F & M ELECTRONICS
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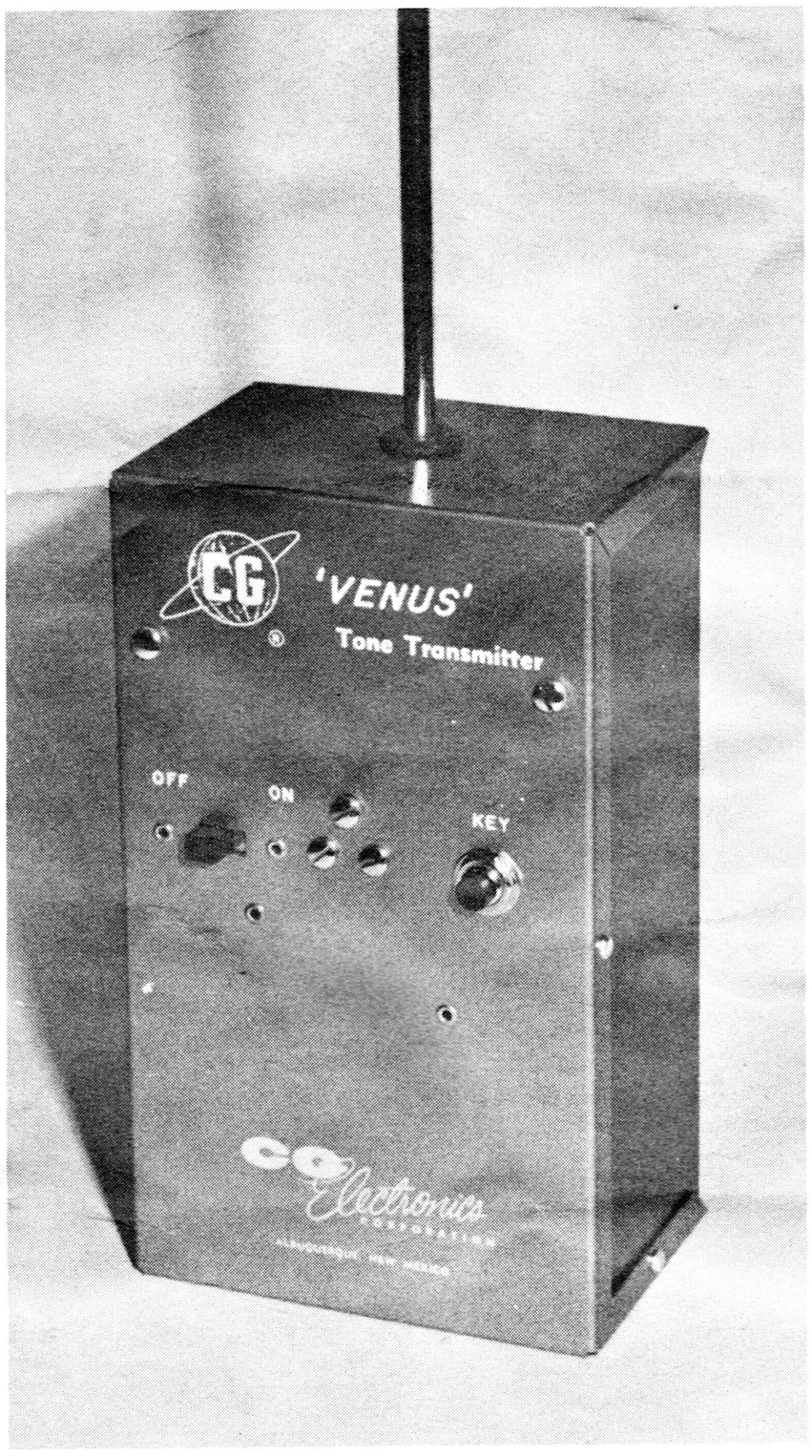
Albuquerque, New Mexico

MANUFACTURERS OF
CG Radio Control Equipment

THE ULTIMATE IN RELIABILITY AND QUALITY

SINGLE CHANNEL

"VENUS"
TONE TRANSMITTER



PRICE $29.95

Complete with crystal and antenna. Less Batteries.

Introduction: The Venus is a high quality, efficient and reliable single-channel tone transmitter. It is a precision instrument, fully production engineered and thoroughly tested. Much more powerful than the famous and now superseded T-12, the Venus is backed by the many years experience accumulated in manufacturing the T-12.

General Remarks: Federal Communications Commission Regulations (Part 19, Citizens' Radio Band, Revised 9/23/58) require that the frequency of the radio energy radiated be within 0.01% of the specified operating frequency for transmitters with less than 3 watts input. The Venus contains a crystal controlled fundamental Pierce oscillator operating at 1/3 the radiated frequency (9.085 mc for 27.255 mc output). The crystal is a fundamental type cut to 0.005% tolerance and meets military specifications. In addition, each crystal is checked in the Venus circuit to insure output specification compliance. The crystal is stamped with the oscillator's fundamental frequency. The transmitter's fundamental oscillator frequency is tripled in the same stage in the CG exclusive "Power Tripler". Thus, the Venus is a MOPA type of transmitter, fully meeting all FCC stability and frequency requirements. It must be pointed out that this is true ONLY when operated with CG crystals. Standard .005% crystals obtainable on the market are overtone types and will not be "on frequency" when used in this fundamental circuit. In addition, the CG crystal, a more rugged type, is made to withstand the "hi-drive" conditions encountered in the VENUS.

License Requirements: In order to lawfully operate the Venus, like all Citizens' Radio Band transmitters, the user must obtain an examination-free permit from the Secretary, FCC, Washington 25, D.C. The permit, Form #505, is a simple questionnaire requiring no radio technical knowledge.

A written 30-day warranty card is enclosed with each piece of CG R/C equipment. F & M Electronics maintains a qualified service department for prompt repair of CG Equipment.

SPECIFICATIONS:

VENUS SINGLE CHANNEL TONE TRANSMITTER

Type: Hand-held; easily carried and transported.

Case:

Dimensions:	Material:
Width - 4-5/8"	.040" aluminum, blue anodize
Depth - 3-3/32"	Weight:
Height - 8-3/32"	3-1/4 lbs. including batteries

Antenna: Telescoping, 58 inch chrome, removable. Antenna is fixed tuned for maximum efficiency.

External Adjustments: None

Circuit Components: Highest quality American-made.

Circuit Construction: Precision engineered printed circuitry - even to tank coil and antenna loading coil.

Operation Type: The Venus is an amplitude modulated, crystal controlled, Class "C" station with an input power of approximately 1.5 watts.

Power Requirements:

"B" Supply - two 67-1/2 volt batteries, series-connected to provide 135 volts. "B" current 10 ma rising to 14 ma keyed.

"A" Supply - one "D" size flashlight battery to provide 1-1/2 volts. "A" current 250 ma.

Stability: Better than FCC requirements under all conditions of temperature, battery voltage, and antenna loading:

Frequency: The Venus is designed for operation on any of the following Citizens' Radio Band frequencies allocated by the FCC: 26.995 mc, 27.045 mc, 27.095 mc, 27.145 mc, 27.195 mc, and 27.255 mc. Unless a different frequency is specified with order, the standard frequency of 27.255 mc will be supplied. Operating frequencies may be changed simply by changing crystals.

No returning is normally required. Extra crystals are available on any of the above frequencies at $4.95.

Modulation: The Venus is tone modulated by approximately 500 cps at 95%.

Pulse Operation: The Venus may satisfactorily be pulsed in excess of 15 pps.

We note with pride that CG equipment is being used as a standard for designs - Insist on the original, ask for Quality CG Units at your dealer or write direct.