

## PIP customisation Instructions

**PIP** is assembled and ready to go. However, we supply strips of special adhesive to help you permanently attach Lego, Duplo or similar. This will help you to customise **PIP** in any way you like, using existing school resources.

These strips are for permanent attachments. You may prefer temporary fixings using ordinary tape instead of, or as well as, the permanent fixtures.

**PIP** can have things attached to the top, (avoid the keyboard and light!), either side, or the front.

First select your Lego etc. pieces. These should be as flat as possible. Bright colours are better than dull ones, larger pieces give the greatest potential. Test your arrangement by fixing the pieces with sellotape and check for free movement of **PIP** using the **Test** key. **PIP** cannot manage too much weight too far from its centre.

When you are confident in your arrangement, clean the surfaces to be glued with white spirit. Test a small area of the pieces first to check they do not dissolve. Wipe dry with a tissue and do not touch the surfaces afterwards.

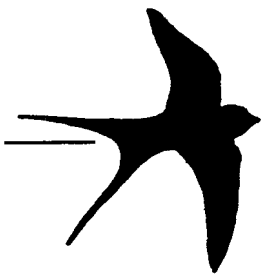
Peel one side of an adhesive strip and press it on to the piece. Large pieces will need two strips as far apart as possible. The strips can be cut with scissors.

Peel the other side and press the assembly to **PIP** in the correct position. Press hard for 20 seconds so that the adhesive fills the surface roughness. The adhesive needs time to reach full strength. Treat it gently for 24 hours after assembly.

If you need to remove the piece from **PIP** it may be possible to lever it off with a strong tool. This may damage the Lego or damage the surface of **PIP**. Once apart, the adhesive can be picked off by hand.

If you need more adhesive strips to fix other things to **PIP** please contact us.

We acknowledge Lego and Duplo as trademarks. **PIP** is also a trademark.



## Extra Items

We have included two free items with your **PIP**. If you have any comments on either of them please let us know.

### Modifier Plug

Some younger children may find it difficult to use large enough numbers to make **PIP** move a satisfactory amount. To help them we have included a free modifier plug to change the size of distance and angle units.

With the modifier plugged into the charger socket, **PIP** moves in 10 centimetre and 10 degree units. Thus **↑ 1** moves 10 centimetres and **▶ 9** is a right angle. This allows younger children to achieve better results with small numbers.

The modifier can be plugged in after entering a program. The program can be run with and without the plug to see the effect. The modifier alters **TEST** dramatically. The 90 degree turns become 900 degree turns and the whole shape is different.

If you ask the children to insert the plug, please make sure that they understand that it will only fit one way round. Some children may force it and they could damage either the plug or **PIP**. If in doubt it is better for the teacher to fit or remove it.

You may wish to explore distances with the plug fitted. The 10 centimetre step is the height of the keyboard and bezel together. This can be interpreted as a "**PIP** span" and the children instructed accordingly.

### Pencil-Lead Holder

The pencil-lead holder is clipped on to the chassis beneath **PIP**. The bump in the plastic pushes the pencil lead down against the paper. Use a soft pencil lead, cut to size so that it does not hold the wheels off the ground, and clamp it with the screw provided. Sandpaper is good for trimming the length of the lead. The holder position should be adjusted by testing the size of the circle drawn when **PIP** turns through 360 degrees. The smaller the circle the better. You may wish to mark the best position for future use.

