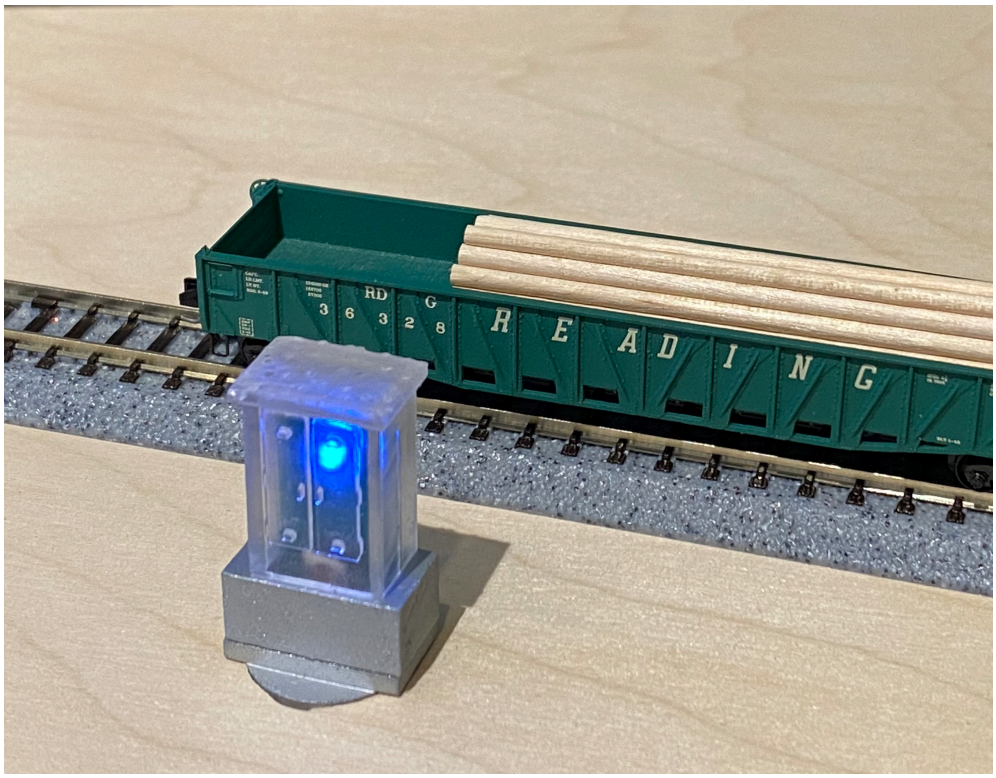
Model Train™ TECHNOLOGY

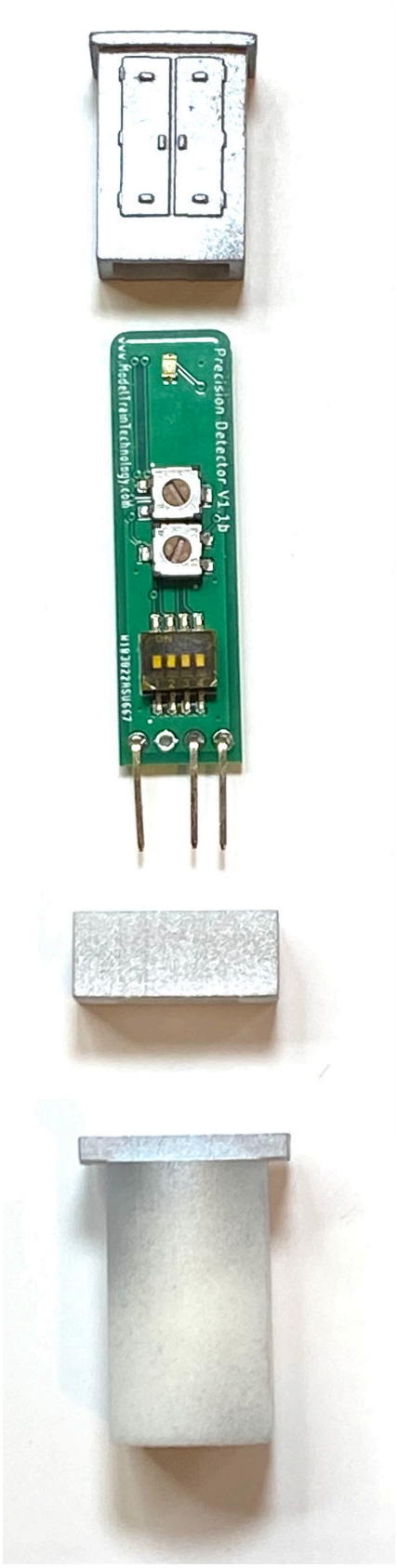
MTT PRECISION DETECTOR™

1mm precision up to 150mm

N SCALE INSTALLATION MANUAL

Version 1.1b



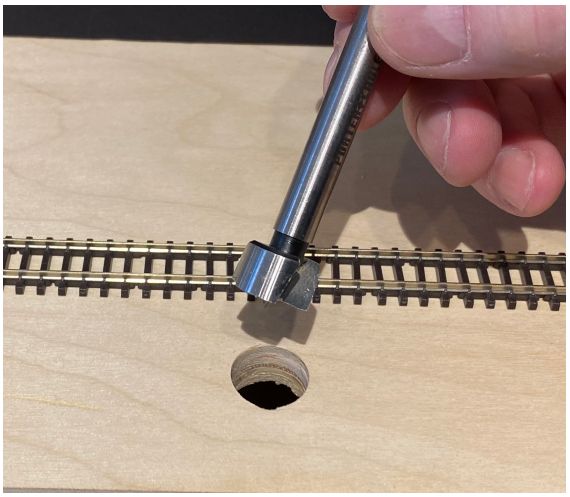


The N Scale ***Precision Detector™*** from Model Train Technology is designed with an integrated mounting “plug” which fits through a ½” hole in the layout.

The plug can be rotated to provide for two selectable heights for the sensor circuit board and thus the sensor detection zone.

While the beam of the sensor is very narrow, it does fan outward with distance. Therefore, in the case of Kato track for example, which is raised and has its own simulated roadbed, if the track is 3” or more from the sensor the sensor will “see” the roadbed and not the rail car riding on the rails.

This mounting system provides a way to adjust the sensor to maximize its effectiveness.

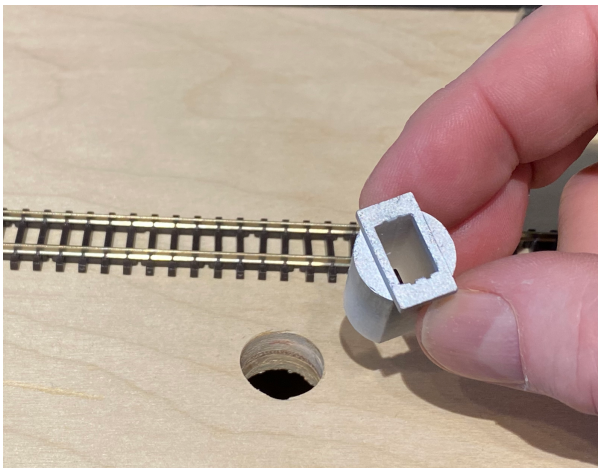


STEP 1:

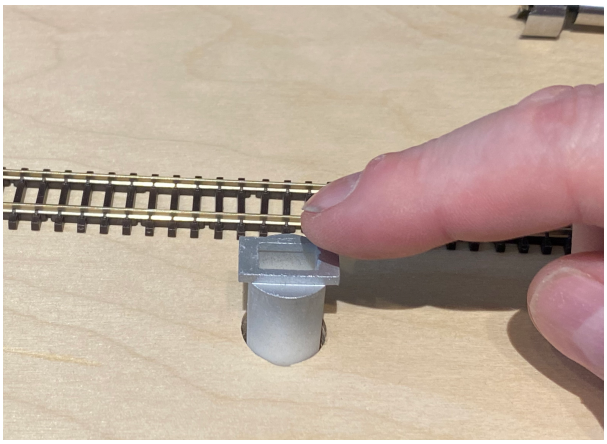
Drill a 5/8” hole in the layout surface where you want to mount the sensor.

We recommend using a Forstner Bit (pictured left). This type of bit cuts a very clean and precise hole that will give the sensor plug a snug fit.

The plug may be too tight for the hole. Feel free to sand the outside to fit using 120 grit sandpaper.

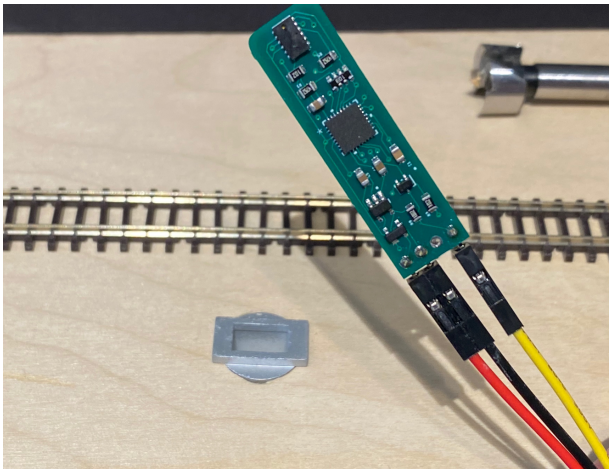


There are two sets of slots in the plug, one for a low mount and another for a high mount of the sensor.

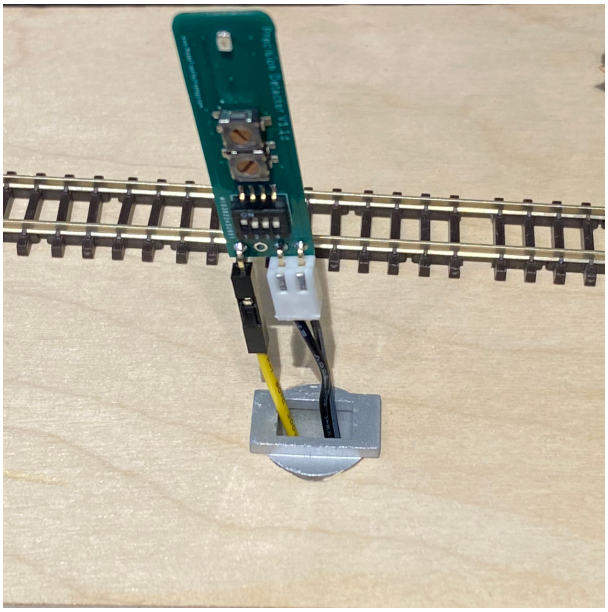


Push the plug into the hole so that the rounded part is flush with the layout.

The rectangular portion keeps the plug from slipping through the hole and provides a base for the electric cover box.

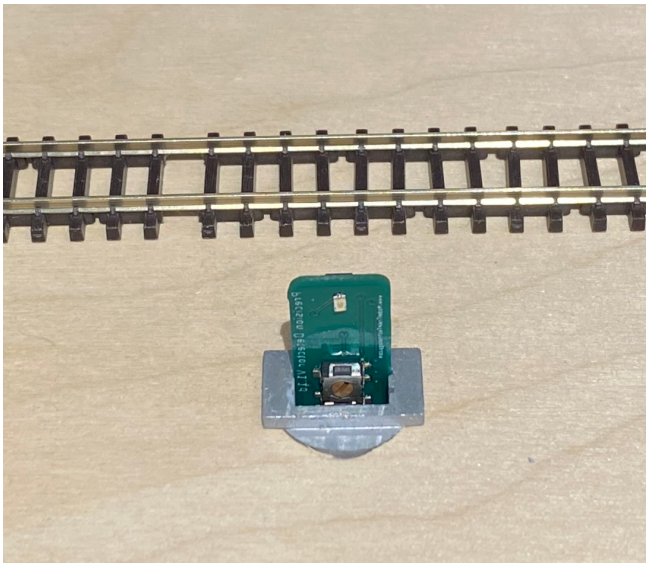


There are two wire options to power the sensor. A black and red wire jumper type or a trimmed JST plug with 36” wire.



Only plug power into the two closely adjacent pins. The lone third pin is for the yellow sensor wire.

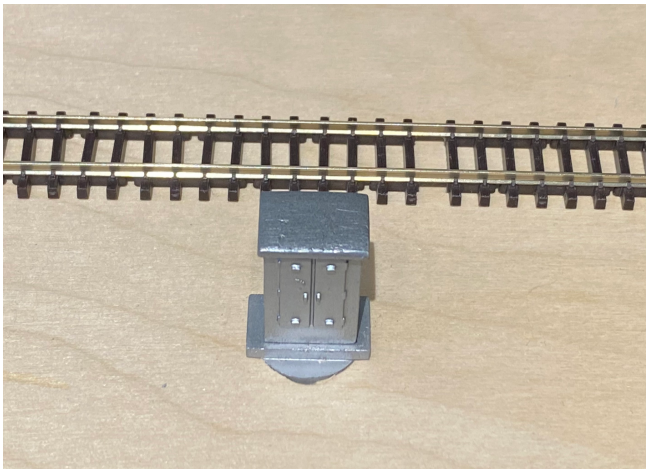
Fit the wires through the plug.



This is how the assembly should look with the lower height slots in the plug.

Carefully slide the circuit board into the slots so that the dip switches are in the larger area and the sensor is close to the outside of the plug.

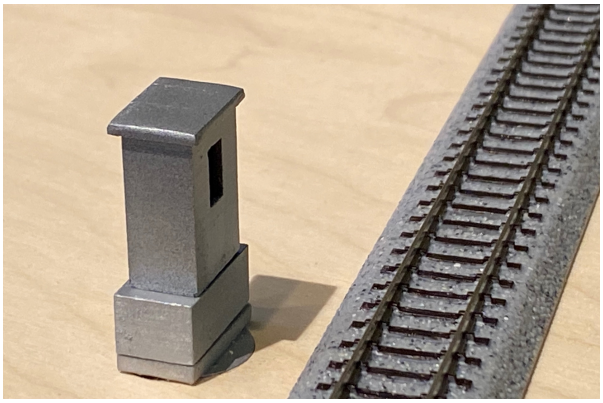
It will only fit one way so don’t force it.



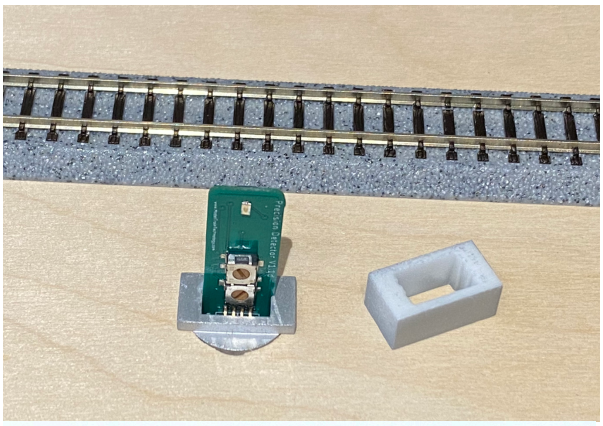
Slide the electrical box cover onto the circuit board – again carefully using the slots on the inside of the box to align with the board.

The box will only fit one way so that the base and the box align, and the sensor is visible through the opening in the box.

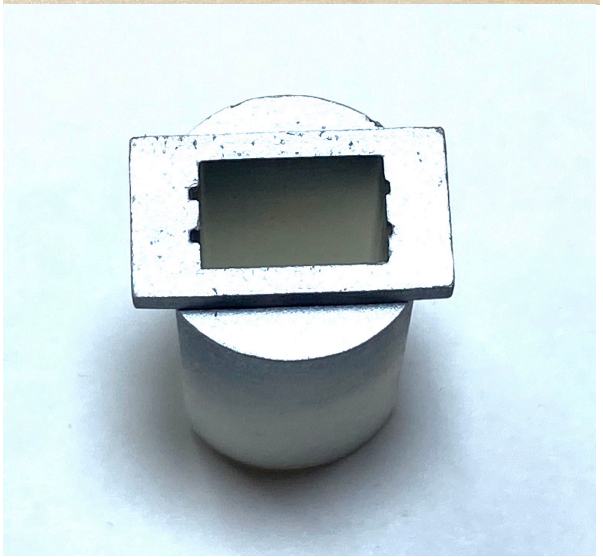
ADJUSTMENT FOR KATO TRACK (AS NEEDED)



Here is a picture of the completed assembly using the higher slot setting on the plug and the spacer collar.

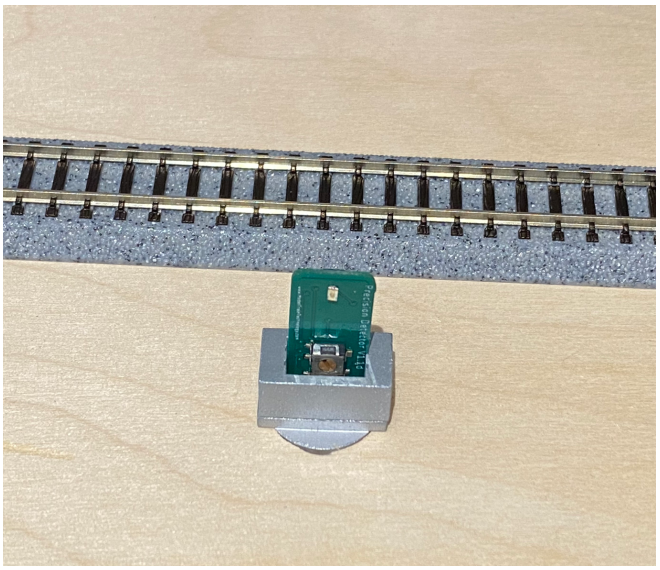


If the Precision Sensor is within 2" of the track, the shorter set up of the sensor will work fine and the spacer may not be needed.

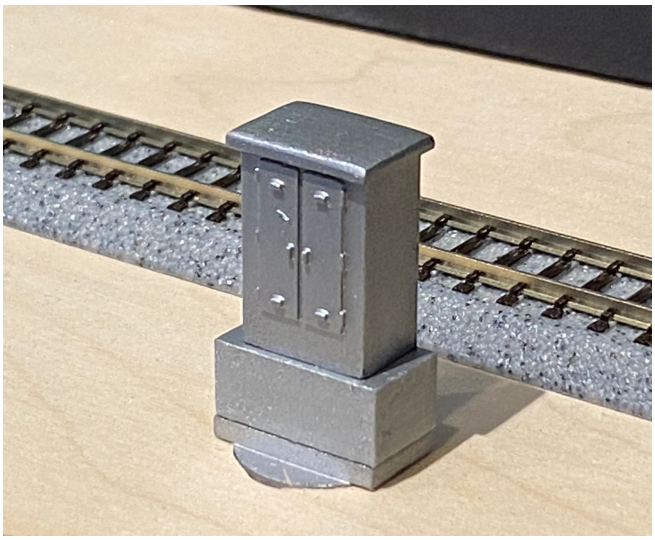


This combination sets the sensor height so that track detection can be achieved when the sensor is more than 3" from the Kato track.

Here is an arial view of the plug. You can see the two sets of slots.



Slide the space collar onto the circuit board just as you did with the plug.



Here is another picture of the completed assembly.

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