Your OEI Frequency Counter has been designed to give years of trouble-free service. This manual contains important information on its use and care. Please take a few moments to familiarize yourself with the contents prior to using your counter.

⚠️ Where this symbol appears on the counter, it means: "SEE EXPLANATION IN MANUAL"

"CAUTION" The use of this word in this manual is reserved for conditions or actions that may damage your counter.

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**FEATURES OF THE 1300H/A**

The Model 1300H/A features 1 MHz TO 1.3 GHz frequency coverage in a small pocket size instrument. An aluminum cabinet, internal rechargeable NiCad batteries and exceptionally high sensitivity make this counter an outstanding value. The 1300H/A uses a miniature surface mount RF amplifier IC to achieve input sensitivity below 1 millivolt from 27 to over 200MHz. This is significant because frequency counter input sensitivity is considered good at 10 to 25 millivolts over the VHF range by most manufacturers today. The excellent sensitivity permits using an antenna to read transmit frequencies from greater distances than ever before. The 1300H/A may be used to pick up transmit frequencies from handheld, fixed or mobile radios such as: police, fire, ham, taxi, aircraft, marine, etc. at distances approaching one to two hundred feet (depending upon transmitter power, antenna, background RF level, obstructions, etc.).
OPERATOR CONTROLS

GATE: Red LED illuminates during the gate of input signal sample.

DISPLAY: 8 LED digits of 28 inch height indicate frequency.

DISPLAY: and 1.3 GHz in this position. Counter is most sensitive to read frequencies between 500 MHz and 500 MHz in this position.

RANGE/MHz: Selects Frequency Range.

PRESENT: Sensitivity is sufficient for most applications.

NORMAL: Counter will not self-saturate in this position unless F is displayed a random number. This is normal. When signal of select range is present, sensitivity in this position will be self-saturate.

HIGH: Counter is most sensitive in this position and will self-saturate.

SENS: Selects Input Sensitivity.

SLOW: Displays 100 Hz resolution.

FAST: Displays 100 Hz resolution.

GATE: Selects Signal Sample Period.

AC-CHG: Powers counter, OFF when not using AC-CHG/Adapter.

BATT: Powers counter, OFF from primary NiCad batteries.

PWR: Selects battery, OFF or AC Operation/Battery Charge.

U.S.A. Specifications subject to change without notice.

Construction: Aluminum cabinet with durable finish. NiCad battery included for operation.

Dimensions: 9 oz, 3.5 x 2.5 deep

Display: 8 LED digits, 25 high

Power: 100-240V, 50-60 Hz, 1 A, 1-2 W (12V, 1.5 A)

Resolution: 0.2 Hz, 0.05 Hz, 25 second gate, 10000 Hz, 25 second gate

Accuracy: Time base accuracy, 2.5 second, selectable

AC-CHG: AC-Charger/Adapter included for AC operation.

Power: 100-240V, 50-60 Hz, 1 A, 2 W (12V, 1.5 A)

Stability: 50 ppm per year, first year - typical

Specifications:

Max power input: +15 dBm

Input Impedance: 50 Ohm

Typical Sensitivity: 0.5 Hz to 1.3 GHz

Frequency Range: 1 to 100 MHz

Tuner Sensitivity: 100 mV, 100 kHz, 10 MHz

Power: 12V, 1.5 A

AC-CHG: AC-Charger/Adapter included for AC operation.
FACTORY CALIBRATION SERVICE

The Factory Service Department provides a Calibration service at the factory. This service is subject to change without notice. The current charge is $49.00 + $5.00 per calibration.

CAUTION

Serviceable only with the OEL Service Department. The factory is not responsible for damages caused by unauthorized service.

CAL ADP”. This opening provides access to the internal calibrator which is behind the service plate.

RECHARGEABLE BATTERY OPERATION

CAUTION

The battery pack should be deep cycled occasionally by allowing the batteries to run down to 10% of their capacity and then recharge them completely. This will help maintain the battery life and prevent it from becoming excessively charged. If the voltage becomes excessive, it may damage the NiCd batteries in excess of 1.8 VDC and may cause the NiCd collar to become unusable. The collar must be replaced immediately.

CAUTION

When operating from an unregulated electrical system, some means of supplying the required current must be provided. When using external power, the collar will remain connected and the adapter supplied with the collar will support nominal specifications. The collar should be used with an AC charger.

A 110 VAC/Net and External Operation

CAUTION

If the power supply is not available, the collar can be operated from internal NiCd batteries. If the collar becomes excessively charged, it will become unusable. When operating from an unregulated electrical system, some means of supplying the required current must be provided. When using external power, the collar will remain connected and the adapter supplied with the collar will support nominal specifications. The collar should be used with an AC charger.


using the counter

the source of the radi frequency transmission to pick up enough signal

the counter must be close enough to

be very sensitive at the receiver. It is heard to receive a different frequency. The tuning however, permits the radio to

case at the same tuning. Having to be tuned. A radio receiver can

counter has a broad-band response, it is sensitive to all frequency

of causers. This is not a flaw in the counter but it is due to the nature of

Frequency counters are not really as sensitive as radio receivers.