

# TECHNICAL NOTE

## APM (LEMO) SPECIFICATIONS



Our APM (LEMO) is designed to provide a stable, quiet DC voltage to our older models of amplified detectors that include a LEMO connector cable. It is compatible with our current Mach 5 and Mach 6 joulemeters and a number of our older models (see the list below). There is a new version of this, APM(D) (201848), which was designed for use with some of our amplified detectors that include a DB15 connector.

The APM includes a 9V battery and a DC power supply. When the unit is turned ON, without the supply, it will provide battery power to the detector. When the supply is attached, the battery is bypassed. The battery can be easily replaced by removing two thumb screws on the end panel, removing the panel, and slipping the cover back to expose the PC board, battery and battery holder. See the picture on the next page.

### FEATURES

- Designed to provide a DC voltage to our LEMO cable based amplified detector
- Can be operated by battery or DC voltage wall supply (both included)
- Includes power ON/OFF switch and power ON lamp
- Has a detector output BNC connector
- Analog voltage output from +10V to -10V

### APPLICATIONS

- Used with some of our Energy Detectors
- Used with our pyro-based Power Detectors
- Used with THZ-B Detectors
- Used with Mach 5 / Mach 6 Joulemeters
- Used to power customer detector amplifier products

### COMPATIBLE DETECTORS

#### MACH 5 AND MACH 6 JOULEMETERS

- M5-6-Si, M5-6-Si-L
- M5-6-In, M5-6-In-L
- M5-6-Py, M5-12.5-Py
- M6-6-Si, M6-6-Si-L
- M6-6-In, M6-6-In-L
- M6-6-Py, M6-12.5-Py

#### THZ-B DETECTORS

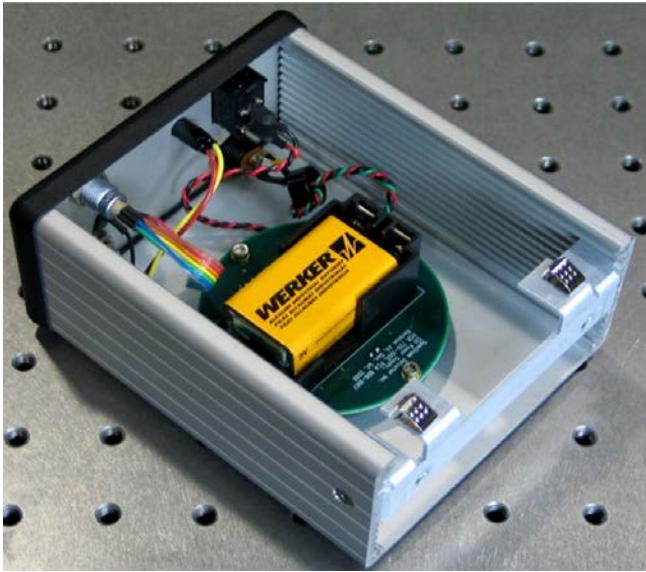
- THZ9B-MT-BNC (obsolete model), THZ9B-BL-BNC
- THZ5B-MT-BNC (obsolete model), THZ5B-BL-BNC
- THZ1.5B-MT-BNC (obsolete model), THZ1.5B-BL-BNC

#### UM-B DETECTORS

- UM9B-BL-BNC

# TECHNICAL NOTE

## APM WITH TOP REMOVED

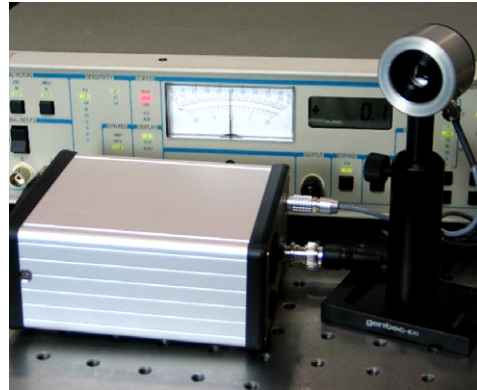


To open the APM, simply remove the two thumb screws from the end cap and slide the top off. This gives you access to replace the 9V battery. Make sure to align the battery (+) side to the battery holder (+) sign.

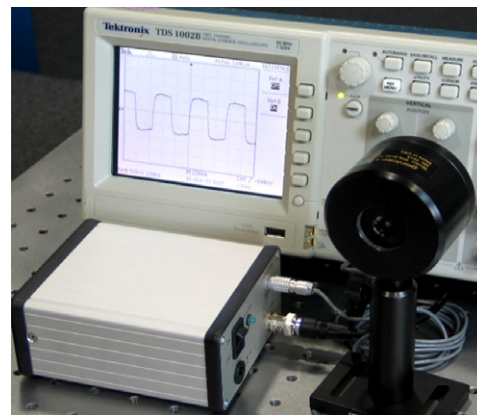
Once the battery is replaced slip the cover on, add the end cap and secure it with the two thumb screws.

DESCRIPTION	SPECIFICATION
Battery Power	9V
Detector Output BNC	$\pm 10$ V
DC Power Supply	100/220 VAC to 9 VDC
End Plate	Removable with thumb screws
Size	101.6H x 127W x 58.4D mm

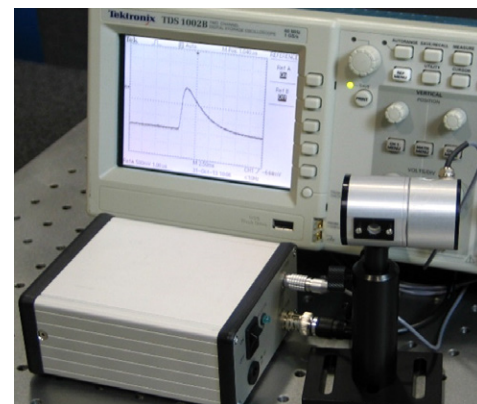
## TYPICAL APM / DETECTOR SETUPS



**Fig. 1**  
APM, custom Pyro radiometric detector, connected to an LIA, reading RMS voltage output.



**Fig. 2**  
APM, THZ9B-BL-BNC THz detector, connected to a digital oscilloscope displaying the voltage output (V/W) of the probe, which is an approximate square wave.



**Fig. 3**  
APM, M5-6-Si Mach 5 ultrafast joulemeter, connected to a digital oscilloscope, displaying the integrated voltage output (V/J) of the detector.