INSTALLATION OF CROSSING LIGHTS ON CALDER NORTHERN UNION MILLS LAYOUT.

By Roy Harris.

The following lights were already installed on the road each side of the crossing:

- A Ciruitron H862. A traditional pair of flashing lights (LEDs) on a pole with "Railroad X Crossing" signs below. The spare unit I was loaned to experiment on had five wires: 2 yellow, 2 red and 1 white. I followed the convention that red would be positive...WRONG! That led to a damaged LED which had to be replaced. In doing so I got the soldering iron too close to the adjacent LED and that had to be replaced. You see where this is going? In fact the white is common positive while yellow and red are negative to the individual LEDs. It turned out that the unit installed on the layout only had lights on one side, so there was one lead in each of the 3 colours. This explains the spare resistors shown in the diagram.

- A Cornerstone Cantilever crossing signal 933-2303. This had 2 red wires which were negative LED terminals while the black was common positive.

To operate these I was supplied with a Circuitron FL2HD flasher unit. Quite a versatile unit in that it has quite a wide range of input voltages, either AC or DC. In this case power was taken from the main DCC bus. I was fortunate that there was a joint in the bus adjacent to the location of the FL2HD facilitating quick fitting of the power leads.

There is provision to use it with a Circuitron detection unit, but in this case an on/off switch was deemed acceptable fitted as shown in the diagram.

LEDs require current limiting resistors. The instructions seemed a bit confusing and it seems overkill to have them on both positive and negative leads to the Cornerstone lights. Better safe than sorry.

In order to join all the leads together and hold the current-limiting resistors I made a small circuit board from a plain piece of copper-clad board. Pads were formed by scribing and cutting the copper as shown by solid lines. Then check each pad is isolated from its neighbour. Holes were then drilled to accept the resistor leads and these were soldered into place together with the leads from the signals.

I am pleased to report that despite all the issues described above, the lights flashed perfectly when power was applied for the first time and has given delight to many visiting children.