

# F-16

# DYNALCO CONTROLS

## Signal Generator/ Counter/Calibrator

*The F-16™ is used to calibrate tachometers, digital speed indicators, governors, counters, frequency meters. Measures signal frequency from magnetic pickups, pulsers, ac generators, shaft encoders. Eliminates need for a frequency counter or an audio generator.*

### 2-Year Warranty

#### FEATURES

- Generates a continuously adjustable signal from 10 Hz to 20,000 Hz.
- Displays the generated frequency with 0.1 Hz resolution up to 999.9 Hz; 1 Hz resolution from 1000 Hz to 20,000 Hz. Automatic scale ranging of the readout.
- Measures an external frequency signal with the same accuracy and autoranging.
- Portable, lightweight, battery-operated, low current consumption.
- Fast update rate of one reading per second (one second gate time) in both ranges.
- High level output of 10 volts peak-to-peak. Permits calibration of Dynalco's self-powered tachometers, trips, etc.
- Crystal-controlled accuracy of readout.
- Rugged, extruded aluminum case.



#### CONTROLS

**Frequency Adjustment:** Ten-turn coarse and fine potentiometers permit continuous, precise frequency control from 10 Hz to 20,000 Hz.

**Generator/Counter Switch:** Programs the instrument as a signal generator (transmitter) or as a counter (receiver).

**Power Switch:** Turns instrument on and off.

#### SPECIFICATIONS

**Display:** 5 digits, 0.4" high LCD, high contrast ratio in high ambient light. Frequency is displayed in both the generator and the counter mode of operation. Frequency in 0.1 Hz increments from 10.0 to 999.9 Hz; in 1 Hz increments from 1000 to 20,000 Hz. Automatic scale ranging. Display updating rate of one second in both ranges. Crystal controlled gate time.

**Generated Signal:** In the Generator mode (Generator/Counter switch set to Generator) the output signal frequency can be varied continuously from 10.0 Hz to 20,000 Hz by means of two potentiometers: one for coarse control and one for fine control. Output is a square wave, dc-coupled, nominal amplitude of 10 volts peak-to-peak, short-circuit proof.

**Signal Sensitivity:** When used as a counter (Generator/Counter switch set to Counter), the instrument operates with any signal amplitude from 50 mVrms to 50 Vrms. It is insensitive to signal amplitude and responds exclusively to frequency. Signal waveform can be sinusoidal, square, triangular, or pulse, and can be unipolar or bipolar since the input amplifier is ac coupled.

**Power:** Single 9-volt radio battery of the following types: Eveready 1222, Mallory M1604HD2, or Ray-O-Vac D1604.

**Battery Replacement:** A snap-open door in the rear panel gives access for battery replacement.

**Low Battery Indication:** Appearance of a colon after the first and second digits and a decimal point after the third digit, indicates a discharged battery.

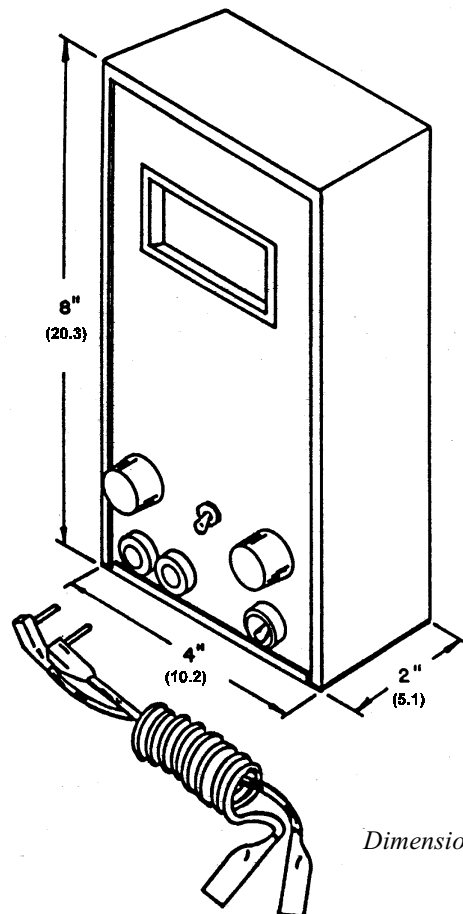
**Environment Temperature Range:** 0°F to +150°F (-17.7°C to +65.6°C), *operating*; -40°F to +150°F (-40°C to +65.6°C), *storage*.

**Weight:** 1.0 lb maximum (0.45 kg).

**Intrinsic Safety:** All circuits and electrical components operate at low energy levels incapable of releasing sufficient electrical or thermal energy, under normal or abnormal conditions, to cause ignition of hazardous atmospheric mixtures of pentane, ethylene, or methane in their most volatile state.

The F-16 is intrinsically safe when used with battery types Eveready 1222, Mallory M1604HD2, or Ray-O-Vac D1604.

## OUTLINE DRAWING



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