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GeoExplorer 2008 Series: Power Usage

The Trimble® GeoExplorer® 2008 series handheld has a 27.8 Watt-hours Lithium-ion battery. This document describes the power consumption of the battery when using the handheld in different modes.

Power usage for GeoXM and GeoXT handhelds

The following table indicates the power usage and typical run-time for the battery between charges when using the GeoXM™ or GeoXT™ handheld in different modes.

Note: Values given for typical battery run-time are for a new handheld, fully charged, and running at an average room temperature of 20 to 25 °C (68 to 77 °F).

Mode	Backlight setting	Power usage (Watts)	Typical run-time
Low (no GPS or backlight)	off	1.8	15 h, 25 m
Normal (GPS and backlight on)	50% (default)	2.6	10 h, 40 m
	100%	2.8	9 h, 55 m
High (GPS, backlight on, Bluetooth and wireless LAN radios on)	50% (default)	3.7	7 h, 30 m
	100%	3.9	7 h, 5 m

Note: Power consumption in High mode will vary depending on radio usage.

Additional power used by integrated radios and external antennas

The GeoXM or GeoXT handheld uses additional power when the integrated Bluetooth® or wireless LAN radio is turned on, or when the handheld is connected to an external antenna. The approximate additional power usage required is as follows.

Additional power usage	Watts
External Patch Antenna	No significant increase over internal antenna
Hurricane Antenna	0.2
Bluetooth radio only*	0.4
Wireless LAN radio only*	1.0

* Additional power usage from "Low" or "Normal" power modes.

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Note: Turning on both integrated radios increases power consumption by only 1.1 Watts (the difference between the “Normal” and “High” power modes), not by 1.4 Watts.

Power usage for GeoXH handhelds

The following table describes the power usage and typical run-time for the battery between charges when using the GeoXH™ handheld in different modes.

Note: Values given for typical battery run-time are for a new handheld, fully charged, and running at an average room temperature of 20 to 25 °C (68 to 77 °F).

Mode	Backlight setting	Power usage (Watts)	Typical run-time
Low (no GPS or backlight)	off	1.8	15 h, 25 m
Normal (GPS and backlight on)	50% (default)	3.2	8 h, 40 m
	100%	3.4	8 h, 10 m
High (GPS, backlight on, Bluetooth and wireless LAN radios on)	50% (default)	4.3	6 h, 30 m
	100%	4.5	6 h, 10 m

Note: Power consumption in High mode will vary depending on radio usage.

Additional power used by integrated radios and external antennas

The GeoXH handheld uses additional power when the integrated Bluetooth or wireless LAN radio is turned on, or when the handheld is connected to an external Zephyr™ antenna. The approximate additional power usage required is as follows.

Additional power usage	Watts
Zephyr Antenna	0.4
Bluetooth radio only*	0.4
Wireless LAN radio only*	1.0

* Additional power usage from “Low” or “Normal” power modes.

Note: Turning on both integrated radios increases power consumption by only 1.1 Watts (the difference between the “Normal” and “High” power modes), not by 1.4 Watts.