

Traffic problems are becoming more and more urgent every day, and engineers all over the world have long been seeking a solution to them. With the Alweg monorail system they have succeeded in introducing an entirely new form of transportation that easily overcomes traffic problems previously considered insurmountable.

The first full-sized Alweg monorail, apart from the experimental track at Cologne, was put into operation with great success at the world-famous Disneyland in the USA. It has already carried between 6 and 7 million passengers and is considered one of the leading attractions at Disneyland. As this monorail has proved so successful others are being built at Seattle (USA) and Tokyo (Japan). In Turin (Italy) a monorail is already operating and other large cities have similar projects in the planning stages.

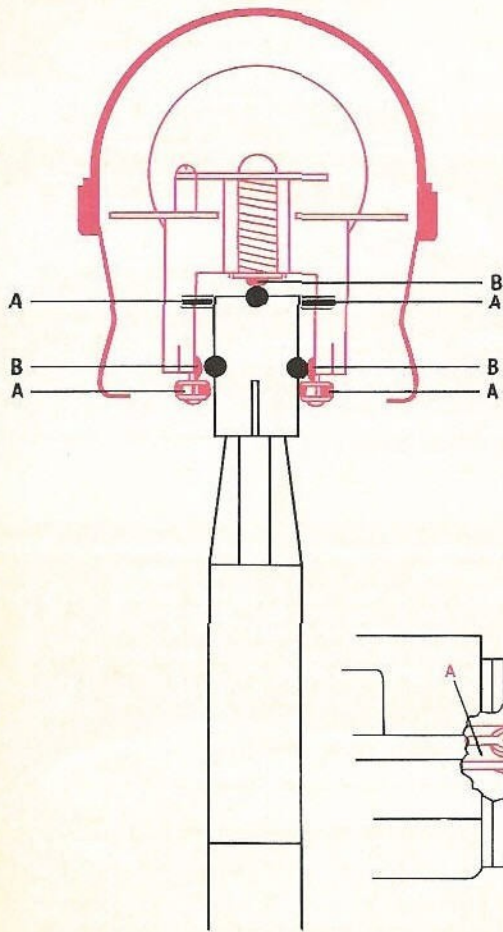
SCHUCO has succeeded in producing the first operating scale model of the Disneyland-Alweg monorail with an individually regulable two-train DC system. The track can be laid out just above the ground or at various levels with gradients up to 30%. The track can cross over or under itself without the need of junctions to handle cross-traffic, thus eliminating the danger of collisions. This allows the Alweg monorail to be operated in many new ways. A special attraction lies in the fact that it can be combined in any way desired with all types of railway layouts and with the SCHUCO Varianto car system. The individual pylons require only an area of less than $\frac{1}{6}$ th of a square inch and can therefore be set up in the space between tracks, on hillsides, in valleys, or even on buildings with flat roofs. The Schuco Disneyland-Alweg monorail can be installed in even the most complete railway layout. Hills, houses and valleys can easily be spanned and above all the monorail always blends in perfectly with its surroundings.

Electric points (switches), signals, automatic controls, block sections, two-track operation, train extensions, etc make for interesting, versatile layouts.

Mr. Walt Disney, who had the courage and vision to have the first full-sized Alweg monorail built in his Disneyland, would like to congratulate you as the possessor of this fine model railway and wishes you much enjoyment and fun with the Schuco Disneyland-Alweg monorail.

Here is what Walt Disney himself said about the unit: "Enthusiastic about your wonderful presentation of Disneyland monorail. Congratulations, wish you every success at Nuernberg Toyfair."

Walt Disney



**Alweg Monorail:
cannot derail — the transportation of the future!
How the system works**

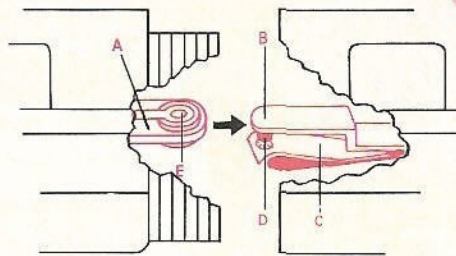
Despite all safety precautions, we continually read or hear about terrible train disasters caused by derailment. In model railways too it is quite common for the train to leave the rails, which is annoying even if no damage is done. With the Alweg monorail system such accidents cannot happen.

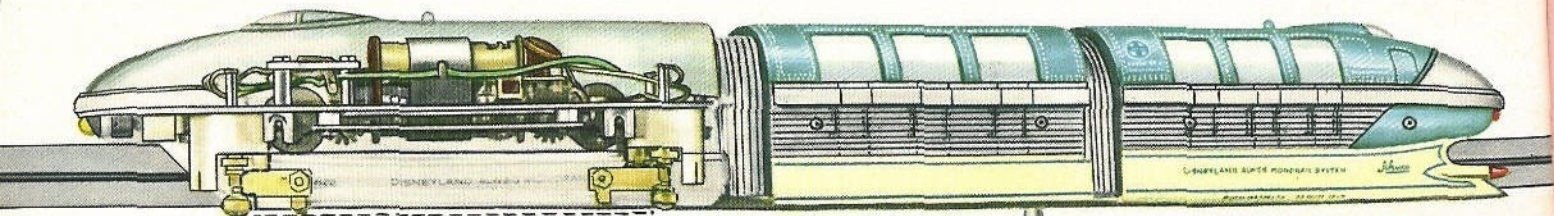
The cross-section shows how the Disneyland-Alweg cars straddle the rail. The power car is held on the rail by 8 guide rollers (A). The current is picked up by 6 contacts (B). The upper contacts are always in operation, while either the right or left side contacts can be selected with a manual switch on the train. This means that two trains can be powered independently of each other, one from the right conductor and the other from the left, permitting truly regulable two-train operation. The motor, via worm drive, powers the two drive wheels which run on the top of the rail and provide terrific traction power. The Alweg monorail derives its outstanding stability from the side guide rollers built into both the power and the rear cars and mounted on swivelling bogies (trucks) (pat. pending). This logical arrangement of running the rail through the train gives the Disneyland-Alweg monorail its outstanding reliability. It also has the advantage that the trains run more smoothly.

Coupling the cars together:

Push coupling part A on the power or rear car between the coupling parts B and C on the centre car so that the bolt D slides into the hole E. The spring C will then anchor the bolt D firmly in the hole E. The spring C also acts as an electrical contact.

If you wish to uncouple the train, push the power or rear car gently downwards to release the bolt D from the hole E and slide the centre car off.





6333/0 Schuco Disneyland-Alweg Monorail Train

Individually regulable two-train DC system.

Train Features

An accurate scale model of the Disneyland-Alweg monorail. The train consists of: power car with electric motor, centre car and rear car. Cars are also obtainable singly. Stable multitoned metal body combined with high-impact red/beige or blue/beige plastic. Transparent windows; original lettering; flexible gangways between individual cars; white lighting in front, red at rear; train length 14½".

Technical Data

Extremely powerful high-performance electric motor for up to 17 volts DC.

Fast-running, even on gradients up to 20–25 %.

Motor suppressed for radio and television in accordance with regulations.

The Alweg monorail cannot be derailed due to the special arrangement of the swivelling bogies (trucks) and wheel bearings (pat. pending).

Special gearbox with plastic worm wheels; teeth angled for extra-quiet meshing.

Remote control for speed adjustment from slow to fast in forward and reverse.

Manual switch on power car for selecting contacts (for two-train operation).

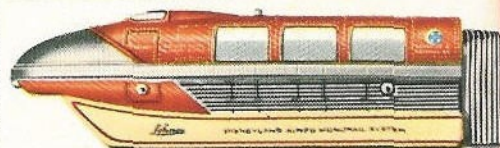
Takes curves very well.

Double worm drive.

Replacing bulb: simply push burned-out bulb out of socket with pointed instrument and insert new bulb.

6333/0/12/15 2 brushes for motor
 6333/0/12 Electric motor for 6333/0/1
 6333/0/16 4 slide screws for side contacts
 6333/0/20 2 upper contacts

6333/0/46 Head light for motor rail car, white
 6333/0/47 Head light for final wagon, red
 6333/0/22 Screws for fixing the side covers
 6333/0/32 2 carrying wheels cpl.



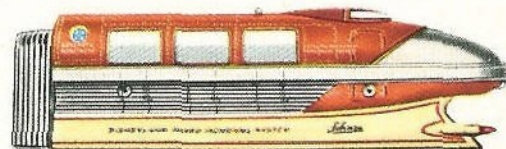
6333/0/1 Power Car with motor and complete drive system, white headlight. Length 5⅝", weight 6 oz.



6333/0/2b

6333/0/2

6333/0/2 Centre Car, easily coupled between power and rear cars. Train can be lengthened by adding 1 or 2 centre cars 6333/0/2b with flexible gangways. Length 3⅝", weight 1⅓ oz.



6333/0/3 Rear Car with red taillight. Length 5⅝", weight 3¼ oz. Power, centre and rear cars are available in a choice of either red/beige or blue/beige or silver combinations.

6333 G Schuco Disneyland-Alweg Monorail:

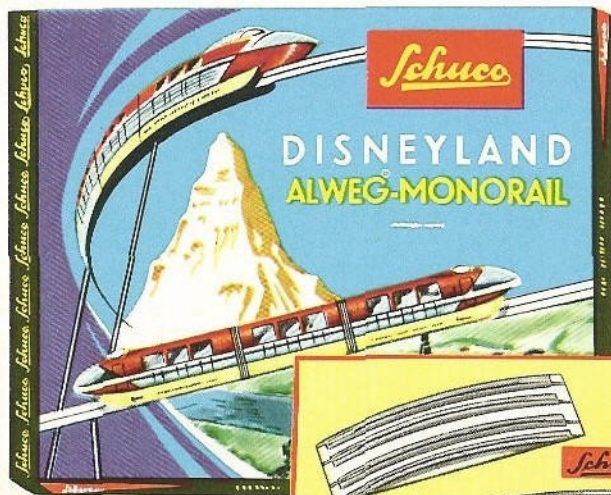
Basic set for a 27½" diameter loop, containing the following:

- 1 Train 6333/0, consisting of:
 - Power car 6333/0/1 with headlight
 - Centre car 6333/0/2 and
 - Rear car 6333/0/3 with taillight
- 12 Rails, normal length, curved 6333/2
- 6 Pylons, 1 9/16" high, 6333/64
- 1 Terminal board for middle pole 6333/44
- 1 Terminal board for outer poles 6333/45
- 1 Hookup wire, red, 40", 6333/48
- 1 Hookup wire, black, 40", 6333/49
- 2 Pylons, 1" high, 6333/62
- 8 Pylon tips 6333/70
- 10 Rail connectors 6333/17
- 2 Rail connectors 6333/18
- 8 Pylon feet 6333/69
- 13 Contact pins for middle pole 6333/19

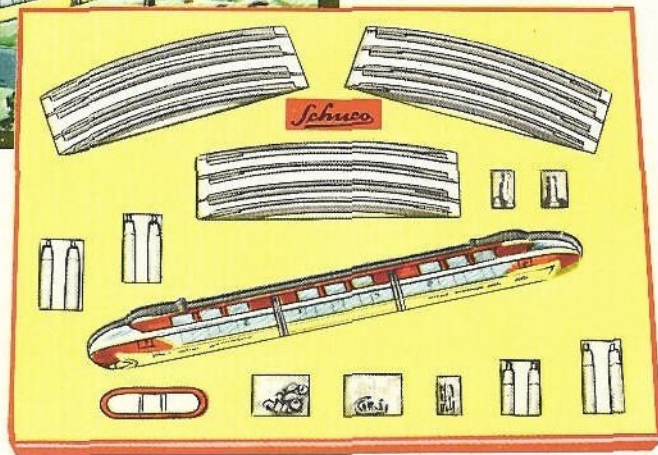
All components are also obtainable separately.

Box size for basic set: 18½" x 14"

See page 14 for a basic layout



6333 G



The Schuco Transformer no. 6333/150 (page 10) is designed for use with the Schuco Disneyland-Alweg monorail.

You can however connect the Alweg monorail to any adjustable DC transformer from 14—17 volts; if you use an AC transformer you will have to wire in rectifier no. 6333/47 and pole reverser no. 6333/46.

**6333/S Disneyland-Alweg Monorail Layout with
Points and Signals in Gift Box.**

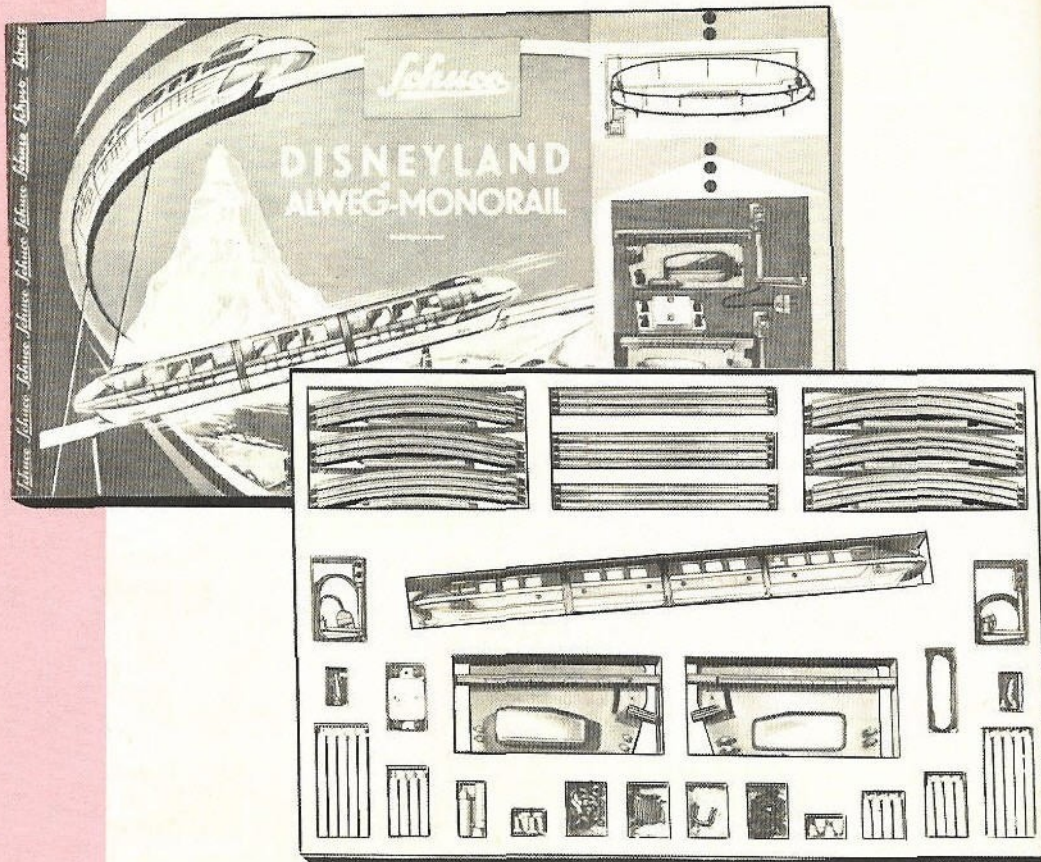
This very attractive gift box contains 1 complete 4-section train consisting of:

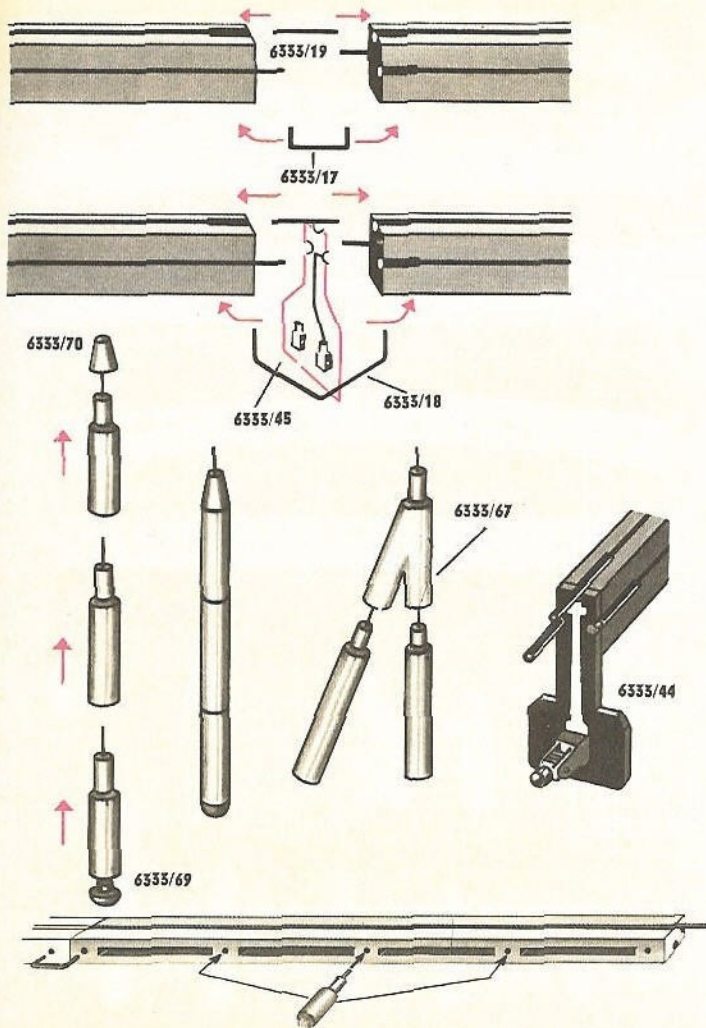
- 1 Power car 6333/0/1
- 1 Centre car 6333/0/2
- 1 Centre car extension with bolster 6333/0/2b
- 1 Rear car 6333/0/3

Other components included:

- 2 sets points (switches) 6333/20 L and R
- 2 Signals 6333/27
- 1 Control unit for points (switches) 6333/41
- 1 Terminal board 6333/44
- 1 Terminal board 6333/45
- 10 Rails, straight 6333/1
- 18 Rails, curved 6333/2
- 2 Half-rails, straight 6333/3
- 2 Half-rails, curved 6333/4
- 35 Rail connectors 6333/17
- 2x Rail connector 6333/18
- 45x Contact pins for middle pole 6333/19
- 1 Hookup wire, red, 13 ft, 6333/48
- 1 Hookup wire, black, 13 ft, 6333/49
- 4 Pylons 6333/26/2
- 4 Pylons 6333/61
- 4 Pylons 6333/62
- 8 Pylons 6333/64
- 10 Pylons 6333/66
- 2 Pylons 6333/68
- 20x Pylon foot 6333/69
- 18x Pylon tip 6333/70
- Box size: 25½" x 19"

See pages 14/15 for 2 typical layouts possible
with 6333/S





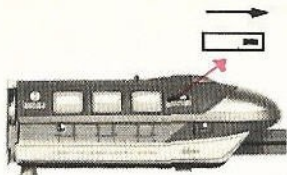
How to assemble the Disneyland-Alweg Monorail

Joining the rails is quite simple, provided you follow the illustration opposite. First plug a contact pin 6333/19 into the upper socket of one rail and then push the two rails together so that the fixed contact pin on each rail fits into the corresponding socket on the other. As the contact pin 6333/19 is interchangeable, curved rails can be added in either direction. If you wish to join the rails firmly together you can insert a rail connector 6333/17 into the two holes provided in the underside. The rails can be bent slightly so that the track leads upwards or downwards or curves made slightly wider or narrower. Do not bend the rails too much, however, or the conductors will spring out of the rails. If this should happen, you will have to push the conductor firmly back into place.

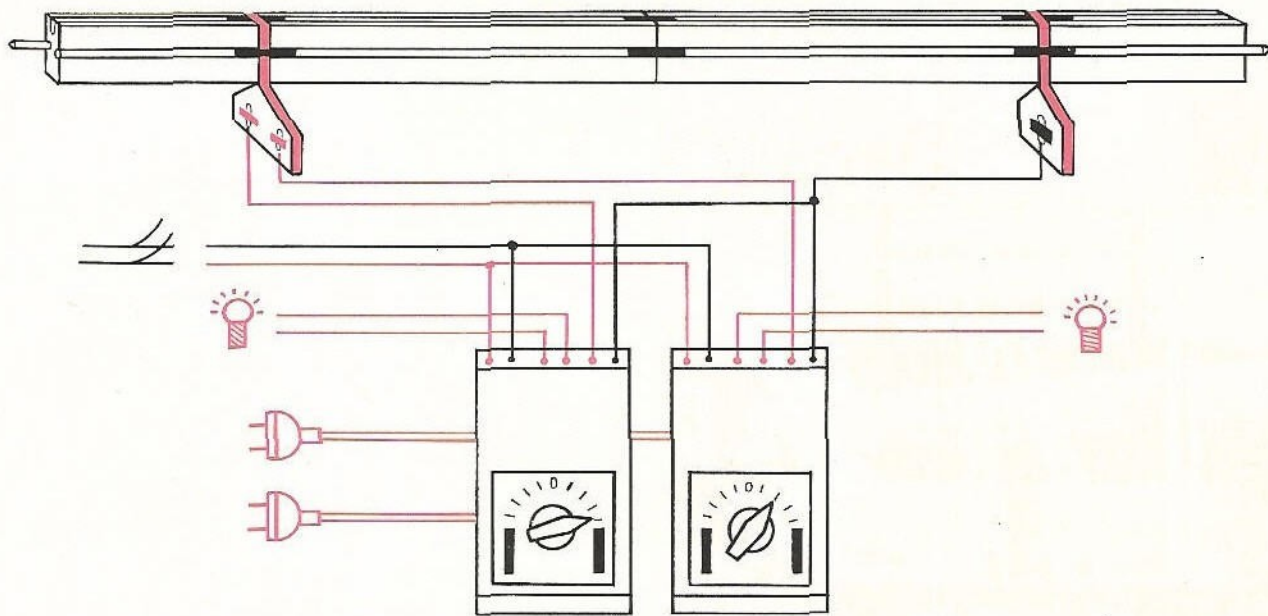
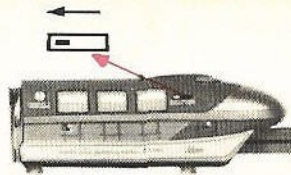
Joining the rails with terminal boards 6333/44 and 6333/45

Current is supplied to the left and right conductors by means of terminal board 6333/45 and to the middle conductor by means of terminal board 6333/44. Both terminal boards are needed for every layout and should be plugged in independently at different places on the track. The terminal boards each have three round slots in which the contact pins fit. First plug a contact pin 6333/19 into one of the rails and add a terminal board, so that two of the slots fit against the contact pins. Then push the two rails together. If you wish to join the rails and the terminal board firmly together use rail connector 6333/18, which is bent to clear the terminal board.

Joining the pylons: This is very simple. All you have to do is plug the pylons together until you have the desired height. If you use the pylon vee 6333/67 you can also build multiple pylons. To give the pylon a better grip use a rubber foot 6333/69. If you want to improve the appearance of the pylon, plug in a pylon tip 6333/70 at the top. You should support every second rail with a pylon when possible to give the whole structure sufficient stability.



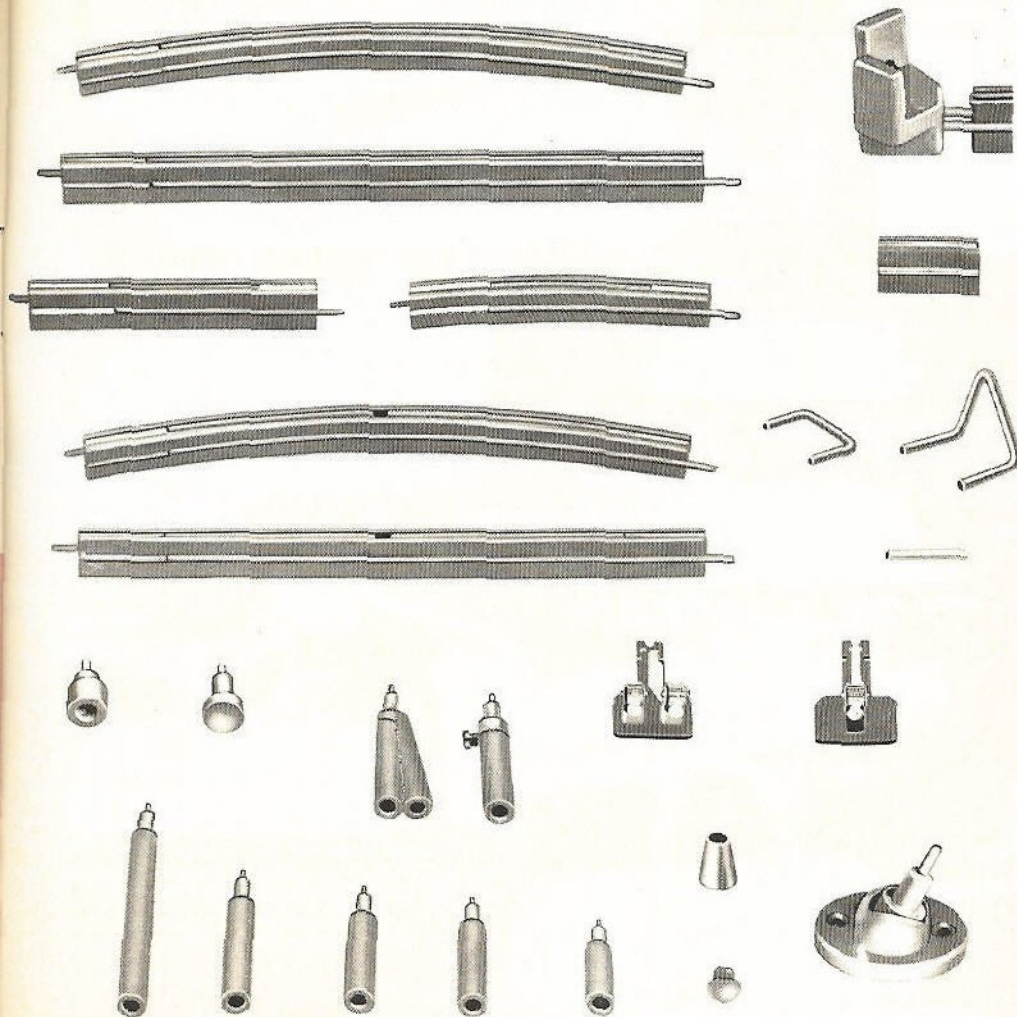
If you wish to operate two trains at different speeds when using two transformers, push the manual switch forward on one train and backward on the other.



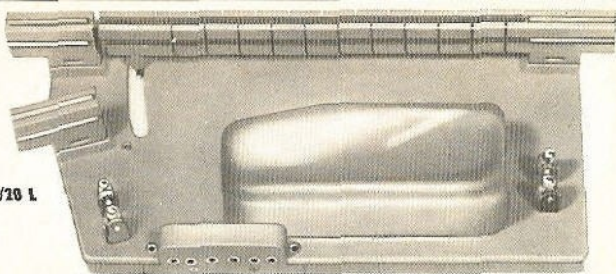
Wiring: Use the circuit shown above as a guide. Note that the terminals on the transformer should always be wired to terminals of the same colour on the terminal board. When using a large layout it is advisable to use several identical hookups. If you use only one train you need connect only one transformer, i. e. connect the red transformer terminal to one of the red terminals on board 6333/45 and the black transformer terminal to the black terminal on board 6333/44. The manual switch on the train must be in the proper position to work on the live rail (see illustration on page 11). For two-train operation wire in both transformers as in the circuit shown above.

Accessories for Disneyland-Alweg-Monorail

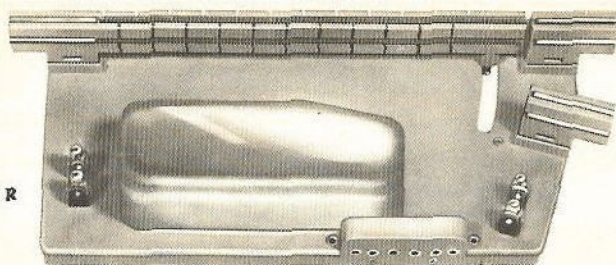
- 6333/1 Rail, straight, length 7",
3-conductor system, stainless
- 6333/2 Rail, curved, length 7",
3-conductor system, stainless
- 6333/3 Half-rail, straight,
length 3½"
- 6333/4 Half-rail, curved,
length 3½"
- 6333/5 Balancer rail, 1", to equalize two-track layouts in curves or elsewhere.
(You will need a full-sized curved rail in the inner loop to balance every such rail in the inner loop.)
- 6333/8 Buffer stop.
- 6333/15 Insulator rail, curved, length 7".
- 6333/16 Insulator rail, straight, length 7".
- 6333/17 Rail connector for connecting two rails
- 6333/18 Rail connector
- 6333/19 Contact pins for middle pole
- 6333/44 Terminal board for middle pole
- 6333/45 Terminal board for outer poles
- 6333/61 Pylon 5/16" high
- 6333/62 Pylon 1" high
- 6333/63 Pylon 1 3/8" high
- 6333/64 Pylon 1 7/8" high
- 6333/65 Pylon 1 3/4" high
- 6333/66 Pylon 3 1/8" high
- 6333/67 Pylon vee, for multiple pylons
height 1 1/2"
- 6333/68 Pylon, adjustable from 1 9/16" to 2 3/8"
- 6333/69 Pylon foot, rubber; fits into pylon base for better grip.
- 6333/70 Pylon tip.
- 6333/72 Stabilising pylon; can also be used to mount layout permanently.
- 6333/26/2 Special pylon for automatic points changer



6333/20 L



6333/20 R



6333/20 R Switch, right, with powerful electro motor securing safe shifting of the switch blade. The switch conducts the current only in that direction, to which it is set. When shifting the switch the switch blade is bent by a strong pull of the motor, so that a track without bucklings will result. It comes with socket for plug connection of the signal plug and binders for all other connections.

6333/20 L Switch, left, functions as above.



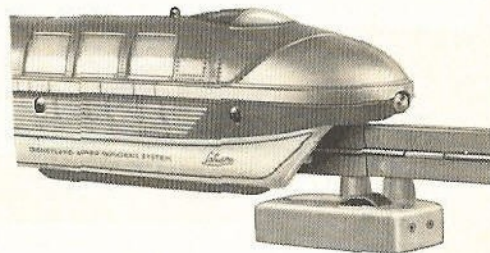
6333/41 Switch setting device, to shift the electric switches.



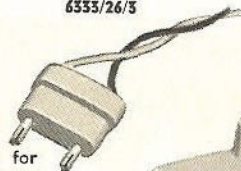
6333/26/0 Weight (already installed in new trains)



6333/26/1 Weight, also acts as trigger for automatic points changer (already installed in new trains)

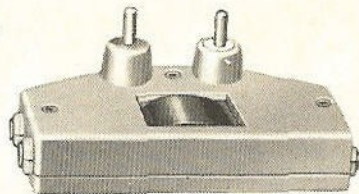


6333/26/3



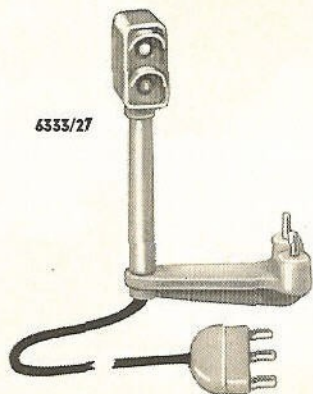
6333/26/3 Flat plug, 2-pole, with 40" wire, for automatic points changer

6333/26



6333/26 Automatic switch-control, easy to fasten on the Alweg-switch. If equipped the train will operate automatically the switch.

Accessories for Disneyland-Alweg-Monorail

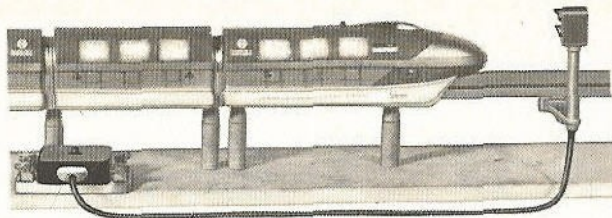


6333/27 Signal, with red and green lights; to couple to points 6333/20 R and 6333/20 L; automatically shows green for free track and red for blocked track. Can also be used without points in connection with insulator rails and the blocking switch 6333/28, which is connected with the signal by a plug. According to switch position the signal will indicate red and stop the train, or green and give free way for the train.

6333/27/1 Bulb for signal, red.

6333/27/2 Bulb for signal, green.

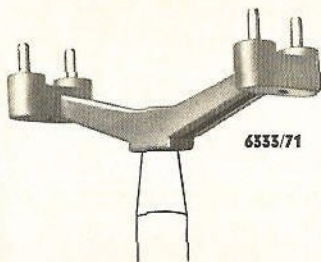
6333/27/3 Extension cable (e. g. for signal) with plug and socket, approx. 40".



6333/28

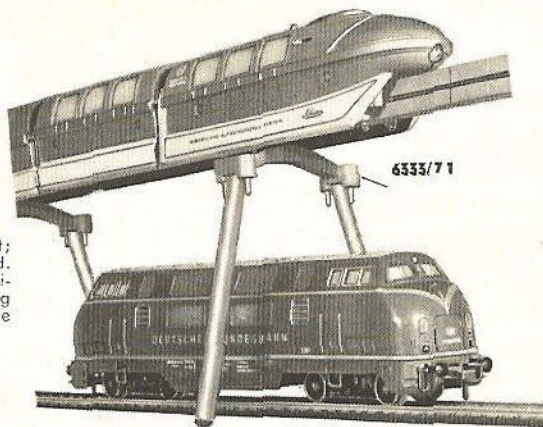
6333/28 Blocking switch, see explanation 6333/27; the blocking switch can also be used in connection with insulator rails without signal 6333/27 to stop and free the lines.

Accessories for Disneyland-Alweg-Monorail

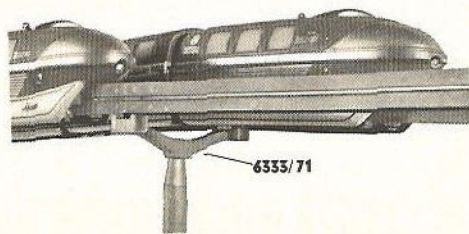


6333/71

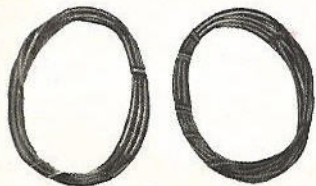
6333/71 Pylon coupler for two-track layout; allows parallel rails to be coupled. Can also be used in reversed position i. e. when setting up the Alweg monorail over HO-gauge rails. The pylons then straddle the HO rails.



6333/71



6333/71



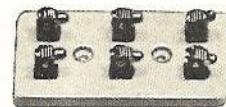
6333/48 Hookup wire, red
6333/49 Hookup wire, black



6333/47 Rectifier, for connecting the Disneyland-Alweg Monorail to AC transformers up to 17 volts



6333/46 Pole reverser, for use with an AC transformer and a rectifier 6333/47 to switch trains from forward to reverse and back

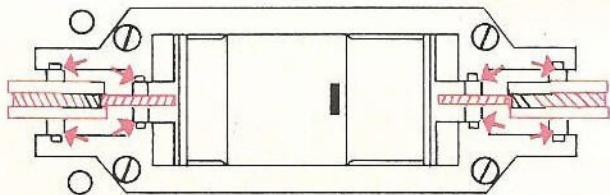
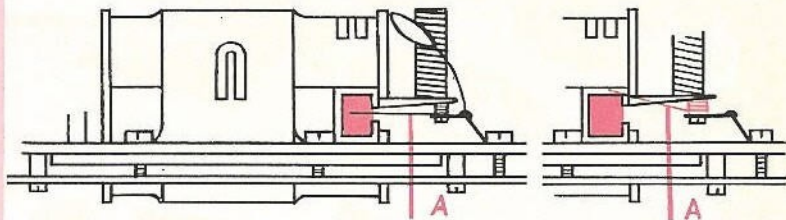


6333/42 Distributor unit, 2 terminals

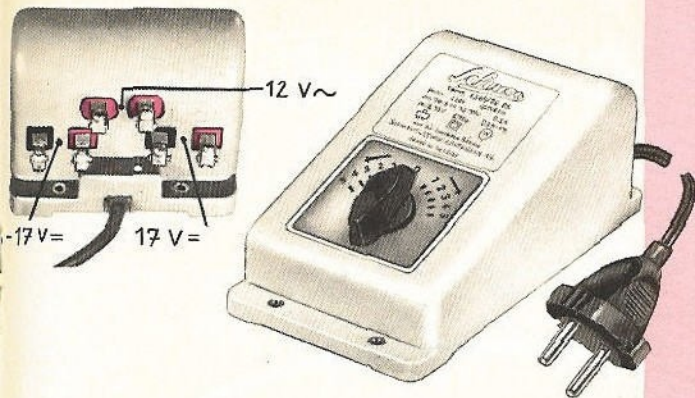


6333/43 Distributor unit, 6 terminals

Replacing the brushes: Follow the above illustration when replacing the brushes. First remove both side castings and the top. Now you can push retaining spring A carefully upwards as shown and replace the brushes. **Important:** do not pull the spring away from the brush or you may weaken the tension. Push the spring upwards only.



After the train has been operated for some time, lubricate with light oil where shown. For this you should use only a small drop of oil to keep it from smearing the other parts.



6333/150 Transformer, 6—17 volt DC, ideal for use with the Disneyland-Alweg Monorail and two rectifiers, i. e. DC for operation and points (switches) — AC for lighting and signals, etc. For 110 or 220 volt mains (other voltages also available)

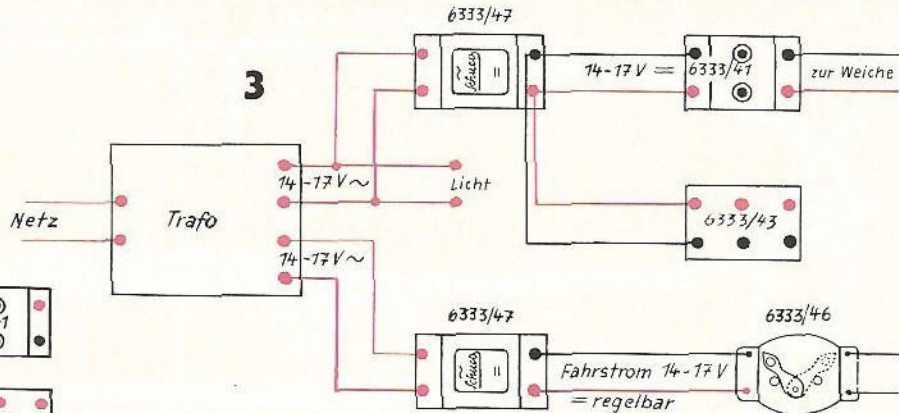
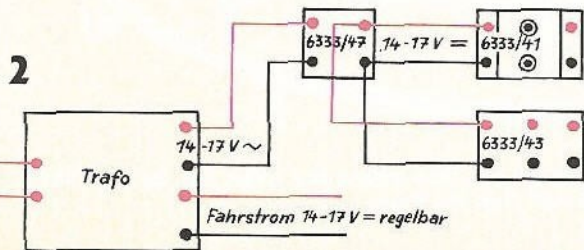
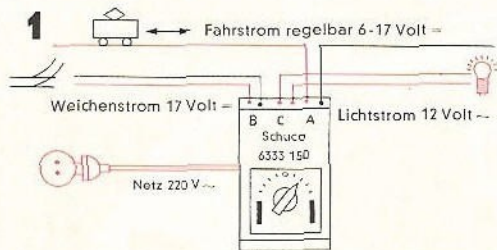
Examples of circuits for various transformers:

1. Transformer with 14—17 volt adjustable DC for operation and DC for points and AC for lighting. Here you can connect as many Schuco Disneyland-Alweg points as you want direct to the DC connections for points; use distributor unit 6333/43 for this. A control unit 6333/41 is required for each point. No more than 2 points can be operated simultaneously.

2. Transformers with 14—17 volt adjustable DC for operation and AC for lighting (and also points, if rectifier 6333/47 is inserted in the circuit). You will generally need a transformer for each train. If you want to operate two trains and be able to regulate their speeds individually you will need a transformer for each train. When you use Schuco Disneyland-Alweg points wire them to the AC connections on a rectifier 6333/47. You may connect as many points as you wish to the rectifier; for this you will find distributor unit 6333/43 useful. One control unit 6333/41 is needed for every point. No more than 2 points can be operated simultaneously. Be careful not to exceed the transformer output of .5 A for lighting and points. Each light requires about 50 mA, each point about 220 mA.

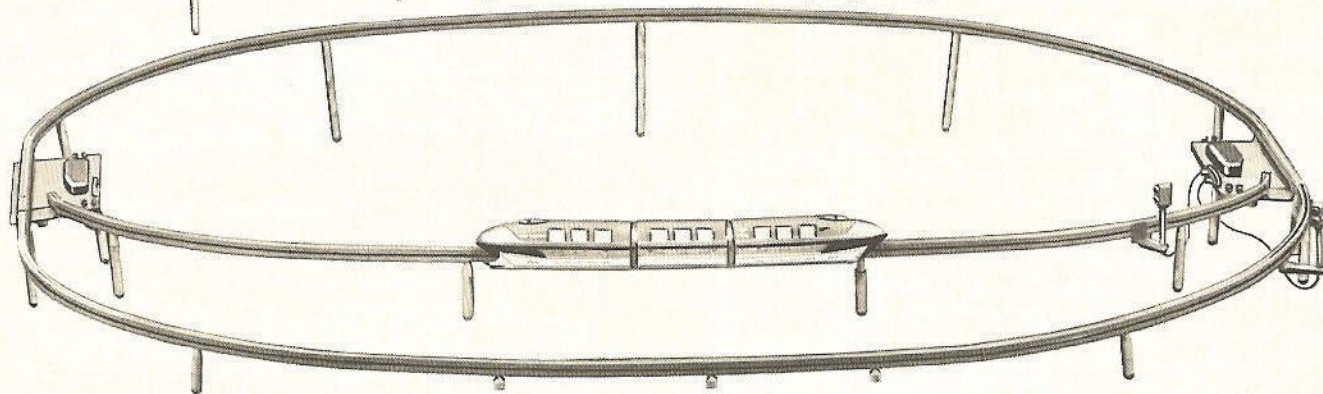
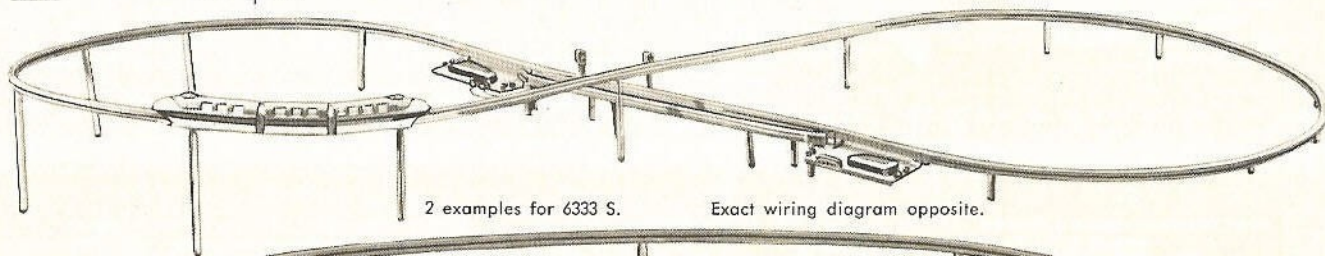
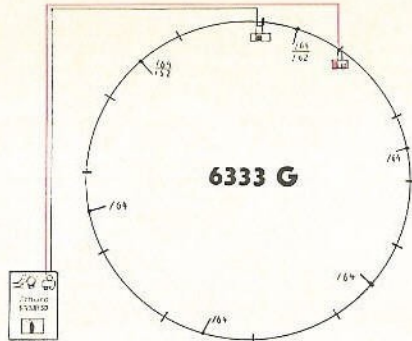
3. Transformer with 14—17 volt adjustable AC for operation and AC for lighting. When using this transformer you will have to insert a rectifier 6333/47 in each of the operating and lighting circuits. You can connect as many points as you want to the rectifier in the lighting circuit; use distributor unit 6333/43 for this. For each point you will need a control unit 6333/41. No more than 2 points can be operated simultaneously.

Always wire distributor unit 6333/43 direct to the rectifier or the DC connections for lighting.



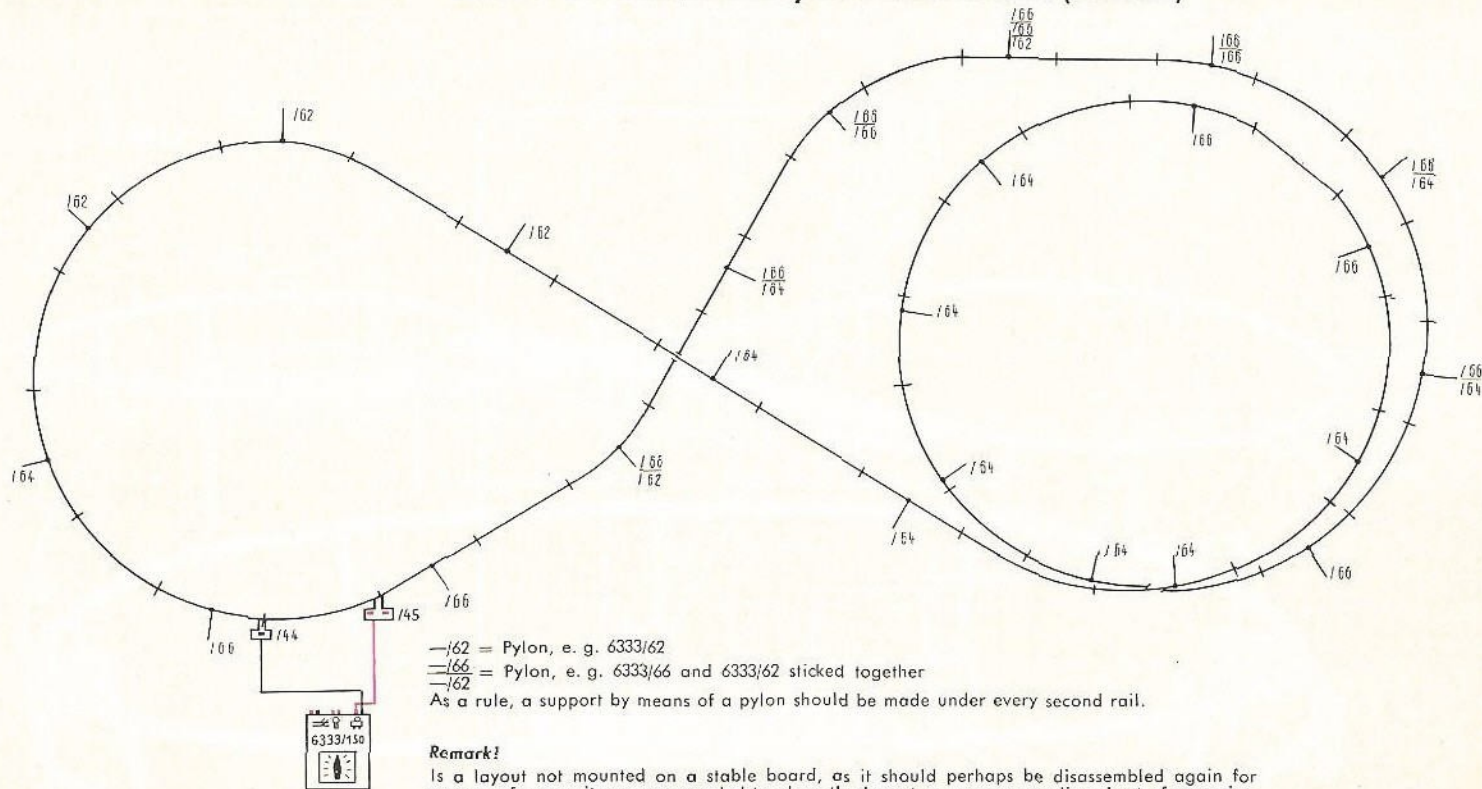
Assembling the layout:

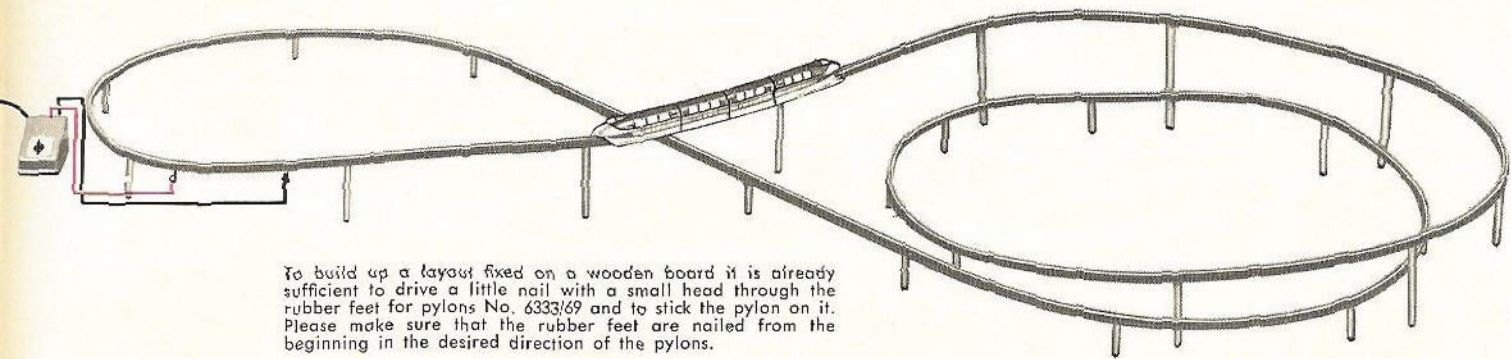
To assemble the layout, first join the rails together in the form desired. Only when this is complete should you fit the pylons together for the required heights and then plug them into the holes provided in the rail undersides.



Maintenance: Always make sure that the rails are clean; rub them from time to time with a dry clean rag. Be especially careful to keep the conductors clean, as dirt can interrupt the current and stop the train.

DISNEYLAND-ALWEG MONORAIL Layout 1 without Points (Switches)





To build up a layout fixed on a wooden board it is already sufficient to drive a little nail with a small head through the rubber feet for pylons No. 6333/69 and to stick the pylon on it. Please make sure that the rubber feet are nailed from the beginning in the desired direction of the pylons.

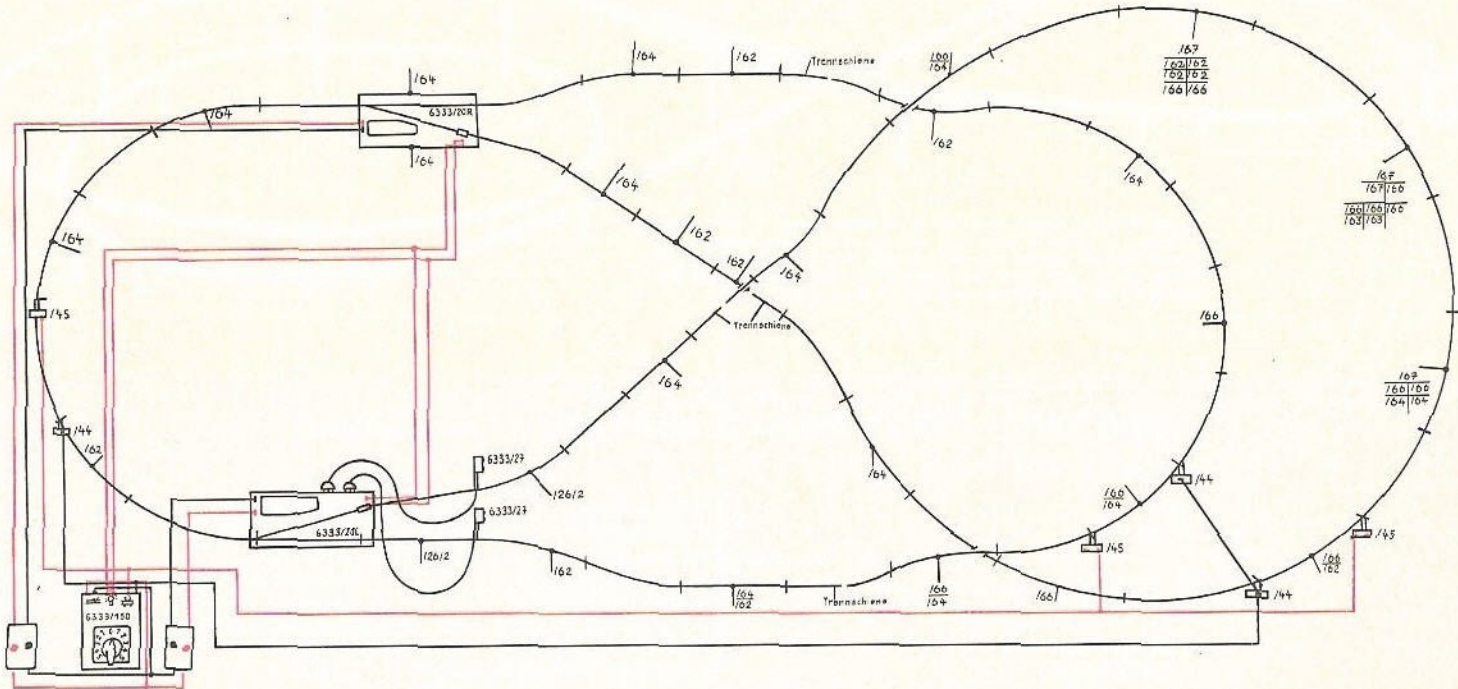
DISNEYLAND-ALWEG MONORAIL Layout 1 without Points (Switches)

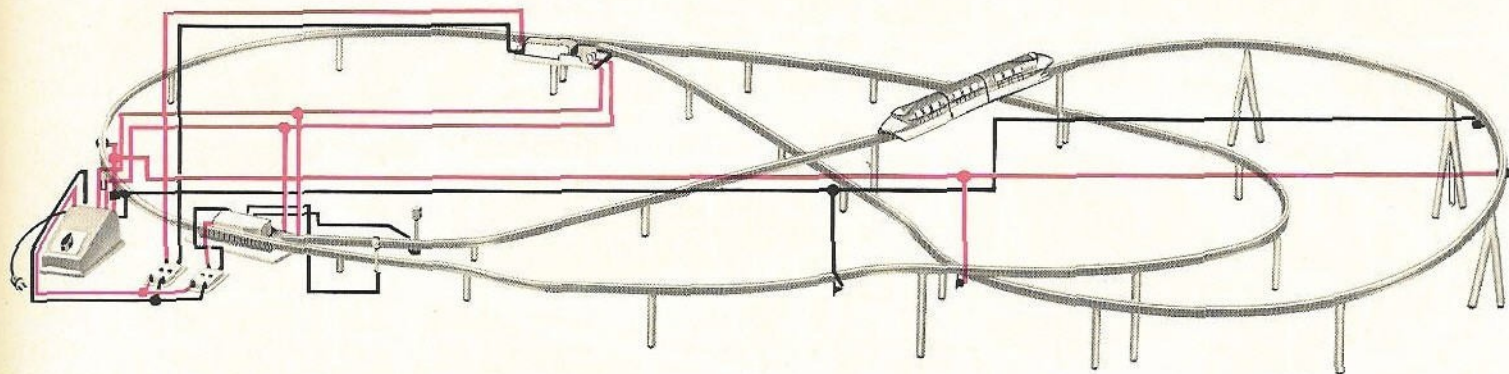
- 1 Train 6333/0
- 33 Rails, curved 6333/2
- 14 Rails, straight 6333/1
- * 9 Rail connectors 6333/17
- * 1 Rail connector 6333/18
- * 5 Contact pins for middle pole 6333/19
- 1 Terminal board 6333/44
- 1 Terminal board 6333/45

- 5 Pylons 6333/62
- 12 Pylons 6333/64
- 15 Pylons 6333/66
- *3 Pylon tips 6333/70
- *5 Pylon feet 6333/69
- 1 Transformer 6333/150 or other transformers (see page 13)
- Hookup wire as required: red 6333/48, black 6333/49
- Layout dimensions: 85" x 43½"

* = Number of the required original bags with manifold contents (see accessories).

DISNEYLAND-ALWEG MONORAIL Layout 2 with 2 Points



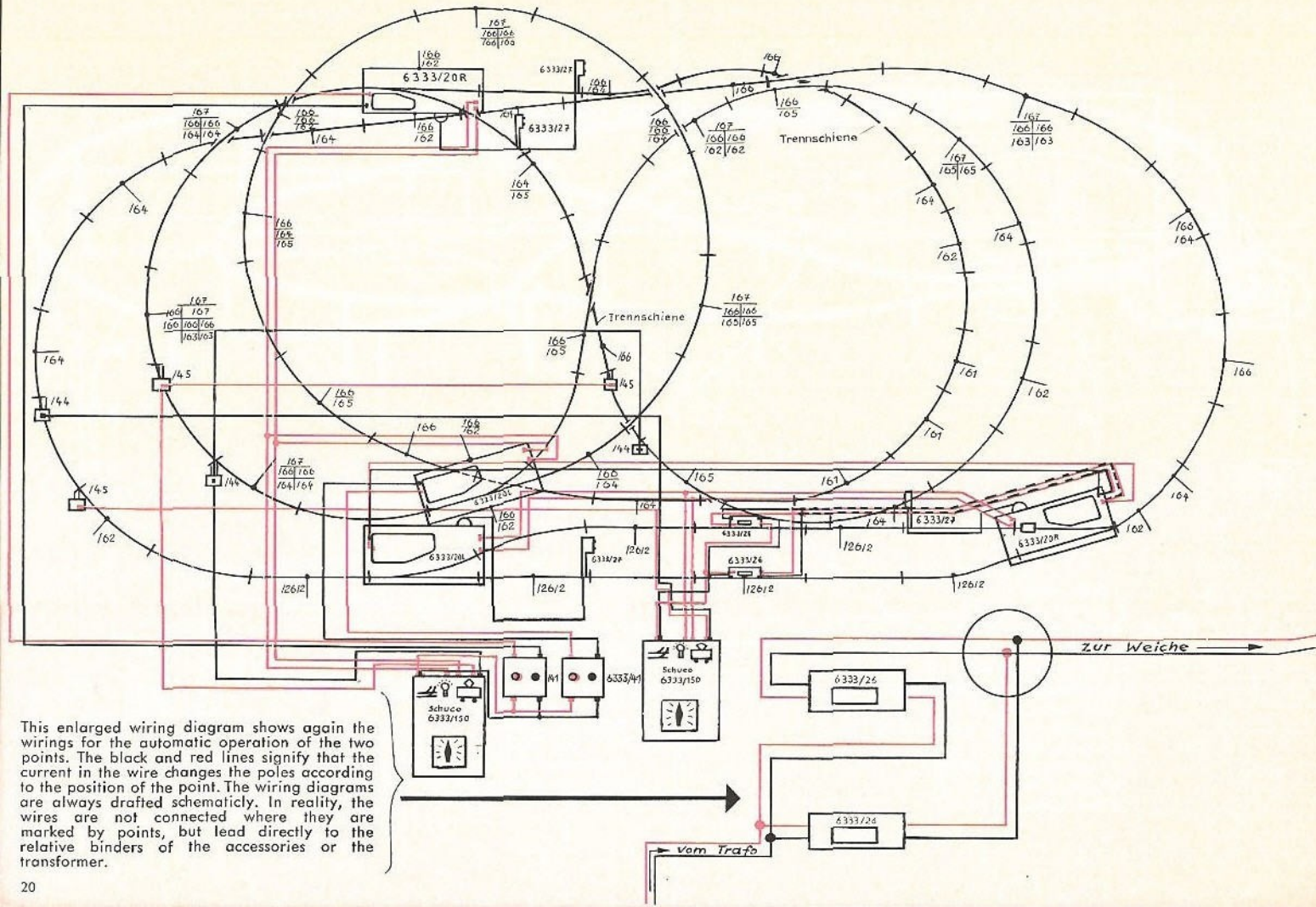


DISNEYLAND-ALWEG MONORAIL Layout 2 with 2 Points

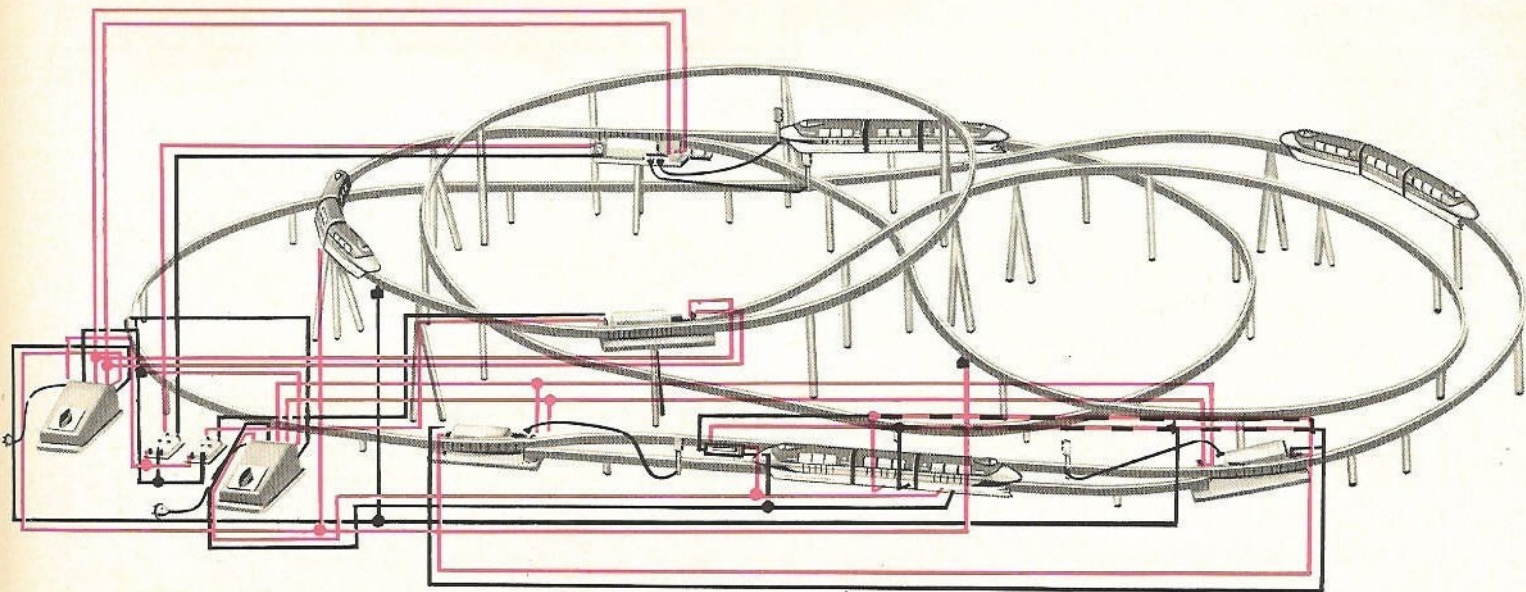
- 1 Train 6333/0
- 37 Rails, curved 6333/2
- 9 Rails, straight 6333/1
- 2 Insulator rails, straight 6333/16
- 2 Insulator rails, curved 6333/15
- 1 righthand point 6333/20 R
- 1 lefthand point 6333/20 L
- 2 Control units for points 6333/41
- 2 Signals 6333/27
- 3 Terminal boards 6333/44
- 3 Terminal boards 6333/45
- 10 Rail connectors 6333/17

- 3 Rail connectors 6333/18
- 6 Contact pins for middle pole 6333/19
- 2 Pylons 6333/26/2
- 10 Pylons 6333/62
- 18 Pylons 6333/64
- 14 Pylons 6333/66
- 4 Pylon vees 6333/67
- 3 Pylon feet 6333/69
- 6 Pylon tips 6333/70
- 1 Transformer 6333/150 or other transformers (see page 13)
- Hookup wire as required: red 6333/48, black 6333/49

* = Number of the required original bags with manifold contents (see accessories).

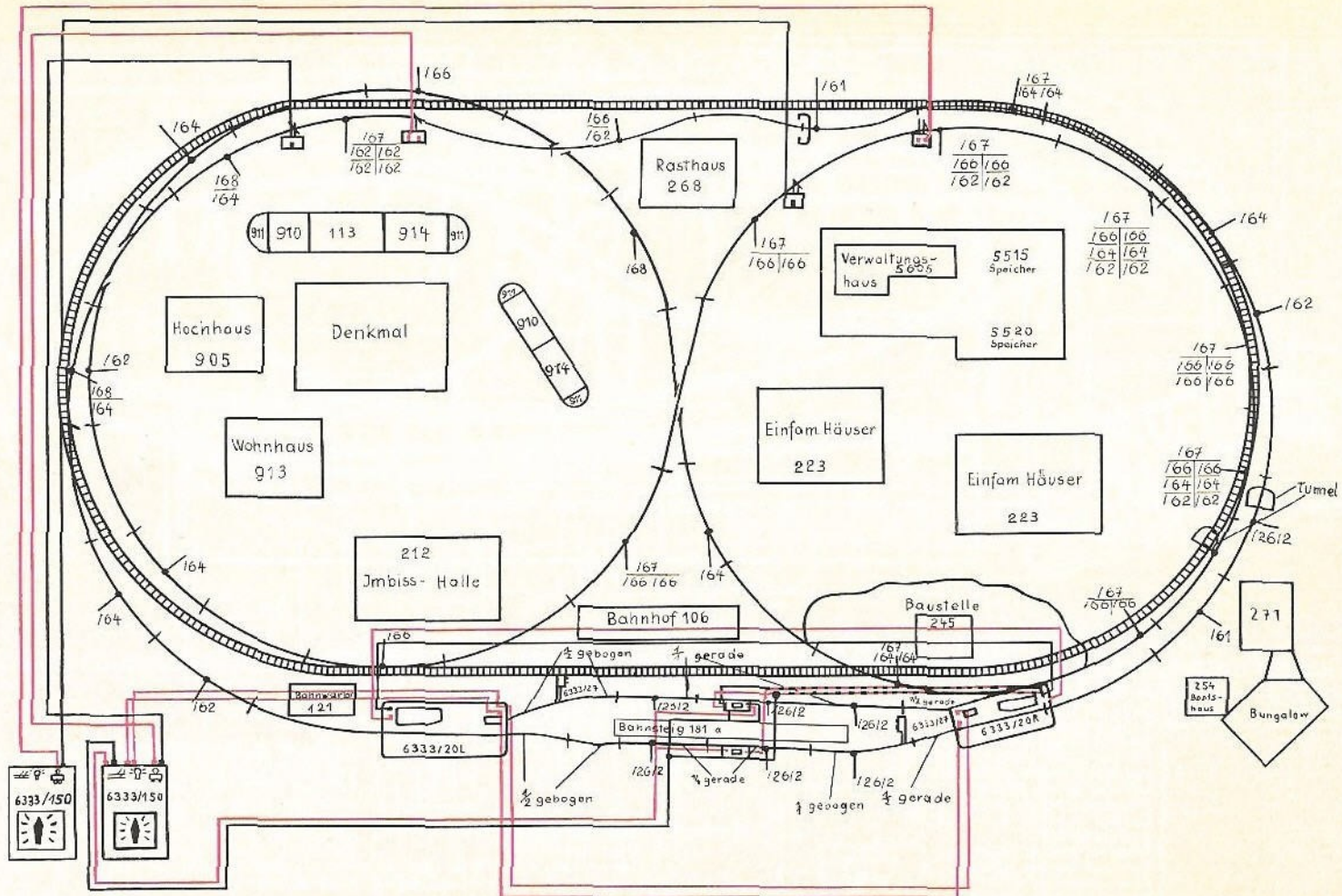


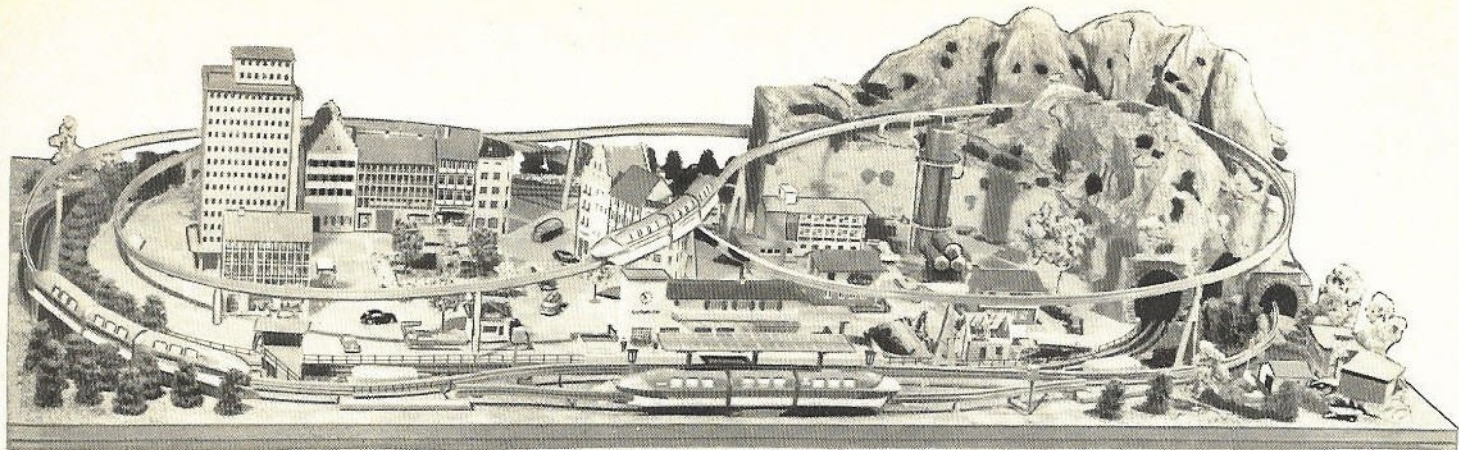
This enlarged wiring diagram shows again the wirings for the automatic operation of the two points. The black and red lines signify that the current in the wire changes the poles according to the position of the point. The wiring diagrams are always drafted schematically. In reality, the wires are not connected where they are marked by points, but lead directly to the relative binders of the accessories or the transformer.



DISNEYLAND-ALWEG MONORAIL Layout 3 with 4 Points

- 3—4 Trains 6333/0
 - 63 Rails, curved 6333/2
 - 20 Rails, straight 6333/1
 - 1 Insulator rail, straight 6333/16
 - 1 Insulator rail, curved 6333/15
 - 2 righthand points 6333/20 R
 - 2 lefthand points 6333/20 L
 - 2 Automatic points changers 6333/26
 - 2 Control units for points 6333/41
 - 4 Signals 6333/27
 - 3 Terminal boards 6333/44
 - 3 Terminal boards 6333/45
 - * 16 Rail connectors 6333/17
 - * 3 Rail connectors 6333/18
 - * 11 Contact pins for middle pole 6333/19
 - 6 Pylons 6333/26/2
 - 3 " 6333/61
 - 11 " 6333/62
 - 4 " 6333/63
 - 19 " 6333/64
 - 10 " 6333/65
 - 39 " 6333/66
 - * 9 Pylon vees 6333/67
 - * 6 Pylon feet 6333/69
 - * 10 Pylon tips 6333/70
 - 2 Transformers 6333/150 or other transformers (see page 13)
 - Hookup wire as required: red 6333/48, black 6333/49
- * = Number of the required original bags with manifold contents (see accessories).





Disneyland-Alweg Monorail Layout 4 with 2 Points and Landscape combined with HO Gauge Model Railway

- 3 Trains 6333/0
- 47 Rails, curved 6333/2
- 7 Rails, straight 6333/1
- 4 Half-rails, curved 6333/4
- 2 Half-rails, straight 6333/3
- 2 points: 1 righthand 6333/20 R, 1 lefthand 6333/20 L
- 2 Signals 6333/27
- 2 Automatic points changers 6333/26
- 6 Pylons 6333/26/2
- 2 Pylons 6333/61
- 14 Pylons 6333/62
- 15 Pylons 6333/64
- 19 Pylons 6333/66
- 10 Pylon vees 6333/67
- 3 Pylons 6333/68
- * 6 Pylon tips 6333/70
- * 11 Rail connectors 6333/17
- * 2 Rail connectors 6333/18
- * 7 Contact pins for middle pole 6333/19
- * 3 Pylon feet 6333/69 (where layout is not permanent)
- 2 Terminal boards 6333/44
- 2 Terminal boards 6333/45

* = Number of the required original bags with manifold contents (see accessories).

- 2 Transformers 6333/150 or other transformers (see page 13)
- Hookup wire as required: red 6333/48, black 6333/49

"Faller" Houses

- 4 each 911
- 2 " 913
- 2 " 914
- 2 " 900
- 1 " 905
- 1 " 212
- 1 " 106
- 1 " 181
- 1 each 268
- 1 " 245
- 2 " 223
- 1 " 121
- 1 " 271
- 1 " 254

"Vollmer" Industrial Buildings

- 1 each 5515
- 1 " 5520
- 1 " 5605



Schuco

**DISNEYLAND-ALWEG-
MONORAIL**

1:90

