

SERIES 700
ACCESSORIES

702 CALIBRATOR
P/N 510702
DIGITAL PULSE CALIBRATOR

IDS-702
Issue Date: May 1988
Supersedes: May 1982

The 702 Calibrator is a precision pulse source for calibration of instruments with a pulse frequency input. The unit's precision and stability is derived from its crystal frequency source which is digitally divided.

The unit is powered by a standard 9 volt transistor battery which provides complete portability. Replacement batteries are available from virtually any source.

The unit comes complete with three test leads and a calculator type case. Battery not included.

Range: The 702 Calibrator is adjustable from 0 to 99 Hz in one Hertz steps.

Accuracy: The 702 Calibrator accuracy is + 0.01 Hz.

Controls: 1) One on-off power switch.
2) Two frequency select switches, units on the bottom, tens on top. Frequency adjustable from 1 Hz to 99Hz.

Outputs: 1) Nine volt DC pulses (1-99 Hz) via terminals marked "9 volt pulse" and "Ground"

Pulsed common collector 9 (1-99 Hz) thru terminals marked "NPN collector" and "Ground". Note: NPN collector is limited to 24VDC.

Input: Isolated LED thru terminals marked LED + and - Note: Voltage to LED is limited to 48VDC.

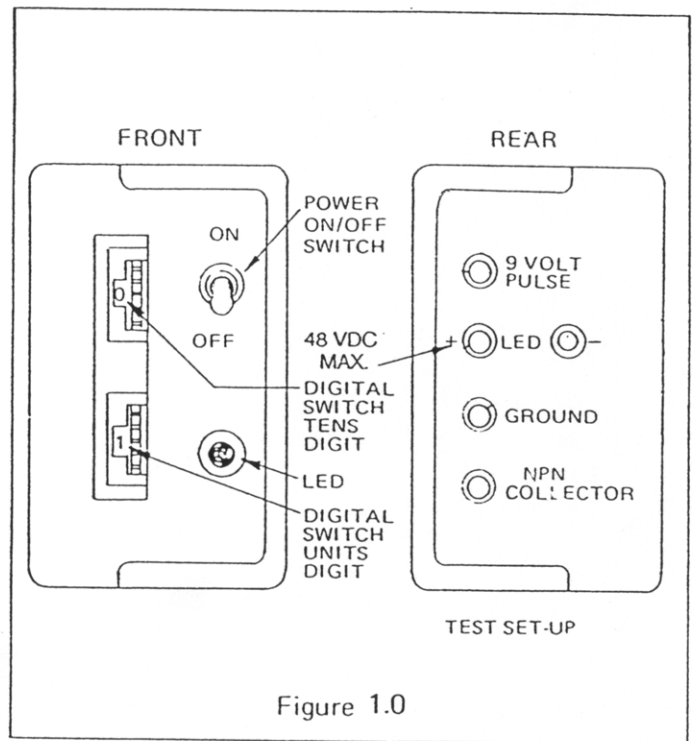


Figure 1.0

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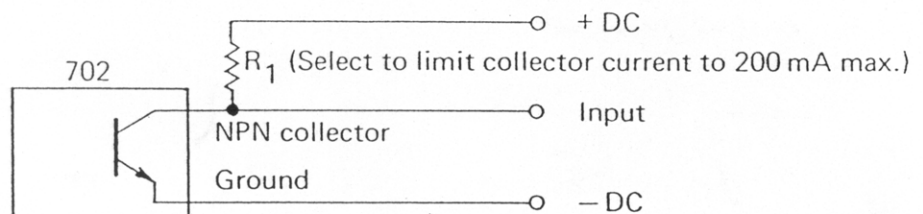
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- Controls:
1. An on/off power switch. Note: Turn off unit when not in use to conserve battery.
 2. Two frequency select switches, units on the bottom and tens on top. Frequency adjustable from 1 Hz to 99 Hz.
- Outputs:
1. 9 volt DC pulses (1-99 Hz). Use terminals marked "9 volt pulse" and "Ground". On time = $\frac{1}{2f}$
 2. Pulsed common collector (1-99 Hz). Use terminals marked "NPN collector" and "Ground". Note: Do not switch more than 24 VDC at 20 m.a.
- Input:
- Isolated LED. Use terminals marked LED + and -. Note: Voltage to LED is limited to 48 VDC.

USE OF THE 702 CALIBRATOR

The 702 calibrator is a precision frequency source (± 0.01 Hz) which was designed to calibrate any pulse input devices and the Sparling 105 Series of propeller meters. Units which directly accept the 9 VDC pulse, such as Sparling Series 700 instruments, can be calibrated directly from the 9 volt output. Units requiring a solid state switch can be calibrated with the common collector output. Units which require voltage pulses higher than 9 VDC but less than 24 VDC can be calibrated utilizing the instrument internal or other appropriate power supply and connected as follows:



SERIES 700 INSTRUMENTS

When calibrating Sparling Series 700 instruments, (1) disconnect wiring from Terminal 4 and connect the "9 volt pulse" to Terminal 4 and the "Ground" to Terminal 3; (2) Set the 702 to 00 and adjust instrument zero as required; (3) Set the 702 to 20 and adjust instrument to full scale as required; (4) Set the 702 to 10 and check mid scale (50%).