Tempest Upright Wiring Diagram (037774-01 A)

Tempest Upright Wiring Diagram
Coin Door
Color X/Y Power Supply
Regulator Audio II PCB Schematic

Regulator Audio II PCB:
The Regulator Audio II PCB has the dual functions of regulating the +5VDC logic power to the game PCB and supplying the audio from the game PCB.

Regulator Detail:
The regulator consists of a voltage regulator (Zener diode) and a series resistor. The regulator (Zener diode) regenerates the logic power input to the game PCB, providing a stable +5VDC output. The series resistor (Zener diode) limits the voltage drop through high-voltage diodes to ensure a stable +5VDC and ground voltages to the game PCB. Therefore, the regulator supplies the voltage to the game PCB. This voltage is supplied to the audio circuitry through the main harness between the regulator and the game PCB. The regulator is designed to maintain the voltage levels for variations in the audio circuitry. The voltage levels of the audio circuitry will remain constant even if the voltage levels of the game PCB will remain constant at the voltage

Regulator Adjustment:
1. Connect the harness between 15V and Q24 to quick test points of the game PCB.
2. Adjust variable resistor R6 on the Regulator Audio II PCB for +5VDC, leading the voltmeter.
3. Connect a voltmeter between 15V and GND on the game PCB. Set the regulator to +5VDC, and connect a voltmeter between 15V and GND on the game PCB. The voltage should be +5VDC. If the voltage varies, adjust the regulator to +5VDC. If the voltage remains constant, then the harness is correct.
4. If checking any harness connecting does not have any signal, connect a voltmeter between 15V and GND and then move it to the game PCB. The 15V will give a test point for the harness. If there is no 15VDC, the harness will have a problem. If there is 15VDC, the harness is correct.

Audio Circuit:
The audio circuit contains two independent audio amplifiers. The audio amplifier consists of a 15KΩ resistor and an input signal from the game PCB.