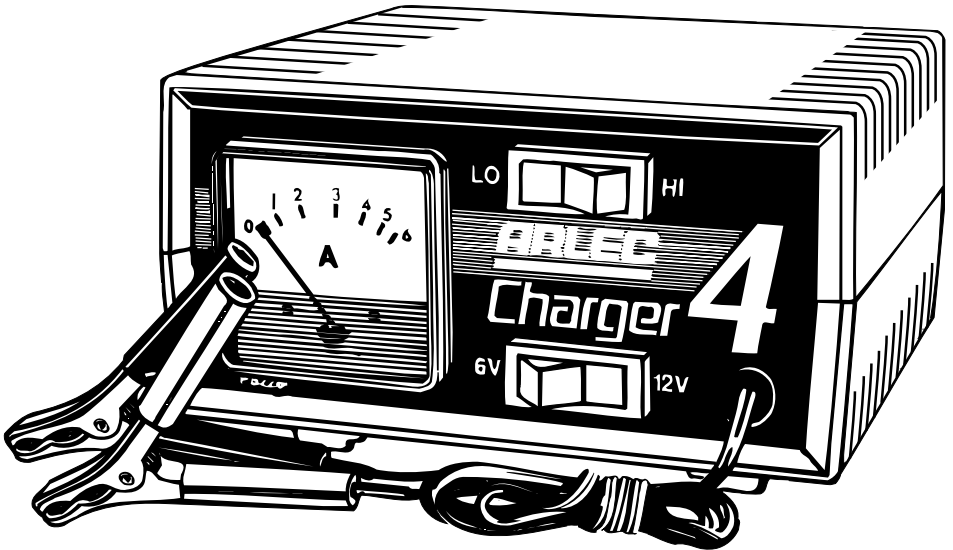


**ARLEC**

# ***Battery Charger* 4**

BC 228

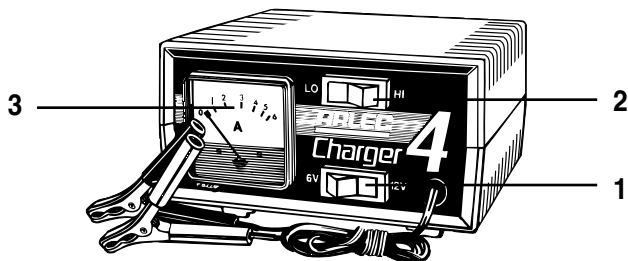


## **OPERATING INSTRUCTIONS**

Important! Please read these instructions carefully.

Please read these instructions carefully before use.

This Arlec Battery Charger 4 is designed to charge 6 and 12 Volt lead-acid batteries used in Cars, Caravans, Campervans, 4-Wheel Drives, Boats, Motorcycles and Ride-on Mowers.



## Control Panel

All the controls are mounted on the front panel of the charger.

1. **Battery selector** switch for 6 or 12 Volt output.

2. **Hi-Lo Charge Switch**

The Hi Charge position is used to quickly revitalise a flat battery.

The Lo Charge position is used to trickle charge batteries which are only used intermittently.

3. **Ammeter**

## Charging a 6 or 12 Volt Battery:

The output leads are fitted with coloured battery clips for easy identification of polarity.

Red for positive (+) and black for negative (-).

1. Ideally, you should remove the battery from the vehicle. If this is not possible disconnect the battery leads. (See User Hints).
2. Select the switch to either 6 or 12 Volt depending on the type of battery to be charged.
3. Remove the battery filler caps and check the level of the electrolyte in the cells. If necessary, top-up with distilled water so the electrolyte is 6mm (1/4") above the top of the plates. Do not replace the filler caps until the charging program has been completed.
4. Select the switch to either Hi or Lo Charge Rate.

### Hi-Boost Charge Rate:

To revitalise a flat battery quickly, set the charge rate to Hi. Once the ammeter reads 2.5 AMPS and providing the battery is in reasonable condition there should be sufficient charge to start the vehicle. Maximum charging time - 24 hours.

### Lo-Trickle Charge Rate:

To maintain a fully charged battery in peak condition, or to increase the charge in a partially discharged battery, set the charge rate to Lo. On this charge rate the ammeter will read 1.0 AMP. The battery should be periodically checked and topped up with distilled water if required. Maximum charging time - 7 days.

5. Connect the clips to the battery terminals ensuring they bite firmly and polarity is correct.
6. Plug the Battery Charger into a regular household powerpoint (240 Volt), and turn power "ON".
7. Note the reading of the Battery Charger's ammeter. (See below for details).

NOTE: During the charging process the battery will be gassing (bubbling) quite freely and emitting hydrogen gas. Do not use a naked flame near the battery.

8. When the battery is fully charged, switch the power "OFF" before removing the clips from the battery.

### **The Ammeter:**

The ammeter provides a useful indication of the amount of charge accepted by the battery. If the battery is completely flat (fully discharged), there may be an initial full scale deflection of the ammeter needle, maintained only for a short period depending on the capacity and condition of the battery. As the battery charges, the needle will move gradually down the scale and stabilise at, or just below the charger's continuous current rating. At this stage the battery will be approaching a fully charged condition.

### **Charging Times:**

1. If the battery is in reasonable condition, it should be sufficiently charged to start a vehicle when the ammeter reads 2.5 AMPS (Hi Charge Rate).
2. Charging a battery on the Hi Charge Rate overnight (12-15 hours) is usually enough to fully charge a flat car battery. Maximum charging time 24 hours.
3. Smaller capacity motorcycle batteries may only need 4-6 hours on Hi Charge Rate to restore the battery to peak condition.
4. On the Lo Charge Rate setting you can trickle charge a battery continuously for up to 7 days.

Note: Do not charge your battery for more than 24 hours as this will cause deterioration of the battery cells.

### **Overload:**

Prolonged charging in excess of the maximum continuous rating may cause the thermal overload switch to operate (switching the charger "ON" and "OFF" automatically until the battery has achieved a satisfactory charge). The ammeter will be "cycling", i.e. dropping to zero then returning to charge position at short intervals. This "cycling" will not cause damage to either charger or battery, unless it continues for more than 2 hours. At this stage you should have the battery checked by a service station, but ensure you cease charging so not to cause damage to the battery or charger.

When the electrolyte in the battery starts gassing (bubbling) freely, the battery is well charged and ready for use.

### **Protection:**

A fully automatic circuit breaker in the output circuit protects the charger against overloads, short circuits and reversed polarity connections to the battery.

## Low Maintenance Batteries:

The characteristics of low maintenance batteries are different from those of ordinary lead acid batteries. Depending on its state of discharge, the low maintenance battery may not register a significant charging current on the ammeter when first connected.

But as the charge progresses, the ammeter will start to indicate an increasing charge rate which will eventually reach a maximum. Then, as with ordinary batteries, the ammeter reading will decrease as the battery approaches full charge.

When fully charged, the low maintenance battery does not gas as much as ordinary batteries. The usual safety precautions should still be observed.

Note: Particular care must be taken when recharging the sealed or low maintenance type batteries. These are easily recognisable as they do not have removable filler caps.

Refer to the battery manufacturer's instructions before attempting to recharge the battery. The table below lists recommended charging times for Low Maintenance Batteries when the Hi Charge Rate is selected and the battery is flat.

<b>Battery Capacity in Amps Hours:</b>	<b>Battery Used in:</b>	<b>Charging Time:</b>
20 Ah	Ride-on mowers	3 hours
30 Ah	Golf buggies	5 hours
35 Ah	4 cylinder cars	6 hours
45 Ah	6-8 cylinder cars	7 hours
65 Ah	4-Wheel drives & trucks	10 hours

### **You should never overcharge a Low Maintenance Battery.**

#### **IMPORTANT NOTES:**

Please read the safety information provided on following page.

This charger is designed to charge 6 or 12 Volt automotive lead-acid batteries of capacity in the range 10 to 100 amp-hours.

Do not attempt to charge batteries of other types

This charger is not to be used by young children or infirm persons without supervision.

Do not allow young children to play with the Charger.

Ideally, disconnect the battery and remove from the vehicle before charging. If this is not practical, ensure that the battery terminal is not connected to the chassis and is connected first to the charger.

The other connection is then made to the chassis, keeping away from the battery and fuel line. Only after connecting switch on the mains supply to the charger.

After charging, switch off the mains supply. Then remove the chassis connection and the battery connection, in this order.

## Safety Information

### When charging or testing lead acid batteries

#### Warning

Working in the vicinity of a lead acid battery is dangerous due to the emission of **explosive gases**. This explosive gases can be ignited by a spark, cigarette or naked flame such as a cigarette lighter or matches.

- Keep sparks and naked flames away from battery at all times.
- Never smoke or light a cigarette near a battery.
- Take extreme care with metal objects and tools including items of jewellery such as rings and watch bands. Metal objects touching the battery terminals may cause sparks or serious heat burns to the user or wearer.
- Do not allow tools to drop on the battery and never temporarily place tools on top of a battery.
- Do not lay battery tester or charger on top of battery or allow the body of the tester or charger to touch the battery terminals.
- When testing or working on or around a lead acid battery it is advisable to wear protective eye glasses.
- When testing or charging a lead acid battery, ensure that the area you are working in has plenty of ventilation. Never test or charge a battery in a confined area.

Lead acid batteries contain Sulphuric Acid. If acid contacts the skin or clothing, flush immediately with large amounts of water.

IN CASE OF ACCIDENTAL EYE CONTACT WITH BATTERY ACID, FLUSH EYES FOR AT LEAST FIVE MINUTES WITH CLEAN WATER. THE EYES SHOULD BE SUBMERGED UNDER WATER AND KEPT OPEN. SEE A DOCTOR IMMEDIATELY. DO NOT USE EYE DROPS OR OTHER MEDICATION UNLESS INSTRUCTED BY A DOCTOR.

## Arlec Guarantee

Arlec guarantees this product against defects of materials and workmanship for a period of 1 year from the date of purchase provided that the product is used in accordance with Arlec's recommendations and within such voltage and current limits as are specified by Arlec in relation to the product. Arlec will at its own option make good, replace with the same or similar product, or provide credit for any product manufactured or supplied by it, which proves to be defective within the limits set out above provided that no repairs, alterations or modifications to the product have been undertaken or attempted, other than by the company or its authorised agents. Should the purchaser wish to make a claim under the guarantee, the product should be returned pre-paid to the place of purchase. This guarantee is in addition to and does not take away from any rights available to the consumer under the Trade Practices Act and the State consumer protection legislation.

### Proof of Purchase

Please retain your purchase receipt for all warranty claims.

# **ARLEC**

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