ILT**1700**

Research Radiometer
Featuring USB Connectivity

20 years of industry-leading accuracy, reliability, and versatility has placed the ILT1700 Research Radiometer at the top of its class in price and performance in any application.

With unmatched linearity over a 10 billion to 1 measurement range the ILT1700 Research Radiometer sets the standard for performance and NIST-traceable accuracy. Equipped to handle any application, the ILT1700 comes with an array of advanced features in an easy-to-use package including flash capability with selectable reverse bias, USB output, RS232C data output, selectable autorange and relative measurement modes, and multiple AC or DC power options for use in or out of the field.
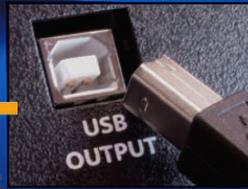
SPECIFICATIONS

Measurement range: 0.2 PicoAmps to 2.0 MilliAmps (Optical units will depend on sensor selection). Minimum display resolution is 0.01×10^{-11} Amps.

Linearity: ±0.1%, ±1 digit on the top 8 decades of measurement range and ±0.2%, ±1 digit on the bottom 2 decades

Refresh rate: 2 Readings/second dtadard (options for 4 or 8 readings/second available)

Power: 90-130/180-240 VAC, 50-400 Hz, 8-15 VDC external or 6 internal "C" cell NiCad rechargeable batteries

Size: 3.5 inches x 8.7 inches x 9.4 inches (90 mm x 220 mm x 240 mm)

Weight: 5.1 pounds (2.3 kg)

DETECTOR OPTIONS

The ILT1700 has one of the world's largest selections of application specific and general purpose preconfigured detectors available to complete your system and can store up to 10 calibration factors in memory for use with multiple detectors or individual configurations.

Applications include flash measurement, low signal detection, LED, germicidal, optical hazard, plant photobiology, photoresist, UV curing, laser, and photostabiliy.

All detector specifications are available on our website at www.intl-lighttech.com sorted by application or call one of our knowledgeable sales representatives to assist you in selecting the right preconfigured or custom detector configuration for your application.

FEATURES & BENEFITS

◊ **10 decade measurement range**

◊ **Large array of available application specific and general purpose detectors (ORDER DETECTORS SEPARATELY)**

◊ **NIST-traceable calibration with certificate**

◊ **0.1% Linearity**

◊ **Built-in USB2.0 output**

◊ **Built-in RS232C output**

◊ **AC or DC power (external or batteries).**

◊ **Built-in NiCad battery charger**

◊ **Automatic ranging, zeroing, shutoff, and relative mode (100%)**

InternationalLight
TECHNOLOGIES

NIST Traceable Light Measurement Systems and Sources
ISO 9001 / ISO/IEC 17025
10 Technology Drive, Peabody, MA 01960
978-818-8160   978-818-6181 fax
www.intl-lighttech.com

A. Most Significant Digit Button
B. Least Significant Digit Button
C. Data/Factor Display Button
D. 5 Volt Bias Button
E. Exponent Button
F. Factor Select Button
G. Set 100% Button
H. Auto Range Button
I. Power Indicator LEDs
J. Power Button
K. Hold Button
L. Integrate Mode Button
M. DC Mode Button
N. Zero Button
O. Factor Number LCD
P. Exponent LCD
Q. Main LCD

1. AC Voltage Select Switch
2. USB Output Connector
3. 9-pin RS232C Serial Output
4. AC Power Cord Connector
5. Power Source Select Switch
6. Battery Access Pull Knob
7. Detector Input Connector
8. Accessory Input Connector
   (protective cover shown)

Front Panel

Rear Panel

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Radiometry	Flash Photometry
Photoresist	Plant Photobiology
UV Curing	Optical Hazard
Germicidal	Solar
Phototherapy	Photostability
Photometry	Laser
LED	Low Light

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TECHNOLOGIES

NIST Traceable Light Measurement
Systems and Sources
ISO 9001 / ISO/IEC 17025
10 Technology Drive
Pebody, MA 01960
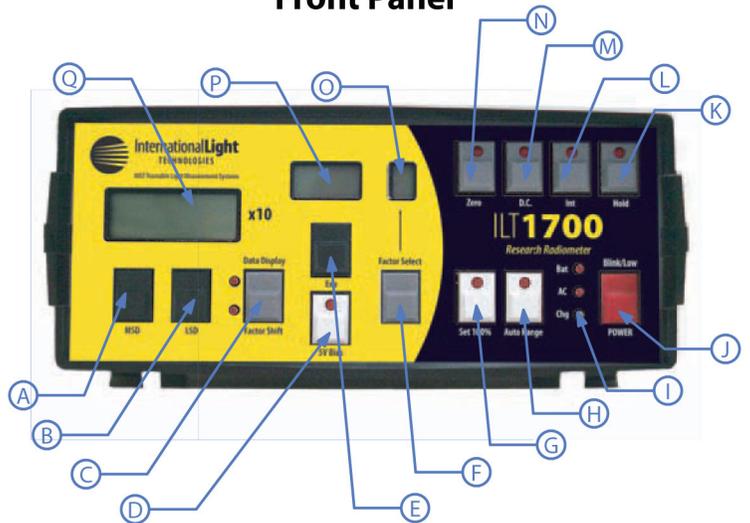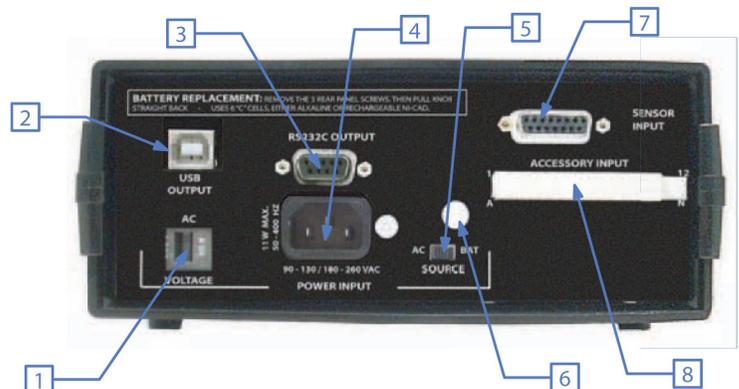
The ILT1700 is unique in its ability to handle 10 decades of dynamic range with pulsed or continuous signals. The floating current amplifier operates with solid-state detectors or photodiodes, and can gain switch by a factor of a thousand during a single pulse. Data are displayed in scientific notation to handle the large signal range, and can show current, optical signal, cal factor and % Full Scale. The all-digital I/O interface now communicates using both RS232C in the common 9-pin D form factor and USB 2.0 serial protocols. With both AC and internal battery capability the lightweight ILT1700 easily moves between the laboratory and the industrial floor.

Detector — Proprietary Current Amplifier — Precision I/F Converter — Microprocessor — Display