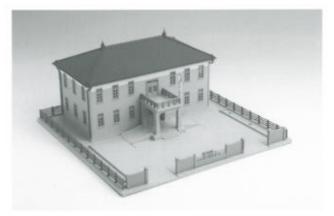
23-406 Mama's Restaurant



23-407 Denny's® Classic Diner



23-458 Local Bank Building



23-459 City Hall

You can find more information on Kato Products and Additional Track Plans: www.katousa.com

Kato Web Site http://www.katousa.com



- \*Recommended 8 years and older.
- \*Maximum DC12V
- \*Prices subject to change.