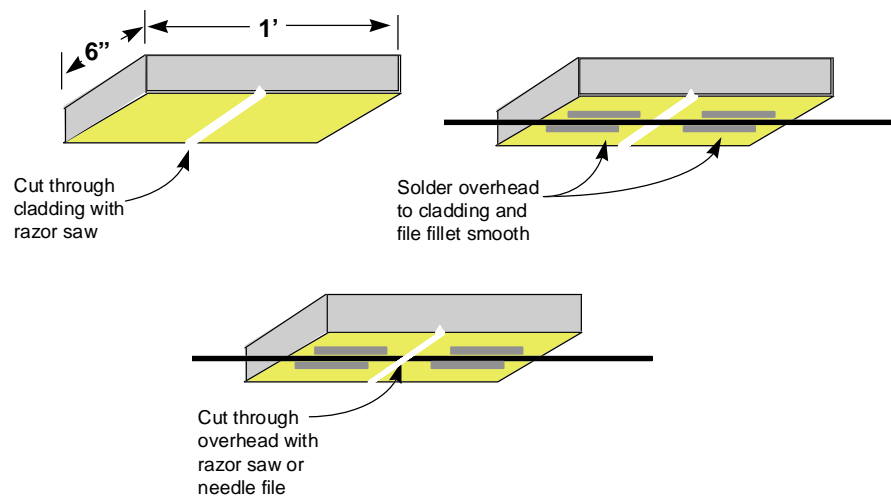


In the past couple of years a different overhead insulator has appeared on East Penn modules, replacing the more traditional two-holes-in-a-fiber (or printed circuit) board. Gary Reign developed an insulator that is more aesthetically pleasing, if not semi-prototypical (they can pass for overhead contact switches). However, the real beauty of these insulators is they don't cause de-wirements, which makes them especially useful when gapping the overhead on a curved portion of track.

The insulator is simply a length of single sided PC board soldered to the top of the overhead wire. Once soldered, a slice is made up through the wire and the copper cladding on the PC Board (see illustrations below). That is all there is to it, the wire never gets out of alignment since it is soldered in place, and there is never any fear of two wires closing the circuit by shifting and touching. Since the gap is very small, there is no chance for the pole to dewire.



Details:

- Use a good quality PC board, you don't want the cladding to separate when heated.
- Cut the insulators about 1' long by 6" wide (scale measurements!) Longer if you like to pick a tune on your overhead and fear the insulator will pull apart.
- Cut the groove and tin the plating before soldering to the overhead. That makes the job much easier.
- For HO scale the PC board can be thinned from the back to reduce the bulkiness.
- You can also taper the ends for appearance sake.
- Get a good solder bond between the wire and the PC board; fill the top half of the wire with solder. It is better to file away some excess solder than to have it break loose.
- When you are sure the solder bond is good, cut through the wire right where the cladding was gapped. Use a file, razor saw, or a circular saw in a Dremel tool to make the cut. Just be sure there is no metal across the gap, neither wire nor cladding nor solder.
- Clean it and you are ready to operate.

Ed Torpy used this method to actually make an overhead switch. He made two close cuts and ran a wire from the middle, insulated, section to a switching circuit. When the pole goes by it closes the gap, momentarily completing the circuit.