

Device Maintenance

**Battery Replacement**

Materials:

Small Phillips Head Screwdriver

Replacement Battery (LTC-7PN)

- Puncture the center of the back label with the screw driver and unscrew the enclosure.
- Remove the battery by pulling it perpendicular to the circuit board.
- Insert the new battery into the terminals and verify it is secure.
- Screw the enclosure back together securely.

*Note: Be sure not to over tighten the screws or strip the threads.*

**Battery Warning**

**WARNING: FIRE, EXPLOSION, AND SEVERE BURN HAZARD. DO NOT SHORT CIRCUIT, CHARGE, FORCE OVER DISCHARGE, DISASSEMBLE, CRUSH, PENETRATE OR INCINERATE. BATTERY MAY LEAK OR EXPLODE IF HEATED ABOVE 80°C (176°F).**

**Recalibration**

The Pulse101 and Pulse110 have a digital input signal and cannot be calibrated. A certificate of conformance can be provided.

*To send the devices back, visit [www.madgetech.com](http://www.madgetech.com), select Services then RMA Process.*

Part Number	Pulse101	Pulse110
Maximum Pulse Rate	100Hz	
Input Range	0 to 12VDC continuous; (0 to 30VDC peak)	
Input Low	<0.4V	
Input High	>2.7V	
Internal Weak Pull-Up	<500µA	
Recommended Duty Cycle for Inputs Greater than 12VDC (Over 1 minute interval)	18V: <50% 24V: <25% 30V: <10%	
Sample Rate	1 second to 12 hours	
Minimum Time Resolution	1 second	
Minimum Input Active (Low) Time	1 millisecond	4 millisecond
Memory	16,383 events	
LED Indicator	Red	
Required Interface Package	IFC110 or IFC200	
Baud Rate	2,400	57,600
Typical Battery Life	1 year	10 years
Operating Environment	-40 to +80°C, 0 to 95%RH (non-condensing)	
Material	ABS plastic	
Dimensions	1.4" x 2.5" x 0.6" (36mm x 64mm x 16mm)	1.7" x 2.7" x 0.8" (44mm x 69mm x 21mm)
Approvals	CE	

*Specifications subject to change.  
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Pulse101 and Pulse110



**Pulse101**  
Pulse Recorder

**Pulse110**  
Pulse Recorder with 10 Year Battery Life

