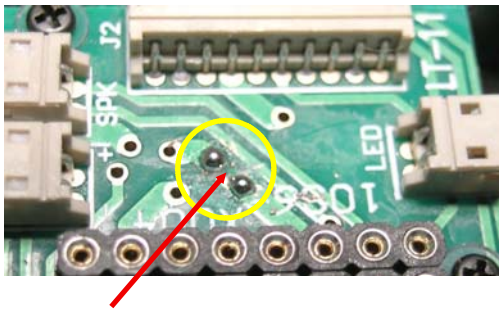
Slowing up S-Helper's 2-8-0

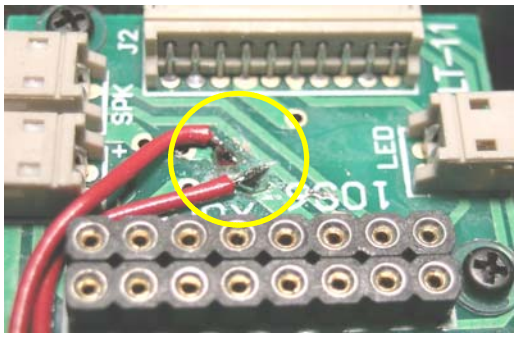
Reducing the speed of the S-Helper's 2-8-0 is easily accomplished with a modification. This modification reduces not only the bottom end speed but also the top end speed. You can modify the amount of speed reduction by the number of diodes (item 374) utilized in the string. This also requires a 1 ampere bridge rectifier, item #608. This modification is applicable to any type of operator, LocoMatic™ AC, regular AC, DC, or DCC. It can also be done on either the main socket board, or for those operating via a LocoMatic™, you can also elect to modify that board instead of the main socket board. Always use appropriate solder for electronic circuitry!

Main Socket Board modification:

Step 1: Orient the original socket PCBD. Note the speaker is positioned to the right.

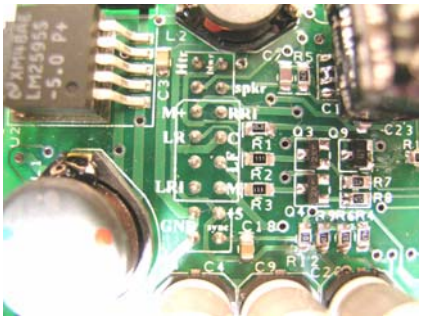


Step2: Cut Track. Scrape the green insulation to reveal bare copper and tin as shown.

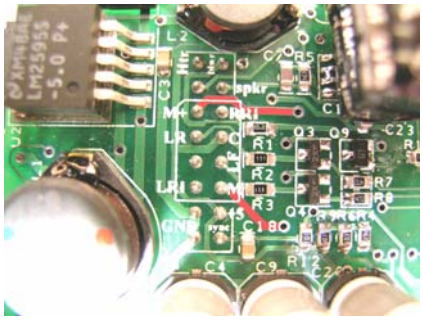


Step 3: Tin the copper tracks and attach wires from motor reduction circuit as built below. Be careful not to create a short to an adjacent track.

LocoMatic™ PCBD modification method:

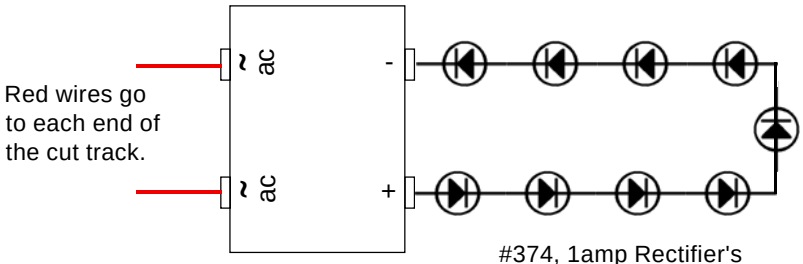


Step 1: Orient the LocoMatic™ PCBD. Note the speaker is positioned to the right.



Step2: Locate the motor power tracks, highlighted in RED. The end of each motor track is labeled as M+ and M. Cut only 1 track (whichever you feel is easier to utilize). Scrape the green insulation to reveal bare copper. Attach the wires from the motor reduction circuit similar to Step 3 above.

Making the diode drop network:



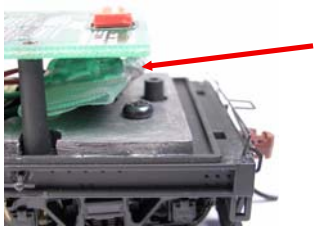
608, 1amp Bridge Rectifier or
372, 2amp Bridge Rectifier

#374, 1amp Rectifier's

The number of diodes, #374, determines the speed reduction. A good low speed requires 9 diodes placed in series as shown. Fewer diodes will allow for a faster running engine. The parts must be soldered into a small package as pictured below.

608 & 374's
in heat shrink insulation.

372 & 374's
before heat shrink insulation.



When finished, and wires are attached to the pcbd, tuck the diode drop assembly on top of the rear weight as shown. This does get quite warm when operating the engine.

Installation is available for $50.00 plus $20.00 return shipping in original or appropriate box (not responsible for damage for improper packaging). This is not an offer to repair or replace any defective components on your locomotive. All units received must be in operating condition. While the utmost care is taken, Dallee Electronics, Inc. is not responsible for physical detail damages. It is your responsibility to properly pack and ship your engine to us.

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