

# Battery Specifications



## Requirements

ICT International's Smart Logger system requires that the battery you purchase is:

- 12 Volt
- Sealed
- Lead Acid Gel

Sealed batteries are low maintenance and are more resilient to field conditions.

Do not purchase a car battery. These batteries consist of thinner lead plates which are designed for high instantaneous currents. This technology allows the plates to disintegrate unless the battery is kept fully charged. Therefore, these batteries are not suitable for remote power applications which require the battery to supply a load for significant durations before recharging as will be the case after several days of cloud.



House the battery in a weather-proof box to protect it from the weather and other external factors which could cause the battery to corrode or short. A heavy duty, custom designed LH3B enclosure is available from ICT which mounts to the Field Station or EnviroStation Mast.

## Preferred

If possible, purchase a Deep Cycle battery. The lead plates within these batteries are thicker, ensuring that they do not disintegrate over time.

## Satellite Batteries

Additional (satellite) batteries may be required for systems that spread over a distance greater than 100 metres. The voltage drop over this distance from the primary battery may provide insufficient power to the sensors. An additional battery and solar panel connected directly into the IB8-WP or IB16-WP DataBus Hub will solve this problem as the satellite power source will have no distance and therefore no voltage drop to supply the sensors connected at this DataBus Hub.

Detailed information on system power configurations, including satellite batteries, is available at [www.ictinternational.com.au/loggerpowerconfigs.htm](http://www.ictinternational.com.au/loggerpowerconfigs.htm).

## Amp Hour Capacity

Approximate Amp Hr Capacity	Recommended application	Equivalent Panasonic Part Number
28 Amp Hr	Small field systems with a limited number of sensors which do not require additional power to for heating elements, such as meteorological sensors or a system with a wireless modem.	LC-X1228/P
42 Amp Hr	Moderately sized systems or systems containing sensors that require additional power for heating elements, etc (such as Sap Flow or Thermal Conductivity sensors)	LC-X1242/P
75 Amp Hr	Large systems or systems with many sensors that require additional power. For example, a system with 20 or more HRM sensors, and MP406 Soil moisture sensors. Any system with Dynagage sapflow sensors or any TDP Sap velocity sensors.	LC-X1275/P

For detailed information on calculating the Amp Hour Capacity requirements for your system, visit our website at [www.ictinternational.com.au/powercalc.htm](http://www.ictinternational.com.au/powercalc.htm).

**ICT International Pty Ltd**  
 PO Box 503, Armidale, NSW 2350, Australia  
 Ph: [61] 2-6772-6770 Fax: [61] 2-6772-7616  
 E-mail: [sales@ictinternational.com.au](mailto:sales@ictinternational.com.au)

