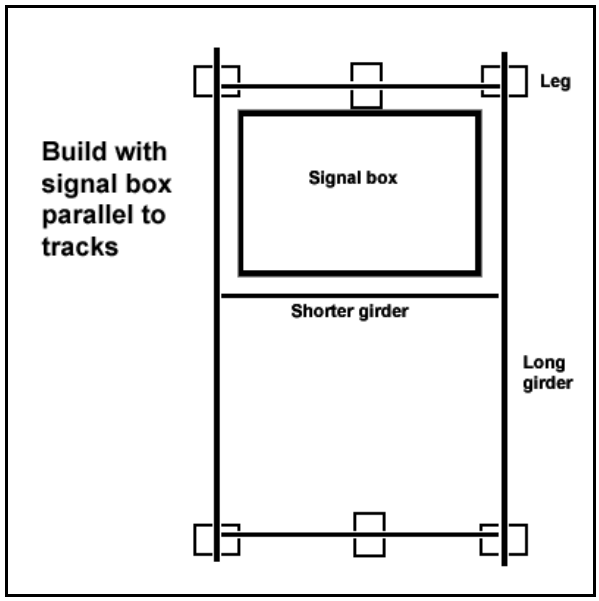
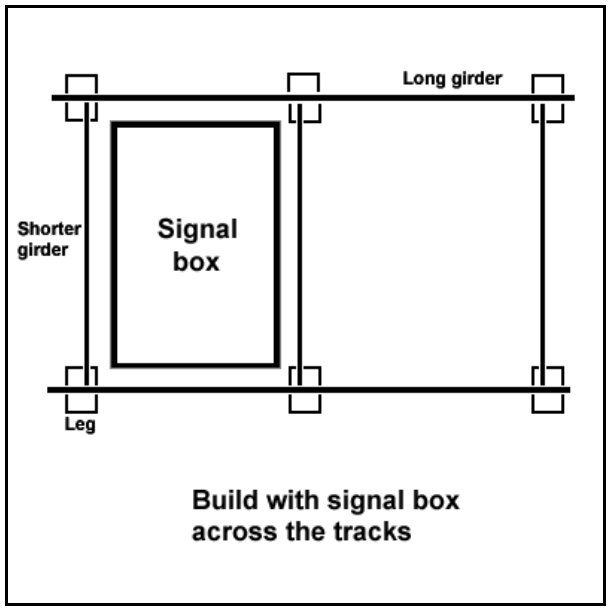
Suggested build sequence for the overtrack signal box.

I suggest using Deluxe Materials laser cut kit glue (AD-87) and UHU for assembly. The overtrack signal box is constructed as a number of standalone sections which are placed together on your layout.

Before starting, you need to decide if the signal box itself is going to run across the tracks or parallel to them. I will highlight in the instructions where this has an effect on the construction. Basically you will see the main girders (B) consist of two long and three slightly shorter girders. The short girders will be used in the same orientation as the signal box itself. So if constructing the signal box as per the prototype the long girders will span the track, otherwise they will run parallel to it. In the diagrams below the track is deemed to run left to right.

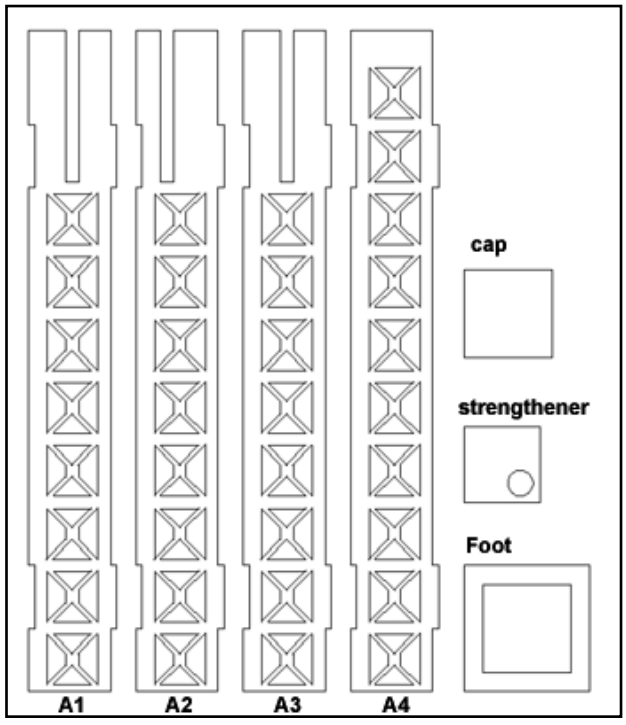




OK let's get started.

Basic framework – use laser cut kit glue

1. The design sits on 6 legs so best to start with them. Each leg consists of 4 upright girder sections (A1-A4), one foot, one cap and two or three internal strengtheners with a hole to allow a plastic conduit to be inserted to carry cables if required. The four corner legs consist of two identical parts, another with an offset slot and one with no slot at all. The uprights with the central slot (A1 and A3) are to carry the long girders, the upright with the offset (A2) slot is to carry a shorter girder which will butt up to a long girder. The upright with the offset slot should always be positioned with the slot nearest the centre of the structure. Start be making one corner, which will be one upright with a central slot (A1), one with the offset slot (A2), the other with the central slot (A3) and finally the one with no slot (A4). Position that on your work bench and construct a mirror image of the leg you have just made at the equivalent end of the other long girder. You should see that these could then be connected by one of the shorter girders.



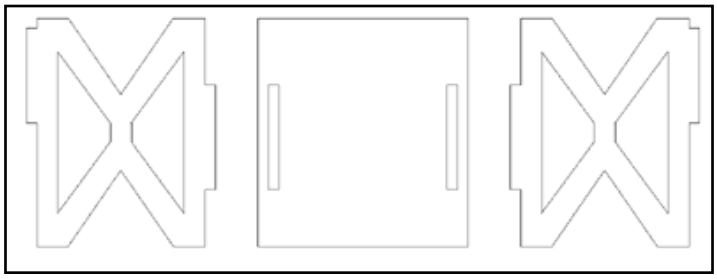
2. You can now put together the other two legs which will be positioned centrally on the girders running parallel to the track. Obviously this may be a short or long girder depending on your preferred signal box orientation (see initial diagrams on page 1). There is a slight difference in the construction of the legs. If building as per the prototype you need to substitute one of the spare uprights without slot (another A4) instead of the one with the offset slot (A2).

3. Once all six basic legs have been put together, install the internal strengtheners, making sure the holes align and are at to the innermost corner. Also add the foot extension to the base of each leg. Don't put the caps on at this stage.

4. It is time for another decision. Are you making this the same size as designed or do you want to reduce one dimension? You can only reduce the length of the long girders. Cut off complete sections as required (I suggest 5 at most).

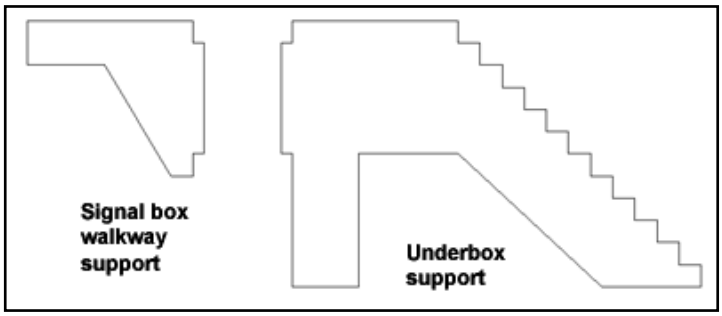
5. I suggest at this stage you do a trial fit of legs and girders but don't glue the girders in place just yet.

6. You now have optional items. I have included signal brackets (up to 8). These are optional, but allow you to fit extension peaces to the girders over your tracks onto which you can place a light signal. These are simply two side pieces and a front panel which will fit in to the main girders.

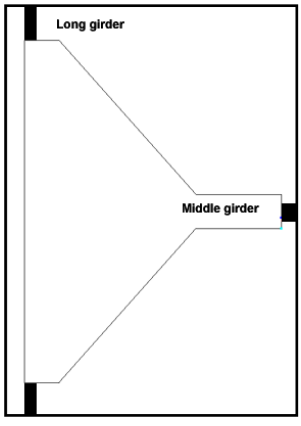


7. Next you should put together the stepped section which sits underneath the signal box. This is made up of a base and 10 oblong outlines (with no centre) which increase in size. Either make yourself a jig or use the supports (see section 8) to line things up.

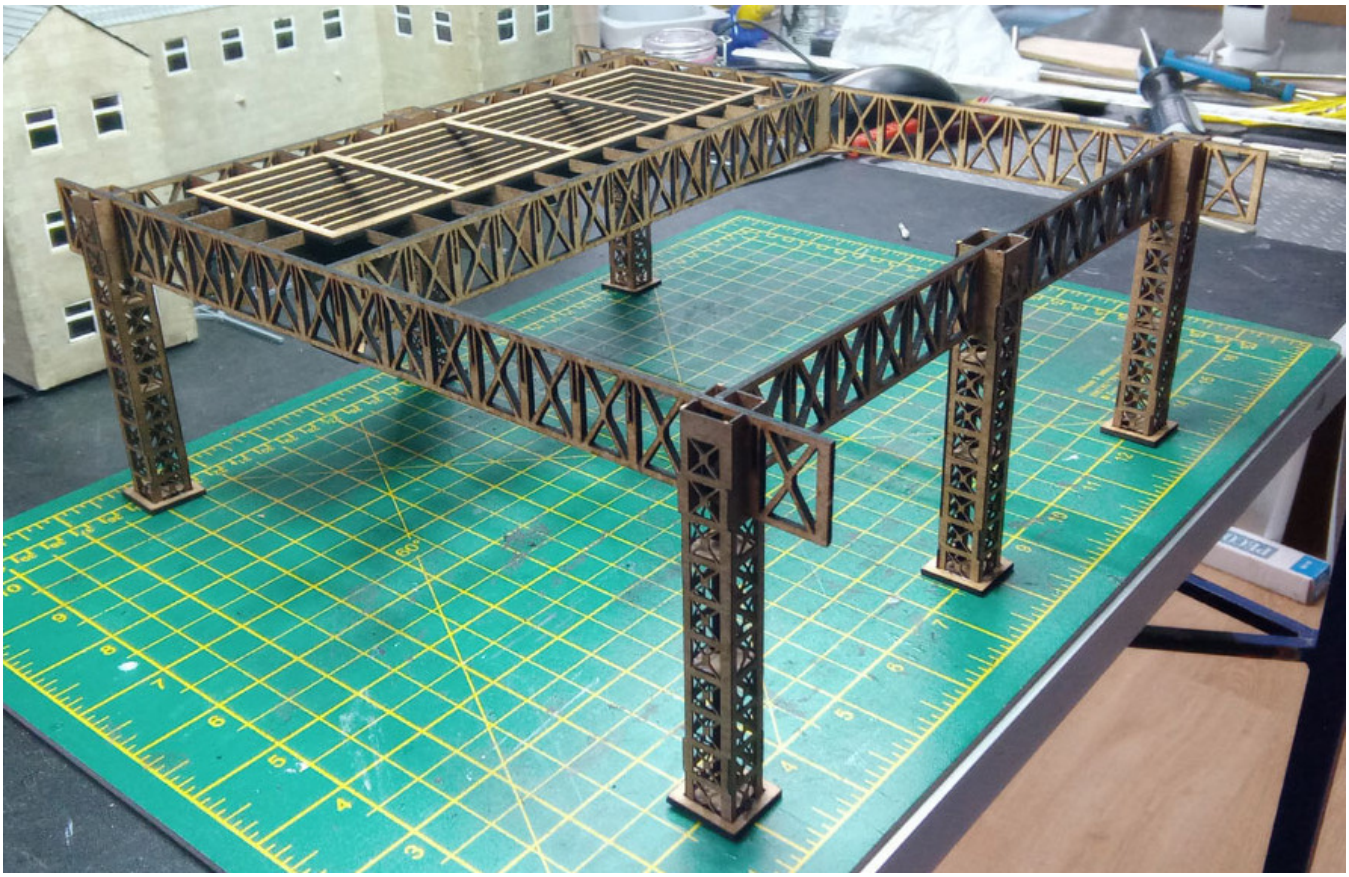
8. You will find a number of each of the supports shown in the picture. You should now be able to work out the approximate position of the central shorter girder based on the under box you created in 7 along with some of the underbox supports. Glue these into the appropriate places on the girders. I would suggest placing them alternately although see what it looks like. If you are going to use the extra walkway remember to install walkway supports for this too. It's also good to ensure your signal brackets will fit and you don't glue up a hole with one of the other supports although tou can always cut off the tab and just flush glue the signal brackets.



9. You should now be in a position to glue the girders and legs in place along with the underbox structure. If you are building it as per the prototype, there are two additional support fillets for glueing where the central short girder meets the long girders.

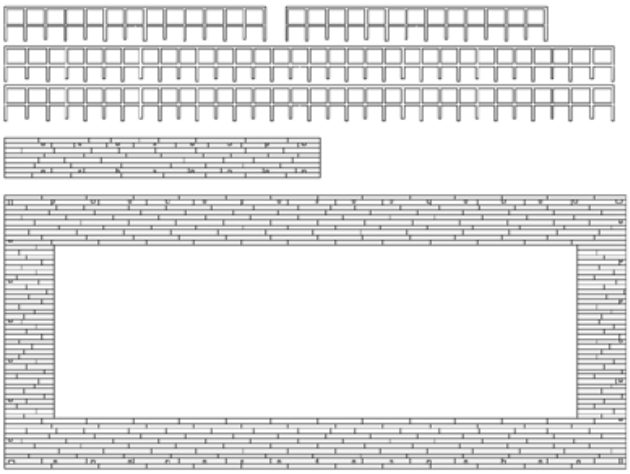


That's the support structure complete. You should now have something that looks pretty similar to what is shown below. Note, I have put some pieces of 2mm scrap across the top of the underbox but you could easily adapt spare underbox supports for this purpose. In this example I have not fitted extra supports for the walkway extension – see final picture for example.



I would suggest painting this now. I used a simple black acrylic spray.

10. Walkway around the signal box and the optional extension. I would suggest painting this now including the railings. I painted the railings with the same black as the main framework and the walkways with a basic grey colour. I would suggest fitting the signal box surround walkway to the above structure then the extension walkway if being used. Use UHU or similar for this as the laser cut glue does not work well on painted items. Once this has set you can carefully attach the railings.

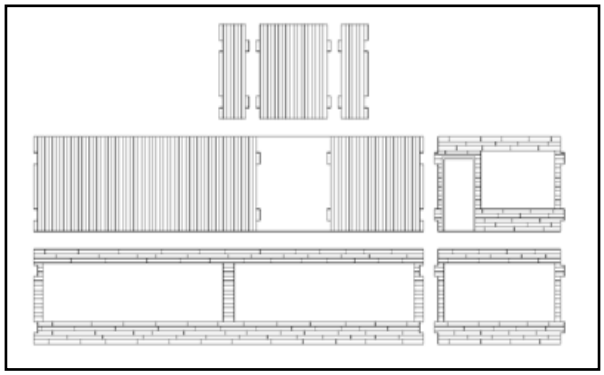


This sub-assembly is now complete and can be put to one side.

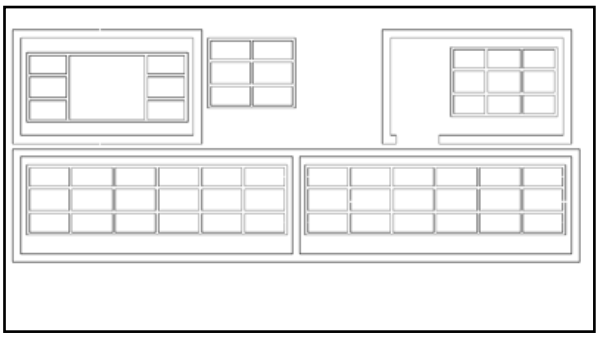
Signal box – use laser cut kit glue

There are two different variants of the signal box depending on your chosen orientation. They are basically the same other than the position of the windows. I will describe here the build as per the prototype but it should enable you to just as easily build the other variant.

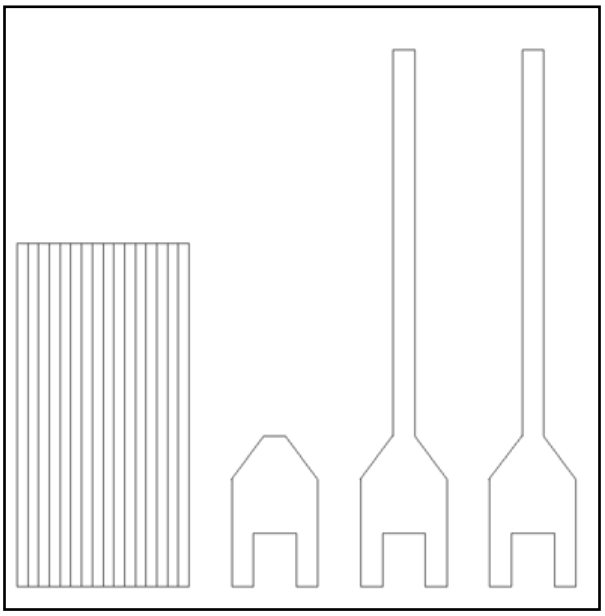
1.Take the main structural elements as shown. Using a corner jig make up the four lower pieces into the basic signal box shape. The upper three pieces create the rear extension and fit in the slots provided on the rear wall. You should also find a floor for the signal box (not shown) which fits exactly into the hole on the main structure. Glue this to the bottom of the signal box. Again I would suggest painting what you have assembled so far, including the inside.



2. Now take the wall surrounds and the windows as shown. Again paint these prior to installation in your chosen colours. Test fit and glue with UHU or similar once painted. Note that the window in the middle of the top row is separate and is designed to be positioned inside the hole left in the top left window. This enables you to show the window slid open if you so wish. You may choose to use old plastic packaging to create your windows at this stage or use that provided.



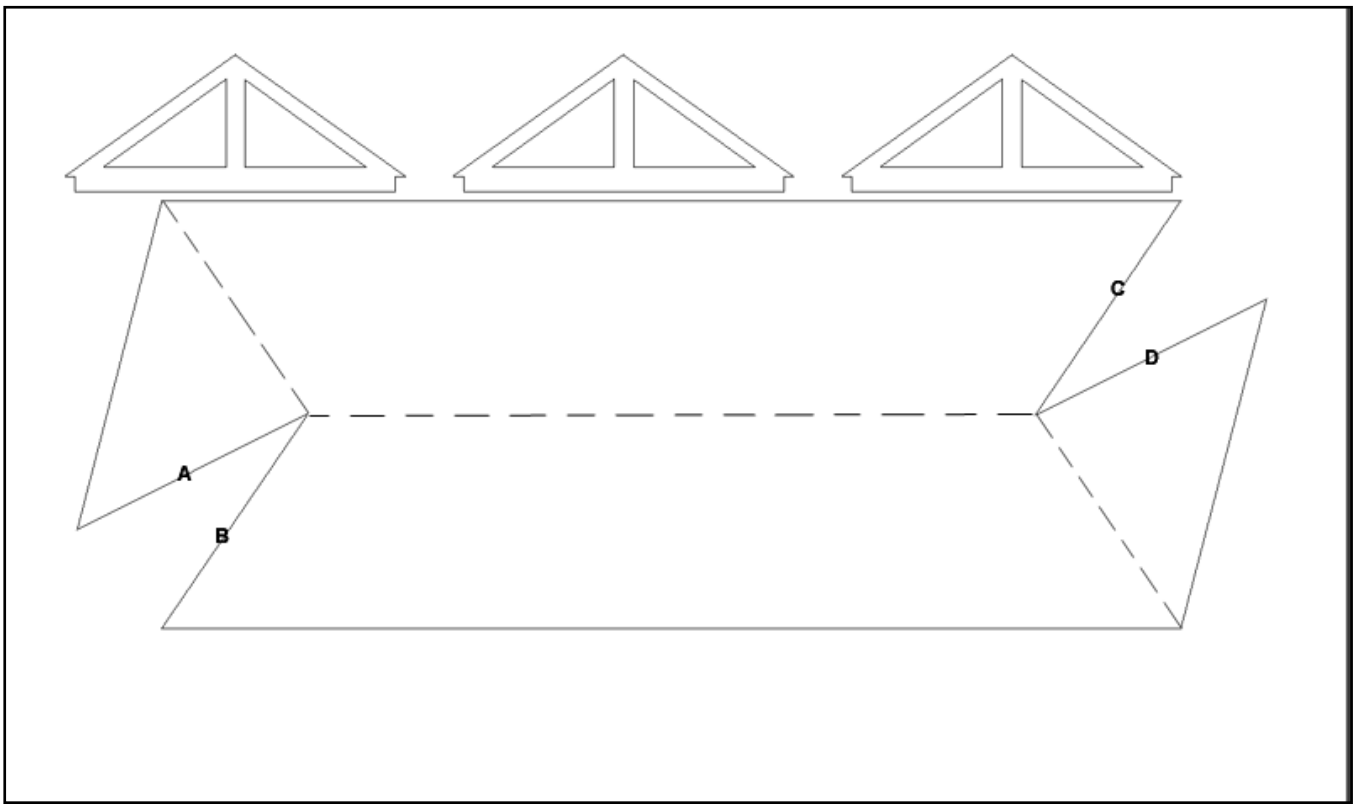
3. The final items to fit, again best to paint first. Are the door and the chimney on the back wall and the main entrance door. The entrance door can be posed open if required but I suggest using a thin piece of paper to create a hinge. The three parts of the chimney should be glued together with laser cut wood glue before painting. Do not glue the chimney in place at this time as it needs to be positioned once the roof is constructed.



The box can be placed on the structure made early but should not be glued to leave access to the underbox. Any other interior detaining can be done at this stage.

Roof.

As with the signal box itself, the roof can be glued to the signal box once constructed but I would suggest it is best left detachable in case you need access to the inside of the box at a later date.



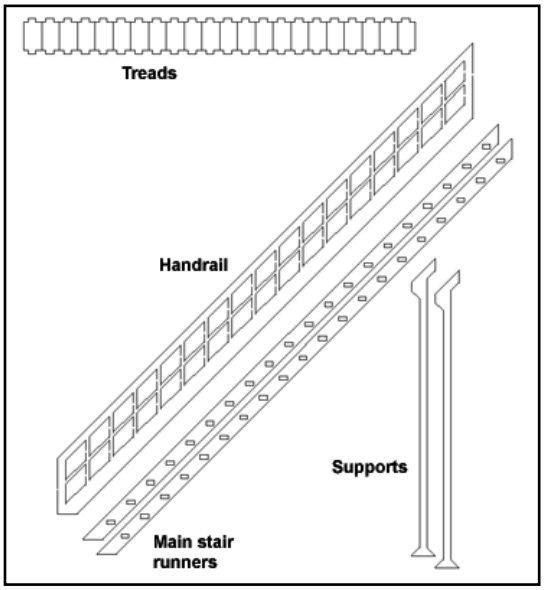
The main card section forms the support for the strips of tiles supplied with the kit. Score where the dotted lines are shown above and bend to form a roof connected A to B and C to D. A thin piece of paper glued on the underside will help make the joint. The truss pieces can then be glued into the upturned roof.

Once dry, test fit on the signal box and then make a hole in the roof at the position where the chimney will come through. Once made the chimney can be glued in place on the back wall of the signal box with UHU or similar.

I suggest you leave the roof on top of the signal box whilst fitting the tile strips and the ridge tiles.

Stairs

The final sub assembly is the stairs. You can see from the attached picture that there are two side rails in to which the treads need to be glued. Once these are glued the side panel can be attached. At this stage I would paint the stairs and the two support legs. Test fit against the completed signal box to establish the position the two supports need to be glued.



Final bits (no supplied).

Some clear plastic from old packaging can be used to create the clear windows if not already installed. I would also suggest getting some thin plastic tube (e.g. a drinking straw) and cut a short piece to form an extension to the chimney to bring it above roof height. If you make it so that this is a push fit it can be removed easily before taking off the roof if you need to gain access to the interior.

The rest is up to you, enjoy.

If you have any questions I can be contacted via email at dave.hounslow@gmail.com