

1. GENERAL WARNINGS



Before to use the tool, please read carefully the instruction contained in this manual.

Improper or unsafe use of this tool can result in death or serious bodily injury.

This manual of instructions constitutes an integral part of product and it has to be edited by the end user for every possible future consultation. It contains important informations about the safety use of the product.

Usage destination.

This tool and its accessories, must only be used for the purpose for which they have been conceived. A different use from that one suitable could cause damages to people, animals or things and it's considered improper and unreasonable action. The producer can't be considered responsible for possible damages caused by improper, wrong and unreasonable uses, as, for example, the unobservance of the safety instruction, the use of no original accessories and operation not authorized on the product.





2. TECHNICAL FEATURES

Input voltage:	230 V
Frequency:	50 – 60Hz
Pickup current:	1800 A/peak
Internal battery:	12 V – 18 Ah
Starting power:	600 A
Starting voltage:	12 V
Battery charger capacity:	12 V – 0,5 Ah
Charging voltage:	max 14,9 V
External fuse:	-
Internal power switch:	20 A
Number of batteries:	1
Overvoltage protection:	yes
Sealed battery:	yes
ABS case:	yes
Automatic charger:	yes
Car adaptor:	yes
Fully isolated clamps:	yes

3. IMPORTANT SAFETY WARNINGS

When using this air tool, the following basic safety precautions should always be followed to reduce the risk of personal injury:

	<p>Always wear safety glasses with side shields (DP I- Dir ,89/686/EEC)</p>
	<p>Always use original accessories. The use of accessories not recommended or sold by the manufacturer of the starter may cause the damage of the unit or personal injury.</p> <p>When using the charger or charging cable, pull on the plug and NEVER on the wire when disconnecting.</p> <p>Do not recharge the starter with a damaged plug or cord. Replace them with a new one immediately.</p> <p>The starter can be used under any weather condition: rain, snow, hot or cold weather. Do not submerge in water.</p> <p>NEVER operate in an explosive environment and/or with flammables (gasoline, naphtha, gas etc.)</p> <p>NEVER bring the red and the black clamp into contact or allow them to contact the same piece of metal to avoid any short-circuit.</p> <p>ALWAYS put the clamps in their holders when not in use to prevent a short circuit.</p> <p>NEVER operate the starter when it is damaged or has suffered heavy blows. Before operating, have it checked by qualified technicians.</p> <p>NEVER try to repair the starter by yourself when defective, but always have it repaired by your distributor (otherwise warranty will not be given).</p>



ATTENTION

NEVER leave the starter too long without recharging it. Severe damages caused by this are probably not repairable.

IMPORTANT NOTE:

When the starter is unused for a long period, it is absolutely necessary to recharge it at least every 3 months with the supplied accessories.

It's recommended to keep always it connected to the automatic charger.

4. GENERAL FEATURES

1. The accumulator of this starter delivers a peak in the first seconds of initial starting, then it delivers a continuous power that is sufficient to start the majority of petrol or diesel engines. It's protected for the voltage in order to safeguard the units of the cars.
2. Thi starter is equipped with a sealed, non-spillable, lead acid battery with solid Electrolyte (AGM) according the I.A.T.A standards.
3. The two clamps are fully isolated with six-wire copper cable.
4. Multifunction electric power supply. Usable with 12V car adaptor. Protection by an automatic thermal switch.

5. SAFETY FEATURES

1. The two clamps (which have a positive (red) and a negative (black) current) are fixed on special copper holders that are equipped with a rubber cover ensuring the maximum safety. Place always the two clamps on their holders when they are not used in order to avoid any short-circuit.
2. The guide slots block the cables preventing unnecessary slack and fouling.
3. This starter can be used and /or placed in any position. Infact it is equipped with a sealed battery that not permit the electrolite leakage.

6. CHARGER LEVEL

To check the starter charger level press the botton TEST for 20 seconds:

- 5 LIGHTED LEDs = FULLY CHARGED with unit connected to the charger.
- When the unit is disconnected from the charger only 4 LEDs remain lighted.

7. METHODS TO RECHARGE THE STARTER

There are the following 3 methods to recharge this starter:

1. **RECHARGE WITH WALL ADAPTOR.** Put the plug of the supplied wall adaptor in a 230V and insert the connector in the 12V socket of the starter for charging. Charging time: 12 hours.
2. **RECHARGE WITH CAR ADAPTOR.** While driving by using the supplied charging cable connected to the cigar lighter socket of the vehicle. (It's recommended that the vehicle should be starter before plugging the cable in the cigar lighter socket). Charging time: 3~4 hours.
3. Once the vehicle is started, leave the clamps connected to the vehicle for 3 to 5 minutes so that the dynamo of your vehicle can recharge the starter.

A fully charged starter can performe from 1 to 30 jump-starts before needing to be recharged. It's depend from different parameters: temperature, general condition of the vehicle, engine size and type, etc...

8. OPERATING INSTRUCTIONS

USE AS AN EMERGENCY BATTERY BOOSTER:

1. Wear ALWAYS protective glasses.
2. **As first** connect the positive (red: +) clamp to the positive terminal of the vehicle battery that need to be recharged.
3. **THEN** connect the negative (black: -) clamp to the negative terminal of the engine or to the frame of the vehicle (ground).



WARNING

ALWAYS make sure that cables are not in the path of moving belts or fans, etc.

4. Stay away from the battery and from the starter while jump-starting and make sure that the starter can not fall in the vehicle engine .
5. Once that the vehicle engine is started: unplug the connector and disconnect as FIRST one the black clamp (negative: -) and THEN the red clamp (positive: +)
6. Store the two clamps in their respective holder immediately.

WARNING

START ATTEMPS ALWAYS MUST BE VEY SHORT. If the engine of the vehicle doesn't start within 20 seconds, DO NOT INSIST. Allow to cool the internal battery of the starter for at least 3 minutes before trying to start the engine with the starter. Otherwise damage to the unit may accur.



IMPORTANT NOTE: It's impossible for the starter to start a defective battery.

USE AS VEHICLE MEMORY SERVER

This vehicle starter is an essential tool to change the battery of a vehicle in all its uses.

A lot of vehicles are equipped with electronic components endowed of a memory (alarm systems, computers, radios, phones, etc.). The memories are get lost changing the vehicle battery.

However, memories can be saved plugging, before to proceed with the changing of the vehicle battery, the supplied charging cable (12V) from the starter unit to the cigar lighter outlet on the vehicle. For some car models ignition must be switched on, using ignition key.

USE AS PORTABLE MULTI PURPOSE POWER

This starter is also suitable as a portable power source for all 12Vdc accessories equipped with a male cigar lighter plug. The 12V outlet has an automatic overload protection of 20A.

When the BATTERY BOOSTER is used with an inverter, it can operate appliances normally powered by 220V.

9. TROUBLESHOOTING

IF THE STARTER DOES NOT CHARGE

Check if charger is charging. Charger should be warm. Otherwise check if the fuse inside the cigar lighter plug of the charger is not defective.

IF CHARGER WORK WELL BUT THE STARTER IS NOT BEING CHARGED

The battery could be defective. Reason: intensive use without allowing a cool down period.

IF THE STARTER IS CHARGED AT FULL BUT IT DOES NOT WORK

Check where the cable is connected to the jaws on the starter's clamps and make sure they are properly connected to the battery terminal.

IF CONNECTING A 12V ACCESSORY THROUGH THE CIGAR LIGHTER OUTLET ON THE STARTER YOU HEAR A CLICKING

The plug on the accessory may be defective causing the automatic breaker to go off.

10. STORAGE

The storage temperature of this starter must be the environment temperature. If you store the starter in an environment with a temperature under the zero, the starter will work but it will be less powerful. A high environmental temperature will drain the unit battery more fast.

11. DISPOSAL INFORMATIONS

When the tool is not usable and not repairable, dispose it according to regulations of the place in order to safeguard the environment.

12. EC DECLARATION OF CONFORMITY

This product complies with the dispositions of the following European Directives and Harmonized Standards:

2006/95/EC
(LVD)

EN 60335-1:2002/A14:2010
EN 60335-2-29 :2004/A2:2010
EN 61558-1:2005/A1:2009

2004/108/EC
(EMC)

EN 55014-1:2006/A1:2009
EN 55014-2:1997/A2:2008

Year of affixing the CE marking	12
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13. WARRANTY

This tool is warranted to be free from defects in materials and workmanship (for a normal use of service) for a period of one year.

Any tool found defective within one year from the delivery date and returned to the factory with transportation charges prepaid, will be repaired, adjusted, or replaced at no charge to the original purchaser. This warranty doesn't cover expandable items such as batteries or fuses.

If the defect has been caused by a misuse or abnormal operating conditions, the repair will be billed to the customer at a nominal cost.