

## MOTORISING A MATCHBOX TRAM

These models are available in a wide variety of liveries but the method is the same in all cases.



Read here how to motorise the HO scale (3.5 mm / foot) Matchbox Y-15 tram with a Halling Vario 23 mm wheelbase chassis and a Halling Old Timer tram base which is available as a Halling spare part. This, with platforms removed, will fit into the lower deck of the Matchbox tram and has four lugs which the power unit clips into.



There are three rivets, shown by the arrows, holding the plastic base onto the lower deck, one in the centre and one under each platform.

The heads of these rivets need to be drilled off and a 1/16th hole drilled through the centre of the ones at the ends. These holes are for 3/16ths No 2 self-tapping screws used when rebuilding the tram after it is motorised.

when re-assembling the tram.

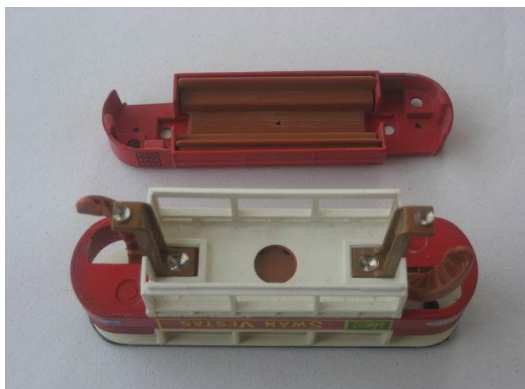
The base should be kept as the ends will be used



Remove the plastic base from the tram and drill off the heads of the next two rivets, shown by the arrows, holding the lower saloon doors and upper deck.

These should also have a 1/16th hole drilled through their centres to re-attach the upper deck, with shortened screws, after the power unit has been fitted.

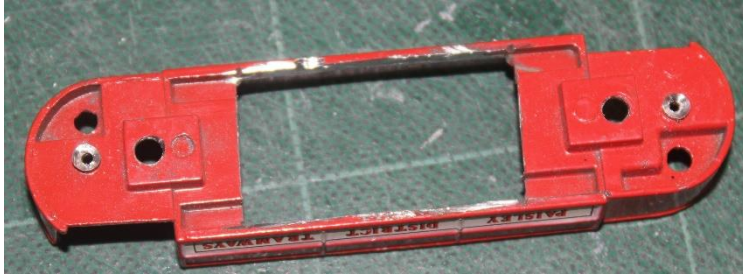
The lower deck seats and wheelsets are no longer required so can be put into your parts box for future use.



The tram is now stripped ready to motorise for two-rail operation as the upper deck needs no further work.

If a working or non working trolley pole is to be fitted, the instructions for dismantling the upper deck are given below in the 'Live Overhead' section.

Next, to remove the lower deck floor, drill a row of small holes along both sides and across both ends (or use a grinding disk).



Open a row of three or four of these with a needle file to allow the use of a mini hacksaw blade to cut along both sides and ends of the floor and remove the piece in the middle.

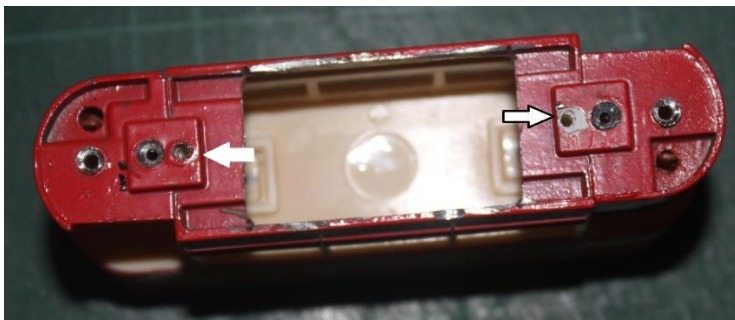
Then remove the entire lower saloon floor right up to the bulkheads and the body sides.



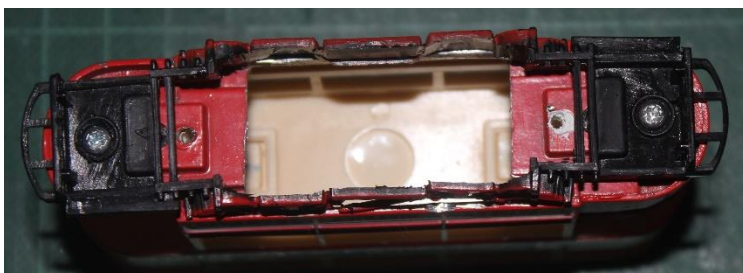
Similarly, remove the centre of the plastic under section, including the lifetrays.

The motor casting needs to be trimmed to fit neatly into the model. Cut back the vertical sections at the ends as far as possible, then drill a hole for a second screw.

The motor casting needs to be



Put the motor in place and mark the position for the mounting screws, then drill the holes. Attach the base to the rest of the model using self-tapping screws (or glue).



Attach the plastic under section using self-tapping screws.



Fit the motor.



Your model is now complete.

It will greatly improve the appearance of the tram if the windows are glazed with clear Plasticard, overhead projection film or similar material prior to re-assembly.

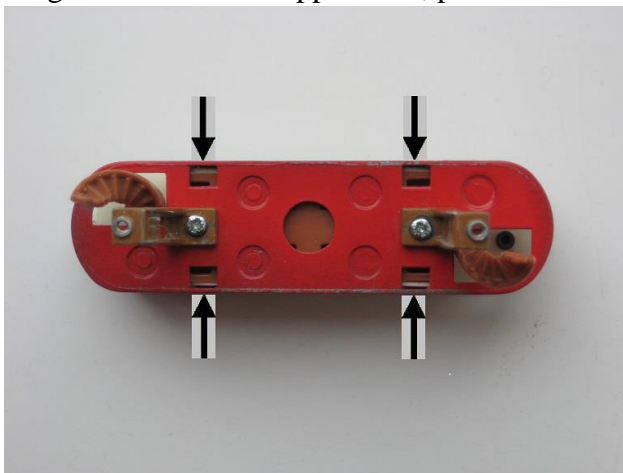
The motorised Matchbox Y-15 tram is re-assembled by fixing all parts together with 3/16ths No 2 self-tapping screws and is now ready for two-rail

running.

An alternative would be to re-assemble the tram using two-part epoxy adhesive, but it is much easier to take apart if screws are used.

If you wish to motorise the tram for live overhead you will need to dismantle it further.

To gain access to the upper deck, push the window holding clips in towards the centre of the upper deck with a small screwdriver while easing the windows, and roof, away from the upper deck casting.



File off the cast-in trolley pole, drill a hole in the centre of the roof for the new trolley pole socket and finally paint the roof grey. When the trolley pole socket has been glued in the hole in the roof, the wire to the power unit should be run through a hole drilled in the upper deck seating above the hole in the centre of the upper deck casting.