Operating
Passenger Platform Modification
30-9107

The MTH operating Passenger Platform was designed to operate at 14-16 volts. In order for track power to operate the platform we developed a modification to allow the platform to swing completely and smoothly when it is operated at lower voltages. The future runs of this product and the freight platform will be modified to run at 12-14 volts.

We found that the micro switches were putting a load on the solenoid, so we have replaced the switch with another switch that closes with less force. Also, we are adding a spring adjuster to vary the amount of spring tension. The spring adjuster must be adjusted so the platform has a full swing in both directions at 12 volts. This is accomplished by testing the swing and moving the spring adjuster by trial and Error.

1. Remove the two screws under the base that hold the roof platforms to the base. See figure 1.
2. Remove the wires from the wire holders. See figure 2
3. Separate the base from the roof supports
4. Locate and remove the four screws that attach the control box to roof. See figure 3.
5. Remove the two micro switches and replace with new switches made by ZIPPY. See figure 4
6. Remove the two screws that hold the spring in. Note the screw that threads into the metal bracket has machine threads.
7. The spring has a key chain type ring. Spread the spring ring open as shown in figure 5.
8. Position the spring on the spring adjuster exactly as shown in figure 6.
9. Install the spring and spring adjuster as shown in figure 7.
10. Install the roof support attached to the control box to test the platform, see figure 8.
11. With the platform in the down position tighten the spring adjuster close to the housing as shown in figure 7.
12. ***Make sure the voltage is set at 12 volts and with lights on*** activate the switch and check for full swing of the platform. The closer the spring adjuster is to the housing (see figure 7) the easier it lifts up. The farther away it is from the housing the easier the platform comes down. The platform should completely seat on the base and the platform should go completely into the roof section. Adjust spring until this result is achieved.
13. Disassemble the roof support from the base and install control box to roof.
14. Install the roof to the base.
15. Pull wires back through the base and install the wire into the wire holders (see figure 2)..
16. Check operation at twelve volts.
17. If Platform is getting stuck on platform guide, use a sharp razor knife and cut inside edge. See figure 9.

Figure 1

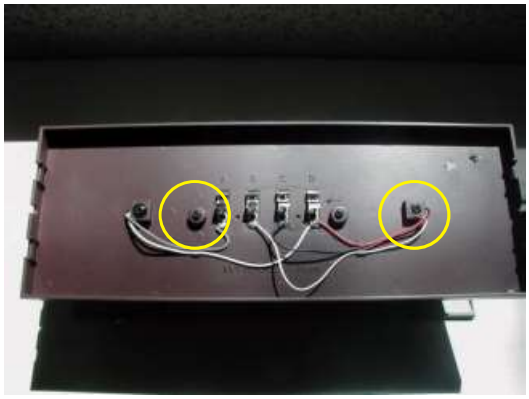
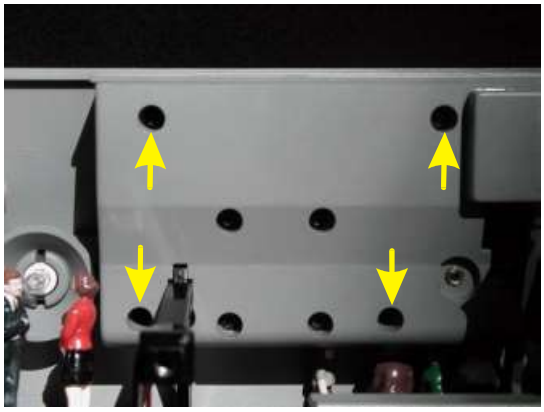


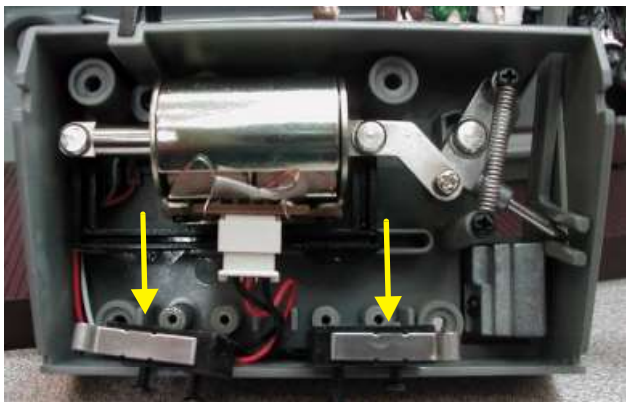
Figure 2

Figure 3



Remove the four corner screws to separate the control box from the roof. Do not remove the four center screws, these are the solenoid mounting screws.

Figure 4



Remove the two original switch and replace with modified switch.

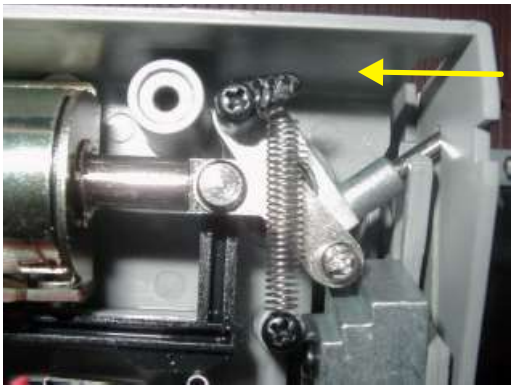
Figure 5

With a small flat screwdriver spread open the end of the spring as shown. With the spring end spread open, the spring adjuster will be eaiser to install onto the spring

Figure 6

Postion the spring on spring adjuster excatly as shown. Note the spring hook is on the left sideof the spring and the spring is installed in middle hole of the spring adjuster

Figure 7



Start with spring adjuster close to housing wall.

Figure 8

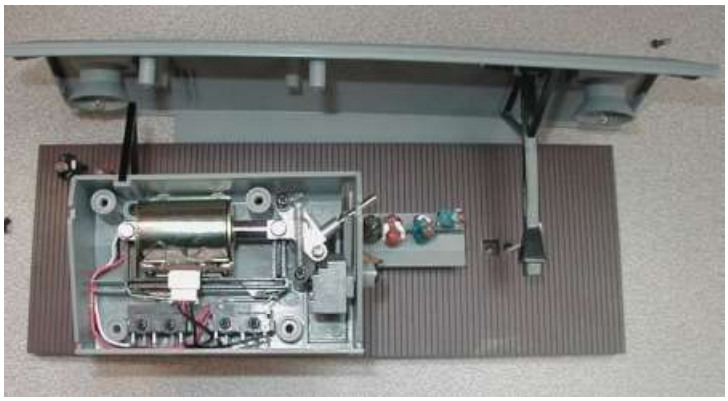


Figure 9

If on the down swing the platform support is getting stuck on the guide, take a sharp razor knife and cut the inside edge at a forty-five-degree angle of the guide. Take the edge off of the inside edge so the platform will Slide down.

Figure 10

Parts for Operating Platform Modification

2 Zippy Micro Switches
1 Spring Adjuster
1 Spring