



23295

T-Mech
Battery Charger
& Engine Starter



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Specification

Product Description

The T-Mech Battery Charger & Engine Starter can be used on cars, vans, trucks, lorries, motorcycles and boats.

Able to charge both 12 and 24V batteries, this charger & starter can be used by serious DIY-ers and mechanics.

The charging current delivered by the battery decreases according to the characteristic W bend - see DIN 41774 norm.

The battery case has a protection degree of IP 20 and is protected against indirect contacts by an earth lead as foreseen for class 1 equipment.

Check for available mains voltage to that indicated on the front panel of the battery.

We at Monster Group UK understand this is a new and exciting purchase, and although it is tempting to get stuck in please carefully read these instructions before you start using the machine.

Please Note: The T-Mech Battery Charger & Engine Starter is designed to be used by a competent person. It should not be used or stored in direct sunlight, warm environments, wet or damp conditions.

Please refer to and read Safety Advice, Safe Working Practice to ensure prevention of injury or damage to the device before starting.

Specification

Technical Information

Voltage: 230V Single Phase

Input Power: 1000W

Rated Charge Current: 30A

Starting Current: 180A

Reference Capacity Ah15h (min/max): 40-700

Frequency: 50/60Hz

Charge Voltage: 12/24V

Maximum Current: 45A

Product Specifics

Dimensions: 32cm deep x 25cm wide x 57cm high

Weight: 14.8kg

Monster Guarantee

If you wish to return a product in perfect working order, we provide a 30 day returns policy as long as the item is unopened and in a resalable condition.

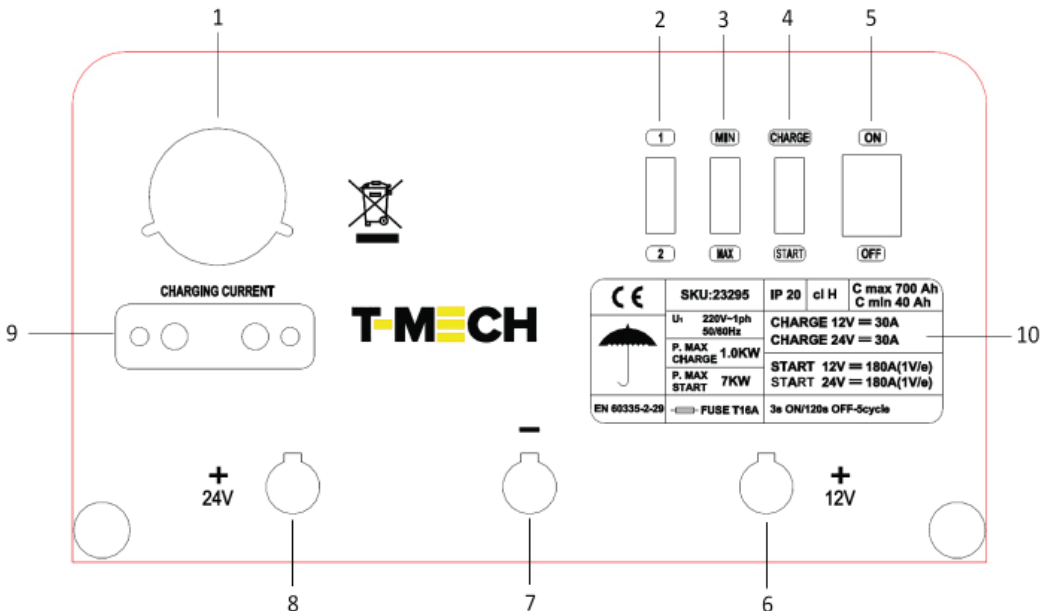
A 12 month warranty applies to all of our electrical products; we will cover the cost of labour and parts. Our policy is to try and repair the item before arranging an exchange or refund.

If for any reason a part is missing please get in touch with us within 7 days on receipt of your order. You can contact our friendly and helpful Customer Support Team via email or call. For full terms and conditions contact our Support Department via the details on the Contact Us page.

Specification

Product Features

- 1) Ammeter
- 2) Power Setting switch
- 3) MIN/MAX switch
- 4) CHARGE/START switch
- 5) ON/OFF switch
- 6) 12V Positive Clamp Post
- 7) Negative Cable
- 8) 24V Positive Clamp Post
- 9) Fuse
- 10) Charger Specifications
- 11) Handle
- 12) Outer Casing
- 13) Ventilation Grilles
- 14) Wheels



Specification



Safety Advice

Safe Working Practice

Please read through the safe working practice to ensure prevention of injury or damage to the device.

The battery charger mains cable should be connected only and exclusively to a power source which is earthed.

During charging the battery produces flammable gases, avoid exposing this charger to naked flames and sparks.

Do not use this battery charger in damp conditions or during wet weather.

Disconnect the mains cable before connecting to or disconnecting the charging cables from the battery.

Do not use this charger if any of the cables show any signs of damage.

This battery charger has components such as switches and relays which can cause arcs or sparks. Therefore when using it in a garage or in a similar place set the battery charger in a well ventilated place.

Set the battery charger on a solid base in its usual upright position.

Never use the battery charger inside the car or in the bonnet.

Set the battery charger as to provide adequate ventilation. Never cover the battery charger or put anything directly on top of it.

Strictly follow the instructions of vehicles manufacturers before using the battery charger.

If the fuse or fuseable leads blow, replace them with those of the same value as stated on the front of the T-Mech Battery Charger & Engine Starter with the

 symbol.

Repair or maintenance of the inside of the battery charger can only be executed by skilled technicians.

Only substitute the mains cable with an original one.

Safety Advice

Safe Working Practice

Before charging, if the voltage of the battery is below 9V, check that the battery is holding charge and all cells are in order.

We recommend the MIN setting, especially when charging fully discharged batteries, this may take up to 10 hours.

Do not use the battery charger to charge batteries which are not rechargeable.

Before charging check that the capacity of the battery (Ah) which is to be charged, is not different to that which is shown on the Specification table on the front of the charger (C min and C max).

Use maximum caution when checking the electrolyte levels in a STANDARD battery, as the electrolyte is a highly corrosive acid.

If charging a LOW or NO MAINTENANCE battery, charge slowly and monitor the voltage at the battery clamps using a voltmeter.

Ensure the termination points are clean before charging and make sure the battery has sufficient airflow.

“Before Charging” checks should be done prior to each use or periodically if the machine is not used on a regular basis.

When using the “Starting” function, please check the vehicle manufacturer instructions.

Do not charge the battery for longer than necessary.



User Guide

Assembly Instructions

These instructions are to help you when assembling the T-Mech Battery Charger Wheels.

- 1) Thread the metal rod through the middle of one of the wheels.



- 2) Once threaded through, place the metal spacer around the metal rod. Use pliers to fasten it tightly around the rod.



- 3) Push the metal rod further through the wheel until it looks like the picture below.



User Guide

Assembly Instructions

4) Use the wheel cover to shield the metal rod.



5) Now thread the metal rod through the hole at the bottom of the battery charger.



6) Make sure the rod appears through the other side.

7) Fix the other wheel onto the other side of the rod. Follow the same procedure above.

User Guide

Before Charging

Perform these checks before using the machine for the first time and at the start of each work session.

- 1) Before charging check that the capacity of the battery (Ah) which is to be charged, is not different to that which is shown on the Specification table on the front of the charger (C min and C max).
- 2) Thoroughly inspect the charger for any signs of damage. Check all components are present and secure.
- 3) Check the cables for signs of damage.
- 4) Make sure the working area is well lit, clear and the operator has enough space to use the machine
- 5) Ensure the termination points are clean and the area has sufficient air flow.
- 6) Do not expose the working area to naked flames or hot sparks.
- 7) If charging a STANDARD battery (with caps) - remove the caps of the battery to be charged, to let the produced gases out. Check that the level of the electrolyte covers the plates of the battery. If they are not covered, add distilled water to cover them up to 5-10mm.

Use maximum caution when checking the electrolyte levels in a STANDARD battery, as the electrolyte is a highly corrosive acid.

Please remember: the correct charging status of the STANDARD battery can be determined by using a hydrometer which permits to measure the relative density of the electrolyte. The following density values (kg/a at 20°C) are given as a reference point:

- 1.28 = loaded battery
- 1.21 = half-loaded battery
- 1.14 = no loaded battery

User Guide

Charging Instructions

1) Perform all checks in the “Before Charging” section prior to each use of the machine.

2) With the mains cable disconnected from the mains power supply, set the CHARGE/START switch to the “CHARGE” position.

3) According to the voltage of the battery remove the cap from either the 12V or 24V clamp post. Connect the end of the positive clamp to the appropriate clamp post and the positive clamp to the positive terminal (+) on the battery.

Then connect the negative clamp (-) to a suitable earth point on the vehicle.

4) Set the Power Setting switch and the MIN/MAX switch to the desired charge rates - most batteries will require the Power Setting switch at position “1” and the MIN/MAX switch at position “MIN”. This will provide a deeper charge, which is best for batteries that are fully discharged.

Please note: A complete charge is best done slowly in order to protect your battery, so we recommend the MIN setting as described above - this may take up to 10 hours.

5) Connect the mains cable to the power supply and set the ON/OFF switch to the “ON” position.

The ammeter of the battery charger will indicate the current delivered towards the battery at the beginning of the charge. During the charge the point of the ammeter will decrease slowly to the very lowest values according to the capacity and condition of the battery.

6) Adjustments can be made to the charging rate by switching from MIN to MAX and switching the Power Setting switch to the 1 or 2 position where appropriate i.e. 4 charging rates are possible here - MIN & 1, MIN & 2, MAX & 1, MAX & 2 (continued on the next page).

User Guide

Charging Instructions

7) Keep the battery on charge until the ammeter reaches zero or has stopped moving to the lowest point. Then switch OFF the machine.

8) ALWAYS disconnect in the following order: first disconnect the mains cable from the power supply, then disconnect the negative clamp (-) from the earthed point and finally the positive clamp (+) from the battery terminal.

9) Store the battery charger in a dry place. Remember to replace the caps of the battery removed during the 'Before Charging' (in STANDARD batteries).

Maintenance

Please note: Before any maintenance is carried out ensure the appliance is unplugged. If any fault is discovered contact our Support team via the details on the Contact page.

Keep the ventilation grilles free from dirt and residue so that the charger can cool adequately.

Always store this machine in a dry place.

Do not place anything directly on top of the charger.

Ensure the termination points are clean before each use.

Check the cables for any signs of damage.

User Guide

Starting Instructions

Before using the 'START' function, please check the vehicle's manufacturer instructions. Starting an engine using a starter machine is necessary when the accumulator/battery doesn't have enough energy to start the motor.

In this case, energy can be obtained by connecting the T-Mech Battery Charger & Engine Starter to a mains power supply and switching the CHARGE/START switch to the START position.

NOTE: We recommend that before attempting to start an engine, you should charge the battery for 10-15 minutes. This will improve the chance of a first time start, particularly with bigger engines.

When the battery is completely flat, you MUST charge the battery for 10-15 minutes before attempting to start, otherwise you may cause damage to the vehicle electronic systems.

Please follow the "Charging Instructions" when charging the battery prior to starting.

- 1) Check that the ON/OFF switch is in the OFF position.
- 2) Connect the cables as for normal battery charging - see 3) Charging Instructions.
- 3) Set the Function switch to the START position.
- 4) Switch the power switch on to the ON position.
- 5) Follow this START CYCLE rule for starting the ignition:

3 SECONDS START IGNITION - Turn the key to start the vehicles ignition and hold for 3 seconds.

120 SECONDS IGNITION OFF - Leave the ignition off for 120 seconds

REPEAT

Complete this cycle 5 times (continued on the next page).

User Guide

Starting Instructions

IMPORTANT: If the engine fails to start after the START CYCLE - shown in 'Starting Instructions' (i.e 3 seconds ON, followed by a period of 120 seconds before retrying), you MUST return the CHARGE/START switch to CHARGE position.

Failure to do this could damage some of the vehicle's electronic equipment, the battery, and possibly the T-Mech Battery Charger & Engine Starter which may invalidate your warranty.

Thermal Overload

The T-Mech Battery Charger & Engine Starter is provided with a Thermal Overload cut-out.

If the START CYCLE is exceeded, or should the unit overheat for any reason, the thermal overload will intervene and switch off the machine.

If this occurs, wait for 15- 20 minutes, depending upon the ambient temperature, before attempting to reuse.

To disconnect after the machine has been switched off by the thermal overload, ALWAYS disconnect in the following order: First disconnect the mains cable from the power supply, then disconnect the negative clamp (-) from the earthed point and finally the positive clamp (+) from the battery terminal.

Then reconnect as before - see 3) Charging Instructions before continuing with the Charging or Starting Instructions.

Troubleshooting

Resolution Guide

Please read through the guide below if you have any issues or faults with your T-Mech Battery Charger & Engine Starter.

Q: There are parts missing from my order

A: If there appears to be any part missing from your T-Mech Battery Charger & Engine Starter package contact our Customer Support team via the details on the Contact Us page.

Q: My T-Mech Battery Charger & Engine Starter will not turn on.

A: Check if the charger is plugged only and exclusively to a power source which is earthed. Also try plugging into a different power source or plug socket to ensure the power supply is not faulty.

If you are operating in a warm environment, have used the charger continuously or for long periods of time then the thermal overload may have activated, causing the charger to temporarily switch off. Allow 15-20 for it to cool down before restarting.

If this is not the case please contact our helpful Support team via the details on the Contact page.

Q: There is no reading on the Ammeter or the needle does not move during charging.

A: Ensure that there is not a bad cell within the battery. Then check the battery terminals and clamps are clean, so to make a good connection, whilst also checking that the correct clamps are connected in the correct places - refer to the Charging Instructions.

If the problem persists please contact our helpful Support team via the details on the Contact page.

Troubleshooting

Resolution Guide

Q: The ammeter reading remains high.

A: Verify the output voltage of the charger (12V or 24V) matches the voltage of the battery.

If the problem continues, this means the battery is fully discharged and you should continue charging the batter for a further two hours.

If the problem continues the battery needs to be checked by a professional mechanic to ensure there is not a bad cell.

Q: The ammeter reads less than the selected charge rate when charging a fully discharged battery.

A: Continue to charge the battery as it may only be partially discharged.

If the problem continues there may be a weak cell or a sulphated plate in the battery, it will need to be checked by a professional mechanic.

The thermal overload will switch the machine off if the circuit board gets too hot, this can happen when it has been used constantly for a long period of time. Leave the machine to cool down for approximately 15-20 minutes and check that the ventilation grilles are not blocked as any blockages may cause the circuit board to overheat.

Any problems with your battery should be checked over with a professional mechanic, if the T-Mech Battery Charger & Engine Starter is not working as it should then please contact our helpful Support team via the details on the Contact page.

Contact Us

Sales Department

For information regarding this device or other products from our Monster divisions please use the following details below.

Tel: 01347 878888

Email: hello@monstershop.co.uk

Support Department

For queries about this device, warranty, returns or reporting faults please use the following details below.

Tel: 01347 878887

Email: help@monstershop.co.uk

Website

To view our product range and fantastic offers in the Monster divisions please visit our website

www.monstershop.co.uk

Address

To visit our office Monster House and view our products, send postal correspondence or return items our address is provided below.

Monster House, Alan Farnaby Way, Sheriff Hutton
Industrial Estate, Sheriff Hutton, York YO60 6PG



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