

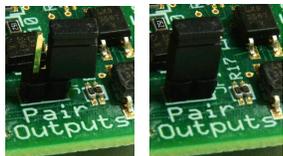
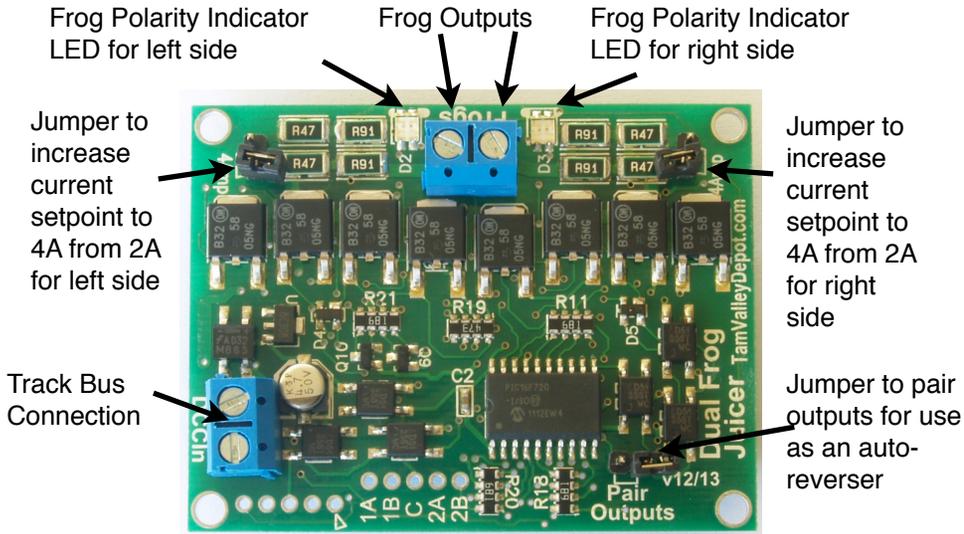


# Dual Frog Juicer v1.1

## Automated Frog Control and Auto-Reverser For DCC Systems up to 30 Amps

TamValleyDepot.com

Installation of the Dual Frog Juicer (DFJ) is simple. Connect the **DCCIn** terminal block to the DCC bus.



OFF ON  
Jumper settings

*To use as a reverser for two independent frogs* - Connect the two frogs to be powered to the **Frogs** terminal block.

*To use as an Auto-reverser* - Place the **Pair Outputs** jumper across both pins (ON) and connect the outputs to the reversing section rails. You may also want to set the **4Amp** jumpers ON if you are using a 5 Amp or greater booster. You can connect this to control a reversing section of a wye, a reversing loop or a turntable.

See diagrams on reverse side.

The Frog Polarity Indicator LEDs will change color when a train crosses a frog that needs to be switched. There should be no interruption of sound or movement when this occurs (unless the track is dirty - sorry - the DFJ can't automatically fix this problem).

**4Amp** jumpers - Putting these jumpers ON increases the current switch point from 2 Amps to 4 Amps. This may be useful if you are running multiple unit locomotive consists that draw more than 2 Amps. Leave the jumpers OFF if your DCC system is rated less than 5 Amps.

Each Super Frog Juicer draws just 40 mA (0.04 Amps) of power from your DCC system.

**External LEDs** - You can drive external LEDs with the holes labeled 1A,1B,C,2A,2B. The board has resistors to limit current to the LEDs so don't worry about burning them out. C is the common and is connected to the LED cathodes (the side with a flat or mark on most LEDs). 1A,1B indicates polarity for frog 1 and 2A,2B for the other frog. Alternatively you can hook a 2-lead dual color LED across 1A-1B or 2A-2B. Swap the A and B leads until the colors are right for your turnout throw.

### Troubleshooting

If the LEDs are not lit make sure the two outer wires are connected to DCC power and that the DCC power is on.

**The board will NOT work with DC.**

If the LEDs both go off for a second and then come back on this indicates that the booster detected the short before the DFJ. If this happens repeatedly then carefully check the wiring.

- Make sure the frog is isolated from the track - a short between the frog and the rest of the track will prevent the board from working and must be resolved by fixing the short. Look to see if one of the gaps has closed or if a loose wire is touching the frog.
- Make sure there is no light bulb or circuit breaker between the input of the DFJ and the booster. If there is run the wires directly back to the DCC booster bypassing the lightbulb or breaker.
- If the unit is not switching make sure the 4Amp jumpers are OFF. If you are using a DCC system less than 5 Amps the 4Amp jumpers should be OFF.
- Check for more information at [www.tamvalleydepot.com/](http://www.tamvalleydepot.com/)

Technical Support may be obtained by emailing [dmcree@tamvalleyrr.com](mailto:dmcree@tamvalleyrr.com).

