BC-460T-V2

HEAVY DUTY WORKSHOP BATTERY CHARGER

Operating Instructions

Model BC-460T-V2 | 6V / 12V / 24V | 80A





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

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Introduction

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

The Durst BC-460T-V2 is a heavy-duty transformer battery charger for professional workshop, fleet-maintenance, mining, transport and industrial service work. It charges 6V, 12V and 24V batteries, and provides engine-start assist, from a mobile steel trolley with fan cooling and variable current control.

It is designed and made in Australia for Australian conditions and climate, and is built for reliable long-term workshop use.

Model

Model	System voltage	Charge current (6V / 12V)	Charge current (24V)	Jump-start assist
BC-460T-V2	6V, 12V and 24V	60 A continuous, 80 A intermittent	30 A continuous, 40 A intermittent	600 A at 6V and 12V, 300 A at 24V

Features

- **Heavy-duty transformer construction.** Copper magnet wire and high-grade silicone laminations.
- **6V, 12V and 24V charging.** A voltage selector sets 6V, 12V or 24V, or Off. On the Charge Control, 6V is part of the 12V range, because voltage and current rise together on this transformer charger.
- **10-position Charge Control.** Positions 1 to 5 are the 12V range. Positions 6 to 10 are the 24V range. The dial starts from zero. Turn it clockwise to increase current.
- **80 A intermittent output at 6V and 12V.** 60 A continuous at 6V and 12V. At 24V the limits are 40 A intermittent and 30 A continuous.
- **Engine-start assist.** Jump-start assist for workshop starting support, with an ultra-fast silicone diode and a dedicated heat sink.
- **Fan cooling.** A fan keeps the transformer and diode rectifier cool under heavy loads. The powder-coated steel cabinet has vents for airflow.
- **Reverse polarity protection.** A buzzer and a Reverse LED warn you if the clamps are connected the wrong way.
- **Circuit-breaker protection.** An auto-reset circuit breaker on the DC side, and a resettable circuit breaker on the AC side.
- **0-80 A ammeter.** A dual sprung moving-coil meter shows the charge current.
- **Mobile trolley.** Large wheels and a handle make the charger easy to move around the workshop.
- **Cable winding bracket.** Keeps the lead tidy while you move the charger.
- **Portable external cable.** An LS-20AL-35 lead, 2.0 m, 35 mm², with 500 A clamps and a detachable connector.
- **No exposed terminals.** The output is taken through the portable cable.
- **Designed and made in Australia.** Built for Australian workshops, including defence, mining and transport applications.

Specifications

BC-460T-V2 technical data.

Specification	BC-460T-V2
Model	BC-460T-V2
Product type	Industrial workshop battery charger
System voltage	6V, 12V and 24V
Technology	Transformer battery charger
Charge current at 6V and 12V	60 A continuous, 80 A intermittent (maximum)
Charge current at 24V	30 A continuous, 40 A intermittent (maximum)
Jump-start assist	600 A at 6V and 12V, 300 A at 24V
Control	Voltage selector (6V, 12V, 24V and Off) and 10-position Charge Control (positions 1 to 5: 12V range, including 6V; positions 6 to 10: 24V range)
Ammeter	Dual sprung moving-coil, 0-80 A
AC current (primary)	4.3 A at 60 A output, 5.6 A at 80 A output
Cooling	Fan cooled, with vents in the cabinet
Enclosure	Heavy-duty powder-coated steel cabinet on a mobile trolley
Dimensions (W x L x H)	400 x 500 x 1020 mm
Weight	approx. 29 kg
Charge cable	LS-20AL-35, 2.0 m, 35 mm² primary, portable external lead
Clamps	Heavy-duty 500 A clamps
Protection	Reverse polarity buzzer and LED, auto-reset DC circuit breaker, resettable AC circuit breaker
Applications	Workshops, fleet maintenance, transport, mining, industrial service and defence
Origin	Designed and made in Australia by Durst Industries
Warranty	3 years

NOTE

The 80 A figure on the title, the front panel and the ammeter is the intermittent maximum charge current at 6V and 12V. Do not exceed 80 A at 6V or 12V, or 40 A at 24V. Amp readings are based on half-charged batteries. A discharged battery will show a higher charge rate.

Compatible batteries

The BC-460T-V2 is for the battery types listed below only.

This charger suits:

- AGM (Absorbed Glass Mat) batteries
- Lead-acid batteries
- Flooded batteries
- Calcium batteries

IMPORTANT: Charge only the battery types listed above. Do not use this charger on gel, lithium or other battery types. Avoid charging a damaged battery.

Applications

Car and truck dealer workshops, fleet maintenance, transport, mining, industrial service and defence applications.

Portable charge cable

The charger is supplied with a portable external cable: an LS-20AL-35 lead, 2.0 m long and 35 mm², with heavy-duty 500 A clamps and a detachable connector. Wind it on the cable bracket when it is not in use.



Figure 1. Portable external charge cable, with red positive (+) and black negative (-) clamps.

Safety and important notices

Follow these notices every time you use the charger.

WARNING

This is a manual workshop charger. It does not switch off automatically. You must switch it off and disconnect the battery once charging is complete, or the battery may be overcharged and damaged.

Supervision is required at all times.

Incorrect operation may damage the battery.

Wear safety goggles when you work with batteries.

Always charge batteries in a well-ventilated area, away from sparks and flames. Batteries can give off explosive gas.

- **Turn both switches to Off** before you connect or disconnect the battery.
- **Do not exceed the current limits.** 80 A at 6V or 12V, and 40 A at 24V.
- **Do not fast-charge a 6V or 12V battery** with the voltage switch set to 24V.
- **Watch the electrolyte temperature.** It should not exceed 40 to 50 °C, or the battery manufacturer's limit if that is lower.
- **Watch the current when the charger is at maximum output.** Make sure the maximum charge is not exceeded. Amp readings are based on half-charged batteries. A discharged battery will give a higher charge rate.
- **Vehicles with an alternator.** As a precaution, remove the main battery connections on vehicles fitted with an alternator. The electrical system may fail if the charging leads are reversed.
- **Keep it in a dry place.** Do not use or store the charger in the rain, in a washdown bay or in standing water.

WARNING

Modern vehicles fitted with onboard computers can be damaged by high voltage spikes when jump starting. To avoid damage, it is advisable to disconnect the battery, charge it for approximately 15 to 20 minutes at a high current, then reconnect it and start the vehicle using its own power supply. If in doubt, check the vehicle specifications.

Know your charger

The controls and indicators are on the front panel. The operations label on the cabinet is a quick reference. Use these instructions for the full procedure.



Figure 2. BC-460T-V2 front panel: voltage selector on the left, Charge Control on the right, 0-80 A ammeter at the top left.

Controls and indicators

Item	What it does
Voltage selector	Sets 6V, 12V or 24V to match the battery, or Off. Off is a position on this switch. Turn it to Off before you connect or disconnect the battery.
Charge Control	A 10-position rotary switch that starts from zero (Off is at the left of the dial). Positions 1 to 5 are the 12V range, which includes 6V. Positions 6 to 10 are the 24V range. Turn it clockwise to increase current. Because this is a transformer charger, voltage and current rise together.
Ammeter (0-80 A)	Shows the DC charge current. As the battery charges, the needle moves towards 0.
AC indicator	Shows that AC power is present.
DC indicator	AC and DC indicators on together means charging is active.
Reverse indicator	Lights if the clamps are connected the wrong way. A buzzer also sounds. Correct the connections at once.
Portable cable	External lead with a red positive (+) clamp and a black negative (-) clamp, and a detachable connector.
Wheels, handle and cable bracket	Move the trolley and stow the lead when you are not charging.

Operating the charger

Battery charging is straightforward: connect the battery, set the voltage, then select the current. Complete every step in this order.

1. Pre-connection checks

1. **Confirm the battery type.** Use the charger only with AGM, lead-acid, flooded or calcium batteries.
2. **Set both switches to Off.** The voltage selector and the Charge Control must be Off before you touch the clamps.
3. **Prepare the area.** Work in a well-ventilated, dry place. Wear safety goggles. Keep sparks and flames away from the battery.

2. Connect the clamps

1. **Connect the red positive (+) clamp** to the positive (+) terminal of the battery.
2. **Connect the black negative (-) clamp** to the negative (-) terminal of the battery.
3. **Check the connections.** Always double-check that the clamps are on the correct terminals. If the Reverse LED lights or the buzzer sounds, disconnect and correct the connections at once.

3. Select the voltage

1. **Switch the power on.** Then set the voltage selector to 6V, 12V or 24V to match the battery. Do not set it to 24V for a 6V or 12V battery.

4. Set the charge current

The Charge Control is a 10-position rotary switch. It starts from zero. Off is at the left of the dial. Turn it clockwise to increase current. Because this is a transformer charger, voltage and current rise together.

Positions 1 to 5 are the 12V range. 6V is part of this range. Positions 6 to 10 are the 24V range.

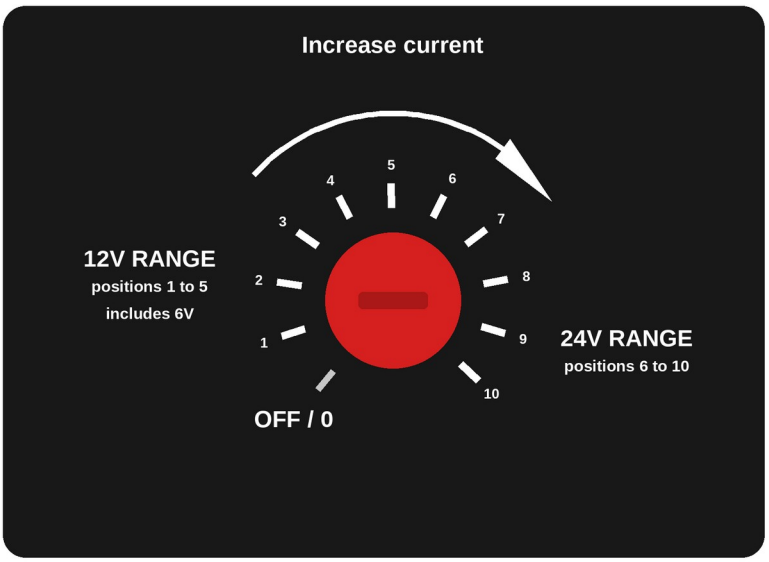

Figure 3. Charge Control: 10 positions from zero. Positions 1 to 5 are the 12V range (including 6V). Positions 6 to 10 are the 24V range.

1. **Start at zero.** For every battery, 6V, 12V or 24V, always start with Charge Control at zero.
2. **Turn it up one click at a time** while watching the ammeter.
3. **When current flows at a steady rate,** leave the dial at that setting until the current drops. The right setting depends on the size of the battery.
4. **Stay within the limits.** Do not exceed 80 A at 6V or 12V, or 40 A at 24V. If the charger is at maximum output, watch the ammeter so the maximum charge is not exceeded.

NOTE

Amp readings are based on half-charged batteries. A discharged battery will show a higher charge rate. If the rate is too high, turn Charge Control back (anticlockwise) until it is within the limit.

5. During charging

- **Charging is active** when the AC and DC indicators are on.
- **The ammeter needle moves towards 0** as charging progresses. The battery is fully charged when the needle rests at the first or second position above 0.
- **A rough charge time** can be found by dividing the battery's ampere-hour capacity by the charge rate. For example, a 60 Ah battery charged at 30 A will take approximately 2 hours.
- **Watch the electrolyte temperature.** It should not exceed 40 to 50 °C, or the battery manufacturer's limit.

6. When charging is complete

1. **Switch the charger off.** Turn both the Charge Control and the voltage selector to Off.
2. **Disconnect the clamps.** Remove the clamps from the battery. Do not leave the battery connected for an extended period. Overcharging may occur, because this charger does not switch off automatically.
3. **Stow the cable.** Wind the lead on the cable bracket so it is not crushed or kinked.

Engine-start assist

The BC-460T-V2 can assist with engine starting. Use the method below, which follows the operations label on the charger.

IMPORTANT: Do not remove the battery from the vehicle when you use this method. Only operate with the battery connected.

Using the charger to assist a start

1. **Connect the charger to the battery** with both switches Off, as in Operating the charger. Set the voltage selector to match the battery.
2. **Charge for approximately 15 minutes** at the maximum current setting.
3. **Decrease Charge Control by two notches.** Then attempt to start the vehicle with the charger still connected.
4. **If the start fails, repeat the process.** Do not exceed the charge-current limits at any time.

WARNING

Modern vehicles fitted with onboard computers can be damaged by high voltage spikes when jump starting. To avoid damage, it is advisable to disconnect the battery, charge it for approximately 15 to 20 minutes at a high current, then reconnect it and start the vehicle using its own power supply. If in doubt, check the vehicle specifications.

General maintenance

Regular checks keep the charger reliable and your batteries healthy.

Keep it clean and dry

- Switch the charger off and disconnect it from the wall and the battery before cleaning. Wipe it down with a soft, dry or slightly damp cloth.
- Do not use high-pressure water or harsh chemical cleaners.
- Keep it in a dry place.
- Keep the vents and the cooling fan clear. Never cover the charger while it is working.

Leads, clips and connectors

- Before each use, check the charge lead for cracked or frayed insulation, a loose connector and corrosion.
- Check that the battery clamps are clean, grip firmly and make good contact with the battery terminals.
- Check the mains lead and plug for damage.
- Do not use a damaged lead or clamp. Contact Durst for the correct replacement.
- Wind the lead on the cable bracket after use so it is not crushed or kinked.

Trolley and cabinet

- Check that the wheels and handle move freely and that the cabinet vents are not blocked.
- Keep the front-panel switches, meter and indicators clean so they stay easy to read and use.

Connecting and disconnecting

- Charge in a well-ventilated area, away from sparks and flames. Batteries can give off explosive gas.
- Check that the battery is a compatible type before you connect.
- Turn both switches to Off before you connect or disconnect the battery.

Who should service the charger

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

Extreme environment maintenance

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

WHY DUST MATTERS

The charger has cooling vents and a fan that draws air through the cabinet. Fine dust, such as iron ore or coal dust, can get in and build up. This dust can be conductive and can damage the electronics.

Dust

- Use and store the charger in a covered, low-dust area, such as a workshop or crib room.
- Never cover, tape or seal the cooling vents or fan to keep dust out.
- Keep the vents and fan guard clear of dust, mud and debris.
- Where dust is present, have a qualified person open the charger regularly, with it switched off and unplugged, and blow it out with clean, dry, low-pressure air. Do not use water, solvents or high-pressure air.

Wet and hot conditions

- Never hose down or pressure-wash the charger.
- Keep it out of rain, washdown bays and standing water.
- If water, mud or chemicals get into the charger, switch it off, unplug it and have it checked by a qualified person before you use it again.
- In hot conditions, place the charger in the shade where possible, keep the vents clear, and allow it to cool after long, heavy use.
- Heat, sun and rough handling wear leads and clamps 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, water or heat.
- Add the charger to your site plant inspection system and record each check.

WARRANTY

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

Warranty and support

The BC-460T-V2 carries a 3 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 BC-460T-V2 record

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

Item	Details
Model	BC-460T-V2
Serial number	
Date of purchase	
Purchased from	

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