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Operating

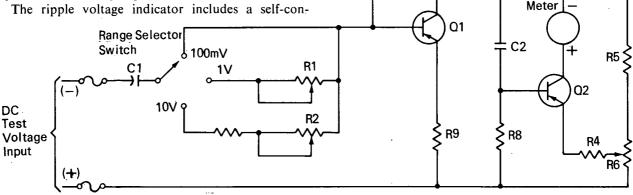
Input R7

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Electronic Ripple Indicator

An electronic circuit for monitoring excessive ripple voltage on dc power lines can sense voltage variations from a few millivolts to a maximum of 10 volts rms. The instrument could be used wherever power supply fluctuations might endanger system operations or damage equipment.

The ripple voltage indicator includes a self-con-



Simplified Schematic Diagram of Voltage Monitor

tained dc power supply, an input amplifier stage, and a bridge-type balance circuit which responds to variations in the ripple voltage. A voltmeter connected across the bridge circuit indicates the magnitude of the ripple.

In the test mode, resistor R7 can be adjusted to set the maximum voltage level, and R6 adjusted to zero the meter. A known magnitude of ripple voltage is required for calibration and adjustment of the ripple sensing circuit. The entire device is inexpensive, and is easily packaged in a small chassis.

Requests for further information may be directed to:

> **Technology Utilization Officer** Kennedy Space Center

Kennedy Space Center, Florida 32899 Reference: B71-10170

Negative DC

Voltage R7

R10

R3

Patent status:

This invention is owned by NASA, and a patent application has been filed. Royalty-free nonexclusive licenses for its commercial use will be granted by NASA. Inquiries concerning license rights should be made to:

> Patent Counsel Mail Code AD-PAT John F. Kennedy Space Center Kennedy Space Center, Florida 32899

> > Source: W. H. Houck and J. K. Davidson Kennedy Space Center (KSC-10162) Category 01

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