

# **EXIDE<sup>®</sup>**

**BATTERY CHARGER**

## 12/15



### **USER GUIDE**

**12 V Lead acid batteries 20-300 Ah**

**GB**

# **THANK YOU FOR CHOOSING THIS CHARGER FROM EXIDE TECHNOLOGIES**

Your new battery charger will enable you to keep your battery fully charged and will optimize performance and service life. This charger has been developed to be user-friendly, and contains the latest in charging technology.

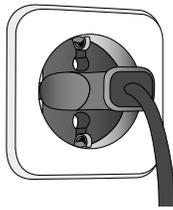
The unit can be stored in its packaging so that you protect the charger, keep cables tidy, keep the user guide safe, and at the same time protect the environment. Discarded packaging can be recycled.

Read the safety instructions and user guide carefully. If you follow the instructions, you will benefit from a high-performance charger that will give excellent service for many years to come.

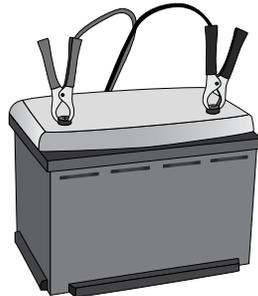
For more information about Exide and our products, please visit:  
[www.exide.nu](http://www.exide.nu) [www.tudor.se](http://www.tudor.se)

Best regards  
Exide Technologies

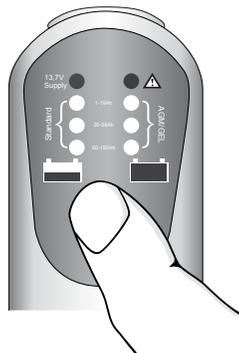
# GETTING STARTED



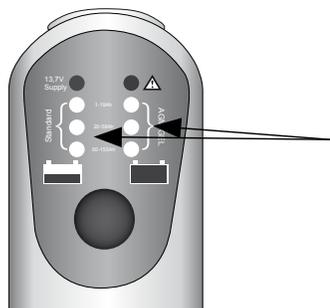
**1. Connect the charger's mains plug to a power socket.**



**2. Connect the charger's red cable clamp to the battery's positive terminal post (+), and the black cable clamp to the battery's negative terminal post (-).**



**3. Select the correct mode, battery size (Ah) and battery technology (AGM/GEL or standard battery), or 13.7 V Supply.**



**4. When the green lamp shines for the select mode, the battery is fully charged.**

This charger can be used as both a battery charger and a power supply with a 13.7 V output (13.7 V Supply). In the charge mode, the charger will first charge the battery, and then maintain full charge with regular charging as long as it is connected. The charger, which features a temperature compensator, provides optimum charging for lead-acid batteries, whatever their type, size, within a range of 20-300 Ah, and temperature. In the "13.7 V Supply" mode, the charger acts as a power supply, and gives a continual power supply of max 15 A at 13.7 V.

# USER GUIDE

(Read through the instructions before use):

1. Read the safety notes and take the stated precautions.
2. Connect the charger's mains plug to a power socket. The lamp on the front of the charger shine.
3. Connect the charger's red cable clamp to the battery's positive terminal post (+), and the black cable clamp to the battery's negative terminal post (-). If the charger is correctly connected, the yellow LED (green LED during 13.7 V Supply) flashes for around 3 seconds. If the cables are incorrectly connected, the red LED lights to indicate a fault. If that is the case, check the connection and adjust accordingly.
4. Select the correct mode (Ah and AGM/GEL or standard battery, see below)\* by pressing the button repeatedly until the LED flashes against the desired battery size and type, or at the "13.7 V Supply", if this function is desired.
5. Charging/power supply will begin automatically after 3 seconds, when the LED will stop flashing and will change to a constant yellow. At the same time, the lamp on the front of the charger will go out; the charging process/power supply is underway.
6. The LED will light a constant yellow until the charge is complete, when the LED changes from yellow to green. In the "13.7 V Supply" mode, the green lamp lights while the function is connected.
7. When the charge is completed, the charger clamps can either be removed from the terminals, or may remain in place for continual maintenance of charge. New periods of charging will then take place automatically at regular intervals.
8. Charging/power supply may be interrupted at any time, by unplugging the charger's mains plug from the power socket.
9. Following completion of the charge, unplug the mains, and disconnect the cable clamps from the battery terminals. Return the charger to its original storage box for safe-keeping when not in use.

\*The battery size (Ah) is usually printed on the battery itself. Batteries are either of type AGM/GEL or standard. AGM/GEL are valve-regulated batteries, where the electrolyte (the acid) is absorbed or is in gel form, and are often clearly marked AGM or GEL. Other batteries are standard batteries.

## SAFETY NOTES

- The charger has been constructed to charge 12 V lead acid batteries or to act as a power supply for 12 V equipment. Do not use the charger for other purposes.
- Do not use the charger if its cables, terminal clamps or casing are damaged.
- Batteries emit explosive gases while they are charging. It is therefore important to ensure good ventilation and avoid sparks and naked flames in the vicinity of the battery.
- Use protective eyewear when working with batteries.
- Battery acid (electrolyte) is corrosive. If eyes or skin come into contact with the acid, rinse immediately with copious amounts of water, and contact a doctor immediately.
- Never charge a frozen battery.
- Never position the charger above the battery during charging.
- Do not cover the charger.
- Note that in the “13.7 V Supply” mode the charger provides a constant output voltage of 13.7 V that in certain circumstances may cause sparking. Be very careful with polarity when using the unit as a power supply. Fix the clamps onto the battery terminals before connecting the unit to the mains supply. Also remember when using the power supply function that you must disconnect the unit from the mains before removing the terminal clamps from the battery.
- This charger is protected against overheating. If the ambient temperature is too high, the charging current is reduced.
- During the charge, the charger may intermittently provide a 15.5 V charge voltage. Ensure that no equipment which may be damaged by this voltage level is connected to the battery during charging.

The product is not suitable for use by persons who lack knowledge or experience, unless they are supervised by, or have received information about how to use the product from a person who is responsible for their safety.

**Do not allow children to play with any part of the product.**

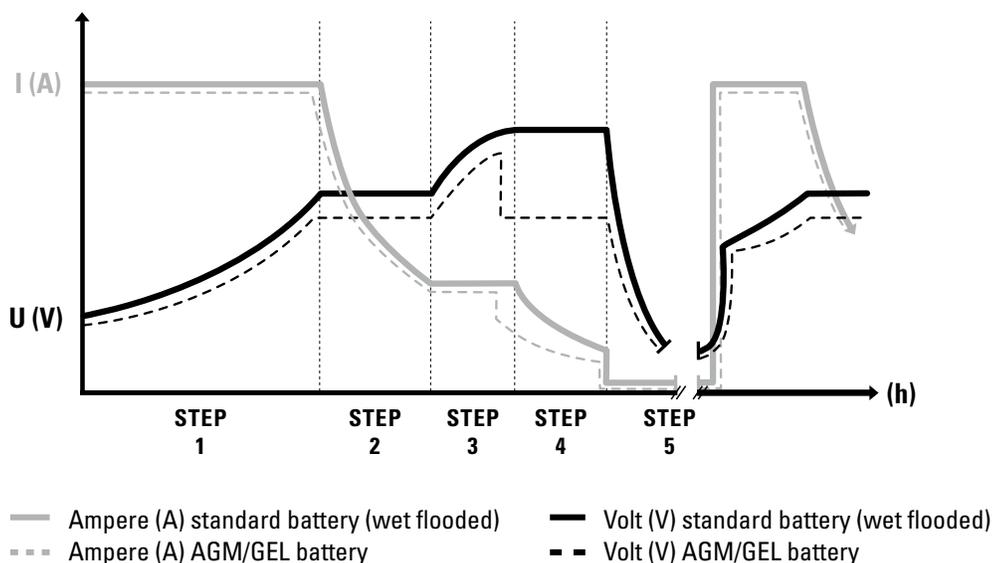
# DESCRIPTION OF FUNCTIONS

The charger is fully automatic and programmed for advanced charging of lead-acid batteries between 20 and 300 Ah. The integrated safety functions that are intended to limit overcharges could interrupt the charge process when charging larger batteries. This applies especially when charging batteries that are larger than approx. 360 Ah.

The unit can be used both as a battery charger and power supply. The power supply is activated by selecting 13.7 V Supply, which provides a constant 13.7 V voltage at max. 15 A. This mode is also used for maintenance charging 12 V batteries.

This product is equipped with a temperature compensator, because temperature is highly significant for batteries' ability to receive charge. The thermal sensor is integrated in one of the terminal clamps. Thanks to our temperature compensation, the common problems involved in insufficient charging in cold weather and overcharging at high temperatures are eliminated.

The charging curve is shown on the accompanying diagram, which shows how the charge is split into five different steps that are adapted to the battery type and size.



The charger must be connected to the battery as described in 'getting started'. After it is connected, it will charge the battery and maintain it fully charged with the continual maintenance charging as long as it is connected to the mains power. In order to minimise the risk of overcharging an incorrect type of battery, the charger

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is equipped with a cut-out function that interrupts the process, at the same time as the fault is shown by the LED shining a constant red. NOTE: This alarm can be triggered when charging batteries that have capacities exceeding the recommended battery size, or in connection with other equipment drawing current (parallel loads) being connected to the battery during charging.

Batteries are damaged when charged at high temperatures. For this reason, the charger features a safety function that terminates charging when the temperature is too high, approx. 50 °C.

Information about faults and fault indications is explained in the table below.

## FAULT INDICATIONS AND TROUBLESHOOTING

- 1. Fault:** The red LED lights when the charger cables are connected to the battery terminals.

**Probable cause:** If the cable clamps are incorrectly connected to the battery, the polarity reversal protection will be activated and charging will not start.

**Action:** Check that the charger is connected using the correct polarity.
- 2. Fault:** Charging does not start, i.e. the lamp continues to shine, and the yellow LED does not change to the steady yellow light.

**Probable cause:** The battery voltage is too low to start the charger. This may be because the battery is worn or faulty or has been completely discharged.

**Action:** Try to connect the 13.7 V Supply mode for a little while (max. 10 min). Restart charging. This usually works if the battery is really heavily discharged, but otherwise in good condition.
- 3. Fault:** Charging started normally, but did not complete. The red LED lights, the yellow LED flashes and charging is terminated.

**Probable cause 1:** Defective battery. The battery has a fault that does not permit it to be charged, e.g. a short circuit.

**Action:** Replace the battery.

Continues on next page.

**Probable cause 2:** Parallel load. If a piece of equipment that drains current is connected to the battery, there is a risk that the capacity of the charger is not sufficient to charge the battery within the time constraints that are built into the charger for safety reasons.

**Action:** If possible, disconnect the parallel load and repeat charging, or purchase a larger charger suitable for both charge and drain.

**Probable cause 3:** Battery is too large. The battery is larger than the recommended size for the charger, which means that the charge could not be completed within the time constraints that are built into the battery for safety reasons.

**Action:** Repeat charging.

**Probable cause 4:** The high temperature cut-out that monitors the battery temperature has been triggered. The reason for the high temperature could be that the battery has an internal fault, or that the ambient temperature is high.

**Action:** If charging is carried out at room temperature, the high temperature is probably caused by a battery fault or wear. The battery should be replaced. If charging is taking place at a high ambient temperature, charging may be resumed when the battery has cooled to room temperature.

**4. Fault:** The lamp does not come on when the charger is power cable plugged into the mains socket.

**Probable cause:** No power in mains socket. Lamp blown.

## MAINTENANCE/ACCESSORIES

The charger is fully maintenance-free. Note that there are no user-serviceable parts, and opening the charger will invalidate the guarantee. If the mains cable is damaged it must be replaced by the retailer. Do not use the charger if its cables, terminal clamps or casing are damaged. The case may be cleaned using a soft, damp rag and a mild detergent. The charger must be disconnected from the mains when being cleaned. The charger is supplied with terminal clamps on each cable. Connecting cables with ring cable connectors for permanent fixture is enclosed in the box.

# TECHNICAL SPECIFICATIONS

**Model:** EXIDE 12/15

EXIDE 12/15 is a primary-switched computer-controlled charger

<b>Input voltage</b>	220-240VAC +/-15%
<b>Input current</b>	2 A
<b>Back current</b>	≤1mA
<b>Charging current</b>	13,7 – 15,5 VDC at 25°C
<b>Charging current Supply</b>	13,7 VDC
<b>Charging current</b>	Max 15 A
<b>Ripple voltage</b>	Max 70 mV
<b>Ambient temperature</b>	- 40 – + 50°C
<b>Cooling</b>	Convection
<b>Type of charge</b>	5 step IUIU + pulse Or 13,7 V (Maintenance charge)
<b>Lead-acid battery types</b>	AGM/GEL, standard batteries
<b>Battery capacity</b>	20 – 300 Ah (Max. 360 Ah)
<b>Cabling</b>	Battery cable 1700 mm Power cable 2x0,75 mm <sup>2</sup> 1800 mm
<b>Dimensions (LxWxH)</b>	315x65x60 mm
<b>International Protection rating</b>	IP54
<b>Weight</b>	0,8 kg

## CE MANUFACTURER'S DECLARATION

Manufacturer: EXIDE Technologies, Kungälv, Sweden  
and Primepower AB, Växjö, Sweden

Product: Battery charger EXIDE 12/15

The manufacturer guarantees that the unit complies with the relevant standards.

Tested and approved by Intertek Semko.

[www.exide.nu](http://www.exide.nu) [www.tudor.se](http://www.tudor.se)

## **WARRANTY**

We guarantee that this product is constructed to the highest quality specifications, and manufactured to the best industrial standard. If the product should prove to be faulty or has damage that can be related to manufacture or distribution, the mandatory guarantee rights apply.

The guarantee will no longer be valid if the charger has not been handled correctly, or opened or repaired by any other than Exide Technologies or its authorized representatives.

Exide Technologies is not responsible for other costs than those stated above, i.e. no potential consequential costs. Nor is Exide Technologies liable under any other warranty than this one.