Drawing Package Supplement

to

Centipede™

Operation, Maintenance and Service Manual

Contents of this Drawing Package

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Microprocessor, Signature Analysis Procedure, Sync Generator, CAT Box™, and Power Inputs
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Coin Door Inputs, Switch Inputs, Video Outputs and Trak Ball™ Circuitry
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Coin Door Schematic (037050-01  A)
Regulator/Audio II PCB

The Regulator/Audio II PCB has built-in circuits for regulating the +5 VDC logic power to the CPU and amplifying the audio from the game ROM.

Regulator Circuit

The regulator consists of voltage drop pass transistor Q3 and Q3's driver transistor Q2. The regulator accurately regulates the logic power of the CPU by monitoring the voltage through the inputs +SENSE and -SENSE. The regulator regulates the +5 VDC and ground inputs to the +5 VDC and ground inputs to +5 VDC. Once adjusted, the voltage at the input remain constant at this voltage.

Regulator Adjustment

1. Connect a voltmeter between +5 VDC and ground of the game PCB.
2. Adjust variable resistor R9 on the Regulator/Audio II PCB for +5 VDC reading on the voltmeter.
3. Connect a voltmeter between +5 VDC and ground of the Regulator/Audio II PCB. Voltmeter reading should be greater than +5.5 VDC. If greater than +5.5 VDC, adjust the variable resistor on both the game PCB and the Regulator/Audio II PCB.
4. If cleaning PCB edge connectors reduces the voltage difference, connect minus lead of voltmeter to test point of Regulator/Audio II PCB. Voltmeter should indicate at least +5.5 VDC. If not, adjust the variable resistor on the game PCB. From this point, the harness circuit is dropping the voltage to the appropriate harness wire connection.

Audio Circuit

The audio circuit contains two integrated amplifiers. Each amplifier consists of a TR3020 NE3020, giving an effective gain of 2.2.
dual functions of reg.

regulator Q1, power
resistor Q2. The regula-
regulator input to the game
with high-impedance inputs are directly from
the game PCB. Therefore,
the game PCB. This
IR loss in the wire
the game PCB. Variable
DC on the game PCB. 

one of the game PCB.

and GND test points

Regulator/Audio II
voltmeter.

V REG and GND on
age reading must not
meter, try cleaning edge
PCB and the Regula-

doesn't decrease volt-
old of voltmeter to GND
PCB and plus lead to
the voltage.

meter to +5 REG test
and plus lead to +5 V
as you can see which
voltage. Troubleshoot
harness connector.

independent audio ampli-
2002AV amplifier with

es a test point