

# Bowl-Tronics Enterprises Incorporated

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## Time Delay Module Extreme (TDM-X)

### Time Delay Module Extreme Theory

The Time Delay Module Extreme is a direct replacement for Brunswick's A-2 time delay module. Shown on the circuit board of the (TDM-X) it is marked 13 through 20. Terminal 13 & 14 is 24 VAC input. Terminal 15 is your 2<sup>nd</sup> ball input. Terminal 16 & 17 is your reset circuit. Terminal 16 & 18 is your time delay circuit. Terminal 19 & 20 is your high voltage solenoid out.

When the rest button is pushed voltage from T-16 is sent to T-17 cycling the machine. When the rake trigger switch closes voltage from T-16 is sent to T-18 to start the time delay circuit. T-15 as explained early is your 2<sup>nd</sup> ball input when the 2<sup>nd</sup> ball light switch closes it sends voltage to T-15 and cancels the time delay circuit between T-16 and T-18 to cycle instantly.

### Installation Instructions

*Remember to remove power before performing any installation!!*

Remove old time delay module and take care in removing the old wires. It is recommended to label each wire or remove one wire at a time and replace it on the corresponding number on the new (TDM-X). View the schematic on the back of this page for further explanation. When the (TDM-X) is installed check you're wiring to be sure it is correct. Power up the machine and check to see if the power LED on the (TDM-X) is lit. If it isn't lit check T-13 and T-14 wiring connection make sure it is correct and the main fuse on the (TDM-X) hasn't blown. If fuse has blown resolve issue by finding the short and replace with a 1 AMP 2 AGC fuse. Test the input LED to see if it lights when you reset the machine. Then run the machine into 2<sup>nd</sup> ball to test if the 2<sup>nd</sup> ball LED lights also.

### For Repair Send Faulty Parts to:

Address: BOWL-TRONICS  
1115 Sherwood Ave.  
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Phone: 847-741-4500  
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Visit our web site at [www.bowl-tronics.com](http://www.bowl-tronics.com)

Notes:

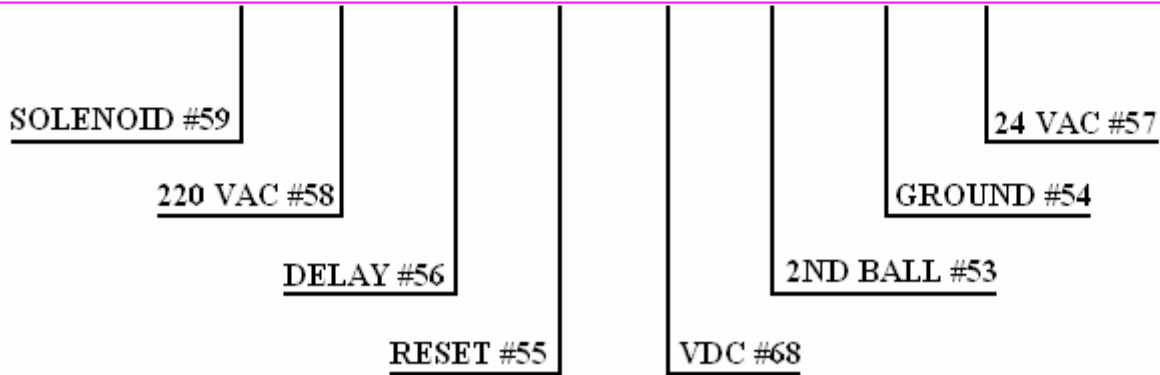
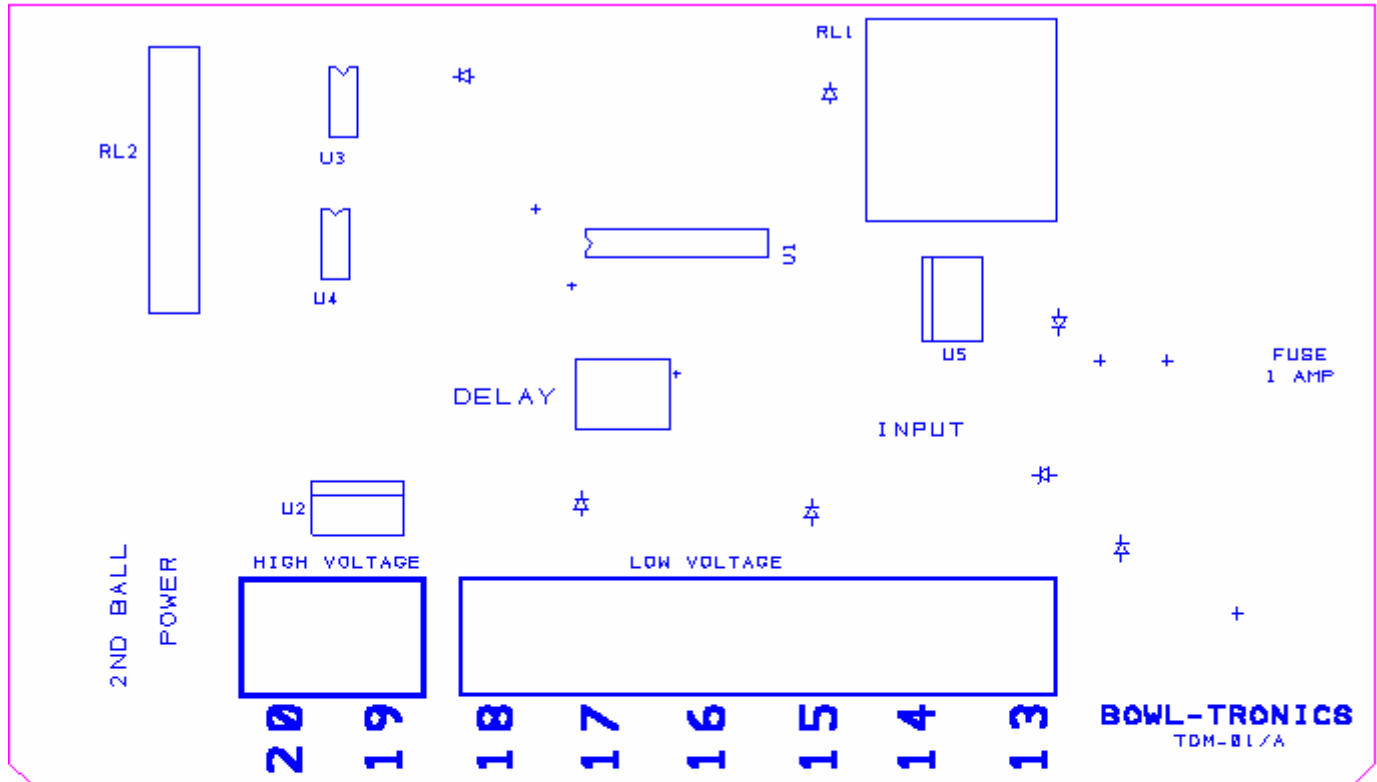
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# Time Delay Module Extreme Schematic



**"#" ORIGINAL BRUNSWICK WIRE NUMBERS**