

## BATTERY CHARGER

A Battery Charger receives AC power from the electric outlet and delivers DC current to the Battery.

CAUTION! - To reduce risk of injury, charge only lead acid type rechargeable batteries.

\* To reduce risk of damage to electric plug and cord, pull by plug rather than cord when disconnecting charger.

\* An extension cord should not be used unless absolutely necessary. Use of improper extension cord could result in a risk of fire and electric shock. If extension cord must be used, make sure:

a) That pins on plug of extension cord are the same number, size and shape as those of plug on charger.

b) That extension cord is properly wired and in good electrical condition; and that the wire size is as specified below:

Length of Cord, Feet	25	50	100	150
AWG Size of Cord	16	14	10	8

### Personal Precautions - Use Safety Glasses

\* Have plenty of fresh water and soap nearby for use if battery acid skin, clothing or eyes.

\* Wear complete eye protection and clothing protection.

\* If battery acid contacts skin or clothing, wash immediately with soap and water. If acid enters eye, immediately flood eye with running cold water for at least 10 minutes and get medical attention immediately.

\* NEVER smoke or allow a spark of flame in vicinity of battery or engine.

\* Remove personal metal items such as rings, bracelets, necklaces, and watches when working with a lead acid battery.

\* Use charger for charging a lead-acid battery only. It is not intended to supply power to a low-voltage electrical system other than in an automotive application.

\* NEVER charge a frozen battery.

### Preparing To Charge -

\* If necessary remove battery from vehicle to charge, always remove grounded terminal from battery first. Make sure all accessories in the vehicle are off, so as not to cause an arc.

\* Be sure area around battery is well ventilated while battery is being charged.

\* Clean battery terminals.

\* Add distilled water in each cell until battery acid reaches level specified by battery manufacturer. Do not overfill.

### Charger Location -

\* Locate charger as far away from battery as DC cables permit.

\* Never place charger directly above battery being charged; gases from battery will corrode and damage charger.

\* Do not set battery on top of charger.

\* Do not expose charger to rain or snow.

#### DC Connection Precautions -

- \* Connect and disconnect DC output clips only after removing AC cord from electric outlet. Never allow clips to touch each other.
- \* Attach clips to battery posts and twist or rock back and forth several times to make a good connection.

#### Follow These Steps When Charging a Battery:

- \* Check polarity of battery posts. Positive (POS, P, +) battery post usually has larger diameter than Negative (NEG, N, -) post.
- \* Attach Negative (Black) clip to Negative post of battery and attach Positive (Red) clip to Positive post of battery.
- \* Do not face battery when making final connection.
- \* When disconnecting charger, always do so in reverse sequence of connecting procedure and break first connection while as far away from battery as practical.

#### OUTPUT CURRENT SELECTOR SWITCH -

2 Amp Position - may be used for any size battery larger than 10-Ampere hours (AH). This position is primarily intended for charging batteries between 10 and 30 AH. These are the types typically used in motor cycles and garden tractors.

10 Amp Position - May be used for batteries larger than 30 AH. If used on smaller batteries, gassing, loss of liquid and over heating may occur.

Start Position - Will assist the battery with up to an additionally 50 Amp while cranking the engine.

This is an intermittent use position and should be limited to a MAXIMUM of 10 seconds on, followed by a MINIMUM of 3 minutes off. For the off period you may switch to either the 2 or 10 Amp position or disconnect from the AC power source. Applications drawing more than 50 Amps may automatically interrupt the output circuit breaker in less than 10 seconds. Do not use this position for charging a battery. For best results charge the battery for 10 minutes in the 10 Amp position before cranking the engine.

#### BATTERY TYPE SELECTOR SWITCH -

This two position switch groups Deep Cycle and Maintenance Free batteries together in one position and conventional type batteries in the other position. The conventional setting regulates the charge voltage at 13.8+/- .2 volts while the Deep Cycle regulates at 14.2+/- volts.