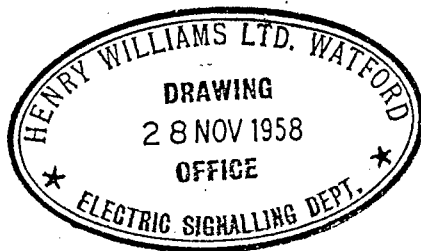


~~V.B. 11~~

A. J. Hiscock

DOMINO CONTROL PANEL
INTEGRA SYSTEM
WIRING DETIALS

HENRY WILLIAMS LIMITED
ELECTRIC SIGNALLING DEPARTMENT
WATFORD



DECEMBER 1958

SD.56-102
N^o. OF SHEETS: 6

DOMINO PANELS

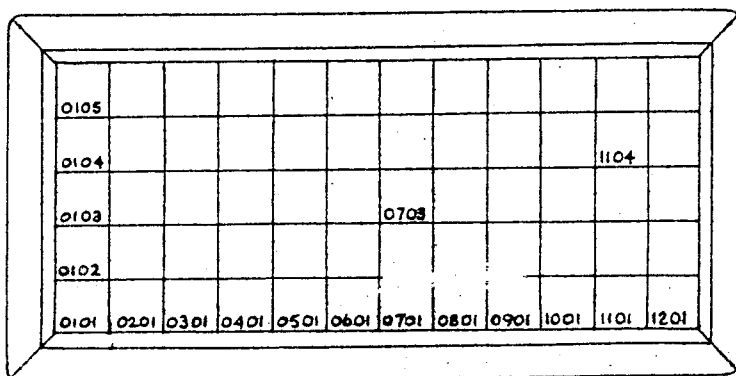
The Domino Panel is designed on a mosaic type of construction, the Domino unit being supported on a jig welded frame. Each Domino cover has a surface dimension of 40 x 40 m.m. The unit comprises two main parts, the lower part consisting of a moulding, which houses the contact assemblies with their soldering connections, and the upper part which carries the optical details, push buttons and rotary multi-position switches.

The unit contains three rows of four contacts, giving a total of twelve contact points, each of which can serve as a lamp position or when coupled, as contacts for push buttons. In one unit therefore it is possible to have a number of combinations of lamps and push buttons.

The aperture of the units can be square oblong or circular, and for track circuit indications the same aperture being used to display the route setting - white - changing to red on track occupancy. Similarly multi-aspect signals can use one aperture repeating in two colours as required.

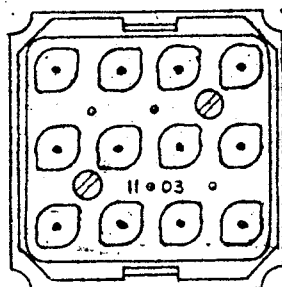
A standard colourless bulb of 1.2 Watts is used for all indications. To replace a "Blown" bulb, the top part is removed and the bulb extracted by means of the tool provided.

Also a lamp testing unit is incorporated in the top left hand corner of the panel, so that a bulb may be tested before insertion.

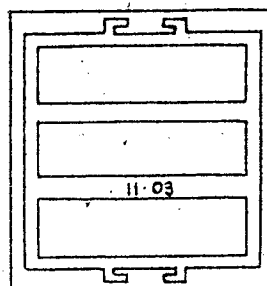


PANEL VIEWED FROM ABOVE

The numbering of the units in a Domino panel is done in a co-ordinate system, the units number from left to right and from bottom to top when viewed from the top of the panel, and make up a four figure reference, e.g. 0703, 1104. This number is stamped on both parts of each Domino unit in a convenient position such that when the top and bottom parts are placed together the numbers coincide.



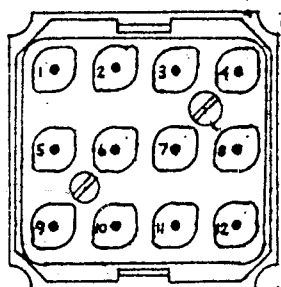
LOWER PART OF UNIT
VIEWED FROM ABOVE



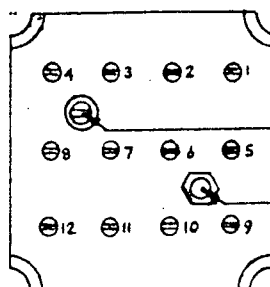
UPPER PART OF UNIT
VIEWED FROM BELOW

The top part of the unit is a press fit into the panel being secured by two springs to the lower part of the unit and is removed by means of a magnet. In the case of a unit containing latched push buttons which in addition to the securing springs has a securing screw to prevent the top part of the unit becoming loose under pressure of the contact springs and the push button springs.

If there is no track or identification on the top part of the unit, to avoid the unit being replaced in the panel in an incorrect sense a non reversible pin is provided.

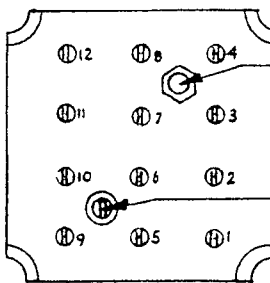
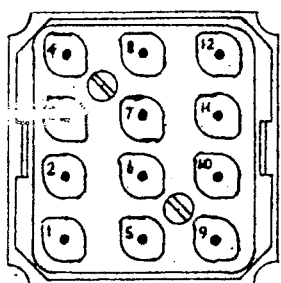


LOWER PART OF UNIT
VIEWED FROM ABOVE.



LOWER PART OF UNIT
VIEWED FROM BELOW.

BOTH VIEWS SHOW UNIT IN ITS NORMAL POSITION.



EXAMPLE OF PARTS OF A UNIT TURNED 90° L,

A unit is in its normal position when the Binder post is in the bottom left hand corner of the unit when viewed from above. If a unit is marked 180° on the layout diagram, it has been turned through 180° i.e. the Binder post is in the top right hand corner of the unit as viewed from above. If a unit is marked 90° R the unit has been turned through 90° in a clockwise direction, a 90° L marking means the unit has been turned through 90° in an anticlockwise direction.

The numbering of the soldering tags of a "Domino" Unit is as shown, only the used tags being shown on the layout in their respective position when viewed from above. The numbering is always relative to the Binder post.

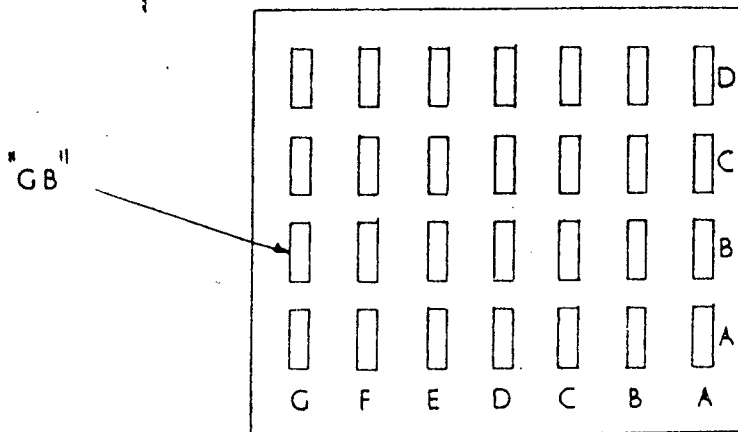
The units are wired to tag blocks at the rear of the console, the wiring following a colour code and numerical sequence. The first used tag of the unit being allocated the first colour in the colour code and the second used tag the second colour etc. The "common" tag is always allocated the same colour, namely Yellow.

The colour code is as follows:-

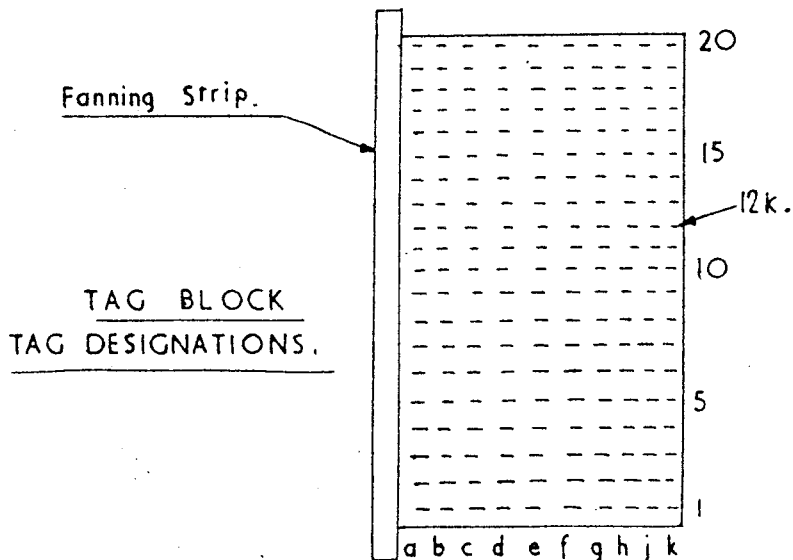
- | | |
|-----------|------------|
| 1. Red | 8. White |
| 2. Blue | 9. Black |
| 3. Green | 10. Pink |
| 4. Brown | 11. Maroon |
| 5. Grey | 12. Violet |
| 6. Orange | 13. Yellow |
| 7. Mauve | |

For example if tags 5, 6, 7, 8, and the "common" tag are used on a unit, the colours will be red on 5, blue on 6, green on 7, brown on 8, and yellow on the "common" (13) tag.

When tag blocks are fitted to the console, they are located in the rear of the console. With the back cover plates removed the tag blocks are designated right to left and bottom to top.

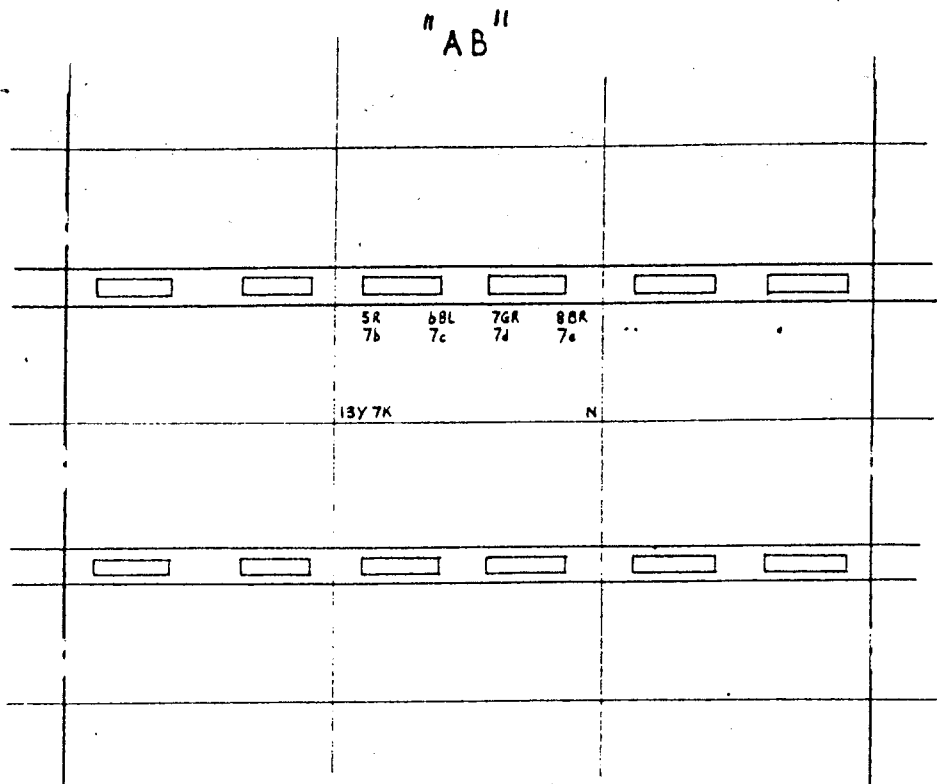


The tags on the tag blocks are allocated a letter and a number, the number being the level and the letter being that of the tag.



The levels number from bottom to top and the tags letter from the fanning strip to the front of the block.

On panel wiring layout drawings, sections are allocated to tag block. The unit terminals are marked with the terminal number, colour of its wire, the level and tag letter to which it is wired. For example see below.



This shows the unit is allocated to block "AB", four terminals used are: 5, 6, 7, 8, the colours used are: Red, Blue, Green, Brown, terminal 13 is the common and has a Yellow wire. All terminals being allocated to level 7 on the tag block and occupy tags b, c, d, e, and the common occupies tag K. Also it is shown that the unit is mounted in its normal position, this being denoted by the letter N.

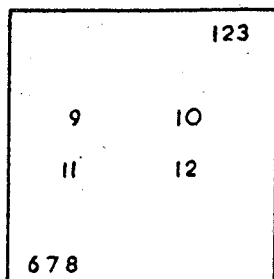
The tag blocks are wired in sequence, the wires from one unit following another, starting at level 1, tag a, the last tag of each level being reserved for common wires, with a maximum of these wires to one common tag. Should there be more than three common wires on one level, the last common wire is placed on the next level.

The units are wired to the tag block such that the first unit taken is the bottom left hand unit and then the next horizontally along the panel within the bounds of the tag block allocation, continuing with the row of "Domino" unit above and so on working from left to right and bottom to top.

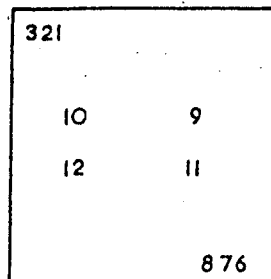
Only the equipped working units are taken and consequently the spare tags appear only at the top of the tag block.

TRAIN DESCRIBER UNIT

The counter unit for the train describer panel has been allocated numbers to the terminals as shown below.



VIEWED FROM ABOVE



VIEWED ON BASE

Provision has been made in this numbering sequence for additional springs which may be fitted. The colour code sequence and tag block arrangement follows the pattern of standard Domino Units.

Springs 1 and 8 are lamp connections, springs 2, 3, 6 and 7 are wiper contact connections, and 9, 10, 11 and 12 are coil connections.

To replace a "blown" bulb the top cover plate is removed and the bulb extracted by means of the tool provided.

To carry out any further maintenance the whole unit has to be extracted from the panel.