Durst

BCW-1250

WATERPROOF BATTERY CHARGER

Operating Instructions

Model BCW-1250 | 12V | 50A | BCW Waterproof Chargers



Durst Industries (Aust.) Pty Ltd | Designed in Australia

1/11 Packard Ave, Castle Hill NSW 2154, Australia | durst.com.au | sales@durst.com.au | +61 2 9660 1755

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Introduction

Read these instructions before using the charger. Keep them with the unit.

The Durst BCW-1250 Waterproof Battery Charger is a heavy-duty 12V 50A automatic battery charger designed for transport, marine, industrial, mining, workshop and field-service applications. Featuring MCU-controlled four-stage charging technology, the BCW-1250 provides fast, efficient and reliable charging for AGM, Gel, flooded, calcium and LiFePO4 batteries.

Designed by Durst Industries Australia, the charger combines high-efficiency switchmode technology, intelligent battery management and a fully sealed waterproof enclosure for dependable operation in demanding environments.

Model

Model	Battery system	Charge current	Battery types	Charging
BCW-1250	12V	50A	AGM, Gel, flooded, calcium, LiFePO4	MCU-controlled four-stage

Key features

- 12V 50A waterproof battery charger.
- Multi-chemistry battery compatibility.
- MCU-controlled four-stage charging.
- High-efficiency switchmode design.
- Waterproof industrial enclosure.
- Reverse polarity protection.
- Short-circuit protection.
- Over-voltage protection.
- Over-temperature protection.
- Designed for workshop and field-service applications.

Perfect for

Transport, automotive, 4WD and off-road, boating and leisure marine, portable power, remote travel, motorsport, recreational vehicles, lifestyle and touring, workshops, fleet maintenance, emergency services, marine and mining.

Specifications

BCW-1250 technical data.

Specification	BCW-1250
Model	BCW-1250 (BCW Waterproof Chargers)
Product type	Waterproof battery charger
Battery system	12V
Battery compatibility	AGM, Gel, flooded, calcium and LiFePO4
Charging technology	MCU-controlled four-stage charging
Input voltage	110 to 230 V AC
Output voltage	14.7 V DC
Output current	50A
Rated power	2000 W
Applicable battery capacity	100 Ah to 399 Ah
Construction	Waterproof industrial enclosure
Dimensions	280 x 160 x 85 mm
Weight	4.5 kg
Warranty	1 year

Built-in protection

Protection	What it does
Reverse polarity	Protects the charger if the battery is connected in reverse.
Short-circuit	Protects the charger and battery if the output is short-circuited.
Over-voltage	Protects the battery from excessive charging voltage.
Over-temperature	Protects the charger from overheating.

Compatible batteries

The BCW-1250 charges 12V batteries of the following types.

- AGM (Absorbed Glass Mat) batteries
- Gel batteries
- Flooded lead-acid batteries
- Calcium batteries
- LiFePO4 (lithium iron phosphate) batteries

IMPORTANT: Charge only 12V batteries of the types listed above. Avoid charging damaged batteries or incorrect battery types.

Battery capacity

The BCW-1250 suits batteries from 100 Ah to 399 Ah.

Applications

Transport, marine, industrial, mining, workshop and field-service battery systems.

Safety and important notices

Follow these notices every time you use the charger.

WARNING

Batteries can give off explosive gas while charging. Charge in a well-ventilated area, away from sparks and flames.

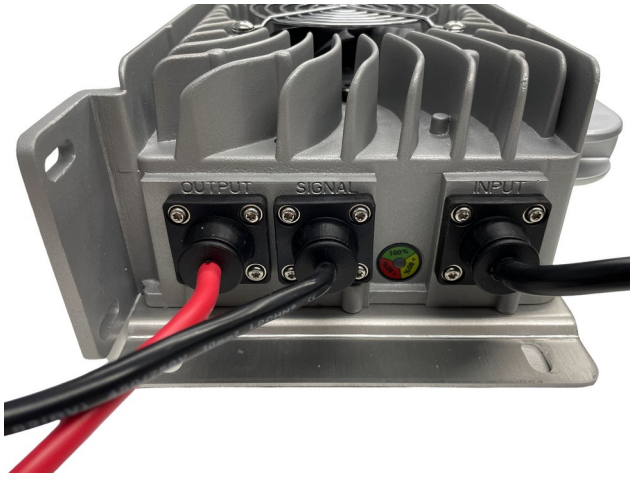
Wear protective goggles and clothing while handling and charging batteries.

The aluminium housing helps dissipate heat and may be hot after long charging at full current. Allow it to cool before handling.

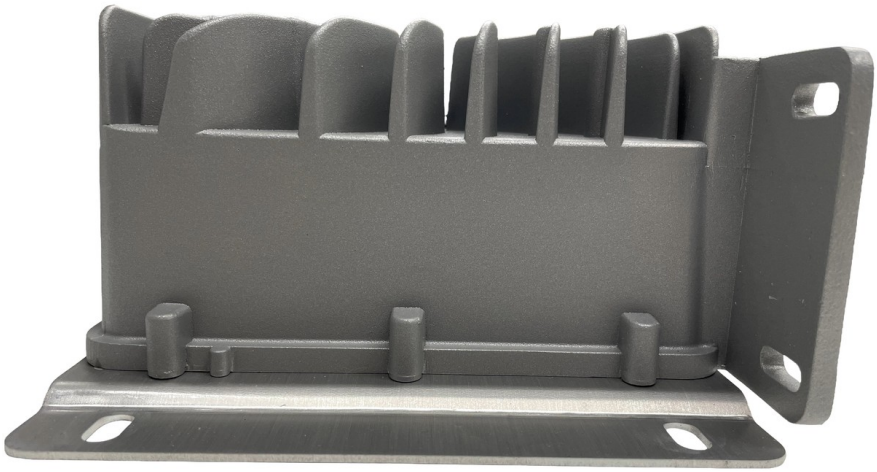
- **Mains supply.** Connect the charger only to a correctly earthed AC supply within its input voltage range.
- **Right battery only.** Charge only the battery types and voltage listed in this manual. Avoid charging damaged batteries.
- **Check the leads.** Do not use the charger if a lead, plug, clamp or connector is damaged.
- **Airflow.** Keep the cooling fan and fins clear. Do not cover the charger while it is working.
- **No modifications.** Do not open or modify the charger. For repairs, contact Durst.

Know your charger

The charger has a sealed aluminium case with cooling fins, a cooling fan, a mounting base and a charge indicator.



Charger end view. Leads and charge indicator.



Charger end view. Side view and mounting base.

Operating your charger

Set up once, then let the charger look after the battery.

1. **Place the charger securely.** Use the mounting base to fix it in a well-ventilated place, on a stable surface, with space around it for airflow.
2. **Connect the battery.** Connect the output to the battery: Red (+) to the Positive terminal and Black (-) to the Negative terminal, or plug in the Anderson connector where fitted.
3. **Connect to the mains.** Plug the charger into a suitable AC supply (GPO). Charging is automatic.
4. **Follow the charge.** The MCU-controlled four-stage charging adjusts automatically as the battery charges. The charge indicator shows the charging status.
5. **Finish charging.** When charging is complete, switch off and unplug the mains supply, then disconnect the battery.

TIP: Charge the battery in a covered area where possible, and keep the mains plug and socket dry.

Troubleshooting

If the charger does not work as expected, check this table.

What you see	What to do
Charger does not start	Check the mains plug, the GPO and the supply voltage. The charger protects itself if the input voltage is outside its range.
No charge, or the output stops	Check the leads are on the correct terminals (Red to Positive, Black to Negative) and the connections are clean and tight. Reverse polarity and short-circuit protection stop the output until the fault is cleared.
Charging stops when the charger is hot	Over-temperature protection has operated. Move the charger to a cooler, well-ventilated place, clear the fan and fins, and let it cool.
Battery never reaches full charge	The battery may be faulty. Have the battery tested before charging again.

NOTE: For any other issue, contact Durst. Do not open or modify the charger.

General maintenance

Regular checks keep the charger reliable and your batteries healthy.

Keep it clean

- Unplug the charger and disconnect the battery before cleaning. Wipe it down with a soft, damp cloth.
- Do not use high-pressure water, solvents or harsh chemical cleaners.
- Keep the cooling fan, fan guard and fins clear of dirt and debris.
- Check the mounting base fixings are tight.

Leads, clamps and connectors

- Before each use, check the leads for cracked or frayed insulation, loose connectors and corrosion.
- Check that clamps or Anderson connectors are clean, grip firmly and make good contact.
- Check the mains lead, plug and cable glands for damage.
- Do not use a damaged lead or connector. Contact Durst for the correct replacement.
- Store the leads neatly after use so they are not crushed or kinked.

Who should service the charger

- Operators can carry out the external checks in this section.
- Only a qualified person should work on internal parts.
- Do not modify the charger. For repairs, contact Durst.

Extreme environment maintenance

For mining, marine, construction and any other dusty, wet or hot site. Follow this section in addition to General maintenance.

The BCW-1250 has a sealed, waterproof industrial enclosure built for harsh environments. A little care keeps it that way.

Water and washdown

- Do not submerge the charger or use a high-pressure washer on it.
- Keep the mains plug and power point dry. The mains plug is not waterproof.
- Keep the cable glands and connectors in good condition, as they keep water out of the case.
- If water gets inside the case, unplug the charger and have it checked by a qualified person before you use it again.

Dust and heat

- Fine dust, such as iron ore or coal dust, can build up on the fan and fins. Clean them often on dusty sites.
- Never cover or seal the fan or fins to keep dust out.
- In hot conditions, place the charger in the shade where possible, and allow it to cool after long, heavy use.
- Heat, sun, salt and rough handling wear leads and connectors faster. Check them more often.

Set a maintenance schedule for your site

- Operators set a maintenance schedule that suits their site conditions and use.
- Check and clean more often where there is more dust, salt, water or heat.
- Add the charger to your site plant inspection system and record each check.

WARRANTY

Damage caused by misuse, contamination (such as water entering through damaged leads or glands, dust or chemicals), or a lack of maintenance in harsh environments, is not normal use. It is not covered by warranty.

BCW Waterproof Chargers range

The full BCW range, for comparison. Figures are from the Durst website.

Model	Battery	Current	Battery types	Input	Dimensions	Weight
BCW-1225	12V	25A	AGM, Gel, flooded, calcium, LiFePO4	180 to 245 V AC	194 x 124 x 104 mm	2 kg
BCW-L1225	12V	25A	LiFePO4	180 to 265 V AC	194 x 124 x 104 mm	2 kg
BCW-1250	12V	50A	AGM, Gel, flooded, calcium, LiFePO4	110 to 230 V AC	280 x 160 x 85 mm	4.5 kg
BCW-2425	24V	20 to 25A	AGM, Gel, flooded, calcium, LiFePO4	110 to 230 V AC	232 x 127 x 112 mm	2.58 kg
BCW-2450	24V	40 to 50A	AGM, Gel, flooded, calcium, LiFePO4	110 to 230 V AC	280 x 160 x 85 mm	4.5 kg

Warranty and support

The BCW-1250 carries a 1 year warranty. Keep your proof of purchase.

Contact Durst

Contact	Details
Company	Durst Industries (Aust.) Pty Ltd
Address	1/11 Packard Ave, Castle Hill NSW 2154, Australia
Website	durst.com.au
Email	sales@durst.com.au
Phone	+61 2 9660 1755

Your BCW-1250 record

Fill this in and keep it with your proof of purchase.

Item	Details
Model	BCW-1250
Serial number	
Date of purchase	
Purchased from	

Durst may update this manual without notice. Revised November 2026.