

R8132 OPERATING TIPPER SET WITH WAGON

Please read right through these instructions before starting assembly.

Introduction

It is recommended to construct the set where it may be fastened down for stability once initial operating tests have been carried out. There is an element of "bounce" when mineral is discharged into a wagon which may cause some spillage. The tipper set would be best sited where it can readily collect up any spilt mineral.

Interesting shunting and discharging operations can be conducted if a number of the special wagons are in use. A locomotive should only shunt one wagon at a time up the incline and onto the tipper. If more than one is taken up, there may be difficulty in re-coupling after a discharge.

Important

Only use the mineral supplied with this product in operation – further supplies are available from your Hornby stockist (ref R8112).

Assembly

- Choose a suitable position to site the tipper unit (which incorporates an electric motor and mechanism), so that it can offload mineral from the special wagon, down into a receptacle at ground level.
- The track approach to the tipper unit is built up on the 7 inclined and 2 high level piers supplied. These will require an approximate track run of 165cms – see Fig 1 for layout example, and note the tipper unit is located so that mineral will discharge into a wagon beneath it. Many other layout configurations will be suitable. The short siding will only be required if more than one tipping wagon is to be used.
 - Assemble the track layout "in the flat", and omit the last straight rail at the end of the incline.
 - Fit the sleeper clips to the undersides of track sections, not less than 24 sleepers apart (Fig 2).
 - The piers each consist of a support section and these are individually numbered 1 – 8, with numbers 1 – 7 having their top surfaces angled to correspond with the incline. Fit section number 1 beneath the first sleeper clip and work upwards to number 8 (Fig 3).
 - The special straight track section supplied does not have a fishplate (rail joiner) at one end. Assemble this into the layout. Check the ramp is free to rise and fall using light finger pressure. Assemble the rail into the layout between pier number 8 and the tipper unit, with the non-fishplate end fitting to the tipper unit (Fig 4).

Operation with R965 Controller

Using the green switch and wires provided, wire up the Tipper as shown in Fig 5.

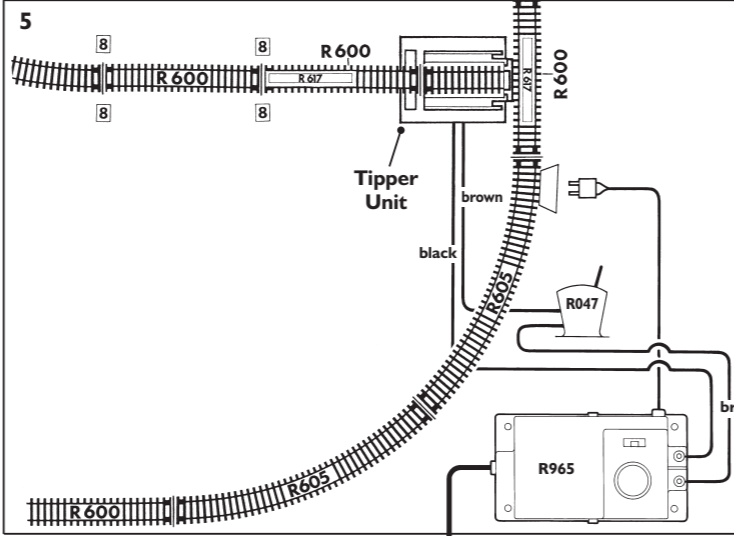
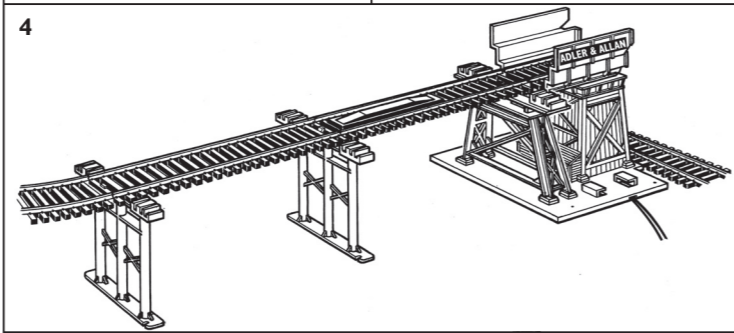
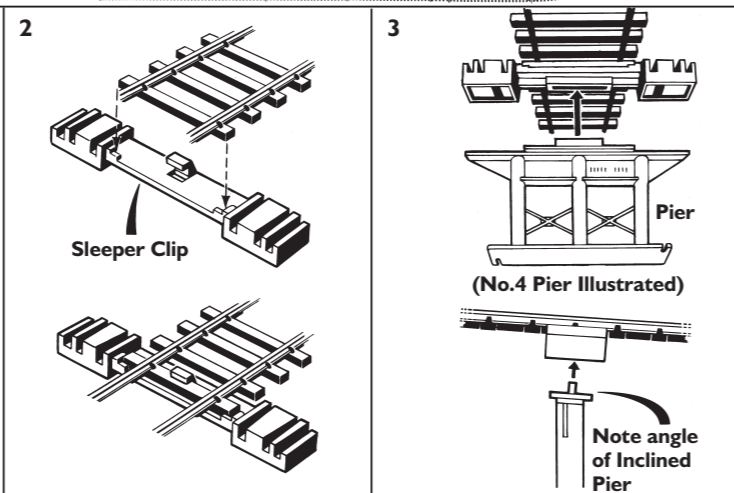
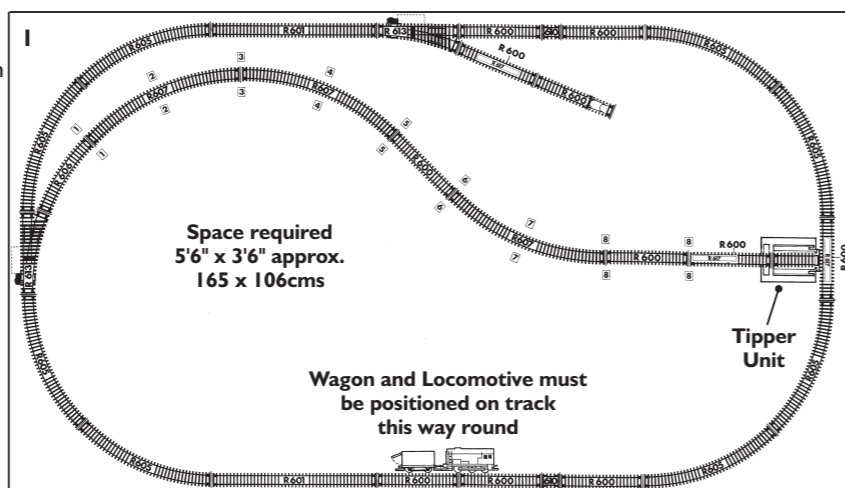
A supply of "mineral" is provided. This is tipped into the special wagon that has a hinged end door controlled by a locking mechanism. In normal running, the mineral is retained securely in the wagon. To unload automatically, the wagon (with its hinged door leading), is shunted up the incline by a locomotive.

As it passes over pier number 8 and onto the uncoupling ramp, it is released from the locomotive (which MUST be stopped) and will run gently onto the tipper unit. Operate the green lever switch to activate the tipper mechanism – this disengages the wagon end door lock and as the tipper rises, the mineral will be discharged.

Continue to operate the motor which will return the tipper back to a level position. Re-couple to the empty wagon and haul it back down the incline.

For operation in conjunction with the R8131 Conveyor Set, please see centre pages of this leaflet.

Note:
R8131 Conveyor Set and R8132 Tipper Set are also compatible for use with Hornby recommended 12V controlled power sources.



R8131 OPERATING CONVEYOR SET

Please read right through these instructions before starting assembly.

Introduction

It is recommended to construct the set where it may be fastened down for stability once initial operating tests have been carried out. There is an element of "bounce" when mineral is loaded into a wagon which may cause some spillage. The conveyor unit would be best sited where it can readily collect up any spilt mineral.

Important

Only use the mineral supplied with this product in operation – further supplies are available from your Hornby stockist (ref R8112).

Assembly

The set is supplied in three main parts, the motor, hut and base, the conveyor and the loading hopper and base. Assemble as follows:

- Fit the lattice pier to the motor hut base (Fig 1). It pushes in one way round only.
- The top end of the conveyor can be identified as it has a toothed wheel fitted to the belt support (Fig 2).
- Fit the top end of the conveyor to the driving pylon (which contains the worm gear) as follows:
Engage the toothed wheel with this gear by holding the conveyor parallel with the ground. When engaged, lower the other end of the conveyor, locking it to the driving pylon by means of the integral clips.
- Make sure that the base of the conveyor support fits to the top of the pier (Fig 3).
- Pull the base of the loading hopper support and fit to the bottom end of the conveyor (Fig 4). Looking from above, the clipping lugs can be seen during this operation.
- Replace the loading hopper, making sure the cross ties of the support are at the opposite end from the conveyor (Fig 5). Three sides of the hopper have cut outs around the top edge and two clip-fit in-fillers are provided. The cut-outs allow the hopper to be filled by means of the Tipper Set (R8132), but if this is not being used, it will not matter in which positions the in-fillers are fitted.
- The assembly is now ready to be positioned in your layout. If it is intended to load mineral down the chute into a wagon, the conveyor set should be positioned at right angles to the track, with the motor hut base butting up to the track sleeper ends (Fig 7).

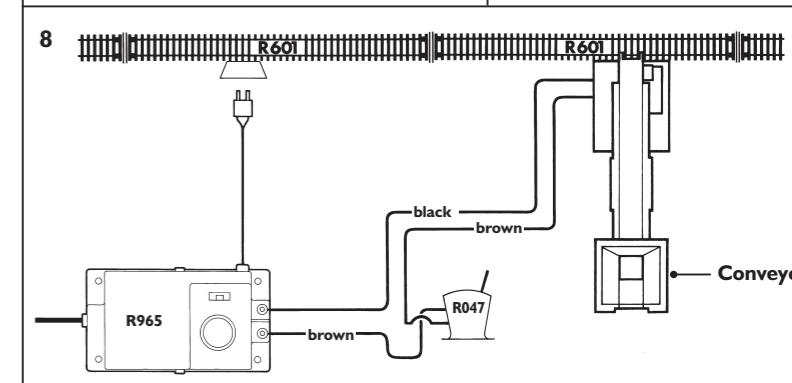
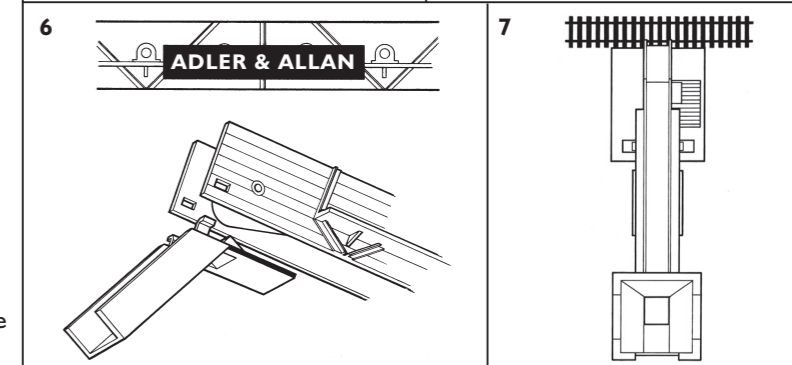
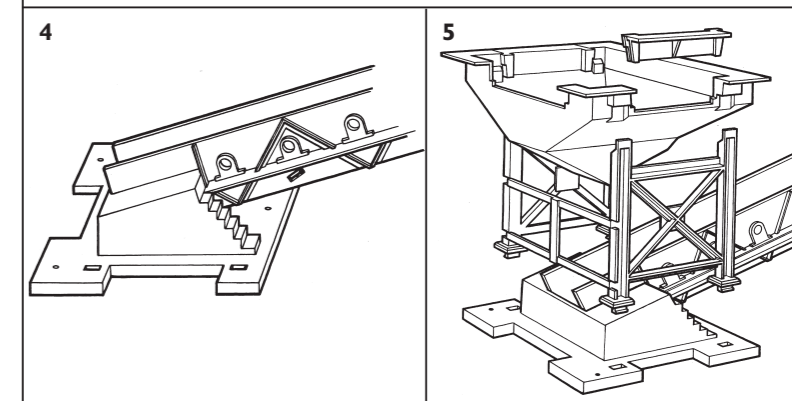
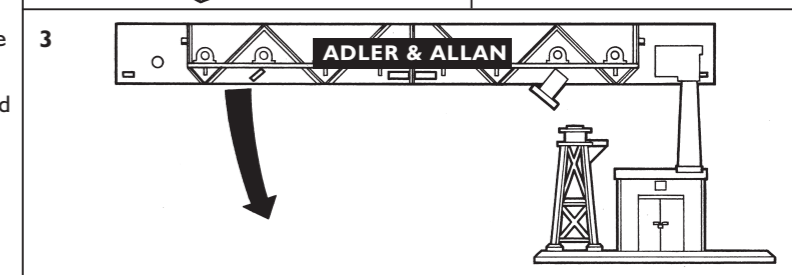
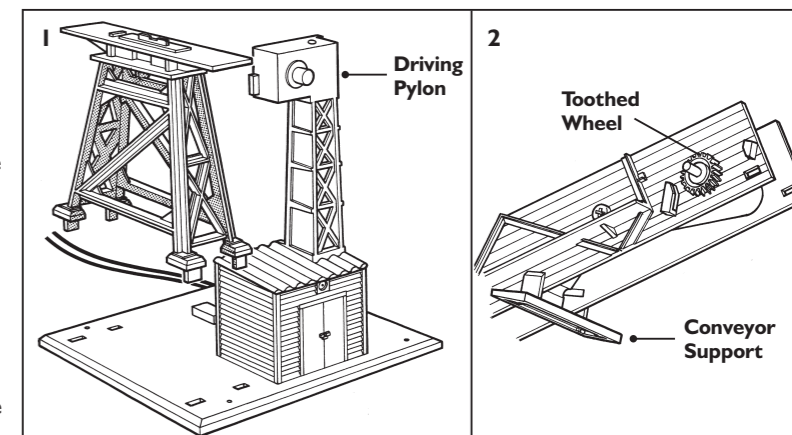
Operation with R965 Controller

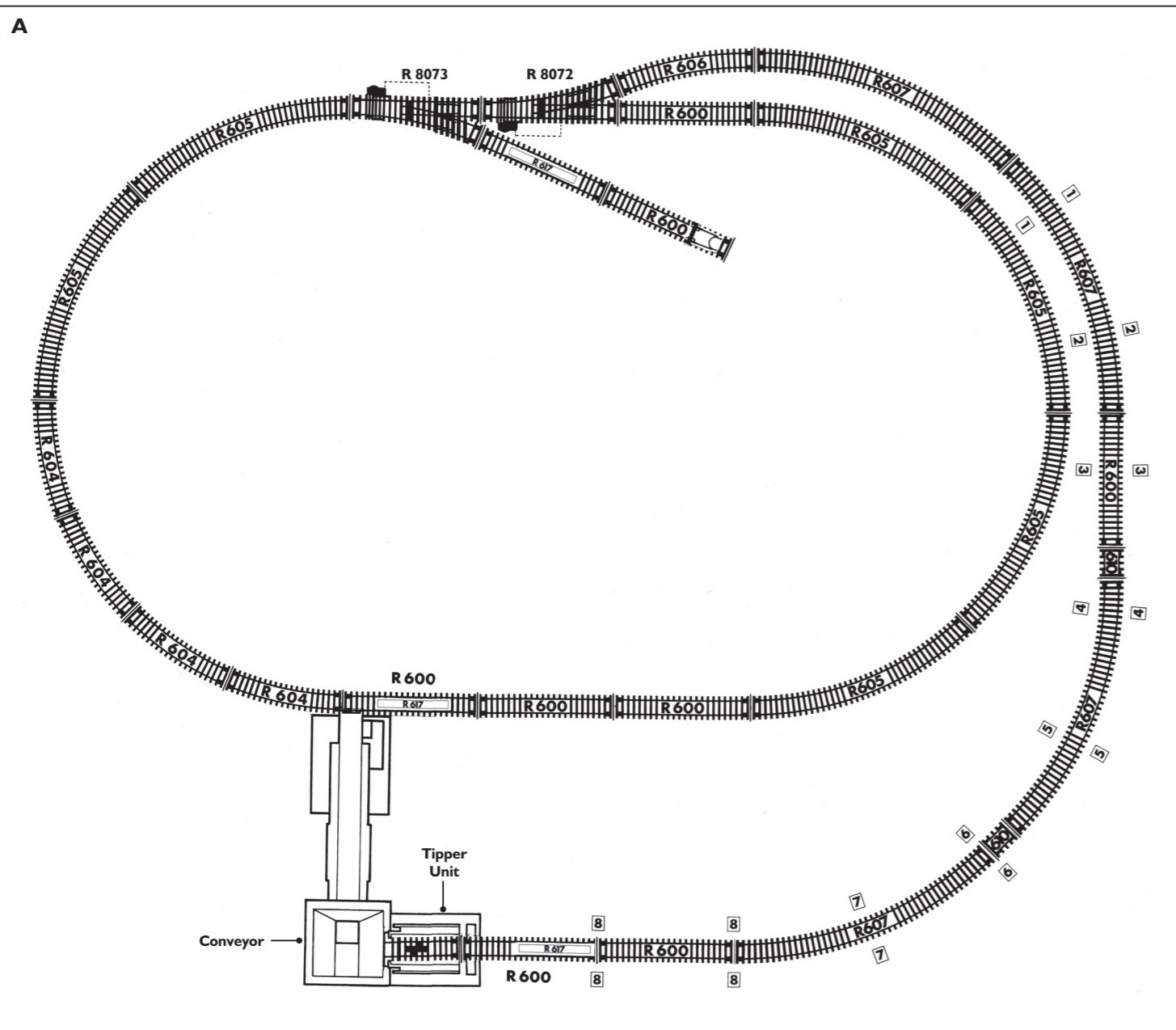
Using the green switch and wires provided, wire up the Conveyor as shown in Fig 8.

A supply of "mineral" is provided. This is tipped into the hopper, the moving belt will convey it upwards to the chute, and then discharge into a receptacle below. If the receptacle is a wagon, the belt movement will need to be stopped before it is overfilled.

For operation in conjunction with the R8132 Tipper Set, please see centre pages of this leaflet.

Note:
R8131 Conveyor Set and R8132 Tipper Set are also compatible for use with Hornby recommended 12V controlled power sources.





SAFETY NOTES FOR R8131 OPERATING CONVEYOR & R8132 OPERATING TIPPER

- This product is not suitable for children under 3 years of age because of small parts which can present a choking hazard. Some components have functional sharp edges – handle with care.
- This product is intended for indoor use only.
- The transformer is not a toy. It is a "Transformer for Toys". Before use, check that the transformer is the correct voltage for your mains electricity supply. This set is only to be used with the recommended transformer. The transformer should be examined regularly for damage to the casing, plug pins and cables. **In the event of such damage, the set should not be used until the transformer is replaced with a new Hornby recommended unit. Never attempt to open the transformer yourself.**
- This set must not be connected to more than the recommended number of power supplies. The output terminals of the transformer must not be connected directly, or indirectly, to the output of any other AC circuit derived from a transformer or mains power supply.
- Before cleaning any part, disconnect the transformer from the mains electricity supply. **Do not use liquid for cleaning.**
- Please retain these details for future reference.

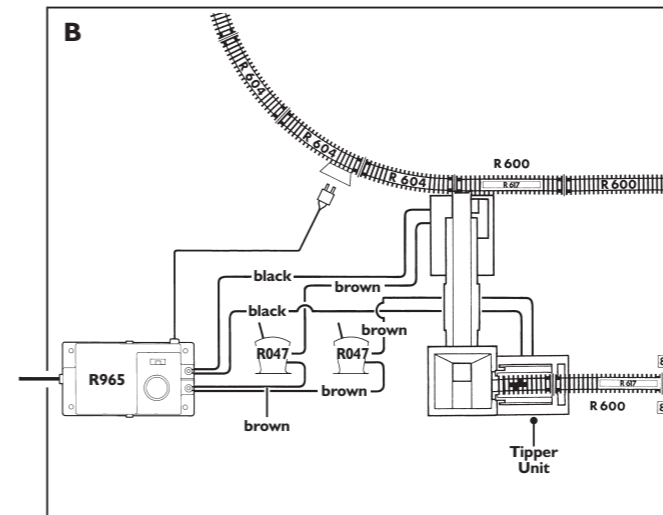
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JOINT USE OF OPERATING CONVEYOR and TIPPER SETS

The Operating Conveyor and Operating Tipper Sets have been designed so they can be used together to simulate a continuous cycle of "mineral" movement.

The layout example (A) shows the principle of track arrangement to be followed. Many other layout designs can be created to achieve similar results.

As the hopper at the lower end of the conveyor will be filled directly from the tipper, the clip fit in-filler at that side of the hopper must be removed and refitted in one of the alternative positions.

The complete cycle can be operated using only one single output train set power controller, in conjunction with the two green switches. See B for example.

Note:

It is recommended that components are fastened to a baseboard once trial operations have been carried out successfully.

Diagrams C, D and E show a suggested operating sequence using two wagons (X and Y).

Diagram C

- Pour mineral into the hopper at the lower end of the conveyor.
- Position the empty wagons and locomotive on the track in such a way that the hinged ends of the wagons lead up the incline.
- Operate the conveyor to fill wagon X.
- Move the locomotive forward so that wagon Y is beneath the chute.
- Operate the conveyor to fill the wagon.

Diagram D

- The locomotive uncouples wagon Y from wagon X and reverses with it over the points, then stops.
- Point 2 is changed and the locomotive pushes wagon Y up to the tipper.
- Wagon Y is operated to discharge the mineral into the hopper.

Diagram E

- The locomotive carefully moves forward, re-couples to wagon Y and draws it down the incline and over the points.
- Point 1 is changed and wagon Y is pushed into the siding and uncoupled.
- The locomotive comes out of the siding, point 1 is changed again and the locomotive drives clockwise around the circuit to pick up wagon X.

