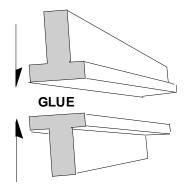
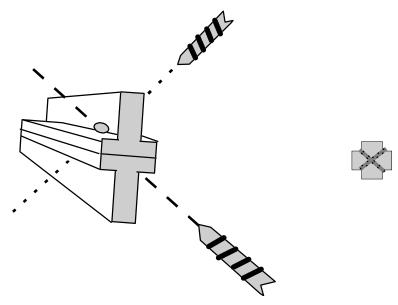
## **Trolley Tip - Compression Type Insulators - by Bob Dietrich**

A common insulator in the prototype world we model is the compression style insulator. This is unusually a ceramic insulator with two holes at right angles and groves to hole the wire in place. When the wires are strung through the insulators they loop through each other and "compress" the insulating material between them. Most modelers choose to only simulate these insulators with beads or brass castings while making unprototypical insulators from PC board. Here is a method of making prototypical looking, and working, compression insulators in any size for any scale (except 12" to the foot).

Cement the two strips of "T" styrene back to back. Allow to dry overnight. Be sure to get a good joint because they tend to come apart when drilling.

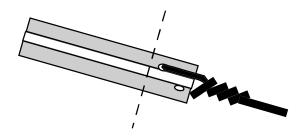


Drill two holes, just large enough for the wire, across the X. Make sure the holes <u>do not</u> cross the X at the same point.

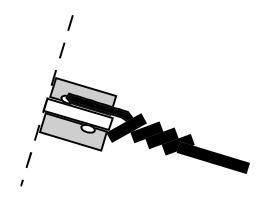


(cross section view)

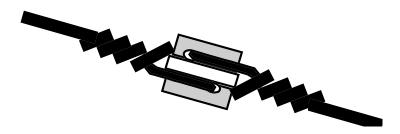
Feed the end of a wire, about 4 or 5 inches long, through the second hole and twist it together over the end. Twist it toward the large part of the back-to-back Ts.



Drill the first one about 1/32 from one end and the second about 1/32 from the first. They should be close but there must still be plastic between the holes. When you feed the wire through the holes they must not touch. Cut the plastic just past the wire.



Feed the end of the second wire through the other hole and twist together over the opposite end.



The wires will be looped together through each other with the plastic keeping them separated. When pulled they **compress** the plastic instead of stretching and breaking it.