MA3400 12/24V JUMP START

MATSON Group

Revision Status

Rev	Revision Change	Topic
20150423	Document Released	
20150825	Clarification on Operation of Jump Start	Operation

Contents

Safety

This manual contains important safety and operating instructions for Matson Group Jump Start range. Read this manual carefully before using.

Consider ALL safety, warning and caution instructions carefully.

Warning

1. The equipment is intended for use by adults and should not be operated by children
2. The jump starter described in this manual is suitable for portable and emergency power applications. DO NOT exceed ratings nominated in the specifications
3. DO NOT attempt to charge or boost a frozen lead-acid battery
4. Ensure the correct polarity before connecting the jump start - not all jump starts are fitted with reverse polarity protection
5. Prevent clamps from touching each other or contacting metal to stop accidental arcing
6. Only use attachments supplied with the equipment - failure to do so may result in personal injury or equipment damage or void warranty
7. When disconnecting power, pull by the plug - DO NOT pull on the power lead
8. Replace a damaged charger power lead immediately. Do not attempt to recharge the jump start if the equipment is damaged
9. Prevent submersion in water
10. Dispose of any faulty batteries in an environmentally responsible manner
11. DO NOT leave the jump start in a total discharge state for any period of time - permanent battery damage can result. When not in use, leave the jump start connected to the supplied battery charger, or recharge monthly and after every jump start performed.

- Wrong voltage selection on jump starts providing both 12v and 24V
- ENSURE YOU KNOW WHAT VOLTAGE YOU ARE WORKING WITH. The wrong voltage selection could result in serious injury and equipment damage.

- Lithium batteries do not generate explosive gasses or contain acid - however, they will be used with batteries that do.
- Avoid contact with damaged lithium batteries
- Apply the following safety notices when working with batteries.

	Avoid contact with battery acid - it is highly corrosive, causing burn injuries and equipment damage.
	Wear safety glasses to prevent eye injuries. If acid contacts eyes - flush immediately with cold water for 10 minutes, and seek medical attention Avoid contact with lithium.

	Wear protective clothing to prevent acid contacting the skin. If battery acid contacts skin - wash immediately with soap and fresh water. Remove all jewellery and personal metal items when working with a lead-acid batteries. Avoid contact with lithium
	• A lead-acid battery can generate explosive gases during normal battery operation. To reduce risk of explosion, follow these instructions, those of the battery manufacturer and of any equipment being used in vicinity of battery • Use the jump start in a well ventilated area. **DO NOT** operate in the vicinity of flammables such as petrol etc • Short circuiting the contacts can generate a spark, creating a potentially explosive situation - take care with tools and components • Never smoke while working with a lead-acid battery. Do not allow sparks or flame near the battery

General Information

Suitable for 12V and 24V systems

Operational and Safety Design Features

The MA3400 jump start provides enough power to start most vehicles and:

1. Is designed for 12V
2. Contains 2 x 500CCA sealed AGM battery
3. Connects to the battery with 32mm² boost cable with copper jaws
4. For optimum performance, do not store below 10ºC when using as a jump starter

Alternative Power Supply

Most vehicles have electronic components - alarm systems, radios, etc whose memory can be lost when the battery is disconnected. The jump start is a useful tool when replacing a battery - connect the jump start clamps to the vehicle battery cables / terminals BEFORE disconnecting them from the battery posts. Vehicle remains powered from the jump start.

- Use only as emergency power.
- Batteries are not intended for cyclic applications - battery life is reduced
- Discharging below 12.2 / 24.4 volts can damage the internal batteries

Multi Purpose Power Source

1. The jump start can power most equipment incorporating a 12 volt DC male adapter. The jump start DC outlet has overload protection. DC power is generated only through the DC outlet
2. Used with an inverter, the jump start can operate appliances normally powered by 240 VAC.
3. A maximum 150 Watt inverter is recommended

Specifications

	MA3400
Cable Length	1.6M - 32mm² (2AWG)
Peak Amps	3400 @ 12V
Cold Cranking Amps - CCA	1000 CCA @ 12 Volt 500 CCA @ 24 Volt

	MA3400
Voltage Options	12VDC
Dead Start	Yes
Voltage and Current Protection	Built in safety monitoring to prevent starting a faulty battery
Reverse Polarity Connection Warning	Red LEDs flash
Weight	20kgs
DC Power Outlet	12V with overload protection
Recharge Capability	From 240VAC using MAC02 charger provided or 12VDC
Batteries	2 high performance Lead Acid
Warranty	1 year

General Information

Initial Charge

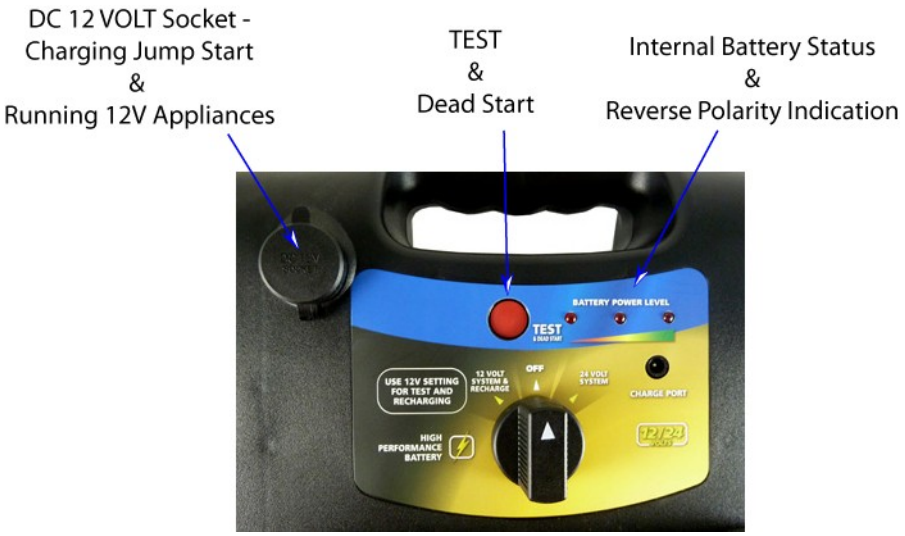
Before using the jump start for the first time, charge the unit for 24 hours, or until the MAC02 Battery Charger supplied with the equipment indicates fully charged.

- Wrong voltage selection on jump starts providing both 12v and 24V
- ENSURE YOU KNOW WHAT VOLTAGE YOU ARE WORKING WITH. The wrong voltage selection could result in serious injury and equipment damage.

Testing MA3400 Charge Status

Check charge status of internal battery - Press and hold TEST button - LEDs indicate charge status

Operation



1. Turn the ignition off before making connections
2. Attach the red / positive + clamp to the battery positive terminal
3. Attach the black / negative - clamp to the battery negative terminal – you should hear an audible click from the solenoid and the BATTERY POWER LEVEL leds light – this indicates the connections are correct and the battery to be started has enough residual power.

3 Red BATTERY POWER LEVEL leds flashing indicates:

- Incorrect voltage setting 12V / 24V, or
- Clamps are reverse connected - Reconnect correctly

4. Ensure cables are clear of moving components.
5. If you didn't hear the audible click - press and hold TEST & DEAD START button until you hear an audible click and BATTERY POWER LEVEL leds light at the Jump Start
6. Keep people clear of the battery area
7. Turn vehicle ignition on. **If vehicle does not start after 6 seconds,** allow the MA3400 to cool for 3 minutes before attempting to restart the vehicle. This avoids damage to the unit.
8. Once started, **disconnect the black / negative clamp from the battery negative terminal first**. Then remove the red / positive clamp.

Leave the MA3400 on charge when not in use - the MAC02 is a Charger / Maintainer and will maintain the batteries in peak condition longer.

MAC02 Charger

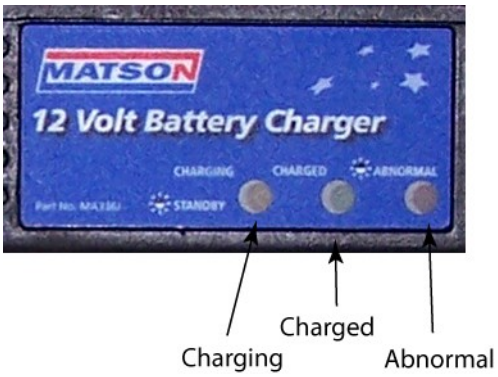
General

The MAC02 Battery Charger is a fully automatic microprocessor controlled battery charger / maintainer.

Leave the Jump Start on charge when not in use - the MAC02 is a Charger / Maintainer and will maintain the batteries in peak condition longer

MAC02 Basic Operation

1. Ensure the MAC02 and the Jump Start are switched OFF before connecting the MAC02
2. Plug MAC02 male plug into the 12VDC socket on the front of the Jump Pack
3. Connect the MAC02 charger to 240VAC and switch power on
4. Switch the Jump Start to the 12V or ON position for charging
5. MAC02 starts charging when it senses the battery voltage. CHARGING LED is solid red.
6. ABNORMAL LED flashes amber if the MAC02 detects a problem with the battery.
7. When the battery is fully charged - CHARGE LED is solid green.



When connected to 240VAC, the CHARGING LED flashes red to indicate the charger has power.

Maintenance and Fault Finding

Maintenance

1. Keep the jump start fully charged
2. Recharge upon purchase and immediately after each use
3. Recharge if not used for two months
4. It is recommended to continuously the jump pack - the unit will not be damaged

Troubleshooting

Problem	Possible Solution
Charger works, but there is no volt charge on the display when the Switching Power Charger is connected to the jump pack	1. Possible defective battery or faulty switch. Try using a device - light, TV, etc with a DC plug on it to see if it works 2. If it works, the jump start battery is operational and the switch may be faulty
Charger comes to full charge, but display indicates low voltage	1. Jump start has a defective battery - could be the result of intense use without allowing a cool down period
Jump start is fully charged, but has no power	1. Check where the wire meets the jaw on the jump start clamp. Ensure they are well crimped, or 2. Ensure power switch is in the ON position. 3. There is no voltage on the clamps until connected to the battery terminal

Frequently Asked Questions - FAQ

Q: How many jump starts can I expect from a fully charged unit before needing to be recharged?

A: Depends on the engine type and size, condition of battery and temperature - the jump start may be used up to 20 times before recharging in normal use environments.

Q: What is the ideal jump start storage temperature?

A: The jump start operates most effectively when stored at room temperature. The unit also operates at below 0º conditions, but with less cranking power. Excessive heat accelerates self discharge.

Q: When recharging the unit, when do I know the jump start is fully charged?

A: Check MAC02 Operating Instructions

Q: How long should I charge the jump start?

A: Charge the jump start for a minimum of 24 hours when first purchased. The unit can be left on the wall charger continuously without damaging the unit.

Q: Can the self contained battery be recycled?

A: Yes - refer to REMOVAL AND DISPOSAL instructions

Q:How often should I charge the MA3400?

A:Leave the MA3400 on charge when not in use - the MAC02 is a Charger / Maintainer and will maintain the batteries in peak condition longer

MA3400 Battery Removal

- The MA3400 internal battery is sealed lead acid battery.
- Recycle / dispose of batteries in accordance with the applicable regulations.

Battery Removal Procedure

1. Take clamps and cable assemblies from the housing compartments
2. Gently lever off the side compartment doors from the main housing
3. Place the jump start front side down.
4. Locate and remove the screws on the back
5. Remove rear cover
6. Disconnect the internal battery connections from the terminals. Prevent accidental arcing by protecting the terminal not being removed
7. Lift the battery from out of the enclosure.

Warranty

Warranty Against Defects Procedure

Matson Group Pty Ltd

100 Links Rd, St Marys, NSW 2760

Phone: 02 98333444

Email: sales@matson.com.au www.matson.com.au

Warranty

Matson warrants its products to be free of defects for reasonable consumer use for a period of 12 months. Matson will repair or replace the warranted product and it will return the repaired products under warranty to the consumer at Matson's cost.

To make a claim under this warranty, the consumer must:

- Advise Matson of the defect as soon as it becomes apparent within 12 months of the purchase date and obtain a return authority by phoning Matson on the above number
- Provide satisfactory proof of purchase; and
- Send the faulty item to the address supplied above. All expenses related to sending the products back to Matson are at the consumer's cost.

Exclusions from Warranty

This warranty does not apply to products where:

- There is evidence of Improper maintenance or abuse to the products
- The products have been exposed to harsh environmental conditions or those outside the specified operating conditions
- Unauthorised modification is evident to the products or misuse of products
- Operation outside the products specification.

Warranty Disclaimers

Matson's liability in respect of a breach of a consumer guarantee or any warranty made under these warranty terms and conditions for any products not of a kind ordinarily acquired for personal, domestic or household use is limited, in relation to the products to the extent permissible by law and at it's option to:

- Replacing the products or the supply of equivalent goods
- The repair of the products
- The payment of the cost of replacing the products or of acquiring equivalent goods; or
- The payment of the cost of having the products repaired.

To the extent permitted by law, all other warranties whether implied or otherwise, not set out in these warranty terms and conditions are excluded and we are not liable in contract, tort (including, without limitation, negligence or breach of statutory duty) or otherwise to compensate the customer for:

- Any increased costs or expenses
- Any loss of profit, revenue, business, contracts or anticipated savings
- Any loss or expense resulting from a claim by a third party; or
- Any special, indirect or consequential loss or damage of any nature whatsoever caused by Matson's failure in complying with its obligations.

MATSON IS NOT RESPONSIBLE FOR DAMAGE THAT OCCURS AS A RESULT OF YOUR FAILURE TO FOLLOW THE INSTRUCTIONS INTENDED FOR THE MATSON PRODUCT

In the following paragraph, "Our" means Matson and "You" means the customer:

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. 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.

The benefits given to the customer in this warranty are in addition to other rights and remedies under a law in relation to the products to which this warranty applies.

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