**The Auxiliary PCB Math Box Circuitry**

The Math Box Circuitry of the Red Baron II A Component is connected to the Analog Output Generator (AO) on the auxiliary PCB. This circuitry is used for the analog output generation. The Math Box Circuitry is powered by the analog power supply through the power supply terminal of the auxiliary PCB. The terminal is connected to the appropriate power supply terminal on the auxiliary PCB. The circuitry is designed to operate in conjunction with the Analog Output Generator (AO) on the auxiliary PCB.

**Signature Analysis of the Math Box Circuitry**

When the self-test procedure on the Math Box Circuitry is performed, the circuitry will generate an output that is proportional to the input signal. The output signal is then compared to the expected output signal to determine if the circuitry is functioning correctly. If the output signal is not as expected, the circuitry is determined to be defective and requires repair.

**A. Equipment Required**

1. **Signature Analyzer** - a device used to test electronic components. This is a device that can measure the performance of electronic components.
2. **Signal Generator** - a device used to generate signals for testing.
3. **Oscilloscope** - a device used to display the waveform of a signal.

**B. Signature Analysis Setup Procedure**

1. Connect the Signature Analyzer to the test point on the Math Box Circuitry.
2. Set the Signature Analyzer to the correct range and frequency for the test point.
3. Apply a known signal to the Math Box Circuitry test point.
4. Observe the waveform on the oscilloscope.

**C. Signature Analysis Test Procedure**

1. Remove the jumper wires from the Signature Analyzer.
2. Connect the Signature Analyzer to the test point on the Math Box Circuitry.
3. Apply a known signal to the test point.
4. Observe the waveform on the oscilloscope.

**D. Signature Analysis Test Procedure**

1. Remove the jumper wires from the Signature Analyzer.
2. Connect the Signature Analyzer to the test point on the Math Box Circuitry.
3. Apply a known signal to the test point.
4. Observe the waveform on the oscilloscope.

**G. Isolating a Failing Circuitry**

If one of the integral circuits fails, check the circuit to determine if the circuitry is functioning correctly. If the circuitry is not functioning correctly, check the circuitry to determine if the circuitry is functioning correctly. If the circuitry is not functioning correctly, check the circuitry to determine if the circuitry is functioning correctly. If the circuitry is not functioning correctly, check the circuitry to determine if the circuitry is functioning correctly. If the circuitry is not functioning correctly, check the circuitry to determine if the circuitry is functioning correctly.

**Auxiliary PCB Components**

- **C1** - Capacitor
- **D1** - Diode
- **A1** - IC Chip

**Sheet 1, Side B**

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**RED BARON**