

# TYPE 133

## PLUG-IN UNIT POWER SUPPLY

- ACCEPTS MULTI-TRACE, DIFFERENTIAL, SPECTRUM ANALYZER, AND SAMPLING PLUG-IN UNITS
- DC-to-100 kHz BANDWIDTH
- 2 Ω SOURCE IMPEDANCE

The Type 133 provides power to an internal, transistorized amplifier and any Tektronix Letter-Series or "1" Series Plug-In Unit. Characteristics of this unit make it particularly useful for driving recorders, and in audio or other low-frequency work.

Connectors on the front-panel enable the output to be fed directly into an oscilloscope or used for other applications.

A typical application of the Type 133 is its use in conjunction with the Tektronix Type Q Transducer and Strain Gage Unit. This combination requires no external equipment other than the strain gages or transducers needed for the particular operation. The output can drive a recorder and be monitored visually at the same time with an oscilloscope. The indicating instrument should have some response at 25 kHz to enable balancing the bridge in the Type Q Unit, otherwise an external monitor must be used.

### CHARACTERISTICS

#### BANDWIDTH

DC to 100 kHz. Specified at -3 dB.

#### GAIN

10, single-ended.

#### OUTPUT

±5 V (high-impedance load). 1.5 A (short circuit). Source impedance 2 Ω.

#### DC ADJUST

The output DC operating level adjusts to ground potential.

#### PHASE INVERSION

An internal switch permits either output polarity.

#### MONITOR JACK

Allows observation of the output with an oscilloscope without switching cables.

#### DUAL-TRACE OPERATION

Back-panel jacks and switching arrangements provide for use of the Alternate mode of operation when using a Tektronix Type 1A1, 1A2, CA, 1A4 or M Plug-In Unit.

#### POWER REQUIREMENTS

Wired for 105 to 125 VAC (117 V nominal); transformer taps permit operation at 110, 117, 124, 220, 234, or 248 VAC; 50 to 60 Hz. Approx 320-W power consumption. Can be factory wired for any of the above nominal voltages, if so indicated on order.

#### DIMENSIONS AND WEIGHTS

Height	10 <sup>3</sup> / <sub>16</sub> in	25.9 cm
Width	6 <sup>7</sup> / <sub>8</sub> in	17.5 cm
Depth	18 <sup>15</sup> / <sub>16</sub> in	48.1 cm
Net weight	22 lb	10.0 kg
Domestic shipping weight	~26 lb	~11.8 kg
Export-packed weight	~34 lb	~15.5 kg

#### INCLUDED STANDARD ACCESSORIES

3-conductor power cord (161-0010-03); 3- to 2-wire adapter (103-0013-00); two instruction manuals (070-0290-00).



TYPE 133 TYPICAL PERFORMANCE

PLUG-IN TYPE	OVERALL GAIN (NO LOAD)	BANDWIDTH (-3 dB)
B	10 100 (AC only)	DC to 100 kHz 2 Hz to 100 kHz
CA	10	DC to 100 kHz
D	500	DC to 100 kHz
E	10,000	See E Unit
G	10	DC to 100 kHz
H	100	DC to 100 kHz
K	10	DC to 100 kHz
L	10 100 (AC only)	DC to 100 kHz 3 Hz to 100 kHz
M	10	DC to 100 kHz
O	10	DC to 100 kHz
Q		DC to 6 kHz
W	10 to 500	DC to 100 kHz
Z	10	DC to 100 kHz
1A1	100	DC to 100 kHz
1A2	10	DC to 100 kHz
1A4	50	DC to 100 kHz
1A5	500	DC to 100 kHz
1A6	500	DC to 100 kHz
1A7	50,000	DC to 100 kHz
1L5	SPECTRUM ANALYZER 500	10 Hz to 1 MHz 10 Hz to 100 kHz
1L10	SPECTRUM ANALYZER	1 MHz to 36 MHz
1L20	SPECTRUM ANALYZER	10 MHz to 4.2 GHz
1L30	SPECTRUM ANALYZER	925 MHz to 10.5 GHz
1S1	250	DC to 1 GHz
1S2	100	DC to 3.9 GHz

Spectrum Analyzer Units require an external sweep voltage (positive going from 0 to at least +90 V). This can be supplied from an associated oscilloscope with this output.

Please refer to Terms and Shipment, General Information page.