

# Ground Probing radar [GPR] Pulse Source

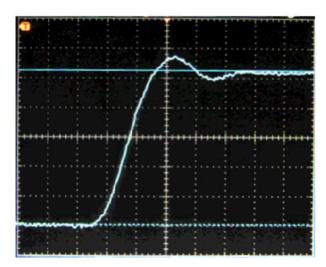


### **Applications**

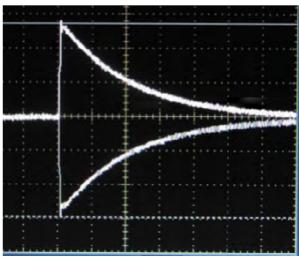
Ice Probing radar Ground Probing Radar

#### **Summary**

- Low voltage power requirement for battery use.
- ±2kV step outputs to drive a balanced differential antenna
- Internal rate generator
- tested at -20°C



Step output, 500V/4ns per division



Both outputs, 500V/400ns per division

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## Ground Probing radar [GPR] Pulse Source

#### **SPECIFICATIONS**

+/-2kV, ~5 ns step rise, exponential fall
Loading in pulser 800 each side
Balanced outputs (2kV each, 4kV differential)
12V battery powered (9-18V)
Internal adjustable rate generator
Fibre-optic trigger output (HFBR-1412TMZ or equivalent emitter)
Additional electrical trigger output, BNC connector, amplitude ~5volts
Current consumption 5amps
Temp range -20C to +25C \*
Housing - metal die cast box, 175 x 275 x 65mm.
Power input and pulse output connections - 3.5mm terminals

#### Normal operation

Output pulse characteristics set by 1nF series capacitors and 800 loading PRF 1kHz

#### **Enhanced PRF operation**

Output pulse characteristics set by 200pF series capacitors and 800 loading. PRF 5kHz

It is possible for the user to change the series capacitor and the PRF with only simple hand tools. This operation is not recommended in the open air.

#### **CONNECTIONS AND CONTROLS**

12V Input Power 3.5mm terminals, 9-18V Fuse Holder 20mm 5A
Outputs 3.5mm terminals ±2kV pulse Active Light Amber LED
Power Light Green LED
Monitor Output, 5V BNC, 5V 8µs pulse
Monitor Output, Optical, SMA, 8µs pulse.

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