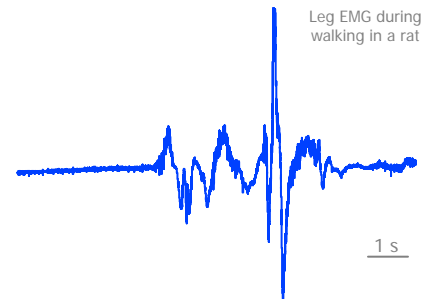


# Wireless monitoring Any biopotential signal

- Measure ECG, EMG, EEG or any voltage signal and temperature
- High frequency sampling (2000 Hz) provides high resolution
- Schedule data collection periods (manually or via software)
- Recording range up to 5m
- Multiple transmission channels enable co-housing
- Recharge using patented inductive energy transfer through skin
- Recharge whilst still in the animal
- 24/7 monitoring is possible for the lifetime of the animal
- No waiting for replacement or refurbishment

EEG, EMG or ECG  
measurement  
with digital  
transmission



### High resolution

2000 Hz sampling rate provides accurate measurement.

### Versatility

Transmitters send digital data to a receiver which reconstructs an analog signal that is compatible with all data acquisition systems.

### One receiver, many transmitters

Automatically switch receiver to any one of twelve different transmitters.

### Low cost of ownership

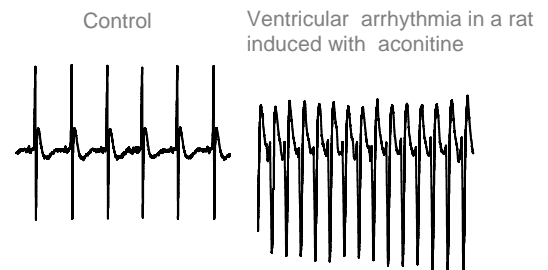
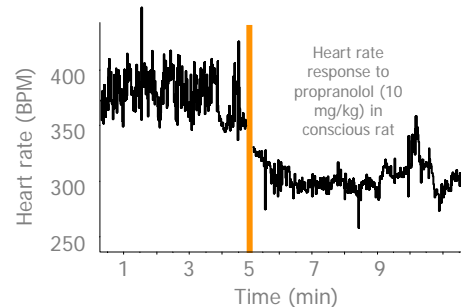
Battery removal or refurbishment is not required. Lifetime monitoring is enabled.

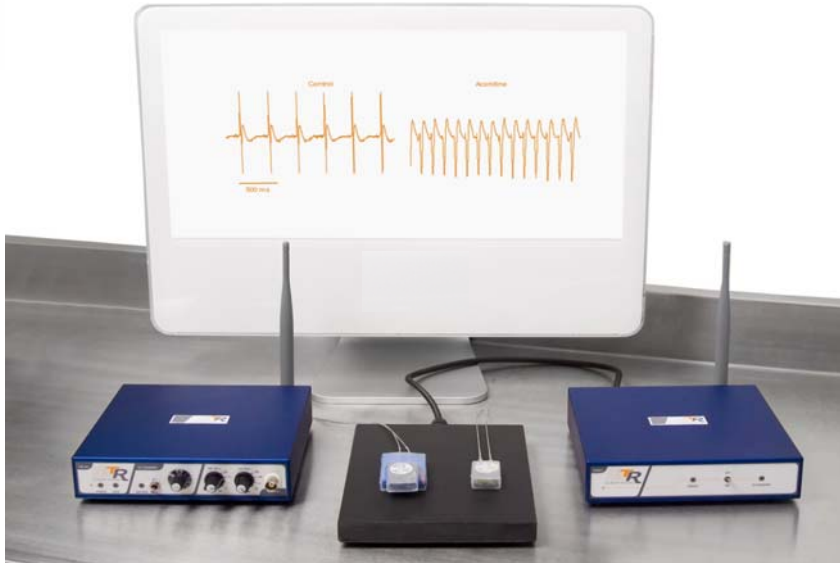
### Continuous operation

Small transmitters can provide continuous unlimited monitoring. Large transmitters provide 7 days of continuous operation between recharging.

### Efficient housing

Animals can be co-housed with simultaneous monitoring in each animal. No specialized cages or shielding are required. Signals can be received from up to 5m away.





The optional combination of Telemetry Research Transmitters and Receivers with an ADInstruments PowerLab data acquisition system and Chart & Scope software offers comprehensive data recording, display and analysis. Software for ECG analysis offers automatic online detection and reporting of PQRST onset, amplitude and intervals. Transmitters can be turned on and off under software control to match your data collection needs.

**Transmitter Specifications**

Model	TR40B	TR70B
<b>Animal weight range</b>	>200 g	>1.5 Kg
<b>Input &amp; Digitization</b>		
Input range	+/-2mV	+/-2mV
Resolution	12 bit A/D	12 bit A/D
Sampling frequency	2 kHz	2 kHz
High pass characteristics	AC coupled, single pole, -3dB point at 3.4 Hz	AC coupled, single pole, -3dB point at 3.4 Hz
<b>Electrode leads</b>		
Electrode coil diameter	Coiled stainless steel 1 mm	Coiled stainless steel 1 mm
Lead length	20 cm or specified at time of order	25 cm or specified at time of order
<b>Monitoring period</b>		
Inside charge field	24/7 for lifetime	n/a
Outside charge field	12 hr	7 days
Recharge time (under optimal conditions)	n/a	~4 hours
<b>Physical</b>		
Weight	13 g	68 g
Max external dimensions	35 x 9 x 23 mm	68 x 15 x 42 mm
Temperature	Max 60° C	Max 60° C
Case material	Medical grade silicone elastomer	Medical grade silicone elastomer
Transmitter power output	<0 dBm	<0 dBm
Transmitter freq. band	2.4 GHz	2.4 GHz



**TR40B**  
Actual size



**TR70B**  
Approx Size

**Receiver Specifications**

Model	TR101
<b>Output ECG</b>	
Connector	BNC
Signal	-3V to +3V
Reception channel	Selectable between 12 transmitters
High pass filter	DC, 1, 5, 20, 50, 100 Hz
Low pass Filter	100, 500, 1000 Hz
<b>Temperature output</b>	BNC, accuracy 0.5° C
<b>External Interface</b>	15 way D connector allows software control over transmitters

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