

## Tip: Strange Happenings Log Part 3

Start Date: 27-02-07

Last Entry 25/08/2019

Hi All,

I decided to create **Part 3** of my **Strange Happenings Log** to continue recording problems and possible solutions that I have encountered on my layout over the many years I have been running my trains. This topic continues to grow so I hope you find it useful. Use the Bookmarks tab to find the topic of interest.

[Part 1 Link](#) for all previous content from **27-02-2007** to **12-02-2017**.

[Part 2 Link](#) for all previous content from **12-02-2017** to **20-08-2018**.

## Strange Happenings Contents

### 39970 Fixed Function Decoder Address 71 Fails

**23-08-2019** After 11 years my 39970 Catenary Maintenance Car platform and pantograph functions failed to function.



**Problem search:** - When I removed the locomotive body shell the pantograph released to the raised position. With the body shell removed I did a power reset of the locomotive and noted the pantograph Piezo motor initialized, this was an indication that all the Piezo motors may still be in working order. My first thought was that somehow the decoder address wasn't responding to the fixed decoder address **71**.

**Solution:** - I remember I read somewhere that the fixed address **71** had changed somehow even though it isn't supposed to be programmable. I first had a look at [Stummis Model Rail Forum](#) and searched for **39970** and found 129 results. A lot of forum entries advised to select a new Motorola address on the central unit. This is a random process as I selected a new address then the manual Piezo motor initialization **F4** function button is turned on for a short period and observed if there was any movement of the locomotive platform.

I started at address **1** and finally noticed platform movement at address **28**. With the new address I had full control of the platform up/down (**F1**), platform rotation CW/CCW (**F2**) and pantograph up/down (**F3**). I was once again happy to see my Catenary Maintenance Car operate.

Please see Strange Bits part 1 page 25 for Intellibox special options.

[39970 Extra Functions](#) and [39970 Used in Schedules](#)

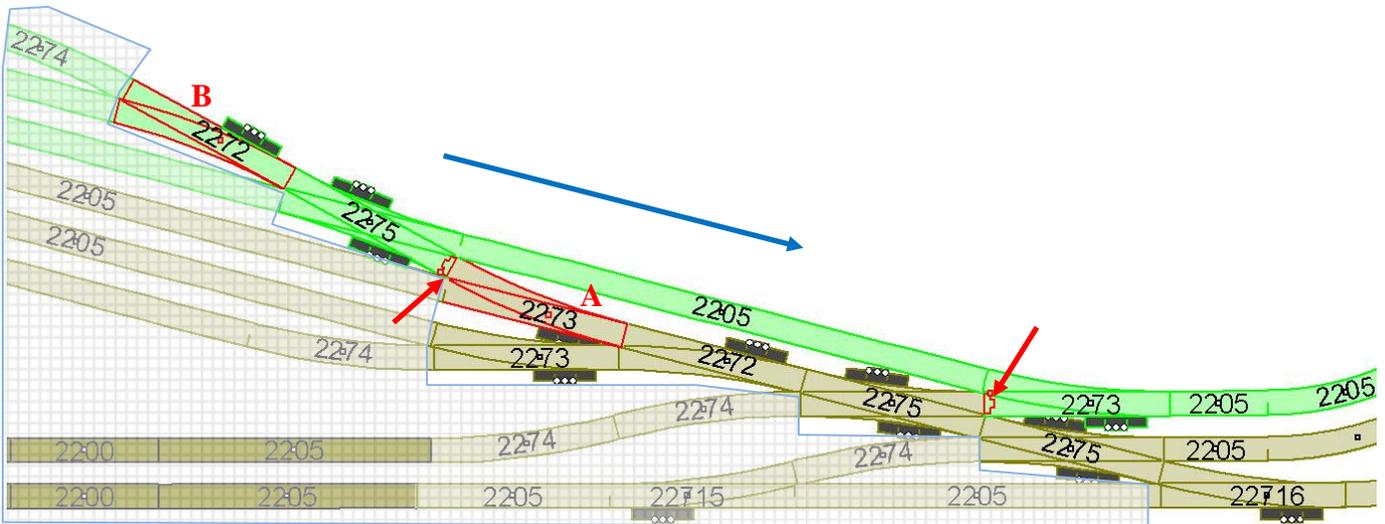
## Tip: Strange Happenings Log Part 3

Start Date: 27-02-07

Last Entry 25/08/2019

### 2271 Points and 2275 Double Slips are 30 Years Old

30-09-2018 **Problem 1:** - As stated above my layout is showing its age where I'm reaching the mean time for failures of items on my layout. A right hand trailing point marked (A) 2273 failed two years ago and a leading point 2272 marked (B) failed 3 weeks ago.



As point (A) is a trailing point I put up with not being able to switch it and decommissioned it within TrainController so I could still run my trains but with the failure of point (B) a leading point it was time to replace the non operating points to gain full control of the layout once more.

Anyone that has used k-track will know that replacing bad track pieces isn't simple as you have to unscrew a certain amount of surrounding track to be able to remove and replace the offending pieces. To make things more difficult the track required centre rail insulators at the red arrow locations for two electrical circuits.

The major problem was all track shown is on the bottom layer of my layout covered by the top layer which was fixed making access very difficult.

I decided all track shown cross hatched would remain fixed and the rest of the track would be removed in the direction of the blue arrow.

Access was from the side of the layout with only 80mm height below the Catenary. To aid in access the turntable was removed.

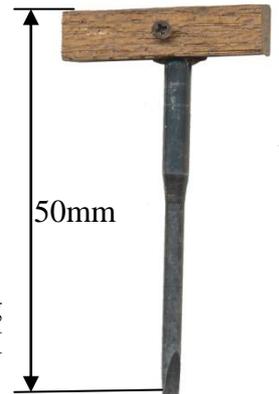


## Tip: Strange Happenings Log Part 3

Start Date: 27-02-07

Last Entry 25/08/2019

**Problem 2:** - A standard jeweller's screwdriver was too tall for the limited space I had to work in. To overcome this problem I used the removable driver bit and inserted it into a 3mm hole drilled into a small wood handle (25x6x6mm). The screwdriver bit was held in place with a track screw that came in contact with the flat tapered fixing section of the bit.



All screws used at the time of installation were **7599** with slot heads

**Problem 3:** - As all the points were 30 years old I was concerned that just replacing the two failed points and reusing all the other points may cause similar failures so I opted to replace all points in this section of the layout.

This replacement required 3x **2275** double slips, 2x **22715** LH points and 3x **22716** RH points which I had on hand as spares.

The time taken to remove all the screws and track was a full 2 days of cramped working positions. In some cases I was under the layout using a mirror to find the screws then using the T-bar screwdriver to unscrew the screws by looking in the mirror.

### What I found caused a few surprises.

With the removal of all the points and track I was keen to see the condition of the track and why the two points had failed.



After 30 years of use I found all the points remarkably clean with only a little dust and very little grease/oil contamination, bearing in mind I have never cleaned the track in this area of the layout. The example above was the dirtiest of the lot so zoom in for a closer inspection.

For point (A) I found the moving frog (**X**) was jammed and the moving point blade worked.



Problem area shown with red arrow but it isn't visible from the top view.

## Tip: Strange Happenings Log Part 3

Start Date: 27-02-07

Last Entry 25/08/2019

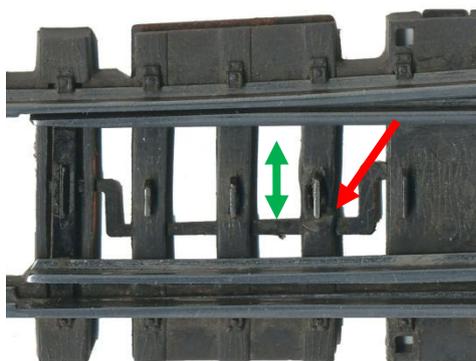
Point (A) continued



Having a close look at the bottom of the point I found the centre rail material was squeezed in, pinching the plastic actuator at the red arrow which prevented movement in the direction of the green arrow. I can't explain why it worked for many years.

**Solution Point (A):** - I used a small screwdriver and straightened the metal at the point of the red arrow. Now the point works perfectly.

For point (B) I found the moving frog worked and the moving point blade was jammed.



On close examination of point (B) I found that the track sleeper had melted the plastic around the centre rail which had closed the gap to allow free movement of the point blade actuator in the direction of the green arrow.

At some stage I must have had a derailment at this location where the collector shoe of a locomotive caused this damage.

Zoom in for a closer inspection.

**Solution Point (B):** - I used a flat bladed screwdriver and increased the gap around the point blade actuator to allow free movement. Now the point works perfectly.

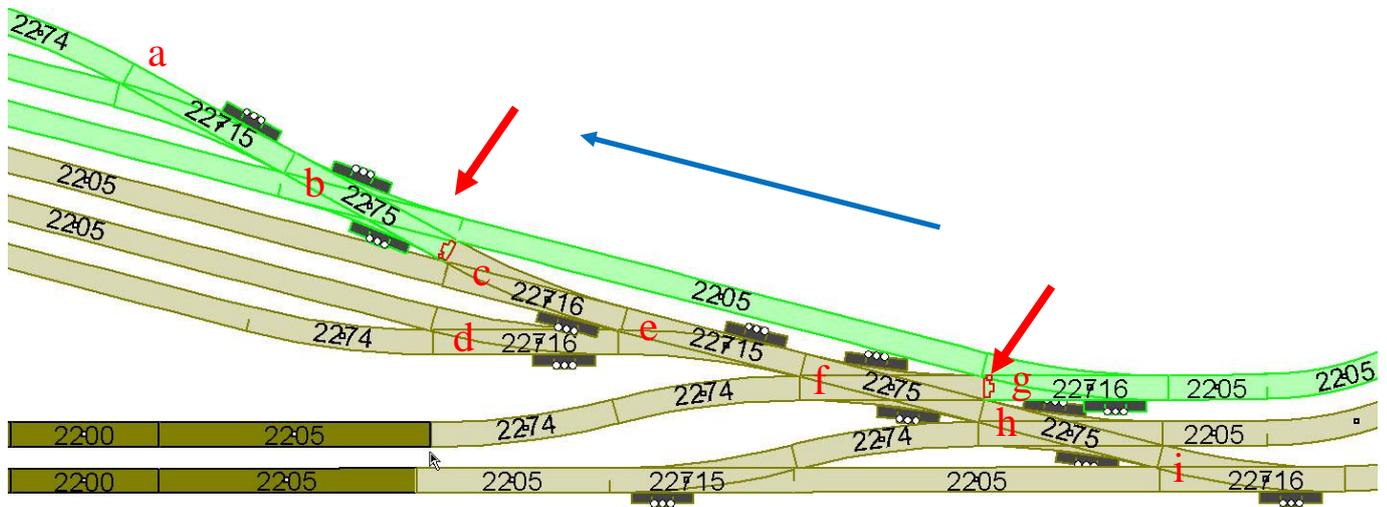
All the points were cleaned ready for use once more.

## Tip: Strange Happenings Log Part 3

Start Date: 27-02-07

Last Entry 25/08/2019

**Solution Final:** - I assembled the new points and double switches into workable sections.



All assembly of the points and track were in the direction of the blue arrow with the following groups.

1. Points **a**, **b**, and **c** with the **centre rail isolator** between **b** and **c**.
2. Point **d** was installed next.
3. Points **e**, **f** and **g** with the **centre rail isolator** between **f** and **g**.
4. Points **h** and **i**.
5. Finally all the tracks on the right of **g**, **h** and **i**.

All replacement k-track screws are **7599** with cross heads to suit a size 00 screwdriver. I used less screws this time and I soaked them in Inox MX3 lubricant which has an anti corrosion formula and also made the screws very easy to insert into the existing holes.

The track is secure and all the points are working well once more.

As always have fun with the hobby.