Layout Wiring Kit
100 Foot

DCC main bus wiring for typical 100 foot double track mainline. Includes:

- Main Bus - 100 feet each red and black 14 AWG stranded wire
- Feeder Wires - 32 each red and black feeder 22 AWG wires (pre-stripped)
- 64 Wire taps for 14 AWG stranded wire
- 64 Quick connectors for 22 AWG stranded wire
- Each connection can be easily disconnected for troubleshooting
- Optimal wiring kit for 5 Amp and lower power systems

Overview of DCC track wiring:

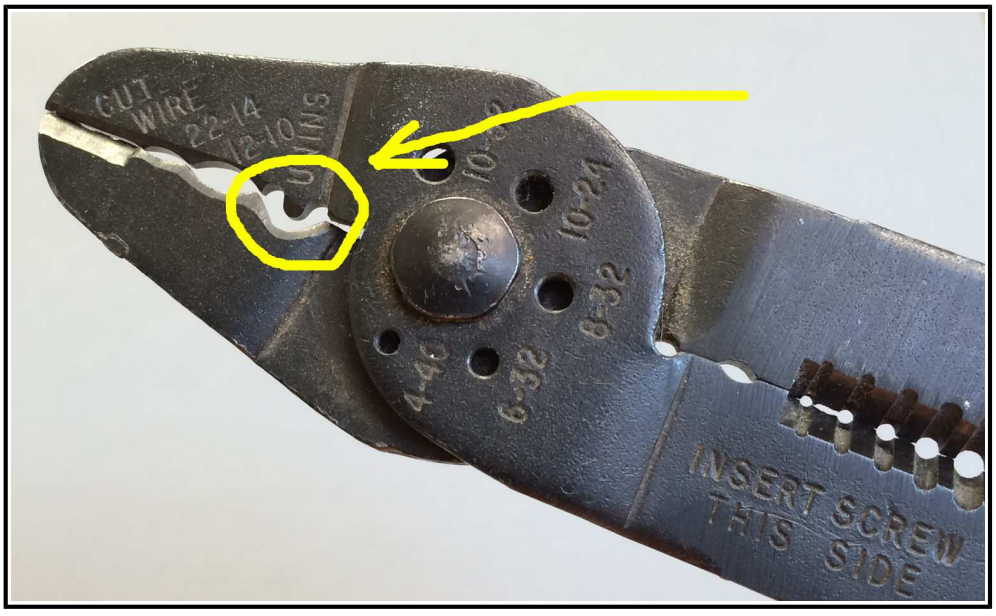
DCC controlled layouts are normally wired with a main DCC 'bus' of two large gauge wires roughly paralleling the mainline track as it traverses the layout. Smaller gauge 'feeder' wires (also called power drops) connect the track to the main DCC bus. This kit provides the main bus wire and a number of power drop wires that should be sufficient to supply power to the track approximately every 4 to 6 feet. As an added convenience we've chosen a method of connecting allows easy connection of each drop to the bus PLUS easy disconnection if required for trouble shooting wiring problems.

Installing the main DCC bus:

We recommend (loosely) twisting the red and black 14 AWG wires of the main bus together for runs of 25 feet or more from the booster (or DCC circuit breaker). 3 or 4 twists per foot is usually sufficient to prevent the DCC signal from generating large voltage spikes or leaking electrical noise.

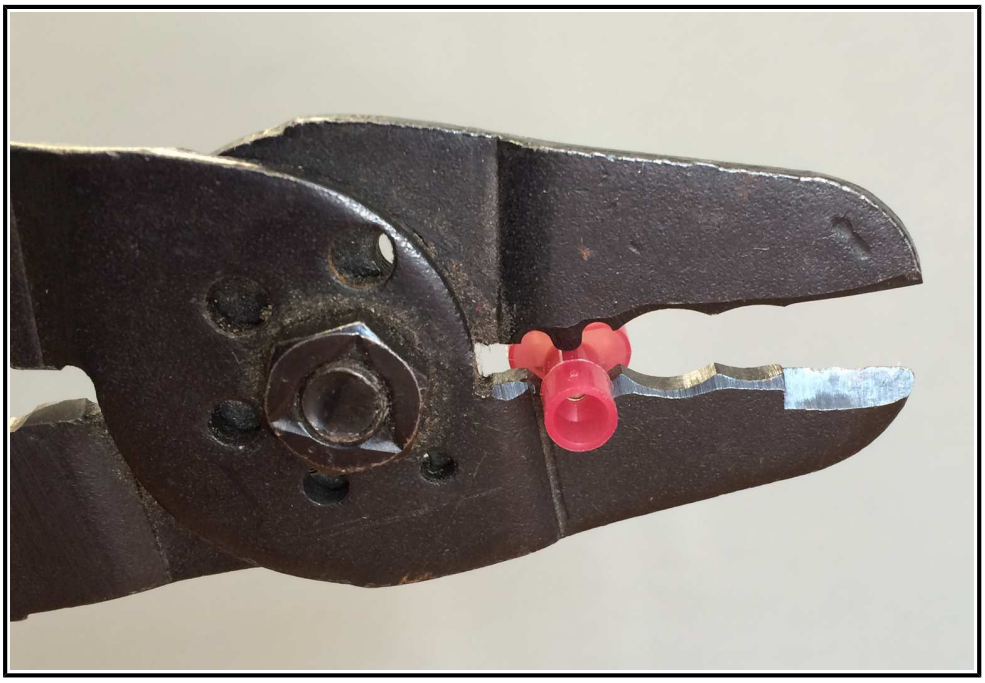
Adding your power drops:

The power drop wires are pre-stripped but with the insulation remaining on the wire to keep it from fraying. Just pull the insulation from the end when you are ready to use it. One end of the wire is stripped ½ inch long. This is the end that will solder to the track. We suggest tinning the loose strands of this end before soldering to the rail. The other end is to be crimped to the supplied red male quick connect. *DO NOT* tin the wire end that will go in the red connector.

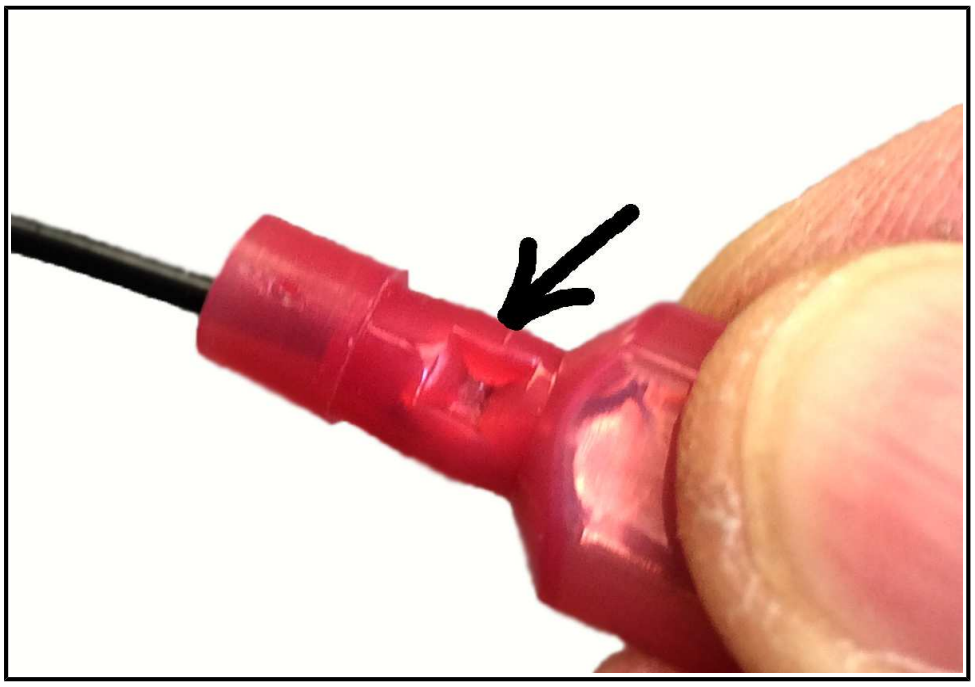


You will need a crimping tool such as the one pictured above. Make sure it has the crimping cutout for 'dimpling' the crimp connection (circled in the photo #1). These tools are readily available auto parts stores, home centers (electrical dept), Walmart or Harbor Freight.

Hold the connector in the crimper loosely and insert the wire with the shorter (3/8 inch) stripped end into the connector.



Squeeze the crimper sufficiently hard to dimple the insulation of the connector deeply without destroying the plastic covering. When done test the integrity of your crimp by trying to pull the wire back out of the connector. If it comes out you didn't use enough pressure.

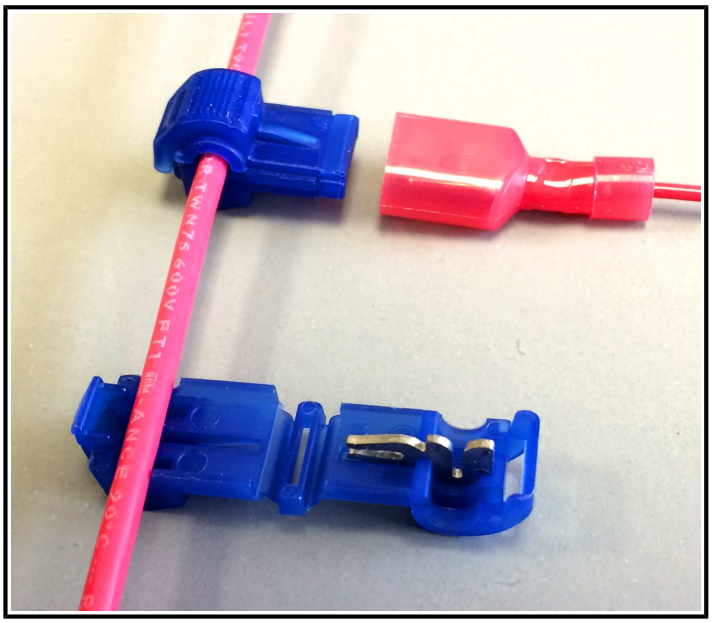


Tapping the main bus wire:

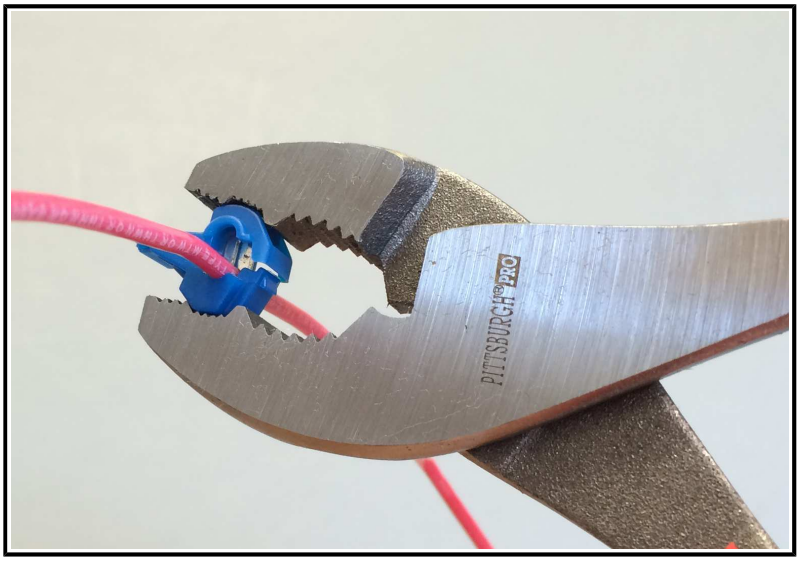
The blue (or yellow) bus tap connector provides a female socket for the red connector of the power drop. Blue taps are provided for 14-16 AWG bus wires to used with up to 5 Amp DCC systems, Yellow taps are for use high powered DCC systems of 8-10 Amps with 10-12AWG main bus wiring.

This photo shows how the bus tap will connect with the power drop.

To begin lay the wire in the groove of the tap as shown to the right.



Fold the other half of the tap over on itself and crimp the tap closed with a standard pair of pliers as shown iin the photo to the right. Be sure to squeeze until you hear the tap 'click' together. Do not re-use a tap that has been damaged due to mis-crimping.



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