Tuning Procedures

1. Attach 12.0 Vdc power supply
2. Using a Modulation Meter, adjust VR8 until proper modulation is displayed.
3. Using a Frequency Counter, Adjust VR9 until proper frequency is displayed.
4. Repeat steps 2 and 3
5. Using a Spectrum analyzer and a short-range pick-up antenna, look for 72MHz signal with sufficient scan width to see 30-150 MHz spurious.
6. Adjust T1, T2, T3, T4, and T5 for maximum output at operating frequency and minimum output at any harmonics.
7. Repeat step 6.
8. Check for minimum emissions from 30 to 760 MHz.

Inspection Specifications

Frequency:	UP 1K +/- 500Hz
Modulation:	NEG. 2.8K +/- .3K
RF Power:	350 +/- 50mW
Frame Time:	20~24mS

General Description

The Neon is a low power, non-voice, transmitter intended for remote control of model aircraft in the 72MHz band. The unit is held with two hands in front of the body.

The equipment employs a vertical polarized antenna, directly mounted on the unit and meets Paragraphs 95.645, 95.647, 95.649, and the technical requirements established in the Report & Order in PR Docket 90-222.

Circuits and Devices to Stabilize Frequency

Transmitter output frequency is determined and stabilized by crystal-controlled oscillator.

Circuits to suppress Spurious Radiation

Final RF amplifier spurious emissions are attenuated by a “PI” matching network consisting of L3, L2, C86, C89, C89, C90, C91, C92, C93, T4 and T5.

Functions of Active Semiconductors

Reference	Type	Function
Q4	C1623	Buffer/SW
Q5	C1623	Modulator
Q6	C2223	Driver/ X-Tal Oscillator
Q7	C2223	Driver
Q8	C4910	Final Amplifier
IC1	GMS87C1202	Encoder