MATSON

BATTERY CHARGER 6V / 12V / 4AMP MANUAL

AEE400 MANUAL

BATTERY CHARGER 6V / 12V / 4AMP

WARNING

To avoid any personal injury, please read the safety instructions below. This manual contains important safety and operating instructions for the AEE400 Battery Charger. Consider ALL safety, warning and caution instructions carefully.

SAFETY

1. This manual contains important safety and operating instructions for this battery charger / maintainer. Please read, understand and follow these instructions and precautions carefully.
2. Use this charger on 6/12 volts LEAD ACID, AGM and LiFeP04 batteries. Do not attempt to use on other voltages and types of batteries (DRY CELL, NICKEL CADMIUM, NICKEL METAL HYDRIDE, etc.) commonly found in small home appliances. This may cause chargers and batteries to burst, resulting in damage or injury to person and property.
3. Do not expose this charger to direct sunlight, rain or snow.
4. If the battery is installed, please make sure that the vehicle is turned off all loads and no loads are presented.
5. Do not use attachments to this charger that are not recommended. Non-recommended attachments may result in injury, electric shock, or fire and voids the warranty.
6. To reduce risk of damage to electric plug and cord, pull by plug rather than cord when disconnecting charger.
7. If it is necessary to use an extension cord, it should be properly grounded cord. Use of improper extension cord could result in a risk of fire and electric shock.
    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.
    c. That wire size is large enough for ac ampere rating of charger as specified in table.

AWG size of cord			
Length of cord, feet (m)			
25	50	100	150
(7.6)	(15.2)	(30.5)	(45.6)
18	18	18	16

SAFETY

8. Do not operate charger with damaged cord or plug–replace the cord or plug immediately.
9. Do not operate charger if it receives a sharp blow, been dropped, or otherwise damaged in any way; take it to an authorised service center for repair.
10. To prevent injury during cleaning or maintenance, disconnect all batteries and move them to clear access to the unit. Unplug this charger from the wall outlet. Use a slightly dampened cloth to clean the housing and lead sets. Do not use solvents or soaps.
11. Store the power cord at a safe location.
12. Never attempt to charge a frozen battery. Allow the battery to return to room temperature before connection. Suggested operation range 0°C (32 F) to 50°C (122F) in ambient temperature.
13. Never use this charger in or on any boat or watercraft directly. You must remove the battery from the boat or watercraft and charge the battery at the properly installed location of this charger.
14. It is not suggested to expose the charger to moisture and should not be subjected to inclement weather.

WARNING - RISK OF EXPLOSIVE GASES

1. Working in the vicinity of a lead acid battery is dangerous. Battery generate explosive gases during operation. For this reason, it is of utmost importance that you follow the instructions each time you use the charger.
2. To reduce risk of battery explosion, follow these instructions and those published by the battery manufacturer and manufacturer of any equipment you intend to use in the vicinity of the battery. Observe cautionary markings on these items.
3. Someone should be within range of your voice or close enough to come to your aid when you work near a lead acid battery.
4. Have plenty of fresh water and soap nearby in case battery acid contacts skin, clothing or eyes.
5. Wear complete eye protection and protective clothing.
6. Avoid touching eyes while working near battery.
7. Be extra cautious to reduce risk of dropping a metal tool onto the battery. It could spark or short-circuit the battery or other electrical parts and could cause an explosion.
8. Remove personal metal items such as rings, bracelets, necklaces and watches when working with a lead acid battery. It can produce a short circuit current high enough to weld a ring or the like to metal causing a severe burn.
9. This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.
10. Children should be supervised to ensure that they do not play with the appliance.
11. 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.
12. NEVER smoke or allow a spark or flame in vicinity of battery or engine.
13. 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 a starter- motor application. Do not use battery charger for charging dry-cell batteries that are commonly used with home appliances. These batteries may burst and cause injury to persons and damage to property.

PREPARATION FOR CHARGING

Risk Of Contact With Battery Acid. Battery Acid Is A Highly Corrosive Sulfuric Acid.

1. Be sure area around battery is well ventilated while battery is being charged. Gas can be forcefully blown away by using a piece of cardboard or other nonmetallic material as a fan.
2. Clean battery terminals. Be careful to keep corrosion from coming in contact with eyes.
3. Inspect the battery for cracked or broken case or cover. If battery is damaged, do not use charger.
4. If the battery is not sealed maintenance free, add distilled water in each cell until battery acid reaches level specified by the manufacturer. This helps purge excessive gas from cells. Do not overfill. For a battery without cell caps, carefully follow manufacturer's recharging instructions.
5. If it is necessary to remove the battery from vehicle to charge, always remove ground terminal from battery first. Make sure all accessories in the vehicle are off to ensure you do not cause any arcing.
6. Determine voltage of battery by referring to car owner's manual and make sure it matches output rating of battery charger.
7. If the battery and terminals have a white or bluish crust on them, the charging system may be having problem. These problems should be corrected before the battery is replaced after charging.

CHARGING WHEN BATTERY IS INSTALLED IN VEHICLE

A spark near battery may cause battery explosion. To reduce risk of a spark near battery:

Position the AC and DC cables to reduce the risk of damage by the hood, door and moving or hot engine parts.

NOTE: If it is necessary to close the hood during the charging process, ensure that the hood does not touch the metal part of the battery clips or cut the insulation of the cables.

1. Stay clear of fan blades, belts, pulleys and other parts that can cause injury.
2. Determine which post of the battery is grounded (connected) to the chassis. If the negative post is grounded to the chassis (as in most vehicles), see step to negative-grounded vehicle. If the positive post is grounded to the chassis, see step to positive-grounded vehicle.
3. Check polarity of battery posts. POSITIVE (POS, P, +) battery post usually has larger diameter than NEGATIVE (NEG, N,–) post.
4. When disconnecting charger, disconnect AC cord, remove clip from vehicle chassis, and then remove clip from battery terminal.

FOR A NEGATIVE-GROUNDED VEHICLE

Connect the POSITIVE (red) clip from the battery charger to the POSITIVE (POS, +) ungrounded post of the battery. Connect the NEGATIVE (black) clip to the vehicle chassis or engine block away from the battery.

FOR A POSITIVE-GROUNDED VEHICLE

Connect the NEGATIVE (black) clip from the battery charger to the NEGATIVE (NEG, -) ungrounded post of the battery. Connect the POSITIVE (red) clip to the vehicle chassis or engine block away from the battery. Do not connect the clip to the carburetor, fuel lines or sheet-metal body parts. Connect to a heavy gauge metal part of the frame or engine block. Connect the AC supply cord to the electrical outlet for processing the charging.

CHARGING WHEN BATTERY IS OUTSIDE VEHICLE

A spark near battery may cause battery explosion. To reduce risk of a spark near battery:

Check polarity of battery posts. POSITIVE (POS, P, +) battery post usually has a larger diameter than NEGATIVE (NEG, -) post. Attach at least a 60 CM-long 6-gauge (AWG) insulated battery cable to NEGATIVE (NEG, -) battery post.

Position yourself and the free end of cable as far away from battery as possible, Then connect the negative (BLACK) charger clip to free end of cable.

1. Connect the POSITIVE (red) charger clip to the POSITIVE (POS, +) post of the battery.
2. Connect the NEGATIVE (black) charger clip to the NEGATIVE (NEG,-) post of the battery.
3. Connect the AC supply cord to the electrical outlet.
4. When disconnecting the charger, always do so in the reverse order of the connecting procedure and break the first connection while as far away from the battery as practical.

NOTE: A marine battery must be removed and charged on shore. To charge it onboard requires equipment specially designed for marine use.

BATTERY CHARGER 6V / 12V / 4AMP

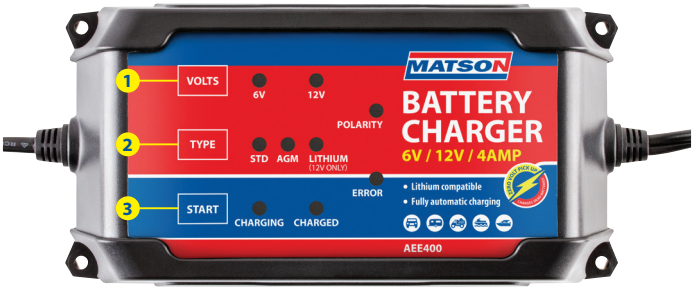
CHARGER / MAINTAINER LOCATION

RISK OF EXPLOSION AND CONTACT WITH BATTERY ACID.

1. Locate charger as far away from battery as DC cables permit.
2. Never place charger directly above battery being charged. Gases from battery will corrode and damage charger.
3. Never allow battery acid to drip on charger when reading gravity or filling battery.
4. Do not operate charger in a closed area or restrict ventilation in any way.

SETTING UP AND OPERATION

WARNING: Do not charge the battery types out of the charger's working capability.



1 Volts	2 Type	3 Start
Choose battery voltage	Choose battery type	Start / Stop charging

BATTERY MAINTAINER SETTINGS

Plug AC power cord into an AC power source. All LEDs will light momentarily, then only the LEDs corresponding to charging settings should stay lit. The charger is in Standby Mode now.

If the ERROR LED lights, disconnect it from AC power source immediately and find the cause of the defect.

CHARGE A BATTERY

1. Choose a battery voltage charge setting. The default setting is the 12V mode, which will apply to most charging applications. To charge in 6V mode, push the charge setting button until the "6V" LED is lit.
2. Choose a battery type setting. To charge Standard and Maintenance Free Flooded Acid batteries, push the Battery Type button until the "STD" LED is on. To charge AGM, push the Battery Type button until the "AGM" LED is lit. To charge a LiFePO4 battery, push the Battery Type button until the "LiFeP04" LED is lit.
3. Press the "START" button and the charging LED will light. The charger will automatically start and complete the charging process.
4. For charging batteries with lower than 1v, press and hold the 'START' button for 3 seconds.

NOTE: If the battery is lower than 1v, the charger will indicate a fault.

5. When the battery is fully charged, the green CHARGED is lit solid
6. When the charging process is finished, disconnect AC power, then disconnect DC leads from battery correctly.

SPECIFICATIONS	
Input Voltage	220 - 240VAC, 50 Hz (E); 110 - 120Vac, 60 Hz (A)
Charging Current	4AMP
Charging Voltage	7.3V / 14.8V
Type of Charger	8 Stage , Automatic Charging Cycle
Type of Battery	6V / 12V STD Batteries / AGM / 12V LiFep04
Protection	Reverse Polarity, Over Temp., Over Current, etc
Dimensions	172(L) X 89(W) X 45 (H) mm
Start Voltage	0V
Operating Temperature	0~50°C, output power is reduced automatically at high Temperatures

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FEATURES

MULTI-STAGE CHARGING PROCESS

The charger uses a Multi-Stage charging process designed to charge and maintain battery. The charging process includes a Soft Start mode to properly charge deeply discharged batteries and is beneficial for the long-term health of your batteries. The last procedure in the charging routine is a Maintenance Mode that allows the charger to be connected to a battery and maintain a proper charge level.

SMART CLAMP TECHNOLOGY

The charger will supply power to the output leads only when a correct connection is done.

MULTIPLE BATTERY COMPATIBILITY

The charger will charge different battery types, including Conventional, Maintenance Free, AGM, Gel Cell, LiFePO4 and Deep Cycle batteries.

MULTIPLE OUTPUT OPTIONS

The charger comes complete with DC output clamps and ring terminals to charge or maintain battery.

REVERSE POLARITY PROTECTION

Reverse Polarity LED will flash, and power will be cut off if the clamps connect reversely.

BATTERY FAULT PROTECTION

Conditions that cause the fault include connecting to a battery with a voltage less than 1V, connecting to a battery with a voltage above 16V in 12V mode (8V in 6V mode), connecting to a battery with a shorted cell or if the charger diagnoses an incorrect voltage selection.

RECOVERY MODE

The charger can protect the interruption of power (power outage). When a power interruption occurs, all LEDs will turn off, except the Battery Type LED, which will blink slowly. After 36 hours, to conserve the charge on the connected battery, all LEDs will turn off. Upon resumption of power, the charger will resume normal operation in the existing settings and status indicators will again be active. For a limited time after the resumption of power, the CHARGED LED will blink to indicate that Recovery Mode had been activated. If the battery's voltage is too low (<6V) to support Recovery Mode, while charging, the Battery Type LED will flash rapidly to alert the user for this condition. Once the battery's voltage increases above 6V, Recovery Mode will again be supported, and the Battery Type LED will stop flashing.

WARRANTY POLICY

Products developed and sold by Tridon Australia Pty Ltd come with a guarantee for the reasonable life of the product, for the purpose it is commonly used. This is in addition to the rights of the consumer under the Australian Consumer Law.

To be considered for warranty please take the product with proof of purchase to the store where you purchased the product or contact Tridon Australia.

The warranty is given by: Tridon Australia, 21-25 Derby St, Silverwater, NSW 2128.

Tel: 1300 362 263.

Email: mail@tridon.com.au

Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and for compensation for any other reasonably foreseeable loss or damage incurred if the product fails when used for the purpose for which it was intended. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.

Tridon Australia will bear costs associated with claiming legitimate warranties. Proof of expenses incurred must be submitted to Tridon Australia Pty Ltd.