

AUTOOL EM365

Inverter Programmed Power

User Manual 用户手册





深圳市偶然科技有限公司

广东省深圳市宝安区航城锦驰产业园

Nangcheng Jinchi Industrial Park, Bao'an, Shenzhen, China

€ www.autooltech.com

© +86-755-2330 4822 / +86-400 032 0988

执行标准/Execution standard: GB4943.1-2011









COPYRIGHT INFORMATION

Copyright

- All rights reserved by AUTOOL TECH. CO., LTD. No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, without the prior written permission of AUTOOL. The information contained herein is designed only for the use of this unit. AUTOOL is not responsible for any use of this information as applied to other units.
- Neither AUTOOL nor its affiliates shall be liable to the purchaser
 of this unit or third parties for damages, losses, costs, or
 expenses incurred by the purchaser or third parties as a result
 of: accident, misuse, or abuse of this unit, or unauthorized modifications, repairs, or alterations to this unit, or failure to strictly
 comply with AUTOOL operating and maintenance instructions.
- AUTOOL shall not be liable for any damages or problems arising from the use of any options or any consumable products other than those designated as original AUTOOL products or AUTOOL approved products by AUTOOL.
- Other product names used herein are for identification purposes only and may be trademarks of their respective owners.
 AUTOOL disclaims any and all rights in those marks.

Trademark

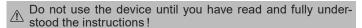
Manual are either trademarks, registered trademarks, service marks, domain names, logos, company names or are otherwise the property of AUTOOL or its affiliates. In countries where any of the AUTOOL trademarks, service marks, domain names, logos and company names are not registered, AUTOOL claims other rights associated with unregistered trademarks, service marks, domain names, logos, and company names. Other products or company names referred to in this manual may be trademarks of their respective owners. You may not use any trademark, service mark, domain name, logo, or company name of AUTOOL or any third party without permission from the owner of the applicable trademark, service mark, domain name, logo, or company name. You may contact AUTOOL by visiting AUTOOL at https://www.autooltech.com, or writing to aftersale@autooltech.com, to request written permission to use materials on this manual for purposes or for all other questions relating to this manual.

TABLE OF CONTENTS

Cautions	2
Note	2
Warnings	3
Instructions	4
Charger	6
Precautions for charger use	6
Description of charger mode	6
The Description of the charger alarms	7
Product Introduction	9
Technical parameters	
Product Structure	
Structure diagram	
Operation panel diagram	
Operations Instruction	
Function mode selection	
Programming power mode	
Battery charging & repair mode	
Jump start mode	
Maintenance Service	
Maintenance	
Warranty	
Warranty access	
Disclaimer	
Return & Exchange Service	
Return & Exchange	17

CAUTIONS

Note



- Risk of explosion! Detonation gas may be generated during battery charging.
- Please use this device indoors or in a vehicle, and do not expose it to rain.
- Possible ignition sources, such as open flames, sparks and open flame lamps, must be kept away from the battery.
- ▶ The battery electrolyte is corrosive, so care must be taken not to contact eyes, skin and clothing.
- Make sure to supply sufficient fresh air during charging. The charger should keep a distance of at least 50 cm from other objects.
- Persons who have heart disease or use pacemakers are prohibited from using the device. This device will generate a magnetic field when it is energized, which will affect the normal operation of the human heart or pacemaker.
- ▶ Do not touch any live parts when the skin is bare, wet gloves or wet clothes are worn. Please do not touch the inside of the device at will, it is very dangerous.
- ▶ Because there is a high voltage inside the device.
- ▶ The power supply connection socket has high voltage, please do not touch the connection terminal of the socket.
- When connecting cable lines or repairing equipment, insulated gloves and insulated shoes must be worn and operated by a professional electrical operator with an electrician's license. Please connect the external power supply in strict accordance with the manual.
- Please use wires and cables that conform to national standards for connection.
- If wires and cables with insufficient capacity or the wrong connection method are used, fire or electric shock may be caused.
- Please do not damage the external cable, do not step on, twist

- or pull the power cable.
- Please check the cables and clean the dust inside the machine regularly.
- Because of damage to the connecting cables and excessive dust inside the machine, this may cause the risk of electric shock, short circuit, fire, etc.
- Please never disassemble, repair, or modify this equipment by yourself, which may cause electric shock or fire.
- Please stop the operation when abnormal. If abnormal phenomena such as burnt odor, abnormal sound, abnormal heat, smoke, etc. occur, if the equipment continues to run, it will cause electric shock and fire.
- Do not let water or any other liquid or (flammable) cleaning agent enter the product, it may cause electric shock and short circuit.

Warnings



Incorrect operation may cause damage to equipment and personal injury!

Deep charging mode (repair mode)

- If it is not certain that the battery has been in a state of deep discharge (e.g., battery sulfuric acid) for a long period of time, the repair mode can be used to recharge such batteries. The battery sulfuric acid density is activated to the maximum extent (sulfuric acid layer degradation).
- ▶ Warning! Overheating can risk injury and damage to the battery, do not charge in ambient temperatures above 36°C. Activating refresh mode may cause the battery temperature to rise to 45°C. If the battery temperature exceeds 45°C, disconnect the charger immediately.
- Attention! Repair mode may damage the vehicle electronics. Please remove the battery from the vehicle before performing the repair mode. Successful repair depends on the degree of vulcanization of the battery.
- Caution! Carefully use the repair mode as it can cause fluid loss or drying inside the battery.
- In addition, make sure that: the battery is charged at indoor

temperature; the capacity of the battery has been set correctly; the vehicle's electrical system and the battery are disconnected; and when perform the repair mode, please remove the battery from the vehicle and place it in an open (not exposed to direct sunlight), or well-ventilated area.

- Attention! Risk of injury. Wear protective glasses and protective clothing when handling battery acid. If splashed by acid, rinse thoroughly with clean water and seek medical attention if necessary. Do not breathe any released gases and vapors.
- ▶ The power supply voltage must be strictly in accordance with the instructions on the nameplate of the charger. The supply voltage and wire specifications must also match. According to the requirements, the charger clip cannot be reversed.
- ▶ Keep the charger clean as a whole. All cables are undamaged and placed neatly. After each charge is completed, please turn off the power of the machine and unplug the power socket. Please do not open the cover at will. if repair is needed, please contact with our professional maintenance personnel.
- When using the charger, keep it away from places easily accessible to children.
- Pay attention to grounding to avoid electric shock. During use, please be sure not to leave the machine alone, and ensure that someone is watching the whole process. To avoid problems that cannot be handled in time. Pay attention to waterproof, moisture-proof and ventilation.
- If the power cable is damaged, in order to avoid danger, it must be replaced by the manufacturer or its service department or professional personnel.
- ▶ If the plug, power cable or the product itself is damaged, do not use the product again.
- The plug of the product may become hot if the power socket to which the product is connected makes poor contact. Make sure that the connected power socket makes good contact. Always place and use the product on a dry, firm, flat and level surface.

Instructions

 Before use, please read the instructions carefully and operate strictly in accordance with the relevant instructions and

- precautions. To provide better protection the battery and charger.
- ▶ There is a caution icon printed on the top of the machine, please strictly check whether the environment in which the machine is used is in compliance with the requirements. Otherwise, the charger or the equipment connected to the charger may be damaged, and serious personal safety may be at risk.
- Since flammable gas is generated when charging, open flame is strictly prohibited at the operation site.
- ▶ It is advisable to use all the accessories provided by our company for the machine. Please do not replace them by yourself. If you want to replace them, please contact our staff to ensure that it meets the requirements of use.
- ▶ Before using the charger, please make sure that the appearance of the machine is intact and there are no obvious bumps, in order to avoid problems such as short circuit caused by internal bumps.
- ▶ This machine can only charge the rechargeable battery. It is strictly forbidden to charge the disposable battery. The battery specifications should also match. Otherwise, it may damage the battery and charger, or even cause an explosion. If the acid in the battery accidentally touches the skin, clothes, eyes, etc., please clean it up with water and soap in time. If it is serious, go to the hospital for professional treatment.

CHARGER

Precautions for charger use

- When connecting the battery to the charger, try to make full use of the cable clips length and try to keep the charger and the battery at a certain distance.
- It is strictly forbidden to place the charger directly on the battery.
- Keep it dry and ventilated.
- The power supply and charging clips are connected correctly.
- If you want to stop charging during regular charging, please press the OK/Stop button first and then unplug the power clip. Avoid directly unplugging the socket for power off.
- Please be patient as it takes a long time for the battery to be fully charged. In order for the battery to reach a better full state, there will be a long time of low current float charge.
- A battery with an internal unit short-circuited must not be charged, otherwise it will be dangerous.
- Please strictly require that charging be carried out under supervised.

Description of charger mode

Before powering on, please make sure that the voltage is normal; that the socket is suitable; and that the battery is complete in appearance.

Depending on the desired function, please operate correctly and select the suitable working mode.

Programming power mode:

To provide a stable voltage source for the car when system programming or decoding of the car ECU is required. In this case, it is necessary to charge the battery to the full state first to avoid voltage instability due to charging. This function can be programmed to adjust the voltage as needed, the selected voltage range is 12 -14.8V, please operate correctly to adjust to the right voltage.

Fast charging mode:

Generally, this mode is always selected under normal circumstance. For batteries that have been left for too long or are

badly discharged may need to be manually determined to enter the repair mode to repair the battery first. When choosing the fast charging mode, the battery type needs to be selected to output different charging voltages and currents.

· Forced start mode:

For cases where the battery is not used for a long period of time resulting in low battery power, and cannot start the vehicle and also results in serious battery loss and damage, this mode can be selected and the device will provide about 400A of current to directly support the instantaneous current needed to start the vehicle.

Hidden repair mode:

This mode will make a judgment based on the charger's condition of the battery, and then prompt for repair. If repair is needed, please manually select repair and follow the prompts to repair.

The description of the charger alarms

 The battery is not connected. If the battery voltage is higher than 10V and the charging clip is connected properly, please take off the battery clips, and clean the battery electrode, then reconnect it. If it still doesn't work, please disconnect the power supply and contact our after-sales staff.



 Temperature abnormal. Take off the battery clips and no need to switch off the device power and let the built-in fan rest for a while for cooling. When the temperature is decreased, it will automatically cancel the alarm and return to the standard interface. If the machine prompts temperature abnormalities as soon as it is turned on and the machine is not hot, please do not use it again and contact our after-sales staff.



 The battery connection is reversed. Unplug the battery clips and confirm whether the charging clips are properly connected.



PRODUCT INTRODUCTION

Technical parameters

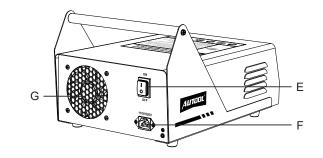
Rated input voltage	110V±15%, 220V±15%
Input frequency	50Hz / 60Hz
Rated input power	1500W
Charging current / Voltage	20A~12V
Starting current / Voltage	400A~12V
Current of programming power supply	150A
Voltage range of programming power supply	10.8V~15V
Load loss	20W
Efficiency	85%
Power factor	0.76
Insulation class	F
Enclosure rating	IP21S
Dimensions	415*300*230mm

PRODUCT STRUCTURE

Structure diagram

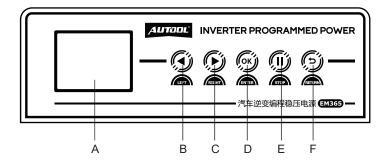


Α	Handle	В	2.8 inch HD color screen
С	Function buttons	D	Power output interface



Е	Power switch	F	Power input interface
G	Cooling fan		

Operation panel diagram



Α	2.8 inch display	В	Selection button(left)
С	Selection button(right)	D	Confirm / OK button
E	Stop button	F	Return button

Overcharge protection:

During charging, the device will nconstantly detect the battery status to judge whether it is fully charged to prevent the battery from being damaged by overcharging.

• Overheat protection:

If the internal temperature of the device is too high, it will stop charging automatically. The internal fan will start working to dissipate heat and give an alarm.

• Low voltage protection:

If the input voltage is lower than the required one, the equipment will not work in order to protect the machine.

• Short circuit protection:

If the battery has been damaged and the internal short circuit, the machine will stop working and alarm.

Reverse connection protection:

When the battery clips are connected reversely, the screen will display that the battery clips are connected reversely and alarm.

OPERATIONS INSTRUCTION

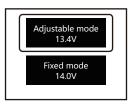
Function mode selection

 Function Mode Selection: To choose a function mode, use the left and right keys on the main screen to toggle between options. Press the OK button to confirm your selection.

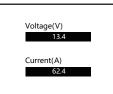


Programming power mode

- You have the option to select either Adjustable Mode or Fixed Mode.
 - When you need to adjust the programming voltage, start by selecting the Adjustable Mode. Then, use the left and right keys to increase or decrease the voltage setting. Once you have made the desired adjustment, press the OK button to proceed to the next step.
- The interface will display the current voltage and current.





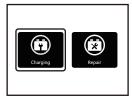


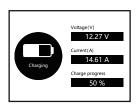
Battery charging & repair mode

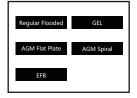
- You have the option to select either Battery Charging or Battery Restoration Mode.
- Please choose the appropriate battery type.
- During the charging process, the machine will automatically adjust the charging voltage and current to ensure an optimal charging procedure.
- The interface will display the voltage and current values.

⚠ IMPORTANT NOTE

- It is crucial to select the appropriate battery type to avoid potential battery damage or other issues.
- When selecting the EFB battery type, it is necessary to disconnect the battery from the vehicle during the EFB battery charging process.
- ▶ Ensure a good connection with the charging clips. Battery Repair should be conducted without connecting the vehicle and under the supervision of personnel.



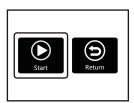


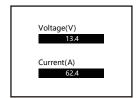




Jump start mode

- Connect the electrical clips to the positive and negative terminals of the vehicle's battery.
- Select "Start", and the interface will display the current and voltage being supplied to jump-start the vehicle.
- Start the vehicle.





MAINTENANCE SERVICE

Our products are made of long-lasting and durable materials, and we insist on perfect production process. Each product leaves the factory after 35 procedures and 12 times of testing and inspection work, which ensures that each product has excellent quality and performance.

Maintenance

To maintain the performance and appearance of the product, it is recommended that the following product care guidelines be read carefully:

- Be careful not to rub the product against rough surfaces or wear the product, especially the sheet metal housing.
- Please regularly check the product parts that need to be tightened and connected. If found loose, please tighten it in time to ensure the safe operation of the equipment. The external and internal parts of the equipment in contact with various chemical media should be frequently treated with anti-corrosion treatment such as rust removal and painting to improve the corrosion resistance of the equipment and extend its service life.
- Comply with the safe operating procedures and do not overload the equipment. The safety guards of the products are complete and reliable.
- Unsafe factors are to be eliminated in time. The circuit part should be checked thoroughly and the aging wires should be replaced in time.
- Adjust the clearance of various parts and replace worn (broken) parts. Avoid contact with corrosive liquids.
- When not in use, please store the product in a dry place. Do not store the product in hot, humid, or non-ventilated places.

WARRANTY

From the date of receipt, we provide a three-year warranty for the main unit and all the accessories included are covered by a one-year warranty.

Warranty access

- The repair or replacement of products is determined by the actual breakdown situation of product.
- It is guaranteed that AUTOOL will use brand new component, accessory or device in terms of repair or replacement.
- If the product fails within 90 days after the customer receives it, the buyer should provide both video and picture, and we will bear the shipping cost and provide the accessories for the customer to replace it free of charge. While the product is received for more than 90 days, the customer will bear the appropriate cost and we will provide the parts to the customer for replacement free of charge.

These conditions below shall not be in warranty range

- The product is not purchased through official or authorized channels.
- The product breakdown because the user does not follow product instructions to use or maintain the product.

We AUTOOL pride ourselves on superb design and excellent service. It would be our pleasure to provide you with any further support or services.

Disclaimer

All information, illustrations, and specifications contained in this manual, AUTOOL resumes the right of modify this manual and the machine itself with no prior notice. The physical appearance and color may differ from what is shown in the manual, please refer to the actual product. Every effort has been made to make all descriptions in the book accurate, but inevitably there are still inaccuracies, if in doubt, please contact your dealer or AUTOOL after-service centre, we are not responsible for any consequences arising from misunderstandings.

RETURN & EXCHANGE SERVICE

Return & Exchange

- If you are an AUTOOL user and are not satisfied with the AUTOOL products purchased from the online authorized shopping platform and offline authorized dealers, you can return the products within seven days from the date of receipt; or you may exchange it for another product of the same value within 30 days from the date of delivery.
- Returned and exchanged products must be in fully saleable condition with documentation of the relevant bill of sale, all relevant accessories and original packaging.
- AUTOOL will inspect the returned items to ensure that they
 are in good condition and eligible. Any item that does not pass
 inspection will be returned to you and you will not receive a
 refund for the item.
- You can exchange the product through the customer service center or AUTOOL authorized distributors; the policy of return and exchange is to return the product from where it was purchased. If there are difficulties or problems with your return or exchange, please contact AUTOOL Customer Service.

China	400-032-0988
Oversea Zone	+86 0755 23304822
E-mail	aftersale@autooltech.com
Facebook	https://www.facebook.com/autool.vip
YouTube	https://www.youtube.com/c/autooltech

目 录

版权信息	19
版权	19
注册商标	19
注意事项	20
注意	20
敬生 言口	21
操作说明	22
产品说明	23
使用注意事项	23
工作模式说明	23
报警说明	24
产品简介	25
技术参数	
产品结构	26
- 5	26
控制面板说明	27
操作说明	28
选择功能模式	
电池充电&修复模式	29
强制启动模式	30
维修保养服务	31
维修保养	31
保修服务	32
保修方式	
声明	
退换货服务	33
退换货	

版权信息

版权

- 版权所有!未征得深圳市偶然科技有限公司的书面同意,任何公司或个人不得以任何形式(电子、机械、影印、录制或其他形式)对本说明书进行复制和备份。本手册专为偶然公司产品的使用而计,对于将之用于指导其他设备操作而导致的各种后果,本公司不承担任何责任。
- 因使用者个人或第三方的意外事故,滥用、误用该设备,擅自更改,或修理该设备,或未按偶然公司的操作与保养要求而导致设备损坏、遗失所产生的费用及开支等,偶然公司及其分支机构不承担任何责任。
- **正式声明:** 本说明书所提及之其他产品名称,目的在于说明该设备如何使用,其注册商标所有权仍属原公司。
- 本设备供专业技术人员或维修人员使用。

注册商标

偶然公司已在中国及海外若干国家进行了商标注册,其标志为 **AUTOOL**'。本手册所提及之偶然公司其它商标、服务标志、域名、图标、公司名称均属偶然及其下属公司之产权。在偶然公司之商标、服务标志、域名、图标、公司名称还未注册之国家,偶然公司声明其对未注册商标、服务标志、域名、图标、公司名称之所有权。本手册所提及之其它产品及公司名称的商标仍属于原注册公司所有。在未得到拥有人的书面同意之前,任何人不得使用偶然公司或所提及的其它公司之商标、服务标志、域名、图标、公司名称。

您可以访问偶然网址:www.autooltech.com,或发送邮件至:aftersale@autooltech.com,与偶然公司进行联系,征得其手册使用权之书面同意。

注意事项

注意

⚠ 在完全阅读并理解说明书之前,请勿使用该设备!

- ▶ 存在发生爆炸的危险! 在蓄电池充电过程中会产生引爆的气体。
- ▶ 请在室内或车内使用,切勿将设备暴露在雨天中。
- ▶ 请将蓄电池远离存在或潜在的火源,如明火、火花和明火灯等。
- 蓄电池电解液具有腐蚀性,务必注意不要将其接触到眼睛、皮肤和衣服。
- ▶ 确保充电过程中供应充足的新鲜空气。机器应与其他物体保持至少50厘米以上的距离。
- ▶ 有心脏疾病或使用心脏起搏器的人员禁止使用设备, 此设备通电过程中会产生磁场, 影响人体心脏或心脏起搏器的正常工作
- ▶ 在皮肤裸露、戴有湿手套或穿着湿衣服时,禁止接触任何带电部件。请不要随意触摸设备的内部,由于设备内部有高电压存在,随意触摸将十分危险。
- ▶ 供电电源连接插座带有高压,请不要触摸插座的连接端子。
- ► 在连接电缆线或者维修设备过程中,必须佩戴绝缘手套、穿绝缘 鞋,且由持电工证的专业电气操作人员进行操作,请严格按照说 明书要求连接外部电源。
- ▶ 请使用符合国家标准的电线、电缆进行连接。如果使用电线、电缆容量不足或连接方法错误,可能会造成火灾或触电。
- ▶ 请不要损伤外接电缆,不要踩、拧、拉电源线。
- ▶ 请定期检查线缆,定期清理机器内部灰尘。
- ▶ 连接电缆损伤和机器内部灰尘过多可能会造成触电、短路、起火等风险。
- ▶ 请绝对不要自行拆装、修理、改造本设备,会有触电、起火的危险。
- ▶ 请接地,如果不接地,设备发生漏电时,可能会造成触电。
- ▶ 异常时请停止运行,有焦臭气味、异常声音、异常发热、冒烟等异

常现象发生时,如果设备继续运行会造成触电、火灾。

▶ 切勿让水或其它任何液体或(易燃性)清洁剂进入设备,否则可能会造成触电和短路,继而发生火灾。

警告

⚠ 操作错误,可能会导致人身伤害以及发生物品受损的危险!

- ▶ 设备开机后风扇自转2分钟停止,这是程序自测的设置。
- ▶ 设备显示屏的工作温度为: -5~50°C。
- ▶ 警告! 蓄电池过热会有损害的风险,切勿在环境温度超过36°C的地方充电。启动刷新模式可能会导致蓄电池温度上升到45°C,如果蓄电池的温度超过45°C请立即断开设备。
- ▶ 注意! 修复模式有可能会损坏汽车电子部件。进行修复模式前将蓄电池从车辆上取下来。是否成功修复取决于蓄电池的硫化程度。
- ▶ 谨慎使用修复模式,因为它可以导致蓄电池内流体损失或烘干。
- ▶ 确保蓄电池在室温下充电/蓄电池的容量已正确设置/车辆电气系统和蓄电池已断开-修复充电要从汽车上取下蓄电池,放在开阔的(不暴露在阳光直射下),或在通风良好的地方。
- ▶ 注意防范受伤的风险!处理蓄电池酸液时,需要佩戴防护眼镜和 穿着适当的防护衣物。如果被酸液飞溅到,请立即使用干净的水 彻底冲洗。如有必要,及时就医。
- ▶ 不要吸入任何释放的气体和蒸汽。
- ▶ 供电电压需要严格按照设备铭牌上的提示而设置,提供的电压、电线规格也需相符。设备夹子需按照要求正确使用,正负不可接反。保持设备整体清洁,所有电缆无破损且摆放整齐。
- ▶ 每次充电完成后,请关闭机器电源,拔掉电源插座。
- ▶ 请勿随意打开机盖,如需维修,请与我司专业维修人员联系。
- ▶ 机器使用时要远离儿童容易接触的地方,注意接地,避免触电。
- ▶ 使用过程中,请不要远离机器,保证全程有人看管,以免出现问题不能及时处理。注意防水、防潮、通风。

如果电源软线损坏,为避免危险,必须由制造商或其维修部等相关专职人员来更换。

操作说明

- ⚠ 在使用之前,请仔细阅读说明书,严格按照相关说明和注意事项进行操作。对蓄电池和机器做好保护。
- ▶ 注意! 机器顶部印有注意警告图标,使用时严格对照机器所处环境是否符合要求。否则可能会损坏机器或是连接到机器上的设备,严重的可能会危及人身安全。
- ▶ 注意!由于充电时会产生可燃气体,操作现场严禁明火。
- ▶ 注意! 机器使用的配件,最好全部使用偶然科技所提供的,请勿自行随便更换,如要更换,请与我们工作人员联系,确保符合使用要求。机器使用之前,请确保机器外观完整,没有明显磕碰,以免内部有磕碰导致的短路等问题。
- ▶ 注意! 本机器只可为充电电池充电,严禁为一次性电池充电,电池规格也要相符。否则可能会损坏电池和机器,严重的可能导致爆炸。电瓶内的酸液万一不小心接触到皮肤、衣服、眼睛等,及时使用清水和肥皂清理,如若严重请及时前往医院做专业的处理。
- ▶ 警告!供电电压严格按照机器铭牌提示电压提供,电线规格也要相符。机器夹子按照要求正确使用,正负不可接反。保持机器整体清洁,所有电缆摆放整齐和不破皮。使用完之后,不仅要关闭机器开关,保险起见建议每次都要拔掉插座。
- ▶ 请勿随便带电打开机盖进行维修,打开之前,请和我们专业维修 人员联系。
- ▶ 警告! 机器使用时要远离儿童容易接触的地方,注意接地,避免触电。使用过程中,请不要远离机器,保证全程有人看管,以免出现问题不能及时处理。注意防水防潮通风。

产品说明

- 使用注意事项 在对蓄电池和机器连接时,尽量充分利用线夹长度,尽量让机器 和蓄电池保持距离。
 - 严禁直接将机器放置在蓄电池上。
 - 保持干燥诵风。
 - 电源和充电夹都正确连接。
 - 正常充电过程中, 如要停止充电, 请先按确认/停止键, 再拔下电 夹。避免直接拔掉插座进行断电。
 - 蓄电池充满需要比较长时间,请耐心等候。为了让蓄电池达成更 好的充满状态会有比较长时间的小电流浮充。
 - 有内部单元短路的蓄电池不可以充电,否则会有危险。
 - 请严格要求在有人看管情况下充电。

工作模式说明

诵电之前,请确认电压正常,插座适用,蓄电池是否外观完整。根据 所需要的功能不同, 请正确操作, 选择适用的工作模式。

• 编程电源模式:

在需要对汽车ECU进行系统编程或解码时, 为汽车提供稳定电压 源。此时需要注意先将蓄电池充到满电状态,避免因为充电导致 电压不稳。此功能可根据需要,进行编程电压的调整,电压范围 在12-14.8V直接选择,请正确操作调到合适电压。

● 快速充电模式:

正常情况下的蓄电池充电选择。对于放置太久或是溃电严重的 可能需要人工确定进入修复模式, 先对蓄电池进行修复处理。快 速充电模式选择时,需要对蓄电池类型进行选择,以输出不同的 充电电压和电流。

强制启动模式:

对于长期放置导致蓄电池电量不足,而无法启动车辆,导致蓄电 池溃电严重而损坏的情况, 选择此模式时, 设备会提供400A左右 的电流, 直接支持车辆启动需要的瞬间电流。

• 隐藏的修复模式:

此模式会根据机器对蓄电池的情况做出判断后,提示进行修复,如果需要修复请人工选择修复,并按提示进行修复。

报警说明

● 提示蓄电池未连接。充电夹正常连接且蓄电池电压高于10V,但 仍提示未连接,建议先取下蓄电池端夹子,然后清理蓄电池电极, 再重新连接。若还是未连接,请断电后和我们售后人员联系。



提示温度异常。首先取下充电夹,不用关断设备电源开关,让内置风扇进行冷却,待放置一会后,当温度降低后设备便会自动取消报警,再返回正常界面。如果一开机,在设备不热的情况下就提示温度异常,请勿继续使用,联系我们售后人员处理即可。



• 提示蓄电池接反。拔下蓄电池夹,确认充电夹正常连接。



产品简介

技术参数

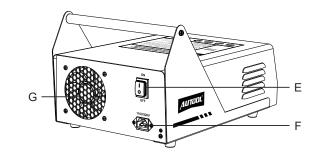
输入额定电压	110V±15%, 220V±15%
输入频率	50Hz / 60Hz
额定输入功率	1500W
充电电流/电压	20A~12V
启动电流/电压	400A~12V
编程电源供电电流	150A
编程电源供电电压范围	10.8V~15V
空载损耗	20W
效率	85%
功率因数	0.76
绝缘等级	F
外壳防护等级	IP21S
外形尺寸	415*300*230mm

产品结构

结构图

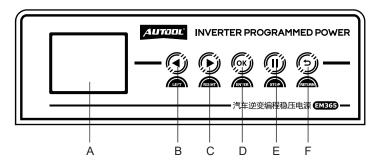


Α	提手	В	2.8寸高清彩屏
С	功能按键	D	电源输出接口



Е	电源开关	F	电源输入接口
G	散热风扇		

控制面板说明



Α	2.8寸显示屏	В	向左移动选择键
С	向右移动选择键	D	确定OK键
Е	停止键	F	返回键

• 过充保护:

在充电过程中,设备会不断检测蓄电池状态,进行判断是否充满,防止充电过满损坏蓄电池。

• 过热保护:

设备内部温度过高,会自动停止充电,内部风扇工作散热,报警提示。

• 低压保护:

输入电压比要求低时,设备会不予工作以保护自身。

● 短路保护:

蓄电池已经损坏,内部短路时,机器不予工作,报警提示。

• 反接保护:

蓄电池夹子接反时, 屏幕显示蓄电池夹接反, 报警提示。

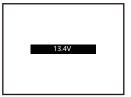
操作说明

选择功能模式 ● 选择时在主界面使用左右键进行切换选项,按OK键进入。



- 编程电源模式 可选择可调模式或固定模式。
 - 当需要对编程电压进行调节时,需要先选定到可调模式,然后可 通过左右键来加减设置电压,调整好之后,按OK键即可进入下一 步。
 - 界面显示当前电圧、电流。







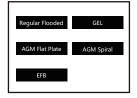
电池充电& 修复模式

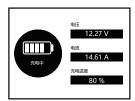
- 可选择电池充电或电池修复模式。
- 需要选择电池类型。
- 充电过程中,机器会自动调节充电电压和电流,进行合适充电过 程。
- 界面会显示电圧、电流。

⚠ 注意

- ▶ 必须选择合适的电池类型否则有可能造成电池损坏等问题。
- ▶ 选择EFB电池时,EFB电池充电过程中必须将蓄电池和车辆分离。
- ▶ 蓄电池修复过程中必须将蓄电池与车辆分离! 否则有可能损坏车辆。



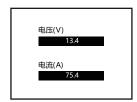






- 强制启动模式 用电夹连接汽车正负极接线端。
 - 选择开始,界面会显示提供车辆启动的电流电压。
 - 启动汽车即可。





维修保养服务

您所拥有的AUTOOL产品选用持久耐用的材料,AUTOOL坚持精益求精的生产工艺,每一件产品出厂都经过35道工序及12次质检工作,从而确保每一件产品都拥有卓越的品质及性能。所以您的AUTOOL产品值得您定期维护保养,使其将能够长期稳定地工作。

维修保养

维护保养是为了保持产品性能和外观,我们建议您仔细阅读以下产品保养指南:

- 注意不要将产品与粗糙表面摩擦或揉搓产品,特别是钣金外壳。
- 对产品中需要紧固和连接的部位经常进行检查,如发现松动应及时紧固,以保证产品的安全运行。对与各种化学介质接触的产品外部和内部零件要经常进行除锈、喷漆等防腐处理,以提高产品的抗腐蚀能力,延长产品的使用寿命。
- 遵守安全操作规程,不超负荷使用产品。产品的安全防护装置齐全可靠,及时消除不安全因素。电路部分彻底检查,老化电线要及时更换。
- 定期清洗和更换易耗部件;调整各部位配合间隙和更换磨损(已坏)部件清洁时,避免产品接触带腐蚀性的液态物品。
- 不使用时,请将产品存放于干燥的位置。不要将产品存放在高温、 潮湿或不通风的地方。

保修服务

AUTOOL主机自客户签收日起享有3年保修期。其所含附件自客户签收日起享有1年保修期。

保修方式

- 根据具体的故障情况对产品进行免费修理或更换;
- 我方保证所有更换的部件、附件或产品都是全新;
- 在客户收到产品90天内出现故障同时提供视频和图片,我方承 担运费并免费提供相应配件给客户更换。收到产品超过90天,客 户承担相应的费用,我方免费提供配件给客户更换;

以下情况不在免费保修范围:

- 非正规渠道购买AUTOOL的产品;
- 未按产品说明书要求使用和维护造成的损坏;

在AUTOOL,我们为精湛的设计和卓越的服务感到自豪。我们很乐意为您提供更多的支持或服务。

声明

偶然公司保留更改产品设计与规格的权利,届时恕不另行通知。实物外观与颜色可能与说明书中显示的有差别,请以实物为准。我们已尽最大努力力求使书中所有描述准确,但仍难免有不妥之处。如有疑问,请联系经销商或偶然售后服务中心。本公司对产品拥有最终解释权,不承担任何因误解而产生的后果。

退换货服务

退换货

- 如果您对从线上授权购物平台和线下授权经销商所购买的AUTOOL产品不满意,根据《AUTOOL全球销售条款》,您可以自收到产品之日起七日内退货;或者在产品交付之日起的30日内调换等值的其他产品。
- 退回及调换的产品必须处于完全可销售状态,并附上相关销售单单据,所有相关配件、纸质发票(如有)。
- AUTOOL将会对寄回退货的商品进行检查,以确保其处于完好无 损的状态并且符合条件,相关条件详情请参阅《AUTOOL全球销售条款》。任何未通过检查的商品将退还给您,您将不会获得商品退款。
- 您可以通过客户服务中心或AUTOOL授权经销商调换产品;退换 货原则为从哪里购买,就从哪里退换货。如果您退换货遇见困难 或者阻碍,请联系AUTOOL客户服务中心。通过客户服务中心退 换货时,我们建议您通过下面的方式进行;

中国区域致电	400-032-0988 / 18929303778
售后微信号	18929303778
海外区域致电	+86 0755 23304822
E-mail	aftersale@autooltech.com
Facebook	https://www.facebook.com/autool.vip
YouTube	https://www.youtube.com/c/autooltech

• 如您的退换货得到确认,您将收到确认信息和邮件。